



# CORINEX COMMUNICATIONS CORP. TEST REPORT

## **FOR THE**

## **BPL MV GATEWAY**

# FCC PART 15, SUBPART G SECTIONS 15.209 AND 15.109 CLASS A

# **COMPLIANCE**

# VOLUME 3: LOW VOLTAGE AND MEDIUM VOLTAGE 30-1000MHZ OVERHEAD AND UNDERGROUND

DATE OF ISSUE: MAY 19, 2006

## PREPARED FOR:

Corinex Communications Corp. 789 West Pender Street, Suite 670 Vancouver BC V6C 1H2 Canada

## PREPARED BY:

Joyce Walker & Mary Ellen Clayton CKC Laboratories, Inc. 5046 Sierra Pines Drive Mariposa, CA 95338

P.O. No.: 2006/SS/0018 Date of test: March 16 - May 2, 2006

W.O. No.: 84818

Report No.: FC06-025 Volume 3 of 9

This report contains 9 volumes. This volume contains a total of 301 pages and may be reproduced in full only. Partial reproduction may only be done with the written consent of CKC Laboratories, Inc. The results in this report apply only to the items tested, as identified herein.

Page 1 of 301 Report No.: FC06-025 Volume 3 of 9



# LOW VOLTAGE AND MEDIUM VOLTAGE 30-1000MHZ OVERHEAD AND UNDERGROUND MEASUREMENT DATA SHEETS

Page 2 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 09:11:54
Equipment: BPL MV Gateway Sequence#: 253
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 1: 10 meters out from low voltage lines the BPL is connected directly across from the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

1. ansance. Ecgena.		
T1=PO 05440 RG214/U Cable	T2=Cable 2410	
T3=Cable P05298 2' RG214 N-N	T4=Log00978A	
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567	
T7-Slant Distance S1 1m I V	T8-5dR Height Correction	

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

_	111000000	ement Bata.	111	Juding his	tea of me	41 g 1111.		- 1 (	Bt Bistanet	3. 10 IVICTOR		
Ī	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7	T8					
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
Ī	1	224.925M	43.2	+0.8	+1.1	+0.1	+0.0	+0.0	36.7	46.4	-9.7	Horiz
				+17.5	-27.6	+1.6						
	2	239.980M	37.9	+0.9	+1.2	+0.1	+0.0	+0.0	31.9	46.4	-14.5	Horiz
				+17.9	-27.7	+1.6						
Ī	3	399.995M	36.0	+1.2	+1.7	+0.2	+16.2	+0.0	28.5	46.4	-17.9	Horiz
				+0.0	-28.4	+1.6						
Ī	4	124.995M	31.1	+0.6	+0.8	+0.1	+0.0	+0.0	19.8	43.5	-23.7	Vert
l				+13.3	-27.7	+1.6						

Page 3 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:4/28/2006Test Type:Radiated ScanTime:09:21:35Equipment:BPL MV GatewaySequence#:254Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #1: Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600. Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 2: 10 meters out from low voltage lines the BPL is connected to 4.69 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

Transauter Zegena.	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7-Slant Distance S1 1m I V	T8-5dR Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs.	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.010M	40.4	+0.7	+0.8	+0.1	+0.0	+0.0	36.5	43.5	-7.0	Horiz
			+15.6	-27.7	+1.6	+5.0					
2	159.995M	38.6	+0.7	+0.8	+0.1	+0.0	+0.0	34.7	43.5	-8.8	Vert
			+15.6	-27.7	+1.6	+5.0					
3	400.005M	40.1	+1.2	+1.7	+0.2	+16.2	+0.0	37.6	46.4	-8.8	Vert
			+0.0	-28.4	+1.6	+5.0					
4	399.980M	37.2	+1.2	+1.7	+0.2	+16.2	+0.0	34.7	46.4	-11.7	Horiz
			+0.0	-28.4	+1.6	+5.0					
5	274.985M	33.3	+1.0	+1.3	+0.1	+0.0	+0.0	33.9	46.4	-12.5	Vert
			+19.5	-27.9	+1.6	+5.0					
6	319.990M	33.1	+1.0	+1.4	+0.1	+19.5	+0.0	33.6	46.4	-12.8	Vert
			+0.0	-28.1	+1.6	+5.0					
7	240.030M	34.4	+0.9	+1.2	+0.1	+0.0	+0.0	33.4	46.4	-13.0	Vert
			+17.9	-27.7	+1.6	+5.0					

Page 4 of 301 Report No.: FC06-025 Volume 3 of 9



8	319.985M	32.6	+1.0	+1.4	+0.1	+19.5	+0.0	33.1	46.4	-13.3	Horiz
			+0.0	-28.1	+1.6	+5.0					
9	240.025M	34.1	+0.9	+1.2	+0.1	+0.0	+0.0	33.1	46.4	-13.3	Horiz
			+17.9	-27.7	+1.6	+5.0					
10	479.980M	32.2	+1.3	+1.8	+0.2	+17.2	+0.0	31.2	46.4	-15.2	Vert
			+0.0	-28.1	+1.6	+5.0					
11	75.000M	37.5	+0.5	+0.5	+0.1	+0.0	+0.0	23.7	39.1	-15.5	Vert
			+6.4	-27.9	+1.6	+5.0					
12	125.010M	32.3	+0.6	+0.8	+0.1	+0.0	+0.0	26.0	43.5	-17.6	Vert
			+13.3	-27.7	+1.6	+5.0					



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:4/28/2006Test Type:Radiated ScanTime:09:27:38Equipment:BPL MV GatewaySequence#:255Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 3: 10 meters out from low voltage lines the BPL is connected to 9.38 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

Measurement Data:

Frea

450.045M

Rdng

#

Trumbuneer Elgenur		
T1=PO 05440 RG214/U Cable	T2=Cable 2410	
T3=Cable P05298 2' RG214 N-N	T4=Log00978A	
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567	
T7-Clant Dictance C1 1m I V	T8-5dR Height Correction	

T4

+5.0

+16.6

+5.0

+0.0

Dist

Test Distance: 10 Meters

Spec

46.4

Corr

32.7

Reading listed by margin.

+0.0

+1.2

+0.0

34.6

T2

-28.1

+1.8

-28.3

		- 1				-				- I	0	
				T5	T6	T7	T8					
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
ſ	1	399.995M	38.6	+1.2	+1.7	+0.2	+16.2	+0.0	36.1	46.4	-10.3	Vert
				+0.0	-28.4	+1.6	+5.0					
ſ	2	399.995M	37.9	+1.2	+1.7	+0.2	+16.2	+0.0	35.4	46.4	-11.0	Horiz
				+0.0	-28.4	+1.6	+5.0					
ſ	3	240.015M	35.8	+0.9	+1.2	+0.1	+0.0	+0.0	34.8	46.4	-11.6	Vert
				+17.9	-27.7	+1.6	+5.0					
ſ	4	320.035M	32.7	+1.0	+1.4	+0.1	+19.5	+0.0	33.2	46.4	-13.2	Horiz
				+0.0	-28.1	+1.6	+5.0					
Ī	5	480.045M	33.9	+1.3	+1.8	+0.2	+17.2	+0.0	32.9	46.4	-13.5	Vert

+1.6

+0.2

+1.6

Page 6 of 301 Report No.: FC06-025 Volume 3 of 9

-13.7

Polar

Horiz

Margin



7	240.035M	32.9	+0.9	+1.2	+0.1	+0.0	+0.0	31.9	46.4	-14.5	Horiz
			+17.9	-27.7	+1.6	+5.0					
8	160.010M	32.2	+0.7	+0.8	+0.1	+0.0	+0.0	28.3	43.5	-15.2	Vert
			+15.6	-27.7	+1.6	+5.0					
9	480.005M	31.7	+1.3	+1.8	+0.2	+17.2	+0.0	30.7	46.4	-15.7	Horiz
			+0.0	-28.1	+1.6	+5.0					

Page 7 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 09:35:21
Equipment: BPL MV Gateway Sequence#: 256
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function Manufacturer	Model #	S/N	
-----------------------	---------	-----	--

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 4: 10 meters out from low voltage lines the BPL is connected to 14.06 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S1 1m LV T8=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.005M	39.0	+0.7	+0.8	+0.1	+0.0	+0.0	35.1	43.5	-8.4	Vert
			+15.6	-27.7	+1.6	+5.0					
2	225.065M	39.0	+0.8	+1.1	+0.1	+0.0	+0.0	37.4	46.4	-9.0	Vert
			+17.5	-27.7	+1.6	+5.0					
3	240.030M	38.0	+0.9	+1.2	+0.1	+0.0	+0.0	37.0	46.4	-9.4	Vert
			+17.9	-27.7	+1.6	+5.0					
4	275.015M	35.4	+1.0	+1.3	+0.1	+0.0	+0.0	36.0	46.4	-10.4	Vert
			+19.5	-27.9	+1.6	+5.0					
5	450.040M	35.0	+1.2	+1.8	+0.2	+16.6	+0.0	33.1	46.4	-13.3	Horiz
			+0.0	-28.3	+1.6	+5.0					
6	319.985M	32.4	+1.0	+1.4	+0.1	+19.5	+0.0	32.9	46.4	-13.5	Horiz
			+0.0	-28.1	+1.6	+5.0					
7	239.950M	32.9	+0.9	+1.2	+0.1	+0.0	+0.0	31.9	46.4	-14.5	Horiz
			+17.9	-27.7	+1.6	+5.0					
8	399.995M	32.0	+1.2	+1.7	+0.2	+16.2	+0.0	29.5	46.4	-16.9	Horiz
			+0.0	-28.4	+1.6	+5.0					

Page 8 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:21:44
Equipment: BPL MV Gateway Sequence#: 257
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 5: 10 meters out from low voltage lines the BPL is connected to 18.75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 2410 T2=Cable P05298 2' RG214 N-N T3=Log00978A T4=ANT-AN00503-010505 T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S1 1m LV T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

measu	remeni Daia:	r K	eading his	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	160.005M	41.9	+0.8	+0.1	+0.0	+15.6	+0.0	37.3	43.5	-6.3	Vert
			-27.7	+1.6	+5.0						
2	240.085M	41.5	+1.2	+0.1	+0.0	+17.9	+0.0	39.6	46.4	-6.8	Vert
	QP		-27.7	+1.6	+5.0						
^	240.085M	46.9	+1.2	+0.1	+0.0	+17.9	+0.0	45.0	46.4	-1.4	Vert
			-27.7	+1.6	+5.0						
4	319.995M	35.1	+1.4	+0.1	+19.5	+0.0	+0.0	34.6	46.4	-11.8	Vert
			-28.1	+1.6	+5.0						
5	239.995M	36.2	+1.2	+0.1	+0.0	+17.9	+0.0	34.3	46.4	-12.1	Horiz
			-27.7	+1.6	+5.0						
6	159.995M	35.5	+0.8	+0.1	+0.0	+15.6	+0.0	30.9	43.5	-12.6	Horiz
			-27.7	+1.6	+5.0						

Page 9 of 301 Report No.: FC06-025 Volume 3 of 9



7	480.060M	33.8	+1.8	+0.2	+17.2	+0.0	+0.0	31.5	46.4	-14.9	Horiz
			-28.1	+1.6	+5.0						
8	480.065M	33.2	+1.8	+0.2	+17.2	+0.0	+0.0	30.9	46.4	-15.5	Vert
			-28.1	+1.6	+5.0						
9	399.995M	34.6	+1.7	+0.2	+16.2	+0.0	+0.0	30.9	46.4	-15.5	Vert
			-28.4	+1.6	+5.0						
10	399.945M	33.4	+1.7	+0.2	+16.2	+0.0	+0.0	29.7	46.4	-16.7	Horiz
			-28.4	+1.6	+5.0						

Page 10 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:29:21
Equipment: BPL MV Gateway Sequence#: 258
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 6: 10 meters out from low voltage lines the BPL is connected to 28.13 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 2410 T2=Cable P05298 2' RG214 N-N
T3=Log00978A T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S1 1m LV
T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

Measu	rement Data:	1/0	taumg ns	ted by ma	ugm.		1 (	est Distance	e. To Meter	1.5	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	43.1	+0.8	+0.1	+0.0	+15.6	+0.0	38.5	43.5	-5.0	Vert
	QP		-27.7	+1.6	+5.0						
^	160.000M	45.5	+0.8	+0.1	+0.0	+15.6	+0.0	40.9	43.5	-2.6	Vert
			-27.7	+1.6	+5.0						
3	240.015M	42.9	+1.2	+0.1	+0.0	+17.9	+0.0	41.0	46.4	-5.4	Horiz
	QP		-27.7	+1.6	+5.0						
٨	240.015M	48.1	+1.2	+0.1	+0.0	+17.9	+0.0	46.2	46.4	-0.2	Horiz
			-27.7	+1.6	+5.0						
5	240.000M	41.7	+1.2	+0.1	+0.0	+17.9	+0.0	39.8	46.4	-6.6	Vert
			-27.7	+1.6	+5.0						
6	159.995M	41.5	+0.8	+0.1	+0.0	+15.6	+0.0	36.9	43.5	-6.6	Horiz
			-27.7	+1.6	+5.0						
7	274.995M	38.9	+1.3	+0.1	+0.0	+19.5	+0.0	38.5	46.4	-7.9	Horiz
			-27.9	+1.6	+5.0						

Page 11 of 301 Report No.: FC06-025 Volume 3 of 9



8	320.010M	38.3	+1.4	+0.1	+19.5	+0.0	+0.0	37.8	46.4	-8.6	Horiz
			-28.1	+1.6	+5.0						
9	320.025M	36.7	+1.4	+0.1	+19.5	+0.0	+0.0	36.2	46.4	-10.2	Horiz
			-28.1	+1.6	+5.0						
10	319.985M	33.0	+1.4	+0.1	+19.5	+0.0	+0.0	32.5	46.4	-13.9	Vert
			-28.1	+1.6	+5.0						
11	480.050M	33.9	+1.8	+0.2	+17.2	+0.0	+0.0	31.6	46.4	-14.8	Vert
			-28.1	+1.6	+5.0						
12	399.985M	33.4	+1.7	+0.2	+16.2	+0.0	+0.0	29.7	46.4	-16.7	Vert
			-28.4	+1.6	+5.0						
13	399.990M	32.2	+1.7	+0.2	+16.2	+0.0	+0.0	28.5	46.4	-17.9	Horiz
			-28.4	+1.6	+5.0						



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:38:20
Equipment: BPL MV Gateway Sequence#: 259
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 7: 10 meters out from low voltage lines the BPL is connected to 37.5 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 2410 T2=Cable P05298 2' RG214 N-N
T3=Log00978A T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S1 1m LV
T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.020M	41.7	+1.2	+0.1	+0.0	+17.9	+0.0	39.8	46.4	-6.6	Horiz
			-27.7	+1.6	+5.0						
2	319.995M	36.2	+1.4	+0.1	+19.5	+0.0	+0.0	35.7	46.4	-10.7	Vert
			-28.1	+1.6	+5.0						
3	319.990M	35.0	+1.4	+0.1	+19.5	+0.0	+0.0	34.5	46.4	-11.9	Horiz
			-28.1	+1.6	+5.0						
4	160.000M	36.1	+0.8	+0.1	+0.0	+15.6	+0.0	31.5	43.5	-12.0	Horiz
			-27.7	+1.6	+5.0						
5	240.028M	34.8	+1.2	+0.1	+0.0	+17.9	+0.0	32.9	46.4	-13.5	Vert
			-27.7	+1.6	+5.0						
6	320.020M	33.1	+1.4	+0.1	+19.5	+0.0	+0.0	32.6	46.4	-13.8	Horiz
			-28.1	+1.6	+5.0						

Page 13 of 301 Report No.: FC06-025 Volume 3 of 9



7	319.990M	32.2	+1.4	+0.1	+19.5	+0.0	+0.0	31.7	46.4	-14.7	Vert
			-28.1	+1.6	+5.0						
8	240.025M	32.7	+1.2	+0.1	+0.0	+17.9	+0.0	30.8	46.4	-15.6	Vert
			-27.7	+1.6	+5.0						
9	399.990M	34.4	+1.7	+0.2	+16.2	+0.0	+0.0	30.7	46.4	-15.7	Vert
			-28.4	+1.6	+5.0						
10	399.970M	32.6	+1.7	+0.2	+16.2	+0.0	+0.0	28.9	46.4	-17.5	Horiz
			-28.4	+1.6	+5.0						

Page 14 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:35:17
Equipment: BPL MV Gateway Sequence#: 260
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

## Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 8: 10 meters out from low voltage lines the BPL is connected to 46.88 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

27 000000000000000000000000000000000000	
T1=Cable 2410	T2=Cable P05298 2' RG214 N-N
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Slant Distance S1 1m LV	T6=5dB Height Correction

Measu	rement Data:	Reading listed by margin.			Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.005M	45.8	+1.2	+0.1	+17.9	-27.7	+0.0	43.9	46.4	-2.5	Horiz
	QP		+1.6	+5.0							
٨	240.005M	47.5	+1.2	+0.1	+17.9	-27.7	+0.0	45.6	46.4	-0.8	Horiz
			+1.6	+5.0							
3	240.020M	41.5	+1.2	+0.1	+17.9	-27.7	+0.0	39.6	46.4	-6.8	Vert
			+1.6	+5.0							
4	159.980M	40.7	+0.8	+0.1	+15.6	-27.7	+0.0	36.1	43.5	-7.4	Vert
			+1.6	+5.0							
5	160.005M	38.2	+0.8	+0.1	+15.6	-27.7	+0.0	33.6	43.5	-9.9	Horiz
			+1.6	+5.0							

Page 15 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:47:20
Equipment: BPL MV Gateway Sequence#: 261
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

## Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 9: 10 meters out from low voltage lines the BPL is connected to 56.25 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 2410
T2=Cable P05298 2' RG214 N-N
T3=Log00978A
T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567
T6=Slant Distance S1 1m LV
T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

Measu	nemeni Duia.	Reading fisted by margin.			Test Distance. To Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.020M	43.0	+1.2	+0.1	+0.0	+17.9	+0.0	41.1	46.4	-5.3	Horiz
	QP		-27.7	+1.6	+5.0						
^	240.020M	45.4	+1.2	+0.1	+0.0	+17.9	+0.0	43.4	46.4	-3.0	Horiz
			-27.7	+1.6	+5.0						
3	160.025M	37.0	+0.8	+0.1	+0.0	+15.6	+0.0	32.4	43.5	-11.1	Horiz
			-27.7	+1.6	+5.0						
4	320.000M	35.5	+1.4	+0.1	+19.5	+0.0	+0.0	35.0	46.4	-11.4	Horiz
			-28.1	+1.6	+5.0						
5	319.970M	33.8	+1.4	+0.1	+19.5	+0.0	+0.0	33.3	46.4	-13.1	Vert
			-28.1	+1.6	+5.0						
6	160.015M	34.7	+0.8	+0.1	+0.0	+15.6	+0.0	30.1	43.5	-13.4	Vert
			-27.7	+1.6	+5.0						
7	480.050M	33.9	+1.8	+0.2	+17.2	+0.0	+0.0	31.5	46.4	-14.9	Horiz
			-28.1	+1.6	+5.0						

Page 16 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 11:56:54
Equipment: BPL MV Gateway Sequence#: 262
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

## Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 10: 10 meters out from low voltage lines the BPL is connected to 65.63 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 2410 T2=Cable P05298 2' RG214 N-N
T3=Log00978A T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S1 1m LV
T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.020M	43.5	+1.2	+0.1	+0.0	+17.9	+0.0	41.6	46.4	-4.8	Horiz
			-27.7	+1.6	+5.0						
2	160.005M	40.6	+0.8	+0.1	+0.0	+15.6	+0.0	36.0	43.5	-7.5	Horiz
			-27.7	+1.6	+5.0						
3	240.025M	39.8	+1.2	+0.1	+0.0	+17.9	+0.0	37.9	46.4	-8.5	Vert
			-27.7	+1.6	+5.0						
4	320.005M	34.5	+1.4	+0.1	+19.5	+0.0	+0.0	34.0	46.4	-12.4	Horiz
			-28.1	+1.6	+5.0						
5	319.995M	33.1	+1.4	+0.1	+19.5	+0.0	+0.0	32.6	46.4	-13.8	Vert
			-28.1	+1.6	+5.0						
6	480.050M	34.7	+1.8	+0.2	+17.2	+0.0	+0.0	32.4	46.4	-14.0	Horiz
			-28.1	+1.6	+5.0						

Page 17 of 301 Report No.: FC06-025 Volume 3 of 9



7	160.020M	33.9	+0.8	+0.1	+0.0	+15.6	+0.0	29.3	43.5	-14.2	Vert
			-27.7	+1.6	+5.0						
8	480.059M	33.2	+1.8	+0.2	+17.2	+0.0	+0.0	30.9	46.4	-15.5	Vert
			-28.1	+1.6	+5.0						
9	400.000M	33.8	+1.7	+0.2	+16.2	+0.0	+0.0	30.1	46.4	-16.3	Vert
			-28.4	+1.6	+5.0						

Page 18 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/28/2006
Test Type: Radiated Scan Time: 12:05:07
Equipment: BPL MV Gateway Sequence#: 263
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Frisco Street west of Winchell Street, Houston, TX. Unit on pole one pole west of streetlight pole # 289600 Low voltage wires are 25 feet above the street or 7.62 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 12 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/12) = 1.6dB Test Position 11: 10 meters out from low voltage lines the BPL is connected to 75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=Cable 2410 T2=Cable P05298 2' RG214 N-N T3=Log00978A T4=ANT-AN00503-010505 T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S1 1m LV

T7=5dB Height Correction

Meas	urement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.019M	43.4	+1.2	+0.1	+0.0	+17.9	+0.0	41.5	46.4	-4.9	Horiz
	QP		-27.7	+1.6	+5.0						
^	240.019M	45.6	+1.2	+0.1	+0.0	+17.9	+0.0	43.7	46.4	-2.7	Horiz
			-27.7	+1.6	+5.0						
3	320.005M	38.3	+1.4	+0.1	+19.5	+0.0	+0.0	37.8	46.4	-8.6	Horiz
			-28.1	+1.6	+5.0						
4	160.005M	38.1	+0.8	+0.1	+0.0	+15.6	+0.0	33.4	43.5	-10.1	Horiz
			-27.7	+1.6	+5.0						
5	240.035M	37.8	+1.2	+0.1	+0.0	+17.9	+0.0	35.9	46.4	-10.5	Vert
			-27.7	+1.6	+5.0						
6	320.005M	33.6	+1.4	+0.1	+19.5	+0.0	+0.0	33.1	46.4	-13.3	Vert
			-28.1	+1.6	+5.0						
7	480.084M	35.2	+1.8	+0.2	+17.2	+0.0	+0.0	32.9	46.4	-13.5	Vert
			-28.1	+1.6	+5.0						
8	159.995M	33.6	+0.8	+0.1	+0.0	+15.6	+0.0	29.0	43.5	-14.5	Vert
			-27.7	+1.6	+5.0						

Page 19 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/1/2006Test Type:Radiated ScanTime:16:51:37Equipment:BPL MV GatewaySequence#:299Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

#### Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 1: 10 meters out from low voltage lines the BPL is connected to directly across from the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

1	
T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=HP-8447D Pre Amp AN 00567	T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV T7=5dB Height Correction

Magazzament Data: Pooding listed by margin Test Distance: 10 Maters

Measui	rement Data:	Re	eading lis	ted by ma	argın.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.063M	44.1	+2.6	+0.1	-27.7	+0.0	+0.0	44.5	46.4	-1.9	Horiz
(	QP		+17.9	+2.6	+5.0						
٨	240.063M	49.2	+2.6	+0.1	-27.7	+0.0	+0.0	49.7	46.4	+3.3	Horiz
			+17.9	+2.6	+5.0						
3	150.000M	43.4	+1.9	+0.1	-27.6	+0.0	+0.0	40.6	43.5	-2.9	Horiz
(	QP		+15.2	+2.6	+5.0						
٨	150.000M	49.0	+1.9	+0.1	-27.6	+0.0	+0.0	46.2	43.5	+2.7	Horiz
			+15.2	+2.6	+5.0						
5	400.005M	38.9	+3.4	+0.2	-28.4	+16.2	+0.0	37.9	46.4	-8.5	Vert
			+0.0	+2.6	+5.0						
6	399.990M	36.5	+3.4	+0.2	-28.4	+16.2	+0.0	35.5	46.4	-10.9	Horiz
			+0.0	+2.6	+5.0						
7	239.970M	35.0	+2.6	+0.1	-27.7	+0.0	+0.0	35.5	46.4	-10.9	Vert
			+17.9	+2.6	+5.0						

Page 20 of 301 Report No.: FC06-025 Volume 3 of 9



8	320.010M	30.0	+3.0	+0.1	-28.1	+19.5	+0.0	32.1	46.4	-14.3	Horiz
			+0.0	+2.6	+5.0						
9	479.990M	30.9	+3.8	+0.2	-28.1	+17.2	+0.0	31.6	46.4	-14.8	Horiz
			+0.0	+2.6	+5.0						
10	320.030M	29.3	+3.0	+0.1	-28.1	+19.5	+0.0	31.4	46.4	-15.0	Vert
			+0.0	+2.6	+5.0						
11	480.000M	29.5	+3.8	+0.2	-28.1	+17.2	+0.0	30.2	46.4	-16.2	Vert
			+0.0	+2.6	+5.0						



•

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/1/2006Test Type:Radiated ScanTime:16:40:47Equipment:BPL MV GatewaySequence#:298Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 2: 10 meters out from low voltage lines the BPL is connected to 4.69 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RO	G8 PN 05012	T2=Cable P05298 2' RG214 N-N
11-04010 02 100	30111 03012	12-24016 1 03270 2 10321 111 11

T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV

T7=5dB Height Correction

Measur	rement Data:	R	eading li	isted by n	nargin.		Te	st Distanc	e: 10 Met	ers
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	N
			Т5	Т6	Т7					

#	Freq	Kang	11	1.2	13	14	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.005M	41.0	+2.6	+0.1	-27.7	+0.0	+0.0	41.5	46.4	-4.9	Horiz
			+17.9	+2.6	+5.0						
2	150.020M	38.8	+1.9	+0.1	-27.6	+0.0	+0.0	36.0	43.5	-7.5	Horiz
			+15.2	+2.6	+5.0						
3	400.025M	39.9	+3.4	+0.2	-28.4	+16.2	+0.0	38.9	46.4	-7.5	Vert
			+0.0	+2.6	+5.0						
4	240.015M	35.5	+2.6	+0.1	-27.7	+0.0	+0.0	36.0	46.4	-10.4	Vert
			+17.9	+2.6	+5.0						
5	250.010M	34.0	+2.6	+0.1	-27.8	+0.0	+0.0	34.6	46.4	-11.8	Vert
			+18.1	+2.6	+5.0						
6	160.005M	31.8	+2.0	+0.1	-27.7	+0.0	+0.0	29.4	43.5	-14.1	Vert
			+15.6	+2.6	+5.0						

Page 22 of 301 Report No.: FC06-025 Volume 3 of 9

Dolor



4												
	7	400.005M	31.3	+3.4	+0.2	-28.4	+16.2	+0.0	30.3	46.4	-16.1	Horiz
				+0.0	+2.6	+5.0						
	8	320.020M	28.0	+3.0	+0.1	-28.1	+19.5	+0.0	30.1	46.4	-16.3	Horiz
				+0.0	+2.6	+5.0						
	9	480.000M	27.4	+3.8	+0.2	-28.1	+17.2	+0.0	28.1	46.4	-18.3	Vert
				+0.0	+2.6	+5.0						

Page 23 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/1/2006Test Type:Radiated ScanTime:16:35:10Equipment:BPL MV GatewaySequence#:297Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
1 diletion	Manufacturer	Model #	3/1 <b>V</b>

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 3: 10 meters out from low voltage lines the BPL is connected to 9.38 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	399.995M	39.3	+3.4	+0.2	-28.4	+16.2	+0.0	38.3	46.4	-8.1	Vert
			+0.0	+2.6	+5.0						
2	239.885M	37.4	+2.6	+0.1	-27.7	+0.0	+0.0	37.9	46.4	-8.5	Horiz
			+17.9	+2.6	+5.0						
3	160.010M	36.7	+2.0	+0.1	-27.7	+0.0	+0.0	34.3	43.5	-9.2	Horiz
			+15.6	+2.6	+5.0						
4	239.895M	35.7	+2.6	+0.1	-27.7	+0.0	+0.0	36.2	46.4	-10.2	Vert
			+17.9	+2.6	+5.0						
5	160.050M	32.1	+2.0	+0.1	-27.7	+0.0	+0.0	29.7	43.5	-13.8	Vert
			+15.6	+2.6	+5.0						
6	250.000M	31.7	+2.6	+0.1	-27.8	+0.0	+0.0	32.3	46.4	-14.1	Vert
			+18.1	+2.6	+5.0						
7	480.040M	28.1	+3.8	+0.2	-28.1	+17.2	+0.0	28.7	46.4	-17.7	Vert
			+0.0	+2.6	+5.0						

Page 24 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 16:29:37
Equipment: BPL MV Gateway Sequence#: 296
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 4: 10 meters out from low voltage lines the BPL is connected to 14.06 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV

T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.005M	37.8	+2.0	+0.1	-27.7	+0.0	+0.0	35.4	43.5	-8.1	Horiz
			+15.6	+2.6	+5.0						
2	149.990M	38.1	+1.9	+0.1	-27.6	+0.0	+0.0	35.3	43.5	-8.2	Horiz
			+15.2	+2.6	+5.0						
3	240.055M	36.9	+2.6	+0.1	-27.7	+0.0	+0.0	37.4	46.4	-9.0	Horiz
			+17.9	+2.6	+5.0						
4	400.010M	37.0	+3.4	+0.2	-28.4	+16.2	+0.0	36.0	46.4	-10.4	Vert
			+0.0	+2.6	+5.0						
5	239.860M	31.6	+2.6	+0.1	-27.7	+0.0	+0.0	32.1	46.4	-14.3	Vert
			+17.9	+2.6	+5.0						
6	320.020M	28.8	+3.0	+0.1	-28.1	+19.5	+0.0	30.9	46.4	-15.5	Horiz
			+0.0	+2.6	+5.0						

Page 25 of 301 Report No.: FC06-025 Volume 3 of 9



7	319.980M	28.5	+3.0	+0.1	-28.1	+19.5	+0.0	30.6	46.4	-15.8	Vert
			+0.0	+2.6	+5.0						
8	159.990M	29.1	+2.0	+0.1	-27.7	+0.0	+0.0	26.7	43.5	-16.8	Vert
			+15.6	+2.6	+5.0						
9	400.020M	29.8	+3.4	+0.2	-28.4	+16.2	+0.0	28.8	46.4	-17.6	Horiz
			+0.0	+2.6	+5.0						

Page 26 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/1/2006Test Type:Radiated ScanTime:16:23:22Equipment:BPL MV GatewaySequence#:295Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 5: 10 meters out from low voltage lines the BPL is connected to 18.75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

Measu	rement Data:	K6	eading lis	tea by ma	argin.		16	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.025M	37.3	+2.6	+0.1	-27.7	+0.0	+0.0	37.8	46.4	-8.6	Horiz
			+17.9	+2.6	+5.0						
2	239.980M	35.1	+2.6	+0.1	-27.7	+0.0	+0.0	35.6	46.4	-10.8	Vert
			+17.9	+2.6	+5.0						
3	160.000M	34.6	+2.0	+0.1	-27.7	+0.0	+0.0	32.2	43.5	-11.3	Vert
			+15.6	+2.6	+5.0						
4	400.015M	32.8	+3.4	+0.2	-28.4	+16.2	+0.0	31.8	46.4	-14.6	Vert
			+0.0	+2.6	+5.0						
5	319.980M	29.3	+3.0	+0.1	-28.1	+19.5	+0.0	31.4	46.4	-15.0	Horiz
			+0.0	+2.6	+5.0						
6	480.060M	30.2	+3.8	+0.2	-28.1	+17.2	+0.0	30.9	46.4	-15.5	Horiz
			+0.0	+2.6	+5.0						
7	480.075M	28.7	+3.8	+0.2	-28.1	+17.2	+0.0	29.4	46.4	-17.0	Vert
			+0.0	+2.6	+5.0						

Page 27 of 301 Report No.: FC06-025 Volume 3 of 9



•

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 16:17:18
Equipment: BPL MV Gateway Sequence#: 294
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 6: 10 meters out from low voltage lines the BPL is connected to 28.13 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T2 IID 0447D D. A. A. AN 00567	T4 I ~~00079 A

T3=HP-8447D Pre Amp AN 00567 T4=Log00978A T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV

T7=5dB Height Correction

Measu	Measurement Data: Reading listed by margin.				ırgin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.000M	42.3	+2.6	+0.1	-27.7	+0.0	+0.0	42.8	46.4	-3.6	Horiz
	QP		+17.9	+2.6	+5.0						
^	240.000M	49.9	+2.6	+0.1	-27.7	+0.0	+0.0	50.4	46.4	+4.0	Horiz
			+17.9	+2.6	+5.0						
3	239.980M	33.3	+2.6	+0.1	-27.7	+0.0	+0.0	33.8	46.4	-12.6	Vert
			+17.9	+2.6	+5.0						
4	320.015M	29.1	+3.0	+0.1	-28.1	+19.5	+0.0	31.2	46.4	-15.2	Vert
			+0.0	+2.6	+5.0						
5	319.985M	27.9	+3.0	+0.1	-28.1	+19.5	+0.0	30.0	46.4	-16.4	Horiz
			+0.0	+2.6	+5.0						

Page 28 of 301 Report No.: FC06-025 Volume 3 of 9



•

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 16:07:53
Equipment: BPL MV Gateway Sequence#: 293
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 7: 10 meters out from low voltage lines the BPL is connected to 37.5 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals seen Horizontal.

# Transducer Legend:

Transaucer Legena.	
T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=HP-8447D Pre Amp AN 00567	T4=Log00978A
T5=ANT-AN00503-010505	T6=Slant Distance S2 1m LV
T7=5dB Height Correction	

Measu	Measurement Data:		Reading listed by margin.				Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	239.995M	32.9	+2.6	+0.1	-27.7	+0.0	+0.0	33.4	46.4	-13.0	Vert
			+17.9	+2.6	+5.0						
2	124.980M	33.7	+1.7	+0.1	-27.7	+0.0	+0.0	28.7	43.5	-14.8	Vert
			+13.3	+2.6	+5.0						
3	319.975M	29.1	+3.0	+0.1	-28.1	+19.5	+0.0	31.2	46.4	-15.2	Vert
			+0.0	+2.6	+5.0						
4	160.015M	29.0	+2.0	+0.1	-27.7	+0.0	+0.0	26.6	43.5	-16.9	Vert
			+15.6	+2.6	+5.0						

Page 29 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 15:58:30
Equipment: BPL MV Gateway Sequence#: 292
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

#### Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 8: 10 meters out from low voltage lines the BPL is connected to 46.88 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

Measurement Data:

400.000M

28.5

+3.4

+0.0

+0.2

+2.6

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=HP-8447D Pre Amp AN 00567	T4=Log00978A
T5=ANT-AN00503-010505	T6=Slant Distance S2 1m LV
T7-5dD Height Correction	

Reading listed by margin.

	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7						
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	150.000M	39.6	+1.9	+0.1	-27.6	+0.0	+0.0	36.8	43.5	-6.7	Horiz
				+15.2	+2.6	+5.0						
ſ	2	240.000M	39.2	+2.6	+0.1	-27.7	+0.0	+0.0	39.7	46.4	-6.7	Horiz
				+17.9	+2.6	+5.0						
ſ	3	240.015M	30.9	+2.6	+0.1	-27.7	+0.0	+0.0	31.4	46.4	-15.0	Vert
				+17.9	+2.6	+5.0						
	4	320.010M	28.7	+3.0	+0.1	-28.1	+19.5	+0.0	30.8	46.4	-15.6	Horiz
				+0.0	+2.6	+5.0						
	5	320.000M	28.1	+3.0	+0.1	-28.1	+19.5	+0.0	30.2	46.4	-16.2	Vert
				+0.0	+2.6	+5.0						
Ī	6	160.000M	28.9	+2.0	+0.1	-27.7	+0.0	+0.0	26.5	43.5	-17.0	Vert
				+15.6	+2.6	+5.0						

-28.4

+5.0

+16.2

+0.0

27.5

46.4

Test Distance: 10 Meters

Page 30 of 301 Report No.: FC06-025 Volume 3 of 9

Vert

-18.9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 15:52:53
Equipment: BPL MV Gateway Sequence#: 291
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 9: 10 meters out from low voltage lines the BPL is connected to 56.25 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N

T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV

T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.080M	45.8	+2.6	+0.1	-27.7	+0.0	+0.0	46.3	46.4	-0.1	Horiz
	QP		+17.9	+2.6	+5.0						
/	240.080M	45.9	+2.6	+0.1	-27.7	+0.0	+0.0	46.4	46.4	+0.0	Horiz
			+17.9	+2.6	+5.0						
3	3 124.965M	42.2	+1.7	+0.1	-27.7	+0.0	+0.0	37.2	43.5	-6.3	Vert
			+13.3	+2.6	+5.0						
4	240.010M	39.6	+2.6	+0.1	-27.7	+0.0	+0.0	40.1	46.4	-6.3	Vert
			+17.9	+2.6	+5.0						
5	5 160.095M	39.5	+2.0	+0.1	-27.7	+0.0	+0.0	37.1	43.5	-6.4	Horiz
			+15.6	+2.6	+5.0						
6	6 160.000M	37.3	+2.0	+0.1	-27.7	+0.0	+0.0	34.9	43.5	-8.6	Vert
			+15.6	+2.6	+5.0						

Page 31 of 301 Report No.: FC06-025 Volume 3 of 9



7	320.010M	28.8	+3.0	+0.1	-28.1	+19.5	+0.0	30.9	46.4	-15.5	Horiz
			+0.0	+2.6	+5.0						
8	320.010M	27.1	+3.0	+0.1	-28.1	+19.5	+0.0	29.2	46.4	-17.2	Vert
			+0.0	+2.6	+5.0						
9	400.010M	29.3	+3.4	+0.2	-28.4	+16.2	+0.0	28.3	46.4	-18.1	Horiz
			+0.0	+2.6	+5.0						

Page 32 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/1/2006
Test Type: Radiated Scan Time: 15:42:01
Equipment: BPL MV Gateway Sequence#: 290
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 10: 10 meters out from low voltage lines the BPL is connected to 65.63 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N

T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV

T7=5dB Height Correction

Measur	rement Data:	R	eading li	isted by n	nargin.	Test Distance: 10 Meters				
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	M

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.085M	45.7	+2.6	+0.1	-27.7	+0.0	+0.0	46.2	46.4	-0.2	Horiz
	QP		+17.9	+2.6	+5.0						
٨	240.085M	49.5	+2.6	+0.1	-27.7	+0.0	+0.0	50.0	46.4	+3.6	Horiz
			+17.9	+2.6	+5.0						
3	239.990M	34.0	+2.6	+0.1	-27.7	+0.0	+0.0	34.5	46.4	-11.9	Vert
			+17.9	+2.6	+5.0						
4	160.025M	32.6	+2.0	+0.1	-27.7	+0.0	+0.0	30.2	43.5	-13.3	Vert
			+15.6	+2.6	+5.0						
5	319.990M	29.8	+3.0	+0.1	-28.1	+19.5	+0.0	31.9	46.4	-14.5	Horiz
			+0.0	+2.6	+5.0						
6	319.985M	28.6	+3.0	+0.1	-28.1	+19.5	+0.0	30.7	46.4	-15.7	Vert
			+0.0	+2.6	+5.0						
7	399.990M	30.3	+3.4	+0.2	-28.4	+16.2	+0.0	29.3	46.4	-17.1	Vert
			+0.0	+2.6	+5.0						
8	400.015M	29.6	+3.4	+0.2	-28.4	+16.2	+0.0	28.6	46.4	-17.8	Horiz
			+0.0	+2.6	+5.0						

Page 33 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/1/2006Test Type:Radiated ScanTime:15:32:32Equipment:BPL MV GatewaySequence#:289Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Overhead Test Site #2. Squatty Lyons Park on East Hardy Street. Unit on streetlight Pole # 488951 Low voltage wires are 10 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Slant Distance is 13.5 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.5) = 2.6dB Test Position 11: 10 meters out from low voltage lines the BPL is connected to 75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N T3=HP-8447D Pre Amp AN 00567 T4=Log00978A

T5=ANT-AN00503-010505 T6=Slant Distance S2 1m LV T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

Measurement Data: Reading listed by margin.					argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	124.955M	40.4	+1.7	+0.1	-27.7	+0.0	+0.0	35.4	43.5	-8.1	Vert
			+13.3	+2.6	+5.0						
2	240.115M	37.5	+2.6	+0.1	-27.7	+0.0	+0.0	38.0	46.4	-8.5	Horiz
			+17.9	+2.6	+5.0						
3	174.955M	35.6	+2.1	+0.1	-27.7	+0.0	+0.0	33.8	43.5	-9.7	Horiz
			+16.1	+2.6	+5.0						
4	160.060M	32.2	+2.0	+0.1	-27.7	+0.0	+0.0	29.8	43.5	-13.7	Vert
			+15.6	+2.6	+5.0						
5	319.980M	29.2	+3.0	+0.1	-28.1	+19.5	+0.0	31.3	46.4	-15.1	Horiz
			+0.0	+2.6	+5.0						
6	319.980M	29.2	+3.0	+0.1	-28.1	+19.5	+0.0	31.3	46.4	-15.1	Vert
			+0.0	+2.6	+5.0						
7	320.000M	28.9	+3.0	+0.1	-28.1	+19.5	+0.0	31.0	46.4	-15.4	Horiz
			+0.0	+2.6	+5.0						

Page 34 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: LV Overhead Test Site #3 •Squatty Lyons Park on East Hardy Streetlight Pole #502700 on Cromwell

Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/2/2006Test Type:Radiated ScanTime:14:45:59Equipment:BPL MV GatewaySequence#:338Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function Manufacturer Model #	S/N
-------------------------------	-----

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 1: 12 meters out from low voltage lines the BPL is connected directly across from the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7=5dB Height Correction	

Measurement Data: Reading listed by margin. Test Distance: 10 Meters							rs				
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	42.8	+2.0	+0.1	+0.0	+15.6	+0.0	40.7	43.5	-2.8	Horiz
	QP		-27.7	+2.9	+5.0						
٨	160.000M	44.2	+2.0	+0.1	+0.0	+15.6	+0.0	42.1	43.5	-1.4	Horiz
			-27.7	+2.9	+5.0						
3	320.010M	35.2	+3.0	+0.1	+19.5	+0.0	+0.0	37.6	46.4	-8.8	Horiz
			-28.1	+2.9	+5.0						
4	400.020M	36.2	+3.4	+0.2	+16.2	+0.0	+0.0	35.5	46.4	-10.9	Vert
			-28.4	+2.9	+5.0						
5	160.000M	34.2	+2.0	+0.1	+0.0	+15.6	+0.0	32.1	43.5	-11.4	Vert
			-27.7	+2.9	+5.0						
6	319.995M	31.6	+3.0	+0.1	+19.5	+0.0	+0.0	34.0	46.4	-12.4	Vert
			-28.1	+2.9	+5.0						

Page 35 of 301 Report No.: FC06-025 Volume 3 of 9



7	240.015M	32.4	+2.6	+0.1	+0.0	+17.9	+0.0	33.2	46.4	-13.2	Horiz
			-27.7	+2.9	+5.0						
8	240.030M	31.7	+2.6	+0.1	+0.0	+17.9	+0.0	32.5	46.4	-13.9	Vert
			-27.7	+2.9	+5.0						
9	399.990M	31.3	+3.4	+0.2	+16.2	+0.0	+0.0	30.6	46.4	-15.8	Horiz
			-28.4	+2.9	+5.0						
10	150.005M	27.4	+1.9	+0.1	+0.0	+15.2	+0.0	24.9	43.5	-18.6	Horiz
			-27.6	+2.9	+5.0						
11	480.060M	25.2	+3.8	+0.2	+17.2	+0.0	+0.0	26.2	46.4	-20.2	Vert
			-28.1	+2.9	+5.0						

Page 36 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 14:39:00
Equipment: BPL MV Gateway Sequence#: 337
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 2: 12 meters out from low voltage lines the BPL is connected to 4.69 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7=5dB Height Correction	

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	41.0	+2.0	+0.1	+0.0	+15.6	+0.0	38.9	43.5	-4.6	Horiz
	QP		-27.7	+2.9	+5.0						
٨	160.000M	43.0	+2.0	+0.1	+0.0	+15.6	+0.0	40.9	43.5	-2.6	Horiz
			-27.7	+2.9	+5.0						
3	160.005M	39.1	+2.0	+0.1	+0.0	+15.6	+0.0	37.0	43.5	-6.5	Vert
			-27.7	+2.9	+5.0						
4	319.980M	32.9	+3.0	+0.1	+19.5	+0.0	+0.0	35.3	46.4	-11.1	Vert
			-28.1	+2.9	+5.0						
5	399.995M	35.8	+3.4	+0.2	+16.2	+0.0	+0.0	35.1	46.4	-11.3	Vert
			-28.4	+2.9	+5.0						
6	320.010M	31.5	+3.0	+0.1	+19.5	+0.0	+0.0	33.9	46.4	-12.5	Horiz
			-28.1	+2.9	+5.0						

Page 37 of 301 Report No.: FC06-025 Volume 3 of 9



7	240.040M	32.4	+2.6	+0.1	+0.0	+17.9	+0.0	33.2	46.4	-13.2	Horiz
			-27.7	+2.9	+5.0						
8	240.030M	32.0	+2.6	+0.1	+0.0	+17.9	+0.0	32.8	46.4	-13.6	Vert
			-27.7	+2.9	+5.0						
9	399.995M	32.0	+3.4	+0.2	+16.2	+0.0	+0.0	31.3	46.4	-15.1	Horiz
			-28.4	+2.9	+5.0						
10	150.010M	28.3	+1.9	+0.1	+0.0	+15.2	+0.0	25.8	43.5	-17.7	Horiz
			-27.6	+2.9	+5.0						
11	480.025M	26.0	+3.8	+0.2	+17.2	+0.0	+0.0	27.0	46.4	-19.4	Horiz
			-28.1	+2.9	+5.0						
12	479.990M	24.7	+3.8	+0.2	+17.2	+0.0	+0.0	25.7	46.4	-20.7	Vert
			-28.1	+2.9	+5.0						

Page 38 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 14:32:59
Equipment: BPL MV Gateway Sequence#: 336
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 3: 12 meters out from low voltage lines the BPL is connected to 9.38 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7-5dR Height Correction	

Danding listed by mangin

weasur	rement Data:	N	eading n	stea by n	iargin.		16	st Distance	e: 10 Mete	ers
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	N

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.985M	37.6	+2.0	+0.1	+0.0	+15.6	+0.0	35.5	43.5	-8.0	Horiz
			-27.7	+2.9	+5.0						
2	160.010M	35.9	+2.0	+0.1	+0.0	+15.6	+0.0	33.8	43.5	-9.7	Vert
			-27.7	+2.9	+5.0						
3	400.000M	33.1	+3.4	+0.2	+16.2	+0.0	+0.0	32.4	46.4	-14.0	Vert
			-28.4	+2.9	+5.0						
4	240.020M	30.9	+2.6	+0.1	+0.0	+17.9	+0.0	31.7	46.4	-14.7	Horiz
			-27.7	+2.9	+5.0						
5	319.995M	27.4	+3.0	+0.1	+19.5	+0.0	+0.0	29.8	46.4	-16.6	Vert
			-28.1	+2.9	+5.0						
6	319.975M	26.5	+3.0	+0.1	+19.5	+0.0	+0.0	28.9	46.4	-17.5	Horiz
			-28.1	+2.9	+5.0						

Page 39 of 301 Report No.: FC06-025 Volume 3 of 9



7	239.995M	28.0	+2.6	+0.1	+0.0	+17.9	+0.0	28.8	46.4	-17.6	Vert
			-27.7	+2.9	+5.0						
8	480.075M	25.6	+3.8	+0.2	+17.2	+0.0	+0.0	26.6	46.4	-19.8	Horiz
			-28.1	+2.9	+5.0						
9	400.010M	26.0	+3.4	+0.2	+16.2	+0.0	+0.0	25.3	46.4	-21.1	Horiz
			-28.4	+2.9	+5.0						
10	480.055M	23.7	+3.8	+0.2	+17.2	+0.0	+0.0	24.7	46.4	-21.7	Vert
			-28.1	+2.9	+5.0						

Page 40 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:5/2/2006Test Type:Radiated ScanTime:14:27:33Equipment:BPL MV GatewaySequence#:335Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 4: 12 meters out from low voltage lines the BPL is connected to 14.06 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7-5dR Height Correction	

Measu	<u>rement Data:</u>	Re	eading lis	ted by ma	argin.		T€	est Distance	e: 10 Mete	îs .	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	34.7	+2.0	+0.1	+0.0	+15.6	+0.0	32.6	43.5	-11.0	Vert
			-27.7	+2.9	+5.0						
2	160.005M	32.7	+2.0	+0.1	+0.0	+15.6	+0.0	30.6	43.5	-12.9	Horiz
			-27.7	+2.9	+5.0						
3	399.970M	31.0	+3.4	+0.2	+16.2	+0.0	+0.0	30.3	46.4	-16.1	Vert
			-28.4	+2.9	+5.0						
4	320.015M	26.8	+3.0	+0.1	+19.5	+0.0	+0.0	29.2	46.4	-17.2	Vert
			-28.1	+2.9	+5.0						
5	240.015M	28.4	+2.6	+0.1	+0.0	+17.9	+0.0	29.2	46.4	-17.3	Horiz
			-27.7	+2.9	+5.0						
6	240.005M	27.3	+2.6	+0.1	+0.0	+17.9	+0.0	28.1	46.4	-18.3	Vert
			-27.7	+2.9	+5.0						

Page 41 of 301 Report No.: FC06-025 Volume 3 of 9



7	320.035M	23.9	+3.0	+0.1	+19.5	+0.0	+0.0	26.3	46.4	-20.1	Horiz
			-28.1	+2.9	+5.0						
8	480.015M	24.3	+3.8	+0.2	+17.2	+0.0	+0.0	25.3	46.4	-21.1	Vert
			-28.1	+2.9	+5.0						
9	480.075M	23.9	+3.8	+0.2	+17.2	+0.0	+0.0	24.9	46.4	-21.5	Horiz
			-28.1	+2.9	+5.0						
10	400.015M	23.5	+3.4	+0.2	+16.2	+0.0	+0.0	22.8	46.4	-23.6	Horiz
			-28.4	+2.9	+5.0						

Page 42 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 14:22:42
Equipment: BPL MV Gateway Sequence#: 334
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 5: 12 meters out from low voltage lines the BPL is connected to 18.75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

Mogsuromont Data

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7-5dR Height Correction	

Panding listed by margin

<i>Measui</i>	rement Data:	K(	eading his	tea by ma	argin.		16	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.020M	33.5	+2.0	+0.1	+0.0	+15.6	+0.0	31.4	43.5	-12.2	Horiz
			-27.7	+2.9	+5.0						
2	240.010M	29.5	+2.6	+0.1	+0.0	+17.9	+0.0	30.3	46.4	-16.1	Horiz
			-27.7	+2.9	+5.0						
3	160.010M	28.0	+2.0	+0.1	+0.0	+15.6	+0.0	25.9	43.5	-17.7	Vert
			-27.7	+2.9	+5.0						
4	319.990M	26.2	+3.0	+0.1	+19.5	+0.0	+0.0	28.6	46.4	-17.8	Horiz
			-28.1	+2.9	+5.0						
5	240.010M	26.3	+2.6	+0.1	+0.0	+17.9	+0.0	27.1	46.4	-19.3	Vert
			-27.7	+2.9	+5.0						
6	400.020M	26.3	+3.4	+0.2	+16.2	+0.0	+0.0	25.6	46.4	-20.8	Vert
			-28.4	+2.9	+5.0						

Tost Distance: 10 Maters

Page 43 of 301 Report No.: FC06-025 Volume 3 of 9



7	480.040M	24.4	+3.8	+0.2	+17.2	+0.0	+0.0	25.4	46.4	-21.0	Vert
			-28.1	+2.9	+5.0						
8	124.975M	26.7	+1.7	+0.1	+0.0	+13.3	+0.0	22.0	43.5	-21.5	Vert
			-27.7	+2.9	+5.0						
9	400.000M	23.8	+3.4	+0.2	+16.2	+0.0	+0.0	23.1	46.4	-23.3	Horiz
			-28.4	+2.9	+5.0						

Page 44 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 13:32:19
Equipment: BPL MV Gateway Sequence#: 333
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 6: 12 meters out from low voltage lines the BPL is connected to 28.13 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7-5dR Height Correction	

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

		8		~~ B · · · ·							
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.985M	31.8	+2.0	+0.1	+0.0	+15.6	+0.0	29.7	43.5	-13.8	Horiz
			-27.7	+2.9	+5.0						
2	160.005M	28.8	+2.0	+0.1	+0.0	+15.6	+0.0	26.7	43.5	-16.8	Vert
			-27.7	+2.9	+5.0						
3	239.985M	27.7	+2.6	+0.1	+0.0	+17.9	+0.0	28.5	46.4	-17.9	Horiz
			-27.7	+2.9	+5.0						
4	320.005M	24.9	+3.0	+0.1	+19.5	+0.0	+0.0	27.3	46.4	-19.1	Vert
			-28.1	+2.9	+5.0						
5	320.000M	23.6	+3.0	+0.1	+19.5	+0.0	+0.0	26.0	46.4	-20.4	Horiz
			-28.1	+2.9	+5.0						
6	240.005M	24.5	+2.6	+0.1	+0.0	+17.9	+0.0	25.3	46.4	-21.1	Vert
			-27.7	+2.9	+5.0						

Page 45 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 13:23:44
Equipment: BPL MV Gateway Sequence#: 332
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function Manufacturer	Model #	S/N	
-----------------------	---------	-----	--

#### Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 7: 12 meters out from low voltage lines the BPL is connected to 37.5 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012 T2=Cable P05298 2' RG214 N-N T3=Log00978A T4=ANT-AN00503-010505 T5=HP-8447D Pre Amp AN 00567 T6=Slant Distance S3 1m LV

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	320.005M	30.9	+3.0	+0.1	+19.5	+0.0	+0.0	33.3	46.4	-13.1	Vert
			-28.1	+2.9	+5.0						
2	320.005M	29.8	+3.0	+0.1	+19.5	+0.0	+0.0	32.2	46.4	-14.2	Horiz
			-28.1	+2.9	+5.0						
3	160.000M	29.6	+2.0	+0.1	+0.0	+15.6	+0.0	27.5	43.5	-16.0	Horiz
			-27.7	+2.9	+5.0						
4	160.010M	29.5	+2.0	+0.1	+0.0	+15.6	+0.0	27.4	43.5	-16.1	Vert
			-27.7	+2.9	+5.0						
5	150.000M	28.1	+1.9	+0.1	+0.0	+15.2	+0.0	25.6	43.5	-17.9	Horiz
			-27.6	+2.9	+5.0						
6	240.000M	25.0	+2.6	+0.1	+0.0	+17.9	+0.0	25.8	46.4	-20.6	Horiz
			-27.7	+2.9	+5.0						
7	400.070M	23.9	+3.4	+0.2	+16.2	+0.0	+0.0	23.2	46.4	-23.2	Vert
			-28.4	+2.9	+5.0						

Page 46 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 13:16:50
Equipment: BPL MV Gateway Sequence#: 331
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 8: 12 meters out from low voltage lines the BPL is connected to 46.88 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals seen above 300MHz.

#### Transducer Legend:

Transancer Begena.	
T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Slant Distance S3 1m LV	T6=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	st Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.005M	37.8	+2.0	+0.1	+15.6	-27.7	+0.0	35.7	43.5	-7.8	Horiz
			+2.9	+5.0							
2	274.945M	31.2	+2.7	+0.1	+19.5	-27.9	+0.0	33.5	46.4	-12.9	Horiz
			+2.9	+5.0							
3	159.995M	29.1	+2.0	+0.1	+15.6	-27.7	+0.0	27.0	43.5	-16.5	Vert
			+2.9	+5.0							
4	240.020M	28.3	+2.6	+0.1	+17.9	-27.7	+0.0	29.1	46.4	-17.3	Horiz
			+2.9	+5.0							
5	240.025M	27.5	+2.6	+0.1	+17.9	-27.7	+0.0	28.3	46.4	-18.1	Vert
			+2.9	+5.0							
6	124.950M	28.0	+1.7	+0.1	+13.3	-27.7	+0.0	23.3	43.5	-20.2	Vert
			+2.9	+5.0							

Page 47 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 13:07:52
Equipment: BPL MV Gateway Sequence#: 330
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 9: 12 meters out from low voltage lines the BPL is connected to 56.25 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=Log00978A	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3 1m LV
T7-5dR Height Correction	

Danding listed by mangin

Measurement Data:			N	Reading fisted by margin.					est Distance. To Meters		
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	N

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.980M	37.4	+2.0	+0.1	+0.0	+15.6	+0.0	35.3	43.5	-8.2	Horiz
			-27.7	+2.9	+5.0						
2	240.000M	30.6	+2.6	+0.1	+0.0	+17.9	+0.0	31.4	46.4	-15.0	Horiz
			-27.7	+2.9	+5.0						
3	159.980M	29.3	+2.0	+0.1	+0.0	+15.6	+0.0	27.2	43.5	-16.3	Vert
			-27.7	+2.9	+5.0						
4	240.035M	26.6	+2.6	+0.1	+0.0	+17.9	+0.0	27.4	46.4	-19.0	Vert
			-27.7	+2.9	+5.0						
5	320.010M	23.8	+3.0	+0.1	+19.5	+0.0	+0.0	26.2	46.4	-20.3	Horiz
			-28.1	+2.9	+5.0						
6	480.070M	25.0	+3.8	+0.2	+17.2	+0.0	+0.0	26.0	46.4	-20.4	Horiz
			-28.1	+2.9	+5.0						

Page 48 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 5/2/2006
Test Type: Radiated Scan Time: 13:02:30
Equipment: BPL MV Gateway Sequence#: 329
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole # 502700 on Cromwell Street. Low voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 10: 12 meters out from low voltage lines the BPL is connected to 65.63 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals seen above 300MHz.

## Transducer Legend:

Transancer Ecgena.	
T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Slant Distance S3 1m LV	T6=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

_				0								
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6							
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	159.990M	34.4	+2.0	+0.1	+15.6	-27.7	+0.0	32.3	43.5	-11.3	Horiz
				+2.9	+5.0							
	2	160.015M	34.1	+2.0	+0.1	+15.6	-27.7	+0.0	32.0	43.5	-11.5	Vert
				+2.9	+5.0							
Ī	3	160.010M	33.9	+2.0	+0.1	+15.6	-27.7	+0.0	31.8	43.5	-11.7	Horiz
L				+2.9	+5.0							

Page 49 of 301 Report No.: FC06-025 Volume 3 of 9



Street • Houston, TX. •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: S4818 Date: 5/2/2006
Test Type: Radiated Scan Time: 12:42:18
Equipment: BPL MV Gateway Sequence#: 328
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N	

## Test Conditions / Notes:

Formal Overhead Test Site #3. Squatty Lyons Park on East Hardy Street. Unit on pole one west of streetlight pole #502700 on Cromwell Street. Medium voltage wires are 8 meters. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 12 meters. Slant Distance is 13.9 meters. Slant Distance and Test Distance correction factor is -20\*LOG(10/13.9) = 2.9dB Test Position 11: 12 meters out from low voltage lines the BPL is connected to 75 meters laterally down the power line. Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for overhead lines from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals seen above 300MHz.

#### Transducer Legend:

Transancer Ecgena.	
T1=Cable 82' RG8 PN 05012	T2=Cable P05298 2' RG214 N-N
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Slant Distance S3 1m LV	T6=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

				8	<del>, , , , , , , , , , , , , , , , , , , </del>	8						
Ī	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6							
L		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	160.000M	33.3	+2.0	+0.1	+15.6	-27.7	+0.0	31.2	43.5	-12.3	Horiz
				+2.9	+5.0							
	2	150.000M	30.7	+1.9	+0.1	+15.2	-27.6	+0.0	28.2	43.5	-15.3	Horiz
				+2.9	+5.0							
Ī	3	159.980M	30.1	+2.0	+0.1	+15.6	-27.7	+0.0	28.0	43.5	-15.5	Vert
l				+2.9	+5.0							

Page 50 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 16:42:57
Equipment: BPL MV Gateway Sequence#: 44
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
			T5	T6	T7							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	160.010M	44.4	+0.7	+0.8	+0.1	+0.0	+0.0	38.9	43.5	-4.6	Vert	
			+15.6	-27.7	+5.0							
2	240.000M	38.4	+0.9	+1.2	+0.1	+0.0	+0.0	35.8	46.4	-10.6	Vert	
			+17.9	-27.7	+5.0							
3	240.015M	31.8	+0.9	+1.2	+0.1	+0.0	+0.0	29.2	46.4	-17.2	Horiz	
			+17.9	-27.7	+5.0							
4	320.000M	29.4	+1.0	+1.4	+0.1	+19.5	+0.0	28.3	46.4	-18.1	Vert	
			+0.0	-28.1	+5.0							
5	160.005M	30.5	+0.7	+0.8	+0.1	+0.0	+0.0	25.0	43.5	-18.5	Horiz	
			+15.6	-27.7	+5.0							
6	480.025M	26.9	+1.3	+1.8	+0.2	+17.2	+0.0	24.3	46.4	-22.1	Horiz	
			+0.0	-28.1	+5.0							

Page 51 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 16:35:50
Equipment: BPL MV Gateway Sequence#: 43
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410
T3=Cable P05298 2' RG214 N-N T4=Log00978A
T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	160.000M	41.9	+0.7	+0.8	+0.1	+0.0	+0.0	36.4	43.5	-7.1	Vert
			+15.6	-27.7	+5.0						
2	150.015M	35.5	+0.7	+0.8	+0.1	+0.0	+0.0	29.7	43.5	-13.8	Horiz
			+15.2	-27.6	+5.0						
3	240.000M	34.9	+0.9	+1.2	+0.1	+0.0	+0.0	32.3	46.4	-14.1	Vert
			+17.9	-27.7	+5.0						
4	320.000M	31.2	+1.0	+1.4	+0.1	+19.5	+0.0	30.1	46.4	-16.3	Horiz
			+0.0	-28.1	+5.0						
5	400.000M	33.7	+1.2	+1.7	+0.2	+16.2	+0.0	29.6	46.4	-16.8	Horiz
			+0.0	-28.4	+5.0						
6	250.075M	31.5	+0.9	+1.2	+0.1	+0.0	+0.0	29.0	46.4	-17.4	Horiz
			+18.1	-27.8	+5.0						
7	319.980M	29.8	+1.0	+1.4	+0.1	+19.5	+0.0	28.6	46.4	-17.8	Vert
			+0.0	-28.1	+5.0						
8	400.005M	31.9	+1.2	+1.7	+0.2	+16.2	+0.0	27.8	46.4	-18.6	Vert
			+0.0	-28.4	+5.0						
9	240.000M	29.3	+0.9	+1.2	+0.1	+0.0	+0.0	26.7	46.4	-19.7	Horiz
			+17.9	-27.7	+5.0						

Page 52 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:4/24/2006Test Type:Radiated ScanTime:16:26:47Equipment:BPL MV GatewaySequence#:42

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	149.910M	36.7	+0.7	+0.8	+0.1	+0.0	+0.0	30.9	43.5	-12.6	Horiz
			+15.2	-27.6	+5.0						
2	399.985M	34.0	+1.2	+1.7	+0.2	+16.2	+0.0	29.9	46.4	-16.5	Vert
			+0.0	-28.4	+5.0						
3	240.030M	31.6	+0.9	+1.2	+0.1	+0.0	+0.0	29.0	46.4	-17.4	Horiz
			+17.9	-27.7	+5.0						
4	320.070M	29.7	+1.0	+1.4	+0.1	+19.5	+0.0	28.6	46.4	-17.8	Horiz
			+0.0	-28.1	+5.0						
5	480.025M	29.7	+1.3	+1.8	+0.2	+17.2	+0.0	27.0	46.4	-19.4	Vert
			+0.0	-28.1	+5.0						
6	375.213M	31.1	+1.1	+1.6	+0.2	+15.7	+0.0	26.3	46.4	-20.1	Horiz
			+0.0	-28.3	+5.0						

Page 53 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 16:18:52
Equipment: BPL MV Gateway Sequence#: 41

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	225.090M	38.8	+0.8	+1.1	+0.1	+0.0	+0.0	35.6	46.4	-10.8	Vert
			+17.5	-27.7	+5.0						
2	160.005M	37.9	+0.7	+0.8	+0.1	+0.0	+0.0	32.4	43.5	-11.1	Vert
			+15.6	-27.7	+5.0						
3	349.738M	38.8	+1.1	+1.5	+0.1	+15.2	+0.0	33.5	46.4	-12.9	Horiz
			+0.0	-28.2	+5.0						
4	320.000M	32.7	+1.0	+1.4	+0.1	+19.5	+0.0	31.6	46.4	-14.8	Vert
			+0.0	-28.1	+5.0						
5	399.985M	32.4	+1.2	+1.7	+0.2	+16.2	+0.0	28.3	46.4	-18.1	Vert
			+0.0	-28.4	+5.0						

Page 54 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 16:04:32
Equipment: BPL MV Gateway Sequence#: 40
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.863M	48.2	+0.4	+0.5	+0.1	+0.0	+0.0	38.0	39.1	-1.1	Vert
	QP		+11.7	-27.9	+5.0						
^	49.863M	50.2	+0.4	+0.5	+0.1	+0.0	+0.0	40.0	39.1	+0.9	Vert
			+11.7	-27.9	+5.0						
3	149.990M	38.0	+0.7	+0.8	+0.1	+0.0	+0.0	32.2	43.5	-11.3	Horiz
			+15.2	-27.6	+5.0						
4	349.763M	40.0	+1.1	+1.5	+0.1	+15.2	+0.0	34.7	46.4	-11.7	Horiz
			+0.0	-28.2	+5.0						
5	240.030M	35.7	+0.9	+1.2	+0.1	+0.0	+0.0	33.1	46.4	-13.3	Vert
			+17.9	-27.7	+5.0						
6	239.995M	34.5	+0.9	+1.2	+0.1	+0.0	+0.0	31.9	46.4	-14.5	Horiz
			+17.9	-27.7	+5.0						
7	319.985M	32.0	+1.0	+1.4	+0.1	+19.5	+0.0	30.9	46.4	-15.5	Vert
			+0.0	-28.1	+5.0						
8	49.850M	33.0	+0.4	+0.5	+0.1	+0.0	+0.0	22.8	39.1	-16.3	Horiz
			+11.7	-27.9	+5.0						

Page 55 of 301 Report No.: FC06-025 Volume 3 of 9



9	159.995M	31.9	+0.7	+0.8	+0.1	+0.0	+0.0	26.4	43.5	-17.1	Vert
			+15.6	-27.7	+5.0						
10	319.995M	29.8	+1.0	+1.4	+0.1	+19.5	+0.0	28.7	46.4	-17.7	Horiz
			+0.0	-28.1	+5.0						
11	160.020M	31.0	+0.7	+0.8	+0.1	+0.0	+0.0	25.5	43.5	-18.0	Horiz
			+15.6	-27.7	+5.0						
12	225.000M	30.1	+0.8	+1.1	+0.1	+0.0	+0.0	26.9	46.4	-19.5	Vert
			+17.5	-27.7	+5.0						
13	274.988M	27.0	+1.0	+1.3	+0.1	+0.0	+0.0	26.0	46.4	-20.4	Vert
			+19.5	-27.9	+5.0						
14	400.015M	29.8	+1.2	+1.7	+0.2	+16.2	+0.0	25.7	46.4	-20.7	Vert
			+0.0	-28.4	+5.0						

Page 56 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 15:50:40
Equipment: BPL MV Gateway Sequence#: 39
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from, 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.015M	43.1	+0.7	+0.8	+0.1	+0.0	+0.0	37.6	43.5	-5.9	Vert
			+15.6	-27.7	+5.0						
2	160.000M	43.1	+0.7	+0.8	+0.1	+0.0	+0.0	37.6	43.5	-5.9	Horiz
			+15.6	-27.7	+5.0						
3	49.850M	43.0	+0.4	+0.5	+0.1	+0.0	+0.0	32.8	39.1	-6.3	Vert
			+11.7	-27.9	+5.0						
4	240.015M	40.2	+0.9	+1.2	+0.1	+0.0	+0.0	37.6	46.4	-8.8	Horiz
			+17.9	-27.7	+5.0						
5	239.995M	37.0	+0.9	+1.2	+0.1	+0.0	+0.0	34.4	46.4	-12.0	Vert
			+17.9	-27.7	+5.0						
6	49.860M	33.8	+0.4	+0.5	+0.1	+0.0	+0.0	23.6	39.1	-15.5	Horiz
			+11.7	-27.9	+5.0						
7	225.095M	33.4	+0.8	+1.1	+0.1	+0.0	+0.0	30.2	46.4	-16.2	Vert
			+17.5	-27.7	+5.0						
8	225.020M	32.8	+0.8	+1.1	+0.1	+0.0	+0.0	29.6	46.4	-16.8	Horiz
			+17.5	-27.7	+5.0						

Page 57 of 301 Report No.: FC06-025 Volume 3 of 9



9	320.020M	29.4	+1.0	+1.4	+0.1	+19.5	+0.0	28.3	46.4	-18.1	Horiz
			+0.0	-28.1	+5.0						
10	320.000M	29.2	+1.0	+1.4	+0.1	+19.5	+0.0	28.1	46.4	-18.3	Vert
			+0.0	-28.1	+5.0						
11	480.065M	29.4	+1.3	+1.8	+0.2	+17.2	+0.0	26.8	46.4	-19.6	Vert
			+0.0	-28.1	+5.0						
12	480.065M	27.6	+1.3	+1.8	+0.2	+17.2	+0.0	25.0	46.4	-21.4	Horiz
			+0.0	-28.1	+5.0						
13	399.990M	23.5	+1.2	+1.7	+0.2	+16.2	+0.0	19.4	46.4	-27.0	Horiz
			+0.0	-28.4	+5.0						

Page 58 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 15:37:53
Equipment: BPL MV Gateway Sequence#: 38
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	ž , č					Test Distance: 10 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	dBμV/m	$dB\mu V/m$	dB	Ant
1	160.000M	47.2	+0.7	+0.8	+0.1	+0.0	+0.0	41.7	43.5	-1.8	Horiz
	QP		+15.6	-27.7	+5.0						
^	160.000M	49.1	+0.7	+0.8	+0.1	+0.0	+0.0	43.6	43.5	+0.1	Horiz
			+15.6	-27.7	+5.0						
3	49.853M	46.6	+0.4	+0.5	+0.1	+0.0	+0.0	36.4	39.1	-2.7	Vert
	QP		+11.7	-27.9	+5.0						
٨	49.853M	46.8	+0.4	+0.5	+0.1	+0.0	+0.0	36.6	39.1	-2.5	Vert
			+11.7	-27.9	+5.0						
5	160.010M	42.1	+0.7	+0.8	+0.1	+0.0	+0.0	36.6	43.5	-6.9	Vert
			+15.6	-27.7	+5.0						
6	240.035M	38.6	+0.9	+1.2	+0.1	+0.0	+0.0	36.0	46.4	-10.4	Horiz
			+17.9	-27.7	+5.0						
7	320.015M	35.2	+1.0	+1.4	+0.1	+19.5	+0.0	34.1	46.4	-12.3	Horiz
			+0.0	-28.1	+5.0						
8	49.860M	35.1	+0.4	+0.5	+0.1	+0.0	+0.0	24.8	39.1	-14.3	Horiz
			+11.7	-27.9	+5.0						

Page 59 of 301 Report No.: FC06-025 Volume 3 of 9



0	224 00014	24.2	ιΛ 0	.1.1	ι Λ 1	ι Ο Ο	ι Ο Ο	21.0	16.1	15 /	Mont
9	224.988M	34.2	+0.8	+1.1	+0.1	+0.0	+0.0	31.0	46.4	-15.4	Vert
			+17.5	-27.7	+5.0						
10	225.010M	30.6	+0.8	+1.1	+0.1	+0.0	+0.0	27.4	46.4	-19.0	Horiz
			+17.5	-27.7	+5.0						
11	480.065M	28.1	+1.3	+1.8	+0.2	+17.2	+0.0	25.4	46.4	-21.0	Horiz
			+0.0	-28.1	+5.0						
12	319.990M	25.7	+1.0	+1.4	+0.1	+19.5	+0.0	24.6	46.4	-21.8	Horiz
			+0.0	-28.1	+5.0						
13	400.005M	26.7	+1.2	+1.7	+0.2	+16.2	+0.0	22.6	46.4	-23.8	Horiz
			+0.0	-28.4	+5.0						

Page 60 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 15:29:54
Equipment: BPL MV Gateway Sequence#: 37
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.980M	36.0	+0.7	+0.8	+0.1	+0.0	+0.0	30.5	43.5	-13.0	Vert
			+15.6	-27.7	+5.0						
2	239.990M	29.4	+0.9	+1.2	+0.1	+0.0	+0.0	26.8	46.4	-19.6	Vert
			+17.9	-27.7	+5.0						
3	175.265M	28.7	+0.7	+1.0	+0.1	+0.0	+0.0	23.9	43.5	-19.6	Horiz
			+16.1	-27.7	+5.0						
4	319.995M	26.4	+1.0	+1.4	+0.1	+19.5	+0.0	25.3	46.4	-21.1	Vert
			+0.0	-28.1	+5.0						
5	149.985M	27.4	+0.7	+0.8	+0.1	+0.0	+0.0	21.6	43.5	-21.9	Horiz
			+15.2	-27.6	+5.0						
6	320.020M	25.3	+1.0	+1.4	+0.1	+19.5	+0.0	24.2	46.4	-22.2	Horiz
			+0.0	-28.1	+5.0						
7	159.990M	25.0	+0.7	+0.8	+0.1	+0.0	+0.0	19.5	43.5	-24.0	Horiz
			+15.6	-27.7	+5.0						
8	399.995M	26.4	+1.2	+1.7	+0.2	+16.2	+0.0	22.3	46.4	-24.1	Vert
			+0.0	-28.4	+5.0						

Page 61 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 15:15:52
Equipment: BPL MV Gateway Sequence#: 36
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410
T3=Cable P05298 2' RG214 N-N T4=Log00978A
T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction

Measui	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	160.010M	37.7	+0.7	+0.8	+0.1	+0.0	+0.0	32.2	43.5	-11.3	Vert
			+15.6	-27.7	+5.0						
2	124.650M	34.0	+0.6	+0.8	+0.1	+0.0	+0.0	26.1	43.5	-17.4	Vert
			+13.3	-27.7	+5.0						
3	175.263M	29.8	+0.7	+1.0	+0.1	+0.0	+0.0	25.0	43.5	-18.5	Horiz
			+16.1	-27.7	+5.0						
4	149.688M	29.1	+0.7	+0.8	+0.1	+0.0	+0.0	23.2	43.5	-20.3	Horiz
			+15.2	-27.6	+5.0						
5	160.027M	27.3	+0.7	+0.8	+0.1	+0.0	+0.0	21.8	43.5	-21.7	Horiz
			+15.6	-27.7	+5.0						
6	320.013M	23.6	+1.0	+1.4	+0.1	+19.5	+0.0	22.5	46.4	-23.9	Vert
			+0.0	-28.1	+5.0						
7	240.017M	24.3	+0.9	+1.2	+0.1	+0.0	+0.0	21.7	46.4	-24.7	Horiz
			+17.9	-27.7	+5.0						
8	74.925M	29.4	+0.5	+0.5	+0.1	+0.0	+0.0	14.0	39.1	-25.1	Vert
			+6.4	-27.9	+5.0						
9	400.013M	24.9	+1.2	+1.7	+0.2	+16.2	+0.0	20.8	46.4	-25.6	Vert
			+0.0	-28.4	+5.0						

Page 62 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:4/25/2006Test Type:Radiated ScanTime:09:50:02Equipment:BPL MV GatewaySequence#:51

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Metei	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.985M	36.4	+0.7	+0.8	+0.1	+15.6	+0.0	30.9	43.5	-12.6	Vert
			-27.7	+5.0							
2	250.020M	35.8	+0.9	+1.2	+0.1	+18.1	+0.0	33.3	46.4	-13.1	Horiz
			-27.8	+5.0							
3	149.990M	32.4	+0.7	+0.8	+0.1	+15.2	+0.0	26.6	43.5	-16.9	Horiz
			-27.6	+5.0							
4	160.020M	31.7	+0.7	+0.8	+0.1	+15.6	+0.0	26.1	43.5	-17.4	Horiz
			-27.7	+5.0							
5	225.065M	30.7	+0.8	+1.1	+0.1	+17.5	+0.0	27.5	46.4	-18.9	Vert
			-27.7	+5.0							
6	239.985M	29.1	+0.9	+1.2	+0.1	+17.9	+0.0	26.5	46.4	-19.9	Vert
			-27.7	+5.0							

Page 63 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/25/2006
Test Type: Radiated Scan Time: 09:43:10
Equipment: BPL MV Gateway Sequence#: 50
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.960M	40.3	+0.7	+0.8	+0.1	+15.6	+0.0	34.8	43.5	-8.7	Vert
			-27.7	+5.0							
2	239.975M	33.3	+0.9	+1.2	+0.1	+17.9	+0.0	30.7	46.4	-15.7	Vert
			-27.7	+5.0							
3	159.985M	32.4	+0.7	+0.8	+0.1	+15.6	+0.0	26.9	43.5	-16.6	Horiz
			-27.7	+5.0							
4	239.995M	32.3	+0.9	+1.2	+0.1	+17.9	+0.0	29.7	46.4	-16.7	Horiz
			-27.7	+5.0							
5	224.990M	28.3	+0.8	+1.1	+0.1	+17.5	+0.0	25.0	46.4	-21.4	Horiz
			-27.7	+5.0							

Page 64 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/25/2006
Test Type: Radiated Scan Time: 09:37:19
Equipment: BPL MV Gateway Sequence#: 49
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	Reading listed by margin.			Test Distance: 10 Meters			rs		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.990M	41.7	+0.7	+0.8	+0.1	+0.0	+0.0	36.2	43.5	-7.3	Vert
			+15.6	-27.7	+5.0						
2	239.995M	41.2	+0.9	+1.2	+0.1	+0.0	+0.0	38.6	46.4	-7.8	Vert
			+17.9	-27.7	+5.0						
3	160.030M	38.7	+0.7	+0.8	+0.1	+0.0	+0.0	33.2	43.5	-10.3	Horiz
			+15.6	-27.7	+5.0						
4	149.985M	37.3	+0.7	+0.8	+0.1	+0.0	+0.0	31.5	43.5	-12.0	Horiz
			+15.2	-27.6	+5.0						
5	240.000M	36.5	+0.9	+1.2	+0.1	+0.0	+0.0	33.9	46.4	-12.5	Horiz
			+17.9	-27.7	+5.0						
6	225.090M	33.0	+0.8	+1.1	+0.1	+0.0	+0.0	29.8	46.4	-16.6	Vert
			+17.5	-27.7	+5.0						
7	480.050M	27.9	+1.3	+1.8	+0.2	+17.2	+0.0	25.3	46.4	-21.1	Vert
			+0.0	-28.1	+5.0						
8	399.963M	26.8	+1.2	+1.7	+0.2	+16.2	+0.0	22.7	46.4	-23.7	Horiz
			+0.0	-28.4	+5.0						

Page 65 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/25/2006
Test Type: Radiated Scan Time: 09:27:25
Equipment: BPL MV Gateway Sequence#: 48

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function Manufacturer	Model #	S/N	
-----------------------	---------	-----	--

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.005M	41.1	+0.9	+1.2	+0.1	+0.0	+0.0	38.5	46.4	-7.9	Vert
			+17.9	-27.7	+5.0						
2	160.000M	40.5	+0.7	+0.8	+0.1	+0.0	+0.0	35.0	43.5	-8.5	Horiz
			+15.6	-27.7	+5.0						
3	160.005M	35.3	+0.7	+0.8	+0.1	+0.0	+0.0	29.8	43.5	-13.7	Vert
			+15.6	-27.7	+5.0						
4	240.025M	34.9	+0.9	+1.2	+0.1	+0.0	+0.0	32.3	46.4	-14.1	Horiz
			+17.9	-27.7	+5.0						
5	250.025M	28.5	+0.9	+1.2	+0.1	+0.0	+0.0	26.0	46.4	-20.4	Horiz
			+18.1	-27.8	+5.0						
6	399.963M	29.6	+1.2	+1.7	+0.2	+16.2	+0.0	25.5	46.4	-20.9	Horiz
			+0.0	-28.4	+5.0						
7	274.975M	26.4	+1.0	+1.3	+0.1	+0.0	+0.0	25.4	46.4	-21.0	Horiz
			+19.5	-27.9	+5.0						
8	274.960M	25.7	+1.0	+1.3	+0.1	+0.0	+0.0	24.7	46.4	-21.7	Vert
			+19.5	-27.9	+5.0						
9	399.938M	27.8	+1.2	+1.7	+0.2	+16.2	+0.0	23.7	46.4	-22.7	Vert
			+0.0	-28.4	+5.0						

Page 66 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 17:04:40
Equipment: PDI MV Cetavia: 47

Equipment: BPL MV Gateway Sequence#: 47

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.000M	43.7	+0.9	+1.2	+0.1	+0.0	+0.0	41.1	46.4	-5.3	Horiz
			+17.9	-27.7	+5.0						
2	175.245M	36.9	+0.7	+1.0	+0.1	+0.0	+0.0	32.1	43.5	-11.4	Vert
			+16.1	-27.7	+5.0						
3	239.995M	37.1	+0.9	+1.2	+0.1	+0.0	+0.0	34.4	46.4	-12.0	Vert
			+17.9	-27.7	+5.0						
4	160.000M	36.3	+0.7	+0.8	+0.1	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+15.6	-27.7	+5.0						
5	159.995M	35.6	+0.7	+0.8	+0.1	+0.0	+0.0	30.1	43.5	-13.4	Vert
			+15.6	-27.7	+5.0						
6	320.010M	30.3	+1.0	+1.4	+0.1	+19.5	+0.0	29.2	46.4	-17.2	Horiz
			+0.0	-28.1	+5.0						
7	400.030M	27.7	+1.2	+1.7	+0.2	+16.2	+0.0	23.6	46.4	-22.8	Vert
			+0.0	-28.4	+5.0						
8	240.000M	23.5	+0.9	+1.2	+0.1	+0.0	+0.0	20.9	46.4	-25.5	Horiz
			+17.9	-27.7	+5.0						

Page 67 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:4/24/2006Test Type:Radiated ScanTime:16:59:01Equipment:BPL MV GatewaySequence#:46Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	dB Ant -3.7 Horiz -1.3 Horiz -5.7 Horiz -8.4 Vert			
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar			
			T5	T6	T7									
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant			
1	240.010M	45.3	+0.9	+1.2	+0.1	+0.0	+0.0	42.7	46.4	-3.7	Horiz			
	QP		+17.9	-27.7	+5.0									
٨	240.010M	47.7	+0.9	+1.2	+0.1	+0.0	+0.0	45.1	46.4	-1.3	Horiz			
			+17.9	-27.7	+5.0									
3	160.000M	43.3	+0.7	+0.8	+0.1	+0.0	+0.0	37.8	43.5	-5.7	Horiz			
			+15.6	-27.7	+5.0									
4	160.010M	40.6	+0.7	+0.8	+0.1	+0.0	+0.0	35.1	43.5	-8.4	Vert			
			+15.6	-27.7	+5.0									
5	240.025M	38.3	+0.9	+1.2	+0.1	+0.0	+0.0	35.7	46.4	-10.7	Vert			
			+17.9	-27.7	+5.0									
6	320.000M	31.9	+1.0	+1.4	+0.1	+19.5	+0.0	30.8	46.4	-15.6	Horiz			
			+0.0	-28.1	+5.0									

Page 68 of 301 Report No.: FC06-025 Volume 3 of 9



7	225.040M	33.3	+0.8	+1.1	+0.1	+0.0	+0.0	30.0	46.4	-16.4	Horiz
			+17.5	-27.7	+5.0						
8	320.000M	30.5	+1.0	+1.4	+0.1	+19.5	+0.0	29.4	46.4	-17.0	Vert
			+0.0	-28.1	+5.0						
9	250.015M	31.0	+0.9	+1.2	+0.1	+0.0	+0.0	28.5	46.4	-17.9	Horiz
			+18.1	-27.8	+5.0						
10	400.000M	28.3	+1.2	+1.7	+0.2	+16.2	+0.0	24.2	46.4	-22.2	Vert
			+0.0	-28.4	+5.0						

Page 69 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/24/2006
Test Type: Radiated Scan Time: 16:52:56
Equipment: BPL MV Gateway Sequence#: 45

Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #5 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.025M	42.5	+0.7	+0.8	+0.1	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+15.6	-27.7	+5.0						
2	240.025M	38.3	+0.9	+1.2	+0.1	+0.0	+0.0	35.7	46.4	-10.7	Vert
			+17.9	-27.7	+5.0						
3	225.025M	34.5	+0.8	+1.1	+0.1	+0.0	+0.0	31.3	46.4	-15.1	Vert
			+17.5	-27.7	+5.0						
4	319.980M	31.1	+1.0	+1.4	+0.1	+19.5	+0.0	30.0	46.4	-16.4	Vert
			+0.0	-28.1	+5.0						
5	240.063M	31.5	+0.9	+1.2	+0.1	+0.0	+0.0	28.9	46.4	-17.5	Horiz
			+17.9	-27.7	+5.0						
6	320.025M	29.2	+1.0	+1.4	+0.1	+19.5	+0.0	28.1	46.4	-18.3	Horiz
			+0.0	-28.1	+5.0						
7	399.985M	29.1	+1.2	+1.7	+0.2	+16.2	+0.0	25.0	46.4	-21.4	Vert
			+0.0	-28.4	+5.0						

Page 70 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:45:30
Equipment: BPL MV Gateway Sequence#: 197
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	's	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	dBμV/m	dBµV/m	dB	Ant
1	160.035M	38.2	+0.7	+0.8	+0.1	-27.7	+0.0	32.7	43.5	-10.8	Horiz
			+15.6	+0.0	+5.0						
2	160.005M	37.4	+0.7	+0.8	+0.1	-27.7	+0.0	31.9	43.5	-11.6	Vert
			+15.6	+0.0	+5.0						
3	240.015M	34.6	+0.9	+1.2	+0.1	-27.7	+0.0	32.0	46.4	-14.4	Vert
			+17.9	+0.0	+5.0						
4	240.040M	33.4	+0.9	+1.2	+0.1	-27.7	+0.0	30.8	46.4	-15.6	Horiz
			+17.9	+0.0	+5.0						
5	319.965M	30.2	+1.0	+1.4	+0.1	-28.1	+0.0	29.1	46.4	-17.3	Vert
			+0.0	+19.5	+5.0						
6	479.985M	30.5	+1.3	+1.8	+0.2	-28.1	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	+17.2	+5.0						
7	320.020M	28.8	+1.0	+1.4	+0.1	-28.1	+0.0	27.7	46.4	-18.7	Horiz
			+0.0	+19.5	+5.0						
8	480.060M	28.7	+1.3	+1.8	+0.2	-28.1	+0.0	26.1	46.4	-20.3	Vert
			+0.0	+17.2	+5.0						
9	399.990M	29.5	+1.2	+1.7	+0.2	-28.4	+0.0	25.4	46.4	-21.0	Horiz
			+0.0	+16.2	+5.0						

Page 71 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:47:21
Equipment: BPL MV Gateway Sequence#: 196
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	320.015M	31.3	+1.0	+1.4	+0.1	-28.1	+0.0	30.2	46.4	-16.2	Horiz
			+0.0	+19.5	+5.0						
2	160.010M	32.7	+0.7	+0.8	+0.1	-27.7	+0.0	27.2	43.5	-16.3	Vert
			+15.6	+0.0	+5.0						
3	240.030M	31.9	+0.9	+1.2	+0.1	-27.7	+0.0	29.3	46.4	-17.1	Horiz
			+17.9	+0.0	+5.0						
4	319.995M	30.0	+1.0	+1.4	+0.1	-28.1	+0.0	28.9	46.4	-17.5	Vert
			+0.0	+19.5	+5.0						
5	240.040M	31.0	+0.9	+1.2	+0.1	-27.7	+0.0	28.4	46.4	-18.0	Vert
			+17.9	+0.0	+5.0						
6	480.025M	29.7	+1.3	+1.8	+0.2	-28.1	+0.0	27.0	46.4	-19.4	Horiz
			+0.0	+17.2	+5.0						
7	160.050M	28.9	+0.7	+0.8	+0.1	-27.7	+0.0	23.4	43.5	-20.1	Horiz
			+15.6	+0.0	+5.0						
8	399.995M	30.1	+1.2	+1.7	+0.2	-28.4	+0.0	26.0	46.4	-20.4	Horiz
			+0.0	+16.2	+5.0						

Page 72 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:48:42
Equipment: BPL MV Gateway Sequence#: 195
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	249.980M	34.3	+0.9	+1.2	+0.1	-27.8	+0.0	31.8	46.4	-14.6	Vert
			+18.1	+0.0	+5.0						
2	159.995M	34.4	+0.7	+0.8	+0.1	-27.7	+0.0	28.9	43.5	-14.6	Horiz
			+15.6	+0.0	+5.0						
3	319.995M	32.6	+1.0	+1.4	+0.1	-28.1	+0.0	31.4	46.4	-15.0	Vert
			+0.0	+19.5	+5.0						
4	159.980M	32.3	+0.7	+0.8	+0.1	-27.7	+0.0	26.8	43.5	-16.7	Vert
			+15.6	+0.0	+5.0						
5	320.005M	28.5	+1.0	+1.4	+0.1	-28.1	+0.0	27.4	46.4	-19.0	Horiz
			+0.0	+19.5	+5.0						
6	240.005M	29.8	+0.9	+1.2	+0.1	-27.7	+0.0	27.2	46.4	-19.2	Vert
			+17.9	+0.0	+5.0						
7	240.015M	29.7	+0.9	+1.2	+0.1	-27.7	+0.0	27.0	46.4	-19.4	Horiz
			+17.9	+0.0	+5.0						

Page 73 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:50:06
Equipment: BPL MV Gateway Sequence#: 194
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N		
BPL MV Gateway*	Corinex	MV Gateway	6749420821		

### Support Devices:

**			
Function	Manufacturer	Model #	S/N

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	dBμV/m	dB	Ant
1	149.965M	35.4	+0.7	+0.8	+0.1	-27.6	+0.0	29.6	43.5	-13.9	Horiz
			+15.2	+0.0	+5.0						
2	160.080M	33.1	+0.7	+0.8	+0.1	-27.7	+0.0	27.6	43.5	-15.9	Vert
			+15.6	+0.0	+5.0						
3	320.015M	29.9	+1.0	+1.4	+0.1	-28.1	+0.0	28.8	46.4	-17.6	Vert
			+0.0	+19.5	+5.0						
4	319.990M	29.0	+1.0	+1.4	+0.1	-28.1	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	+19.5	+5.0						
5	160.050M	29.4	+0.7	+0.8	+0.1	-27.7	+0.0	23.9	43.5	-19.6	Horiz
			+15.6	+0.0	+5.0						
6	240.050M	28.5	+0.9	+1.2	+0.1	-27.7	+0.0	25.9	46.4	-20.5	Horiz
			+17.9	+0.0	+5.0						

Page 74 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:38:40
Equipment: BPL MV Gateway Sequence#: 201
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals above 300MHz

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567 T5=ANT-AN00503-010505 T6=5dB Height Correction

Measu	Measurement Data:		Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	149.995M	35.0	+0.7	+0.8	+0.1	-27.6	+0.0	29.2	43.5	-14.3	Horiz
			+15.2	+5.0							
2	159.985M	32.6	+0.7	+0.8	+0.1	-27.7	+0.0	27.1	43.5	-16.4	Vert
			+15.6	+5.0							
3	225.055M	28.3	+0.8	+1.1	+0.1	-27.7	+0.0	25.1	46.4	-21.3	Vert
			+17.5	+5.0							

Page 75 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:35:22
Equipment: BPL MV Gateway Sequence#: 202
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals above 300MHz

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567 T5=ANT-AN00503-010505 T6=5dB Height Correction

Λ	Measurement Data:		Re	Reading listed by margin.			Test Distance: 10 Meters					
	#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6							
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	160.005M	35.0	+0.7	+0.8	+0.1	-27.7	+0.0	29.5	43.5	-14.0	Vert
				+15.6	+5.0							
	2	149.970M	32.2	+0.7	+0.8	+0.1	-27.6	+0.0	26.4	43.5	-17.1	Horiz
				+15.2	+5.0							
	3	160.005M	27.5	+0.7	+0.8	+0.1	-27.7	+0.0	22.0	43.5	-21.5	Horiz
				+15.6	+5.0							

Page 76 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:33:54
Equipment: BPL MV Gateway Sequence#: 203
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measui	Measurement Data: Reading listed by margin.					Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	149.995M	37.3	+0.7	+0.8	+0.1	-27.6	+0.0	31.5	43.5	-12.0	Horiz
			+15.2	+0.0	+5.0						
2	160.010M	35.3	+0.7	+0.8	+0.1	-27.7	+0.0	29.8	43.5	-13.7	Vert
			+15.6	+0.0	+5.0						
3	239.990M	30.9	+0.9	+1.2	+0.1	-27.7	+0.0	28.3	46.4	-18.1	Horiz
			+17.9	+0.0	+5.0						
4	240.005M	29.6	+0.9	+1.2	+0.1	-27.7	+0.0	26.9	46.4	-19.5	Vert
			+17.9	+0.0	+5.0						
5	320.030M	27.2	+1.0	+1.4	+0.1	-28.1	+0.0	26.1	46.4	-20.3	Vert
			+0.0	+19.5	+5.0						

Page 77 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:31:55
Equipment: BPL MV Gateway Sequence#: 204
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.040M	41.2	+0.7	+0.8	+0.1	-27.7	+0.0	35.7	43.5	-7.8	Vert
			+15.6	+0.0	+5.0						
2	149.990M	39.1	+0.7	+0.8	+0.1	-27.6	+0.0	33.3	43.5	-10.2	Horiz
			+15.2	+0.0	+5.0						
3	160.025M	34.3	+0.7	+0.8	+0.1	-27.7	+0.0	28.8	43.5	-14.7	Horiz
			+15.6	+0.0	+5.0						
4	240.025M	33.0	+0.9	+1.2	+0.1	-27.7	+0.0	30.4	46.4	-16.0	Vert
			+17.9	+0.0	+5.0						
5	240.050M	32.8	+0.9	+1.2	+0.1	-27.7	+0.0	30.2	46.4	-16.2	Horiz
			+17.9	+0.0	+5.0						
6	319.980M	28.7	+1.0	+1.4	+0.1	-28.1	+0.0	27.6	46.4	-18.8	Vert
			+0.0	+19.5	+5.0						

Page 78 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:29:19
Equipment: BPL MV Gateway Sequence#: 205
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	dBμV/m	dB	Ant
1	160.000M	43.0	+0.7	+0.8	+0.1	-27.7	+0.0	37.5	43.5	-6.0	Horiz
			+15.6	+0.0	+5.0						
2	159.995M	41.2	+0.7	+0.8	+0.1	-27.7	+0.0	35.7	43.5	-7.8	Vert
			+15.6	+0.0	+5.0						
3	240.035M	40.1	+0.9	+1.2	+0.1	-27.7	+0.0	37.5	46.4	-8.9	Horiz
			+17.9	+0.0	+5.0						
4	240.015M	38.5	+0.9	+1.2	+0.1	-27.7	+0.0	35.9	46.4	-10.5	Vert
			+17.9	+0.0	+5.0						
5	319.995M	29.7	+1.0	+1.4	+0.1	-28.1	+0.0	28.6	46.4	-17.8	Horiz
			+0.0	+19.5	+5.0						
6	320.005M	29.0	+1.0	+1.4	+0.1	-28.1	+0.0	27.9	46.4	-18.5	Vert
			+0.0	+19.5	+5.0						

Page 79 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:27:45
Equipment: BPL MV Gateway Sequence#: 206
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.990M	42.0	+0.7	+0.8	+0.1	-27.7	+0.0	36.5	43.5	-7.0	Vert
			+15.6	+0.0	+5.0						
2	320.000M	34.1	+1.0	+1.4	+0.1	-28.1	+0.0	33.0	46.4	-13.4	Vert
			+0.0	+19.5	+5.0						
3	240.005M	34.8	+0.9	+1.2	+0.1	-27.7	+0.0	32.2	46.4	-14.2	Vert
			+17.9	+0.0	+5.0						
4	159.990M	33.6	+0.7	+0.8	+0.1	-27.7	+0.0	28.1	43.5	-15.4	Horiz
			+15.6	+0.0	+5.0						
5	320.005M	31.8	+1.0	+1.4	+0.1	-28.1	+0.0	30.7	46.4	-15.7	Horiz
			+0.0	+19.5	+5.0						
6	240.020M	32.6	+0.9	+1.2	+0.1	-27.7	+0.0	30.0	46.4	-16.4	Horiz
			+17.9	+0.0	+5.0						
7	400.005M	32.4	+1.2	+1.7	+0.2	-28.4	+0.0	28.3	46.4	-18.1	Vert
			+0.0	+16.2	+5.0						

Page 80 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:26:19
Equipment: BPL MV Gateway Sequence#: 207
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals above 300MHz.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567 T5=ANT-AN00503-010505 T6=5dB Height Correction

Measur	ement Data:	R	Reading listed by margin.				Te	st Distance	e: 10 Mete	ers
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Marg
	_	_	Tr.	T/C					=	_

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.010M	39.9	+0.7	+0.8	+0.1	-27.7	+0.0	34.4	43.5	-9.1	Vert
			+15.6	+5.0							
2	160.010M	32.8	+0.7	+0.8	+0.1	-27.7	+0.0	27.3	43.5	-16.2	Horiz
			+15.6	+5.0							
3	240.000M	30.8	+0.9	+1.2	+0.1	-27.7	+0.0	28.2	46.4	-18.2	Vert
			+17.9	+5.0							

Page 81 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:24:12
Equipment: BPL MV Gateway Sequence#: 208
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals above 300MHz.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567 T5=ANT-AN00503-010505 T6=5dB Height Correction

Measu	Measurement Data: Reading listed by margin.					Те	est Distance	e: 10 Meter	rs		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.995M	36.2	+0.7	+0.8	+0.1	-27.7	+0.0	30.7	43.5	-12.8	Vert
			+15.6	+5.0							
2	240.000M	30.8	+0.9	+1.2	+0.1	-27.7	+0.0	28.2	46.4	-18.2	Vert
			+17.9	+5.0							
3	159.960M	30.4	+0.7	+0.8	+0.1	-27.7	+0.0	24.9	43.5	-18.6	Horiz
			+15.6	+5.0							

Page 82 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 16:16:09
Equipment: BPL MV Gateway Sequence#: 209
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
---------------------------	---------------

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measurement Data: Reading listed by margin.				Те	est Distance	e: 10 Meter	rs				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.985M	38.0	+0.7	+0.8	+0.1	-27.7	+0.0	32.5	43.5	-11.0	Vert
			+15.6	+0.0	+5.0						
2	480.025M	30.1	+1.3	+1.8	+0.2	-28.1	+0.0	27.5	46.4	-18.9	Horiz
			+0.0	+17.2	+5.0						

Page 83 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:39:19
Equipment: BPL MV Gateway Sequence#: 200
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ading listed by margin. Test Distance: 10 Meters							
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.970M	36.0	+0.7	+0.8	+0.1	-27.7	+0.0	30.5	43.5	-13.0	Vert
			+15.6	+0.0	+5.0						
2	320.025M	32.1	+1.0	+1.4	+0.1	-28.1	+0.0	31.0	46.4	-15.4	Vert
			+0.0	+19.5	+5.0						
3	319.980M	29.2	+1.0	+1.4	+0.1	-28.1	+0.0	28.1	46.4	-18.3	Horiz
			+0.0	+19.5	+5.0						
4	479.980M	28.0	+1.3	+1.8	+0.2	-28.1	+0.0	25.4	46.4	-21.0	Horiz
			+0.0	+17.2	+5.0						
5	149.995M	27.8	+0.7	+0.8	+0.1	-27.6	+0.0	22.0	43.5	-21.5	Horiz
			+15.2	+0.0	+5.0						

Page 84 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:40:54
Equipment: BPL MV Gateway Sequence#: 199
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	159.995M	34.3	+0.7	+0.8	+0.1	-27.7	+0.0	28.8	43.5	-14.7	Vert
			+15.6	+0.0	+5.0						
2	319.990M	32.4	+1.0	+1.4	+0.1	-28.1	+0.0	31.3	46.4	-15.1	Vert
			+0.0	+19.5	+5.0						
3	240.025M	32.5	+0.9	+1.2	+0.1	-27.7	+0.0	29.9	46.4	-16.5	Vert
			+17.9	+0.0	+5.0						
4	480.015M	28.3	+1.3	+1.8	+0.2	-28.1	+0.0	25.7	46.4	-20.7	Horiz
			+0.0	+17.2	+5.0						
5	150.010M	27.9	+0.7	+0.8	+0.1	-27.6	+0.0	22.1	43.5	-21.4	Horiz
			+15.2	+0.0	+5.0						
6	400.005M	28.6	+1.2	+1.7	+0.2	-28.4	+0.0	24.5	46.4	-21.9	Horiz
			+0.0	+16.2	+5.0						

Page 85 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 15:43:06
Equipment: BPL MV Gateway Sequence#: 198
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #6 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Cable P05298 2' RG214 N-N T4=HP-8447D Pre Amp AN 00567

T5=ANT-AN00503-010505 T6=Log00978A

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.970M	37.6	+0.7	+0.8	+0.1	-27.7	+0.0	32.1	43.5	-11.4	Horiz
			+15.6	+0.0	+5.0						
2	160.000M	36.0	+0.7	+0.8	+0.1	-27.7	+0.0	30.5	43.5	-13.0	Vert
			+15.6	+0.0	+5.0						
3	240.020M	35.8	+0.9	+1.2	+0.1	-27.7	+0.0	33.2	46.4	-13.2	Vert
			+17.9	+0.0	+5.0						
4	319.990M	32.2	+1.0	+1.4	+0.1	-28.1	+0.0	31.1	46.4	-15.3	Horiz
			+0.0	+19.5	+5.0						
5	240.025M	33.7	+0.9	+1.2	+0.1	-27.7	+0.0	31.1	46.4	-15.3	Horiz
			+17.9	+0.0	+5.0						
6	319.990M	29.7	+1.0	+1.4	+0.1	-28.1	+0.0	28.6	46.4	-17.8	Vert
			+0.0	+19.5	+5.0						
7	480.005M	29.1	+1.3	+1.8	+0.2	-28.1	+0.0	26.5	46.4	-19.9	Horiz
			+0.0	+17.2	+5.0						
8	399.990M	29.3	+1.2	+1.7	+0.2	-28.4	+0.0	25.2	46.4	-21.2	Horiz
			+0.0	+16.2	+5.0						

Page 86 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:52:48
Equipment: BPL MV Gateway Sequence#: 143
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs.	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.985M	36.3	+0.7	+0.8	+0.1	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+15.6	-27.7	+5.0						
2	240.030M	34.6	+0.9	+1.2	+0.1	+0.0	+0.0	31.9	46.4	-14.5	Horiz
			+17.9	-27.7	+5.0						
3	224.990M	32.6	+0.8	+1.1	+0.1	+0.0	+0.0	29.4	46.4	-17.0	Horiz
			+17.5	-27.7	+5.0						
4	319.988M	29.0	+1.0	+1.4	+0.1	+19.5	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	-28.1	+5.0						
5	240.030M	28.1	+0.9	+1.2	+0.1	+0.0	+0.0	25.5	46.4	-20.9	Vert
			+17.9	-27.7	+5.0						
6	399.963M	28.1	+1.2	+1.7	+0.2	+16.2	+0.0	24.0	46.4	-22.4	Horiz
			+0.0	-28.4	+5.0						

Page 87 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:54:47
Equipment: BPL MV Gateway Sequence#: 142
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB for 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

1	T1=PO 05440 RG214/U Cable	T2=Cable 2410
1	T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measurement Data:		Re	Reading listed by margin.				Test Distance: 10 Meters					
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7						
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	160.050M	31.2	+0.7	+0.8	+0.1	+0.0	+0.0	25.7	43.5	-17.8	Horiz
				+15.6	-27.7	+5.0						
	2	400.013M	30.9	+1.2	+1.7	+0.2	+16.2	+0.0	26.8	46.4	-19.6	Vert
				+0.0	-28.4	+5.0						
	3	320.000M	27.8	+1.0	+1.4	+0.1	+19.5	+0.0	26.7	46.4	-19.7	Vert
				+0.0	-28.1	+5.0						

Page 88 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:58:33
Equipment: BPL MV Gateway Sequence#: 141
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line. No signals above 300MHz.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
I I I I O OSTTO NOZIT/O Cable	12-Cabic 2-10

T3=Cable P05298 2' RG214 N-N T4=ANT-AN00503-010505 T5=HP-8447D Pre Amp AN 00567 T6=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

Treating instead by margin.			8	Test Bistance: 10 Meters							
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.990M	36.3	+0.7	+0.8	+0.1	+15.6	+0.0	30.8	43.5	-12.7	Horiz
			-27.7	+5.0							
2	250.985M	28.6	+0.9	+1.2	+0.1	+18.2	+0.0	26.2	46.4	-20.2	Vert
			-27.8	+5.0					Noise floor	r	
3	175.270M	27.5	+0.7	+1.0	+0.1	+16.1	+0.0	22.7	43.5	-20.8	Vert
			-27.7	+5.0					Noise floor	r	
	# 1	# Freq MHz 1 159.990M 2 250.985M	# Freq Rdng  MHz dBμV  1 159.990M 36.3  2 250.985M 28.6	# Freq Rdng T1 T5 MHz dBµV dB 1 159.990M 36.3 +0.7 -27.7 2 250.985M 28.6 +0.9 -27.8 3 175.270M 27.5 +0.7	# Freq Rdng T1 T2 T5 T6 MHz $dB\mu V$ $dB$ $dB$ 1 159.990M 36.3 +0.7 +5.0 2 250.985M 28.6 +0.9 +1.2 -27.8 +5.0 3 175.270M 27.5 +0.7 +1.0	# Freq Rdng T1 T2 T3 T5 T6 MHz $dB\mu V$ $dB$ $dB$ $dB$ $dB$ 1 159.990M 36.3 +0.7 +0.8 +0.1 -27.7 +5.0 2 250.985M 28.6 +0.9 +1.2 +0.1 -27.8 +5.0 3 175.270M 27.5 +0.7 +1.0 +0.1	# Freq Rdng T1 T2 T3 T4  T5 T6  MHz $dB\mu V$ $dB$ $dB$ $dB$ $dB$ 1 159.990M 36.3 +0.7 +0.8 +0.1 +15.6  2 250.985M 28.6 +0.9 +1.2 +0.1 +18.2  -27.8 +5.0  3 175.270M 27.5 +0.7 +1.0 +0.1 +16.1	# Freq Rdng T1 T2 T3 T4 Dist T5 T6 MHz $dB\mu V$ $dB$ $dB$ $dB$ $dB$ $dB$ Table 1 159.990M 36.3 +0.7 +0.8 +0.1 +15.6 +0.0 -27.7 +5.0   2 250.985M 28.6 +0.9 +1.2 +0.1 +18.2 +0.0 -27.8 +5.0   3 175.270M 27.5 +0.7 +1.0 +0.1 +16.1 +0.0	# Freq Rdng T1 T2 T3 T4 Dist Corr T5 T6 MHz dB $\mu$ V dB dB dB dB dB Table dB $\mu$ V/m 1 159.990M 36.3 +0.7 +0.8 +0.1 +15.6 +0.0 30.8 -27.7 +5.0   2 250.985M 28.6 +0.9 +1.2 +0.1 +18.2 +0.0 26.2 -27.8 +5.0   3 175.270M 27.5 +0.7 +1.0 +0.1 +16.1 +0.0 22.7	# Freq Rdng T1 T2 T3 T4 Dist Corr Spec T5 T6 MHz $dB\mu V$ $dB$ $dB$ $dB$ $dB$ Table $dB\mu V/m$ $dB\mu V/m$ 1 159.990M 36.3 +0.7 +0.8 +0.1 +15.6 +0.0 30.8 43.5 -27.7 +5.0 2 250.985M 28.6 +0.9 +1.2 +0.1 +18.2 +0.0 26.2 46.4 Noise floor 3 175.270M 27.5 +0.7 +1.0 +0.1 +16.1 +0.0 22.7 43.5	# Freq Rdng T1 T2 T3 T4 Dist Corr Spec Margin T5 T6       MHz $dB\mu V$ $dB$ $dB$ $dB$ $dB$ $dB$ Table $dB\mu V/m$ $dB\mu V/m$ $dB$ 1 159.990M 36.3 +0.7 +0.8 +0.1 +15.6 +0.0 30.8 43.5 -12.7 -27.7 +5.0    2 250.985M 28.6 +0.9 +1.2 +0.1 +18.2 +0.0 26.2 46.4 -20.2 Noise floor    3 175.270M 27.5 +0.7 +1.0 +0.1 +16.1 +0.0 22.7 43.5 -20.8

Page 89 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:20:18
Equipment: BPL MV Gateway Sequence#: 140
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

## Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

1	T1=PO 05440 RG214/U Cable	T2=Cable 2410
1	T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measurement Data:		Reading listed by margin.			Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.030M	36.2	+0.7	+0.8	+0.1	+0.0	+0.0	30.7	43.5	-12.8	Horiz
			+15.6	-27.7	+5.0						
2	320.000M	31.7	+1.0	+1.4	+0.1	+19.5	+0.0	30.6	46.4	-15.8	Vert
			+0.0	-28.1	+5.0						
3	320.013M	31.5	+1.0	+1.4	+0.1	+19.5	+0.0	30.4	46.4	-16.0	Horiz
			+0.0	-28.1	+5.0						

Page 90 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:23:45
Equipment: BPL MV Gateway Sequence#: 139
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# **Test Conditions / Notes:**

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	37.9	+0.7	+0.8	+0.1	+0.0	+0.0	32.4	43.5	-11.1	Horiz
			+15.6	-27.7	+5.0						
2	319.988M	33.1	+1.0	+1.4	+0.1	+19.5	+0.0	32.0	46.4	-14.4	Vert
			+0.0	-28.1	+5.0						
3	319.980M	30.7	+1.0	+1.4	+0.1	+19.5	+0.0	29.6	46.4	-16.8	Horiz
			+0.0	-28.1	+5.0						
4	349.775M	33.2	+1.1	+1.5	+0.1	+15.2	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	-28.2	+5.0						

Page 91 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:25:35
Equipment: BPL MV Gateway Sequence#: 138
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

## Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T2=Cable 2410
T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs.	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	149.970M	31.1	+0.7	+0.8	+0.1	+0.0	+0.0	25.3	43.5	-18.2	Horiz
			+15.2	-27.6	+5.0						
2	320.025M	28.6	+1.0	+1.4	+0.1	+19.5	+0.0	27.5	46.4	-18.9	Horiz
			+0.0	-28.1	+5.0						
3	320.000M	28.4	+1.0	+1.4	+0.1	+19.5	+0.0	27.3	46.4	-19.2	Vert
			+0.0	-28.1	+5.0						
4	160.000M	28.5	+0.7	+0.8	+0.1	+0.0	+0.0	23.0	43.5	-20.5	Horiz
			+15.6	-27.7	+5.0						
5	400.000M	29.6	+1.2	+1.7	+0.2	+16.2	+0.0	25.5	46.4	-20.9	Vert
			+0.0	-28.4	+5.0						
6	479.995M	27.7	+1.3	+1.8	+0.2	+17.2	+0.0	25.1	46.4	-21.3	Vert
			+0.0	-28.1	+5.0						

Page 92 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:27:55
Equipment: BPL MV Gateway Sequence#: 137
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	47.9	+0.7	+0.8	+0.1	+0.0	+0.0	42.4	43.5	-1.1	Horiz
			+15.6	-27.7	+5.0						
2	240.000M	34.9	+0.9	+1.2	+0.1	+0.0	+0.0	32.3	46.4	-14.1	Horiz
			+17.9	-27.7	+5.0						
3	320.013M	32.5	+1.0	+1.4	+0.1	+19.5	+0.0	31.4	46.4	-15.0	Vert
			+0.0	-28.1	+5.0						
4	240.005M	33.9	+0.9	+1.2	+0.1	+0.0	+0.0	31.3	46.4	-15.1	Vert
			+17.9	-27.7	+5.0						
5	159.995M	31.4	+0.7	+0.8	+0.1	+0.0	+0.0	25.9	43.5	-17.6	Vert
			+15.6	-27.7	+5.0						
6	400.000M	32.7	+1.2	+1.7	+0.2	+16.2	+0.0	28.6	46.4	-17.8	Vert
			+0.0	-28.4	+5.0						
7	320.038M	29.0	+1.0	+1.4	+0.1	+19.5	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	-28.1	+5.0						

Page 93 of 301 Report No.: FC06-025 Volume 3 of 9



8	225.000M	30.4	+0.8	+1.1	+0.1	+0.0	+0.0	27.2	46.4	-19.2	Horiz
			+17.5	-27.7	+5.0						
9	399.988M	30.9	+1.2	+1.7	+0.2	+16.2	+0.0	26.8	46.4	-19.6	Horiz
			+0.0	-28.4	+5.0						
10	479.963M	28.4	+1.3	+1.8	+0.2	+17.2	+0.0	25.8	46.4	-20.6	Vert
			+0.0	-28.1	+5.0						

Page 94 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:29:54
Equipment: BPL MV Gateway Sequence#: 136
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.010M	46.6	+0.7	+0.8	+0.1	+0.0	+0.0	41.1	43.5	-2.4	Horiz
			+15.6	-27.7	+5.0						
2	240.020M	41.1	+0.9	+1.2	+0.1	+0.0	+0.0	38.5	46.4	-7.9	Horiz
			+17.9	-27.7	+5.0						
3	319.975M	34.2	+1.0	+1.4	+0.1	+19.5	+0.0	33.1	46.4	-13.3	Vert
			+0.0	-28.1	+5.0						
4	400.000M	33.0	+1.2	+1.7	+0.2	+16.2	+0.0	28.9	46.4	-17.5	Vert
			+0.0	-28.4	+5.0						
5	320.000M	29.6	+1.0	+1.4	+0.1	+19.5	+0.0	28.5	46.4	-17.9	Horiz
			+0.0	-28.1	+5.0						
6	399.975M	32.1	+1.2	+1.7	+0.2	+16.2	+0.0	28.0	46.4	-18.4	Horiz
			+0.0	-28.4	+5.0						
7	159.980M	30.4	+0.7	+0.8	+0.1	+0.0	+0.0	24.9	43.5	-18.6	Vert
			+15.6	-27.7	+5.0						

Page 95 of 301 Report No.: FC06-025 Volume 3 of 9



8	480.000M	29.3	+1.3	+1.8	+0.2	+17.2	+0.0	26.7	46.4	-19.7	Horiz
			+0.0	-28.1	+5.0						
9	480.025M	29.2	+1.3	+1.8	+0.2	+17.2	+0.0	26.6	46.4	-19.8	Vert
			+0.0	-28.1	+5.0						
10	239.980M	28.7	+0.9	+1.2	+0.1	+0.0	+0.0	26.1	46.4	-20.3	Vert
			+17.9	-27.7	+5.0						
11	224.985M	29.1	+0.8	+1.1	+0.1	+0.0	+0.0	25.9	46.4	-20.5	Horiz
			+17.5	-27.7	+5.0						

Page 96 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:31:39
Equipment: BPL MV Gateway Sequence#: 135
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	159.990M	41.7	+0.7	+0.8	+0.1	+0.0	+0.0	36.2	43.5	-7.3	Vert
			+15.6	-27.7	+5.0						
2	240.020M	36.1	+0.9	+1.2	+0.1	+0.0	+0.0	33.5	46.4	-12.9	Vert
			+17.9	-27.7	+5.0						
3	320.025M	33.6	+1.0	+1.4	+0.1	+19.5	+0.0	32.5	46.4	-13.9	Horiz
			+0.0	-28.1	+5.0						
4	319.988M	33.2	+1.0	+1.4	+0.1	+19.5	+0.0	32.1	46.4	-14.3	Vert
			+0.0	-28.1	+5.0						
5	159.995M	34.2	+0.7	+0.8	+0.1	+0.0	+0.0	28.7	43.5	-14.8	Horiz
			+15.6	-27.7	+5.0						
6	400.000M	35.1	+1.2	+1.7	+0.2	+16.2	+0.0	31.0	46.4	-15.4	Vert
			+0.0	-28.4	+5.0						
7	240.030M	32.4	+0.9	+1.2	+0.1	+0.0	+0.0	29.8	46.4	-16.6	Horiz
			+17.9	-27.7	+5.0						

Page 97 of 301 Report No.: FC06-025 Volume 3 of 9



8	480.063M	32.2	+1.3	+1.8	+0.2	+17.2	+0.0	29.6	46.4	-16.8	Vert
			+0.0	-28.1	+5.0						
9	480.025M	30.0	+1.3	+1.8	+0.2	+17.2	+0.0	27.4	46.4	-19.0	Horiz
			+0.0	-28.1	+5.0						
10	324.863M	28.4	+1.0	+1.4	+0.1	+18.8	+0.0	26.6	46.4	-19.8	Horiz
			+0.0	-28.1	+5.0						
11	399.975M	29.2	+1.2	+1.7	+0.2	+16.2	+0.0	25.1	46.4	-21.3	Horiz
			+0.0	-28.4	+5.0						

Page 98 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:32:55
Equipment: BPL MV Gateway Sequence#: 132
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading list	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs.	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	319.988M	38.1	+1.0	+1.4	+0.1	+19.5	+0.0	37.0	46.4	-9.4	Vert
			+0.0	-28.1	+5.0						
2	320.000M	35.7	+1.0	+1.4	+0.1	+19.5	+0.0	34.6	46.4	-11.8	Horiz
			+0.0	-28.1	+5.0						
3	400.000M	35.4	+1.2	+1.7	+0.2	+16.2	+0.0	31.3	46.4	-15.1	Vert
			+0.0	-28.4	+5.0						
4	479.988M	30.4	+1.3	+1.8	+0.2	+17.2	+0.0	27.8	46.4	-18.6	Vert
			+0.0	-28.1	+5.0						
5	399.988M	30.3	+1.2	+1.7	+0.2	+16.2	+0.0	26.2	46.4	-20.2	Horiz
			+0.0	-28.4	+5.0						
6	239.990M	27.3	+0.9	+1.2	+0.1	+0.0	+0.0	24.7	46.4	-21.7	Vert
			+17.9	-27.7	+5.0						

Page 99 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:34:39
Equipment: BPL MV Gateway Sequence#: 133
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	320.000M	31.9	+1.0	+1.4	+0.1	+19.5	+0.0	30.8	46.4	-15.6	Vert
			+0.0	-28.1	+5.0						
2	160.015M	33.0	+0.7	+0.8	+0.1	+0.0	+0.0	27.5	43.5	-16.0	Horiz
			+15.6	-27.7	+5.0						
3	400.000M	33.9	+1.2	+1.7	+0.2	+16.2	+0.0	29.8	46.4	-16.6	Vert
			+0.0	-28.4	+5.0						
4	320.038M	29.6	+1.0	+1.4	+0.1	+19.5	+0.0	28.5	46.4	-17.9	Horiz
			+0.0	-28.1	+5.0						
5	324.363M	29.3	+1.0	+1.4	+0.1	+18.9	+0.0	27.6	46.4	-18.8	Vert
			+0.0	-28.1	+5.0						
6	480.013M	30.0	+1.3	+1.8	+0.2	+17.2	+0.0	27.4	46.4	-19.0	Vert
			+0.0	-28.1	+5.0						
7	225.085M	30.3	+0.8	+1.1	+0.1	+0.0	+0.0	27.1	46.4	-19.3	Horiz
			+17.5	-27.7	+5.0						
8	399.975M	28.9	+1.2	+1.7	+0.2	+16.2	+0.0	24.8	46.4	-21.6	Horiz
			+0.0	-28.4	+5.0						

Page 100 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:37:32
Equipment: BPL MV Gateway Sequence#: 134
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

#### Support Devices:

Function	Manufacturer	Model #	S/N
Tullcuon	Manufacturer	MOUCI #	3/11

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.040M	35.4	+0.7	+0.8	+0.1	+0.0	+0.0	29.9	43.5	-13.7	Horiz
			+15.6	-27.7	+5.0						
2	320.000M	32.9	+1.0	+1.4	+0.1	+19.5	+0.0	31.8	46.4	-14.6	Vert
			+0.0	-28.1	+5.0						
3	160.035M	33.1	+0.7	+0.8	+0.1	+0.0	+0.0	27.6	43.5	-15.9	Vert
			+15.6	-27.7	+5.0						
4	399.975M	33.7	+1.2	+1.7	+0.2	+16.2	+0.0	29.6	46.4	-16.8	Vert
			+0.0	-28.4	+5.0						
5	320.000M	29.0	+1.0	+1.4	+0.1	+19.5	+0.0	27.9	46.4	-18.5	Horiz
			+0.0	-28.1	+5.0						
6	240.010M	29.2	+0.9	+1.2	+0.1	+0.0	+0.0	26.6	46.4	-19.8	Vert
			+17.9	-27.7	+5.0						
7	240.010M	29.1	+0.9	+1.2	+0.1	+0.0	+0.0	26.5	46.4	-19.9	Horiz
			+17.9	-27.7	+5.0						

Page 101 of 301 Report No.: FC06-025 Volume 3 of 9



8	479.975M	28.9	+1.3	+1.8	+0.2	+17.2	+0.0	26.3	46.4	-20.1	Vert
			+0.0	-28.1	+5.0						
9	124.980M	31.0	+0.6	+0.8	+0.1	+0.0	+0.0	23.1	43.5	-20.4	Vert
			+13.3	-27.7	+5.0						
10	400.013M	29.0	+1.2	+1.7	+0.2	+16.2	+0.0	24.9	46.4	-21.5	Horiz
			+0.0	-28.4	+5.0						

Page 102 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:44:52
Equipment: BPL MV Gateway Sequence#: 147
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567 T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	dBµV/m	dBμV/m	dB	Ant
1	159.985M	37.4	+0.7	+0.8	+0.1	+0.0	+0.0	31.9	43.5	-11.6	Horiz
			+15.6	-27.7	+5.0						
2	160.020M	31.4	+0.7	+0.8	+0.1	+0.0	+0.0	25.9	43.5	-17.6	Vert
			+15.6	-27.7	+5.0						
3	240.035M	30.6	+0.9	+1.2	+0.1	+0.0	+0.0	28.0	46.4	-18.4	Vert
			+17.9	-27.7	+5.0						
4	400.013M	31.4	+1.2	+1.7	+0.2	+16.2	+0.0	27.3	46.4	-19.1	Vert
			+0.0	-28.4	+5.0						
5	319.988M	28.0	+1.0	+1.4	+0.1	+19.5	+0.0	26.9	46.4	-19.5	Vert
			+0.0	-28.1	+5.0						
6	399.975M	30.9	+1.2	+1.7	+0.2	+16.2	+0.0	26.8	46.4	-19.6	Horiz
			+0.0	-28.4	+5.0						
7	480.013M	29.0	+1.3	+1.8	+0.2	+17.2	+0.0	26.4	46.4	-20.0	Horiz
			+0.0	-28.1	+5.0						
8	125.005M	30.3	+0.6	+0.8	+0.1	+0.0	+0.0	22.3	43.5	-21.2	Vert
			+13.3	-27.7	+5.0						
9	480.013M	26.4	+1.3	+1.8	+0.2	+17.2	+0.0	23.8	46.4	-22.6	Vert
			+0.0	-28.1	+5.0						

Page 103 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:46:19
Equipment: BPL MV Gateway Sequence#: 146
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821

### Support Devices:

Function	Manufacturer	Model #	S/N

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A
	<u> </u>

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	239.995M	29.3	+0.9	+1.2	+0.1	+0.0	+0.0	26.7	46.4	-19.7	Vert
			+17.9	-27.7	+5.0						
2	400.013M	29.2	+1.2	+1.7	+0.2	+16.2	+0.0	25.1	46.4	-21.3	Horiz
			+0.0	-28.4	+5.0						
3	450.063M	27.4	+1.2	+1.8	+0.2	+16.6	+0.0	23.9	46.4	-22.5	Vert
			+0.0	-28.3	+5.0						
4	479.988M	26.1	+1.3	+1.8	+0.2	+17.2	+0.0	23.5	46.4	-22.9	Horiz
			+0.0	-28.1	+5.0						

Page 104 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:48:08
Equipment: BPL MV Gateway Sequence#: 145
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

# **Test Conditions / Notes:**

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable P05298 2' RG214 N-N	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	29.5	+0.7	+0.8	+0.1	+0.0	+0.0	24.0	43.5	-19.5	Horiz
			+15.6	-27.7	+5.0						
2	400.013M	30.9	+1.2	+1.7	+0.2	+16.2	+0.0	26.8	46.4	-19.6	Horiz
			+0.0	-28.4	+5.0						
3	239.990M	28.8	+0.9	+1.2	+0.1	+0.0	+0.0	26.2	46.4	-20.2	Horiz
			+17.9	-27.7	+5.0						
4	319.988M	26.8	+1.0	+1.4	+0.1	+19.5	+0.0	25.7	46.4	-20.7	Horiz
			+0.0	-28.1	+5.0						
5	240.020M	28.2	+0.9	+1.2	+0.1	+0.0	+0.0	25.6	46.4	-20.8	Vert
			+17.9	-27.7	+5.0						

Page 105 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 4/26/2006
Test Type: Radiated Scan Time: 13:50:28
Equipment: BPL MV Gateway Sequence#: 144
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	6749420821	

#### Support Devices:

Eunation	M C	N. J. J. J. H.	C/NI
Function	Manufacturer	Model #	S/IN

# Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #7 in Katy, TX. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16 Tested from 30 - 1000MHz. All data measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Unit is setup for maximum transmission over the low voltage lines at the maximum power level for underground lines only from 2.5-30MHz. Maximum power level has been dropped by 5dB from 2-2.5MHz.. Notch Filters are off line.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable P05298 2' RG214 N-N T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.015M	40.0	+0.7	+0.8	+0.1	+0.0	+0.0	34.5	43.5	-9.0	Horiz
			+15.6	-27.7	+5.0						
2	240.040M	36.3	+0.9	+1.2	+0.1	+0.0	+0.0	33.7	46.4	-12.7	Vert
			+17.9	-27.7	+5.0						
3	240.020M	35.6	+0.9	+1.2	+0.1	+0.0	+0.0	32.9	46.4	-13.5	Vert
			+17.9	-27.7	+5.0						
4	240.015M	31.8	+0.9	+1.2	+0.1	+0.0	+0.0	29.2	46.4	-17.2	Horiz
			+17.9	-27.7	+5.0						
5	480.063M	30.9	+1.3	+1.8	+0.2	+17.2	+0.0	28.3	46.4	-18.1	Horiz
			+0.0	-28.1	+5.0						
6	225.020M	31.4	+0.8	+1.1	+0.1	+0.0	+0.0	28.2	46.4	-18.2	Horiz
			+17.5	-27.7	+5.0						
7	474.788M	28.7	+1.3	+1.8	+0.2	+17.1	+0.0	25.9	46.4	-20.5	Vert
			+0.0	-28.2	+5.0						
8	399.988M	29.5	+1.2	+1.7	+0.2	+16.2	+0.0	25.4	46.4	-21.0	Horiz
			+0.0	-28.4	+5.0						

Page 106 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •

Customer: Corinex

Specification: FCC A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 13:38:26
Equipment: BPL MV Gateway Sequence#: 305
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function Manufacturer	Model #	S/N	
-----------------------	---------	-----	--

#### Test Conditions / Notes:

Formal Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 1: 10 meters out from medium voltage lines the BPL is connected directly across from the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-010505
T7=Slant Distance S1 1m	T8=Slant Distance S1 4m
T9=5dB Height Correction	

Measurement Data:		Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.890M	48.9	+0.3	+0.3	+0.0	+0.0	+0.0	39.0	39.1	-0.1	Horiz
QP			-27.9	+15.8	+0.0	+1.6		Maximized at 4			
								meters in height.			
٨	30.890M	54.1	+0.3	+0.3	+0.0	+0.0	+0.0	44.2	39.1	+5.1	Horiz
			-27.9	+15.8	+0.0	+1.6			Maximized at 4		
								meters in height.			

Page 107 of 301 Report No.: FC06-025 Volume 3 of 9



3 33.860M	50.1	+0.3	+0.4	+0.0	+0.0	+0.0	38.9		-0.2	Horiz
QP		-27.9	+14.4	+0.0	+1.6			Maximized		
								meters in he		
^ 33.860M	54.1	+0.3	+0.4	+0.0	+0.0	+0.0	42.9		+3.8	Horiz
		-27.9	+14.4	+0.0	+1.6			Maximized		
								meters in he	_	
5 31.812M	49.1	+0.3	+0.3	+0.0	+0.0	+0.0	38.7	39.1	-0.4	Horiz
QP		-27.9	+15.3	+0.0	+1.6			Maximized		
								meters in he		
^ 31.812M	54.2	+0.3	+0.3	+0.0	+0.0	+0.0	43.8	39.1	+4.7	Horiz
		-27.9	+15.3	+0.0	+1.6			Maximized		
								meters in he	_	
7 30.497M	47.1	+0.3	+0.3	+0.0	+0.0	+0.0	37.4	39.1	-1.7	Horiz
QP		-27.9	+16.0	+0.0	+1.6			Maximized		
								meters in he	_	
^ 30.497M	52.2	+0.3	+0.3	+0.0	+0.0	+0.0	42.5	39.1		Horiz
		-27.9	+16.0	+0.0	+1.6			Maximized		
								meters in he	_	
9 30.052M	46.8	+0.3	+0.3	+0.0	+0.0	+0.0	37.3	39.1		Horiz
QP		-27.9	+16.2	+0.0	+1.6			Maximized		
								meters in he	_	
^ 30.052M	51.7	+0.3	+0.3	+0.0	+0.0	+0.0	42.2	39.1		Horiz
		-27.9	+16.2	+0.0	+1.6			Maximized		
								meters in he		
11 32.780M	47.8	+0.3	+0.4	+0.0	+0.0	+0.0	37.1	39.1	-2.0	Vert
QP		-27.9	+14.9	+0.0	+1.6			Maximized		
4 22 7001 6	<b>50.1</b>	0.2	0.4	0.0		0.0	10.1	meters in height.		**
^ 32.780M	53.1	+0.3	+0.4	+0.0	+0.0	+0.0	42.4	39.1	+3.3	Vert
		-27.9	+14.9	+0.0	+1.6			Maximized at 4 meters in height.		
12 240 01014	12.6	. 0. 0	. 1.0	.0.2	. 0. 0	. 0. 0	110			<b>T</b> 7
13 240.019M	43.6	+0.9	+1.2	+0.3	+0.0	+0.0	44.2	46.4	-2.2	Vert
QP		-27.7	+17.9	+3.0	+0.0					
A 240.010M	447	+5.0	. 1.0	.0.2	. 0. 0	. 0. 0	45.2	46.4	1 1	T.7
^ 240.019M	44.7	+0.9	+1.2	+0.3	+0.0	+0.0	45.3	46.4	-1.1	Vert
		-27.7 +5.0	+17.9	+3.0	+0.0					
15 160.000M	43.7	+0.7	+0.8	+0.1	ι Ο Ο	+0.0	41.2	43.5	-2.3	Vert
	43.7				+0.0	+0.0	41.2	43.3	-2.3	vert
QP		-27.7 +5.0	+15.6	+3.0	+0.0					
^ 160 000M	49.6		100	+O 1	ι Ο Ο	ι Ο Ο	47.1	12 5	126	Vont
^ 160.000M	49.0	+0.7	+0.8	+0.1	+0.0	+0.0	47.1	43.5	+3.6	Vert
		-27.7 +5.0	+15.6	+3.0	+0.0					
17 31.306M	16 6		+0.2	+0.0	ι Ο Ο	+0.0	36.5	39.1	-2.6	Vont
QP	46.6	+0.3 -27.9	+0.3	$^{+0.0}_{+0.0}$	+0.0 +1.6	+0.0	30.3	39.1 Maximized		Vert
Qr		-21.9	+15.6	+0.0	+1.0			meters in he		
^ 31.306M	51.9	+0.3	+0.3	+0.0	+0.0	+0.0	41.8	39.1	+2.7	Vert
31.3001/1	31.9	+0.3 -27.9	+0.5 +15.6	+0.0 +0.0	+0.0 +1.6	+0.0	41.8	39.1 Maximized		vert
		-21.9	+13.0	+0.0	+1.0			meters in he		
<u> </u>								meters in the	agiii.	

Page 108 of 301 Report No.: FC06-025 Volume 3 of 9



10 22 421	M 47.1	+0.2	+0.4	+0.0	.00	+0.0	26.1	20.1	2.0	<b>V</b> 4
19 33.421 QP	M 47.1	+0.3 -27.9	+0.4 +14.6	$+0.0 \\ +0.0$	$+0.0 \\ +1.6$	+0.0	36.1	39.1 Maximized	-3.0	Vert
Qī		-21.9	⊤14.0	+0.0	+1.0			meters in h		
^ 33.421	M 52.4	+0.3	+0.4	+0.0	+0.0	+0.0	41.4	39.1	+2.3	Vert
00.12	02	-27.9	+14.6	+0.0	+1.6	. 0.0		Maximized		, 010
								meters in h		
21 224.93	5M 43.2	+0.8	+1.1	+0.2	+0.0	+0.0	43.2	46.4	-3.2	Horiz
		-27.6	+17.5	+3.0	+0.0					
		+5.0								
22 174.850	OM 41.8	+0.7	+0.9	+0.1	+0.0	+0.0	40.0	43.5	-3.5	Vert
		-27.6	+16.1	+3.0	+0.0					
22 274 024	EM 40.2	+5.0	. 1. 2	.0.2	. 0. 0	. 0. 0	12.4	46.4	4.0	TT!
23 274.93	5M 40.3	+1.0 -27.9	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	42.4	46.4	-4.0	Horiz
QP		-27.9 +5.0	+19.3	+3.0	+0.0					
^ 274.93	5M 45.6	+1.0	+1.3	+0.2	+0.0	+0.0	47.7	46.4	+1.2	Horiz
217.93.	75.0	-27.9	+19.5	+3.0	+0.0	10.0	7/./	7U. <b>T</b>	11.4	110112
		+5.0	. 27.0	. 5.0	. 0.0					
25 274.890	OM 38.4	+1.0	+1.3	+0.2	+0.0	+0.0	40.5	46.4	-5.9	Vert
		-27.9	+19.5	+3.0	+0.0					
		+5.0								
26 30.100	OM 42.4	+0.3	+0.3	+0.0	+0.0	+0.0	32.9	39.1	-6.2	Vert
QP		-27.9	+16.2	+0.0	+1.6			Maximized		
								meters in h		
^ 30.100	OM 46.2	+0.3	+0.3	+0.0	+0.0	+0.0	36.7	39.1		Vert
		-27.9	+16.2	+0.0	+1.6			Maximized		
20 40.025	7M 200	. 0. 4	.0.5	. 0.1	. 0. 0	. 0. 0	21.7	meters in h		<b>X</b> 7 4
28 49.835	5M 38.9	+0.4 -27.9	+0.5 $+11.7$	+0.1 +3.0	+0.0 +0.0	+0.0	31.7	39.1	-7.4	Vert
		+5.0	+11./	+3.0	+0.0					
29 224.93	5M 37.6	+0.8	+1.1	+0.2	+0.0	+0.0	37.6	46.4	-8.8	Vert
2) 221.93.	37.0	-27.6	+17.5	+3.0	+0.0	10.0	37.0	10.1	0.0	VOIT
		+5.0			. 0.0					
30 319.99:	5M 29.7	+1.0	+1.4	+0.2	+19.5	+0.0	31.7	46.4	-14.7	Horiz
		-28.1	+0.0	+3.0	+0.0					
		+5.0								
31 400.003	5M 31.6	+1.2	+1.7	+0.2	+16.2	+0.0	30.5	46.4	-15.9	Vert
		-28.4	+0.0	+3.0	+0.0					
		+5.0								
32 375.010	OM 31.9	+1.1	+1.6	+0.2	+15.7	+0.0	30.2	46.4	-16.2	Vert
		-28.3	+0.0	+3.0	+0.0					
22 490.07	EM 20.7	+5.0	, 1.0	10.2	.17.0	.00	20.2	1 < 1	17.0	TT'-
33 480.07:	5M 28.7	+1.3 -28.1	$^{+1.8}_{+0.0}$	+0.3 +3.0	$+17.2 \\ +0.0$	+0.0	29.2	46.4	-17.2	Horiz
		+5.0	+0.0	+3.0	+0.0					
34 324.825	5M 26.8	+1.0	+1.4	+0.2	+18.8	+0.0	28.1	46.4	-18.3	Horiz
JT J27.02.	20.0	-28.1	+0.0	+3.0	+0.0	10.0	20.1	70.7	-10.5	110112
		+5.0	10.0	13.0	10.0					
		10.0								

Page 109 of 301 Report No.: FC06-025 Volume 3 of 9



35	324.825M	26.6	+1.0	+1.4 +0.0	+0.2 +3.0	+18.8 +0.0	+0.0	27.9	46.4	-18.5	Vert
			+5.0								
36	425.015M	27.8	+1.2	+1.7	+0.2	+16.4	+0.0	26.9	46.4	-19.5	Vert
			-28.4	+0.0	+3.0	+0.0					
			+5.0								
37	375.030M	25.9	+1.1	+1.6	+0.2	+15.7	+0.0	24.2	46.4	-22.2	Horiz
			-28.3	+0.0	+3.0	+0.0					
			+5.0								

Page 110 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 15:01:10
Equipment: BPL MV Gateway Sequence#: 306
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none
Medium Voltage Powerline Filter Mode 1	Corinex	CXF-MVA-M1	none

Support Devices:

Function	Manufacturer	Model #	S/N
----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 2: 10 meters out from medium voltage lines the BPL is connected to 4.17 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-010505
T7=Slant Distance S1 1m	T8=Slant Distance S1 4m
T9=5dB Height Correction	

Measur	rement Data:	Re	ading lis	ted by ma	argin.	Test Distance: 10Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
			T5	T6	T7	T8						
			T9									
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	33.999M	50.2	+0.3	+0.4	+0.0	+0.0	+0.0	38.9	39.1	-0.2	Vert	
	QP		-27.9	+14.3	+0.0	+1.6			Maximized	d at 4		
									meters			
٨	33.999M	55.4	+0.3	+0.4	+0.0	+0.0	+0.0	44.1	39.1	+5.0	Vert	
			-27.9	+14.3	+0.0	+1.6			Maximized	d at 4		
									meters			

Page 111 of 301 Report No.: FC06-025 Volume 3 of 9



3	174.848M	44.9	+0.7	+0.9	+0.1	+0.0	+0.0	43.1	43.5	-0.4	Horiz
	QP		-27.6	+16.1	+3.0	+0.0					
			+5.0								
^	174.848M	50.2	+0.7	+0.9	+0.1	+0.0	+0.0	48.4	43.5	+4.9	Horiz
			-27.6	+16.1	+3.0	+0.0					
			+5.0								
5	224.930M	46.0	+0.8	+1.1	+0.2	+0.0	+0.0	46.0	46.4	-0.4	Horiz
	QP		-27.6	+17.5	+3.0	+0.0					
			+5.0								
^	224.930M	49.2	+0.8	+1.1	+0.2	+0.0	+0.0	49.2	46.4	+2.8	Horiz
			-27.6	+17.5	+3.0	+0.0					
			+5.0								
7	30.922M	47.9	+0.3	+0.3	+0.0	+0.0	+0.0	37.9	39.1	-1.2	Vert
	QP		-27.9	+15.7	+0.0	+1.6			Maximized	at 4	
									meters		
^	30.922M	54.1	+0.3	+0.3	+0.0	+0.0	+0.0	44.1	39.1	+5.0	Vert
			-27.9	+15.7	+0.0	+1.6			Maximized	at 4	
									meters		
9	240.020M	43.7	+0.9	+1.2	+0.3	+0.0	+0.0	44.3	46.4	-2.1	Vert
	QP		-27.7	+17.9	+3.0	+0.0					
			+5.0								
^	240.020M	45.5	+0.9	+1.2	+0.3	+0.0	+0.0	46.1	46.4	-0.3	Vert
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
11	149.790M	42.9	+0.7	+0.8	+0.1	+0.0	+0.0	40.1	43.5	-3.4	Vert
			-27.6	+15.2	+3.0	+0.0					
			+5.0								
12	30.188M	43.6	+0.3	+0.3	+0.0	+0.0	+0.0	35.4	39.1	-3.7	Horiz
	QP		-27.9	+16.1	+3.0	+0.0			Maximized	at 1m	
^	30.188M	47.5	+0.3	+0.3	+0.0	+0.0	+0.0	39.3	39.1	+0.2	Horiz
			-27.9	+16.1	+3.0	+0.0			Maximized	at 1m	
14	31.978M	45.7	+0.3	+0.3	+0.0	+0.0	+0.0	35.2	39.1	-3.9	Vert
	QP		-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
									meters		
^	31.978M	51.3	+0.3	+0.3	+0.0	+0.0	+0.0	40.8	39.1	+1.7	Vert
			-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
									meters		
16		45.6	+0.3	+0.4	+0.0	+0.0	+0.0	34.7	39.1	-4.4	Vert
	QP		-27.9	+14.7	+0.0	+1.6			Maximized	at 4	
									meters		
^	33.081M	51.0	+0.3	+0.4	+0.0	+0.0	+0.0	40.1	39.1	+1.0	Vert
			-27.9	+14.7	+0.0	+1.6			Maximized	at 4	
<u> </u>									meters		
									_		



18	31.313M QP	43.4	+0.3 -27.9	+0.3 +15.6	+0.0 +3.0	+0.0 +0.0	+0.0	34.7	39.1 Maximized	-4.4	Horiz
· `	Q1		21.7	115.0	13.0	10.0			Maximized	at IIII	
٨	31.313M	49.2	+0.3	+0.3	+0.0	+0.0	+0.0	40.5	39.1	+1.4	Horiz
	31.313141	17.2	-27.9	+15.6	+3.0	+0.0	10.0	10.5	Maximized		HOHE
			27.5	110.0	15.0	10.0			1,14,11,11,12,00		
20	33.973M	44.4	+0.3	+0.4	+0.0	+0.0	+0.0	34.5	39.1	-4.6	Horiz
			-27.9	+14.3	+3.0	+0.0			Maximized		
21	124.790M	43.6	+0.6	+0.8	+0.1	+0.0	+0.0	38.7	43.5	-4.8	Vert
			-27.7	+13.3	+3.0	+0.0					
			+5.0								
22	32.142M	42.8	+0.3	+0.3	+0.0	+0.0	+0.0	33.7	39.1	-5.4	Horiz
(	QP		-27.9	+15.2	+3.0	+0.0			Maximized	at 1m	
٨	32.142M	46.6	+0.3	+0.3	+0.0	+0.0	+0.0	37.5	39.1	-1.6	Horiz
			-27.9	+15.2	+3.0	+0.0			Maximized	at 1m	
24	49.890M	40.7	+0.4	+0.5	+0.1	+0.0	+0.0	33.4	39.1	-5.7	Vert
			-27.9	+11.6	+3.0	+0.0					
			+5.0								
25	249.650M	39.9	+0.9	+1.2	+0.3	+0.0	+0.0	40.6	46.4	-5.8	Vert
			-27.8	+18.1	+3.0	+0.0					
			+5.0								
26	274.510M	38.5	+1.0	+1.3	+0.2	+0.0	+0.0	40.5	46.4	-5.9	Vert
			-27.9	+19.4	+3.0	+0.0					
	240 5 6 5 3 6	20.2	+5.0		0.2	0.0	0.0	20.0			** .
	249.765M	39.2	+0.9	+1.2	+0.3	+0.0	+0.0	39.9	46.4	-6.5	Horiz
(	QP		-27.8	+18.1	+3.0	+0.0					
٨	240.76534	11.0	+5.0	. 1. 0	.0.2	. 0. 0	. 0. 0	44.0	4.6.4	1.7	
Λ.	249.765M	44.2	+0.9	+1.2	+0.3	+0.0	+0.0	44.9	46.4	-1.5	Horiz
			-27.8 +5.0	+18.1	+3.0	+0.0					
29	160.030M	39.5	+0.7	+0.8	+O 1	ι Ο Ο	+0.0	37.0	43.5	-6.5	Horiz
29	100.030W	39.3	+0.7 -27.7	+15.6	+0.1 +3.0	+0.0 +0.0	+0.0	37.0	43.3	-0.5	попи
			+5.0	+13.0	+3.0	+0.0					
30	49.790M	39.5	+0.4	+0.5	+0.1	+0.0	+0.0	32.3	39.1	-6.8	Horiz
30	77.17UIVI	37.3	-27.9	+11.7	+3.0	+0.0	10.0	ل.ك	39.1	-0.0	110112
			+5.0	111./	1 3.0	10.0					
31	160.025M	38.9	+0.7	+0.8	+0.1	+0.0	+0.0	36.4	43.5	-7.1	Vert
51	100.020111	50.7	-27.7	+15.6	+3.0	+0.0	. 0.0	50.1	.5.5	,.1	, 010
			+5.0								
32	224.865M	39.0	+0.8	+1.1	+0.2	+0.0	+0.0	39.0	46.4	-7.4	Vert
			-27.6	+17.5	+3.0	+0.0				- / -	
			+5.0								
33	74.549M	43.1	+0.4	+0.5	+0.0	+0.0	+0.0	30.5	39.1	-8.6	Horiz
			-27.9	+6.4	+3.0	+0.0					
			+5.0								
34	74.510M	42.7	+0.4	+0.5	+0.0	+0.0	+0.0	30.1	39.1	-9.0	Vert
			-27.9	+6.4	+3.0	+0.0					
			+5.0								

Page 113 of 301 Report No.: FC06-025 Volume 3 of 9



35	320.010M	34.1	+1.0	+1.4	+0.2	+19.5	+0.0	36.1	46.4	-10.3	Horiz
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
36	480.030M	35.4	+1.3	+1.8	+0.3	+17.2	+0.0	35.9	46.4	-10.6	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
37	320.005M	31.5	+1.0	+1.4	+0.2	+19.5	+0.0	33.5	46.4	-12.9	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
38	480.025M	32.9	+1.3	+1.8	+0.3	+17.2	+0.0	33.4	46.4	-13.0	Horiz
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
39	375.045M	33.6	+1.1	+1.6	+0.2	+15.7	+0.0	31.9	46.4	-14.5	Vert
			-28.3	+0.0	+3.0	+0.0					
			+5.0								
40	400.010M	31.7	+1.2	+1.7	+0.2	+16.2	+0.0	30.6	46.4	-15.8	Vert
			-28.4	+0.0	+3.0	+0.0					
			+5.0								
41	425.035M	31.2	+1.2	+1.7	+0.2	+16.4	+0.0	30.3	46.4	-16.1	Horiz
			-28.4	+0.0	+3.0	+0.0					
			+5.0								
42	375.010M	29.8	+1.1	+1.6	+0.2	+15.7	+0.0	28.1	46.4	-18.3	Horiz
			-28.3	+0.0	+3.0	+0.0					
			+5.0								

Page 114 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 15:45:13
Equipment: BPL MV Gateway Sequence#: 307
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function Manufacturer Model #	S/N
-------------------------------	-----

### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 3: 10 meters out from medium voltage lines the BPL is connected to 8.33 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A T5=HP-8447D Pre Amp AN 00567 T6=ANT-AN00503-0

T5=HP-8447D Pre Amp AN 00567
T7=Slant Distance S1 1m
T8=Slant Distance S1 4m
T9=5dB Height Correction

Measi	Measurement Data: Reading listed by margin.					Test Distance: 10Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	_	_	T5	T6	T7	T8			_	_		
			T9									
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	149.795M	41.7	+0.7	+0.8	+0.1	+0.0	+0.0	38.9	43.5	-4.6	Vert	
	QP		-27.6	+15.2	+3.0	+0.0						
			+5.0									
^	149.795M	46.2	+0.7	+0.8	+0.1	+0.0	+0.0	43.4	43.5	-0.1	Vert	
			-27.6	+15.2	+3.0	+0.0						
			+5.0									

Page 115 of 301 Report No.: FC06-025 Volume 3 of 9



3	49.880M	41.5	+0.4	+0.5	+0.1	+0.0	+0.0	34.3	39.1	-4.8	Vert
			-27.9	+11.7	+3.0	+0.0					
			+5.0								
4	31.973M	44.7	+0.3	+0.3	+0.0	+0.0	+0.0	34.2	39.1	-4.9	Horiz
			-27.9	+15.2	+0.0	+1.6			Maximized at	1	
									meter		
5	249.975M	40.6	+0.9	+1.2	+0.3	+0.0	+0.0	41.3	46.4	-5.1	Horiz
	QP		-27.8	+18.1	+3.0	+0.0					
			+5.0								
^	249.975M	45.5	+0.9	+1.2	+0.3	+0.0	+0.0	46.2	46.4	-0.2	Horiz
			-27.8	+18.1	+3.0	+0.0					
			+5.0								
7	30.463M	43.6	+0.3	+0.3	+0.0	+0.0	+0.0	33.9	39.1	-5.2	Horiz
			-27.9	+16.0	+0.0	+1.6			Maximized at	1	
									meter		
8	274.520M	39.2	+1.0	+1.3	+0.2	+0.0	+0.0	41.2	46.4	-5.2	Horiz
	QP		-27.9	+19.4	+3.0	+0.0					
			+5.0								
٨	274.520M	46.1	+1.0	+1.3	+0.2	+0.0	+0.0	48.1	46.4	+1.7	Horiz
			-27.9	+19.4	+3.0	+0.0					
			+5.0								
10	34.102M	44.9	+0.3	+0.4	+0.0	+0.0	+0.0	33.6	39.1	-5.5	Horiz
			-27.9	+14.3	+0.0	+1.6			Maximized at	1	
									meter		
11	33.686M	44.7	+0.3	+0.4	+0.0	+0.0	+0.0	33.6	39.1	-5.5	Horiz
			-27.9	+14.5	+0.0	+1.6			Maximized at	1	
									meter		
12	33.475M	43.1	+0.3	+0.4	+0.0	+0.0	+0.0	33.5	39.1	-5.6	Vert
	QP		-27.9	+14.6	+3.0	+0.0			Maximized at	~2.5	
									meters. Use 1		
									slant distance		
									correction fact	or as	
									worst case.		
^	33.475M	47.0	+0.3	+0.4	+0.0	+0.0	+0.0	37.4	39.1	-1.7	Vert
			-27.9	+14.6	+3.0	+0.0			Maximized at	~2.5	
									meters. Use 1		
									slant distance		
									correction fact	or as	
									worst case.		
14	240.015M	40.1	+0.9	+1.2	+0.3	+0.0	+0.0	40.7	46.4	-5.7	Vert
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
•											

Page 116 of 301 Report No.: FC06-025 Volume 3 of 9



											,
15	30.262M QP	41.3	+0.3 -27.9	+0.3 +16.1	+0.0 +3.0	+0.0 +0.0	+0.0	33.1	39.1 Maximized meters. Us slant distan correction f worst case.	e 1m ce	Vert
٨	30.262M	47.9	+0.3 -27.9	+0.3 +16.1	+0.0 +3.0	+0.0 +0.0	+0.0	39.7	39.1 Maximized meters. Us slant distan correction f worst case.	e 1m ce	Vert
17	49.740M QP	40.0	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	32.8	39.1	-6.3	Horiz
۸	49.740M	43.4	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	36.2	39.1	-2.9	Horiz
19	174.870M	38.8	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	37.0	43.5	-6.5	Horiz
20	31.980M QP	40.3	+0.3 -27.9	+0.3 +15.2	+0.0 +3.0	+0.0 +0.0	+0.0	31.2	39.1 Maximized meters. Us slant distan correction f worst case.	e 1m ce	Vert
^	31.980M	45.8	+0.3 -27.9	+0.3 +15.2	+0.0 +3.0	+0.0 +0.0	+0.0	36.7	39.1 Maximized meters. Us slant distan correction f worst case.	e 1m ce	Vert
22	480.020M	33.6	+1.3 -28.1 +5.0	+1.8 +0.0	+0.3 +3.0	+17.2 +0.0	+0.0	34.1	46.4	-12.3	Vert
23	319.990M	31.2	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	33.2	46.4	-13.2	Vert
24	320.010M	28.4	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	30.4	46.4	-16.0	Horiz
25	399.990M	31.5	+1.2 -28.4 +5.0	+1.7 +0.0	+0.2 +3.0	+16.2 +0.0	+0.0	30.4	46.4	-16.0	Vert

Page 117 of 301 Report No.: FC06-025 Volume 3 of 9



26	399.900M	31.4	+1.2 -28.4	+1.7 +0.0	+0.2 +3.0	+16.2 +0.0	+0.0	30.3	46.4	-16.1	Horiz
			+5.0								
27	375.010M	31.1	+1.1	+1.6	+0.2	+15.7	+0.0	29.4	46.4	-17.1	Vert
			-28.3	+0.0	+3.0	+0.0					
			+5.0								
28	425.035M	30.0	+1.2	+1.7	+0.2	+16.4	+0.0	29.1	46.4	-17.3	Vert
			-28.4	+0.0	+3.0	+0.0					
			+5.0								

Page 118 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 16:15:28
Equipment: BPL MV Gateway Sequence#: 308
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 4: 10 meters out from medium voltage lines the BPL is connected 12.5 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-01050

T5=HP-8447D Pre Amp AN 00567 T6=ANT-AN00503-010505
T7=Slant Distance S1 1m T8=Slant Distance S1 4m
T9=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	ırgin.		Te	est Distance	e: 10Meter	S	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.918M	47.7	+0.3	+0.3	+0.0	+0.0	+0.0	37.8	39.1	-1.3	Vert
(	QP		-27.9	+15.8	+0.0	+1.6			Maximized	d at 4	
									meters		
٨	30.918M	51.4	+0.3	+0.3	+0.0	+0.0	+0.0	41.5	39.1	+2.4	Vert
			-27.9	+15.8	+0.0	+1.6			Maximized	d at 4	
									meters		

Page 119 of 301 Report No.: FC06-025 Volume 3 of 9



3 160.008M	44.7	+0.7	+0.8	+0.1	+0.0	+0.0	42.2	43.5	-1.3	Vert
QP		-27.7	+15.6	+3.0	+0.0					
		+5.0								
^ 160.008M	49.4	+0.7	+0.8	+0.1	+0.0	+0.0	46.9	43.5	+3.4	Vert
		-27.7	+15.6	+3.0	+0.0					
		+5.0								
5 33.797M	47.9	+0.3	+0.4	+0.0	+0.0	+0.0	36.7	39.1	-2.4	Vert
QP		-27.9	+14.4	+0.0	+1.6			Maximized	at 4	
								meters		
^ 33.797M	54.0	+0.3	+0.4	+0.0	+0.0	+0.0	42.8	39.1	+3.7	Vert
		-27.9	+14.4	+0.0	+1.6			Maximized	at 4	
								meters		
7 31.990M	47.2	+0.3	+0.3	+0.0	+0.0	+0.0	36.7	39.1	-2.4	Vert
QP		-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
								meters		
^ 31.990M	52.1	+0.3	+0.3	+0.0	+0.0	+0.0	41.5	39.1	+2.4	Vert
		-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
								meters		
9 49.730M	43.7	+0.4	+0.5	+0.1	+0.0	+0.0	36.5	39.1	-2.6	Horiz
		-27.9	+11.7	+3.0	+0.0					
		+5.0								
10 149.770M	43.5	+0.7	+0.8	+0.1	+0.0	+0.0	40.7	43.5	-2.8	Horiz
QP		-27.6	+15.2	+3.0	+0.0					
		+5.0								
^ 149.770M	48.1	+0.7	+0.8	+0.1	+0.0	+0.0	45.3	43.5	+1.8	Horiz
		-27.6	+15.2	+3.0	+0.0					
		+5.0								
12 149.720M	42.5	+0.7	+0.8	+0.1	+0.0	+0.0	39.7	43.5	-3.8	Vert
		-27.6	+15.2	+3.0	+0.0					
		+5.0								
13 249.970M	41.6	+0.9	+1.2	+0.3	+0.0	+0.0	42.3	46.4	-4.1	Horiz
QP		-27.8	+18.1	+3.0	+0.0					
		+5.0								
^ 249.970M	45.6	+0.9	+1.2	+0.3	+0.0	+0.0	46.3	46.4	-0.1	Horiz
		-27.8	+18.1	+3.0	+0.0					
		+5.0								
15 249.853M	41.3	+0.9	+1.2	+0.3	+0.0	+0.0	42.0	46.4	-4.4	Vert
		-27.8	+18.1	+3.0	+0.0					
		+5.0								
16 240.000M	40.5	+0.9	+1.2	+0.3	+0.0	+0.0	41.1	46.4	-5.3	Vert
		-27.7	+17.9	+3.0	+0.0					
		+5.0								
17 160.075M	40.3	+0.7	+0.8	+0.1	+0.0	+0.0	37.8	43.5	-5.7	Horiz
		-27.7	+15.6	+3.0	+0.0					
		+5.0								
18 174.875M	38.9	+0.7	+0.9	+0.1	+0.0	+0.0	37.1	43.5	-6.4	Vert
		-27.6	+16.1	+3.0	+0.0					
		+5.0								
•										

Page 120 of 301 Report No.: FC06-025 Volume 3 of 9



19   32.096M   43.0   +0.3   +0.3   +0.0   +0.0   +0.0   32.5   39.1   -6.6   Horiz											
Maximized at 4   Maximized A   Maximi		43.0			+0.0	+0.0	+0.0	32.5			Horiz
A 32.096M	QP		-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
27.9									meters		
Meters   Maximized at 4   Maximized A   M	^ 32.096M	47.6	+0.3	+0.3	+0.0	+0.0	+0.0	37.1			Horiz
21   49.880M   39.2   +0.4   +0.5   +0.1   +0.0   +0.0   32.0   39.1   -7.1   Vert   +2.0   +11.7   +3.0   +0.0   +0.0   32.0   39.1   -7.1   Vert   +5.0   +5.0			-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
27.9									meters		
+5.0  22 124.650M	21 49.880M	39.2	+0.4	+0.5	+0.1	+0.0	+0.0	32.0	39.1	-7.1	Vert
22   124,650M   40.9   +0.6   +0.8   +0.1   +0.0   +0.0   36.0   43.5   -7.5   Horiz			-27.9	+11.7	+3.0	+0.0					
-27.7 +13.3 +3.0 +0.0 +0.0 +0.0   +5.0    23 240.025M  38.1 +0.9 +1.2 +0.3 +0.0 +0.0  38.7  46.4 -7.7  Horiz   -27.7 +17.9 +3.0 +0.0			+5.0								
+5.0  23 240.025M 38.1 +0.9 +1.2 +0.3 +0.0 +0.0 38.7 46.4 -7.7 Horiz -27.7 +17.9 +3.0 +0.0 +5.0  24 30.395M 41.0 +0.3 +0.3 +0.0 +0.0 +1.6 Maximized at 4 meters  ^ 30.395M 46.6 +0.3 +0.3 +0.0 +0.0 +1.6 Maximized at 4 meters  -27.9 +16.0 +0.0 +1.6 Maximized at 4 meters  26 33.823M 42.2 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  -28 32.797M 41.4 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  -3 32.797M 41.4 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  -3 32.797M 48.0 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  -3 32.797M 48.0 +0.3 +0.4 +0.0 +0.0 +0.0 30.7 39.1 -3.1 Horiz Maximized at 4 meters  -3 32.797M 48.0 +0.3 +0.4 +0.0 +0.0 +0.0 37.3 39.1 -8.4 Horiz Maximized at 4 meters  -3 32.797M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 37.3 39.1 -1.8 Horiz -28.4 +0.0 +3.0 +0.0 +0.0 -28.4 +0.0 +3.0 +0.0 -28.1 +0.0 +3.0 +0.0 -28.1 +0.0 +3.0 +0.0 -28.1 +0.0 +3.0 +0.0 -27.9 Vert -28.1 +0.0 +3.0 +0.0	22 124.650M	40.9					+0.0	36.0	43.5	-7.5	Horiz
23   240.025M   38.1   +0.9   +1.2   +0.3   +0.0   +0.0   38.7   46.4   -7.7   Horiz			-27.7	+13.3	+3.0	+0.0					
27.7			+5.0								
+5.0  24 30.395M	23 240.025M	38.1					+0.0	38.7	46.4	-7.7	Horiz
24         30.395M         41.0         +0.3         +0.3         +0.0         +0.0         +0.0         31.3         39.1         -7.8         Horiz           A         30.395M         46.6         +0.3         +0.3         +0.0         +0.0         +0.0         36.9         39.1         -2.3         Horiz           A         30.395M         46.6         +0.3         +0.4         +0.0         +0.0         +0.0         36.9         39.1         -2.3         Horiz           B         26         33.823M         42.2         +0.3         +0.4         +0.0         +0.0         +0.0         31.0         39.1         -8.1         Horiz           QP         -27.9         +14.4         +0.0         +0.0         +0.0         36.0         39.1         -8.1         Horiz           A         33.823M         47.2         +0.3         +0.4         +0.0         +0.0         +0.0         36.0         39.1         -8.1         Horiz           A         33.823M         47.2         +0.3         +0.4         +0.0         +0.0         40.0         36.0         39.1         -3.1         Horiz           B         40.0         +0.3			-27.7	+17.9	+3.0	+0.0					
QP       -27.9       +16.0       +0.0       +1.6       Maximized at 4 meters         ^ 30.395M       46.6       +0.3       +0.3       +0.0       +0.0       +0.0       36.9       39.1       -2.3       Horiz Maximized at 4 meters         26       33.823M       42.2       +0.3       +0.4       +0.0       +0.0       +0.0       31.0       39.1       -8.1       Horiz Maximized at 4 meters         ^ 33.823M       47.2       +0.3       +0.4       +0.0       +0.0       +0.0       36.0       39.1       -3.1       Horiz Maximized at 4 meters         28       32.797M       41.4       +0.3       +0.4       +0.0       +0.0       +0.0       30.7       39.1       -8.4       Horiz Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -8.4       Horiz Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       V			+5.0								
Maximized at 4   Maxi		41.0					+0.0	31.3			Horiz
^ 30.395M       46.6       +0.3       +0.3       +0.0       +0.0       +0.0       36.9       39.1       -2.3       Horiz         -27.9       +16.0       +0.0       +1.6       Maximized at 4 meters         26       33.823M       42.2       +0.3       +0.4       +0.0       +0.0       +0.0       31.0       39.1       -8.1       Horiz         Maximized at 4 meters       Maximized at 4 meters         ^ 33.823M       47.2       +0.3       +0.4       +0.0       +0.0       +0.0       36.0       39.1       -3.1       Horiz         -27.9       +14.4       +0.0       +1.6       Maximized at 4 meters         28       32.797M       41.4       +0.3       +0.4       +0.0       +0.0       +0.0       30.7       39.1       -8.4       Horiz         QP       -27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       37.3       39.1       -1.8       Horiz         _27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2	QP		-27.9	+16.0	+0.0	+1.6			Maximized	at 4	
-27.9 +16.0 +0.0 +1.6 Maximized at 4 meters  26 33.823M											
Maximized at 4   Maxi	^ 30.395M	46.6					+0.0	36.9			Horiz
26 33.823M			-27.9	+16.0	+0.0	+1.6			Maximized	at 4	
QP       -27.9       +14.4       +0.0       +1.6       Maximized at 4 meters         ^ 33.823M       47.2       +0.3       +0.4       +0.0       +0.0       +0.0       36.0       39.1       -3.1       Horiz Maximized at 4 meters         28       32.797M       41.4       +0.3       +0.4       +0.0       +0.0       +0.0       30.7       39.1       -8.4       Horiz Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       Vert         -28.4       +0.0       +3.0       +0.0       +0.0       33.5       46.4       -12.9       Vert         -28.1       +0.0       +3.0       +0.0       +3.0       +0.0       33.5       46.4       -12.9       Vert											
A   33.823M   47.2   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   36.0   39.1   -3.1   Horiz    -27.9   +14.4   +0.0   +1.6		42.2	+0.3				+0.0	31.0			Horiz
^ 33.823M       47.2       +0.3       +0.4       +0.0       +0.0       +0.0       36.0       39.1       -3.1       Horiz         -27.9       +14.4       +0.0       +1.6       Maximized at 4 meters         28       32.797M       41.4       +0.3       +0.4       +0.0       +0.0       +0.0       30.7       39.1       -8.4       Horiz         Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz         -27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       Vert         -28.4       +0.0       +3.0       +0.0       +0.0       33.5       46.4       -12.9       Vert         31       479.985M       33.0       +1.3       +1.8       +0.3       +17.2       +0.0       33.5       46.4       -12.9       Vert	QP		-27.9	+14.4	+0.0	+1.6			Maximized	at 4	
-27.9 +14.4 +0.0 +1.6 Maximized at 4 meters  28 32.797M 41.4 +0.3 +0.4 +0.0 +0.0 +0.0 30.7 39.1 -8.4 Horiz Maximized at 4 meters  ^ 32.797M 48.0 +0.3 +0.4 +0.0 +0.0 +0.0 37.3 39.1 -1.8 Horiz Maximized at 4 meters  30 399.995M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 34.8 46.4 -11.6 Vert -28.4 +0.0 +3.0 +0.0 +0.0   31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0											
28   32.797M   41.4   +0.3   +0.4   +0.0   +0.0   +0.0   30.7   39.1   -8.4   Horiz	^ 33.823M	47.2					+0.0	36.0			Horiz
28 32.797M 41.4 +0.3 +0.4 +0.0 +0.0 +0.0 30.7 39.1 -8.4 Horiz  QP -27.9 +14.9 +0.0 +1.6 Maximized at 4 meters  ^ 32.797M 48.0 +0.3 +0.4 +0.0 +0.0 +0.0 37.3 39.1 -1.8 Horiz -27.9 +14.9 +0.0 +1.6 Maximized at 4 meters  30 399.995M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 34.8 46.4 -11.6 Vert -28.4 +0.0 +3.0 +0.0 +5.0  31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0			-27.9	+14.4	+0.0	+1.6			Maximized	at 4	
QP       -27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         ^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       Vert         -28.4       +0.0       +3.0       +0.0         +5.0    33.5  46.4  -12.9  Vert  -28.1  +0.0  +3.0  +0.0									meters		
A       32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz         -27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       Vert         -28.4       +0.0       +3.0       +0.0         31       479.985M       33.0       +1.3       +1.8       +0.3       +17.2       +0.0       33.5       46.4       -12.9       Vert         -28.1       +0.0       +3.0       +0.0		41.4					+0.0	30.7	39.1	-8.4	Horiz
^ 32.797M       48.0       +0.3       +0.4       +0.0       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Horiz         -27.9       +14.9       +0.0       +1.6       Maximized at 4 meters         30       399.995M       35.9       +1.2       +1.7       +0.2       +16.2       +0.0       34.8       46.4       -11.6       Vert         -28.4       +0.0       +3.0       +0.0         31       479.985M       33.0       +1.3       +1.8       +0.3       +17.2       +0.0       33.5       46.4       -12.9       Vert         -28.1       +0.0       +3.0       +0.0	QP		-27.9	+14.9	+0.0	+1.6			Maximized	at 4	
-27.9 +14.9 +0.0 +1.6 Maximized at 4 meters  30 399.995M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 34.8 46.4 -11.6 Vert  -28.4 +0.0 +3.0 +0.0  +5.0  31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert  -28.1 +0.0 +3.0 +0.0											
30 399.995M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 34.8 46.4 -11.6 Vert  -28.4 +0.0 +3.0 +0.0  +5.0  31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert  -28.1 +0.0 +3.0 +0.0	^ 32.797M	48.0	+0.3				+0.0	37.3	39.1	-1.8	Horiz
30 399.995M 35.9 +1.2 +1.7 +0.2 +16.2 +0.0 34.8 46.4 -11.6 Vert -28.4 +0.0 +3.0 +0.0 +5.0 31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0			-27.9	+14.9	+0.0	+1.6			Maximized	at 4	
-28.4 +0.0 +3.0 +0.0 +5.0 31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0											
+5.0 31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0	30 399.995M	35.9					+0.0	34.8	46.4	-11.6	Vert
31 479.985M 33.0 +1.3 +1.8 +0.3 +17.2 +0.0 33.5 46.4 -12.9 Vert -28.1 +0.0 +3.0 +0.0				+0.0	+3.0	+0.0					
-28.1 +0.0 +3.0 +0.0											
	31 479.985M	33.0					+0.0	33.5	46.4	-12.9	Vert
+5.0				+0.0	+3.0	+0.0					
			+5.0								



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 16:38:20
Equipment: BPL MV Gateway Sequence#: 309
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6749420821

Equipment Under Test (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 5: 10 meters out from medium voltage lines the BPL is connected to 16.67 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

1. unbureer Eegenus	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-010505
T7=Slant Distance S1 1m	T8=Slant Distance S1 4m
T9=5dB Height Correction	

Measi	ırement Data:	Reading listed by margin.				Test Distance: 10Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.008M	42.7	+0.7	+0.8	+0.1	+0.0	+0.0	40.2	43.5	-3.3	Vert
	QP		-27.7	+15.6	+3.0	+0.0					
			+5.0								
٨	160.008M	47.5	+0.7	+0.8	+0.1	+0.0	+0.0	45.0	43.5	+1.5	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								

Page 122 of 301 Report No.: FC06-025 Volume 3 of 9



3 149.770M	43.0	+0.7	+0.8	+0.1	+0.0	+0.0	40.2	43.5	-3.3	Horiz
QP		-27.6	+15.2	+3.0	+0.0					
4 440 5503 5	460	+5.0	0.0	0.1	0.0	0.0	10.1	42.7	0.1	** '
^ 149.770M	46.2	+0.7	+0.8	+0.1	+0.0	+0.0	43.4	43.5	-0.1	Horiz
		-27.6	+15.2	+3.0	+0.0					
5 20 755) 4	45.5	+5.0	. 0. 4	. 0. 0	. 0. 0	. 0. 0	24.0	20.1	4.2	TT .
5 32.755M	45.5	+0.3	+0.4	+0.0	+0.0	+0.0	34.8	39.1	-4.3	Horiz
		-27.9	+14.9	+0.0	+1.6			Maximized	at 4	
6 33.961M	46.0	+0.3	+0.4	+0.0	+0.0	. 0. 0	34.7	meters	-4.4	Horiz
0 33.901WI	40.0	+0.3 -27.9	+0.4	+0.0	+0.0 +1.6	+0.0	34.7	39.1 Maximized		попх
		-21.9	+14.3	+0.0	+1.0			meters	at 4	
7 32.783M	44.1	+0.3	+0.4	+0.0	+0.0	+0.0	33.4	39.1	-5.7	Vert
7 32.703WI	77.1	-27.9	+14.9	+0.0	+1.6	+0.0	33.4	Maximized		VCIT
		21.7	114.7	10.0	11.0			meters	at 4	
8 30.377M	43.0	+0.3	+0.3	+0.0	+0.0	+0.0	33.3	39.1	-5.8	Horiz
0 30.377111	43.0	-27.9	+16.0	+0.0	+1.6	10.0	33.3	Maximized		HOHZ
		27.5	110.0	10.0	11.0			meters		
9 49.780M	40.4	+0.4	+0.5	+0.1	+0.0	+0.0	33.2	39.1	-6.0	Horiz
		-27.9	+11.7	+3.0	+0.0					
		+5.0								
10 33.947M	44.2	+0.3	+0.4	+0.0	+0.0	+0.0	33.0	39.1	-6.1	Vert
		-27.9	+14.4	+0.0	+1.6			Maximized	at 4	
								meters		
11 149.750M	40.2	+0.7	+0.8	+0.1	+0.0	+0.0	37.4	43.5	-6.1	Vert
		-27.6	+15.2	+3.0	+0.0					
		+5.0								
12 49.865M	40.1	+0.4	+0.5	+0.1	+0.0	+0.0	32.9	39.1	-6.2	Vert
		-27.9	+11.7	+3.0	+0.0					
		+5.0								
13 274.945M	38.1	+1.0	+1.3	+0.2	+0.0	+0.0	40.2	46.4	-6.2	Horiz
QP		-27.9	+19.5	+3.0	+0.0					
		+5.0								
^ 274.945M	42.6	+1.0	+1.3	+0.2	+0.0	+0.0	44.7	46.4	-1.7	Horiz
		-27.9	+19.5	+3.0	+0.0					
15 160 01514	20.6	+5.0	. 0. 0	. 0. 1	. 0. 0	. 0. 0	27.1	42.5	<i>c</i> 1	TT .
15 160.015M	39.6	+0.7	+0.8	+0.1	+0.0	+0.0	37.1	43.5	-6.4	Horiz
		-27.7	+15.6	+3.0	+0.0					
16 249.983M	39.2	+5.0 +0.9	+1.2	+0.3	+0.0	+0.0	39.9	46.4	-6.5	Horiz
QP	39.2	+0.9 -27.8	+1.2	+0.5	+0.0 +0.0	+0.0	39.9	40.4	-0.3	HOHZ
Q1		+5.0	+10.1	+3.0	±0.0					
^ 249.983M	43.9	+0.9	+1.2	+0.3	+0.0	+0.0	44.6	46.4	-1.9	Horiz
277.703IVI	₹3.7	-27.8	+1.2	+3.0	+0.0	10.0	<del></del> 0	70.7	-1.7	110112
		+5.0	110.1	13.0	10.0					
18 30.374M	42.2	+0.3	+0.3	+0.0	+0.0	+0.0	32.5	39.1	-6.6	Vert
QP	r2.2	-27.9	+16.0	+0.0	+1.6	10.0	32.3	Maximized		, 011
<b>X</b> -			. 10.0	. 0.0				meters		
^ 30.374M	45.0	+0.3	+0.3	+0.0	+0.0	+0.0	35.3	39.1	-3.8	Vert
		-27.9	+16.0	+0.0	+1.6			Maximized		
								meters		
								-		

Page 123 of 301 Report No.: FC06-025 Volume 3 of 9



7.7 Horiz
7.8 Vert
8.2 Vert
9.5 Horiz
0.6 Horiz
0.9 Vert
1.7 Vert

Page 124 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 17:06:12
Equipment: BPL MV Gateway Sequence#: 310
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none
Medium Voltage Powerline Filter Mode 1	Corinex	CXF-MVA-M1	none

# Support Devices:

Function	Manufacturer	Model #	S/N	
1 diletion	Manufacturer	1410401 11	D/1N	

## Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 6: 10 meters out from medium voltage lines the BPL is connected to 25.0 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-010505
T7=Slant Distance S1 1m	T8=Slant Distance S1 4m
T9=5dB Height Correction	

Meas	urement Data:	Reading listed by margin.				Test Distance: 10Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	149.755M	44.7	+0.7	+0.8	+0.1	+0.0	+0.0	41.9	43.5	-1.6	Vert
	QP		-27.6	+15.2	+3.0	+0.0					
			+5.0								
^	149.755M	47.6	+0.7	+0.8	+0.1	+0.0	+0.0	44.8	43.5	+1.3	Vert
			-27.6	+15.2	+3.0	+0.0					
			+5.0								

Page 125 of 301 Report No.: FC06-025 Volume 3 of 9



	20.40134	47.0	.0.2	.0.2	. 0. 0	. 0. 0	. 0. 0	27.5	20.1	1.6	<b>T</b> 7 .
3	30.401M	47.2	+0.3 -27.9	+0.3 $+16.0$	+0.0	+0.0 +1.6	+0.0	37.5		-1.6	Vert
'	QP		-21.9	+10.0	+0.0	+1.0			Maximized a meters	at 4	
^	30.401M	51.6	+0.3	+0.3	+0.0	+0.0	+0.0	41.9	39.1	+2.8	Vert
	30.401W	31.0	-27.9	+16.0	+0.0	+1.6	+0.0	41.7	Maximized a		Vert
			-21.9	+10.0	+0.0	+1.0			meters	at <del>-1</del>	
5	33.725M	47.9	+0.3	+0.4	+0.0	+0.0	+0.0	36.8	39.1	-2.3	Vert
_	QP	17.5	-27.9	+14.5	+0.0	+1.6	10.0	30.0	Maximized a		VOIC
	-		_,,,	. 1	. 0.0	. 1.0			meters		
^	33.725M	52.0	+0.3	+0.4	+0.0	+0.0	+0.0	40.9	39.1	+1.8	Vert
			-27.9	+14.5	+0.0	+1.6			Maximized a		
									meters		
7	174.860M	41.7	+0.7	+0.9	+0.1	+0.0	+0.0	39.9	43.5	-3.6	Horiz
(	QP		-27.6	+16.1	+3.0	+0.0					
			+5.0								
٨	174.860M	45.6	+0.7	+0.9	+0.1	+0.0	+0.0	43.8	43.5	+0.3	Horiz
			-27.6	+16.1	+3.0	+0.0					
			+5.0								
9	160.010M	42.0	+0.7	+0.8	+0.1	+0.0	+0.0	39.5	43.5	-4.0	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
10	31.964M	45.3	+0.3	+0.3	+0.0	+0.0	+0.0	34.9	39.1	-4.2	Vert
(	QP		-27.9	+15.3	+0.0	+1.6			Maximized a	at 4	
٨	21.06414	<i>E</i> 1. <i>C</i>	.0.2	.0.2	.0.0	.00	. 0. 0	41.0	meters	. 2. 1	<b>X</b> 74
	31.964M	51.6	+0.3	+0.3	+0.0	+0.0	+0.0	41.2	39.1	+2.1	Vert
			-27.9	+15.3	+0.0	+1.6			Maximized a	at 4	
12	32.786M	45.5	+0.3	+0.4	+0.0	+0.0	+0.0	34.8	meters 39.1	-4.3	Horiz
12	32.760W	43.3	+0.3 -27.9	+14.9	+0.0	+1.6	+0.0	34.0	Maximized a		HOHZ
			-21.9	±14.7	+0.0	+1.0			meters	at 4	
13	249.940M	41.2	+0.9	+1.2	+0.3	+0.0	+0.0	41.9		-4.5	Horiz
13	219.910141	11.2	-27.8	+18.1	+3.0	+0.0	10.0	11.5	10.1	1.5	HOHE
			+5.0	110.1	15.0	10.0					
14	240.020M	40.8	+0.9	+1.2	+0.3	+0.0	+0.0	41.4	46.4	-5.0	Vert
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
15	224.955M	40.3	+0.8	+1.1	+0.2	+0.0	+0.0	40.2	46.4	-6.2	Horiz
			-27.7	+17.5	+3.0	+0.0					
			+5.0								
16	33.507M	43.8	+0.3	+0.4	+0.0	+0.0	+0.0	32.8	39.1	-6.3	Horiz
			-27.9	+14.6	+0.0	+1.6			Maximized a	at 4	
									meters		
17	49.686M	39.8	+0.4	+0.5	+0.1	+0.0	+0.0	32.6	39.1	-6.5	Horiz
(	QP		-27.9	+11.7	+3.0	+0.0					
			+5.0								
^	49.686M	43.9	+0.4	+0.5	+0.1	+0.0	+0.0	36.7	39.1	-2.4	Horiz
			-27.9	+11.7	+3.0	+0.0					
1			+5.0								

Page 126 of 301 Report No.: FC06-025 Volume 3 of 9



60.090M	39.0	+0.7	+0.8	+0.1	+0.0	+0.0	36.5	43.5	-7.0	Horiz
		-27.7	+15.6	+3.0	+0.0					
		+5.0								
50.090M	43.3	+0.7	+0.8	+0.1	+0.0	+0.0	40.8	43.5	-2.7	Horiz
		-27.7	+15.6	+3.0	+0.0					
		+5.0								
9.835M	38.9	+0.4	+0.5	+0.1	+0.0	+0.0	31.7	39.1	-7.4	Vert
		-27.9	+11.7	+3.0	+0.0					
		+5.0								
4.058M	42.9	+0.3	+0.4	+0.0	+0.0	+0.0	31.6	39.1	-7.5	Horiz
		-27.9	+14.3	+0.0	+1.6			Maximized	at 4	
								meters		
1.371M	41.4	+0.3	+0.3	+0.0	+0.0	+0.0	31.2	39.1	-7.9	Horiz
		-27.9	+15.5	+0.0	+1.6			Maximized	at 4	
								meters		
19.995M	34.3	+1.0	+1.4	+0.2	+19.5	+0.0	36.3	46.4	-10.1	Vert
		-28.1	+0.0	+3.0	+0.0					
		+5.0								
24.795M	33.8	+0.8	+1.1	+0.2	+0.0	+0.0	33.8	46.4	-12.6	Vert
		-27.6	+17.5	+3.0	+0.0					
		+5.0								
	9.835M 4.058M 1.371M 9.995M	9.835M 38.9 4.058M 42.9 1.371M 41.4 9.995M 34.3	-27.7 +5.0 60.090M 43.3 +0.7 -27.7 +5.0 9.835M 38.9 +0.4 -27.9 +5.0 4.058M 42.9 +0.3 -27.9 1.371M 41.4 +0.3 -27.9 9.995M 34.3 +1.0 -28.1 +5.0 44.795M 33.8 +0.8 -27.6	-27.7 +15.6 +5.0 60.090M 43.3 +0.7 +0.8 -27.7 +15.6 +5.0 9.835M 38.9 +0.4 +0.5 -27.9 +11.7 +5.0 4.058M 42.9 +0.3 +0.4 -27.9 +14.3 1.371M 41.4 +0.3 +0.3 -27.9 +15.5 9.995M 34.3 +1.0 +1.4 -28.1 +0.0 +5.0 4.795M 33.8 +0.8 +1.1 -27.6 +17.5	-27.7 +15.6 +3.0 +5.0 -27.7 +15.6 +3.0 -27.7 +15.6 +3.0 +5.0 9.835M 38.9 +0.4 +0.5 +0.1 -27.9 +11.7 +3.0 +5.0 4.058M 42.9 +0.3 +0.4 +0.0 -27.9 +14.3 +0.0 -27.9 +15.5 +0.0 1.371M 41.4 +0.3 +0.3 +0.0 -27.9 +15.5 +0.0 9.995M 34.3 +1.0 +1.4 +0.2 -28.1 +0.0 +3.0 +5.0 24.795M 33.8 +0.8 +1.1 +0.2 -27.6 +17.5 +3.0	-27.7 +15.6 +3.0 +0.0 +5.0  60.090M 43.3 +0.7 +0.8 +0.1 +0.0 -27.7 +15.6 +3.0 +0.0  9.835M 38.9 +0.4 +0.5 +0.1 +0.0 -27.9 +11.7 +3.0 +0.0  4.058M 42.9 +0.3 +0.4 +0.0 +0.0 -27.9 +14.3 +0.0 +1.6  1.371M 41.4 +0.3 +0.3 +0.0 +0.0  -27.9 +15.5 +0.0 +1.6  9.995M 34.3 +1.0 +1.4 +0.2 +19.5  -28.1 +0.0 +3.0 +0.0  +5.0  24.795M 33.8 +0.8 +1.1 +0.2 +0.0  -27.6 +17.5 +3.0 +0.0	-27.7 +15.6 +3.0 +0.0 +5.0  60.090M 43.3 +0.7 +0.8 +0.1 +0.0 +0.0 -27.7 +15.6 +3.0 +0.0  9.835M 38.9 +0.4 +0.5 +0.1 +0.0 +0.0 -27.9 +11.7 +3.0 +0.0  4.058M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 -27.9 +14.3 +0.0 +1.6  1.371M 41.4 +0.3 +0.3 +0.0 +0.0 +1.6  1.371M 41.4 +0.3 +0.3 +0.0 +0.0 +1.6  9.995M 34.3 +1.0 +1.4 +0.2 +19.5 +0.0  -28.1 +0.0 +3.0 +0.0  +5.0  24.795M 33.8 +0.8 +1.1 +0.2 +0.0 +0.0  -27.6 +17.5 +3.0 +0.0	-27.7 +15.6 +3.0 +0.0 +5.0 60.090M 43.3 +0.7 +0.8 +0.1 +0.0 +0.0 40.8 -27.7 +15.6 +3.0 +0.0 +5.0 9.835M 38.9 +0.4 +0.5 +0.1 +0.0 +0.0 31.7 -27.9 +11.7 +3.0 +0.0 +5.0 4.058M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 31.6 -27.9 +14.3 +0.0 +1.6 1.371M 41.4 +0.3 +0.3 +0.0 +0.0 +0.0 31.2 -27.9 +15.5 +0.0 +1.6 9.995M 34.3 +1.0 +1.4 +0.2 +19.5 +0.0 36.3 -28.1 +0.0 +3.0 +0.0 +5.0 24.795M 33.8 +0.8 +1.1 +0.2 +0.0 +0.0 33.8 -27.6 +17.5 +3.0 +0.0	-27.7 +15.6 +3.0 +0.0 +5.0 60.090M 43.3 +0.7 +0.8 +0.1 +0.0 +0.0 40.8 43.5 -27.7 +15.6 +3.0 +0.0 +5.0 9.835M 38.9 +0.4 +0.5 +0.1 +0.0 +0.0 31.7 39.1 -27.9 +11.7 +3.0 +0.0 +5.0 4.058M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 31.6 39.1 -27.9 +14.3 +0.0 +1.6 Maximized meters 1.371M 41.4 +0.3 +0.3 +0.0 +0.0 +0.0 31.2 39.1 -27.9 +15.5 +0.0 +1.6 Maximized meters 9.995M 34.3 +1.0 +1.4 +0.2 +19.5 +0.0 36.3 46.4 -28.1 +0.0 +3.0 +0.0 +5.0 4.795M 33.8 +0.8 +1.1 +0.2 +0.0 +0.0 33.8 46.4	-27.7 +15.6 +3.0 +0.0 +5.0  0.090M 43.3 +0.7 +0.8 +0.1 +0.0 +0.0 40.8 43.5 -2.7 -27.7 +15.6 +3.0 +0.0 +5.0  9.835M 38.9 +0.4 +0.5 +0.1 +0.0 +0.0 31.7 39.1 -7.4 -27.9 +11.7 +3.0 +0.0 +5.0  4.058M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 31.6 39.1 -7.5 -27.9 +14.3 +0.0 +1.6 Maximized at 4 meters  1.371M 41.4 +0.3 +0.3 +0.0 +0.0 +0.0 31.2 39.1 -7.9 -27.9 +15.5 +0.0 +1.6 Maximized at 4 meters  9.995M 34.3 +1.0 +1.4 +0.2 +19.5 +0.0 36.3 46.4 -10.1 -28.1 +0.0 +3.0 +0.0 +5.0  4.795M 33.8 +0.8 +1.1 +0.2 +0.0 +0.0 33.8 46.4 -12.6 -27.6 +17.5 +3.0 +0.0

Page 127 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 17:33:09
Equipment: BPL MV Gateway Sequence#: 311
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 7: 10 meters out from medium voltage lines the BPL is connected to 33.33 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=HP-8447D Pre Amp AN 00567 T6=ANT-AN00503-010505
T7=Slant Distance S1 1m T8=Slant Distance S1 4m
T9=5dB Height Correction

Med	asurement Data:	Data: Reading listed by margin. Test Distance: 10Meter						e: 10Meter	S		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1 32.624M	48.3	+0.3	+0.4	+0.0	+0.0	+0.0	37.6	39.1	-1.5	Vert
	QP		-27.9	+14.9	+0.0	+1.6			Maximized	d at 4	
									meters		
	^ 32.624M	51.7	+0.3	+0.4	+0.0	+0.0	+0.0	41.0	39.1	+1.9	Vert
			-27.9	+14.9	+0.0	+1.6			Maximized meters	d at 4	

Page 128 of 301 Report No.: FC06-025 Volume 3 of 9



3   149.760M   43.2   +0.7   +0.8   +0.1   +0.0   +0.0   40.4   43.5   -3.1   Horiz   +5.0											
149.760M	3 149.760M	43.2	+0.7	+0.8	+0.1	+0.0	+0.0	40.4	43.5	-3.1	Horiz
149.760M	QP		-27.6	+15.2	+3.0	+0.0					
1			+5.0								
+5.0	^ 149.760M	46.4	+0.7	+0.8	+0.1	+0.0	+0.0	43.6	43.5	+0.1	Horiz
S 240,000M			-27.6	+15.2	+3.0	+0.0					
QP			+5.0								
11   32.585M   43.1   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   44.1   46.4   -2.3   Vert   +5.0   +0.0   +1.0   +0.0   +0.0   44.1   46.4   -2.3   Vert   +5.0   +5.0   +1.0   +0.0   +0.0   44.1   46.4   -2.3   Vert   +5.0   +1.5	5 240.000M	42.0	+0.9	+1.2	+0.3	+0.0	+0.0	42.6	46.4	-3.8	Vert
^ 240.000M         43.5         +0.9         +1.2         +0.3         +0.0         +0.0         44.1         46.4         -2.3         Vert           27.7         +17.9         +3.0         +0.0         +0.0         +0.0         44.1         46.4         -2.3         Vert           7         33.971M         45.7         +0.3         +0.4         +0.0         +0.0         +0.0         34.4         39.1         -4.7         Horiz Maximized at 4 meters           ^ 33.971M         49.7         +0.3         +0.4         +0.0         +0.0         +0.0         38.4         39.1         -0.7         Horiz Maximized at 4 meters           9         30.400M         43.0         +0.3         +0.3         +0.0         +0.0         +0.0         33.3         39.1         -5.8         Horiz Maximized at 4 meters           ^ 30.400M         47.5         +0.3         +0.3         +0.0         +0.0         +0.0         37.8         39.1         -1.3         Horiz Maximized at 4 meters           11         32.585M         43.1         +0.3         +0.4         +0.0         +0.0         38.7         39.1         -0.6         Horiz Maximized at 4 meters           ^ 32.585M         49.3	QP		-27.7	+17.9	+3.0	+0.0					
11   32,585M   43,1   +0,3   +0,4   +0,0   +0,0   +1,6   +1,0   +1,0   +1,6   +1,0			+5.0								
1	^ 240.000M	43.5				+0.0	+0.0	44.1	46.4	-2.3	Vert
7   33.971M   45.7   +0.3   +0.4   +0.0   +0.0   +0.0   34.4   39.1   -4.7   Horiz   Maximized at 4   meters     ^ 33.971M   49.7   +0.3   +0.4   +0.0   +0.0   +0.0   38.4   39.1   -0.7   Horiz   Maximized at 4   meters     9   30.400M   43.0   +0.3   +0.3   +0.0   +1.6   Maximized at 4   meters     0   27.9   +16.0   +0.0   +1.6   Maximized at 4   meters     ^ 30.400M   47.5   +0.3   +0.3   +0.0   +0.0   +1.6   Maximized at 4   meters     11   32.585M   43.1   +0.3   +0.4   +0.0   +0.0   +1.6   Maximized at 4   meters     12   32.585M   49.3   +0.3   +0.4   +0.0   +0.0   +0.0   32.5   39.1   -6.6   Horiz   Maximized at 4   meters     ^ 32.585M   49.3   +0.3   +0.4   +0.0   +0.0   +0.0   38.7   39.1   -0.4   Horiz   Maximized at 4   meters     13   33.693M   42.9   +0.3   +0.4   +0.0   +0.0   +0.0   31.8   39.1   -0.4   Horiz   Maximized at 4   meters     13   33.693M   42.9   +0.3   +0.4   +0.0   +0.0   +0.0   31.8   39.1   -7.3   Vert   Waximized at 4   meters     ^ 33.693M   48.4   +0.3   +0.4   +0.0   +0.0   +0.0   31.8   39.1   -7.3   Vert   Maximized at 4   meters     ^ 33.693M   48.4   +0.3   +0.4   +0.0   +0.0   +0.0   37.3   39.1   -1.8   Vert   Maximized at 4   meters     ^ 30.680M   47.1   +0.3   +0.3   +0.0   +0.0   +0.0   37.3   39.1   -1.8   Vert   Maximized at 4   meters     ^ 30.680M   47.1   +0.3   +0.3   +0.0   +0.0   +0.0   37.9   46.4   -8.5   Vert   -27.9   +15.9   +0.0   +1.6   Maximized at 4   meters     17   249.855M   37.2   +0.9   +1.2   +0.3   +0.0   +0.0   +0.0   37.9   46.4   -8.5   Vert   -27.8   +18.1   +3.0   +0.0   +0.0   +0.0   34.8   43.5   -8.7   Vert   -27.6   +16.1   +3.0   +0.0   +0.0   -4.0			-27.7	+17.9	+3.0	+0.0					
QP											
Maximized at 4   Maximized A   Maximized A   Maximized A   Maximized A 4   M		45.7					+0.0	34.4			Horiz
^         33.971M         49.7         +0.3         +0.4         +0.0         +0.0         +0.0         38.4         39.1         -0.7         Horiz Maximized at 4 meters           9         30.400M         43.0         +0.3         +0.3         +0.0         +0.0         +0.0         33.3         39.1         -5.8         Horiz Maximized at 4 meters           ^         30.400M         47.5         +0.3         +0.0         +0.0         +0.0         37.8         39.1         -1.3         Horiz Maximized at 4 meters           11         32.585M         43.1         +0.3         +0.4         +0.0         +0.0         +0.0         32.5         39.1         -6.6         Horiz Maximized at 4 meters           ^         32.585M         43.1         +0.3         +0.4         +0.0         +0.0         +0.0         38.7         39.1         -6.6         Horiz Maximized at 4 meters           ^         32.585M         49.3         +0.3         +0.4         +0.0         +0.0         +0.0         38.7         39.1         -0.4         Horiz Maximized at 4 meters           13         33.693M         42.9         +0.3         +0.4         +0.0         +0.0         +0.0         31.8         39.1	QP		-27.9	+14.3	+0.0	+1.6			Maximized a	t 4	
Part											
Maximized at 4   Maximized A   Maximi	^ 33.971M	49.7					+0.0	38.4			Horiz
9 30.400M			-27.9	+14.3	+0.0	+1.6			Maximized a	t 4	
QP											
National Arrowship   Nationa	9 30.400M	43.0					+0.0	33.3			Horiz
^ 30.400M       47.5       +0.3       +0.3       +0.0       +0.0       +0.0       +0.0       37.8       39.1       -1.3       Horiz Maximized at 4 meters         11       32.585M       43.1       +0.3       +0.4       +0.0       +0.0       +0.0       32.5       39.1       -6.6       Horiz Maximized at 4 meters         ^ 32.585M       49.3       +0.3       +0.4       +0.0       +0.0       +1.6       38.7       39.1       -0.4       Horiz Maximized at 4 meters         13       33.693M       42.9       +0.3       +0.4       +0.0       +0.0       +0.0       31.8       39.1       -0.4       Horiz Maximized at 4 meters         13       33.693M       42.9       +0.3       +0.4       +0.0       +0.0       +0.0       31.8       39.1       -7.3       Vert Maximized at 4 meters         15       30.680M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3	QP		-27.9	+16.0	+0.0	+1.6			Maximized a	t 4	
-27.9 +16.0 +0.0 +1.6 Maximized at 4 meters  11 32.585M 43.1 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 Maximized at 4 meters  ^ 32.585M 49.3 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  ^ 32.585M 49.3 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 Maximized at 4 meters  13 33.693M 42.9 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  13 33.693M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 Maximized at 4 meters  ^ 33.693M 48.4 +0.3 +0.4 +0.0 +0.0 +1.6 Maximized at 4 meters  15 30.680M 40.6 +0.3 +0.3 +0.4 +0.0 +1.6 Maximized at 4 meters  15 30.680M 40.6 +0.3 +0.3 +0.0 +1.6 Maximized at 4 meters  ^ 30.680M 47.1 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 Maximized at 4 meters  17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +1.6 Maximized at 4 meters  18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert  -27.6 +16.1 +3.0 +0.0											
11   32.585M   43.1   +0.3   +0.4   +0.0   +0.0   +0.0   32.5   39.1   -6.6   Horiz   Maximized at 4   meters     ^ 32.585M   49.3   +0.3   +0.4   +0.0   +0.0   +0.0   38.7   39.1   -0.4   Horiz   Maximized at 4   meters     13   33.693M   42.9   +0.3   +0.4   +0.0   +0.0   +1.6   Maximized at 4   meters     13   33.693M   42.9   +0.3   +0.4   +0.0   +0.0   +1.6   Maximized at 4   meters     ^ 33.693M   48.4   +0.3   +0.4   +0.0   +0.0   +0.0   37.3   39.1   -7.3   Vert	^ 30.400M	47.5					+0.0	37.8			Horiz
11   32.585M   43.1   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   32.5   39.1   -6.6   Horiz			-27.9	+16.0	+0.0	+1.6			Maximized a	t 4	
QP       -27.9       +15.0       +0.0       +1.6       Maximized at 4 meters         ^ 32.585M       49.3       +0.3       +0.4       +0.0       +0.0       +0.0       38.7       39.1       -0.4       Horiz Maximized at 4 meters         13       33.693M       42.9       +0.3       +0.4       +0.0       +0.0       +0.0       31.8       39.1       -7.3       Vert Maximized at 4 meters         ^ 33.693M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       37.9       46.4       -8.5 <td></td>											
^ 32.585M         49.3         +0.3         +0.4         +0.0         +0.0         +0.0         38.7         39.1         -0.4         Horiz Maximized at 4 meters           13         33.693M         42.9         +0.3         +0.4         +0.0         +0.0         +0.0         31.8         39.1         -7.3         Vert Maximized at 4 meters           ^ 33.693M         48.4         +0.3         +0.4         +0.0         +0.0         +0.0         37.3         39.1         -1.8         Vert Maximized at 4 meters           15         30.680M         40.6         +0.3         +0.3         +0.0         +0.0         +0.0         30.8         39.1         -8.3         Vert Maximized at 4 meters           ^ 30.680M         47.1         +0.3         +0.3         +0.0         +0.0         +0.0         37.3         39.1         -1.8         Vert Maximized at 4 meters           ^ 30.680M         47.1         +0.3         +0.0         +0.0         +0.0         37.3         39.1         -1.8         Vert Maximized at 4 meters           17         249.855M         37.2         +0.9         +1.2         +0.3         +0.0         +0.0         37.9         46.4         -8.5         Vert Maximized at 4 meters		43.1					+0.0	32.5			Horiz
^ 32.585M       49.3       +0.3       +0.4       +0.0       +0.0       +0.0       38.7       39.1       -0.4       Horiz Maximized at 4 meters         13       33.693M       42.9       +0.3       +0.4       +0.0       +0.0       +0.0       31.8       39.1       -7.3       Vert Maximized at 4 meters         ^ 33.693M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert Maximized at 4 meters         18       174.810M       36.6       +0.7       +0.9       +	QP		-27.9	+15.0	+0.0	+1.6			Maximized a	t 4	
-27.9 +15.0 +0.0 +1.6 Maximized at 4 meters  13 33.693M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 31.8 39.1 -7.3 Vert Maximized at 4 meters  ^ 33.693M 48.4 +0.3 +0.4 +0.0 +0.0 +0.0 37.3 39.1 -1.8 Vert Maximized at 4 meters  15 30.680M 40.6 +0.3 +0.3 +0.0 +0.0 +1.6 Maximized at 4 meters  15 30.680M 47.1 +0.3 +0.3 +0.0 +0.0 +1.6 Maximized at 4 meters  ^ 30.680M 47.1 +0.3 +0.3 +0.0 +0.0 +1.6 Maximized at 4 meters  17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +0.0 +0.0 37.9 46.4 -8.5 Vert -27.8 +18.1 +3.0 +0.0 +5.0  18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0											
13   33.693M   42.9   +0.3   +0.4   +0.0   +0.0   +0.0   31.8   39.1   -7.3   Vert	^ 32.585M	49.3					+0.0	38.7			Horiz
13 33.693M 42.9 +0.3 +0.4 +0.0 +0.0 +0.0 31.8 39.1 -7.3 Vert  QP -27.9 +14.5 +0.0 +1.6 Maximized at 4 meters  A 33.693M 48.4 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 37.3 39.1 -1.8 Vert  -27.9 +14.5 +0.0 +1.6 Maximized at 4 meters  15 30.680M 40.6 +0.3 +0.3 +0.0 +0.0 +0.0 30.8 39.1 -8.3 Vert  QP -27.9 +15.9 +0.0 +1.6 Maximized at 4 meters  A 30.680M 47.1 +0.3 +0.3 +0.0 +0.0 +0.0 37.3 39.1 -1.8 Vert  -27.9 +15.9 +0.0 +1.6 Maximized at 4 meters  17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +0.0 37.9 46.4 -8.5 Vert  -27.8 +18.1 +3.0 +0.0 +0.0 +0.0 37.9 46.4 -8.5 Vert  -27.8 +18.1 +3.0 +0.0 +0.0 +0.0 37.9 46.4 -8.5 Vert  -27.6 +16.1 +3.0 +0.0 +0.0 34.8 43.5 -8.7 Vert			-27.9	+15.0	+0.0	+1.6				t 4	
QP       -27.9       +14.5       +0.0       +1.6       Maximized at 4 meters         ^ 33.693M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert Maximized at 4 meters         18       174.810M       36.6       +0.7       +0.9       +0.1       +0.0       +0.0       34.8       43.5       -8.7       Vert Vert Vert											
A       33.693M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert         -27.9       +14.5       +0.0       +1.6       Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert         QP       -27.9       +15.9       +0.0       +1.6       Maximized at 4 meters         ^       30.680M       47.1       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert         -27.9       +15.9       +0.0       +1.6       Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert         -27.8       +18.1       +3.0       +0.0       +0.0       34.8       43.5       -8.7       Vert         18       174.810M       36.6       +0.7       +0.9       +0.1       +0.0       +0.0       34.8       43.5       -8.7       Vert		42.9					+0.0	31.8			Vert
^ 33.693M       48.4       +0.3       +0.4       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert         -27.9       +14.5       +0.0       +1.6       Maximized at 4 meters         15       30.680M       40.6       +0.3       +0.3       +0.0       +0.0       +0.0       30.8       39.1       -8.3       Vert         Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert         -27.9       +15.9       +0.0       +1.6       Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert         -27.8       +18.1       +3.0       +0.0       +0.0       34.8       43.5       -8.7       Vert         18       174.810M       36.6       +0.7       +0.9       +0.1       +0.0       +0.0       34.8       43.5       -8.7       Vert         -27.6       +16.1       +3.0       +0.0       +0.0       34.8       43.5       -8.7       Vert	QP		-27.9	+14.5	+0.0	+1.6				t 4	
-27.9 +14.5 +0.0 +1.6 Maximized at 4 meters  15 30.680M											
15   30.680M   40.6   +0.3   +0.3   +0.0   +0.0   +0.0   30.8   39.1   -8.3   Vert	^ 33.693M	48.4					+0.0	37.3			Vert
15 30.680M			-27.9	+14.5	+0.0	+1.6				t 4	
QP       -27.9       +15.9       +0.0       +1.6       Maximized at 4 meters         ^ 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert         -27.9       +15.9       +0.0       +1.6       Maximized at 4 meters         17       249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert         -27.8       +18.1       +3.0       +0.0       +0.0       34.8       43.5       -8.7       Vert         18       174.810M       36.6       +0.7       +0.9       +0.1       +0.0       +0.0       34.8       43.5       -8.7       Vert										0 -	
A 30.680M       47.1       +0.3       +0.3       +0.0       +0.0       +0.0       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         17 249.855M       37.2       +0.9       +1.2       +0.3       +0.0       +0.0       37.9       46.4       -8.5       Vert -27.8         -27.8       +18.1       +3.0       +0.0       +0.0       34.8       43.5       -8.7       Vert -27.6         18 174.810M       36.6       +0.7       +0.9       +0.1       +0.0       +0.0       34.8       43.5       -8.7       Vert -27.6		40.6					+0.0	30.8			Vert
^ 30.680M	QP		-27.9	+15.9	+0.0	+1.6				t 4	
-27.9 +15.9 +0.0 +1.6 Maximized at 4 meters  17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +0.0 37.9 46.4 -8.5 Vert -27.8 +18.1 +3.0 +0.0 +5.0  18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0	4 00 000	45.1	0.2	0.2	0.0		0.0	25.3		1.0	¥7.
17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +0.0 37.9 46.4 -8.5 Vert -27.8 +18.1 +3.0 +0.0 +5.0  18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0	^ 30.680M	47.1					+0.0	37.3			vert
17 249.855M 37.2 +0.9 +1.2 +0.3 +0.0 +0.0 37.9 46.4 -8.5 Vert -27.8 +18.1 +3.0 +0.0 +5.0  18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0			-27.9	+15.9	+0.0	+1.6				τ4	
-27.8 +18.1 +3.0 +0.0 +5.0 18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0	17 040 05535	27.2	.00	. 1.2	. 0. 2	.00	. 0. 0	27.0		0.7	<b>T.7</b> .
+5.0 18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0	1/ 249.855M	31.2					+0.0	37.9	46.4	-8.5	vert
18 174.810M 36.6 +0.7 +0.9 +0.1 +0.0 +0.0 34.8 43.5 -8.7 Vert -27.6 +16.1 +3.0 +0.0				+18.1	+3.0	+0.0					
-27.6 + 16.1 + 3.0 + 0.0	10 174 0103 5	26.6		.00	. 0.1	.00	.0.0	24.0	42.5	0.7	<b>T7</b> .
	18 174.810M	36.6					+0.0	34.8	43.5	-8.7	Vert
+5.0				+16.1	+3.0	+0.0					
			+5.0								

Page 129 of 301 Report No.: FC06-025 Volume 3 of 9



19	240.010M	36.1	+0.9	+1.2	+0.3	+0.0	+0.0	36.7	46.4	-9.7	Horiz
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
20	49.760M	36.4	+0.4	+0.5	+0.1	+0.0	+0.0	29.2	39.1	-10.0	Horiz
			-27.9	+11.7	+3.0	+0.0					
			+5.0								
21	124.635M	37.2	+0.6	+0.8	+0.1	+0.0	+0.0	32.3	43.5	-11.2	Vert
			-27.7	+13.3	+3.0	+0.0					
			+5.0								
22	159.965M	34.0	+0.7	+0.8	+0.1	+0.0	+0.0	31.5	43.5	-12.0	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
23	320.010M	32.1	+1.0	+1.4	+0.2	+19.5	+0.0	34.1	46.4	-12.3	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
24	480.125M	33.1	+1.3	+1.8	+0.3	+17.2	+0.0	33.6	46.4	-12.8	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
25	160.010M	32.5	+0.7	+0.8	+0.1	+0.0	+0.0	30.0	43.5	-13.5	Horiz
			-27.7	+15.6	+3.0	+0.0					
			+5.0								

Page 130 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 17:47:27
Equipment: BPL MV Gateway Sequence#: 312
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function Manufacturer	Model #	S/N	
-----------------------	---------	-----	--

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 8: 10 meters out from medium voltage lines the BPL is connected to 41.67 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port. No signals found above 300MHz.

# Transducer Legend:

Trumsumeer Eegenus	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=HP-8447D Pre Amp AN 00567
T5=ANT-AN00503-010505	T6=Slant Distance S1 1m
T7=Slant Distance S1 4m	T8=5dB Height Correction

Mea	surement Data:	Re	eading lis	ted by ma	argin.						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1 30.780M	44.3	+0.3	+0.3	+0.0	-27.9	+0.0	34.4	39.1	-4.7	Vert
	QP		+15.8	+0.0	+1.6		Maximized at 4				
									meters		
	^ 30.780M	45.4	+0.3	+0.3	+0.0	-27.9	+0.0	35.5	39.1	-3.6	Vert
			+15.8	+0.0	+1.6				Maximized	d at 4	
									meters		

Page 131 of 301 Report No.: FC06-025 Volume 3 of 9



3	33.677M	45.3	+0.3	+0.4	+0.0	-27.9	+0.0	34.1	39.1	-5.0	Horiz
			+14.5	+0.0	+1.6				Maximized at	4	
									meters		
4	240.000M	40.6	+0.9	+1.2	+0.3	-27.7	+0.0	41.2	46.4	-5.2	Vert
	QP		+17.9	+3.0	+0.0	+5.0					
٨	240.000M	42.4	+0.9	+1.2	+0.3	-27.7	+0.0	43.0	46.4	-3.5	Vert
			+17.9	+3.0		+5.0					
	30.488M	41.5	+0.3	+0.3	+0.0	-27.9	+0.0	31.8		-7.3	Horiz
	QP		+16.0	+0.0	+1.6				Maximized at	4	
									meters		
٨	30.488M	46.8	+0.3	+0.3	+0.0	-27.9	+0.0	37.1	39.1	-2.0	Horiz
			+16.0	+0.0	+1.6				Maximized at	4	
									meters		
8	49.710M	38.7	+0.4	+0.5	+0.1	-27.9	+0.0	31.5	39.1	-7.6	Horiz
			+11.7	+3.0	+0.0	+5.0					
9	49.876M	37.7	+0.4	+0.5	+0.1	-27.9	+0.0	30.5	39.1	-8.6	Vert
			+11.7	+3.0	+0.0	+5.0					
10		40.8	+0.3	+0.4	+0.0	-27.9	+0.0	30.1	39.1	-9.0	Horiz
	QP		+14.9	+0.0	+1.6				Maximized at	4	
									meters		
٨	32.758M	46.4	+0.3	+0.4	+0.0	-27.9	+0.0	35.7		-3.4	Horiz
			+14.9	+0.0	+1.6				Maximized at	4	
									meters		
12	160.040M	36.9	+0.7	+0.8	+0.1	-27.7	+0.0	34.4	43.5	-9.1	Vert
			+15.6	+3.0	+0.0	+5.0					
13	240.005M	34.9	+0.9	+1.2	+0.3	-27.7	+0.0	35.5	46.4	10.9	Horiz
			+17.9	+3.0	+0.0	+5.0					
14	224.955M	35.0	+0.8	+1.1	+0.2	-27.7	+0.0	34.9	46.4 -	11.5	Horiz
			+17.5	+3.0	+0.0	+5.0					
15	32.728M	38.0	+0.3	+0.4	+0.0	-27.9	+0.0	27.3		11.8	Vert
	QP		+14.9	+0.0	+1.6				Maximized at	4	
									meters		
٨	32.728M	46.9	+0.3	+0.4	+0.0	-27.9	+0.0	36.2		-2.9	Vert
			+14.9	+0.0	+1.6				Maximized at	4	
									meters		
17		38.4	+0.3	+0.4	+0.0	-27.9	+0.0	27.2	39.1 -	11.9	Vert
	QP		+14.4	+0.0	+1.6				Maximized at	4	
									meters		
^	33.750M	43.4	+0.3	+0.4	+0.0	-27.9	+0.0	32.2		-6.9	Vert
			+14.4	+0.0	+1.6				Maximized at	4	
									meters		
19	249.866M	33.4	+0.9	+1.2	+0.3	-27.8	+0.0	34.1	46.4 -	-12.3	Vert
			+18.1	+3.0	+0.0	+5.0					

Page 132 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/28/2006Test Type:Radiated ScanTime:18:18:17Equipment:BPL MV GatewaySequence#:313Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N
----------	--------------	---------	-----

### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 9: 10 meters out from medium voltage lines the BPL is connected to 53.47 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=HP-8447D Pre Amp AN 00567	T6=ANT-AN00503-010505
T7=Slant Distance S1 1m	T8=Slant Distance S1 4m
TO-5dD Height Compation	

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
			T5	T6	T7	T8						
			T9									
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	32.449M	45.7	+0.3	+0.4	+0.0	+0.0	+0.0	35.1	39.1	-4.0	Horiz	
			-27.9	+15.0	+0.0	+1.6			Maximized	d at 4		
									meters			
2	249.835M	40.9	+0.9	+1.2	+0.3	+0.0	+0.0	41.6	46.4	-4.9	Vert	
			-27.8	+18.1	+3.0	+0.0						
			+5.0									

Page 133 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.638M	43.3	+0.3	+0.3	+0.0	+0.0	+0.0	33.5			Vert
	QP		-27.9	+15.9	+0.0	+1.6			Maximized	l at 4	
									meters		
^	30.638M	47.2	+0.3	+0.3	+0.0	+0.0	+0.0	37.4	39.1	-1.7	Vert
			-27.9	+15.9	+0.0	+1.6			Maximized	l at 4	
									meters		
5	32.263M	43.5	+0.3	+0.3	+0.0	+0.0	+0.0	32.9	39.1	-6.2	Vert
			-27.9	+15.1	+0.0	+1.6			Maximized	l at 4	
									meters		
6	240.030M	38.3	+0.9	+1.2	+0.3	+0.0	+0.0	38.9	46.4	-7.5	Vert
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
7	30.363M	41.3	+0.3	+0.3	+0.0	+0.0	+0.0	31.6	39.1	-7.5	Horiz
			-27.9	+16.0	+0.0	+1.6			Maximized	l at 4	
									meters		
8	33.702M	42.1	+0.3	+0.4	+0.0	+0.0	+0.0	31.0	39.1	-8.1	Vert
			-27.9	+14.5	+0.0	+1.6			Maximized	l at 4	
									meters		
9	33.737M	41.9	+0.3	+0.4	+0.0	+0.0	+0.0	30.7	39.1	-8.4	Horiz
			-27.9	+14.4	+0.0	+1.6			Maximized	l at 4	
									meters		
10	174.835M	34.9	+0.7	+0.9	+0.1	+0.0	+0.0	33.1	43.5	-10.5	Vert
			-27.6	+16.1	+3.0	+0.0					
			+5.0								
11	320.015M	33.7	+1.0	+1.4	+0.2	+19.5	+0.0	35.7	46.4	-10.7	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
12	49.870M	35.5	+0.4	+0.5	+0.1	+0.0	+0.0	28.3	39.1	-10.8	Horiz
			-27.9	+11.7	+3.0	+0.0					
			+5.0								
13	274.965M	33.2	+1.0	+1.3	+0.2	+0.0	+0.0	35.3	46.4	-11.1	Horiz
			-27.9	+19.5	+3.0	+0.0					
			+5.0								
14	174.790M	33.2	+0.7	+0.9	+0.1	+0.0	+0.0	31.4	43.5	-12.1	Horiz
			-27.6	+16.1	+3.0	+0.0					
			+5.0								

Page 134 of 301 Report No.: FC06-025 Volume 3 of 9



15	160.015M	33.7	+0.7	+0.8	+0.1	+0.0	+0.0	31.2	43.5	-12.3	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
16	160.060M	32.9	+0.7	+0.8	+0.1	+0.0	+0.0	30.4	43.5	-13.1	Horiz
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
17	49.895M	33.2	+0.4	+0.5	+0.1	+0.0	+0.0	25.9	39.1	-13.2	Vert
			-27.9	+11.6	+3.0	+0.0					
			+5.0								
18	74.485M	37.7	+0.4	+0.5	+0.0	+0.0	+0.0	25.1	39.1	-14.0	Vert
			-27.9	+6.4	+3.0	+0.0					
			+5.0								

Page 135 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/28/2006Test Type:Radiated ScanTime:18:29:10Equipment:BPL MV GatewaySequence#:314Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6749420821

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 10: 10 meters out from medium voltage lines the BPL is connected to 58.33 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=HP-8447D Pre Amp AN 00567 T6=ANT-AN00503-010505
T7=Slant Distance S1 1m T8=Slant Distance S1 4m
T9=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10Meters

_	Measurement Data: Reading listed by margin.			argın.	Test Distance: 10Meters							
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7	T8					
				T9								
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	240.018M	41.3	+0.9	+1.2	+0.3	+0.0	+0.0	41.9	46.4	-4.5	Vert
		QP		-27.7	+17.9	+3.0	+0.0					
				+5.0								
Ī	^	240.018M	43.7	+0.9	+1.2	+0.3	+0.0	+0.0	44.3	46.4	-2.1	Vert
				-27.7	+17.9	+3.0	+0.0					
l				+5.0								

Page 136 of 301 Report No.: FC06-025 Volume 3 of 9



3	149.750M	40.3	+0.7	+0.8	+0.1	+0.0	+0.0	37.5	43.5	-6.0	Vert
			-27.6	+15.2	+3.0	+0.0					
			+5.0								
4	240.020M	38.7	+0.9	+1.2	+0.3	+0.0	+0.0	39.3	46.4	-7.2	Horiz
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
5	159.990M	38.2	+0.7	+0.8	+0.1	+0.0	+0.0	35.7	43.5	-7.8	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
6	49.870M	37.8	+0.4	+0.5	+0.1	+0.0	+0.0	30.6	39.1	-8.5	Vert
			-27.9	+11.7	+3.0	+0.0					
			+5.0								
7	30.363M	38.8	+0.3	+0.3	+0.0	+0.0	+0.0	29.1	39.1	-10.0	Horiz
			-27.9	+16.0	+0.0	+1.6			Maximized	at 4	
									meters		
8	319.990M	33.0	+1.0	+1.4	+0.2	+19.5	+0.0	35.0	46.4	-11.4	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
9	32.663M	38.0	+0.3	+0.4	+0.0	+0.0	+0.0	27.3			Horiz
			-27.9	+14.9	+0.0	+1.6			Maximized	at 4	
									meters		
10	49.875M	34.4	+0.4	+0.5	+0.1	+0.0	+0.0	27.2	39.1	-11.9	Horiz
			-27.9	+11.7	+3.0	+0.0					
			+5.0								
11	34.063M	38.3	+0.3	+0.4	+0.0	+0.0	+0.0	27.0	39.1	-12.1	Horiz
			-27.9	+14.3	+0.0	+1.6			Maximized	at 4	
									meters		
12	30.675M	36.0	+0.3	+0.3	+0.0	+0.0	+0.0	26.2	39.1		Vert
			-27.9	+15.9	+0.0	+1.6			Maximized	at 4	
									meters		
13	32.025M	35.3	+0.3	+0.3	+0.0	+0.0	+0.0	24.8		-14.3	Horiz
			-27.9	+15.2	+0.0	+1.6			Maximized	at 4	
									meters		
14	33.443M	35.7	+0.3	+0.4	+0.0	+0.0	+0.0	24.7			Vert
			-27.9	+14.6	+0.0	+1.6			Maximized	at 4	
									meters		
15	32.859M	34.9	+0.3	+0.4	+0.0	+0.0	+0.0	24.1	39.1		Vert
			-27.9	+14.8	+0.0	+1.6			Maximized	at 4	
									meters		
16	34.395M	32.0	+0.3	+0.4	+0.0	+0.0	+0.0	20.6		-18.5	Vert
			-27.9	+14.2	+0.0	+1.6			Maximized	at 4	
									meters		



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 18:41:35
Equipment: BPL MV Gateway Sequence#: 315
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturar	Model #	C/NI	
Function	Manuacturei	IVIOUCI #	D/1N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 11: 10 meters out from medium voltage lines the BPL is connected to 66.67 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=HP-8447D Pre Amp AN 00567 T6=ANT-AN00503-010505
T7=Slant Distance S1 1m T8=Slant Distance S1 4m

T9=5dB Height Correction

Measu	Measurement Data: Reading listed by margin.		Test Distance: 10Meters								
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.923M	46.8	+0.3	+0.3	+0.0	+0.0	+0.0	36.8	39.1	-2.3	Vert
(	QP		-27.9	+15.7	+0.0	+1.6			Maximized	d at 4	
									meters		
^	30.923M	52.3	+0.3	+0.3	+0.0	+0.0	+0.0	42.3	39.1	+3.2	Vert
			-27.9	+15.7	+0.0	+1.6			Maximized	d at 4	
									meters		

Page 138 of 301 Report No.: FC06-025 Volume 3 of 9



3	32.280M QP	46.0	+0.3 -27.9	+0.3 +15.1	+0.0 +0.0	+0.0 +1.6	+0.0	35.4	39.1 Maximized	-3.7	Vert
									meters		
٨	32.280M	50.5	+0.3	+0.3	+0.0	+0.0	+0.0	39.9	39.1	+0.8	Vert
			-27.9	+15.1	+0.0	+1.6			Maximized	l at 4	
									meters		
5	240.015M	41.8	+0.9	+1.2	+0.3	+0.0	+0.0	42.4	46.4	-4.0	Vert
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
6	249.855M	38.3	+0.9	+1.2	+0.3	+0.0	+0.0	39.0	46.4	-7.4	Vert
			-27.8	+18.1	+3.0	+0.0					
			+5.0								
7	240.020M	38.1	+0.9	+1.2	+0.3	+0.0	+0.0	38.7	46.4	-7.7	Horiz
			-27.7	+17.9	+3.0	+0.0					
			+5.0								
8	49.885M	38.6	+0.4	+0.5	+0.1	+0.0	+0.0	31.3	39.1	-7.8	Vert
			-27.9	+11.6	+3.0	+0.0					
			+5.0								
9	33.715M	42.2	+0.3	+0.4	+0.0	+0.0	+0.0	31.1	39.1	-8.0	Vert
(	QP		-27.9	+14.5	+0.0	+1.6			Maximized	l at 4	
									meters		
٨	33.715M	48.6	+0.3	+0.4	+0.0	+0.0	+0.0	37.5	39.1	-1.6	Vert
			-27.9	+14.5	+0.0	+1.6			Maximized	l at 4	
									meters		
11	149.730M	38.3	+0.7	+0.8	+0.1	+0.0	+0.0	35.5	43.5	-8.0	Horiz
			-27.6	+15.2	+3.0	+0.0					
			+5.0								
12	149.760M	38.1	+0.7	+0.8	+0.1	+0.0	+0.0	35.3	43.5	-8.2	Vert
			-27.6	+15.2	+3.0	+0.0					
			+5.0								
13	160.010M	35.9	+0.7	+0.8	+0.1	+0.0	+0.0	33.4	43.5	-10.1	Vert
			-27.7	+15.6	+3.0	+0.0					
			+5.0								
14	32.313M	38.7	+0.3	+0.3	+0.0	+0.0	+0.0	28.1	39.1	-11.0	Horiz
			-27.9	+15.1	+0.0	+1.6			Maximized	l at 4	
									meters		
15	30.825M	36.8	+0.3	+0.3	+0.0	+0.0	+0.0	26.9	39.1	-12.2	Horiz
			-27.9	+15.8	+0.0	+1.6			Maximized	l at 4	
									meters		
16	480.085M	32.6	+1.3	+1.8	+0.3	+17.2	+0.0	33.1	46.4	-13.3	Vert
			-28.1	+0.0	+3.0	+0.0					
			+5.0								
17	49.885M	32.9	+0.4	+0.5	+0.1	+0.0	+0.0	25.6	39.1	-13.5	Horiz
			-27.9	+11.6	+3.0	+0.0					
		<u> </u>	+5.0								
18	33.675M	34.8	+0.3	+0.4	+0.0	+0.0	+0.0	23.7	39.1	-15.4	Horiz
			-27.9	+14.5	+0.0	+1.6			Maximized	l at 4	
									meters		
19	320.025M	32.5	+1.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	29.5	46.4	-16.9	Horiz

Page 139 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/28/2006
Test Type: Radiated Scan Time: 18:50:53
Equipment: BPL MV Gateway Sequence#: 316
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6749420821

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6749420821
Overhead Coupler	Arteche	Overcap-S-17	0517347/51
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline	Corinex	CXF-MVA-M2	none
Filter Mode 2			
Medium Voltage Powerline	Corinex	CXF-MVA-M3	none
Filter Mode 3			

#### Support Devices:

Function	Manufacturar	Model #	C/N
Tullcuon	Manufacturer	MIOUCI #	3/11

#### Test Conditions / Notes:

Formal MV Overhead Test Site #1 Post Street east of Cochran Street, Houston, TX. Unit on third pole from the end on the street on the North side of the street. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 35 feet above the street or ~10.7 meters. Test Position 12: 10 meters out from medium voltage lines the BPL is connected to 75.0 meters laterally down the power line. Slant Distance is 14.0 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14) = +3dB at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12) = +1.6dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 -1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port. No signals seen above 300MHz.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=HP-8447D Pre Amp AN 00567
T5=ANT-AN00503-010505	T6=Slant Distance S1 1m
T7=Slant Distance S1 4m	T8=5dB Height Correction

Measu	rement Data:	Re	Reading listed by margin.				Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar		
			T5	T6	T7	T8							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant		
1	49.865M	39.7	+0.4	+0.5	+0.1	-27.9	+0.0	32.5	39.1	-6.6	Vert		
			+11.7	+3.0	+0.0	+5.0							
2	240.005M	37.9	+0.9	+1.2	+0.3	-27.7	+0.0	38.5	46.4	-7.9	Vert		
			+17.9	+3.0	+0.0	+5.0							
3	49.845M	38.0	+0.4	+0.5	+0.1	-27.9	+0.0	30.8	39.1	-8.3	Horiz		
			+11.7	+3.0	+0.0	+5.0							

Page 140 of 301 Report No.: FC06-025 Volume 3 of 9



4	124.730M	39.5	+0.6	+0.8	+0.1	-27.7	+0.0	34.6	43.5	-8.9	Vert		
			+13.3	+3.0	+0.0	+5.0							
5	30.338M	38.2	+0.3	+0.3	+0.0	-27.9	+0.0	28.5	39.1	-10.6	Horiz		
			+16.0	+0.0	+1.6				Maximized	l at 4			
									meters				
6	31.600M	38.5	+0.3	+0.3	+0.0	-27.9	+0.0	28.2	39.1	-10.9	Horiz		
			+15.4	+0.0	+1.6				Maximized	l at 4			
									meters				
7	30.413M	35.9	+0.3	+0.3	+0.0	-27.9	+0.0	26.2	39.1	-12.9	Vert		
			+16.0	+0.0	+1.6				Maximized	l at 4			
									meters				
8	32.288M	34.5	+0.3	+0.3	+0.0	-27.9	+0.0	23.9	39.1	-15.2	Vert		
			+15.1	+0.0	+1.6				Maximized	l at 4			
									meters				
9	33.738M	34.7	+0.3	+0.4	+0.0	-27.9	+0.0	23.5	39.1	-15.6	Vert		
			+14.4	+0.0	+1.6				Maximized	l at 4			
									meters				
10	33.700M	31.8	+0.3	+0.4	+0.0	-27.9	+0.0	20.7	39.1	-18.4	Horiz		
			+14.5	+0.0	+1.6				Maximized at 4				
									meters				



Test Location: MV Overhead Test Site #2 •Westford Street West of Cochran Street Streetlight Pole #465477 •

Houston, TX •

Customer: Corinex

Specification: FCC A RADIATED

Work Order #:84818Date:3/30/2006Test Type:Radiated ScanTime:09:56:52Equipment:BPL MV GatewaySequence#:368Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street Test Position 1: 10 meters out from medium voltage lines the BPL is connected directly out from pole where box is installed. Slant Distance is 14.4 meters at 1 meter . Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 12.4 meters at 4 meters . Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T9=5dB Height Correction

T1=PO 05440 RG214/U Cable
T3=Cable 01185
T4=Log00978A
T5=ANT-AN00503-010505
T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m
T8=Slant Distance S2-4m

Measurement Data: Reading listed by margin Test Distance: 10 Meters

Measurement Data: Reading listed by					ted by ma	r by margin. Test Distance: To Meters						
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7	T8					
				T9								
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	240.017M	44.3	+0.9	+1.2	+0.3	+0.0	+0.0	45.1	46.4	-1.3	Vert
		QP		+17.9	-27.7	+3.2	+0.0					
				+5.0								
	٨	240.017M	46.5	+0.9	+1.2	+0.3	+0.0	+0.0	47.3	46.4	+0.9	Vert
				+17.9	-27.7	+3.2	+0.0					
l				+5.0								

Page 142 of 301 Report No.: FC06-025 Volume 3 of 9



	149.770M	44.2	+0.7	+0.8	+0.1	+0.0	+0.0	41.6	43.5	-1.9	Vert
(	QР		+15.2	-27.6	+3.2	+0.0					
	140 7703 4	460	+5.0	0.0	0.1	0.0	0.0	44.0	40.5	0.7	<b>T</b> 7 .
^	149.770M	46.8	+0.7	+0.8	+0.1	+0.0	+0.0	44.2	43.5	+0.7	Vert
			$+15.2 \\ +5.0$	-27.6	+3.2	+0.0					
5	33.880M	47.8	+0.3	+0.4	+0.0	+0.0	+0.0	36.9	39.1	-2.2	Horiz
	22.880W	47.0	+14.4	+0.4 -27.9	+0.0	+1.9	+0.0	30.9	Maximized		HOHZ
,	<.		114.4	21.7	10.0	11.7			meters	i ut i	
٨	33.880M	50.8	+0.3	+0.4	+0.0	+0.0	+0.0	39.9	39.1	+0.8	Horiz
			+14.4	-27.9	+0.0	+1.9			Maximized		
									meters		
7	149.735M	42.9	+0.7	+0.8	+0.1	+0.0	+0.0	40.3	43.5	-3.2	Horiz
			+15.2	-27.6	+3.2	+0.0					
			+5.0								
8	32.488M	44.9	+0.3	+0.4	+0.0	+0.0	+0.0	34.6			Horiz
			+15.0	-27.9	+0.0	+1.9			Maximized	l at 4	
0	20.5513.6	10.7	0.2	0.2	0.0	0.0	0.0	24.5	meters	1.6	<b>T</b> 7 .
9	30.571M	42.7	+0.3	+0.3	+0.0	+0.0	+0.0	34.5		-4.6	Vert
(	QР		+15.9	-27.9	+3.2	+0.0			Maximized	l at 1	
^	30.571M	47.2	+0.3	+0.3	+0.0	+0.0	+0.0	39.0	meter 39.1	-0.1	Vert
,	30.3 / TWI	47.2	+0.3 +15.9	+0.3 -27.9	+3.2	+0.0 +0.0	+0.0	39.0	Maximized		vert
			⊤13.9	-21.9	⊤3.∠	+0.0			meter	i at 1	
11	30.025M	43.5	+0.3	+0.3	+0.0	+0.0	+0.0	34.3		-4.8	Horiz
	QP	13.3	+16.2	-27.9	+0.0	+1.9	10.0	31.3	Maximized		HOHE
Ì	<b>C</b> -		. 10.2		. 0.0				meters		
٨	30.025M	45.8	+0.3	+0.3	+0.0	+0.0	+0.0	36.6		-2.5	Horiz
			+16.2	-27.9	+0.0	+1.9			Maximized	l at 4	
									meters		
	249.878M	39.3	+0.9	+1.2	+0.3	+0.0	+0.0	40.2	46.4	-6.2	Vert
(	QР		+18.1	-27.8	+3.2	+0.0					
			+5.0								
٨	249.878M	42.2	+0.9	+1.2	+0.3	+0.0	+0.0	43.1	46.4	-3.3	Vert
			+18.1	-27.8	+3.2	+0.0					
1.5	21 00014	40.0	+5.0	.0.2	+ O O	+ O O	. 0. 0	22.0	20.1	7.1	XI a set
15	31.988M	40.9	+0.3 +15.2	+0.3 -27.9	+0.0 +3.2	$+0.0 \\ +0.0$	+0.0	32.0	39.1 Maximized	-7.1	Vert
			+13.2	-21.9	+3.2	+0.0			meter	i at i	
16	249.850M	37.8	+0.9	+1.2	+0.3	+0.0	+0.0	38.7	46.4	-7.7	Horiz
10	277.030W	31.0	+18.1	-27.8	+3.2	+0.0 +0.0	10.0	50.1	<b>+∪.</b> +	-/./	HOHE
			+5.0	27.0	1 5.2	10.0					
17	320.010M	36.1	+1.0	+1.4	+0.2	+19.5	+0.0	38.3	46.4	-8.1	Vert
-	-		+0.0	-28.1	+3.2	+0.0					
			+5.0								
18	224.825M	37.3	+0.8	+1.1	+0.2	+0.0	+0.0	37.5	46.4	-8.9	Vert
			+17.5	-27.6	+3.2	+0.0					
			+5.0								
19	160.005M	36.9	+0.7	+0.8	+0.1	+0.0	+0.0	34.6	43.5	-8.9	Vert
			+15.6	-27.7	+3.2	+0.0					
			+5.0								

Page 143 of 301 Report No.: FC06-025 Volume 3 of 9



20	240.030M	36.5	+0.9	+1.2	+0.3	+0.0	+0.0	37.3	46.4	-9.1	Horiz
			+17.9	-27.7	+3.2	+0.0					
			+5.0								
21	74.540M	40.9	+0.4	+0.5	+0.0	+0.0	+0.0	28.5	39.1	-10.6	Horiz
			+6.4	-27.9	+3.2	+0.0					
			+5.0								
22	33.675M	37.7	+0.3	+0.4	+0.0	+0.0	+0.0	28.2	39.1	-10.9	Vert
			+14.5	-27.9	+3.2	+0.0			Maximized	at 1	
									meter		
23	224.645M	35.0	+0.8	+1.1	+0.2	+0.0	+0.0	35.2	46.4	-11.2	Horiz
			+17.5	-27.6	+3.2	+0.0					
			+5.0								
24	49.865M	34.1	+0.4	+0.5	+0.1	+0.0	+0.0	27.1	39.1	-12.0	Vert
			+11.7	-27.9	+3.2	+0.0					
			+5.0								
25	159.995M	32.6	+0.7	+0.8	+0.1	+0.0	+0.0	30.3	43.5	-13.2	Horiz
			+15.6	-27.7	+3.2	+0.0					
			+5.0								
26	319.975M	30.8	+1.0	+1.4	+0.2	+19.5	+0.0	33.0	46.4	-13.4	Horiz
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
27	400.020M	33.8	+1.2	+1.7	+0.2	+16.2	+0.0	32.9	46.4	-13.5	Vert
			+0.0	-28.4	+3.2	+0.0					
			+5.0								
28	480.030M	31.7	+1.3	+1.8	+0.3	+17.2	+0.0	32.4	46.4	-14.0	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
29	480.035M	31.0	+1.3	+1.8	+0.3	+17.2	+0.0	31.7	46.4	-14.7	Horiz
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
30	400.025M	29.5	+1.2	+1.7	+0.2	+16.2	+0.0	28.6	46.4	-17.8	Horiz
			+0.0	-28.4	+3.2	+0.0					
			+5.0								

Page 144 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/30/2006Test Type:Radiated ScanTime:10:25:30Equipment:BPL MV GatewaySequence#:369Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6213625658

# **Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Eunstion	N/ C /	3.6. 1.1.11	CAI
Function	Manufacturer	Model #	S/N

## Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 2: 10 meters out from medium voltage lines the BPL is connected to 4.17 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=Slant Distance S2-4m
T9=5dB Height Correction	

Measu	rement Data:	Re	Reading listed by margin.				Test Distance: 10 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6	T7	T8			_	-	
			T9								
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m \\$	dB	Ant
1	224.895M	43.1	+0.8	+1.1	+0.2	+0.0	+0.0	43.3	46.4	-3.1	Vert
	QP		+17.5	-27.6	+3.2	+0.0					
			+5.0								
٨	224.895M	47.8	+0.8	+1.1	+0.2	+0.0	+0.0	48.0	46.4	+1.6	Vert
			+17.5	-27.6	+3.2	+0.0					
			+5.0								

Page 145 of 301 Report No.: FC06-025 Volume 3 of 9



3	32.315M	45.3	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	34.9	Maximized a	-4.2 at 4	Horiz
									meters		
4	31.313M	44.7	+0.3	+0.3	+0.0	+0.0	+0.0	34.9	39.1	-4.2	Horiz
			+15.6	-27.9	+0.0	+1.9			Maximized a	at 4	
	17404034	40.7	0.7	1.0	0.1	0.0	0.0	20.1	meters		
5	174.940M	40.7	+0.7	+1.0	+0.1	+0.0	+0.0	39.1	43.5	-4.4	Horiz
			+16.1 +5.0	-27.7	+3.2	+0.0					
6	124.735M	42.9	+0.6	+0.8	+0.1	+0.0	+0.0	38.2	43.5	-5.4	Horiz
0	124.733WI	42.7	+13.3	+0.8 -27.7	+3.2	+0.0 +0.0	+0.0	36.2	45.5	-3.4	HOHZ
			+5.0	27.7	13.2	10.0					
7	174.895M	39.0	+0.7	+0.9	+0.1	+0.0	+0.0	37.4	43.5	-6.1	Vert
,	17.11050111	67.0	+16.1	-27.6	+3.2	+0.0	. 0.0	07		0.1	, 010
			+5.0								
8	33.949M	43.6		+0.4	+0.0	+0.0	+0.0	32.7	39.1	-6.4	Vert
	QP		+14.4	-27.9	+0.0	+1.9			Maximized a		
									meters		
٨	33.949M	52.0	+0.3	+0.4	+0.0	+0.0	+0.0	41.1	39.1	+2.0	Vert
			+14.4	-27.9	+0.0	+1.9			Maximized a	at 4	
									meters		
	274.565M	37.8	+1.0	+1.3	+0.2	+0.0	+0.0	40.0	46.4	-6.4	Vert
(	QP		+19.4	-27.9	+3.2	+0.0					
			+5.0								
^	274.565M	43.3	+1.0	+1.3	+0.2	+0.0	+0.0	45.5	46.4	-0.9	Vert
			+19.4	-27.9	+3.2	+0.0					
12	32.553M	12.6	+5.0	+0.4	+0.0	+0.0	+0.0	32.3	39.1	-6.8	Vont
12	32.333M QP	42.6	+0.3 +15.0	+0.4 -27.9	$+0.0 \\ +0.0$	+0.0 +1.9	+0.0	32.3	39.1 Maximized		Vert
									meters		
^	32.553M	48.9	+0.3	+0.4	+0.0	+0.0	+0.0	38.6	39.1	-0.5	Vert
			+15.0	-27.9	+0.0	+1.9			Maximized a meters	at 4	
14		41.2	+0.3	+0.3	+0.0	+0.0	+0.0	31.5	39.1	-7.6	Vert
(	QP		+15.7	-27.9	+0.0	+1.9			Maximized a	at 4	
									meters		
^	30.998M	48.5	+0.3	+0.3	+0.0	+0.0	+0.0	38.8	39.1	-0.3	Vert
			+15.7	-27.9	+0.0	+1.9			Maximized a	at 4	
1.0	240.0403.5	27.7	.00	.1.2	.0.2	.0.0	. 0. 0	20.5	meters	7.0	<b>37</b> ·
16	240.040M	37.7	+0.9	+1.2	+0.3	+0.0	+0.0	38.5	46.4	-7.9	Vert
			+17.9	-27.7	+3.2	+0.0					
17	349.265M	39.7	+5.0	+1.5	+0.3	+15.3	+0.0	37.9	46.4	-8.5	Vert
1/	347.203WI	39.1	+1.1 +0.0	+1.5 -28.2	+3.2	+15.5	+0.0	31.9	40.4	-0.3	vert
			+5.0	-20.2	rJ.4	-0.0					
18	33.444M	40.8	+0.3	+0.4	+0.0	+0.0	+0.0	30.1	39.1	-9.0	Horiz
	QP	10.0	+14.6	-27.9	+0.0	+1.9	10.0	50.1	Maximized a		110112
,				2					meters		
				0.4	0.0	0.0	0.0	25.4		2.7	TT .
^	33.444M	46.1	+0.3	+0.4	+0.0	+0.0	+0.0	35.4	39.1	-3.7	Horiz
٨	33.444M	46.1	+0.3 $+14.6$	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	35.4	39.1 Maximized	-3.7 at 4	Horiz

Page 146 of 301 Report No.: FC06-025 Volume 3 of 9



20	240.030M	34.5	+0.9	+1.2	+0.3	+0.0	+0.0	35.3	46.4	-11.1	Horiz
			+17.9	-27.7	+3.2	+0.0					
			+5.0								
21	224.940M	34.9	+0.8	+1.1	+0.2	+0.0	+0.0	35.1	46.4	-11.3	Horiz
			+17.5	-27.6	+3.2	+0.0					
			+5.0								
22	49.483M	32.9	+0.4	+0.5	+0.1	+0.0	+0.0	26.0	39.1	-13.1	Horiz
			+11.8	-27.9	+3.2	+0.0					
			+5.0								
23	349.285M	34.7	+1.1	+1.5	+0.3	+15.3	+0.0	32.9	46.4	-13.5	Horiz
			+0.0	-28.2	+3.2	+0.0					
			+5.0								
24	320.008M	30.2	+1.0	+1.4	+0.2	+19.5	+0.0	32.4	46.4	-14.0	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
25	480.053M	29.4	+1.3	+1.8	+0.3	+17.2	+0.0	30.1	46.4	-16.3	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
26	399.950M	30.3	+1.2	+1.7	+0.2	+16.2	+0.0	29.4	46.4	-17.0	Horiz
			+0.0	-28.4	+3.2	+0.0					
			+5.0								

Page 147 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/30/2006Test Type:Radiated ScanTime:10:44:39Equipment:BPL MV GatewaySequence#:370Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 3: 10 meters out from medium voltage lines the BPL is connected to 8.33 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=5dB Height Correction

Measu	rement Data:	Re	Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6	T7	T8			_	_	
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.453M	42.9	+0.3	+0.3	+0.0	+0.0	+0.0	34.3	39.1	-4.8	Vert
			+15.5	-27.9	+3.2				Maximized	d at 1	
									meter		
2	274.455M	37.3	+1.0	+1.3	+0.2	+0.0	+0.0	39.5	46.4	-6.9	Horiz
			+19.4	-27.9	+3.2	+5.0					

Page 148 of 301 Report No.: FC06-025 Volume 3 of 9



	22.00114	41.2	.0.2	. 0. 1	. 0. 0	. 0. 0	. 0. 0	20.1	20.1	7.0	<b>X</b> 74
3	32.881M	41.3	+0.3	+0.4	+0.0	+0.0	+0.0	32.1	39.1		Vert
			+14.8	-27.9	+3.2				Maximized	at 1	
1	240.020M	20 1	+ O O	.1.2	+0.2	+Ω.Ω	+0.0	38.9	meter	-7.5	Vont
4	240.020M	38.1	+0.9	+1.2	+0.3	+0.0	+0.0	38.9	46.4	-1.5	Vert
	21 00 4 1 4	40.0	+17.9	-27.7	+3.2	+5.0	+ O O	21.2	20.1	7.0	VIt
5	31.884M	40.0	+0.3	+0.3	+0.0	+0.0	+0.0	31.2	39.1	-7.9	Vert
	QP		+15.3	-27.9	+3.2				Maximized meter	atı	
^	31.884M	45.8	+0.3	+0.3	+0.0	+0.0	+0.0	37.0	39.1	-2.1	Vert
			+15.3	-27.9	+3.2				Maximized	at 1	
									meter		
7	149.685M	37.0	+0.7	+0.8	+0.1	+0.0	+0.0	34.4	43.5	-9.1	Vert
			+15.2	-27.6	+3.2	+5.0					
8	249.705M	36.0	+0.9	+1.2	+0.3	+0.0	+0.0	36.9	46.4	-9.5	Vert
			+18.1	-27.8	+3.2	+5.0					
9	349.265M	37.3	+1.1	+1.5	+0.3	+15.3	+0.0	35.5	46.4	-10.9	Vert
			+0.0	-28.2	+3.2	+5.0					
10	224.650M	34.9	+0.8	+1.1	+0.2	+0.0	+0.0	35.1	46.4	-11.3	Horiz
			+17.5	-27.6	+3.2	+5.0					
11	49.885M	34.1	+0.4	+0.5	+0.1	+0.0	+0.0	27.0	39.1	-12.1	Vert
			+11.6	-27.9	+3.2	+5.0					
12	159.990M	32.8	+0.7	+0.8	+0.1	+0.0	+0.0	30.5	43.5	-13.0	Vert
			+15.6	-27.7	+3.2	+5.0					
13	224.870M	32.9	+0.8	+1.1	+0.2	+0.0	+0.0	33.1	46.4	-13.3	Vert
			+17.5	-27.6	+3.2	+5.0					
14	239.990M	31.7	+0.9	+1.2	+0.3	+0.0	+0.0	32.5	46.4	-13.9	Horiz
			+17.9	-27.7	+3.2	+5.0					
15	349.260M	34.2	+1.1	+1.5	+0.3	+15.3	+0.0	32.4	46.4	-14.0	Horiz
			+0.0	-28.2	+3.2	+5.0					
16	174.810M	29.8	+0.7	+0.9	+0.1	+0.0	+0.0	28.2	43.5	-15.3	Vert
			+16.1	-27.6	+3.2	+5.0					
17	124.685M	32.1	+0.6	+0.8	+0.1	+0.0	+0.0	27.4	43.5	-16.1	Vert
			+13.3	-27.7	+3.2	+5.0					
18	480.008M	28.3	+1.3	+1.8	+0.3	+17.2	+0.0	29.0	46.4	-17.5	Vert
			+0.0	-28.1	+3.2	+5.0					
19	400.008M	29.4	+1.2	+1.7	+0.2	+16.2	+0.0	28.5	46.4	-17.9	Vert
			+0.0	-28.4	+3.2	+5.0					

Page 149 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 11:09:58
Equipment: BPL MV Gateway Sequence#: 371
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

1 1	,		
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline	Corinex	CXF-MVA-M2	none
Filter Mode 2			
Medium Voltage Powerline	Corinex	CXF-MVA-M3	none
Filter Mode 3			

#### Support Devices:

Function	Manufacturer	Model #	C/N	
runcuon	Manufacturer	Ινίουσει π	D/11	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 4: 10 meters out from medium voltage lines the BPL is connected to 12.5 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=Slant Distance S2-4m
T9=Slant Distance S2-3m	T10=5dB Height Correction

Measurement Data:	Reading listed by margin.	Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.700M	44.2	+0.3	+0.3	+0.0	+0.0	+0.0	34.2	39.1	-4.9	Vert
			+15.4	-27.9	+0.0	+1.9			Maximized	d at 4	
			+0.0						meters		

Page 150 of 301 Report No.: FC06-025 Volume 3 of 9



Tr.											
	174.835M	40.0		+0.9	+0.1	+0.0	+0.0	38.4	43.5	-5.1	Horiz
Q	P		+16.1	-27.6	+3.2	+0.0					
			+0.0	+5.0							
^	174.835M	43.7	+0.7	+0.9	+0.1	+0.0	+0.0	42.1	43.5	-1.4	Horiz
			+16.1	-27.6	+3.2	+0.0					
			+0.0	+5.0							
	33.473M	44.7	+0.3	+0.4	+0.0	+0.0	+0.0	34.0			Vert
Q	P		+14.6	-27.9	+0.0	+1.9			Maximized	at 4	
			+0.0						meters		
^	33.473M	47.9	+0.3	+0.4	+0.0	+0.0	+0.0	37.2		-1.9	Vert
			+14.6	-27.9	+0.0	+1.9			Maximized	at 4	
			+0.0						meters		
6	33.992M	43.7	+0.3	+0.4	+0.0	+0.0	+0.0	33.1		-6.0	Horiz
			+14.3	-27.9	+0.0	+0.0			Maximized	at 3	
			+2.3						meters		
7	30.838M	42.6	+0.3	+0.3	+0.0	+0.0	+0.0	33.0			Vert
			+15.8	-27.9	+0.0	+1.9			Maximized	at 4	
			+0.0						meters		
8	32.763M	43.3	+0.3	+0.4	+0.0	+0.0	+0.0	32.9	39.1		Vert
			+14.9	-27.9	+0.0	+1.9			Maximized	at 4	
			+0.0						meters		
9	240.005M	37.7	+0.9	+1.2	+0.3	+0.0	+0.0	38.5	46.4	-8.0	Vert
			+17.9	-27.7	+3.2	+0.0					
			+0.0	+5.0							
10	32.505M	41.1	+0.3	+0.4	+0.0	+0.0	+0.0	31.1	39.1	-8.0	Horiz
			+15.0	-27.9	+0.0	+0.0			Maximized	at 3	
			+2.3						meters		
11	224.615M	38.0	+0.8	+1.1	+0.2	+0.0	+0.0	38.2	46.4	-8.3	Vert
			+17.5	-27.6	+3.2	+0.0					
			+0.0	+5.0							
12	160.045M	36.3		+0.8	+0.1	+0.0	+0.0	34.0	43.5	-9.5	Vert
			+15.6	-27.7	+3.2	+0.0					
			+0.0	+5.0							
13	124.665M	38.1		+0.8	+0.1	+0.0	+0.0	33.4	43.5	-10.1	Horiz
			+13.3	-27.7	+3.2	+0.0					
			+0.0	+5.0							
14	49.855M	35.7	+0.4	+0.5	+0.1	+0.0	+0.0	28.7	39.1	-10.4	Vert
			+11.7	-27.9	+3.2	+0.0					
			+0.0	+5.0							



15	30.525M	36.0	+0.3	+0.3	+0.0	+0.0	+0.0	26.9	39.1	-12.2	Horiz
(	QP		+15.9	-27.9	+0.0	+0.0			Maximized at 3		
			+2.3						meters		
٨	30.525M	44.3	+0.3	+0.3	+0.0	+0.0	+0.0	35.2	39.1	-3.9	Horiz
			+15.9	-27.9	+0.0	+0.0			Maximized	l at 3	
			+2.3						meters		
17	74.460M	36.7	+0.4	+0.5	+0.0	+0.0	+0.0	24.3	39.1	-14.8	Horiz
			+6.4	-27.9	+3.2	+0.0					
			+0.0	+5.0							
18	349.243M	31.2	+1.1	+1.5	+0.3	+15.3	+0.0	29.4	46.4	-17.0	Horiz
			+0.0	-28.2	+3.2	+0.0					
			+0.0	+5.0							

Page 152 of 301 Report No.: FC06-025 Volume 3 of 9



 $TX \bullet$ 

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 11:40:30
Equipment: BPL MV Gateway Sequence#: 372
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

# Equipment Under Test (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Eunstion	N/ C /	3.6. 1.1.11	CAI
Function	Manufacturer	Model #	S/N

## Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 5: 10 meters out from medium voltage lines the BPL is connected to 16.67 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

Transaacer Begena.	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=Slant Distance S2-4m
T9=Slant Distance S2-3m	T10=5dB Height Correction

Measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.024M	44.2	+0.9	+1.2	+0.3	+0.0	+0.0	45.0	46.4	-1.4	Vert
	QP		+17.9	-27.7	+3.2	+0.0					
			+0.0	+5.0							
٨	240.024M	46.1	+0.9	+1.2	+0.3	+0.0	+0.0	46.9	46.4	+0.5	Vert
			+17.9	-27.7	+3.2	+0.0					
			+0.0	+5.0							

Page 153 of 301 Report No.: FC06-025 Volume 3 of 9



3	159.930M	40.5	+0.7	+0.8	+0.1	+0.0	+0.0	38.2	43.5	-5.3	Vert
			+15.6	-27.7	+3.2	+0.0					
			+0.0	+5.0							
4	274.675M	37.5	+1.0	+1.3	+0.2	+0.0	+0.0	39.7	46.4	-6.8	Vert
			+19.4	-27.9	+3.2	+0.0					
			+0.0	+5.0							
5	274.515M	37.4	+1.0	+1.3	+0.2	+0.0	+0.0	39.6	46.4	-6.8	Horiz
			+19.4	-27.9	+3.2	+0.0					
			+0.0	+5.0							
6	240.030M	38.7	+0.9	+1.2	+0.3	+0.0	+0.0	39.5	46.4	-6.9	Horiz
			+17.9	-27.7	+3.2	+0.0					
			+0.0	+5.0							
7	30.650M	40.8	+0.3	+0.3	+0.0	+0.0	+0.0	31.6	39.1	-7.5	Horiz
			+15.9	-27.9	+0.0	+0.0			Maximum	height	
			+2.3						achieved 3		
									tree in the		
									go any high		
									Horizontal	polarity	
8	32.485M	41.8	+0.3	+0.4	+0.0	+0.0	+0.0	31.4	39.1	-7.7	Vert
			+15.0	-27.9	+0.0	+1.9			Maximized	l at 4	
			+0.0						meters		
9	174.400M	35.9	+0.7	+0.9	+0.1	+0.0	+0.0	34.3	43.5	-9.2	Vert
			+16.1	-27.6	+3.2	+0.0					
			+0.0	+5.0							
10	124.725M	38.9	+0.6	+0.8	+0.1	+0.0	+0.0	34.2	43.5	-9.3	Horiz
			+13.3	-27.7	+3.2	+0.0					
			+0.0	+5.0							
11	49.730M	36.6	+0.4	+0.5	+0.1	+0.0	+0.0	29.6	39.1	-9.5	Horiz
			+11.7	-27.9	+3.2	+0.0					
			+0.0	+5.0							
12	34.066M	40.4	+0.3	+0.4	+0.0	+0.0	+0.0	29.4	39.1	-9.7	Vert
			+14.3	-27.9	+0.0	+1.9			Maximized	l at 4	
			+0.0						meters		
13	159.995M	35.8	+0.7	+0.8	+0.1	+0.0	+0.0	33.5	43.5	-10.0	Horiz
			+15.6	-27.7	+3.2	+0.0					
			+0.0	+5.0							

Page 154 of 301 Report No.: FC06-025 Volume 3 of 9



14	30.475M	37.4	+0.3	+0.3	+0.0	+0.0	+0.0	28.0	39.1	-11.1	Vert
(	QP		+16.0	-27.9	+0.0	+1.9			Maximized at 4		
			+0.0						meters		
^	30.475M	45.0	+0.3	+0.3	+0.0	+0.0	+0.0	35.6	39.1	-3.5	Vert
			+16.0	-27.9	+0.0	+1.9			Maximized	d at 4	
			+0.0						meters		
16	319.995M	32.8	+1.0	+1.4	+0.2	+19.5	+0.0	35.0	46.4	-11.4	Vert
			+0.0	-28.1	+3.2	+0.0					
			+0.0	+5.0							
17	74.495M	40.1	+0.4	+0.5	+0.0	+0.0	+0.0	27.7	39.1	-11.4	Vert
			+6.4	-27.9	+3.2	+0.0					
			+0.0	+5.0							
18	31.725M	36.9	+0.3	+0.3	+0.0	+0.0	+0.0	27.3	39.1	-11.8	Horiz
			+15.4	-27.9	+0.0	+0.0			Maximum	height	
			+2.3						achieved 3	meters,	
									tree in the	way to	
									go any hig	her for	
									Horizontal	polarity	
19	320.008M	31.1	+1.0	+1.4	+0.2	+19.5	+0.0	33.3	46.4	-13.1	Horiz
			+0.0	-28.1	+3.2	+0.0					
			+0.0	+5.0							
20	480.060M	32.3	+1.3	+1.8	+0.3	+17.2	+0.0	33.0	46.4	-13.4	Vert
			+0.0	-28.1	+3.2	+0.0					
			+0.0	+5.0							
21	33.200M	35.0	+0.3	+0.4	+0.0	+0.0	+0.0	24.8	39.1	-14.3	Horiz
			+14.7	-27.9	+0.0	+0.0			Maximum	height	
			+2.3						achieved 3	meters,	
									tree in the	way to	
									go any hig	her for	
									Horizontal	polarity	
22	324.858M	30.1	+1.0	+1.4	+0.2	+18.8	+0.0	31.6	46.4	-14.8	Vert
			+0.0	-28.1	+3.2	+0.0					
			+0.0	+5.0							
23	399.995M	28.6	+1.2	+1.7	+0.2	+16.2	+0.0	27.7	46.4	-18.7	Vert
			+0.0	-28.4	+3.2	+0.0					
			+0.0	+5.0							

Page 155 of 301 Report No.: FC06-025 Volume 3 of 9



 $TX \bullet$ 

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 12:16:08
Equipment: BPL MV Gateway Sequence#: 373
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

# Equipment Under Test (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Eunstion	N/ C /	3.6. 1.1.11	CAI
Function	Manufacturer	Model #	S/N

## Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 6: 10 meters out from medium voltage lines the BPL is connected to 25.0 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S2-1m T8=Slant Distance S2-4m

T9=5dB Height Correction

Ì	Measu	rement Data:	Re	eading lis	ted by ma	ırgin.		Те	est Distance	e: 10 Meter	rs	
	#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7	T8					
				T9								
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	240.021M	44.5	+0.9	+1.2	+0.3	+0.0	+0.0	45.3	46.4	-1.1	Vert
		QP		+17.9	-27.7	+3.2	+0.0					
				+5.0								
	٨	240.021M	46.2	+0.9	+1.2	+0.3	+0.0	+0.0	47.0	46.4	+0.6	Vert
				+17.9	-27.7	+3.2	+0.0					
L				+5.0								

Page 156 of 301 Report No.: FC06-025 Volume 3 of 9



3	240.035M	38.8	+0.9	+1.2	+0.3	+0.0	+0.0	39.6	46.4	-6.8	Horiz
			+17.9	-27.7	+3.2	+0.0					
4	20.00014	40.7	+5.0	.0.2	. 0. 0	. 0. 0	. 0. 0	21.1	20.1	0.0	
4	30.888M	40.7	+0.3	+0.3	+0.0	+0.0	+0.0	31.1	39.1	-8.0	Horiz
			+15.8	-27.9	+0.0	+1.9			Maximized	1 at 4	
	22.50014	40.7	.0.2	. 0. 4	. 0. 0	.00	. 0. 0	20.4	meters	0.7	<b>V</b> 74
5	32.500M	40.7	+0.3	+0.4	+0.0	+0.0	+0.0	30.4	39.1	-8.7	Vert
			+15.0	-27.9	+0.0	+1.9			Maximized	1 at 4	
	21.0001/	40.0	+0.3	.0.2	. 0. 0	+ O O	. 0. 0	20.2	meters	-8.8	V
6	31.000M	40.0		+0.3	$^{+0.0}_{+0.0}$	+0.0	+0.0	30.3	39.1		Vert
			+15.7	-27.9	+0.0	+1.9			Maximized	1 at 4	
7	34.088M	41.2	+0.3	+0.4	ι Ο Ο	+0.0	+ O O	20.2	meters	-8.9	Vert
/	54.066WI	41.2	+0.3	+0.4 -27.9	$^{+0.0}_{+0.0}$	+0.0 +1.9	+0.0	30.2	39.1 Maximized		vert
			+14.5	-21.9	+0.0	+1.5				1 at 4	
8	32.513M	39.5	+0.3	+0.4	+0.0	+0.0	+0.0	29.2	meters 39.1	-9.9	Horiz
0	32.313WI	37.3	+15.0	-27.9	+0.0 +0.0	+1.9	+0.0	29.2	Maximized		HOHZ
			+13.0	-21.9	+0.0	⊤1.9			meters	1 at <del>4</del>	
9	224.885M	35.7	+0.8	+1.1	+0.2	+0.0	+0.0	35.9	46.4	-10.5	Vert
	224.003W	33.1	+17.5	-27.6	+3.2	+0.0	+0.0	33.9	40.4	-10.5	VCIT
			+5.0	27.0	13.2	10.0					
10	174.890M	34.5	+0.7	+0.9	+0.1	+0.0	+0.0	32.9	43.5	-10.6	Horiz
10	174.070141	54.5	+16.1	-27.6	+3.2	+0.0	10.0	32.7	43.5	10.0	HOHZ
			+5.0	27.0	13.2	10.0					
11	33.838M	37.8	+0.3	+0.4	+0.0	+0.0	+0.0	26.9	39.1	-12.2	Horiz
	33.030111	37.0	+14.4	-27.9	+0.0	+1.9	10.0	20.5	Maximized		HOHE
				_,,,	. 0.0				meters		
12	224.945M	33.6	+0.8	+1.1	+0.2	+0.0	+0.0	33.7	46.4	-12.7	Horiz
			+17.5	-27.7	+3.2	+0.0					
			+5.0								
13	320.023M	31.2	+1.0	+1.4	+0.2	+19.5	+0.0	33.4	46.4	-13.0	Vert
			+0.0	-28.1	+3.2	+0.0				•	
			+5.0								
14	74.510M	37.0	+0.4	+0.5	+0.0	+0.0	+0.0	24.6	39.1	-14.5	Vert
			+6.4	-27.9	+3.2	+0.0					
			+5.0								
15	74.505M	35.3	+0.4	+0.5	+0.0	+0.0	+0.0	22.9	39.1	-16.2	Horiz
			+6.4	-27.9	+3.2	+0.0					
			+5.0								
16	349.250M	30.7	+1.1	+1.5	+0.3	+15.3	+0.0	28.9	46.4	-17.5	Vert
			+0.0	-28.2	+3.2	+0.0					
			+5.0								
17	349.273M	28.5	+1.1	+1.5	+0.3	+15.3	+0.0	26.7	46.4	-19.7	Horiz
			+0.0	-28.2	+3.2	+0.0					
			+5.0								

Page 157 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 12:28:03
Equipment: BPL MV Gateway Sequence#: 374
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	
			D/1N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 7: 10 meters out from medium voltage lines the BPL is connected to 33.33 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port. No frequencies above 300MHz seen

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S2-1m
T7=Slant Distance S2-4m	T8=5dB Height Correction

Measurement Data: Reading listed by margin.			Test Distance: 10 Meters								
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.163M	42.6	+0.3	+0.3	+0.0	+15.6	+0.0	32.8	39.1	-6.3	Vert
			-27.9	+0.0	+1.9				Maximized	d at 4	
									meters		
2	32.025M	41.9	+0.3	+0.3	+0.0	+15.2	+0.0	31.7	39.1	-7.4	Vert
			-27.9	+0.0	+1.9				Maximized	d at 4	
									meters		

Page 158 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.838M	41.1	+0.3	+0.3	+0.0	+15.8	+0.0	31.5	39.1	-7.6	Horiz
			-27.9	+0.0	+1.9				Maximized	at 4	
									meters		
4	32.500M	41.5	+0.3	+0.4	+0.0	+15.0	+0.0	31.2	39.1	-7.9	Horiz
			-27.9	+0.0	+1.9				Maximized	at 4	
									meters		
5	33.575M	41.9	+0.3	+0.4	+0.0	+14.5	+0.0	31.1	39.1	-8.0	Horiz
			-27.9	+0.0	+1.9				Maximized	at 4	
									meters		
6	33.825M	41.8	+0.3	+0.4	+0.0	+14.4	+0.0	30.9	39.1	-8.2	Vert
			-27.9	+0.0	+1.9				Maximized	at 4	
									meters		
7	240.030M	37.3	+0.9	+1.2	+0.3	+17.9	+0.0	38.1	46.4	-8.3	Vert
			-27.7	+3.2	+0.0	+5.0					
8	174.925M	33.9	+0.7	+0.9	+0.1	+16.1	+0.0	32.3	43.5	-11.2	Horiz
			-27.6	+3.2	+0.0	+5.0					
9	74.500M	38.3	+0.4	+0.5	+0.0	+6.4	+0.0	25.9	39.1	-13.2	Vert
			-27.9	+3.2	+0.0	+5.0					
10	240.055M	31.2	+0.9	+1.2	+0.3	+17.9	+0.0	32.0	46.4	-14.4	Horiz
			-27.7	+3.2	+0.0	+5.0					

Page 159 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 12:41:39
Equipment: BPL MV Gateway Sequence#: 375
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: 6213625658

Equipment Under Test (\* = EUT):

			_
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	
----------	--------------	---------	-----	--

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 8: 10 meters out from medium voltage lines the BPL is connected to 41.67 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

Transducer Legend:

Transaucer Legena.	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=Slant Distance S2-4m
T9=5dB Height Correction	

Meas	urement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1 240.034M	42.5	+0.9	+1.2	+0.3	+0.0	+0.0	43.3	46.4	-3.1	Vert
	QP		+17.9	-27.7	+3.2	+0.0					
			+5.0								
,	^ 240.034M	45.2	+0.9	+1.2	+0.3	+0.0	+0.0	46.0	46.4	-0.4	Vert
			+17.9	-27.7	+3.2	+0.0					
			+5.0								

Page 160 of 301 Report No.: FC06-025 Volume 3 of 9



3	159.990M	38.6	+0.7	+0.8	+0.1	+0.0	+0.0	36.3	43.5	-7.2	Vert
			+15.6	-27.7	+3.2	+0.0					
			+5.0								
4	30.988M	41.5	+0.3	+0.3	+0.0	+0.0	+0.0	31.8	39.1	-7.3	Horiz
			+15.7	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
5	240.040M	38.0	+0.9	+1.2	+0.3	+0.0	+0.0	38.8	46.4	-7.6	Horiz
			+17.9	-27.7	+3.2	+0.0					
			+5.0								
6	32.438M	40.9	+0.3	+0.4	+0.0	+0.0	+0.0	30.6		-8.5	Vert
			+15.0	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
7	33.813M	41.1		+0.4	+0.0	+0.0	+0.0	30.2	39.1	-8.9	Vert
			+14.4	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
8	32.388M	39.7		+0.3	+0.0	+0.0	+0.0	29.4		-9.7	Horiz
			+15.1	-27.9	+0.0	+1.9			Maximized	at 4	
	22 5003 5	40.0	0.0	0.1			0.0	20.2	meters		** .
9	33.500M	40.0	+0.3	+0.4	+0.0	+0.0	+0.0	29.3	39.1	-9.8	Horiz
			+14.6	-27.9	+0.0	+1.9			Maximized	at 4	
10	21 120) 7	20.0	.0.2	.0.2	. 0. 0	. 0. 0	. 0. 0	20.1	meters	10.0	<b>T</b> 7 .
10	31.138M	38.9	+0.3	+0.3	+0.0	+0.0	+0.0	29.1			Vert
			+15.6	-27.9	+0.0	+1.9			Maximized	at 4	
11	174 00534	25.0	.0.7	.00	.0.1		.00	22.4	meters	10.1	<b>V</b> 74
11	174.805M	35.0	+0.7	+0.9	+0.1	+0.0	+0.0	33.4	43.5	-10.1	Vert
			+16.1	-27.6	+3.2	+0.0					
12	220 00714	22.5	+5.0	+ 1 · A	+0.2	+10 F	+0.0	25.7	46.4	-10.7	Horie
12	320.007M	33.5	$+1.0 \\ +0.0$	+1.4 -28.1	+0.2 +3.2	$+19.5 \\ +0.0$	+0.0	35.7	40.4	-10./	Horiz
			+0.0 +5.0	-20.1	+3.2	+0.0					
13	49.895M	34.5	+0.4	+0.5	+0.1	+0.0	+0.0	27.4	39.1	-11.7	Vert
13	+7.07J1VI	34.3	+0.4 +11.6	+0.3 -27.9	+3.2	+0.0	+0.0	∠1.4	37.1	-11./	V CI L
			+11.0	-41.7	+3.2	+0.0					
14	74.490M	37.5	+0.4	+0.5	+0.0	+0.0	+0.0	25.1	39.1	-14.0	Horiz
14	/ <del>1. 1. 7</del> 0 1 V I	31.3	+6.4	-27.9	+3.2	+0.0	±0.0	23.1	37.1	-14.0	110112
			+5.0	-41.3	⊤3.∠	+0.0					
15	124.680M	32.7	+0.6	+0.8	+0.1	+0.0	+0.0	28.0	43.5	-15.5	Vert
13	127.00011	32.1	+13.3	-27.7	+3.2	+0.0	10.0	20.0	тэ.э	-13.3	V CI t
			+13.3	-41.1	1 3.4	10.0					
L			13.0								



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 13:03:47
Equipment: BPL MV Gateway Sequence#: 376
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 9: 10 meters out from medium voltage lines the BPL is connected to 50.0 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port. No frequencies above 300MHz seen

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S2-1m
T7=Slant Distance S2-4m	T8=5dB Height Correction

Measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.015M	39.6	+0.9	+1.2	+0.3	+17.9	+0.0	40.4	46.4	-6.0	Vert
			-27.7	+3.2	+0.0	+5.0					
2	30.575M	42.0	+0.3	+0.3	+0.0	+15.9	+0.0	32.5	39.1	-6.6	Vert
			-27.9	+0.0	+1.9				Maximized	d at 4	
									meters		

Page 162 of 301 Report No.: FC06-025 Volume 3 of 9



3	33.363M	39.2	+0.3	+0.4	+0.0	+14.6	+0.0	28.5	39.1	-10.6	Vert
			-27.9	+0.0	+1.9				Maximized	l at 4	
									meters		
4	32.350M	38.5	+0.3	+0.3	+0.0	+15.1	+0.0	28.2	39.1	-10.9	Vert
			-27.9	+0.0	+1.9				Maximized	l at 4	
									meters		
5	160.000M	34.9	+0.7	+0.8	+0.1	+15.6	+0.0	32.6	43.5	-10.9	Horiz
			-27.7	+3.2	+0.0	+5.0					
6	49.885M	35.0	+0.4	+0.5	+0.1	+11.6	+0.0	27.9	39.1	-11.2	Vert
			-27.9	+3.2	+0.0	+5.0					
7	33.463M	36.9	+0.3	+0.4	+0.0	+14.6	+0.0	26.2	39.1	-12.9	Horiz
			-27.9	+0.0	+1.9				Maximized	l at 4	
									meters		
8	32.300M	35.6	+0.3	+0.3	+0.0	+15.1	+0.0	25.3	39.1	-13.8	Horiz
			-27.9	+0.0	+1.9				Maximized	l at 4	
									meters		
9	224.880M	32.4	+0.8	+1.1	+0.2	+17.5	+0.0	32.6	46.4	-13.8	Vert
			-27.6	+3.2	+0.0	+5.0					
10	124.755M	34.3	+0.6	+0.8	+0.1	+13.3	+0.0	29.6	43.5	-13.9	Horiz
			-27.7	+3.2	+0.0	+5.0					
11	30.800M	34.1	+0.3	+0.3	+0.0	+15.8	+0.0	24.5	39.1	-14.6	Horiz
			-27.9	+0.0	+1.9				Maximized	l at 4	
									meters		
12	74.435M	35.0	+0.4	+0.5	+0.0	+6.4	+0.0	22.6	39.1	-16.5	Horiz
			-27.9	+3.2	+0.0	+5.0					
13	74.555M	33.1	+0.4	+0.5	+0.0	+6.4	+0.0	20.7	39.1	-18.4	Vert
			-27.9	+3.2	+0.0	+5.0					

Page 163 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 13:36:58
Equipment: BPL MV Gateway Sequence#: 377
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 10: 10 meters out from medium voltage lines the BPL is connected to 58.33 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S2-1m	T8=Slant Distance S2-4m
T9=5dB Height Correction	

Measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6	T7	T8			_	-	
			T9								
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.035M	41.8	+0.9	+1.2	+0.3	+0.0	+0.0	42.6	46.4	-3.9	Vert
	QP		+17.9	-27.7	+3.2	+0.0					
			+5.0								
٨	240.035M	43.9	+0.9	+1.2	+0.3	+0.0	+0.0	44.7	46.4	-1.7	Vert
			+17.9	-27.7	+3.2	+0.0					
			+5.0								

Page 164 of 301 Report No.: FC06-025 Volume 3 of 9



3	174.840M	39.8	+0.7	+0.9	+0.1	+0.0	+0.0	38.2	43.5	-5.3	Vert
			+16.1	-27.6	+3.2	+0.0					
			+5.0								
4	124.735M	42.7	+0.6	+0.8	+0.1	+0.0	+0.0	38.0	43.5	-5.5	Horiz
			+13.3	-27.7	+3.2	+0.0					
			+5.0								
5	49.800M	39.7	+0.4	+0.5	+0.1	+0.0	+0.0	32.7	39.1	-6.4	Horiz
			+11.7	-27.9	+3.2	+0.0					
			+5.0								
6	224.855M	39.6	+0.8	+1.1	+0.2	+0.0	+0.0	39.8	46.4	-6.6	Vert
			+17.5	-27.6	+3.2	+0.0					
			+5.0								
7	30.363M	41.5	+0.3	+0.3	+0.0	+0.0	+0.0	32.1	39.1	-7.0	Horiz
			+16.0	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
8	30.388M	40.4	+0.3	+0.3	+0.0	+0.0	+0.0	31.0	39.1	-8.1	Vert
			+16.0	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
9	33.800M	41.2	+0.3	+0.4	+0.0	+0.0	+0.0	30.3	39.1	-8.8	Horiz
			+14.4	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
10	32.275M	39.9	+0.3	+0.3	+0.0	+0.0	+0.0	29.6	39.1	-9.5	Vert
			+15.1	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
11	32.525M	38.7	+0.3	+0.4	+0.0	+0.0	+0.0	28.4	39.1	-10.7	Horiz
			+15.0	-27.9	+0.0	+1.9			Maximized	at 4	
									meters		
12	33.825M	38.7	+0.3	+0.4	+0.0	+0.0	+0.0	27.8	39.1	-11.3	Vert
			+14.4	-27.9	+0.0	+1.9			Maximized		
									meters		
13	324.870M	30.5	+1.0	+1.4	+0.2	+18.8	+0.0	32.0	46.4	-14.4	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								
14	480.075M	27.5	+1.3	+1.8	+0.3	+17.2	+0.0	28.2	46.4	-18.2	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								

Page 165 of 301 Report No.: FC06-025 Volume 3 of 9



TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 13:54:44
Equipment: BPL MV Gateway Sequence#: 378
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 11: 10 meters out from medium voltage lines the BPL is connected to 66.67 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S2-1m T8=Slant Distance S2-4m

T9=5dB Height Correction

Measur	rement Data:	Reading listed by margin.			ırgin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.870M	39.8	+0.4	+0.5	+0.1	+0.0	+0.0	32.8	39.1	-6.3	Vert
			+11.7	-27.9	+3.2	+0.0					
			+5.0								

Page 166 of 301 Report No.: FC06-025 Volume 3 of 9



2	31.488M	36.0	+0.3 +15.5 +5.0	+0.3 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	32.4	39.1 -6.7 Due to trees, could not maximize. Measured at 1m. Add 5dB height correction factor to readings.	
3	30.888M	35.1	+0.3 +15.8 +5.0	+0.3 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	31.8	39.1 -7.3 Due to trees, could not maximize. Measured at 1m. Add 5dB height correction factor to readings.	
4	49.760M	38.8	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0	31.8	39.1 -7.3	Horiz
5	34.163M	35.1	+0.3 +14.3 +5.0	+0.4 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	30.4	39.1 -8.8 Due to trees, could not maximize. Measured at 1m. Add 5dB height correction factor to readings.	
6	30.400M	38.5	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	29.1	39.1 -10.0 Maximized at 4 meters	Vert
7	32.838M	33.1	+0.3 +14.9 +5.0	+0.4 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	29.0	39.1 -10.1 Due to trees, could not maximize. Measured at 1m. Add 5dB height correction factor to readings.	
8	32.288M	38.4	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	28.1	39.1 -11.0 Maximized at 4 meters	Vert
9	33.838M	38.2	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	27.3	39.1 -11.8 Maximized at 4 meters	
10	160.000M	33.9	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	31.6	43.5 -11.9	Vert
11	124.700M	34.2	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	29.5	43.5 -14.0	Vert

Page 167 of 301 Report No.: FC06-025 Volume 3 of 9



12	240.020M	31.4	+0.9	+1.2	+0.3	+0.0	+0.0	32.2	46.4	-14.2	Vert
			+17.9	-27.7	+3.2	+0.0					
			+5.0								
13	399.970M	32.0	+1.2	+1.7	+0.2	+16.2	+0.0	31.1	46.4	-15.3	Vert
			+0.0	-28.4	+3.2	+0.0					
			+5.0								
14	320.015M	28.1	+1.0	+1.4	+0.2	+19.5	+0.0	30.3	46.4	-16.1	Vert
			+0.0	-28.1	+3.2	+0.0					
			+5.0								

Page 168 of 301 Report No.: FC06-025 Volume 3 of 9



 $TX \bullet$ 

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 14:12:02
Equipment: BPL MV Gateway Sequence#: 379
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	6213625658
Overhead Coupler	Arteche	Overcap-S-17	0517347/61
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Eunstion	N/ C /	3.6. 1.1.11	CAI
Function	Manufacturer	Model #	S/N

## Test Conditions / Notes:

Formal MV Overhead Test Site #2 Westford Street west of Cochran Street, Houston, TX. Unit on pole streetlight number 465477 Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.35 meters above the street. Test Position 12: 10 meters out from medium voltage lines the BPL is connected to 75.0 meters laterally down the power line. Slant Distance is 14.4 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.4) = +3.2dB at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13) = +2.3dB at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/14.4) = +1.9dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S2-1m T8=Slant Distance S2-4m

T9=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.325M	40.4	+0.3	+0.3	+0.0	+0.0	+0.0	31.0	39.1	-8.1	Vert
			+16.0	-27.9	+0.0	+1.9			Maximized	d at 4	
									meters		
2	32.038M	40.5	+0.3	+0.3	+0.0	+0.0	+0.0	30.3	39.1	-8.8	Vert
			+15.2	-27.9	+0.0	+1.9			Maximized	d at 4	
									meters		

Page 169 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.867M	39.2	+0.3	+0.3	+0.0	+0.0	+0.0	29.6	39.1	-9.5	Horiz
			+15.8	-27.9	+0.0	+1.9			Maximized	l at 4	
									meters		
4	33.463M	40.2	+0.3	+0.4	+0.0	+0.0	+0.0	29.5	39.1	-9.6	Vert
			+14.6	-27.9	+0.0	+1.9			Maximized	l at 4	
									meters		
5	32.060M	37.0	+0.3	+0.3	+0.0	+0.0	+0.0	26.8	39.1	-12.3	Horiz
			+15.2	-27.9	+0.0	+1.9			Maximized	l at 4	
									meters		
6	49.695M	33.3	+0.4	+0.5	+0.1	+0.0	+0.0	26.3	39.1	-12.8	Horiz
			+11.7	-27.9	+3.2	+0.0					
			+5.0								
7	149.670M	32.0	+0.7	+0.8	+0.1	+0.0	+0.0	29.4	43.5	-14.2	Vert
			+15.2	-27.6	+3.2	+0.0					
			+5.0								
8	33.932M	35.8	+0.3	+0.4	+0.0	+0.0	+0.0	24.9	39.1	-14.2	Horiz
			+14.4	-27.9	+0.0	+1.9			Maximized	l at 4	
									meters		
9	399.933M	31.8	+1.2	+1.7	+0.2	+16.2	+0.0	30.9	46.4	-15.5	Horiz
			+0.0	-28.4	+3.2	+0.0					
			+5.0								
10	240.035M	29.9	+0.9	+1.2	+0.3	+0.0	+0.0	30.7	46.4	-15.7	Vert
			+17.9	-27.7	+3.2	+0.0					
			+5.0								
11	160.015M	29.0	+0.7	+0.8	+0.1	+0.0	+0.0	26.7	43.5	-16.8	Vert
			+15.6	-27.7	+3.2	+0.0					
			+5.0								
12	399.918M	29.6	+1.2	+1.7	+0.2	+16.2	+0.0	28.7	46.4	-17.7	Vert
			+0.0	-28.4	+3.2	+0.0					
			+5.0								

Page 170 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: MV Overhead Test Site #3 •Bennington Street west of Cochran Street at 4th pole from Cochran Street on

the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 15:52:40
Equipment: BPL MV Gateway Sequence#: 380
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 6213625658

# *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	
----------	--------------	---------	-----	--

#### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 1: 10 meters out from medium voltage lines the BPL is connected to directly across from the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measurement Data:		Reading listed by margin.			Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	•		T5	T6	T7	T8			-		
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	33.523M	49.6	+0.3	+0.4	+0.0	+0.0	+0.0	39.0	39.1	-0.1	Vert
QP			+14.5	-27.9	+0.0	+2.1			Maximized	d at 4	
								meters			

Page 171 of 301 Report No.: FC06-025 Volume 3 of 9



^ 33.5	523M 50.	6 +0.3	+0.4	+0.0	+0.0	+0.0	40.0	39.1	+0.9	Vert
		+14.5	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
3 32.3	363M 47.	0 + 0.3	+0.3	+0.0	+0.0	+0.0	36.9	39.1	-2.2	Vert
QP		+15.1	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
^ 32.3	363M 53.	0 + 0.3	+0.3	+0.0	+0.0	+0.0	42.9	39.1	+3.8	Vert
		+15.1	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
5 31.5	550M 45.	4 +0.3	+0.3	+0.0	+0.0	+0.0	35.6	39.1	-3.5	Horiz
QP		+15.4	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
^ 31.5	550M 51.	1 +0.3	+0.3	+0.0	+0.0	+0.0	41.3		+2.2	Horiz
		+15.4	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
	389M 45.	2 +0.3	+0.3	+0.0	+0.0	+0.0	35.5		-3.6	Vert
QP		+15.5	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
^ 31.3	389M 50.	7 +0.3	+0.3	+0.0	+0.0	+0.0	41.0	39.1	+1.9	Vert
		+15.5	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
9 32.0	514M 45.	6 +0.3	+0.4	+0.0	+0.0	+0.0	35.5	39.1	-3.6	Horiz
QP		+15.0	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
^ 32.6	514M 50.	7 +0.3	+0.4	+0.0	+0.0	+0.0	40.6	39.1	+1.5	Horiz
		+15.0	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
	290M 44.	7 + 0.3	+0.4	+0.0	+0.0	+0.0	34.2	39.1	-4.9	Horiz
QP		+14.6	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
^ 33.2	290M 50.	7 + 0.3	+0.4	+0.0	+0.0	+0.0	40.2	39.1	+1.1	Horiz
		+14.6	-27.9	+0.0	+2.1			Maximize	d at 4	
								meters		
13 149.	753M 37.	3 + 0.7	+0.8	+0.1	+0.0	+0.0	34.9	43.5	-8.7	Horiz
		+15.2	-27.6	+3.4	+0.0					
		+5.0								
14 239.	990M 36.	5 +0.9	+1.2	+0.3	+0.0	+0.0	37.5	46.4	-8.9	Vert
		+17.9	-27.7	+3.4	+0.0					
		+5.0								
15 160.	000M 34.		+0.8	+0.1	+0.0	+0.0	32.2	43.5	-11.3	Vert
		+15.6	-27.7	+3.4	+0.0					
		+5.0								
16 160.	038M 33.		+0.8	+0.1	+0.0	+0.0	31.2	43.5	-12.3	Horiz
		+15.6	-27.7	+3.4	+0.0					
		+5.0								
17 400.	008M 32.	9 +1.2	+1.7	+0.2	+16.2	+0.0	32.2	46.4	-14.2	Vert
		+0.0	-28.4	+3.4	+0.0					
		+5.0								



Test Location: MV Overhead Test Site #3 •Bennington Street west of Cochran Street at 4th pole from Cochran Street on

the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 16:08:47
Equipment: BPL MV Gateway Sequence#: 381
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG2

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

# Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 2: 10 meters out from medium voltage lines the BPL is connected to 4.17 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

Reading listed by margin.

T9=5dB Height Correction

Measurement Data:

#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin
			T5	T6	T7	T8				
			T9							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB
-	21 2203 5							• • •	• • •	

	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	dBμV/m	dB	Ant
1	31.220M	46.4	+0.3	+0.3	+0.0	+0.0	+0.0	36.8	39.1	-2.3	Vert
(	QP		+15.6	-27.9	+0.0	+2.1			Maximized	at 4	
									meters		
٨	31.220M	53.5	+0.3	+0.3	+0.0	+0.0	+0.0	43.9	39.1	+4.8	Vert
			+15.6	-27.9	+0.0	+2.1			Maximized	at 4	
									meters		

Page 173 of 301 Report No.: FC06-025 Volume 3 of 9

Polar

Test Distance: 10 Meters



3	33.882M	45.5	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	34.8	39.1 Maximized	-4.3 l at 4	Vert
									meters		
4	240.020M	39.8	+0.9	+1.2	+0.3	+0.0	+0.0	40.8	46.4	-5.6	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
5	30.888M	41.8	+0.3	+0.3	+0.0	+0.0	+0.0	32.4	39.1	-6.7	Horiz
			+15.8	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
6	32.562M	41.7	+0.3	+0.4	+0.0	+0.0	+0.0	31.6	39.1	-7.5	Vert
			+15.0	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
7	32.138M	41.6	+0.3	+0.3	+0.0	+0.0	+0.0	31.5	39.1	-7.6	Horiz
			+15.2	-27.9	+0.0	+2.1			Maximized		
									meters		
8	160.005M	37.4	+0.7	+0.8	+0.1	+0.0	+0.0	35.3	43.5	-8.2	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
9	239.985M	36.6	+0.9	+1.2	+0.3	+0.0	+0.0	37.6	46.4	-8.8	Horiz
			+17.9	-27.7	+3.4	+0.0					
			+5.0			. 0.0					
10	400.000M	37.4	+1.2	+1.7	+0.2	+16.2	+0.0	36.7	46.4	-9.7	Horiz
10	.00.0001.1	27	+0.0	-28.4	+3.4	+0.0	. 0.0	20.,		· · ·	110112
			+5.0	20.1	15.1	10.0					
11	160.008M	35.7	+0.7	+0.8	+0.1	+0.0	+0.0	33.6	43.5	-9.9	Horiz
- 11	100.000111	33.7	+15.6	-27.7	+3.4	+0.0	10.0	33.0	13.5	7.7	HOHE
			+5.0	21.1	13.4	10.0					
12	33.650M	39.3	+0.3	+0.4	+0.0	+0.0	+0.0	28.7	39.1	-10.4	Horiz
12	33.030141	37.3	+14.5	-27.9	+0.0	+2.1	10.0	20.7	Maximized		HOHZ
			111.5	21.7	10.0	12.1			meters	i at i	
13	149.700M	34.3	+0.7	+0.8	+0.1	+0.0	+0.0	31.9		-11.6	Horiz
15	1 1517 00111	5 1.5	+15.2	-27.6	+3.4	+0.0	10.0	31.7	13.3	11.0	HOHE
			+5.0	27.0	15.1	10.0					
14	320.045M	31.5	+1.0	+1.4	+0.2	+19.5	+0.0	33.9	46.4	-12.5	Vert
1-7	320.04311	31.3	+0.0	-28.1	+3.4	+0.0	10.0	33.7	40.4	12.5	VCIT
			+5.0	20.1	13.4	10.0					
15	124.490M	35.5	+0.6	+0.8	+0.1	+0.0	+0.0	30.9	43.5	-12.6	Horiz
13	127.770101	55.5	+13.2	-27.7	+3.4	+0.0 +0.0	10.0	50.9	73.3	-12.0	TIOHE
			+13.2	-21.1	FJ. <del>4</del>	±0.0					
16	399.993M	34.0	+1.2	+1.7	+0.2	+16.2	+0.0	33.3	46.4	-13.1	Vert
10	JJJ.JJJ1V1	54.0	+0.0	-28.4	+3.4	+10.2 $+0.0$	+0.0	33.3	40.4	-13.1	v CI t
			+5.0	-20.4	±3.4	+0.0					
17	480.038M	31.6	+1.3	+1.8	+0.3	+17.2	+0.0	32.5	46.4	-13.9	Vert
1 /	400.030101	51.0	$^{+1.5}$	+1.8 -28.1	+3.4	+17.2 +0.0	+0.0	34.3	40.4	-13.9	v ei i
			+0.0 +5.0	-20.1	±3.4	+0.0					
10	40 575M	31.8		+0.5	<sub>+</sub> 0 1	ΙΔ.Ω	+0.0	25.1	39.1	140	Vert
18	49.575M	31.8	+0.4		+0.1 +3.4	$+0.0 \\ +0.0$	+0.0	23.1	39.1	-14.0	vert
			+11.8	-27.9	+3.4	+0.0					
10	124 60014	22.6	+5.0	LO 0	, O 1	ΙΔ Ω	+0.0	20.1	12 5	15 1	<b>V</b> 74
19	124.600M	32.6	+0.6	+0.8	+0.1	+0.0	+0.0	28.1	43.5	-15.4	Vert
			+13.3	-27.7	+3.4	+0.0					
<u> </u>			+5.0								

Page 174 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: MV Overhead Test Site #3 •Bennington Street west of Cochran Street at 4th pole from Cochran Street on

the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 16:22:17
Equipment: BPL MV Gateway Sequence#: 382
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

# **Equipment Under Test (\* = EUT):**

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 3: 10 meters out from medium voltage lines the BPL is connected to 8.33 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measur	Measurement Data:		Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	-		T5 T9	T6	T7	T8			•			
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m \\$	dB	Ant	
1	30.985M	44.5	+0.3	+0.3	+0.0	+0.0	+0.0	35.0	39.1	-4.1	Vert	
			+15.7	-27.9	+0.0	+2.1			Maximized	d at 4		
									meters			

Page 175 of 301 Report No.: FC06-025 Volume 3 of 9



I <del>r.</del>											
2	159.985M	40.8	+0.7	+0.8	+0.1	+0.0	+0.0	38.7	43.5	-4.8	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
3	240.000M	40.1	+0.9	+1.2	+0.3	+0.0	+0.0	41.1	46.4	-5.3	Vert
			+17.9	-27.7	+3.4	+0.0					
<u></u>	4.50.00.77.5	200	+5.0				0.0	2.2			** .
4	160.005M	38.4	+0.7	+0.8	+0.1	+0.0	+0.0	36.3	43.5	-7.2	Horiz
			+15.6	-27.7	+3.4	+0.0					
	240.00534	20.2	+5.0	. 1. 2	.0.2	. 0. 0	.00	20.2	46.4	7.0	TT
3	240.005M	38.2	+0.9	+1.2	+0.3	+0.0	+0.0	39.2	46.4	-7.2	Horiz
	QP		+17.9 +5.0	-27.7	+3.4	+0.0					
^	240.005M	44.3	+5.0 +0.9	+1.2	+0.3	+0.0	+0.0	45.3	46.4	-1.1	Horiz
	240.003WI	44.3	+0.9 +17.9	+1.2 -27.7	+0.5	+0.0 +0.0	+0.0	43.3	40.4	-1.1	HOHZ
			+17.9	-21.1	1 J. <del>T</del>	10.0					
7	320.000M	35.7	+1.0	+1.4	+0.2	+19.5	+0.0	38.1	46.4	-8.3	Vert
′	320.000141	55.1	+0.0	-28.1	+3.4	+0.0	10.0	50.1	10.7	0.5	V 01 t
			+5.0								
8	32.631M	40.9	+0.3	+0.4	+0.0	+0.0	+0.0	30.7	39.1	-8.4	Vert
			+14.9	-27.9	+0.0	+2.1			Maximized		
									meters		
9	320.000M	35.2	+1.0	+1.4	+0.2	+19.5	+0.0	37.6	46.4	-8.8	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
10	32.100M	39.0	+0.3	+0.3	+0.0	+0.0	+0.0	30.3	39.1	-8.8	Horiz
			+15.2	-27.9	+3.4	+0.0			Maximized	l at 1	
									meter		
11	33.715M	39.5	+0.3	+0.4	+0.0	+0.0	+0.0	28.9	39.1	-10.2	Vert
			+14.5	-27.9	+0.0	+2.1			Maximized	l at 4	
1.0	21 (00)	27.2	0.2	0.2	0.0	0.0	.0.0	20.0	meters	10.2	77 '
12	31.600M	37.3	+0.3	+0.3	+0.0	+0.0	+0.0	28.8	39.1	-10.3	Horiz
			+15.4	-27.9	+3.4	+0.0			Maximized	at I	
12	224 92514	211	, 1.Ω	, 1 A	10.2	100	+0.0	26.1	meter	10.4	Vant
13	324.835M	34.4	+1.0	+1.4	+0.2	+18.8	+0.0	36.1	46.4	-10.4	Vert
			$+0.0 \\ +5.0$	-28.1	+3.4	+0.0					
14	32.563M	37.5	+0.3	+0.4	+0.0	+0.0	+0.0	28.7	39.1	-10.4	Horiz
14	J2.JUJIVI	31.3	+15.0	+0.4 -27.9	+3.4	+0.0	+0.0	20.7	Maximized		110112
			113.0	21.7	13.7	10.0			meter	. ut 1	
15	124.585M	35.9	+0.6	+0.8	+0.1	+0.0	+0.0	31.4	43.5	-12.2	Vert
	12 00111	55.7	+13.3	-27.7	+3.4	+0.0		J1. r	13.3	12.2	, 511
			+5.0	_,,,		. 0.0					
16	480.030M	32.9	+1.3	+1.8	+0.3	+17.2	+0.0	33.8	46.4	-12.6	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
17	49.505M	32.8	+0.4	+0.5	+0.1	+0.0	+0.0	26.1	39.1	-13.1	Vert
			+11.8	-27.9	+3.4	+0.0					
			+5.0								
-											

Page 176 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: MV Overhead Test Site #3 •Bennington Street west of Cochran Street at 4th pole from Cochran Street on

the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 16:41:14
Equipment: BPL MV Gateway Sequence#: 383
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG2

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N

#### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 4: 10 meters out from medium voltage lines the BPL is connected to 12.5 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S3-1m	T8=Slant Distance S3-4m
T9=5dB Height Correction	

Measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	239.990M	41.1	+0.9	+1.2	+0.3	+0.0	+0.0	42.1	46.4	-4.3	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
2	160.050M	40.7	+0.7	+0.8	+0.1	+0.0	+0.0	38.6	43.5	-4.9	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								

Page 177 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.938M	42.5	+0.3 +15.3	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	33.9	39.1 Maximized	-5.2	Vert
									meter		
4	30.400M	40.9	+0.3	+0.3	+0.0	+0.0	+0.0	33.0	39.1	-6.1	Vert
			+16.0	-27.9	+3.4	+0.0			Maximized		
									meter		
5	240.038M	38.0	+0.9	+1.2	+0.3	+0.0	+0.0	39.0	46.4	-7.4	Horiz
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
6	319.985M	36.2	+1.0	+1.4	+0.2	+19.5	+0.0	38.6	46.4	-7.8	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
7	31.738M	39.4	+0.3	+0.3	+0.0	+0.0	+0.0	29.6	39.1	-9.5	Horiz
			+15.4	-27.9	+0.0	+2.1			Maximized		
									meters		
8	33.025M	38.4	+0.3	+0.4	+0.0	+0.0	+0.0	29.4	39.1	-9.7	Vert
			+14.8	-27.9	+3.4	+0.0			Maximized		
									meter		
9	30.375M	38.6	+0.3	+0.3	+0.0	+0.0	+0.0	29.4		-9.8	Horiz
			+16.0	-27.9	+0.0	+2.1			Maximized		
									meters		
10	320.008M	33.8	+1.0	+1.4	+0.2	+19.5	+0.0	36.2	46.4	-10.2	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
11	399.978M	35.4	+1.2	+1.7	+0.2	+16.2	+0.0	34.7	46.4	-11.7	Vert
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
12	480.038M	33.8	+1.3	+1.8	+0.3	+17.2	+0.0	34.7	46.4	-11.8	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
13	480.038M	33.6	+1.3	+1.8	+0.3	+17.2	+0.0	34.5	46.4	-11.9	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
14	400.008M	34.8	+1.2	+1.7	+0.2	+16.2	+0.0	34.1	46.4	-12.4	Horiz
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
15	49.685M	32.5	+0.4	+0.5	+0.1	+0.0	+0.0	25.7	39.1	-13.4	Vert
			+11.7	-27.9	+3.4	+0.0					
<u></u>			+5.0								
16	33.413M	36.1	+0.3	+0.4	+0.0	+0.0	+0.0	25.6	39.1	-13.5	Horiz
			+14.6	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
17	124.625M	33.6	+0.6	+0.8	+0.1	+0.0	+0.0	29.1	43.5	-14.4	Vert
			+13.3	-27.7	+3.4	+0.0					
			+5.0								
18	249.318M	30.8	+0.9	+1.2	+0.3	+0.0	+0.0	31.9	46.4	-14.6	Horiz
			+18.1	-27.8	+3.4	+0.0					
			+5.0								
19	374.723M	30.2	+1.1	+1.6	+0.2	+15.7	+0.0	28.9	46.4	-17.6	Horiz
			+0.0	-28.3	+3.4	+0.0					
1			+5.0								

Page 178 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: MV Overhead Test Site #3 •Bennington Street west of Cochran Street at 4th pole from Cochran Street on

the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 16:58:43
Equipment: BPL MV Gateway Sequence#: 384
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG2

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N

#### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 5: 10 meters out from medium voltage lines the BPL is connected to 16.67 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S3-1m	T8=Slant Distance S3-4m
T9=5dB Height Correction	

Measu	rement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	41.9	+0.7	+0.8	+0.1	+0.0	+0.0	39.8	43.5	-3.7	Vert
	QP		+15.6	-27.7	+3.4	+0.0					
			+5.0								
٨	160.000M	43.4	+0.7	+0.8	+0.1	+0.0	+0.0	41.3	43.5	-2.2	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								

Page 179 of 301 Report No.: FC06-025 Volume 3 of 9



3	240.013M	41.0	+0.9	+1.2	+0.3	+0.0	+0.0	42.0	46.4	-4.4	Vert
	QP		+17.9	-27.7	+3.4	+0.0					
			+5.0								
٨	240.013M	43.6	+0.9	+1.2	+0.3	+0.0	+0.0	44.6	46.4	-1.8	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
5	31.950M	42.6	+0.3	+0.3	+0.0	+0.0	+0.0	34.0	39.1	-5.1	Vert
			+15.3	-27.9	+3.4	+0.0			Maximized	l at 1	
									meter		
6	30.350M	39.5	+0.3	+0.3	+0.0	+0.0	+0.0	31.6	39.1	-7.5	Vert
			+16.0	-27.9	+3.4	+0.0			Maximized	l at 1	
									meter		
7	399.985M	39.5	+1.2	+1.7	+0.2	+16.2	+0.0	38.8	46.4	-7.6	Vert
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
8	30.600M	33.8	+0.3	+0.3	+0.0	+0.0	+0.0	30.8	39.1	-8.3	Horiz
			+15.9	-27.9	+3.4	+0.0					
			+5.0								
9	32.938M	39.5	+0.3	+0.4	+0.0	+0.0	+0.0	30.5	39.1	-8.6	Vert
			+14.8	-27.9	+3.4	+0.0			Maximized	l at 1	
									meter		
10	319.978M	33.7	+1.0	+1.4	+0.2	+19.5	+0.0	36.1	46.4	-10.3	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
11	319.993M	32.9	+1.0	+1.4	+0.2	+19.5	+0.0	35.3	46.4	-11.1	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
12	324.348M	33.5	+1.0	+1.4	+0.2	+18.9	+0.0	35.3	46.4	-11.1	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
13	239.985M	38.0	+0.9	+1.2	+0.3	+0.0	+0.0	34.0	46.4	-12.4	Horiz
			+17.9	-27.7	+3.4	+0.0			Measured a		
									Add 5dB h	_	
									correction	factor to	
									readings.		
14	480.060M	32.9	+1.3	+1.8	+0.3	+17.2	+0.0	33.8	46.4	-12.6	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
15	399.940M	32.7	+1.2	+1.7	+0.2	+16.2	+0.0	32.0	46.4	-14.4	Horiz
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
16	124.575M	33.5	+0.6	+0.8	+0.1	+0.0	+0.0	29.0	43.5	-14.5	Vert
			+13.3	-27.7	+3.4	+0.0					
			+5.0								
	·	· ·		· ·							

Page 180 of 301 Report No.: FC06-025 Volume 3 of 9



17	32.100M	34.3	+0.3	+0.3	+0.0	+0.0	+0.0	24.3	39.1	-14.8	Horiz
			+15.2	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
18	33.213M	34.6	+0.3	+0.4	+0.0	+0.0	+0.0	24.2	39.1	-14.9	Horiz
			+14.7	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
19	349.213M	32.4	+1.1	+1.5	+0.3	+15.3	+0.0	30.8	46.4	-15.6	Horiz
			+0.0	-28.2	+3.4	+0.0					
			+5.0								
20	74.530M	33.4	+0.4	+0.5	+0.0	+0.0	+0.0	21.2	39.1	-17.9	Vert
			+6.4	-27.9	+3.4	+0.0					
			+5.0								

Page 181 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 17:13:54
Equipment: BPL MV Gateway Sequence#: 385
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 6: 10 meters out from medium voltage lines the BPL is connected to 25.0 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 R0	G214/U Cable	T2=Cable 2410
T3=Cable 01185		T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measurement Data:		Reading listed by margin.			ırgin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6	T7	T8			_	_	
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.540M	36.4	+0.4	+0.5	+0.1	+0.0	+0.0	29.7	39.1	-9.4	Vert
			+11.8	-27.9	+3.4	+0.0					
			+5.0								

Page 182 of 301 Report No.: FC06-025 Volume 3 of 9



2	33.775M	39.4	+0.3	+0.4	+0.0	+0.0	+0.0	28.7	39.1	-10.4	Vert
			+14.4	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
3	319.985M	32.9	+1.0	+1.4	+0.2	+19.5	+0.0	35.3	46.4	-11.1	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
4	32.463M	37.6	+0.3	+0.4	+0.0	+0.0	+0.0	27.5	39.1	-11.6	Vert
			+15.0	-27.9	+0.0	+2.1			Maximized		
				_,,,					meters		
5	240.035M	33.5	+0.9	+1.2	+0.3	+0.0	+0.0	34.5	46.4	-11.9	Vert
	2.0.000111	22.0	+17.9	-27.7	+3.4	+0.0	. 0.0			11.,	, 010
			+5.0	27.7	13.1	10.0					
6	30.513M	35.3	+0.3	+0.3	+0.0	+0.0	+0.0	26.0	39.1	-13.1	Vert
	30.31311	33.3	+15.9	-27.9	+0.0	+2.1	10.0	20.0	Maximized		VCIT
			113.7	21.7	10.0	12.1			meters	ı aı ¬	
7	239.963M	32.1	+0.9	+1.2	+0.3	+0.0	+0.0	33.1	46.4	-13.3	Horiz
_ ′	239.903W	32.1	+17.9	+1.2 -27.7	+3.4	+0.0 +0.0	+0.0	33.1	40.4	-13.3	110112
			+17.9	-21.1	+3.4	+0.0					
8	249.810M	30.7	+0.9	+1.2	+0.3	+0.0	+0.0	31.8	46.4	-14.6	Vert
0	249.810M	30.7					+0.0	31.8	40.4	-14.0	vert
			+18.1	-27.8	+3.4	+0.0					
	20.2251.5	22.2	+5.0	0.2	0.0	0.0	0.0	2.1.1	20.1	150	** .
9	30.225M	33.2	+0.3	+0.3	+0.0	+0.0	+0.0	24.1	39.1	-15.0	Horiz
			+16.1	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
10	32.175M	33.5	+0.3	+0.3	+0.0	+0.0	+0.0	23.5		-15.6	Horiz
			+15.2	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
11	33.788M	34.0	+0.3	+0.4	+0.0	+0.0	+0.0	23.3	39.1	-15.9	Horiz
			+14.4	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
12	124.590M	30.5	+0.6	+0.8	+0.1	+0.0	+0.0	26.0	43.5	-17.5	Vert
			+13.3	-27.7	+3.4	+0.0					
			+5.0								

Page 183 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 17:29:29
Equipment: BPL MV Gateway Sequence#: 386
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 7: 10 meters out from medium voltage lines; the BPL is connected 33.33 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=Slant Distance S3-1m	T8=Slant Distance S3-4m
T9=5dB Height Correction	

Measurement Data:			Re	Reading listed by margin.			Test Distance: 10 Meters					
	#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7	T8					
				T9								
		MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
Γ	1	160.000M	44.2	+0.7	+0.8	+0.1	+0.0	+0.0	42.1	43.5	-1.4	Vert
		QP		+15.6	-27.7	+3.4	+0.0					
				+5.0								
	٨	160.000M	47.7	+0.7	+0.8	+0.1	+0.0	+0.0	45.6	43.5	+2.1	Vert
				+15.6	-27.7	+3.4	+0.0					
L				+5.0								

Page 184 of 301 Report No.: FC06-025 Volume 3 of 9



3	160.000M	41.9	+0.7	+0.8	+0.1	+0.0	+0.0	39.8	43.5	-3.7	Horiz
	QP		+15.6	-27.7	+3.4	+0.0					
			+5.0								
٨	160.000M	44.6	+0.7	+0.8	+0.1	+0.0	+0.0	42.5	43.5	-1.0	Horiz
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
5	240.030M	40.6	+0.9	+1.2	+0.3	+0.0	+0.0	41.6	46.4	-4.8	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
6	239.985M	40.3	+0.9	+1.2	+0.3	+0.0	+0.0	41.3	46.4	-5.1	Horiz
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
7	33.425M	44.3	+0.3	+0.4	+0.0	+0.0	+0.0	33.8	39.1	-5.3	Vert
			+14.6	-27.9	+0.0	+2.1			Maximized	l at 4	
			+0.0						meters		
8	30.500M	42.4	+0.3	+0.3	+0.0	+0.0	+0.0	33.2	39.1	-5.9	Vert
			+16.0	-27.9	+0.0	+2.1			Maximized	l at 4	
			+0.0						meters		
9	32.513M	39.3	+0.3	+0.4	+0.0	+0.0	+0.0	29.2	39.1	-9.9	Vert
			+15.0	-27.9	+0.0	+2.1			Maximized	l at 4	
			+0.0						meters		
10	319.993M	33.5	+1.0	+1.4	+0.2	+19.5	+0.0	35.9	46.4	-10.5	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
11	32.438M	38.7	+0.3	+0.4	+0.0	+0.0	+0.0	28.6	39.1	-10.5	Horiz
			+15.0	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
12	400.023M	35.4	+1.2	+1.7	+0.2	+16.2	+0.0	34.7	46.4	-11.7	Vert
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
13	320.008M	31.6	+1.0	+1.4	+0.2	+19.5	+0.0	34.0	46.4	-12.4	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
14	33.463M	36.4	+0.3	+0.4	+0.0	+0.0	+0.0	25.9	39.1	-13.2	Horiz
			+14.6	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
15	400.000M	31.7	+1.2	+1.7	+0.2	+16.2	+0.0	31.0	46.4	-15.4	Horiz
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
16	30.513M	32.9	+0.3	+0.3	+0.0	+0.0	+0.0	23.6	39.1	-15.5	Horiz
			+15.9	-27.9	+0.0	+0.0			Maximized	l at 4	
									meters		



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 17:44:36
Equipment: BPL MV Gateway Sequence#: 387
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

# Equipment Under Test (\* = EUT):

(			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 8: 10 meters out from medium voltage lines the BPL is connected to 41.67 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measu	Measurement Data:		Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.020M	39.5	+0.9	+1.2	+0.3	+0.0	+0.0	40.5	46.4	-5.9	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								

Page 186 of 301 Report No.: FC06-025 Volume 3 of 9



2	32.038M	42.7	+0.3	+0.3	+0.0	+0.0	+0.0	32.7	39.1	-6.4	Vert
			+15.2	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
3	33.813M	41.1	+0.3	+0.4	+0.0	+0.0	+0.0	30.4	39.1	-8.7	Vert
			+14.4	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
4	30.475M	39.6	+0.3	+0.3	+0.0	+0.0	+0.0	30.4	39.1	-8.7	Vert
			+16.0	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
5	159.975M	36.1	+0.7	+0.8	+0.1	+0.0	+0.0	34.0	43.5	-9.5	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
6	320.025M	34.0	+1.0	+1.4	+0.2	+19.5	+0.0	36.4	46.4	-10.0	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
7	399.985M	36.8	+1.2	+1.7	+0.2	+16.2	+0.0	36.1	46.4	-10.4	Vert
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
8	240.005M	34.1	+0.9	+1.2	+0.3	+0.0	+0.0	35.1	46.4	-11.3	Horiz
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
9	320.000M	32.6	+1.0	+1.4	+0.2	+19.5	+0.0	35.0	46.4	-11.4	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
10	30.250M	31.7	+0.3	+0.3	+0.0	+0.0	+0.0	22.6	39.1	-16.5	Horiz
			+16.1	-27.9	+0.0	+2.1			Maximized	d at 4	
									meters		
11	31.988M	30.3	+0.3	+0.3	+0.0	+0.0	+0.0	20.3	39.1	-18.8	Horiz
			+15.2	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
12	33.525M	29.6	+0.3	+0.4	+0.0	+0.0	+0.0	19.0	39.1	-20.1	Horiz
			+14.5	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		

Page 187 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 17:56:30
Equipment: BPL MV Gateway Sequence#: 388
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 9: 10 meters out from medium voltage lines the BPL is connected to 50.0 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measur	Measurement Data:		Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	_		T5	T6	T7	T8			_			
			T9									
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	160.010M	41.0	+0.7	+0.8	+0.1	+0.0	+0.0	38.9	43.5	-4.6	Vert	
			+15.6	-27.7	+3.4	+0.0						
			+5.0									

Page 188 of 301 Report No.: FC06-025 Volume 3 of 9



2   240.017M   39.7   +0.9   +1.2   +0.3   +0.0   +0.0   40.7   46.4   -5.7   Vert     +17.9   +2.77   +3.4   +0.0   +0.0   40.7   46.4   -5.7   Vert     +17.9   +2.77   +3.4   +0.0   +0.0   40.4   46.4   -6.0   Horiz     +10.0   +0.0   +0.2   +19.5   +0.0   40.4   46.4   -6.0   Horiz     +10.0   +0.0   +0.0   +0.0   33.1   39.1   -6.0   Vert     +11.8   +27.9   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert     +11.8   +27.9   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz     +15.6   +27.7   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz     +15.6   +27.7   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz     +15.6   +27.7   +3.4   +0.0   +0.0   40.0   46.4   -6.4   Vert     +16.0   +1.0   +1.4   +0.2   +19.5   +0.0   40.0   46.4   -6.4   Vert     +16.0   +27.9   +0.0   +2.1   Maximized at 4 meters     9   33.330M   37.8   +0.3   +0.3   +0.0   +0.0   +0.0   28.6   39.1   -10.5   Vert     +16.0   -27.9   +0.0   +2.1   Maximized at 4 meters     10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   33.5   46.4   -13.0   Horiz     +10.0   -28.4   +3.4   +0.0   +2.1   Maximized at 4 meters     11   30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   21.9   39.1   -17.2   Horiz     +15.9   -27.9   +0.0   +2.1   Maximized at 4 meters     12   34.221M   31.8   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert     +14.2   -27.9   +0.0   +2.1   Maximized at 4 meters     13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz     +14.3   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz     +14.4   -27.9   +0.0   +2.1   Maximized at 4   meters												
13   319.985M   38.0   +1.0   +1.4   +0.2   +19.5   +0.0   40.4   46.4   -6.0   Horiz   +5.0   +0.0   +28.1   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert   +11.8   -27.9   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert   +11.8   -27.9   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz   +5.0   +5.0   +5.0   +5.0   +5.0   +5.0   +15.6   -27.7   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz   +5.0   +5.0   +15.6   -27.7   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz   +5.0   +5.0   +15.6   -27.7   +3.4   +0.0   +0.0   38.9   46.4   -6.4   Vert   +0.0   -28.1   +3.4   +0.0   +0.0   38.9   46.4   -7.5   Horiz   +5.0   +17.9   -27.7   +3.4   +0.0   +0.0   38.9   46.4   -7.5   Horiz   +5.0   +16.0   -27.9   +0.0   +2.1   Maximized at 4   meters   +14.6   -27.9   +0.0   +2.1   Maximized at 4   meters   +14.6   -27.9   +0.0   +2.1   Maximized at 4   meters   +15.0   +15.9   -27.9   +0.0   +2.1   Maximized at 4   meters   +15.0   -27.9   +0.0   +2.1   Maximized at 4	2	240.017M	39.7	+0.9	+1.2	+0.3	+0.0	+0.0	40.7	46.4	-5.7	Vert
3   319.985M   38.0   +1.0   +1.4   +0.2   +19.5   +0.0   40.4   46.4   -6.0   Horiz   +0.0   +28.1   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert   +11.8   -27.9   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert   +11.8   -27.9   +3.4   +0.0   +0.0   37.3   43.5   -6.2   Horiz   +15.6   -27.7   +3.4   +0.0   +15.6   -27.7   +3.4   +0.0   +5.0   +1.0   +1.4   +0.2   +19.5   +0.0   40.0   46.4   -6.4   Vert   +0.0   -28.1   +3.4   +0.0   +5.0   +1.0   +1.2   +0.3   +0.0   +0.0   38.9   46.4   -7.5   Horiz   +17.9   -27.7   +3.4   +0.0   +5.0   +16.0   -27.9   +0.0   +2.1   Maximized at 4   meters   10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   +2.1   Maximized at 4   meters   11   30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   21.9   39.1   -17.2   Horiz   +15.0   +15.0   +15.0   +16.0   -27.9   +0.0   +2.1   Maximized at 4   meters   12   34.221M   31.8   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   21.9   39.1   -17.2   Horiz   +15.9   -27.9   +0.0   +2.1   Maximized at 4   meters   13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   Maximized at 4   meters   13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   Maximized at 4   meters   14   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz   Ho				+17.9	-27.7	+3.4	+0.0					
14   49,510M   39,8   +0,4   +0,5   +0,1   +0,0   +0,0   33,1   39,1   -6,0   Vert				+5.0								
+5.0  4	3	319.985M	38.0	+1.0	+1.4	+0.2	+19.5	+0.0	40.4	46.4	-6.0	Horiz
4   49.510M   39.8   +0.4   +0.5   +0.1   +0.0   +0.0   33.1   39.1   -6.0   Vert   +11.8   -27.9   +3.4   +0.0   +0.0   33.1   39.1   -6.0   Vert   +15.0   +5.0       5   160.010M   39.4   +0.7   +0.8   +0.1   +0.0   +0.0   +0.0   37.3   43.5   -6.2   Horiz   +15.6   -27.7   +3.4   +0.0   +5.0   +15.0   +10.0   +2.81   +3.4   +0.0   +10.0   +2.81   +3.4   +0.0   +5.0   +17.9   -27.7   +3.4   +0.0   +5.0   +17.9   -27.7   +3.4   +0.0   +17.9   -27.7   +3.4   +0.0   +17.9   -27.7   +3.4   +0.0   +17.9   -27.7   +3.4   +0.0   +2.1   Maximized at 4 meters       8   30.363M   37.8   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   28.6   39.1   -10.5   Vert   Maximized at 4 meters       9   33.330M   37.1   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   26.6   39.1   -12.5   Vert   Maximized at 4 meters       10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   33.5   46.4   -13.0   Horiz   +5.0   +15.0   +15.0   +2.1   Maximized at 4 meters       11   30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   21.9   39.1   -17.2   Horiz   Horiz   +16.2   -27.9   +0.0   +2.1   Maximized at 4 meters       12   34.221M   31.8   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   Maximized at 4 meters       13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   Maximized at 4 meters       14   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz   Hori				+0.0	-28.1	+3.4	+0.0					
11.8   -27.9   +3.4   +0.0   +5.0				+5.0								
+5.0  5 160.010M 39.4 +0.7 +0.8 +0.1 +0.0 +0.0 37.3 43.5 -6.2 Horiz +5.0  6 319.993M 37.6 +1.0 +1.4 +0.2 +19.5 +0.0 40.0 46.4 -6.4 Vert +0.0 -28.1 +3.4 +0.0 +5.0  7 240.010M 37.9 +0.9 +1.2 +0.3 +0.0 +0.0 38.9 46.4 -7.5 Horiz +17.9 -27.7 +3.4 +0.0 +5.0  8 30.363M 37.8 +0.3 +0.3 +0.0 +0.0 +0.0 28.6 39.1 -10.5 Vert -5.0  8 30.363M 37.1 +0.3 +0.4 +0.0 +0.0 +2.1 Maximized at 4 meters  9 33.330M 37.1 +0.3 +0.4 +0.0 +0.0 +0.0 26.6 39.1 -12.5 Vert -10 399.978M 34.2 +1.2 +1.7 +0.2 +16.2 +0.0 33.5 46.4 -13.0 Horiz +0.0 -28.4 +3.4 +0.0 +5.0  11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz +15.9 -27.9 +0.0 +2.1 Maximized at 4 meters  12 34.221M 31.8 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz +15.9 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz meters	4	49.510M	39.8	+0.4	+0.5	+0.1	+0.0	+0.0	33.1	39.1	-6.0	Vert
5         160.010M         39.4         +0.7         +0.8         +0.1         +0.0         +0.0         37.3         43.5         -6.2         Horiz           6         319.993M         37.6         +1.0         +1.4         +0.2         +19.5         +0.0         40.0         46.4         -6.4         Vert           7         240.010M         37.9         +0.9         +1.2         +0.3         +0.0         +0.0         38.9         46.4         -7.5         Horiz           8         30.363M         37.8         +0.3         +0.3         +0.0         +0.0         +0.0         38.9         46.4         -7.5         Horiz           9         33.330M         37.8         +0.3         +0.0         +0.0         +0.0         28.6         39.1         -10.5         Vert           9         33.330M         37.1         +0.3         +0.0         +0.0         +0.0         28.6         39.1         -10.5         Vert           10         399.978M         34.2         +1.2         +1.7         +0.2         +16.2         +0.0         33.5         46.4         -13.0         Horiz           11         30.513M         31.2         +0.3<				+11.8	-27.9	+3.4	+0.0					
+15.6				+5.0								
+5.0  6 319.993M 37.6 +1.0 +1.4 +0.2 +19.5 +0.0 40.0 46.4 -6.4 Vert +0.0 -28.1 +3.4 +0.0 +5.0  7 240.010M 37.9 +0.9 +1.2 +0.3 +0.0 +0.0 38.9 46.4 -7.5 Horiz +17.9 -27.7 +3.4 +0.0 +5.0  8 30.363M 37.8 +0.3 +0.3 +0.0 +0.0 +0.0 28.6 39.1 -10.5 Vert +16.0 -27.9 +0.0 +2.1 Maximized at 4 meters  9 33.330M 37.1 +0.3 +0.4 +0.0 +0.0 +0.0 26.6 39.1 -12.5 Vert +14.6 -27.9 +0.0 +2.1 Maximized at 4 meters  10 399.978M 34.2 +1.2 +1.7 +0.2 +16.2 +0.0 33.5 46.4 -13.0 Horiz +5.0  11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz Maximized at 4 meters  12 34.221M 31.8 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert  13 32.300M 28.2 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz +15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 17.7 39.1 -21.0 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4  meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4	5	160.010M	39.4	+0.7	+0.8		+0.0	+0.0	37.3	43.5	-6.2	Horiz
6       319.993M       37.6       +1.0       +1.4       +0.2       +19.5       +0.0       40.0       46.4       -6.4       Vert         7       240.010M       37.9       +0.9       +1.2       +0.3       +0.0       +0.0       38.9       46.4       -7.5       Horiz         8       30.363M       37.8       +0.3       +0.3       +0.0       +0.0       +0.0       28.6       39.1       -10.5       Vert         9       33.330M       37.1       +0.3       +0.4       +0.0       +0.0       +0.0       26.6       39.1       -10.5       Vert         10       399.978M       34.2       +1.2       +1.7       +0.2       +16.2       +0.0       33.5       46.4       -13.0       Horiz         11       30.513M       31.2       +0.3       +0.3       +0.0       +0.0       +0.0       21.9       39.1       -17.2       Horiz         12       34.221M       31.8       +0.3       +0.4       +0.0       +0.0       +0.0       21.9       39.1       -17.2       Horiz         12       34.221M       31.8       +0.3       +0.4       +0.0       +0.0       +0.0       20.9       39.1				+15.6	-27.7	+3.4	+0.0					
+0.0				+5.0								
+5.0  7 240.010M 37.9 +0.9 +1.2 +0.3 +0.0 +0.0 38.9 46.4 -7.5 Horiz +17.9 -27.7 +3.4 +0.0  8 30.363M 37.8 +0.3 +0.3 +0.0 +0.0 +0.0 28.6 39.1 -10.5 Vert +16.0 -27.9 +0.0 +2.1 Maximized at 4 meters  9 33.330M 37.1 +0.3 +0.4 +0.0 +0.0 +0.0 26.6 39.1 -12.5 Vert +14.6 -27.9 +0.0 +2.1 Maximized at 4 meters  10 399.978M 34.2 +1.2 +1.7 +0.2 +16.2 +0.0 33.5 46.4 -13.0 Horiz +5.0 +0.0 -28.4 +3.4 +0.0  11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz +15.9 -27.9 +0.0 +2.1 Maximized at 4 meters  12 34.221M 31.8 +0.3 +0.4 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert +14.2 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz +15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.0 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4 meters	6	319.993M	37.6					+0.0	40.0	46.4	-6.4	Vert
7         240.010M         37.9         +0.9         +1.2         +0.3         +0.0         +0.0         38.9         46.4         -7.5         Horiz           8         30.363M         37.8         +0.3         +0.0         +0.0         +0.0         +0.0         28.6         39.1         -10.5         Vert           9         33.330M         37.1         +0.3         +0.4         +0.0         +0.0         +0.0         28.6         39.1         -10.5         Vert           10         399.978M         34.2         +1.2         +1.7         +0.2         +16.2         +0.0         33.5         46.4         -13.0         Horiz           11         30.513M         31.2         +0.3         +0.3         +0.0         +0.0         +0.0         33.5         46.4         -13.0         Horiz           11         30.513M         31.2         +0.3         +0.0         +0.0         +0.0         21.9         39.1         -17.2         Horiz           12         34.221M         31.8         +0.3         +0.4         +0.0         +0.0         +0.0         20.9         39.1         -18.2         Vert           4         +14.2         -27.9					-28.1	+3.4	+0.0					
10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   +2.1     Maximized at 4 meters												
+5.0  8 30.363M 37.8 +0.3 +0.3 +0.0 +0.0 +0.0 28.6 39.1 -10.5 Vert	7	240.010M	37.9					+0.0	38.9	46.4	-7.5	Horiz
8       30.363M       37.8       +0.3       +0.0       +0.0       +0.0       +0.0       28.6       39.1       -10.5       Vert Maximized at 4 meters         9       33.330M       37.1       +0.3       +0.4       +0.0       +0.0       +0.0       26.6       39.1       -12.5       Vert Maximized at 4 meters         10       399.978M       34.2       +1.2       +1.7       +0.2       +16.2       +0.0       33.5       46.4       -13.0       Horiz         +0.0       -28.4       +3.4       +0.0       +0.0       +0.0       +0.0       21.9       39.1       -17.2       Horiz         11       30.513M       31.2       +0.3       +0.3       +0.0       +0.0       +0.0       21.9       39.1       -17.2       Horiz         12       34.221M       31.8       +0.3       +0.4       +0.0       +0.0       +0.0       20.9       39.1       -18.2       Vert         14       32.300M       28.2       +0.3       +0.3       +0.0       +0.0       +0.0       +0.0       18.1       39.1       -21.0       Horiz         14       33.775M       28.4       +0.3       +0.4       +0.0       +0.0 <td< td=""><td></td><td></td><td></td><td></td><td>-27.7</td><td>+3.4</td><td>+0.0</td><td></td><td></td><td></td><td></td><td></td></td<>					-27.7	+3.4	+0.0					
+16.0   -27.9   +0.0   +2.1   Maximized at 4   meters     9   33.330M   37.1   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   26.6   39.1   -12.5   Vert     +14.6   -27.9   +0.0   +2.1   Maximized at 4   meters     10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   33.5   46.4   -13.0   Horiz     +0.0   -28.4   +3.4   +0.0   +5.0     11   30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   21.9   39.1   -17.2   Horiz     +15.9   -27.9   +0.0   +2.1   Maximized at 4   meters     12   34.221M   31.8   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert     +14.2   -27.9   +0.0   +2.1   Maximized at 4   meters     13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz     +15.1   -27.9   +0.0   +2.1   Maximized at 4   meters     14   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz     +14.4   -27.9   +0.0   +2.1   Maximized at 4   meters     14   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0.0   +0.0   +0.0   +0.0     +14.4   -27.9   +0.0   +2.1   Maximized at 4   +0.0   +0												
10   399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   +0.0   +0.0     40.0   +0.0	8	30.363M	37.8					+0.0	28.6			Vert
9 33.330M 37.1 +0.3 +0.4 +0.0 +0.0 +0.0 +0.0 26.6 39.1 -12.5 Vert				+16.0	-27.9	+0.0	+2.1			Maximized	at 4	
10 399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   33.5   46.4   -13.0   Horiz   +0.0   -28.4   +3.4   +0.0   +5.0     11 30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +2.1   Maximized at 4   meters     12 34.221M   31.8   +0.3   +0.4   +0.0   +0.0   +2.1   Maximized at 4   meters     13 32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   Maximized at 4   meters     13 32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz   Horiz     14 33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz   Horiz   Horiz   Horiz   Horiz   +14.4   -27.9   +0.0   +2.1   Maximized at 4   Maximized at 4   Horiz     14 33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz   Ho												
10 399.978M   34.2   +1.2   +1.7   +0.2   +16.2   +0.0   33.5   46.4   -13.0   Horiz   +5.0     11 30.513M   31.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0     21.9   39.1   -17.2   Horiz	9	33.330M	37.1					+0.0	26.6			Vert
10 399.978M 34.2 +1.2 +1.7 +0.2 +16.2 +0.0 33.5 46.4 -13.0 Horiz +0.0 -28.4 +3.4 +0.0 +5.0  11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz H15.9 -27.9 +0.0 +2.1 Maximized at 4 meters  12 34.221M 31.8 +0.3 +0.4 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert +14.2 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz H15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz H14.4 -27.9 +0.0 +2.1 Maximized at 4				+14.6	-27.9	+0.0	+2.1			Maximized	at 4	
+0.0												
+5.0  11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz Hor	10	399.978M	34.2					+0.0	33.5	46.4	-13.0	Horiz
11 30.513M 31.2 +0.3 +0.3 +0.0 +0.0 +0.0 21.9 39.1 -17.2 Horiz Hor					-28.4	+3.4	+0.0					
+15.9 -27.9 +0.0 +2.1 Maximized at 4 meters  12 34.221M 31.8 +0.3 +0.4 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert H14.2 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz H15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz H14.4 -27.9 +0.0 +2.1 Maximized at 4												
12   34.221M   31.8   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   20.9   39.1   -18.2   Vert   H14.2   -27.9   +0.0   +2.1   Maximized at 4   meters     13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz   H15.1   -27.9   +0.0   +2.1   Maximized at 4   meters     14   33.775M   28.4   +0.3   +0.4   +0.0   +0.0   +0.0   +0.0   17.7   39.1   -21.4   Horiz   H14.4   -27.9   +0.0   +2.1   Maximized at 4	11	30.513M	31.2					+0.0	21.9			Horiz
12 34.221M 31.8 +0.3 +0.4 +0.0 +0.0 +0.0 20.9 39.1 -18.2 Vert +14.2 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz +15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4				+15.9	-27.9	+0.0	+2.1			Maximized	at 4	
+14.2 -27.9 +0.0 +2.1 Maximized at 4 meters  13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz												
13   32.300M   28.2   +0.3   +0.3   +0.0   +0.0   +0.0   +0.0   18.1   39.1   -21.0   Horiz	12	34.221M	31.8					+0.0	20.9			Vert
13 32.300M 28.2 +0.3 +0.3 +0.0 +0.0 +0.0 18.1 39.1 -21.0 Horiz +15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4				+14.2	-27.9	+0.0	+2.1			Maximized	at 4	
+15.1 -27.9 +0.0 +2.1 Maximized at 4 meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz   +14.4 -27.9 +0.0 +2.1 Maximized at 4												
meters  14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4	13	32.300M	28.2					+0.0	18.1			Horiz
14 33.775M 28.4 +0.3 +0.4 +0.0 +0.0 +0.0 17.7 39.1 -21.4 Horiz +14.4 -27.9 +0.0 +2.1 Maximized at 4				+15.1	-27.9	+0.0	+2.1			Maximized	at 4	
+14.4 -27.9 +0.0 +2.1 Maximized at 4												
	14	33.775M	28.4					+0.0	17.7			Horiz
meters				+14.4	-27.9	+0.0	+2.1			Maximized	at 4	
										meters		

Page 189 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 18:26:56
Equipment: BPL MV Gateway Sequence#: 390
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 10: 10 meters out from medium voltage lines the BPL is connected to 58.33 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

# Transducer Legend:

T1=PO 05440 R	G214/U Cable	T2=Cable 2410
T3=Cable 0118	5	T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measu	Measurement Data:		Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5 T9	T6	T7	T8					
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.000M	41.3	+0.7	+0.8	+0.1	+0.0	+0.0	39.2	43.5	-4.3	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								

Page 190 of 301 Report No.: FC06-025 Volume 3 of 9



2	159.985M	40.1	+0.7	+0.8	+0.1	+0.0	+0.0	38.0	43.5	-5.5	Horiz
			+15.6 +5.0	-27.7	+3.4	+0.0					
3	31.413M	41.0	+0.3	+0.3	+0.0	+0.0	+0.0	31.3	39.1	-7.8	Vert
3	31.413111	41.0	+15.5	-27.9	+0.0	+2.1	+0.0	31.3	Maximized		VCIT
			113.3	27.5	10.0	12.1			meters	at i	
4	240.000M	37.5	+0.9	+1.2	+0.3	+0.0	+0.0	38.5	46.4	-7.9	Horiz
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
5	240.005M	37.4	+0.9	+1.2	+0.3	+0.0	+0.0	38.4	46.4	-8.0	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
6	319.995M	35.6	+1.0	+1.4	+0.2	+19.5	+0.0	38.0	46.4	-8.4	Horiz
			+0.0	-28.1	+3.4	+0.0					
7	22 575M	40.2	+5.0	.0.4	.00	٠, ٥, ٥	.00	20.6	39.1	0.5	Mont
7	33.575M	40.2	+0.3 +14.5	+0.4 -27.9	$+0.0 \\ +0.0$	+0.0 +2.1	+0.0	29.6	39.1 Maximized		Vert
			+14.5	-21.9	+0.0	+2.1			meters	at 4	
8	30.525M	38.1	+0.3	+0.3	+0.0	+0.0	+0.0	28.8		-10.3	Vert
	00.0201.1	2011	+15.9	-27.9	+0.0	+2.1	. 0.0	20.0	Maximized		, 510
									meters		
9	400.020M	36.4	+1.2	+1.7	+0.2	+16.2	+0.0	35.7	46.4	-10.7	Vert
			+0.0	-28.4	+3.4	+0.0					
			+5.0								
10	400.000M	36.4	+1.2	+1.7	+0.2	+16.2	+0.0	35.7	46.4	-10.7	Horiz
			+0.0	-28.4	+3.4	+0.0					
1.1	220 0101 6	22.0	+5.0	1.4	0.0	10.5	0.0	25.4	16.1	11.0	<b>T</b> 7 .
11	320.010M	33.0	+1.0	+1.4	+0.2	+19.5	+0.0	35.4	46.4	-11.0	Vert
			$+0.0 \\ +5.0$	-28.1	+3.4	+0.0					
12	559.995M	32.5	+1.4	+2.0	+0.2	+18.5	+0.0	35.3	46.4	-11.1	Vert
12	339.993W	32.3	+0.0	-27.7	+3.4	+0.0	+0.0	33.3	40.4	-11.1	VCIT
			+5.0	27.7	13.1	10.0					
13	480.080M	34.0	+1.3	+1.8	+0.3	+17.2	+0.0	34.9	46.4	-11.5	Vert
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
14	559.980M	31.7	+1.4	+2.0	+0.2	+18.5	+0.0	34.5	46.4	-11.9	Horiz
			+0.0	-27.7	+3.4	+0.0					
			+5.0								
15	480.060M	32.4	+1.3	+1.8	+0.3	+17.2	+0.0	33.3	46.4	-13.1	Horiz
			+0.0	-28.1	+3.4	+0.0					
1,4	20 400M	22.4	+5.0	10.2	ΙΟ Ο	ΙΔ.Ω	LO O	22.2	20.1	15.0	Цота
16	30.400M	32.4	+0.3 +16.0	+0.3 -27.9	$+0.0 \\ +0.0$	$+0.0 \\ +2.1$	+0.0	23.2	39.1 Maximized	-15.9	Horiz
			±10.0	-41.7	+0.0	<b>⊤∠.1</b>			meters	at <del>T</del>	
17	31.950M	31.6	+0.3	+0.3	+0.0	+0.0	+0.0	21.7	39.1	-17.4	Horiz
11	31.730111	51.0	+15.3	-27.9	+0.0	+2.1	. 0.0	21.7	Maximized		110112
									meters		
18	33.538M	29.4	+0.3	+0.4	+0.0	+0.0	+0.0	18.8	39.1	-20.3	Horiz
			+14.5	-27.9	+0.0	+2.1			Maximized		
									meters		

Page 191 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 18:10:50
Equipment: BPL MV Gateway Sequence#: 389
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 11: 10 meters out from medium voltage lines the BPL is connected to 66.67 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port.

#### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=Slant Distance S3-1m T8=Slant Distance S3-4m

T9=5dB Height Correction

Measurement Data:		Re	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar	
			T5 T9	T6	T7	Т8						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	319.990M	35.0	+1.0	+1.4	+0.2	+19.5	+0.0	37.4	46.4	-9.0	Vert	
			+0.0	-28.1	+3.4	+0.0						
			+5.0									

Page 192 of 301 Report No.: FC06-025 Volume 3 of 9



2	160.015M	34.5	+0.7	+0.8	+0.1	+0.0	+0.0	32.4	43.5	-11.1	Vert
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
3	159.985M	33.7	+0.7	+0.8	+0.1	+0.0	+0.0	31.6	43.5	-11.9	Horiz
			+15.6	-27.7	+3.4	+0.0					
			+5.0								
4	319.990M	31.8	+1.0	+1.4	+0.2	+19.5	+0.0	34.2	46.4	-12.2	Horiz
			+0.0	-28.1	+3.4	+0.0					
			+5.0								
5	33.450M	37.4	+0.3	+0.4	+0.0	+0.0	+0.0	26.9	39.1	-12.2	Vert
			+14.6	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
6	240.050M	32.6	+0.9	+1.2	+0.3	+0.0	+0.0	33.6	46.4	-12.8	Vert
			+17.9	-27.7	+3.4	+0.0					
			+5.0								
7	31.900M	34.9	+0.3	+0.3	+0.0	+0.0	+0.0	25.0	39.1	-14.1	Vert
			+15.3	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
8	30.338M	33.3	+0.3	+0.3	+0.0	+0.0	+0.0	24.1	39.1	-15.0	Vert
			+16.0	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
9	33.413M	33.3	+0.3	+0.4	+0.0	+0.0	+0.0	22.8	39.1	-16.3	Horiz
			+14.6	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
10	32.175M	32.6	+0.3	+0.3	+0.0	+0.0	+0.0	22.6	39.1	-16.5	Horiz
			+15.2	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		
11	30.563M	31.2	+0.3	+0.3	+0.0	+0.0	+0.0	21.9	39.1	-17.2	Horiz
			+15.9	-27.9	+0.0	+2.1			Maximized	l at 4	
									meters		

Page 193 of 301 Report No.: FC06-025 Volume 3 of 9



the north side. • Houston, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/30/2006
Test Type: Radiated Scan Time: 18:34:31
Equipment: BPL MV Gateway Sequence#: 391
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Overhead Coupler	Arteche	Overcap-S-17	0517347/78
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal MV Overhead Test Site #3 on Bennington Street west of Cochran Street at 4th pole from Cochran Street on the north side. Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Medium voltage wires are 11.95 meters above the street. Test Position 12: 10 meters out from medium voltage lines the BPL is connected to 75.0 meters laterally down the power line. Slant Distance is 14.8 meters at 1 meter. Slant Distance correction factor is -20\*LOG(10/14.8) = +3.4dB at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is -20\*LOG(10/13.4) = +2.5dB at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is -20\*LOG(10/12.8) = +2.1dB at 4 meters test height. Unit is setup for maximum transmission over the medium voltage lines at the maximum power profile for Overhead lines. Notch Filters are off line. Tested from 30 - 1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port and MODE2 on the other port. No signals seen above 300MHz.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=Slant Distance S3-1m
T7=Slant Distance S3-4m	T8=5dB Height Correction

Measur	ement Data:	Re	ading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	32.002M	43.6	+0.3	+0.3	+0.0	+15.2	+0.0	33.6	39.1	-5.5	Vert
			-27.9	+0.0	+2.1				Maximized	d at 4	
									meters		
2	30.525M	42.1	+0.3	+0.3	+0.0	+15.9	+0.0	32.8	39.1	-6.3	Vert
			-27.9	+0.0	+2.1				Maximized	d at 4	
									meters		

Page 194 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.763M	40.9	+0.3	+0.3	+0.0	+15.3	+0.0	31.0	39.1	-8.1	Horiz
			-27.9	+0.0	+2.1				Maximized	at 4	
									meters		
4	160.020M	36.9	+0.7	+0.8	+0.1	+15.6	+0.0	34.8	43.5	-8.7	Vert
			-27.7	+3.4	+0.0	+5.0					
5	33.456M	40.1	+0.3	+0.4	+0.0	+14.6	+0.0	29.6	39.1	-9.5	Vert
			-27.9	+0.0	+2.1				Maximized	at 4	
									meters		
6	31.050M	38.0	+0.3	+0.3	+0.0	+15.7	+0.0	28.5	39.1	-10.6	Horiz
			-27.9	+0.0	+2.1				Maximized	at 4	
									meters		
7	33.363M	37.4	+0.3	+0.4	+0.0	+14.6	+0.0	26.9	39.1	-12.2	Horiz
			-27.9	+0.0	+2.1				Maximized	at 4	
									meters		
8	160.005M	33.2	+0.7	+0.8	+0.1	+15.6	+0.0	31.1	43.5	-12.4	Horiz
			-27.7	+3.4	+0.0	+5.0					
9	240.015M	32.7	+0.9	+1.2	+0.3	+17.9	+0.0	33.7	46.4	-12.7	Vert
			-27.7	+3.4	+0.0	+5.0					

Page 195 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/15/2006Test Type:Radiated ScanTime:13:46:11Equipment:BPL MV GatewaySequence#:120Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measur	ement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.865M	46.1	+0.4	+0.5	+11.7	-27.9	+0.0	35.9	39.1	-3.2	Vert
			+0.0	+0.1	+5.0						
2	33.725M	48.1	+0.3	+0.4	+14.5	-27.9	+0.0	35.4	39.1	-3.7	Vert
	QР		+0.0	+0.0					Maximized	l at 4	
									meters		
٨	33.725M	58.5	+0.3	+0.4	+14.5	-27.9	+0.0	45.8	39.1	+6.7	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		

Page 196 of 301 Report No.: FC06-025 Volume 3 of 9



4	32.750M	46.0	+0.3	+0.4	+14.9	-27.9	+0.0	33.7	39.1	-5.4	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
5	32.675M	45.8	+0.3	+0.4	+14.9	-27.9	+0.0	33.4	39.1	-5.7	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
6	31.738M	45.2	+0.3	+0.3	+15.4	-27.9	+0.0	33.3	39.1	-5.8	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
7	31.475M	44.9	+0.3	+0.3	+15.5	-27.9	+0.0	33.1	39.1	-6.0	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
8	240.010M	42.1	+0.9	+1.2	+17.9	-27.7	+0.0	39.7	46.4	-6.7	Horiz
			+0.0	+0.3	+5.0						
9	33.528M	43.7	+0.3	+0.4	+14.5	-27.9	+0.0	31.0	39.1	-8.1	Horiz
	QP		+0.0	+0.0					Maximized		
									meters		
^	33.528M	52.5	+0.3	+0.4	+14.5	-27.9	+0.0	39.8	39.1	+0.7	Horiz
			+0.0	+0.0					Maximized		
									meters		
11	240.030M	39.2	+0.9	+1.2	+17.9	-27.7	+0.0	36.8	46.4	-9.6	Vert
			+0.0	+0.3	+5.0						
12	160.005M	39.2	+0.7	+0.8	+15.6	-27.7	+0.0	33.7	43.5	-9.8	Vert
			+0.0	+0.1	+5.0						
13	49.840M	36.5	+0.4	+0.5	+11.7	-27.9	+0.0	26.3	39.1	-12.8	Horiz
			+0.0	+0.1	+5.0						
14	175.265M	35.1	+0.7	+1.0	+16.1	-27.7	+0.0	30.3	43.5	-13.2	Horiz
			+0.0	+0.1	+5.0						
15	160.050M	35.7	+0.7	+0.8	+15.6	-27.7	+0.0	30.2	43.5	-13.3	Horiz
			+0.0	+0.1	+5.0						
16	150.005M	34.0	+0.7	+0.8	+15.2	-27.6	+0.0	28.2	43.5	-15.3	Horiz
			+0.0	+0.1	+5.0						
17	225.100M	33.2	+0.8	+1.1	+17.5	-27.7	+0.0	30.1	46.4	-16.3	Vert
			+0.0	+0.2	+5.0						
18	375.000M	33.3	+1.1	+1.6	+0.0	-28.3	+0.0	28.6	46.4	-17.8	Vert
			+15.7	+0.2	+5.0						
19	319.995M	28.9	+1.0	+1.4	+0.0	-28.1	+0.0	27.9	46.4	-18.5	Vert
			+19.5	+0.2	+5.0						
20	225.020M	30.6	+0.8	+1.1	+17.5	-27.7	+0.0	27.5	46.4	-18.9	Horiz
			+0.0	+0.2	+5.0						
21	250.355M	29.6	+0.9	+1.2	+18.1	-27.8	+0.0	27.3	46.4	-19.1	Horiz
		<b>-</b> >.5	+0.0	+0.3	+5.0	<b>-</b>		<b>-</b>		-/.1	110112
22	124.965M	32.1	+0.6	+0.8	+13.3	-27.7	+0.0	24.2	43.5	-19.4	Vert
	12 001.1	22.1	+0.0	+0.1	+5.0	-/-/	. 0.0		.5.5	-/	. 510
23	480.015M	29.5	+1.3	+1.8	+0.0	-28.1	+0.0	27.0	46.4	-19.4	Vert
23	.00.010111		+17.2	+0.3	+5.0	_0.1	. 0.0	_/.0		-/	. 510
<u> </u>			1 1 1 1 2	10.5	10.0						

Page 197 of 301 Report No.: FC06-025 Volume 3 of 9



24	399.995M	30.1	+1.2	+1.7	+0.0	-28.4	+0.0	26.0	46.4	-20.4	Horiz
			+16.2	+0.2	+5.0						
25	375.055M	30.6	+1.1	+1.6	+0.0	-28.3	+0.0	25.9	46.4	-20.5	Horiz
			+15.7	+0.2	+5.0						
26	125.320M	30.9	+0.6	+0.8	+13.3	-27.7	+0.0	23.0	43.5	-20.5	Horiz
			+0.0	+0.1	+5.0						
27	400.000M	29.6	+1.2	+1.7	+0.0	-28.4	+0.0	25.5	46.4	-20.9	Vert
			+16.2	+0.2	+5.0						

Page 198 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 14:07:37
Equipment: BPL MV Gateway Sequence#: 121
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.463M	46.5	+0.3	+0.3	+15.5	-27.9	+0.0	34.7	39.1	-4.4	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		
2	30.025M	45.7	+0.3	+0.3	+16.2	-27.9	+0.0	34.6	39.1	-4.5	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		
3	33.675M	45.9	+0.3	+0.4	+14.5	-27.9	+0.0	33.1	39.1	-6.0	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 199 of 301 Report No.: FC06-025 Volume 3 of 9



4	49.913M	41.6	+0.4	+0.5	+11.6	-27.9	+0.0	31.3	39.1	-7.8	Vert
			+0.0	+0.1	+5.0						
5	30.100M	42.2	+0.3	+0.3	+16.2	-27.9	+0.0	31.1	39.1	-8.0	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
6	33.038M	43.3	+0.3	+0.4	+14.8	-27.9	+0.0	30.9	39.1	-8.2	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
7	33.800M	42.7	+0.3	+0.4	+14.4	-27.9	+0.0	29.9	39.1	-9.2	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
8	150.030M	39.4	+0.7	+0.8	+15.2	-27.6	+0.0	33.6	43.5	-9.9	Horiz
			+0.0	+0.1	+5.0						
9	49.880M	38.5	+0.4	+0.5	+11.7	-27.9	+0.0	28.3	39.1	-10.9	Horiz
			+0.0	+0.1	+5.0						
10	175.245M	37.1	+0.7	+1.0	+16.1	-27.7	+0.0	32.3	43.5	-11.2	Horiz
			+0.0	+0.1	+5.0						
11	149.755M	37.0	+0.7	+0.8	+15.2	-27.6	+0.0	31.2	43.5	-12.3	Vert
			+0.0	+0.1	+5.0						
12	160.050M	35.7	+0.7	+0.8	+15.6	-27.7	+0.0	30.2	43.5	-13.3	Vert
			+0.0	+0.1	+5.0						
13	240.010M	34.9	+0.9	+1.2	+17.9	-27.7	+0.0	32.5	46.4	-13.9	Vert
			+0.0	+0.3	+5.0						
14	225.135M	33.4	+0.8	+1.1	+17.5	-27.7	+0.0	30.3	46.4	-16.1	Vert
			+0.0	+0.2	+5.0						
15	375.010M	33.9	+1.1	+1.6	+0.0	-28.3	+0.0	29.2	46.4	-17.3	Vert
			+15.7	+0.2	+5.0						
16	399.985M	30.7	+1.2	+1.7	+0.0	-28.4	+0.0	26.6	46.4	-19.8	Vert
			+16.2	+0.2	+5.0						
17	399.935M	29.4	+1.2	+1.7	+0.0	-28.4	+0.0	25.3	46.4	-21.1	Horiz
			+16.2	+0.2	+5.0						

Page 200 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 14:55:17
Equipment: BPL MV Gateway Sequence#: 122
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

Equipment Under Test (\* = EUT):

Equipment Chack Test ( - ECT):			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function Manufacturer Model #	S/N
-------------------------------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measur	ement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.855M	45.5	+0.4	+0.5	+11.7	-27.9	+0.0	35.3	39.1	-3.8	Vert
			+0.0	+0.1	+5.0						
2	33.425M	47.4	+0.3	+0.4	+14.6	-27.9	+0.0	34.8	39.1	-4.3	Vert
			+0.0	+0.0					Maximized	1 at 4	
									meters		

Page 201 of 301 Report No.: FC06-025 Volume 3 of 9



3		47.1	+0.3	+0.4	+14.8	-27.9	+0.0	34.7		-4.4	Horiz
	QP		+0.0	+0.0					Maximized meters		
^	33.031M	53.2	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	40.8	Maximized	+1.7 at 4	Horiz
5	32.495M	46.8	+0.3	+0.4	+15.0	-27.9	+0.0	34.6	meters 39.1	-4.5	Horiz
3	32.493WI	40.6	+0.5	+0.4	+13.0	-21.9	+0.0	34.0	Maximized meters		HOHZ
6	30.525M	46.0	+0.3	+0.3	+15.9	-27.9	+0.0	34.6	39.1	-4.5	Horiz
	QP		+0.0	+0.0					Maximized meters		
٨	30.525M	50.2	+0.3	+0.3	+15.9	-27.9	+0.0	38.8	39.1	-0.3	Horiz
			+0.0	+0.0					Maximized meters	at 4	
8	31.975M	45.7	+0.3	+0.3	+15.2	-27.9	+0.0	33.6	39.1	-5.5	Vert
			+0.0	+0.0					Maximized meters	at 4	
9	31.525M	45.2	+0.3	+0.3	+15.5	-27.9	+0.0	33.4	39.1	-5.7	Vert
			+0.0	+0.0					Maximized meters	at 4	
10	149.985M	41.5	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	35.7	43.5	-7.8	Horiz
11	375.230M	42.3	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	37.6	46.4	-8.8	Horiz
12	149.810M	40.1	+0.7	+0.8	+15.2	-27.6	+0.0	34.3	43.5	-9.2	Vert
			+0.0	+0.1	+5.0						
13	49.840M	39.3	+0.4	+0.5	+11.7	-27.9	+0.0	29.1	39.1	-10.0	Horiz
1.4	150 00014	20.0	+0.0	+0.1	+5.0	27.7	.00	22.4	12.5	10.1	TT
14	159.990M	38.9	$+0.7 \\ +0.0$	+0.8 +0.1	$+15.6 \\ +5.0$	-27.7	+0.0	33.4	43.5	-10.1	Horiz
15	349.745M	41.3	+1.1	+1.5	+0.0	-28.2	+0.0	36.2	46.4	-10.2	Horiz
			+15.2	+0.3	+5.0						
16	240.020M	38.5	+0.9	+1.2	+17.9	-27.7	+0.0	36.1	46.4	-10.3	Vert
			+0.0	+0.3	+5.0						
17	160.020M	38.7	$+0.7 \\ +0.0$	+0.8 +0.1	$+15.6 \\ +5.0$	-27.7	+0.0	33.2	43.5	-10.4	Vert
18	175.250M	35.8	+0.0	+1.0	+16.1	-27.7	+0.0	31.0	43.5	-12.5	Horiz
10	1,5.250111	55.0	+0.0	+0.1	+5.0	21.1	. 0.0	51.0	13.3	12.5	110112
19	225.080M	36.1	+0.8	+1.1	+17.5	-27.7	+0.0	33.0	46.4	-13.5	Vert
			+0.0	+0.2	+5.0						
20	240.010M	35.3	+0.9	+1.2	+17.9	-27.7	+0.0	32.9	46.4	-13.5	Horiz
21	320.055M	30.4	+0.0	+0.3	+5.0	-28.1	+0.0	29.4	46.4	-17.0	Vert
21	320.033WI	30.4	+1.0 $+19.5$	+1.4	+0.0 +5.0	-20.1	+0.0	∠9 <b>.</b> 4	40.4	-1/.0	vert
22	375.020M	33.3	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	28.6	46.4	-17.9	Vert
23	399.970M	29.2	+1.2	+1.7	+0.0	-28.4	+0.0	25.1	46.4	-21.3	Vert
			+16.2	+0.2	+5.0						
24	74.855M	32.5	+0.5	+0.5	+6.4	-27.9	+0.0	17.1	39.1	-22.0	Vert
			+0.0	+0.1	+5.0						

Page 202 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 15:09:48
Equipment: BPL MV Gateway Sequence#: 123
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
111=PO 05440 KGZ14/U Capie	1.2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Mea	isur	ement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#		Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
				T5	T6	T7						
		MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1	33.031M	47.0	+0.3	+0.4	+14.8	-27.9	+0.0	34.6	39.1	-4.5	Horiz
	Ç	)P		+0.0	+0.0		Maximized at 4					
										meters		
	٨	33.031M	50.2	+0.3	+0.4	+14.8	-27.9	+0.0	37.8	39.1	-1.3	Horiz
				+0.0	+0.0					Maximized	d at 4	
										meters		

Page 203 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.472M	45.7	+0.3	+0.3	+16.0	-27.9	+0.0	34.4		-4.7	Horiz
	QP		+0.0	+0.0					Maximized	at 4	
									meters		
٨	30.472M	53.1	+0.3	+0.3	+16.0	-27.9	+0.0	41.8	39.1	+2.7	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
5	150.000M	44.5	+0.7	+0.8	+15.2	-27.6	+0.0	38.7	43.5	-4.8	Horiz
	QP		+0.0	+0.1	+5.0						
٨	150.000M	48.7	+0.7	+0.8	+15.2	-27.6	+0.0	42.9	43.5	-0.6	Horiz
			+0.0	+0.1	+5.0						
7	49.850M	44.5	+0.4	+0.5	+11.7	-27.9	+0.0	34.3	39.1	-4.8	Vert
			+0.0	+0.1	+5.0						
8	32.500M	44.2	+0.3	+0.4	+15.0	-27.9	+0.0	32.0	39.1	-7.1	Horiz
	QP		+0.0	+0.0					Maximized	at 4	
									meters		
٨	32.500M	48.1	+0.3	+0.4	+15.0	-27.9	+0.0	35.9	39.1	-3.2	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
10	31.738M	43.4	+0.3	+0.3	+15.4	-27.9	+0.0	31.5	39.1	-7.6	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
11	160.015M	40.9	+0.7	+0.8	+15.6	-27.7	+0.0	35.4	43.5	-8.2	Horiz
			+0.0	+0.1	+5.0						
12	33.563M	43.0	+0.3	+0.4	+14.5	-27.9	+0.0	30.3	39.1	-8.8	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
13	32.863M	42.1	+0.3	+0.4	+14.8	-27.9	+0.0	29.7	39.1	-9.4	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
14	49.875M	39.5	+0.4	+0.5	+11.7	-27.9	+0.0	29.3	39.1	-9.8	Horiz
			+0.0	+0.1	+5.0						
15	239.980M	38.3	+0.9	+1.2	+17.9	-27.7	+0.0	35.9	46.4	-10.5	Horiz
			+0.0	+0.3	+5.0						
16	149.995M	34.6	+0.7	+0.8	+15.2	-27.6	+0.0	28.8	43.5	-14.7	Vert
			+0.0	+0.1	+5.0						
17	224.995M	33.5	+0.8	+1.1	+17.5	-27.7	+0.0	30.4	46.4	-16.0	Vert
			+0.0	+0.2	+5.0						
18	225.060M	33.3	+0.8	+1.1	+17.5	-27.7	+0.0	30.2	46.4	-16.2	Horiz
			+0.0	+0.2	+5.0						
19	375.015M	34.4	+1.1	+1.6	+0.0	-28.3	+0.0	29.7	46.4	-16.7	Vert
			+15.7	+0.2	+5.0						
20	319.990M	28.5	+1.0	+1.4	+0.0	-28.1	+0.0	27.5	46.4	-18.9	Vert
			+19.5	+0.2	+5.0						
21	400.010M	30.8	+1.2	+1.7	+0.0	-28.4	+0.0	26.7	46.4	-19.7	Vert
			+16.2	+0.2	+5.0						
	· · · · · · · · · · · · · · · · · · ·										

Page 204 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/14/2006
Test Type: Radiated Scan Time: 13:35:42
Equipment: BPL MV Gateway Sequence#: 106
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-30MHz and 3dB below full power from 30-34MHz. The other port is running MODE2. Unit is transmitting to a second unit connected at the next transformer to have the proper loading of the signal.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Log00978A	T6=Cable 01185
T7=5dB Height Correction	

Measu	Measurement Data: Reading listed by margin.					Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.297M	49.6	+0.3	+0.3	+16.1	-27.9	+0.0	38.4	39.1	-0.7	Horiz
	QP		+0.0	+0.0					Maximized	d at 4	
									meters		

Page 205 of 301 Report No.: FC06-025 Volume 3 of 9



	20.25214	40.4	.0.2	.0.2	.161	27.0	. 0. 0	27.0	20.1 1.0	77 '
2		48.4	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.2	39.1 -1.9 Maximized at 4	Horiz
,	QP		+0.0	+0.0					meters	
٨	30.253M	55.7	+0.3	+0.3	+16.1	-27.9	+0.0	44.5	39.1 +5.4	Horiz
	30.233WI	33.1	+0.3	+0.0	+10.1	-21.9	+0.0	44.5	Maximized at 4	HOHZ
			+0.0	+0.0					meters	
٨	30.297M	52.3	+0.3	+0.3	+16.1	-27.9	+0.0	41.1	39.1 +2.0	Horiz
	30.27711	32.3	+0.0	+0.0	110.1	21.7	10.0	71.1	Maximized at 4	HOHZ
			10.0	10.0					meters	
5	30.000M	48.1	+0.3	+0.3	+16.2	-27.9	+0.0	37.0	39.1 -2.1	Vert
	QP	10.1	+0.0	+0.0	110.2	27.5	10.0	57.0	Maximized at 4	, 010
	<b>~</b> -		. 0.0	. 0.0					meters	
٨	30.000M	52.7	+0.3	+0.3	+16.2	-27.9	+0.0	41.6	39.1 +2.5	Vert
			+0.0	+0.0					Maximized at 4	
									meters	
7	33.696M	49.3	+0.3	+0.4	+14.5	-27.9	+0.0	36.6	39.1 -2.5	Horiz
(	QP		+0.0	+0.0					Maximized at 4	
									meters	
^	33.696M	53.2	+0.3	+0.4	+14.5	-27.9	+0.0	40.5	39.1 +1.4	Horiz
			+0.0	+0.0					Maximized at 4	
									meters	
9	33.696M	49.2	+0.3	+0.4	+14.5	-27.9	+0.0	36.5	39.1 -2.6	Vert
(	QP		+0.0	+0.0					Maximized at 4	
									meters	
^	33.696M	54.2	+0.3	+0.4	+14.5	-27.9	+0.0	41.5	39.1 + 2.4	Vert
			+0.0	+0.0					Maximized at 4	
									meters	
11	32.650M	48.7	+0.3	+0.4	+14.9	-27.9	+0.0	36.4	39.1 -2.7	Horiz
(	QP		+0.0	+0.0					Maximized at 4	
									meters	
٨	32.650M	55.1	+0.3	+0.4	+14.9	-27.9	+0.0	42.8	39.1 +3.7	Horiz
			+0.0	+0.0					Maximized at 4	
10	22.20.43.4	40.0	0.2	0.4	116	27.0	0.0	27.6	meters	***
13	33.294M	48.2	+0.3	+0.4	+14.6	-27.9	+0.0	35.6		Vert
(	QP		+0.0	+0.0					Maximized at 4	
^	22 20 414	<i>5</i> 2.0	.0.2	. 0. 4	. 1 4 . C	27.0	. 0. 0	40.2	meters	<b>X</b> 74
٨	33.294M	52.9	+0.3	+0.4	+14.6	-27.9	+0.0	40.3	39.1 +1.2	Vert
			+0.0	+0.0					Maximized at 4	
15	22 140M	16 0	+0.3	+0.4	1147	27.0	ι Ο Ο	34.3	meters 39.1 -4.8	Цета
15	33.149M	46.8			+14.7	-27.9	+0.0	34.3	39.1 -4.8 Maximized at 4	Horiz
			+0.0	+0.0						
16	150.425M	43.1	+0.7	+0.8	+15.2	-27.6	+0.0	37.3	meters 43.5 -6.2	Vert
10	130.423WI	43.1	+0.7 +0.0	+0.8	+15.2	-27.0	+0.0	31.3	43.3 -0.2	vert
17	239.995M	41.8	+0.0	+1.2	+17.9	-27.7	+0.0	39.4	46.4 -7.0	Vert
1/	437.7731 <b>V1</b>	<del>+</del> 1.0	+0.9	+0.3	+17.9	-21.1	+0.0	J7. <del>4</del>	+0.+ -7.0	v CI t
18	150.005M	39.8	+0.0	+0.8	+15.2	-27.6	+0.0	34.0	43.5 -9.5	Horiz
10	150.005141	37.0	+0.7	+0.8	+13.2	-27.0	10.0	J <del>1</del> .U	TJ.J -9.J	110112
			10.0	10.1	13.0					

Page 206 of 301 Report No.: FC06-025 Volume 3 of 9



19	325.770M	36.0	+1.0	+1.5	+0.0	-28.1	+0.0	34.2	46.4	-12.2	Horiz
			+18.6	+0.2	+5.0						
20	159.995M	36.8	+0.7	+0.8	+15.6	-27.7	+0.0	31.3	43.5	-12.2	Vert
			+0.0	+0.1	+5.0						
21	175.275M	35.6	+0.7	+1.0	+16.1	-27.7	+0.0	30.8	43.5	-12.7	Vert
			+0.0	+0.1	+5.0						
22	240.035M	33.3	+0.9	+1.2	+17.9	-27.7	+0.0	30.9	46.4	-15.5	Horiz
			+0.0	+0.3	+5.0						
23	399.785M	33.7	+1.2	+1.7	+0.0	-28.4	+0.0	29.6	46.4	-16.8	Vert
			+16.2	+0.2	+5.0						
24	250.000M	31.3	+0.9	+1.2	+18.1	-27.8	+0.0	29.0	46.4	-17.4	Vert
			+0.0	+0.3	+5.0						

Page 207 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/14/2006
Test Type: Radiated Scan Time: 11:15:59
Equipment: BPL MV Gateway Sequence#: 105
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-30MHz and 3dB below full power from 30-34MHz. The other port is running MODE2. Unit is transmitting to a second unit connected at the next transformer to have the proper loading of the signal.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=HP-8447D Pre Amp AN 00567	T4=ANT-AN00503-010505
T5=Log00978A	T6=Cable 01185
T7=5dB Height Correction	

Measu	rement Data:	Re	Reading listed by margin.			Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	150.438M	46.5	+0.7	+0.8	-27.6	+15.2	+0.0	40.7	43.5	-2.8	Vert
			+0.0	+0.1	+5.0						
2	720.833M	37.5	+1.6	+2.4	-27.8	+0.0	+0.0	41.4	46.4	-5.0	Horiz
			+22.4	+0.3	+5.0						
3	240.000M	41.5	+0.9	+1.2	-27.7	+17.9	+0.0	39.1	46.4	-7.3	Horiz
			+0.0	+0.3	+5.0						
4	159.975M	40.6	+0.7	+0.8	-27.7	+15.6	+0.0	35.1	43.5	-8.4	Horiz
			+0.0	+0.1	+5.0						
5	299.973M	36.0	+1.0	+1.7	-28.0	+20.7	+0.0	36.6	46.4	-9.8	Vert
			+0.0	+0.2	+5.0						
6	159.975M	38.1	+0.7	+0.8	-27.7	+15.6	+0.0	32.6	43.5	-10.9	Vert
			+0.0	+0.1	+5.0						

Page 208 of 301 Report No.: FC06-025 Volume 3 of 9



7	150.000M	38.2	+0.7 +0.0	+0.8 +0.1	-27.6 +5.0	+15.2	+0.0	32.4	43.5	-11.1	Horiz
8	275.708M	35.6	+1.0 +0.0	+1.3 +0.2	-27.9 +5.0	+19.5	+0.0	34.7	46.4	-11.7	Vert
9	559.755M	35.0	+1.4 +18.5	+2.0 +0.2	-27.7 +5.0	+0.0	+0.0	34.4	46.4	-12.0	Horiz
10	325.750M	35.8	+18.5 +1.0 +18.6	+1.5	-28.1	+0.0	+0.0	34.0	46.4	-12.4	Horiz
11	319.990M	34.9	+1.0	+0.2	+5.0 -28.1	+0.0	+0.0	33.9	46.4	-12.5	Horiz
12	240.000M	35.8	+19.5	+0.2	+5.0 -27.7	+17.9	+0.0	33.4	46.4	-13.0	Vert
13	320.040M	34.0	+0.0	+0.3	+5.0 -28.1	+0.0	+0.0	33.0	46.4	-13.4	Vert
14	33.799M	48.7	+19.5	+0.2	+5.0	+0.0	+0.0	21.5		-17.6	Vert
	QP		+0.0	+0.0					Maximized at meters		
٨	33.799M	51.6	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	24.4	39.1 - Maximized at meters	-14.7 4	Vert
16	30.025M QP	48.5	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	21.2	39.1 - Maximized at meters	-17.9 4	Horiz
۸	30.025M	53.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	26.1	39.1 - Maximized at meters	-13.0 4	Horiz
18	32.878M QP	47.8	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	20.6	39.1 - Maximized at meters	-18.5 4	Vert
٨	32.878M	53.7	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	26.5	39.1 - Maximized at meters	-12.6 4	Vert
20	30.026M QP	46.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	19.1		-20.0 4	Vert
٨	30.026M	52.6	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	25.3		-13.8 4	Vert
22	33.758M QP	46.2	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	19.0		-20.1 4	Horiz
٨	33.758M	52.3	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	25.1		-14.0 4	Horiz
24	31.475M QP	43.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	16.1		-23.0 4	Horiz
^	31.475M	50.2	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	22.9		-16.2 4	Horiz

Page 209 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/14/2006Test Type:Radiated ScanTime:14:17:29Equipment:BPL MV GatewaySequence#:107Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: ENG2

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG2
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-30MHz and 3dB below full power from 30-34MHz. The other port is running MODE2. Unit is transmitting to a second unit connected at the next transformer to have the proper loading of the signal.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Log00978A	T6=Cable 01185
T7=5dB Height Correction	

Measurement Data: Reading listed by margin.				argin.	Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	33.475M	50.9	+0.3	+0.4	+14.6	-27.9	+0.0	38.3	39.1	-0.8	Horiz
	QP		+0.0	+0.0		Maximized at 4					
									meters		
^	33.475M	53.4	+0.3	+0.4	+14.6	-27.9	+0.0	40.8	39.1	+1.7	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 210 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.109M	49.5	+0.3	+0.3	+16.1	-27.9	+0.0	38.3	39.1	-0.8	Horiz
(	QΡ		+0.0	+0.0					Maximized	at 4	
									meters		
٨	30.109M	51.9	+0.3	+0.3	+16.1	-27.9	+0.0	40.7	39.1	+1.6	Horiz
			+0.0	+0.0					Maximized		
									meters		
5	30.071M	49.1	+0.3	+0.3	+16.2	-27.9	+0.0	38.0	39.1	-1.1	Vert
	QP	.,,,	+0.0	+0.0	. 10.2	>	. 0.0	20.0	Maximized		, 510
`	<-		10.0	10.0					meters		
٨	30.071M	52.1	+0.3	+0.3	+16.2	-27.9	+0.0	41.0	39.1	+1.9	Vert
	30.071111	32.1	+0.0	+0.0	110.2	21.5	10.0	11.0	Maximized		VOIT
			10.0	10.0					meters	at <del>T</del>	
7	33.603M	49.6	+0.3	+0.4	+14.5	-27.9	+0.0	36.9	39.1	-2.2	Vert
	25.005M QP	47.0	+0.0	+0.4	+14.5	-21.9	+0.0	30.9	Maximized		VEIT
\	ŹΙ		+0.0	+0.0						at 4	
^	22 60214	52.2	10.2	+0.4	1115	27.0	+O O	10.6	meters	, 1 5	17
^	33.603M	53.3	+0.3	+0.4	+14.5	-27.9	+0.0	40.6	39.1	+1.5	Vert
			+0.0	+0.0					Maximized	at 4	
	21.72014	40.0	.0.2	.0.2	. 1.5. 4	27.0	. 0. 0	26.1	meters	2.0	TT .
9		48.0	+0.3	+0.3	+15.4	-27.9	+0.0	36.1	39.1	-3.0	Horiz
(	QР		+0.0	+0.0					Maximized	at 4	
_									meters		
^	31.738M	51.8	+0.3	+0.3	+15.4	-27.9	+0.0	39.9		+0.8	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
11		48.0	+0.3	+0.3	+15.1	-27.9	+0.0	35.8	39.1	-3.3	Vert
	QР		+0.0	+0.0					Maximized	at 4	
									meters		
٨	32.301M	53.7	+0.3	+0.3	+15.1	-27.9	+0.0	41.5	39.1	+2.4	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
13	239.990M	41.3	+0.9	+1.2	+17.9	-27.7	+0.0	38.9	46.4	-7.5	Vert
			+0.0	+0.3	+5.0						
14	299.525M	37.1	+1.0	+1.7	+20.7	-28.0	+0.0	37.7	46.4	-8.7	Vert
			+0.0	+0.2	+5.0						
15	159.990M	40.0	+0.7	+0.8	+15.6	-27.7	+0.0	34.5	43.5	-9.0	Horiz
15		.0.0	+0.0	+0.1	+5.0		. 0.0	2		<b>7.0</b>	110112
16	239.990M	37.6	+0.9	+1.2	+17.9	-27.7	+0.0	35.2	46.4	-11.2	Horiz
10	237.7701VI	37.0	+0.9	+0.3	+5.0	21.1	10.0	33.2	70 <b>.7</b>	11.2	110112
17	150.430M	36.2	+0.7	+0.8	+15.2	-27.6	+0.0	30.4	43.5	-13.1	Horiz
1/	130.430101	50.2	+0.7	+0.8	+13.2	-27.0	+0.0	50.4	+3.3	-13.1	110112
10	175.280M	35.2				27.7	+0.0	30.4	12.5	12.1	Vont
18	1/3.28UW	33.2	+0.7	+1.0	+16.1	-27.7	+0.0	30.4	43.5	-13.1	Vert
10	220 0203 4	21.0	+0.0	+0.1	+5.0	20.1	.00	20.0	4 < 4	15.6	TT.
19	320.020M	31.8	+1.0	+1.4	+0.0	-28.1	+0.0	30.8	46.4	-15.6	Horiz
	227 0277 5	200	+19.5	+0.2	+5.0		0.0		4	16.7	** .
20	225.005M	30.8	+0.8	+1.1	+17.5	-27.7	+0.0	27.7	46.4	-18.7	Horiz
			+0.0	+0.2	+5.0						



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/14/2006
Test Type: Radiated Scan Time: 15:55:21
Equipment: BPL MV Gateway Sequence#: 109
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( = ECT).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-30MHz and 3dB below full power from 30-34MHz. The other port is running MODE2. Unit is transmitting to a second unit connected at the next transformer to have the proper loading of the signal.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Log00978A	T6=Cable 01185
T7=5dB Height Correction	

Measurement Data: Reading listed by margin.				argin.	Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	32.872M	51.0	+0.3	+0.4	+14.8	-27.9	+0.0	38.6	39.1	-0.5	Horiz
	QP		+0.0	+0.0		Maximized at 4					
									meters		
٨	32.872M	57.4	+0.3	+0.4	+14.8	-27.9	+0.0	45.0	39.1	+5.9	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 212 of 301 Report No.: FC06-025 Volume 3 of 9



2 22 1203 5	<b>70.0</b>	0.0	0.0	150	25.0	0.0	20.2	20.4	0.0	** .
3 32.138M	50.3	+0.3	+0.3	+15.2	-27.9	+0.0	38.2			Horiz
QP		+0.0	+0.0					Maximized a	it 4	
A 22.120M	<i>55</i> 1	. 0. 2	. 0. 2	. 15.0	27.0	. 0. 0	42.0	meters	.20	TT '
^ 32.138M	55.1	+0.3	+0.3	+15.2	-27.9	+0.0	43.0		+3.9	Horiz
		+0.0	+0.0					Maximized a	it 4	
. 22 0001 f	50.0	0.2	0.4	140	27.0	0.0	27.6	meters	1.5	<b>T</b> 7 .
5 32.900M	50.0	+0.3	+0.4	+14.8	-27.9	+0.0	37.6		-1.5	Vert
QP		+0.0	+0.0					Maximized a	it 4	
								meters		
^ 32.900M	55.5	+0.3	+0.4	+14.8	-27.9	+0.0	43.1	39.1	+4.0	Vert
		+0.0	+0.0					Maximized a	it 4	
								meters		
7 30.133M	48.5	+0.3	+0.3	+16.1	-27.9	+0.0	37.3	39.1	-1.8	Vert
QP		+0.0	+0.0					Maximized a	it 4	
								meters		
^ 30.133M	51.2	+0.3	+0.3	+16.1	-27.9	+0.0	40.0	39.1	+0.9	Vert
		+0.0	+0.0					Maximized a	ıt 4	
	10.1							meters		
9 30.050M	48.4	+0.3	+0.3	+16.2	-27.9	+0.0	37.3	39.1	-1.8	Horiz
QP		+0.0	+0.0					Maximized a	ıt 4	
								meters		
^ 30.050M	51.0	+0.3	+0.3	+16.2	-27.9	+0.0	39.9		+0.8	Horiz
		+0.0	+0.0					Maximized a	ıt 4	
								meters		
11 33.540M	49.8	+0.3	+0.4	+14.5	-27.9	+0.0	37.1	39.1	-2.0	Vert
QP		+0.0	+0.0					Maximized a	it 4	
								meters		
^ 33.540M	53.7	+0.3	+0.4	+14.5	-27.9	+0.0	41.0	39.1	+1.9	Vert
		+0.0	+0.0					Maximized a	ıt 4	
								meters		
13 160.013M	41.3	+0.7	+0.8	+15.6	-27.7	+0.0	35.8	43.5	-7.7	Vert
		+0.0	+0.1	+5.0						
14 240.013M	38.7	+0.9	+1.2	+17.9	-27.7	+0.0	36.3	46.4	-10.1	Vert
		+0.0	+0.3	+5.0						
15 225.038M	33.0	+0.8	+1.1	+17.5	-27.7	+0.0	29.9	46.4	-16.5	Vert
		+0.0	+0.2	+5.0						
16 49.863M	32.7	+0.4	+0.5	+11.7	-27.9	+0.0	22.5	39.1	-16.6	Horiz
		+0.0	+0.1	+5.0						
17 159.975M	32.3	+0.7	+0.8	+15.6	-27.7	+0.0	26.8	43.5	-16.7	Horiz
		+0.0	+0.1	+5.0						
18 239.975M	31.9	+0.9	+1.2	+17.9	-27.7	+0.0	29.5	46.4	-16.9	Horiz
		+0.0	+0.3	+5.0						
19 320.000M	30.5	+1.0	+1.4	+0.0	-28.1	+0.0	29.5	46.4	-16.9	Vert
		+19.5	+0.2	+5.0						



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/14/2006Test Type:Radiated ScanTime:16:45:21Equipment:BPL MV GatewaySequence#:110Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-30MHz and 3dB below full power from 30-34MHz. The other port is running MODE2 only. Unit is transmitting to a second unit connected at the next transformer to have the proper loading of the signal.

### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=ANT-AN00503-010505	T4=HP-8447D Pre Amp AN 00567
T5=Log00978A	T6=Cable 01185
T7=5dB Height Correction	

Measurement Data: Reading listed by margin.				ırgin.	Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	32.563M	50.8	+0.3	+0.4	+15.0	-27.9	+0.0	38.6	39.1	-0.5	Vert
(	QP		+0.0	+0.0		Maximized at 4			d at 4		
									meters		
^	32.563M	54.8	+0.3	+0.4	+15.0	-27.9	+0.0	47.6	39.1	+8.5	Vert
			+0.0	+0.0	+5.0						

Page 214 of 301 Report No.: FC06-025 Volume 3 of 9



3	32.725M	49.9	+0.3	+0.4	+14.9	-27.9	+0.0	37.6		-1.5	Horiz
(	QP		+0.0	+0.0					Maximized a	t 4	
									meters		
^	32.725M	55.2	+0.3	+0.4	+14.9	-27.9	+0.0	42.9	39.1	+3.8	Horiz
			+0.0	+0.0					Maximized a	t 4	
									meters		
5	33.618M	50.1	+0.3	+0.4	+14.5	-27.9	+0.0	37.4	39.1	-1.7	Vert
(	QP		+0.0	+0.0					Maximized a	t 4	
									meters		
^	33.618M	54.8	+0.3	+0.4	+14.5	-27.9	+0.0	42.1	39.1	+3.0	Vert
			+0.0	+0.0					Maximized a	t 4	
									meters		
7		48.5	+0.3	+0.3	+16.1	-27.9	+0.0	37.3	39.1	-1.8	Vert
(	QP		+0.0	+0.0					Maximized a	t 4	
									meters		
^	30.262M	53.4	+0.3	+0.3	+16.1	-27.9	+0.0	42.2	39.1	+3.1	Vert
			+0.0	+0.0					Maximized a	t 4	
									meters		
9	30.195M	48.5	+0.3	+0.3	+16.1	-27.9	+0.0	37.3	39.1	-1.8	Horiz
(	QP		+0.0	+0.0					Maximized a	t 4	
									meters		
٨	30.195M	49.6	+0.3	+0.3	+16.1	-27.9	+0.0	38.4	39.1	-0.8	Horiz
			+0.0	+0.0					Maximized a	t 4	
									meters		
11	34.003M	47.3	+0.3	+0.4	+14.3	-27.9	+0.0	34.4	39.1	-4.7	Horiz
(	QP		+0.0	+0.0					Maximized a	t 4	
									meters		
^	34.003M	51.9	+0.3	+0.4	+14.3	-27.9	+0.0	39.0	39.1	-0.2	Horiz
			+0.0	+0.0					Maximized a	t 4	
									meters		
13	299.950M	37.7	+1.0	+1.7	+20.7	-28.0	+0.0	38.3	46.4	-8.1	Vert
			+0.0	+0.2	+5.0						
14	249.950M	36.3	+0.9	+1.2	+18.1	-27.8	+0.0	34.0	46.4	-12.4	Vert
			+0.0	+0.3	+5.0						
15	160.025M	35.6	+0.7	+0.8	+15.6	-27.7	+0.0	30.1	43.5	-13.4	Vert
			+0.0	+0.1	+5.0						
16	274.960M	33.4	+1.0	+1.3	+19.5	-27.9	+0.0	32.5	46.4	-13.9	Vert
			+0.0	+0.2	+5.0					-	
17	49.813M	34.8	+0.4	+0.5	+11.7	-27.9	+0.0	24.6	39.1	-14.5	Horiz
	-		+0.0	+0.1	+5.0				•		
18	240.025M	34.3	+0.9	+1.2	+17.9	-27.7	+0.0	31.9	46.4	-14.5	Vert
			+0.0	+0.3	+5.0	_,,,					. 525
19	175.225M	31.4	+0.7	+1.0	+16.1	-27.7	+0.0	26.6	43.5	-16.9	Horiz
			+0.0	+0.1	+5.0	_,,,		_0.0			
20	150.475M	31.1	+0.7	+0.8	+15.2	-27.6	+0.0	25.3	43.5	-18.3	Horiz
	100.170111	51.1	+0.0	+0.1	+5.0	27.0	. 0.0	23.3	.5.5	10.5	110112
21	320.000M	28.0	+1.0	+1.4	+0.0	-28.1	+0.0	27.0	46.4	-19.4	Vert
21	320.000W	20.0	+19.5	+0.2	+5.0	20.1	10.0	21.0	70 <b>.7</b>	17.7	v CI t
			117.0	10.2	1 3.0						

Page 215 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 12:05:44
Equipment: BPL MV Gateway Sequence#: 116
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

_ =qpc = c ( = c = ).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measurement Data: Reading listed by margin.					Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.875M	44.3	+0.4	+0.5	+11.7	-27.9	+0.0	34.1	39.1	-5.0	Vert
			+0.0	+0.1	+5.0						
2	30.813M	45.4	+0.3	+0.3	+15.8	-27.9	+0.0	33.9	39.1	-5.2	Horiz
			+0.0	+0.0		Maximized at 4					
									meters		

Page 216 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.950M	45.9	+0.3	+0.3	+15.3	-27.9	+0.0	33.9	39.1	-5.2	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
4	33.638M	46.3	+0.3	+0.4	+14.5	-27.9	+0.0	33.6	39.1	-5.5	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
5	150.445M	42.6	+0.7	+0.8	+15.2	-27.6	+0.0	36.8	43.5	-6.7	Vert
			+0.0	+0.1	+5.0						
6	240.020M	40.8	+0.9	+1.2	+17.9	-27.7	+0.0	38.4	46.4	-8.0	Vert
			+0.0	+0.3	+5.0						
7	30.875M	41.8	+0.3	+0.3	+15.8	-27.9	+0.0	30.3	39.1	-8.8	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
8	31.475M	41.1	+0.3	+0.3	+15.5	-27.9	+0.0	29.3	39.1	-9.8	Horiz
			+0.0	+0.0					Maximized	l at 4	
									meters		
9	49.855M	37.7	+0.4	+0.5	+11.7	-27.9	+0.0	27.5	39.1	-11.6	Horiz
			+0.0	+0.1	+5.0						
10	33.338M	39.9	+0.3	+0.4	+14.6	-27.9	+0.0	27.3	39.1	-11.8	Horiz
			+0.0	+0.0					Maximized	l at 4	
									meters		
11	175.255M	35.1	+0.7	+1.0	+16.1	-27.7	+0.0	30.3	43.5	-13.2	Vert
			+0.0	+0.1	+5.0						
12	160.020M	33.8	+0.7	+0.8	+15.6	-27.7	+0.0	28.3	43.5	-15.2	Vert
			+0.0	+0.1	+5.0						
13	175.270M	33.1	+0.7	+1.0	+16.1	-27.7	+0.0	28.3	43.5	-15.2	Horiz
			+0.0	+0.1	+5.0						
14	150.000M	32.0	+0.7	+0.8	+15.2	-27.6	+0.0	26.2	43.5	-17.3	Horiz
			+0.0	+0.1	+5.0						
15	225.140M	31.0	+0.8	+1.1	+17.5	-27.7	+0.0	27.9	46.4	-18.5	Vert
			+0.0	+0.2	+5.0						
16	239.990M	30.0	+0.9	+1.2	+17.9	-27.7	+0.0	27.6	46.4	-18.8	Horiz
			+0.0	+0.3	+5.0						
17	399.935M	31.3	+1.2	+1.7	+0.0	-28.4	+0.0	27.2	46.4	-19.2	Vert
			+16.2	+0.2	+5.0						
18	399.950M	30.0	+1.2	+1.7	+0.0	-28.4	+0.0	25.9	46.4	-20.5	Horiz
			+16.2	+0.2	+5.0						

Page 217 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 11:44:16
Equipment: BPL MV Gateway Sequence#: 115
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

English and	Manufastunan	Madal #	C /NI	
Function	Manufacturer	Model #	<b>3</b> / <b>IN</b>	

### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
TO ANTE ANTOCEOG 010505	THE TIP OLITE D

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.863M	47.0	+0.3	+0.3	+15.3	-27.9	+0.0	35.0	39.1	-4.1	Vert
			+0.0	+0.0					Maximized	d at 4	
									meters		
2	150.430M	44.7	+0.7	+0.8	+15.2	-27.6	+0.0	38.9	43.5	-4.6	Vert
			+0.0	+0.1	+5.0						

Page 218 of 301 Report No.: FC06-025 Volume 3 of 9



3	33.138M	46.8	+0.3	+0.4	+14.7	-27.9	+0.0	34.3	39.1	-4.8	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
4	33.925M	46.8	+0.3	+0.4	+14.4	-27.9	+0.0	34.0	39.1	-5.1	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
5	240.020M	43.2	+0.9	+1.2	+17.9	-27.7	+0.0	40.8	46.4	-5.6	Vert
			+0.0	+0.3	+5.0						
6	149.995M	43.3	+0.7	+0.8	+15.2	-27.6	+0.0	37.5	43.5	-6.0	Horiz
			+0.0	+0.1	+5.0						
7	31.013M	43.9	+0.3	+0.3	+15.7	-27.9	+0.0	32.3	39.1	-6.8	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
8	33.125M	44.0	+0.3	+0.4	+14.7	-27.9	+0.0	31.5	39.1	-7.6	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
9	49.845M	41.1	+0.4	+0.5	+11.7	-27.9	+0.0	30.9	39.1	-8.2	Vert
			+0.0	+0.1	+5.0						
10	30.613M	42.1	+0.3	+0.3	+15.9	-27.9	+0.0	30.7	39.1	-8.4	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
11	240.025M	40.0	+0.9	+1.2	+17.9	-27.7	+0.0	37.6	46.4	-8.8	Horiz
			+0.0	+0.3	+5.0						
12	175.270M	39.3	+0.7	+1.0	+16.1	-27.7	+0.0	34.5	43.5	-9.0	Horiz
			+0.0	+0.1	+5.0						
13	33.788M	41.8	+0.3	+0.4	+14.4	-27.9	+0.0	29.0	39.1	-10.1	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
14	49.880M	38.1	+0.4	+0.5	+11.7	-27.9	+0.0	27.9	39.1	-11.2	Horiz
			+0.0	+0.1	+5.0						
15	159.995M	36.0	+0.7	+0.8	+15.6	-27.7	+0.0	30.5	43.5	-13.0	Vert
			+0.0	+0.1	+5.0						
16	175.270M	33.4	+0.7	+1.0	+16.1	-27.7	+0.0	28.6	43.5	-14.9	Vert
			+0.0	+0.1	+5.0						
17	160.000M	33.1	+0.7	+0.8	+15.6	-27.7	+0.0	27.6	43.5	-15.9	Horiz
			+0.0	+0.1	+5.0						
18	319.975M	30.5	+1.0	+1.4	+0.0	-28.1	+0.0	29.5	46.4	-16.9	Vert
			+19.5	+0.2	+5.0			_			
19	399.985M	30.8	+1.2	+1.7	+0.0	-28.4	+0.0	26.7	46.4	-19.7	Vert
			+16.2	+0.2	+5.0						

Page 219 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 11:19:15
Equipment: BPL MV Gateway Sequence#: 114
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function Manufacturer Model #	S/N
-------------------------------	-----

## Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measu	Pasurement Data: Reading listed by margin. Test Distance: 10 Meters				rs						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.030M	44.6	+0.9	+1.2	+17.9	-27.7	+0.0	42.2	46.4	-4.3	Horiz
			+0.0	+0.3	+5.0						
2	31.352M	46.0	+0.3	+0.3	+15.5	-27.9	+0.0	34.2	39.1	-4.9	Horiz
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 220 of 301 Report No.: FC06-025 Volume 3 of 9



3	240.027M QP	43.4	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	41.0	46.4	-5.4	Vert
^		47.0				27.7	. 0. 0	11.6	16.4	1.0	<b>T.7</b>
, A	240.027M	47.0	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	44.6	46.4	-1.8	Vert
5	31.525M	45.5	+0.3	+0.3	+15.5	-27.9	+0.0	33.7	39.1	-5.4	Vert
	011020111		+0.0	+0.0	. 10.0	_,,,	. 0.0	001,	Maximized		, 010
			10.0						meters	at i	
6	30.263M	43.7	+0.3	+0.3	+16.1	-27.9	+0.0	32.5	39.1	-6.6	Horiz
	QP		+0.0	+0.0					Maximized	at 4	
									meters		
٨	30.263M	54.4	+0.3	+0.3	+16.1	-27.9	+0.0	43.2	39.1	+4.1	Horiz
			+0.0	+0.0					Maximized	at 4	
									meters		
8	49.924M	42.0	+0.4	+0.5	+11.6	-27.9	+0.0	31.7	39.1	-7.4	Vert
	12.22 1111	.2.0	+0.0	+0.1	+5.0	21.7	10.0	51.7	57.1	/	, 511
9	175.270M	40.1	+0.7	+1.0	+16.1	-27.7	+0.0	35.3	43.5	-8.2	Vert
9	1/3.2/UNI	40.1	+0.7	+0.1		-21.1	+0.0	33.3	43.3	-0.2	Vert
10	21 07014	41.0			+5.0	27.0	+ O O	20.0	20.1	0.2	<b>T.</b> 74
10		41.9	+0.3	+0.3	+15.3	-27.9	+0.0	29.9	39.1	-9.2	Vert
	QP		+0.0	+0.0					Maximized	at 4	
									meters		
^	31.870M	48.3	+0.3	+0.3	+15.3	-27.9	+0.0	36.3	39.1	-2.8	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
12	33.713M	42.5	+0.3	+0.4	+14.5	-27.9	+0.0	29.8	39.1	-9.3	Vert
	QP		+0.0	+0.0					Maximized	at 4	
									meters		
٨	33.713M	48.5	+0.3	+0.4	+14.5	-27.9	+0.0	35.8	39.1	-3.3	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
14											
1 * 1	33.796M	42. 2.	+0.3	+0.4	+14 4	-27 9	+0.0	29 4		-9 7	Horiz
	33.796M	42.2	+0.3	+0.4	+14.4	-27.9	+0.0	29.4	39.1	-9.7	Horiz
	33.796M	42.2	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	29.4	39.1 Maximized		Horiz
15			+0.0	+0.0					39.1 Maximized meters	at 4	
15	33.796M 160.010M	42.2 38.6	+0.0	+0.0	+15.6	-27.9 -27.7	+0.0	29.4	39.1 Maximized		Horiz Vert
	160.010M	38.6	+0.0 +0.7 +0.0	+0.0 +0.8 +0.1	+15.6 +5.0	-27.7	+0.0	33.1	39.1 Maximized meters 43.5	at 4	Vert
15			+0.0 +0.7 +0.0 +0.7	+0.0 +0.8 +0.1 +0.8	+15.6 +5.0 +15.6				39.1 Maximized meters	at 4	
16	160.010M 160.010M	38.6	+0.0 +0.7 +0.0 +0.7 +0.0	+0.0 +0.8 +0.1 +0.8 +0.1	+15.6 +5.0 +15.6 +5.0	-27.7	+0.0	33.1	39.1 Maximized meters 43.5	at 4 -10.4 -10.7	Vert Horiz
	160.010M	38.6	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2	+15.6 +5.0 +15.6 +5.0 +18.1	-27.7	+0.0	33.1	39.1 Maximized meters 43.5	at 4	Vert
16	160.010M 160.010M 250.028M	38.6 38.3 37.0	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0	-27.7 -27.7 -27.8	+0.0 +0.0 +0.0	33.1 32.8 34.7	39.1 Maximized meters 43.5 43.5	-10.4 -10.7 -11.7	Vert Horiz Vert
16	160.010M 160.010M	38.6	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3	-27.7	+0.0	33.1	39.1 Maximized meters 43.5	at 4 -10.4 -10.7	Vert Horiz
16	160.010M 160.010M 250.028M	38.6 38.3 37.0 38.3	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0	-27.7 -27.7 -27.8	+0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4	39.1 Maximized meters 43.5 43.5	-10.4 -10.7 -11.7	Vert Horiz Vert
16	160.010M 160.010M 250.028M	38.6 38.3 37.0	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3	-27.7 -27.7 -27.8	+0.0 +0.0 +0.0	33.1 32.8 34.7	39.1 Maximized meters 43.5 43.5	-10.4 -10.7 -11.7	Vert Horiz Vert
16 17 18	160.010M 160.010M 250.028M 125.288M	38.6 38.3 37.0 38.3	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6 +0.0	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8 +0.1	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3 +5.0	-27.7 -27.7 -27.8 -27.7	+0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4	39.1 Maximized meters 43.5 43.5 46.4 43.5	-10.4 -10.7 -11.7 -13.1	Vert Horiz Vert Vert
16 17 18	160.010M 160.010M 250.028M 125.288M	38.6 38.3 37.0 38.3	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6 +0.0 +1.0	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8 +0.1 +1.4	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3 +5.0 +0.0	-27.7 -27.7 -27.8 -27.7	+0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4	39.1 Maximized meters 43.5 43.5 46.4 43.5	-10.4 -10.7 -11.7 -13.1	Vert Horiz Vert Vert
16 17 18 19	160.010M 160.010M 250.028M 125.288M 320.005M	38.6 38.3 37.0 38.3 33.0	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6 +0.0 +1.0 +19.5	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8 +0.1 +1.4 +0.2	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3 +5.0 +0.0 +5.0	-27.7 -27.7 -27.8 -27.7 -28.1	+0.0 +0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4 32.0	39.1 Maximized meters 43.5 43.5 46.4 43.5	at 4  -10.4  -10.7  -11.7  -13.1  -14.4	Vert Horiz Vert Vert Horiz
16 17 18 19 20	160.010M 160.010M 250.028M 125.288M 320.005M 150.450M	38.6 38.3 37.0 38.3 33.0 34.8	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6 +0.0 +1.0 +1.0 +0.7 +0.7	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8 +0.1 +1.4 +0.2 +0.8 +0.1	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3 +5.0 +0.0 +5.0 +15.2 +5.0	-27.7 -27.8 -27.7 -28.1 -27.6	+0.0 +0.0 +0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4 32.0 29.0	39.1 Maximized meters 43.5 43.5 46.4 43.5 46.4 43.5	at 4  -10.4  -10.7  -11.7  -13.1  -14.4  -14.5	Vert Horiz Vert Vert Horiz Horiz
16 17 18 19	160.010M 160.010M 250.028M 125.288M 320.005M	38.6 38.3 37.0 38.3 33.0	+0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.6 +0.0 +1.0 +19.5 +0.7	+0.0 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +0.8 +0.1 +1.4 +0.2 +0.8	+15.6 +5.0 +15.6 +5.0 +18.1 +5.0 +13.3 +5.0 +0.0 +5.0	-27.7 -27.7 -27.8 -27.7 -28.1	+0.0 +0.0 +0.0 +0.0 +0.0	33.1 32.8 34.7 30.4 32.0	39.1 Maximized meters 43.5 43.5 46.4 43.5	at 4  -10.4  -10.7  -11.7  -13.1  -14.4	Vert Horiz Vert Vert Horiz

Page 221 of 301 Report No.: FC06-025 Volume 3 of 9



22	400.020M	32.8	+1.2	+1.7	+0.0	-28.4	+0.0	28.7	46.4	-17.7	Vert
			+16.2	+0.2	+5.0						
23	399.985M	31.9	+1.2	+1.7	+0.0	-28.4	+0.0	27.8	46.4	-18.6	Vert
			+16.2	+0.2	+5.0						
24	480.080M	30.3	+1.3	+1.8	+0.0	-28.1	+0.0	27.8	46.4	-18.6	Vert
			+17.2	+0.3	+5.0						
25	125.285M	32.7	+0.6	+0.8	+13.3	-27.7	+0.0	24.8	43.5	-18.7	Horiz
			+0.0	+0.1	+5.0						
26	319.980M	28.5	+1.0	+1.4	+0.0	-28.1	+0.0	27.5	46.4	-18.9	Vert
			+19.5	+0.2	+5.0						

Page 222 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 10:51:39
Equipment: BPL MV Gateway Sequence#: 113
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Meas	urement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.952M	49.8	+0.3	+0.3	+15.3	-27.9	+0.0	37.8	39.1	-1.3	Vert
	QP		+0.0	+0.0					Maximized	d at 4	
									meters		
/	31.952M	53.9	+0.3	+0.3	+15.3	-27.9	+0.0	41.9	39.1	+2.8	Vert
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 223 of 301 Report No.: FC06-025 Volume 3 of 9



3 30.150M 48.9 +0.3 +0.3 +16.1 -27.9 +0.0 37.7 39.1 -1.4 Horiz Maximized at 4 meters  ^ 30.150M 50.7 +0.3 +0.3 +16.1 -27.9 +0.0 39.5 39.1 +0.4 Horiz Maximized at 4 meters  5 30.796M 48.8 +0.3 +0.3 +15.8 -27.9 +0.0 37.3 39.1 -1.8 Vert Maximized at 4 meters  ^ 30.796M 53.7 +0.3 +0.3 +15.8 -27.9 +0.0 42.2 39.1 +3.1 Vert Maximized at 4 meters  7 33.743M 49.6 +0.3 +0.4 +14.4 -27.9 +0.0 36.8 39.1 -2.3 Vert Maximized at 4 meters  ^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert Maximized at 4 meters
^ 30.150M       50.7       +0.3       +0.3       +16.1       -27.9       +0.0       39.5       39.1       +0.4       Horiz Maximized at 4 meters         5       30.796M QP       48.8       +0.3       +0.3       +15.8       -27.9       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         ^ 30.796M       53.7       +0.3       +0.3       +15.8       -27.9       +0.0       42.2       39.1       +3.1       Vert Maximized at 4 meters         7       33.743M       49.6       +0.3       +0.4       +14.4       -27.9       +0.0       36.8       39.1       -2.3       Vert Maximized at 4 meters         ^ 33.743M       54.0       +0.3       +0.4       +14.4       -27.9       +0.0       41.2       39.1       +2.1       Vert
^ 30.150M       50.7       +0.3       +0.3       +16.1       -27.9       +0.0       39.5       39.1       +0.4       Horiz Maximized at 4 meters         5 30.796M QP       48.8       +0.3       +0.3       +15.8       -27.9       +0.0       37.3       39.1       -1.8       Vert Maximized at 4 meters         ^ 30.796M       53.7       +0.3       +0.3       +15.8       -27.9       +0.0       42.2       39.1       +3.1       Vert Maximized at 4 meters         7 33.743M QP       +0.3       +0.4       +14.4       -27.9       +0.0       36.8       39.1       -2.3       Vert Maximized at 4 meters         ^ 33.743M       54.0       +0.3       +0.4       +14.4       -27.9       +0.0       41.2       39.1       +2.1       Vert
+0.0 +0.0
meters           5 30.796M QP         48.8 +0.3 +0.3 +0.3 +15.8 -27.9 +0.0 37.3 39.1 -1.8 Vert Maximized at 4 meters           ^ 30.796M 53.7 +0.3 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 +0.0
5       30.796M QP       48.8 +0.3 +0.3 +15.8 +15.8 -27.9 +0.0 37.3 39.1 -1.8 Wert Maximized at 4 meters         ^       30.796M 53.7 +0.3 +0.3 +0.3 +15.8 -27.9 +0.0 42.2 39.1 +3.1 Wert Maximized at 4 meters         7       33.743M 49.6 +0.3 +0.4 +14.4 -27.9 +0.0 36.8 39.1 -2.3 Wert Maximized at 4 meters         ^       33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
QP       +0.0       +0.0       Maximized at 4 meters         ^ 30.796M       53.7       +0.3       +0.3       +15.8       -27.9       +0.0       42.2       39.1       +3.1       Vert Maximized at 4 meters         7       33.743M       49.6       +0.3       +0.4       +14.4       -27.9       +0.0       36.8       39.1       -2.3       Vert Maximized at 4 meters         ^ 33.743M       54.0       +0.3       +0.4       +14.4       -27.9       +0.0       41.2       39.1       +2.1       Vert
^ 30.796M       53.7
^ 30.796M       53.7       +0.3       +0.3       +15.8       -27.9       +0.0       42.2       39.1       +3.1       Vert Maximized at 4 meters         7       33.743M       49.6       +0.3       +0.4       +14.4       -27.9       +0.0       36.8       39.1       -2.3       Vert Maximized at 4 meters         ^ 33.743M       54.0       +0.3       +0.4       +14.4       -27.9       +0.0       41.2       39.1       +2.1       Vert
+0.0 +0.0 Maximized at 4 meters  7 33.743M 49.6 +0.3 +0.4 +14.4 -27.9 +0.0 36.8 39.1 -2.3 Vert Maximized at 4 meters  ^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
meters       7 33.743M QP     49.6 +0.3 +0.4 +14.4 -27.9 +0.0 40.0 +0.0 +0.0     36.8 39.1 -2.3 Vert Maximized at 4 meters       ^ 33.743M     54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
7 33.743M 49.6 +0.3 +0.4 +14.4 -27.9 +0.0 36.8 39.1 -2.3 Vert Maximized at 4 meters  ^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
QP +0.0 +0.0 Maximized at 4 meters  ^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
QP +0.0 +0.0 Maximized at 4 meters  ^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
^ 33.743M 54.0 +0.3 +0.4 +14.4 -27.9 +0.0 41.2 39.1 +2.1 Vert
meters
9 31.562M 48.6 +0.3 +0.3 +15.4 -27.9 +0.0 36.7 39.1 -2.4 Horiz
QP $+0.0$ $+0.0$ Maximized at 4
meters
^ 31.526M 52.5 +0.3 +0.3 +15.5 -27.9 +0.0 40.7 39.1 +1.6 Horiz
+0.0 +0.0 Maximized at 4
meters
^ 31.626M
+0.0 $+0.0$ Maximized at 4
meters
12 150.000M 45.3 +0.7 +0.8 +15.2 -27.6 +0.0 39.5 43.5 -4.0 Horiz
QP +0.0 +0.1 +5.0
^ 150.005M 47.6 +0.7 +0.8 +15.2 -27.6 +0.0 41.8 43.5 -1.7 Horiz
+0.0 +0.1 +5.0
14 31.626M 46.3 +0.3 +0.3 +15.4 -27.9 +0.0 34.4 39.1 -4.7 Horiz
15 33.637M 45.3 +0.3 +0.4 +14.5 -27.9 +0.0 32.6 39.1 -6.5 Horiz
meters
^ 33.637M 47.7 +0.3 +0.4 +14.5 -27.9 +0.0 35.0 39.1 -4.1 Horiz
+0.0 +0.0 Maximized at 4
meters
17 150.415M 42.3 +0.7 +0.8 +15.2 -27.6 +0.0 36.5 43.5 -7.0 Vert
+0.0 +0.1 +5.0
18 160.000M 40.2 +0.7 +0.8 +15.6 -27.7 +0.0 34.7 43.5 -8.8 Vert
+0.0 +0.1 +5.0

Page 224 of 301 Report No.: FC06-025 Volume 3 of 9



19	175.260M	38.8	+0.7	+1.0	+16.1	-27.7	+0.0	34.0	43.5	-9.5	Vert
			+0.0	+0.1	+5.0						
20	240.005M	39.1	+0.9	+1.2	+17.9	-27.7	+0.0	36.7	46.4	-9.7	Horiz
			+0.0	+0.3	+5.0						
21	240.005M	38.5	+0.9	+1.2	+17.9	-27.7	+0.0	36.1	46.4	-10.3	Vert
			+0.0	+0.3	+5.0						
22	224.890M	34.4	+0.8	+1.1	+17.5	-27.6	+0.0	31.4	46.4	-15.0	Horiz
			+0.0	+0.2	+5.0						
23	320.000M	31.1	+1.0	+1.4	+0.0	-28.1	+0.0	30.1	46.4	-16.3	Vert
			+19.5	+0.2	+5.0						
24	320.038M	28.3	+1.0	+1.4	+0.0	-28.1	+0.0	27.3	46.4	-19.1	Horiz
			+19.5	+0.2	+5.0						
25	399.988M	28.7	+1.2	+1.7	+0.0	-28.4	+0.0	24.6	46.4	-21.8	Vert
			+16.2	+0.2	+5.0						

Page 225 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 12:24:14
Equipment: BPL MV Gateway Sequence#: 117
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
			T5	T6	T7							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	49.860M	46.2	+0.4	+0.5	+11.7	-27.9	+0.0	36.0	39.1	-3.1	Vert	
			+0.0	+0.1	+5.0							
2	150.000M	45.5	+0.7	+0.8	+15.2	-27.6	+0.0	39.7	43.5	-3.8	Horiz	
	QP		+0.0	+0.1	+5.0							
^	150.000M	49.2	+0.7	+0.8	+15.2	-27.6	+0.0	43.4	43.5	-0.1	Horiz	
			+0.0	+0.1	+5.0							

Page 226 of 301 Report No.: FC06-025 Volume 3 of 9



4	49.900M	44.9	+0.4	+0.5	+11.6	-27.9	+0.0	34.6	39.1	-4.5	Horiz
			+0.0	+0.1	+5.0						
5	31.475M	45.6	+0.3	+0.3	+15.5	-27.9	+0.0	33.8	39.1	-5.3	Horiz
			+0.0	+0.0					Maximized	l at 4	
									meters		
6	33.163M	46.2	+0.3	+0.4	+14.7	-27.9	+0.0	33.7	39.1	-5.4	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
7	32.913M	45.2	+0.3	+0.4	+14.8	-27.9	+0.0	32.8	39.1	-6.3	Horiz
			+0.0	+0.0					Maximized	l at 4	
									meters		
8	33.738M	45.5	+0.3	+0.4	+14.4	-27.9	+0.0	32.7	39.1	-6.4	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
9	30.850M	44.1	+0.3	+0.3	+15.8	-27.9	+0.0	32.6	39.1	-6.5	Horiz
			+0.0	+0.0					Maximized	l at 4	
									meters		
10	31.850M	44.2	+0.3	+0.3	+15.3	-27.9	+0.0	32.2	39.1	-6.9	Vert
			+0.0	+0.0					Maximized		
									meters		
11	74.860M	47.2	+0.5	+0.5	+6.4	-27.9	+0.0	31.8	39.1	-7.3	Horiz
			+0.0		+5.0	_,,,					
12	33.738M	44.5	+0.3	+0.4	+14.4	-27.9	+0.0	31.7	39.1	-7.4	Horiz
			+0.0	+0.0					Maximized		
									meters		
13	30.675M	41.8	+0.3	+0.3	+15.9	-27.9	+0.0	30.4	39.1	-8.7	Vert
			+0.0	+0.0					Maximized	l at 4	
									meters		
14	175.245M	37.1	+0.7	+1.0	+16.1	-27.7	+0.0	32.3	43.5	-11.2	Vert
			+0.0		+5.0						
15	159.970M	37.5	+0.7	+0.8	+15.6	-27.7	+0.0	32.0	43.5	-11.5	Vert
		-	+0.0	+0.1	+5.0						
16	240.005M	36.1	+0.9	+1.2	+17.9	-27.7	+0.0	33.7	46.4	-12.7	Vert
			+0.0	+0.3	+5.0						
17	320.020M	32.2	+1.0	+1.4	+0.0	-28.1	+0.0	31.2	46.4	-15.2	Horiz
			+19.5	+0.2	+5.0						
18	225.030M	33.9	+0.8	+1.1	+17.5	-27.7	+0.0	30.8	46.4	-15.6	Vert
			+0.0	+0.2	+5.0			- 0.0			
19	480.015M	28.6	+1.3	+1.8	+0.0	-28.1	+0.0	26.1	46.4	-20.3	Vert
	2 2 . 2 - 2 - 1 -	_0.0	+17.2	+0.3	+5.0						
20	400.015M	29.4	+1.2	+1.7	+0.0	-28.4	+0.0	25.3	46.4	-21.1	Horiz
20	100.015141	27.7	+16.2	+0.2	+5.0	20.∓	10.0	25.5	10.7	21.1	110112
			110.2	10.2	13.0						

Page 227 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 12:49:24
Equipment: BPL MV Gateway Sequence#: 118
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz, vertical and horizontal polarities. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measurement Data: Reading listed by margin						Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
			T5	T6	T7							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant	
1	33.141M	49.8	+0.3	+0.4	+14.7	-27.9	+0.0	37.3	39.1	-1.8	Vert	
	QP		+0.0	+0.0					Maximized	d at 4		
									meters			
/	33.141M	53.6	+0.3	+0.4	+14.7	-27.9	+0.0	41.0	39.1	+1.9	Vert	
			+0.0	+0.0					Maximized	d at 4		
									meters			

Page 228 of 301 Report No.: FC06-025 Volume 3 of 9



2	21.0753.4	40.2	.0.2	.0.2	. 15.0	27.0	. 0. 0	27.2	20.1	1.0	<b>T.7</b> .
3		49.2	+0.3	+0.3	+15.3	-27.9	+0.0	37.2	39.1		Vert
,	QP		+0.0	+0.0					Maximized	at 4	
	21.075) /	50 T	0.2	0.2	15.0	27.0	0.0	40.7	meters	1.6	X 7 .
٨	31.875M	52.7	+0.3	+0.3	+15.3	-27.9	+0.0	40.7	39.1	+1.6	Vert
			+0.0	+0.0					Maximized	at 4	
	22.0021.6	40.5	0.2	0.4	111	27.0	0.0	267	meters	2.4	X 7 .
5	33.903M	49.5	+0.3	+0.4	+14.4	-27.9	+0.0	36.7	39.1	-2.4	Vert
'	QP		+0.0	+0.0					Maximized	at 4	
	22.0021.6	54.7	0.2	0.4	111	27.0	0.0	41.0	meters	2.0	X 7 .
٨	33.903M	54.7	+0.3	+0.4	+14.4	-27.9	+0.0	41.9		+2.8	Vert
			+0.0	+0.0					Maximized	at 4	
	22.0251.4	47. 4	0.2	0.4	111	27.0	0.0	24.6	meters	4.5	TT .
7	33.825M	47.4	+0.3	+0.4	+14.4	-27.9	+0.0	34.6	39.1	-4.5	Horiz
			+0.0	+0.0					Maximized	at 4	
0	40.07534	44.7	. 0. 4	.0.7	. 11 7	27.0	.0.0	24.2	meters	4.0	<b>17</b>
8	49.875M	44.5	+0.4	+0.5	+11.7	-27.9	+0.0	34.3	39.1	-4.8	Vert
	22 7001 5	45.0	+0.0	+0.1	+5.0	27.0	. 0. 0	22.6	20.1		
9	32.700M	45.9	+0.3	+0.4	+14.9	-27.9	+0.0	33.6	39.1	-5.5	Horiz
			+0.0	+0.0					Maximized	at 4	
10	21.0501.5		0.2	0.2	17.0	25.0	0.0	22.4	meters		** '
10	31.850M	45.4	+0.3	+0.3	+15.3	-27.9	+0.0	33.4	39.1	-5.7	Horiz
			+0.0	+0.0					Maximized	at 4	
1.1	240.0503.6	20.0	0.0	1.0	17.0	27.7	0.0	26.4	meters	10.0	TT .
11	240.050M	38.8	+0.9	+1.2	+17.9	-27.7	+0.0	36.4	46.4	-10.0	Horiz
10	150 0103 5	20.5	+0.0	+0.3	+5.0	25.5	0.0	22.0	10.7	10.5	** '
12	150.013M	38.6	+0.7	+0.8	+15.2	-27.6	+0.0	32.8	43.5	-10.7	Horiz
10	155 255 5	2.5.0	+0.0	+0.1	+5.0	25.5	0.0	22.1	40.7		**
13	175.275M	36.9	+0.7	+1.0	+16.1	-27.7	+0.0	32.1	43.5	-11.4	Vert
4 .	40.0503.5	27.4	+0.0	+0.1	+5.0	25.6	0.0	27.5	20.1	11.6	** '
14	49.850M	37.4				-27.9	+0.0	27.2	39.1	-11.9	Horiz
	4.40.57.53.5	25.5				25.5	0.0	20.7	10 -	400	**
15	149.760M	35.5				-27.6	+0.0	29.7	43.5	-13.8	Vert
		<u> </u>					0 -				
16	160.010M	34.9				-27.7	+0.0	29.4	43.5	-14.1	Horiz
		<u> </u>									
17	240.000M	34.7				-27.7	+0.0	32.3	46.4	-14.1	Vert
18	225.080M	35.1				-27.7	+0.0	32.0	46.4	-14.4	Vert
			+0.0								
19	274.955M	31.9				-27.9	+0.0	31.0	46.4	-15.4	Vert
20	175.270M	32.5	+0.7	+1.0	+16.1	-27.7	+0.0	27.7	43.5	-15.8	Horiz
			+0.0	+0.1	+5.0						
14 15 16 17 18 19	49.850M 149.760M 160.010M 240.000M 225.080M 274.955M	37.4 35.5 34.9 34.7 35.1 31.9	+0.4 +0.0 +0.7 +0.0 +0.7 +0.0 +0.9 +0.0 +0.8	+0.5 +0.1 +0.8 +0.1 +0.8 +0.1 +1.2 +0.3 +1.1 +0.2 +1.3 +0.2	+11.7 +5.0 +15.2 +5.0 +15.6 +5.0 +17.9 +5.0 +17.5 +5.0 +19.5 +5.0	-27.9 -27.6 -27.7 -27.7 -27.7 -27.9	+0.0 +0.0 +0.0 +0.0 +0.0 +0.0	27.2 29.7 29.4 32.3 32.0 31.0	39.1 43.5 43.5 46.4 46.4 46.4	-11.9 -13.8 -14.1 -14.1 -14.4 -15.4	Vert Horiz Vert Vert Vert

Page 229 of 301 Report No.: FC06-025 Volume 3 of 9



21	160.000M	31.8	+0.7	+0.8	+15.6	-27.7	+0.0	26.3	43.5	-17.2	Vert
			+0.0	+0.1	+5.0						
22	320.015M	29.2	+1.0	+1.4	+0.0	-28.1	+0.0	28.2	46.4	-18.2	Horiz
			+19.5	+0.2	+5.0						
23	320.030M	28.5	+1.0	+1.4	+0.0	-28.1	+0.0	27.5	46.4	-18.9	Vert
			+19.5	+0.2	+5.0						
24	400.015M	30.7	+1.2	+1.7	+0.0	-28.4	+0.0	26.6	46.4	-19.8	Horiz
			+16.2	+0.2	+5.0						
25	374.995M	31.1	+1.1	+1.6	+0.0	-28.3	+0.0	26.4	46.4	-20.0	Horiz
			+15.7	+0.2	+5.0						

Page 230 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #4 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/15/2006
Test Type: Radiated Scan Time: 13:27:26
Equipment: BPL MV Gateway Sequence#: 119
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #1: At Grayson Lakes Section 9, Transformer #4 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz, vertical and horizontal polarities. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=ANT-AN00503-010505 T4=HP-8447D Pre Amp AN 00567

T5=Log00978A T6=Cable 01185

T7=5dB Height Correction

Measi	ırement Data:	Re	eading lis	ted by ma	argin.	. Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.929M	48.3	+0.3	+0.3	+15.3	-27.9	+0.0	36.3	39.1	-2.8	Vert
	QP		+0.0	+0.0					Maximized	d at 4	
									meters		
^	31.929M	61.7	+0.3	+0.3	+15.3	-27.9	+0.0	49.7	39.1	+10.6	Vert
			+0.0	+0.0					Maximized	d at 4	
									meters		

Page 231 of 301 Report No.: FC06-025 Volume 3 of 9



3	33.863M	46.6	+0.3	+0.4	+14.4	-27.9	+0.0	33.8	39.1	-5.3	Vert
	QP		+0.0	+0.0					Maximized		
									meters		
^	33.863M	49.5	+0.3	+0.4	+14.4	-27.9	+0.0	36.7			Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
5	31.875M	45.3	+0.3	+0.3	+15.3	-27.9	+0.0	33.3		-5.8	Horiz
			+0.0	+0.0					Maximized	at 4	
	21.5123.5	45.1	0.2	0.2	15.5	27.0	0.0	22.2	meters	<b>7</b> 0	TT .
6	31.513M	45.1	+0.3	+0.3	+15.5	-27.9	+0.0	33.3	39.1	-5.8	Horiz
			+0.0	+0.0					Maximized	at 4	
7	49.895M	43.0	+0.4	+0.5	+11.6	-27.9	+0.0	32.7	meters 39.1	-6.4	Vert
/	49.093IVI	43.0	+0.4 +0.0	+0.3	+11.0	-21.9	+0.0	32.7	39.1	-0.4	vert
8	33.150M	44.4	+0.3	+0.1	+14.7	-27.9	+0.0	31.9	39.1	-7.2	Horiz
	JJ.1JUW1	77.7	+0.0	+0.4	117./	-41.7	10.0	31.9	Maximized		HOHE
			10.0	10.0					meters	ui T	
9	33.900M	44.4	+0.3	+0.4	+14.4	-27.9	+0.0	31.6	39.1	-7.5	Horiz
	00.5 001.1		+0.0	+0.0			. 0.0	01.0	Maximized		110112
									meters		
10	30.964M	42.1	+0.3	+0.3	+15.7	-27.9	+0.0	30.5	39.1	-8.6	Vert
			+0.0	+0.0					Maximized	at 4	
									meters		
11	49.870M	37.4	+0.4	+0.5	+11.7	-27.9	+0.0	27.2	39.1	-11.9	Horiz
			+0.0		+5.0						
12	149.745M	36.9	+0.7	+0.8	+15.2	-27.6	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.1	+5.0						
13	159.990M	36.4	+0.7	+0.8	+15.6	-27.7	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.1	+5.0						
14	240.010M	34.0	+0.9	+1.2	+17.9	-27.7	+0.0	31.6	46.4	-14.8	Vert
1.5	227 0223 5	22.1	+0.0	+0.3	+5.0	27.7	. 0. 0	20.0	4 < 4	164	<b>X</b> 7 .
15	225.080M	33.1	+0.8	+1.1	+17.5	-27.7	+0.0	30.0	46.4	-16.4	Vert
1.0	175 255M	21.7	+0.0	+0.2	+5.0	27.7	+0.0	26.0	12.5	16.6	Ho::-
16	175.255M	31.7	+0.7 +0.0	$+1.0 \\ +0.1$	+16.1	-27.7	+0.0	26.9	43.5	-16.6	Horiz
17	150.435M	31.8	+0.0	+0.1	+5.0 +15.2	-27.6	+0.0	26.0	43.5	-17.5	Horiz
1 /	130. <del>4</del> 33WI	31.0	+0.7	+0.8	+13.2	-27.0	+0.0	20.0	43.3	-1/.3	110112
18	375.045M	32.8	+1.1	+1.6	+0.0	-28.3	+0.0	28.1	46.4	-18.3	Horiz
10	373.0 <del>4</del> 3 <b>1</b> 01	32.0	+1.1	+0.2	+5.0	-20.3	10.0	20.1	TU. <del>T</del>	-10.5	HOHE
19	320.005M	29.1	+1.0	+1.4	+0.0	-28.1	+0.0	28.1	46.4	-18.3	Vert
	320.003111	27.1	+19.5	+0.2	+5.0	20.1	. 0.0	20.1	10.1	10.5	, 510
20	400.015M	31.9	+1.2	+1.7	+0.0	-28.4	+0.0	27.8	46.4	-18.6	Horiz
			+16.2	+0.2	+5.0	_0		_,.0		- 5.0	

Page 232 of 301 Report No.: FC06-025 Volume 3 of 9



	45004535	20.5		4.0		20.2	0.0		4 6 4	10.0	** .
21	450.045M	30.7	+1.2	+1.8	+0.0	-28.3	+0.0	27.2	46.4	-19.2	Horiz
			+16.6	+0.2	+5.0						
22	320.010M	27.9	+1.0	+1.4	+0.0	-28.1	+0.0	26.9	46.4	-19.5	Horiz
			+19.5	+0.2	+5.0						
23	479.985M	28.9	+1.3	+1.8	+0.0	-28.1	+0.0	26.4	46.4	-20.0	Vert
			+17.2	+0.3	+5.0						
24	400.010M	28.9	+1.2	+1.7	+0.0	-28.4	+0.0	24.8	46.4	-21.6	Vert
			+16.2	+0.2	+5.0						
25	374.995M	28.8	+1.1	+1.6	+0.0	-28.3	+0.0	24.1	46.4	-22.3	Vert
			+15.7	+0.2	+5.0						

Page 233 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 10:30:31
Equipment: BPL MV Gateway Sequence#: 158
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410
T3=Log00978A T4=ANT-AN00503-010505
T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

			- 0		. 0						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.863M	46.2	+0.4	+0.5	+0.0	+11.7	+0.0	36.0	39.1	-3.1	Vert
	QP		+0.1	-27.9	+5.0						
٨	49.863M	48.8	+0.4	+0.5	+0.0	+11.7	+0.0	38.6	39.1	-0.5	Vert
			+0.1	-27.9	+5.0						

Page 234 of 301 Report No.: FC06-025 Volume 3 of 9



3 30.912M	46.2	+0.3		+0.0	+15.8	+0.0	34.7	39.1		Vert
QP		+0.0	-27.9					Maximized a	t 4	
								meters		
^ 30.912M	50.5	+0.3	+0.3	+0.0	+15.8	+0.0	39.0		-0.1	Vert
		+0.0	-27.9					Maximized a	t 4	
								meters		
5 31.679M	45.3	+0.3	+0.3	+0.0	+15.4	+0.0	33.4		-5.7	Vert
QP		+0.0	-27.9					Maximized a	t 4	
								meters		
^ 31.679M	48.8	+0.3	+0.3	+0.0	+15.4	+0.0	36.9			Vert
		+0.0	-27.9					Maximized a	t 4	
								meters		
7 30.113M	44.3	+0.3	+0.3	+0.0	+16.1	+0.0	33.1	39.1		Horiz
QP		+0.0	-27.9					Maximized a	t 4	
								meters		
^ 30.113M	48.6	+0.3	+0.3	+0.0	+16.1	+0.0	37.4		-1.7	Horiz
		+0.0	-27.9					Maximized a	t 4	
								meters		
9 32.405M	45.3	+0.3	+0.4	+0.0	+15.0	+0.0	33.1	39.1		Horiz
		+0.0	-27.9					Maximized a	t 4	
								meters		
10 33.173M	44.5	+0.3	+0.4	+0.0	+14.7	+0.0	32.0			Vert
		+0.0	-27.9					Maximized a	t 4	
								meters		
11 33.118M	44.1	+0.3	+0.4	+0.0	+14.7	+0.0	31.6	39.1	-7.5	Horiz
		+0.0	-27.9					Maximized a	t 4	
								meters		
12 160.005M	39.7	+0.7	+0.8	+0.0	+15.6	+0.0	34.2	43.5	-9.3	Vert
		+0.1	-27.7	+5.0						
13 49.840M	39.8	+0.4	+0.5	+0.0	+11.7	+0.0	29.6	39.1	-9.5	Horiz
		+0.1	-27.9	+5.0						
14 149.975M	38.6	+0.7	+0.8	+0.0	+15.2	+0.0	32.8	43.5	-10.7	Horiz
		+0.1	-27.6	+5.0						
15 175.255M	33.7	+0.7	+1.0	+0.0	+16.1	+0.0	28.9	43.5	-14.6	Horiz
		+0.1	-27.7	+5.0						
16 240.005M	33.2	+0.9	+1.2	+0.0	+17.9	+0.0	30.8	46.4	-15.6	Vert
		+0.3	-27.7	+5.0						
17 159.885M	32.9	+0.7	+0.8	+0.0	+15.6	+0.0	27.4	43.5	-16.1	Horiz
		+0.1	-27.7	+5.0						
18 225.083M	32.5	+0.8	+1.1	+0.0	+17.5	+0.0	29.4	46.4	-17.0	Vert
		+0.2	-27.7	+5.0						
19 450.025M	27.4	+1.2	+1.8	+16.6	+0.0	+0.0	23.9	46.4	-22.5	Horiz
		+0.2	-28.3	+5.0						

Page 235 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 •Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 14:46:14
Equipment: BPL MV Gateway Sequence#: 168
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline	Corinex	CXF-MVA-M2	none
Filter Mode 2			
Medium Voltage Powerline	Corinex	CXF-MVA-M3	none
Filter Mode 3			

### Support Devices:

Function	Manufacturar	Model #	C/NI
Tullcuon	Manufacturer	MIOUCI #	3/11

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

Trumsumeer Eegenus	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Log00978A	T4=ANT-AN00503-010505
TF Calaba 0110F	TC IID 9447D Day A ANI 00567

Measur	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	31.263M	49.0	+0.3	+0.3	+0.0	+15.6	+0.0	37.3	39.1	-1.8	Vert
QP			+0.0	-27.9							
^	31.263M	52.2	+0.3	+0.3	+0.0	+15.6	+0.0	40.5	39.1	+1.4	Vert
			+0.0	-27.9							
3	30.188M	47.8	+0.3	+0.3	+0.0	+16.1	+0.0	36.6	39.1	-2.5	Vert
	QP		+0.0	-27.9							
^	30.188M	51.6	+0.3	+0.3	+0.0	+16.1	+0.0	40.4	39.1	+1.3	Vert
			+0.0	-27.9							

Page 236 of 301 Report No.: FC06-025 Volume 3 of 9



S   32.609M   47.1   +0.3   +0.4   +0.0   +15.0   +0.0   34.9   39.1   -4.2   Vert
A   32.609M   51.3   +0.3   +0.4   +0.0   +15.0   +0.0   39.1   39.1   +0.0   Vert
7   30.238M
QP
Add 5dB height correction factor to readings.  ^ 49.862M
10   33.238M   41.3   +0.4   +0.5   +0.0   +11.7   +0.0   33.8   39.1   -5.3   Vert
A
^ 49.862M       49.1       +0.4       +0.5       +0.0       +11.7       +0.0       33.8       39.1       -5.3       Vert Measured at 1m. Add 5dB height correction factor to readings.         10       33.238M       41.3       +0.3       +0.4       +0.0       +14.7       +0.0       28.8       39.1       -10.3       Horiz Hor
Ho.1   -27.9   Measured at 1 m. Add 5dB height correction factor to readings.   10   33.238M   41.3   +0.3   +0.4   +0.0   +14.7   +0.0   28.8   39.1   -10.3   Horiz   +0.0   -27.9     11   32.214M   41.1   +0.3   +0.3   +0.0   +15.1   +0.0   28.8   39.1   -10.3   Horiz   +0.0   -27.9     12   49.850M   41.7   +0.4   +0.5   +0.0   +11.7   +0.0   26.5   39.1   -12.6   Horiz   Ho.1   -27.9   Horiz   Heasured at 1 m.   Add 5dB height   Correction factor to readings.   13   149.995M   41.0   +0.7   +0.8   +0.0   +15.2   +0.0   30.2   43.5   -13.3   Horiz
Add 5dB height correction factor to readings.    10   33.238M   41.3   +0.3   +0.4   +0.0   +14.7   +0.0   28.8   39.1   -10.3   Horiz   +0.0   -27.9     11   32.214M   41.1   +0.3   +0.3   +0.0   +15.1   +0.0   28.8   39.1   -10.3   Horiz   +0.0   -27.9     12   49.850M   41.7   +0.4   +0.5   +0.0   +11.7   +0.0   26.5   39.1   -12.6   Horiz   Measured at 1m.   Add 5dB height   correction factor to readings.    13   149.995M   41.0   +0.7   +0.8   +0.0   +15.2   +0.0   30.2   43.5   -13.3   Horiz   Horiz
10   33.238M   41.3   +0.3   +0.4   +0.0   +14.7   +0.0   28.8   39.1   -10.3   Horiz
10   33.238M   41.3   +0.3   +0.4   +0.0   +14.7   +0.0   28.8   39.1   -10.3   Horiz
11   32.214M   41.1   +0.3   +0.3   +0.0   +15.1   +0.0   28.8   39.1   -10.3   Horiz   +0.0   -27.9     12   49.850M   41.7   +0.4   +0.5   +0.0   +11.7   +0.0   26.5   39.1   -12.6   Horiz   Measured at 1m.   Add 5dB height   correction factor to readings.   13   149.995M   41.0   +0.7   +0.8   +0.0   +15.2   +0.0   30.2   43.5   -13.3   Horiz   Measured at 1m.   Add 5dB height   correction factor to readings.   14   159.985M   35.7   +0.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   Measured at 1m.   Add 5dB height   Add 5dB height   Add 5dB height   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   Measured at 1m.   Add 5dB height   Add 5dB height   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   +0.1   -27.7   +0.8   +0.0   +15.6   +0.0   +0.0   +15.6   +0.0   +
11       32.214M       41.1       +0.3       +0.0       +15.1       +0.0       28.8       39.1       -10.3       Horiz         12       49.850M       41.7       +0.4       +0.5       +0.0       +11.7       +0.0       26.5       39.1       -12.6       Horiz         Measured at 1m.       Add 5dB height       correction factor to readings.         13       149.995M       41.0       +0.7       +0.8       +0.0       +15.2       +0.0       30.2       43.5       -13.3       Horiz         Measured at 1m.       Add 5dB height       correction factor to readings.         14       159.985M       35.7       +0.7       +0.8       +0.0       +15.6       +0.0       25.2       43.5       -18.3       Vert         Horiz       Measured at 1m.       Add 5dB height       Add 5dB height       Add 5dB height       Add 5dB height
12   49.850M   41.7   +0.4   +0.5   +0.0   +11.7   +0.0   26.5   39.1   -12.6   Horiz
12 49.850M 41.7 +0.4 +0.5 +0.0 +11.7 +0.0 26.5 39.1 -12.6 Horiz Measured at 1m. Add 5dB height correction factor to readings.  13 149.995M 41.0 +0.7 +0.8 +0.0 +15.2 +0.0 30.2 43.5 -13.3 Horiz Measured at 1m. Add 5dB height correction factor to readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert Measured at 1m. Add 5dB height
Ho.1   -27.9   Measured at 1m.   Add 5dB height   correction factor to readings.     13   149.995M   41.0   +0.7   +0.8   +0.0   +15.2   +0.0   30.2   43.5   -13.3   Horiz   Measured at 1m.   Add 5dB height   correction factor to readings.     14   159.985M   35.7   +0.7   +0.8   +0.0   +15.6   +0.0   25.2   43.5   -18.3   Vert   Measured at 1m.   Add 5dB height   Add 5dB height
Add 5dB height correction factor to readings.  13 149.995M 41.0 +0.7 +0.8 +0.0 +15.2 +0.0 30.2 43.5 -13.3 Horiz Measured at 1m. Add 5dB height correction factor to readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert Ho.1 -27.7 Measured at 1m. Add 5dB height
13   149.995M   41.0   +0.7   +0.8   +0.0   +15.2   +0.0   30.2   43.5   -13.3   Horiz
13 149.995M 41.0 +0.7 +0.8 +0.0 +15.2 +0.0 30.2 43.5 -13.3 Horiz  +0.1 -27.6 Measured at 1m. Add 5dB height correction factor to readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert +0.1 -27.7 Measured at 1m. Add 5dB height
+0.1 -27.6  Measured at 1m. Add 5dB height correction factor to readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert +0.1 -27.7  Measured at 1m. Add 5dB height
Add 5dB height correction factor to readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert Ho.1 -27.7 Measured at 1m. Add 5dB height
14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert
readings.  14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert +0.1 -27.7 Measured at 1m. Add 5dB height
14 159.985M 35.7 +0.7 +0.8 +0.0 +15.6 +0.0 25.2 43.5 -18.3 Vert +0.1 -27.7 Measured at 1m. Add 5dB height
+0.1 -27.7 Measured at 1m. Add 5dB height
Add 5dB height
correction factor to
readings.
15 225.165M 35.6 +0.8 +1.1 +0.0 +17.5 +0.0 27.5 46.4 -18.9 Vert
+0.2 -27.7 Measured at 1m.
Add 5dB height correction factor to
readings.
16 320.015M 31.5 +1.0 +1.4 +19.5 +0.0 +0.0 25.5 46.4 -20.9 Horiz
+0.2 -28.1 Measured at 1m.
Add 5dB height
correction factor to
readings.  17 160.000M 31.5 +0.7 +0.8 +0.0 +15.6 +0.0 21.0 43.5 -22.5 Horiz
+0.1 -27.7 Holiz  Holiz +0.0 +13.0 +0.0 21.0 43.3 -22.3 Holiz
Add 5dB height
correction factor to
readings.

Page 237 of 301 Report No.: FC06-025 Volume 3 of 9



18	319.985M	29.7	+1.0 +0.2	+1.4 -28.1	+19.5	+0.0	+0.0	23.7	46.4 Measured a	-22.7	Vert
			10.2	20.1					Add 5dB h	eight	
									correction	factor to	
									readings.		
19	239.985M	29.6	+0.9	+1.2	+0.0	+17.9	+0.0	22.2	46.4	-24.2	Vert
			+0.3	-27.7					Measured a	at 1m.	
									Add 5dB h	eight	
									correction	factor to	
									readings.		
20	375.015M	28.4	+1.1	+1.6	+15.7	+0.0	+0.0	18.7	46.4	-27.7	Horiz
			+0.2	-28.3					Measured a	at 1m.	
									Add 5dB h	eight	
									correction	factor to	
									readings.		

Page 238 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 15:09:23
Equipment: BPL MV Gateway Sequence#: 169
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

21(61

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measu	<i>easurement Data:</i> Reading listed by margin. Test Distance: 10 Meters										
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.855M	46.8	+0.4	+0.5	+0.0	+11.7	+0.0	36.6	39.1	-2.5	Vert
	QP		+0.1	-27.9	+5.0						
٨	49.855M	47.9	+0.4	+0.5	+0.0	+11.7	+0.0	37.7	39.1	-1.4	Vert
			+0.1	-27.9	+5.0						

Page 239 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.300M	47.7	+0.3	+0.3	+0.0	+16.1	+0.0	36.5	39.1	-2.6	Horiz
	QP	47.7	+0.0	-27.9	+0.0	+10.1	+0.0	30.3	Maximized a		HOHZ
	<b>~</b> -		. 0.0	_,,,					meters		
٨	30.300M	50.0	+0.3	+0.3	+0.0	+16.1	+0.0	38.8	39.1	-0.3	Horiz
			+0.0	-27.9					Maximized a	ıt 4	
									meters		
5		46.4	+0.3	+0.3	+0.0	+15.5	+0.0	34.6		-4.5	Vert
'	QP		+0.0	-27.9					Maximized a	ıt 4	
^	31.484M	50.5	+0.3	+0.3	+0.0	+15.5	+0.0	38.7	meters 39.1	-0.4	Vert
	31.404WI	30.3	+0.0	-27.9	+0.0	+13.3	+0.0	36.7	Maximized a		VEIL
			10.0	21.5					meters		
7	30.263M	45.2	+0.3	+0.3	+0.0	+16.1	+0.0	34.0		-5.1	Vert
	QP		+0.0	-27.9					Maximized a	ıt 4	
									meters		
^	30.263M	48.8	+0.3	+0.3	+0.0	+16.1	+0.0	37.6		-1.5	Vert
			+0.0	-27.9					Maximized a	ıt 4	
9	32.567M	46.1	+0.3	+0.4	+0.0	+15.0	+0.0	33.9	meters	-5.2	Horiz
9	32.30/WI	40.1	+0.5	+0.4 -27.9	+0.0	+13.0	+0.0	33.9	39.1 Maximized a		HOHZ
			10.0	-21.7					meters		
10	33.418M	45.6	+0.3	+0.4	+0.0	+14.6	+0.0	33.0	39.1	-6.1	Vert
			+0.0	-27.9					Maximized a		
									meters		
11	32.707M	44.5	+0.3	+0.4	+0.0	+14.9	+0.0	32.2	39.1	-6.9	Horiz
			+0.0	-27.9					Maximized a	ıt 4	
10	40.9 <i>C</i> 5 <b>M</b>	12.4	.0.4	.0.5	.00	. 11.7	. 0. 0	22.2	meters	7.0	TT!
12	49.865M	42.4	$+0.4 \\ +0.1$	+0.5 -27.9	$+0.0 \\ +5.0$	+11.7	+0.0	32.2	39.1	-7.0	Horiz
13	375.260M	43.1	+1.1	+1.6	+15.7	+0.0	+0.0	38.4	46.4	-8.0	Horiz
13	373.200IVI	75.1	+0.2	-28.3	+5.0	10.0	10.0	30.4	40.4	-0.0	HOHZ
14	424.760M	40.7	+1.2	+1.7	+16.4	+0.0	+0.0	36.8	46.4	-9.6	Horiz
			+0.2	-28.4	+5.0						
15	225.045M	39.7	+0.8	+1.1	+0.0	+17.5	+0.0	36.6	46.4	-9.8	Vert
			+0.2	-27.7	+5.0						
16	240.015M	38.2	+0.9	+1.2	+0.0	+17.9	+0.0	35.8	46.4	-10.6	Vert
17	140,0001	27.0	+0.3	-27.7	+5.0	15.0	0.0	22.1	40.5	11.4	TT :
17	149.990M	37.9	$+0.7 \\ +0.1$	+0.8 -27.6	+0.0	+15.2	+0.0	32.1	43.5	-11.4	Horiz
18	150.000M	37.2	+0.1	+0.8	+5.0 +0.0	+15.2	+0.0	31.4	43.5	-12.1	Vert
10	130.000101	31.4	+0.7	+0.8 -27.6	+5.0	⊤13.∠	+0.0	31.4	43.3	-12.1	v CI t
19	160.015M	35.5	+0.7	+0.8	+0.0	+15.6	+0.0	30.0	43.5	-13.5	Vert
	-		+0.1	-27.7	+5.0						
20	450.013M	36.0	+1.2	+1.8	+16.6	+0.0	+0.0	32.5	46.4	-13.9	Horiz
			+0.2	-28.3	+5.0						
21	274.895M	31.6	+1.0	+1.3	+0.0	+19.5	+0.0	30.7	46.4	-15.7	Vert
			+0.2	-27.9	+5.0						

Page 240 of 301 Report No.: FC06-025 Volume 3 of 9



22	225.025M	32.2	+0.8	+1.1	+0.0	+17.5	+0.0	29.1	46.4	-17.3	Horiz
			+0.2	-27.7	+5.0						
23	274.910M	29.9	+1.0	+1.3	+0.0	+19.5	+0.0	29.0	46.4	-17.4	Horiz
			+0.2	-27.9	+5.0						
24	350.255M	31.7	+1.1	+1.5	+15.2	+0.0	+0.0	26.5	46.4	-19.9	Horiz
			+0.3	-28.3	+5.0						
25	375.030M	28.2	+1.1	+1.6	+15.7	+0.0	+0.0	23.5	46.4	-22.9	Vert
			+0.2	-28.3	+5.0						

Page 241 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 15:32:25
Equipment: BPL MV Gateway Sequence#: 170
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Meas	urement Data:	Re	eading lis	ted by ma	argin.	. Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.862M	47.3	+0.4	+0.5	+0.0	+11.7	+0.0	37.1	39.1	-2.0	Vert
	QP		+0.1	-27.9	+5.0						
/	49.862M	49.9	+0.4	+0.5	+0.0	+11.7	+0.0	39.7	39.1	+0.6	Vert
			+0.1	-27.9	+5.0						

Page 242 of 301 Report No.: FC06-025 Volume 3 of 9



3	30.399M	48.1	+0.3	+0.3	+0.0	+16.0	+0.0	36.8	39.1	-2.3	Horiz
	QP		+0.0	-27.9					Maximized at	4	
									meters		
٨	30.399M	50.6	+0.3	+0.3	+0.0	+16.0	+0.0	39.3	39.1	+0.2	Horiz
			+0.0	-27.9					Maximized at	: 4	
									meters		
5	33.658M	46.6	+0.3	+0.4	+0.0	+14.5	+0.0	33.9	39.1	-5.2	Horiz
			+0.0	-27.9					Maximized at	4	
									meters		
6	150.020M	43.3	+0.7	+0.8	+0.0	+15.2	+0.0	37.5	43.5	-6.0	Horiz
			+0.1	-27.6	+5.0						
7	239.995M	42.0	+0.9	+1.2	+0.0	+17.9	+0.0	39.6	46.4	-6.8	Vert
			+0.3	-27.7	+5.0						
8	32.297M	44.2	+0.3	+0.3	+0.0	+15.1	+0.0	32.0	39.1	-7.1	Horiz
	QP		+0.0	-27.9					Maximized at	: 4	
									meters		
^	32.297M	47.6	+0.3	+0.3	+0.0	+15.1	+0.0	35.4	39.1	-3.7	Horiz
			+0.0	-27.9					Maximized at	4	
									meters		
10	160.005M	41.7	+0.7	+0.8	+0.0	+15.6	+0.0	36.2	43.5	-7.3	Horiz
			+0.1	-27.7	+5.0						
11	31.713M	43.7	+0.3	+0.3	+0.0	+15.4	+0.0	31.8	39.1	-7.3	Vert
	QP		+0.0	-27.9					Maximized at	: 4	
									meters		
^	31.713M	48.7	+0.3	+0.3	+0.0	+15.4	+0.0	36.8	39.1	-2.3	Vert
			+0.0	-27.9					Maximized at	: 4	
1.2	22.0.523.5	44.0	0.2				0.0	21.7	meters		**
13	33.063M	44.0	+0.3	+0.4	+0.0	+14.7	+0.0	31.5	39.1	-7.6	Vert
			+0.0	-27.9					Maximized at	: 4	
1.4	40.05014	41.0	. 0. 4	.0.5	. 0. 0	. 11.7	. 0. 0	21.0	meters	0.1	77 .
14	49.850M	41.2	+0.4	+0.5	+0.0	+11.7	+0.0	31.0	39.1	-8.1	Horiz
1.5	240.00514	10.6	+0.1	-27.9	+5.0	. 17.0	. 0. 0	20.2	46.4	0.2	TT!-
15	240.005M	40.6	+0.9	+1.2	+0.0	+17.9	+0.0	38.2	46.4	-8.2	Horiz
1.0	20.21034	11 1	+0.3	-27.7	+5.0	.161	.00	20.2	20.1	0.0	<b>V</b> I4
16	30.218M	41.4	+0.3	+0.3	+0.0	+16.1	+0.0	30.2	39.1	-8.9	Vert
	QP		+0.0	-27.9					Maximized at	. 4	
٨	20.2101/	16.2	10.2	10.2	+ΩΩ	161	ι Ο Ο	25.0	meters 20.1	/ <sub>1</sub> 1	Vont
	30.218M	46.2	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	35.0	39.1 Maximized at	-4.1	Vert
			+0.0	-41.7					meters	, <del>+</del>	
18	225.020M	34.4	+0.8	+1.1	+0.0	+17.5	+0.0	31.3		-15.1	Horiz
10	223.U2UIVI	J <del>+.4</del>	+0.8	+1.1 -27.7	+5.0	±17.5	+0.0	51.5	40.4	-13.1	110112
19	159.995M	33.7	+0.7	+0.8	+0.0	+15.6	+0.0	28.2	43.5	-15.4	Vert
19	133.373111	55.1	+0.7	+0.8 -27.7	+5.0	±13.0	+0.0	20.2	٠.٠	-13.4	v CI t
20	225.040M	32.5	+0.1	+1.1	+0.0	+17.5	+0.0	29.4	46.4	-17.0	Vert
20	223.0 <del>4</del> 01 <b>v</b> 1	34.3	+0.8	-27.7	+5.0	111.3	10.0	∠J. <del>4</del>	70.4	17.0	v CI t
L			10.4	-41.1	13.0						

Page 243 of 301 Report No.: FC06-025 Volume 3 of 9



21	474.985M	31.6	+1.3	+1.8	+17.1	+0.0	+0.0	29.0	46.4	-17.4	Vert
			+0.3	-28.1	+5.0						
22	319.985M	29.8	+1.0	+1.4	+19.5	+0.0	+0.0	28.8	46.4	-17.6	Vert
			+0.2	-28.1	+5.0						
23	480.090M	29.3	+1.3	+1.8	+17.2	+0.0	+0.0	26.8	46.4	-19.6	Vert
			+0.3	-28.1	+5.0						
24	374.995M	29.9	+1.1	+1.6	+15.7	+0.0	+0.0	25.2	46.4	-21.3	Vert
			+0.2	-28.3	+5.0						

Page 244 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 15:48:25
Equipment: BPL MV Gateway Sequence#: 171
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chaci Test ( = ECT).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination. No signals seen above 300MHz.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=ANT-AN00503-010505	T4=Cable 01185
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measu	ırement Data:	Re	Reading listed by margin.				Test Distance: 10 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	49.860M	47.0	+0.4	+0.5	+11.7	+0.1	+0.0	36.8	39.1	-2.3	Vert
	QP		-27.9	+5.0							
٨	49.860M	51.5	+0.4	+0.5	+11.7	+0.1	+0.0	41.3	39.1	+2.2	Vert
			-27.9	+5.0							

Page 245 of 301 Report No.: FC06-025 Volume 3 of 9



3	150.010M	44.0	+0.7	+0.8	+15.2	+0.1	+0.0	38.2	43.5	-5.3	Horiz
			-27.6	+5.0							
4	30.582M	44.6	+0.3	+0.3	+15.9	+0.0	+0.0	33.1	39.1	-6.0	Horiz
'	QP		-27.9						Maximized	at 4	
									meters		
^	30.582M	48.5	+0.3	+0.3	+15.9	+0.0	+0.0	37.1	39.1	-2.0	Horiz
			-27.9						Maximized	at 4	
									meters		
6	32.557M	44.5	+0.3	+0.4	+15.0	+0.0	+0.0	32.3	39.1	-6.8	Horiz
	QP		-27.9						Maximized	at 4	
									meters		
^	32.557M	47.1	+0.3	+0.4	+15.0	+0.0	+0.0	34.9	39.1	-4.2	Horiz
			-27.9						Maximized	at 4	
									meters		
8	240.020M	41.5	+0.9	+1.2	+17.9	+0.3	+0.0	39.1	46.4	-7.3	Vert
			-27.7	+5.0							
9	31.488M	43.0	+0.3	+0.3	+15.5	+0.0	+0.0	31.2	39.1	-7.9	Vert
			-27.9						Maximized	at 4	
									meters		
10	30.113M	42.3	+0.3	+0.3	+16.1	+0.0	+0.0	31.1	39.1		Vert
			-27.9						Maximized	at 4	
									meters		
11	33.817M	43.7	+0.3	+0.4	+14.4	+0.0	+0.0	30.9		-8.2	Horiz
	QP		-27.9						Maximized	at 4	
									meters		
^	33.817M	47.3	+0.3	+0.4	+14.4	+0.0	+0.0	34.5	39.1	-4.6	Horiz
			-27.9						Maximized	at 4	
									meters		
13	32.938M	41.8	+0.3	+0.4	+14.8	+0.0	+0.0	29.4	39.1	-9.7	Vert
			-27.9						Maximized	at 4	
									meters		
14	49.900M	38.7	+0.4	+0.5	+11.6	+0.1	+0.0	28.4	39.1	-10.8	Horiz
			-27.9	+5.0							
15	160.005M	37.8	+0.7	+0.8	+15.6	+0.1	+0.0	32.3	43.5	-11.2	Vert
			-27.7	+5.0							
16	224.925M	34.3	+0.8	+1.1	+17.5	+0.2	+0.0	31.3	46.4	-15.1	Horiz
			-27.6	+5.0							
17	225.110M	30.9	+0.8	+1.1	+17.5	+0.2	+0.0	27.8	46.4	-18.6	Vert
			-27.7	+5.0							

Page 246 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 •Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: **Corinex** 

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: Date: 3/16/2006 84818 Test Type: Time: 15:59:37 **Radiated Scan** Equipment: **BPL MV Gateway** Sequence#: 172 Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( = ECT):				
Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	ENG1	
Underground Coupler	Arteche	UNIC	0516632/26	
Combiner	Corinex	CXP-MVA-COM	none	
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none	
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none	

Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567 T7=5dB Height Correction

Measurement Data: Reading listed by margin. Test Distance: 10 Meters Freq Rdng T1 T2 T3 T4 Dist Corr Spec Margin Polar T5 T6 T7 MHz dB<sub>µ</sub>V dB dB dB dB Table  $dB\mu V/m$   $dB\mu V/m$ dB +0.5+11.739.1 -2.7 49.855M +0.4+0.0+0.036.4 46.6

Ant Vert +0.1-27.9+5.049.855M +11.7+0.037.8 39.1 -1.3 48.0 +0.4+0.5+0.0Vert +0.1-27.9 +5.0

> Page 247 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.000M	45.7	+0.3	+0.3	+0.0	+15.7	+0.0	34.1			Vert
			+0.0	-27.9					Maximized a meters	at 4	
4	32.000M	44.9	+0.3	+0.3	+0.0	+15.2	+0.0	32.8		-6.3	Vert
			+0.0	-27.9					Maximized a		
									meters		
5	30.175M	43.2	+0.3	+0.3	+0.0	+16.1	+0.0	32.0		-7.1	Vert
			+0.0	-27.9					Maximized a	at 4	
									meters		
6	30.563M	41.3	+0.3	+0.3	+0.0	+15.9	+0.0	29.9			Horiz
			+0.0	-27.9					Maximized a	at 4	
									meters		
7	33.275M	41.1	+0.3	+0.4	+0.0	+14.7	+0.0	28.6	39.1		Vert
			+0.0	-27.9					Maximized a	at 4	
									meters		
8	31.413M	39.8	+0.3	+0.3	+0.0	+15.5	+0.0	28.0			Horiz
			+0.0	-27.9					Maximized a	at 4	
	22 4557 5	20.0	0.2	0.4	0.0	4.7.0	0.0	265	meters	10.4	** '
9	32.475M	38.9	+0.3	+0.4	+0.0	+15.0	+0.0	26.7			Horiz
			+0.0	-27.9					Maximized a	at 4	
10	240,00014	26.0	.00	.1.2	٠, ٨, ٨	. 17.0	+0.0	22.6	meters	12.0	VI a set
10	240.000M	36.0	+0.9	+1.2	+0.0	+17.9	+0.0	33.6	46.4	-12.8	Vert
11	22 662M	37.4	+0.3	-27.7 +0.4	+5.0	+14.5	+0.0	24.7	39.1	1.4.4	Horiz
11	33.663M	37.4	+0.5	+0.4 -27.9	+0.0	+14.3	+0.0	24.7	Maximized		попх
			+0.0	-21.9					meters	ai 4	
12	149.980M	34.9	+0.7	+0.8	+0.0	+15.2	+0.0	29.1	43.5	-14.4	Horiz
12	147.700141	54.7	+0.1	-27.6	+5.0	113.2	10.0	27.1	43.5	17.7	HOHZ
13	150.020M	33.9	+0.7	+0.8	+0.0	+15.2	+0.0	28.1	43.5	-15.4	Vert
		22.7	+0.1	-27.6	+5.0		. 0.0	_0.1	.5.5	20.1	. 510
14	49.880M	32.9	+0.4	+0.5	+0.0	+11.7	+0.0	22.7	39.1	-16.4	Horiz
			+0.1	-27.9	+5.0				•		
15	160.035M	32.5	+0.7	+0.8	+0.0	+15.6	+0.0	27.0	43.5	-16.5	Vert
			+0.1	-27.7	+5.0						
16	225.085M	32.2	+0.8	+1.1	+0.0	+17.5	+0.0	29.1	46.4	-17.3	Vert
			+0.2	-27.7	+5.0						
17	240.010M	29.4	+0.9	+1.2	+0.0	+17.9	+0.0	27.0	46.4	-19.4	Horiz
			+0.3	-27.7	+5.0						
18	399.945M	29.6	+1.2	+1.7	+16.2	+0.0	+0.0	25.5	46.4	-20.9	Horiz
			+0.2	-28.4	+5.0						
19	399.905M	29.4	+1.2	+1.7	+16.2	+0.0	+0.0	25.3	46.4	-21.2	Vert
			+0.2	-28.4	+5.0						

Page 248 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 16:13:58
Equipment: BPL MV Gateway Sequence#: 173
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Log00978A	T4=ANT-AN00503-010505

T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	]	Reading 1	listed by r	nargin.		Te	st Distanc	e: 10 Mete	ers
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin

#	rreq	Rung	11	12	13	14	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.855M	48.9	+0.4	+0.5	+0.0	+11.7	+0.0	38.7	39.1	-0.4	Vert
	QP		+0.1	-27.9	+5.0						
^	49.855M	50.2	+0.4	+0.5	+0.0	+11.7	+0.0	40.0	39.1	+0.9	Vert
			+0.1	-27.9	+5.0						

Page 249 of 301 Report No.: FC06-025 Volume 3 of 9

Dolor



3	31.900M	44.2	+0.3	+0.3	+0.0	+15.3	+0.0	32.2	39.1	-6.9	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
4	30.538M	42.3	+0.3	+0.3	+0.0	+15.9	+0.0	30.9	39.1	-8.2	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
5	32.538M	42.4	+0.3	+0.4	+0.0	+15.0	+0.0	30.2	39.1	-8.9	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
6	30.325M	41.4	+0.3	+0.3	+0.0	+16.0	+0.0	30.1	39.1	-9.0	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
7	49.865M	40.2	+0.4	+0.5	+0.0	+11.7	+0.0	30.0	39.1	-9.1	Horiz
			+0.1	-27.9	+5.0						
8	31.500M	40.7	+0.3	+0.3	+0.0	+15.5	+0.0	28.9			Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
9	33.700M	39.8	+0.3	+0.4	+0.0	+14.5	+0.0	27.1	39.1	-12.0	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
10	32.975M	39.2	+0.3	+0.4	+0.0	+14.8	+0.0	26.8	39.1	-12.3	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
11	150.020M	36.7	+0.7	+0.8	+0.0	+15.2	+0.0	30.9	43.5	-12.6	Vert
			+0.1	-27.6	+5.0						
12	159.985M	36.3	+0.7	+0.8	+0.0	+15.6	+0.0	30.8	43.5	-12.7	Vert
			+0.1	-27.7	+5.0						
13	149.980M	34.3	+0.7	+0.8	+0.0	+15.2	+0.0	28.5	43.5	-15.1	Horiz
	240.0103.5	20. 1	+0.1	-27.6	+5.0	4- ^		21.0	4 - 4		**
14	240.010M	33.4	+0.9	+1.2	+0.0	+17.9	+0.0	31.0	46.4	-15.4	Vert
	227.022.5	20.5	+0.3	-27.7	+5.0				4 - 4	200	**
15	225.020M	29.2	+0.8	+1.1	+0.0	+17.5	+0.0	26.1	46.4	-20.3	Vert
	255 0222	20	+0.2	-27.7	+5.0			27.0	4 = 4	20.7	** .
16	375.020M	30.6	+1.1	+1.6	+15.7	+0.0	+0.0	25.9	46.4	-20.5	Horiz
	200 0 103 5	26.7	+0.2	-28.3	+5.0			27.1	4 = 4	200	**
17	399.940M	29.7	+1.2	+1.7	+16.2	+0.0	+0.0	25.6	46.4	-20.8	Vert
			+0.2	-28.4	+5.0						
18	399.895M	28.3	+1.2	+1.7	+16.2	+0.0	+0.0	24.2	46.4	-22.2	Horiz
			+0.2	-28.4	+5.0						

Page 250 of 301 Report No.: FC06-025 Volume 3 of 9



Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #5 • Katy, TX •

Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 16:35:44
Equipment: BPL MV Gateway Sequence#: 174
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

## Equipment Under Test (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

2		
T1=PO 05440 RG214/U Cable	T2=Cable 2410	
T3=Log00978A	T4=ANT-AN00503-010505	
T5=Cable 01185	T6=HP-8447D Pre Amp AN 00567	
T7=5dB Height Correction		

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.864M	48.5	+0.4	+0.5	+0.0	+11.7	+0.0	38.3	39.1	-0.8	Vert
	QP		+0.1	-27.9	+5.0						
٨	49.864M	52.6	+0.4	+0.5	+0.0	+11.7	+0.0	42.4	39.1	+3.3	Vert
			+0.1	-27.9	+5.0						

Page 251 of 301 Report No.: FC06-025 Volume 3 of 9



3   31.375M												
A   30,325M   42.1	3	31.375M	44.2	+0.3	+0.3	+0.0	+15.5	+0.0	32.4	39.1	-6.7	Vert
4   30.325M				+0.0	-27.9					Maximized	at 4	
Holicary										meters		
Saction   Sact	4	30.325M	42.1	+0.3	+0.3	+0.0	+16.0	+0.0	30.8	39.1	-8.3	Vert
5         32.588M         42.8         +0.3         +0.4         +0.0         +15.0         +0.0         30.6         39.1         -8.5         Vert Maximized at 4 meters           6         49.855M         40.1         +0.4         +0.5         +0.0         +11.7         +0.0         29.9         39.1         -9.2         Horiz Horiz           7         159.990M         39.6         +0.7         +0.8         +0.0         +15.6         +0.0         34.1         43.5         -9.4         Vert Vert           8         33.500M         41.3         +0.3         +0.4         +0.0         +14.6         +0.0         28.7         39.1         -10.4         Vert Maximized at 4 meters           9         30.588M         37.8         +0.3         +0.3         +0.0         +15.9         +0.0         26.4         39.1         -12.7         Horiz Maximized at 4 meters           10         31.488M         38.0         +0.3         +0.3         +0.0         +15.5         +0.0         26.2         39.1         -12.9         Horiz Maximized at 4 meters           11         33.950M         37.9         +0.3         +0.4         +0.0         +14.4         +0.0         25.1         39.1				+0.0	-27.9					Maximized	at 4	
Holidadi										meters		
Maximized at 4   Maxi	5	32.588M	42.8	+0.3	+0.4	+0.0	+15.0	+0.0	30.6	39.1	-8.5	Vert
6         49.855M         40.1         +0.4         +0.5         +0.0         +11.7         +0.0         29.9         39.1         -9.2         Horiz           7         159.990M         39.6         +0.7         +0.8         +0.0         +15.6         +0.0         34.1         43.5         -9.4         Vert           8         33.500M         41.3         +0.3         +0.4         +0.0         +14.6         +0.0         28.7         39.1         -10.4         Vert           9         30.588M         37.8         +0.3         +0.3         +0.0         +15.9         +0.0         26.4         39.1         -12.7         Horiz           10         31.488M         38.0         +0.3         +0.3         +0.0         +15.5         +0.0         26.4         39.1         -12.7         Horiz           11         33.950M         37.9         +0.3         +0.4         +0.0         +14.4         +0.0         25.1         39.1         -12.9         Horiz           12         32.788M         37.2         +0.3         +0.4         +0.0         +14.4         +0.0         25.1         39.1         -14.0         Horiz           12         3				+0.0	-27.9					Maximized	at 4	
+0.1   -27.9   +5.0										meters		
7         159.990M         39.6         +0.7         +0.8         +0.0         +15.6         +0.0         34.1         43.5         -9.4         Vert           8         33.500M         41.3         +0.3         +0.4         +0.0         +14.6         +0.0         28.7         39.1         -10.4         Vert           9         30.588M         37.8         +0.3         +0.0         +15.9         +0.0         26.4         39.1         -12.7         Horiz           10         31.488M         38.0         +0.3         +0.3         +0.0         +15.5         +0.0         26.2         39.1         -12.9         Horiz           11         33.950M         37.9         +0.3         +0.4         +0.0         +14.4         +0.0         25.1         39.1         -14.0         Horiz           12         32.788M         37.2         +0.3         +0.4         +0.0         +14.4         +0.0         25.1         39.1         -14.0         Horiz           12         32.788M         37.2         +0.3         +0.4         +0.0         +14.9         +0.0         24.9         39.1         -14.2         Horiz           13         225.050M	6	49.855M	40.1	+0.4	+0.5	+0.0	+11.7	+0.0	29.9	39.1	-9.2	Horiz
Ho.1				+0.1	-27.9	+5.0						
8       33.500M       41.3       +0.3       +0.4       +0.0       +14.6       +0.0       28.7       39.1       -10.4       Vert Maximized at 4 meters         9       30.588M       37.8       +0.3       +0.3       +0.0       +15.9       +0.0       26.4       39.1       -12.7       Horiz Maximized at 4 meters         10       31.488M       38.0       +0.3       +0.3       +0.0       +15.5       +0.0       26.2       39.1       -12.9       Horiz Maximized at 4 meters         11       33.950M       37.9       +0.3       +0.4       +0.0       +14.4       +0.0       25.1       39.1       -14.0       Horiz Maximized at 4 meters         12       32.788M       37.2       +0.3       +0.4       +0.0       +14.9       +0.0       24.9       39.1       -14.2       Horiz Maximized at 4 meters         13       225.050M       34.4       +0.8       +1.1       +0.0       +17.5       +0.0       31.3       46.4       -15.2       Vert         14       240.010M       33.3       +0.9       +1.2       +0.0       +17.9       +0.0       30.9       46.4       -15.6       Vert         15       149.990M       32.1       +0.7<	7	159.990M	39.6	+0.7	+0.8	+0.0	+15.6	+0.0	34.1	43.5	-9.4	Vert
Holidadi					-27.7	+5.0						
Paris	8	33.500M	41.3	+0.3	+0.4	+0.0	+14.6	+0.0	28.7			Vert
9 30.588M 37.8 +0.3 +0.3 +0.0 +15.9 +0.0 26.4 39.1 -12.7 Horiz Maximized at 4 meters  10 31.488M 38.0 +0.3 +0.3 +0.0 +15.5 +0.0 26.2 39.1 -12.9 Horiz Maximized at 4 meters  11 33.950M 37.9 +0.3 +0.4 +0.0 +14.4 +0.0 25.1 39.1 -14.0 Horiz Maximized at 4 meters  12 32.788M 37.2 +0.3 +0.4 +0.0 +14.9 +0.0 24.9 39.1 -14.2 Horiz Maximized at 4 meters  13 225.050M 34.4 +0.8 +1.1 +0.0 +17.5 +0.0 31.3 46.4 -15.2 Vert +0.2 -27.7 +5.0  14 240.010M 33.3 +0.9 +1.2 +0.0 +17.9 +0.0 30.9 46.4 -15.6 Vert +0.3 -27.7 +5.0  15 149.990M 32.1 +0.7 +0.8 +0.0 +15.2 +0.0 26.3 43.5 -17.3 Horiz +0.1 -27.6 +5.0  16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz				+0.0	-27.9					Maximized	at 4	
Honor   Hono										meters		
10   31.488M   38.0   +0.3   +0.3   +0.0   +15.5   +0.0   26.2   39.1   -12.9   Horiz   Maximized at 4   meters     11   33.950M   37.9   +0.3   +0.4   +0.0   +14.4   +0.0   25.1   39.1   -14.0   Horiz   Maximized at 4   meters     12   32.788M   37.2   +0.3   +0.4   +0.0   +14.9   +0.0   24.9   39.1   -14.2   Horiz   Horiz     13   225.050M   34.4   +0.8   +1.1   +0.0   +17.5   +0.0   31.3   46.4   -15.2   Vert     14   240.010M   33.3   +0.9   +1.2   +0.0   +17.9   +0.0   30.9   46.4   -15.6   Vert     15   149.990M   32.1   +0.7   +0.8   +0.0   +15.2   +0.0   26.3   43.5   -17.3   Horiz     16   375.005M   28.8   +1.1   +1.6   +15.7   +0.0   +0.0   24.1   46.4   -22.4   Horiz     16   375.005M   28.8   +1.1   +1.6   +15.7   +0.0   +0.0   24.1   46.4   -22.4   Horiz     17   18   19   19   10   10   10   10   10     18   19   10   10   10   10   10   10     19   10   10   10   10   10   10     10   30.9   46.4   -15.6   Vert     11   40.990M   32.1   +0.7   +0.8   +0.0   +15.2   +0.0   26.3   43.5   -17.3   Horiz     18   19   10   10   10   10   10   10     19   10   10   10   10   10     10   10	9	30.588M	37.8	+0.3	+0.3	+0.0	+15.9	+0.0	26.4	39.1	-12.7	Horiz
10       31.488M       38.0       +0.3       +0.0       +15.5       +0.0       26.2       39.1       -12.9       Horiz Maximized at 4 meters         11       33.950M       37.9       +0.3       +0.4       +0.0       +14.4       +0.0       25.1       39.1       -14.0       Horiz Maximized at 4 meters         12       32.788M       37.2       +0.3       +0.4       +0.0       +14.9       +0.0       24.9       39.1       -14.2       Horiz Maximized at 4 meters         13       225.050M       34.4       +0.8       +1.1       +0.0       +17.5       +0.0       31.3       46.4       -15.2       Vert         14       240.010M       33.3       +0.9       +1.2       +0.0       +17.9       +0.0       30.9       46.4       -15.6       Vert         15       149.990M       32.1       +0.7       +0.8       +0.0       +15.2       +0.0       26.3       43.5       -17.3       Horiz         16       375.005M       28.8       +1.1       +1.6       +15.7       +0.0       +0.0       24.1       46.4       -22.4       Horiz				+0.0	-27.9					Maximized	at 4	
Honoral Horiz										meters		
11   33.950M   37.9   +0.3   +0.4   +0.0   +14.4   +0.0   25.1   39.1   -14.0   Horiz   Maximized at 4   meters     12   32.788M   37.2   +0.3   +0.4   +0.0   +14.9   +0.0   24.9   39.1   -14.2   Horiz   Maximized at 4   meters     13   225.050M   34.4   +0.8   +1.1   +0.0   +17.5   +0.0   31.3   46.4   -15.2   Vert   +0.2   -27.7   +5.0     14   240.010M   33.3   +0.9   +1.2   +0.0   +17.9   +0.0   30.9   46.4   -15.6   Vert   +0.3   -27.7   +5.0     15   149.990M   32.1   +0.7   +0.8   +0.0   +15.2   +0.0   26.3   43.5   -17.3   Horiz   +0.1   -27.6   +5.0     16   375.005M   28.8   +1.1   +1.6   +15.7   +0.0   +0.0   24.1   46.4   -22.4   Horiz	10	31.488M	38.0			+0.0	+15.5	+0.0	26.2			Horiz
11       33.950M       37.9       +0.3       +0.4       +0.0       +14.4       +0.0       25.1       39.1       -14.0       Horiz Maximized at 4 meters         12       32.788M       37.2       +0.3       +0.4       +0.0       +14.9       +0.0       24.9       39.1       -14.2       Horiz Maximized at 4 meters         13       225.050M       34.4       +0.8       +1.1       +0.0       +17.5       +0.0       31.3       46.4       -15.2       Vert         14       240.010M       33.3       +0.9       +1.2       +0.0       +17.9       +0.0       30.9       46.4       -15.6       Vert         15       149.990M       32.1       +0.7       +0.8       +0.0       +15.2       +0.0       26.3       43.5       -17.3       Horiz         16       375.005M       28.8       +1.1       +1.6       +15.7       +0.0       +0.0       24.1       46.4       -22.4       Horiz				+0.0	-27.9					Maximized	at 4	
Honoral Hono												
meters           12         32.788M         37.2         +0.3         +0.4         +0.0         +14.9         +0.0         24.9         39.1         -14.2         Horiz Maximized at 4 meters           13         225.050M         34.4         +0.8         +1.1         +0.0         +17.5         +0.0         31.3         46.4         -15.2         Vert           14         240.010M         33.3         +0.9         +1.2         +0.0         +17.9         +0.0         30.9         46.4         -15.6         Vert           15         149.990M         32.1         +0.7         +0.8         +0.0         +15.2         +0.0         26.3         43.5         -17.3         Horiz           16         375.005M         28.8         +1.1         +1.6         +15.7         +0.0         +0.0         24.1         46.4         -22.4         Horiz	11	33.950M	37.9			+0.0	+14.4	+0.0	25.1			Horiz
12 32.788M 37.2 +0.3 +0.4 +0.0 +14.9 +0.0 24.9 39.1 -14.2 Horiz Ho				+0.0	-27.9					Maximized	at 4	
Honoral Hono												
meters           13         225.050M         34.4         +0.8         +1.1         +0.0         +17.5         +0.0         31.3         46.4         -15.2         Vert           14         240.010M         33.3         +0.9         +1.2         +0.0         +17.9         +0.0         30.9         46.4         -15.6         Vert           15         149.990M         32.1         +0.7         +0.8         +0.0         +15.2         +0.0         26.3         43.5         -17.3         Horiz           16         375.005M         28.8         +1.1         +1.6         +15.7         +0.0         +0.0         24.1         46.4         -22.4         Horiz	12	32.788M	37.2			+0.0	+14.9	+0.0	24.9			Horiz
13 225.050M 34.4 +0.8 +1.1 +0.0 +17.5 +0.0 31.3 46.4 -15.2 Vert +0.2 -27.7 +5.0  14 240.010M 33.3 +0.9 +1.2 +0.0 +17.9 +0.0 30.9 46.4 -15.6 Vert +0.3 -27.7 +5.0  15 149.990M 32.1 +0.7 +0.8 +0.0 +15.2 +0.0 26.3 43.5 -17.3 Horiz +0.1 -27.6 +5.0  16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz				+0.0	-27.9						at 4	
+0.2     -27.7     +5.0       14     240.010M     33.3     +0.9     +1.2     +0.0     +17.9     +0.0     30.9     46.4     -15.6     Vert       +0.3     -27.7     +5.0       15     149.990M     32.1     +0.7     +0.8     +0.0     +15.2     +0.0     26.3     43.5     -17.3     Horiz       +0.1     -27.6     +5.0       16     375.005M     28.8     +1.1     +1.6     +15.7     +0.0     +0.0     24.1     46.4     -22.4     Horiz												
14       240.010M       33.3       +0.9       +1.2       +0.0       +17.9       +0.0       30.9       46.4       -15.6       Vert         +0.3       -27.7       +5.0         15       149.990M       32.1       +0.7       +0.8       +0.0       +15.2       +0.0       26.3       43.5       -17.3       Horiz         16       375.005M       28.8       +1.1       +1.6       +15.7       +0.0       +0.0       24.1       46.4       -22.4       Horiz	13	225.050M	34.4				+17.5	+0.0	31.3	46.4	-15.2	Vert
+0.3 -27.7 +5.0 15 149.990M 32.1 +0.7 +0.8 +0.0 +15.2 +0.0 26.3 43.5 -17.3 Horiz +0.1 -27.6 +5.0 16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz												
15 149.990M 32.1 +0.7 +0.8 +0.0 +15.2 +0.0 26.3 43.5 -17.3 Horiz +0.1 -27.6 +5.0 16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz	14	240.010M	33.3				+17.9	+0.0	30.9	46.4	-15.6	Vert
+0.1 -27.6 +5.0 16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz												
16 375.005M 28.8 +1.1 +1.6 +15.7 +0.0 +0.0 24.1 46.4 -22.4 Horiz	15	149.990M	32.1				+15.2	+0.0	26.3	43.5	-17.3	Horiz
+0.2 -28.3 +5.0	16	375.005M	28.8				+0.0	+0.0	24.1	46.4	-22.4	Horiz
				+0.2	-28.3	+5.0						

Page 252 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 16:51:56
Equipment: BPL MV Gateway Sequence#: 175
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Meas	urement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.858M	45.9	+0.4	+0.5	+0.0	+11.7	+0.0	35.7	39.1	-3.4	Vert
QP			+0.1	-27.9	+5.0						
/	49.858M	48.2	+0.4	+0.5	+0.0	+11.7	+0.0	38.0	39.1	-1.1	Vert
			+0.1	-27.9	+5.0						
3	3 49.855M	38.8	+0.4	+0.5	+0.0	+11.7	+0.0	28.6	39.1	-10.5	Horiz
			+0.1	-27.9	+5.0						
2	160.000M	36.6	+0.7	+0.8	+0.0	+15.6	+0.0	31.1	43.5	-12.4	Vert
			+0.1	-27.7	+5.0						

Page 253 of 301 Report No.: FC06-025 Volume 3 of 9



_	20.2201.5	27.6	. 0. 2	. 0. 2	. 0. 0	.161	. 0. 0	26.4	20.1	10.7	тт •
5	30.238M	37.6	+0.3	+0.3	+0.0	+16.1	+0.0	26.4			Horiz
			+0.0	-27.9					Maximized	at 4	
	20.1003.5	27.0	.0.2	.0.2	. 0. 0	160	. 0. 0	25.0	meters	12.0	X7 .
6	30.100M	37.0	+0.3	+0.3	+0.0	+16.2	+0.0	25.9	39.1	-13.2	Vert
			+0.0	-27.9					Maximized	at 4	
<u> </u>									meters		
7	149.995M	35.9	+0.7	+0.8	+0.0	+15.2	+0.0	30.1	43.5	-13.4	Vert
			+0.1	-27.6	+5.0						
8	33.725M	38.3	+0.3	+0.4	+0.0	+14.5	+0.0	25.6	39.1		Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
9	32.900M	37.9	+0.3	+0.4	+0.0	+14.8	+0.0	25.5		-13.6	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
10	31.500M	35.9	+0.3	+0.3	+0.0	+15.5	+0.0	24.1	39.1	-15.0	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
11	240.005M	32.5	+0.9	+1.2	+0.0	+17.9	+0.0	30.1	46.4	-16.3	Vert
			+0.3	-27.7	+5.0						
12	225.070M	33.0	+0.8	+1.1	+0.0	+17.5	+0.0	29.9	46.4	-16.5	Vert
			+0.2	-27.7	+5.0						
13	31.250M	34.1	+0.3	+0.3	+0.0	+15.6	+0.0	22.4			Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
14	33.913M	34.7	+0.3	+0.4	+0.0	+14.4	+0.0	21.9	39.1	-17.2	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
15	450.025M	32.6	+1.2	+1.8	+16.6	+0.0	+0.0	29.1	46.4	-17.3	Horiz
			+0.2	-28.3	+5.0						
16	150.005M	31.4	+0.7	+0.8	+0.0	+15.2	+0.0	25.6	43.5	-17.9	Horiz
			+0.1	-27.6	+5.0						
17	32.950M	33.4	+0.3	+0.4	+0.0	+14.8	+0.0	21.0	39.1	-18.1	Horiz
			+0.0	-27.9					Maximized		
									meters		
18	159.950M	29.4	+0.7	+0.8	+0.0	+15.6	+0.0	23.9		-19.6	Horiz
			+0.1	-27.7	+5.0						
19	250.005M	28.3	+0.9	+1.2	+0.0	+18.1	+0.0	26.0	46.4	-20.4	Horiz
	2 2 . 2 2 2 - 1 2		+0.3	-27.8	+5.0						
			. 0.0								

Page 254 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 13:35:50
Equipment: BPL MV Gateway Sequence#: 165
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measurement Data:Reading listed by margin.Test Distance: 10 Meters#FreqRdngT1T2T3T4DistCorrSpecM

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.870M	47.2	+0.4	+0.5	+0.0	+11.7	+0.0	37.0	39.1	-2.1	Vert
(	QP		+0.1	-27.9	+5.0						
٨	49.870M	49.5	+0.4	+0.5	+0.0	+11.7	+0.0	39.3	39.1	+0.2	Vert
			+0.1	-27.9	+5.0						

Page 255 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.213M	47.1	+0.3	+0.3	+0.0	+15.6	+0.0	35.4	39.1	-3.7	Vert
(	QP		+0.0	-27.9					Maximized	at 4	
									meters		
^	31.213M	50.4	+0.3	+0.3	+0.0	+15.6	+0.0	38.7	39.1	-0.4	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
5	30.076M	45.9	+0.3	+0.3	+0.0	+16.2	+0.0	34.7	39.1	-4.4	Vert
(	QP		+0.0	-27.9					Maximized	at 4	
									meters		
^	30.076M	49.2	+0.3	+0.3	+0.0	+16.2	+0.0	38.1	39.1	-1.0	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
7	30.594M	44.1	+0.3	+0.3	+0.0	+15.9	+0.0	32.7	39.1	-6.4	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
8	49.875M	41.9	+0.4	+0.5	+0.0	+11.7	+0.0	31.7	39.1	-7.4	Horiz
			+0.1	-27.9	+5.0						
9	33.190M	42.7	+0.3	+0.4	+0.0	+14.7	+0.0	30.2	39.1	-8.9	Vert
(	QP		+0.0	-27.9					Maximized	at 4	
									meters		
٨	33.190M	48.2	+0.3	+0.4	+0.0	+14.7	+0.0	35.7	39.1	-3.4	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
11	31.903M	42.0	+0.3	+0.3	+0.0	+15.3	+0.0	30.0	39.1	-9.1	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
12	33.878M	41.8	+0.3	+0.4	+0.0	+14.4	+0.0	29.0	39.1	-10.1	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
13	160.005M	36.8	+0.7	+0.8	+0.0	+15.6	+0.0	31.3	43.5	-12.2	Vert
			+0.1	-27.7	+5.0						
14	240.025M	34.2	+0.9	+1.2	+0.0	+17.9	+0.0	31.8	46.4	-14.6	Vert
			+0.3	-27.7	+5.0						
15	160.025M	33.0	+0.7	+0.8	+0.0	+15.6	+0.0	27.5	43.5	-16.0	Horiz
			+0.1	-27.7	+5.0						
16	225.160M	33.4	+0.8	+1.1	+0.0	+17.5	+0.0	30.3	46.4	-16.1	Vert
			+0.2	-27.7	+5.0						
17	320.005M	29.0	+1.0	+1.4	+19.5	+0.0	+0.0	28.0	46.4	-18.4	Horiz
			+0.2	-28.1	+5.0						
18	450.070M	31.5	+1.2	+1.8	+16.6	+0.0	+0.0	28.0	46.4	-18.5	Vert
			+0.2	-28.3	+5.0						
19	319.990M	28.5	+1.0	+1.4	+19.5	+0.0	+0.0	27.5	46.4	-18.9	Vert
	•	-	+0.2	-28.1	+5.0						
20	480.070M	28.9	+1.3	+1.8	+17.2	+0.0	+0.0	26.4	46.4	-20.0	Vert
			+0.3	-28.1	+5.0	. 0.0				_0.0	. 510
21	480.070M	28.0	+1.3	+1.8	+17.2	+0.0	+0.0	25.5	46.4	-20.9	Horiz
21	100.070111	20.0	+0.3	-28.1	+5.0	10.0	10.0	25.5	10.4	20.7	110112
22	450.070M	28.1	+1.2	+1.8	+16.6	+0.0	+0.0	24.6	46.4	-21.8	Horiz
22	750.070111	20.1	+0.2	-28.3	+5.0	10.0	10.0	27.0	70 <b>.7</b>	21.0	110112
<u> </u>			⊤∪.∠	-20.3	±3.0						

Page 256 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: **Corinex** 

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: Date: 3/16/2006 84818 Test Type: Time: 12:50:18 **Radiated Scan** Equipment: **BPL MV Gateway** Sequence#: 164 Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	ement Data:	K	keading list	ted by m	argın.		16	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.872M	46.6	+0.4	+0.5	+0.0	+11.7	+0.0	36.4	39.1	-2.7	Vert
	ND.		. 0. 1	27.0							

nt ert +0.1-27.9 +5.049.872M 49.0 +0.4+0.5+0.0+11.7+0.038.8 39.1 -0.3Vert +0.1-27.9 +5.0

> Page 257 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.806M	45.0	+0.3	+0.3	+0.0	+15.3	+0.0	33.0	39.1	-6.1	Vert
	QP		+0.0	-27.9					Maximized at	4	
									meters		
^	31.806M	48.5	+0.3	+0.3	+0.0	+15.3	+0.0	36.5	39.1	-2.6	Vert
			+0.0	-27.9					Maximized at	4	
									meters		
5	30.269M	43.7	+0.3	+0.3	+0.0	+16.1	+0.0	32.5	39.1	-6.6	Vert
	QP		+0.0	-27.9					Maximized at	4	
									meters		
^	30.269M	48.4	+0.3	+0.3	+0.0	+16.1	+0.0	37.2	39.1	-1.9	Vert
			+0.0	-27.9					Maximized at	4	
									meters		
7	150.000M	42.2	+0.7	+0.8	+0.0	+15.2	+0.0	36.4	43.5	-7.1	Vert
			+0.1	-27.6	+5.0						
8	159.995M	40.6	+0.7	+0.8	+0.0	+15.6	+0.0	35.1	43.5	-8.4	Vert
			+0.1	-27.7	+5.0						
9	30.325M	41.7	+0.3	+0.3	+0.0	+16.0	+0.0	30.4	39.1	-8.7	Horiz
			+0.0	-27.9					Maximized at	4	
									meters		
10	31.961M	41.9	+0.3	+0.3	+0.0	+15.3	+0.0	29.9	39.1	-9.2	Horiz
		,	+0.0	-27.9				_,,,	Maximized at		
									meters		
11	49.850M	40.0	+0.4	+0.5	+0.0	+11.7	+0.0	29.8	39.1	-9.3	Horiz
			+0.1	-27.9	+5.0						
12	33.192M	42.1	+0.3	+0.4	+0.0	+14.7	+0.0	29.6	39.1	-9.5	Vert
	QP		+0.0	-27.9					Maximized at	4	
									meters		
^	33.192M	47.5	+0.3	+0.4	+0.0	+14.7	+0.0	35.0	39.1	-4.1	Vert
		.,	+0.0	-27.9					Maximized at		
									meters		
14	240.020M	38.6	+0.9	+1.2	+0.0	+17.9	+0.0	36.2		-10.2	Vert
			+0.3	-27.7	+5.0						
15	150.010M	38.1	+0.7	+0.8	+0.0	+15.2	+0.0	32.3	43.5	-11.2	Horiz
			+0.1	-27.6	+5.0						
16	33.481M	40.2	+0.3	+0.4	+0.0	+14.6	+0.0	27.6	39.1	-11.5	Horiz
	20011/1		+0.0	-27.9	. 0.0	. 1		27.5	Maximized at		110112
									meters		
17	225.060M	33.8	+0.8	+1.1	+0.0	+17.5	+0.0	30.7		-15.7	Vert
	• •		+0.2	-27.7	+5.0				- * -	- * *	
18	480.080M	30.2	+1.3	+1.8	+17.2	+0.0	+0.0	27.7	46.4	-18.7	Horiz
	. 50.000111	20.2	+0.3	-28.1	+5.0	. 0.0		=,		-0.,	110112
19	480.105M	28.2	+1.3	+1.8	+17.2	+0.0	+0.0	25.7	46.4	-20.7	Vert
	100.100111	20.2	+0.3	-28.1	+5.0	. 0.0	1 0.0	23.7	10.1	20.7	, 511
L			10.5	20.1	15.0						

Page 258 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 12:28:49
Equipment: BPL MV Gateway Sequence#: 163
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measurement Data: Reading listed by margin					argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.869M	46.2	+0.4	+0.5	+0.0	+11.7	+0.0	36.0	39.1	-3.1	Vert
QP			+0.1	-27.9	+5.0						
٨	49.869M	50.1	+0.4	+0.5	+0.0	+11.7	+0.0	39.9	39.1	+0.8	Vert
			+0.1	-27.9	+5.0						
3	30.899M	45.1	+0.3	+0.3	+0.0	+15.8	+0.0	33.6	39.1	-5.5	Vert
			+0.0	-27.9					Maximized	d at 4	
									meters		

Page 259 of 301 Report No.: FC06-025 Volume 3 of 9



4	30.425M	44.8	+0.3	+0.3	+0.0	+16.0	+0.0	33.5	39.1	-5.6	Horiz
	QP	44.0	+0.0	-27.9	+0.0	+10.0	+0.0	33.3	Maximized		110112
									meters		
٨	30.425M	51.0	+0.3	+0.3	+0.0	+16.0	+0.0	39.7		+0.6	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
6	32.587M	45.3	+0.3	+0.4	+0.0	+15.0	+0.0	33.1	39.1	-6.0	Horiz
(	QP		+0.0	-27.9					Maximized	at 4	
									meters		
^	32.587M	50.0	+0.3	+0.4	+0.0	+15.0	+0.0	37.8	39.1	-1.3	Horiz
			+0.0	-27.9					Maximized	at 4	
0	24 1277 5	45.4	0.0	0.4	0.0	110	0.0	22.5	meters		TT :
8	34.137M	45.4	+0.3	+0.4	+0.0	+14.3	+0.0	32.5	39.1	-6.6	Horiz
(	QР		+0.0	-27.9					Maximized	at 4	
٨	24 12714	<b>50.4</b>	. 0. 2	. 0. 4	. 0. 0	. 1 4 2	. 0. 0	27.5	meters	1.6	TT .
Λ	34.137M	50.4	+0.3	+0.4	+0.0	+14.3	+0.0	37.5	39.1	-1.6	Horiz
			+0.0	-27.9					Maximized	at 4	
10	20.20514	42.0	+0.2	.0.2	ι Ο Ο	.161	. 0. 0	21.0	meters	7.2	<b>V</b> 7 = ==4
10	30.205M	43.0	+0.3	+0.3	+0.0	+16.1	+0.0	31.8	39.1	-7.3	Vert
			+0.0	-27.9					Maximized	at 4	
11	21 014M	12.2	+0.2	+0.2	+0.0	+15.2	+ O O	21.2	meters	7.0	Vont
11	31.914M	43.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	31.3	39.1	-7.8	Vert
			+0.0	-21.9					Maximized	at 4	
12	149.985M	40.8	+0.7	+0.8	+0.0	+15.2	+0.0	35.0	meters 43.5	-8.5	Horiz
12	149.963WI	40.6	+0.7	+0.8 -27.6	+5.0	+13.2	+0.0	33.0	43.3	-0.5	HOHZ
13	49.860M	40.6	+0.1	+0.5	+0.0	+11.7	+0.0	30.4	39.1	-8.8	Horiz
13	49.000W	40.0	+0.4	-27.9	+5.0	+11.7	+0.0	30.4	37.1	-0.0	HOHZ
14	33.442M	42.8	+0.1	+0.4	+0.0	+14.6	+0.0	30.2	39.1	-8.9	Vert
17	33. <del>44</del> 2 <b>1</b> VI	72.0	+0.0	-27.9	10.0	114.0	10.0	30.2	Maximized		VCIT
			10.0	21.7					meters	at i	
15	150.020M	39.3	+0.7	+0.8	+0.0	+15.2	+0.0	33.5	43.5	-10.0	Vert
10	100.0201.1	27.0	+0.1	-27.6	+5.0	. 10.2	. 0.0	00.0		10.0	, 510
16	240.000M	37.6	+0.9	+1.2	+0.0	+17.9	+0.0	35.2	46.4	-11.2	Vert
10	2.0.0001.1	27.0	+0.3	-27.7	+5.0		. 0.0	20.2		11.2	, 510
17	159.985M	37.2	+0.7	+0.8	+0.0	+15.6	+0.0	31.7	43.5	-11.8	Horiz
-,			+0.1	-27.7	+5.0						
18	225.015M	35.2	+0.8	+1.1	+0.0	+17.5	+0.0	32.1	46.4	-14.3	Vert
			+0.2	-27.7	+5.0						
19	224.955M	34.6	+0.8	+1.1	+0.0	+17.5	+0.0	31.5	46.4	-15.0	Horiz
	• • - · -		+0.2	-27.7	+5.0						
20	274.950M	32.0	+1.0	+1.3	+0.0	+19.5	+0.0	31.1	46.4	-15.4	Vert
			+0.2	-27.9	+5.0						
21	240.000M	31.5	+0.9	+1.2	+0.0	+17.9	+0.0	29.1	46.4	-17.3	Horiz
			+0.3	-27.7	+5.0						
22	74.860M	36.9	+0.5	+0.5	+0.0	+6.4	+0.0	21.5	39.1	-17.6	Horiz
			+0.1	-27.9	+5.0						
23	74.860M	36.9	+0.5	+0.5	+0.0	+6.4	+0.0	21.5	39.1	-17.6	Horiz
			+0.1	-27.9	+5.0						
24	319.990M	29.8	+1.0	+1.4	+19.5	+0.0	+0.0	28.8	46.4	-17.6	Vert
			+0.2	-28.1	+5.0						
2-7	517.770111	27.0				10.0	10.0	20.0	10.7	17.0	, 011

Page 260 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 12:09:31
Equipment: BPL MV Gateway Sequence#: 162
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chaci Test ( = ECT).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	ement Data:	Re	ading lis	ted by ma	ırgin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\muV/m$	dB	Ant
1	49.850M	45.6	+0.4	+0.5	+0.0	+11.7	+0.0	35.4	39.1	-3.7	Vert
			+0.1	-27.9	+5.0						
2	30.538M	45.3	+0.3	+0.3	+0.0	+15.9	+0.0	33.9	39.1	-5.2	Horiz
	)P		+0.0	-27.9					Maximized	d at 4	
									meters		
٨	30.538M	50.7	+0.3	+0.3	+0.0	+15.9	+0.0	39.3	39.1	+0.2	Horiz
			+0.0	-27.9					Maximized	d at 4	
									meters		

Page 261 of 301 Report No.: FC06-025 Volume 3 of 9



4	31.375M	44.9	+0.3	+0.3	+0.0	+15.5	+0.0	33.1	39.1	-6.0	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
5	30.050M	43.9	+0.3	+0.3	+0.0	+16.2	+0.0	32.8	39.1	-6.3	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
6	32.568M	43.5	+0.3	+0.4	+0.0	+15.0	+0.0	31.3	39.1	-7.8	Horiz
(	QP		+0.0	-27.9					Maximized	l at 4	
									meters		
٨	32.568M	49.2	+0.3	+0.4	+0.0	+15.0	+0.0	37.0	39.1	-2.1	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
8	33.827M	42.9	+0.3	+0.4	+0.0	+14.4	+0.0	30.1	39.1	-9.0	Horiz
(	QP		+0.0	-27.9					Maximized	l at 4	
									meters		
٨	33.827M	47.2	+0.3	+0.4	+0.0	+14.4	+0.0	34.4	39.1	-4.7	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
10	33.138M	42.5	+0.3	+0.4	+0.0	+14.7	+0.0	30.0	39.1	-9.1	Vert
			+0.0	-27.9					Maximized	l at 4	
									meters		
11	49.875M	39.0	+0.4	+0.5	+0.0	+11.7	+0.0	28.8	39.1	-10.4	Horiz
			+0.1	-27.9	+5.0						
12	174.995M	36.2	+0.7	+1.0	+0.0	+16.1	+0.0	31.4	43.5	-12.1	Horiz
			+0.1	-27.7	+5.0						
13	149.995M	35.1	+0.7	+0.8	+0.0	+15.2	+0.0	29.3	43.5	-14.2	Horiz
			+0.1	-27.6	+5.0						
14	149.995M	34.5	+0.7	+0.8	+0.0	+15.2	+0.0	28.7	43.5	-14.8	Vert
			+0.1	-27.6	+5.0						
15	320.010M	30.8	+1.0	+1.4	+19.5	+0.0	+0.0	29.8	46.4	-16.6	Vert
			+0.2	-28.1	+5.0						
16	274.940M	29.1	+1.0	+1.3	+0.0	+19.5	+0.0	28.2	46.4	-18.2	Vert
			+0.2	-27.9	+5.0						
17	240.005M	30.0	+0.9	+1.2	+0.0	+17.9	+0.0	27.6	46.4	-18.8	Horiz
			+0.3	-27.7	+5.0						
18	399.965M	29.5	+1.2	+1.7	+16.2	+0.0	+0.0	25.4	46.4	-21.0	Horiz
			+0.2	-28.4	+5.0						
19	450.080M	26.6	+1.2	+1.8	+16.6	+0.0	+0.0	23.1	46.4	-23.3	Horiz
			+0.2	-28.3	+5.0						

Page 262 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 11:43:47
Equipment: BPL MV Gateway Sequence#: 161
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline	Corinex	CXF-MVA-M2	none
Filter Mode 2			
Medium Voltage Powerline	Corinex	CXF-MVA-M3	none
Filter Mode 3			

#### Support Devices:

Function	Manufacturar	Model #	C/N
Tullelion	Manufacturer	MIOUCI #	3/11

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

### Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410

T3=Log00978A T4=ANT-AN00503-010505

T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Meası	irement Data:	Reading listed by margin.					Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.865M	45.7	+0.4	+0.5	+0.0	+11.7	+0.0	35.5	39.1	-3.6	Vert
			+0.1	-27.9	+5.0						
2	30.288M	46.1	+0.3	+0.3	+0.0	+16.1	+0.0	34.9	39.1	-4.2	Horiz
			+0.0	-27.9					Maximized	d at 4	
									meters		
3	240.016M	43.1	+0.9	+1.2	+0.0	+17.9	+0.0	40.7	46.4	-5.7	Horiz
			+0.3	-27.7	+5.0						

Page 263 of 301 Report No.: FC06-025 Volume 3 of 9



4	31.713M	44.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	32.8	39.1 Maximized		Vert
	21.7103.6	44.5	0.2	0.2	0.0	15.4	0.0	22.6	meters		TT .
5		44.5	+0.3	+0.3	+0.0	+15.4	+0.0	32.6	39.1	-6.5	Horiz
'	QP		+0.0	-27.9					Maximized	at 4	
٨	21.71014	40.5	.0.2	.0.2	. 0. 0	. 15 4	. 0. 0	26.6	meters	2.5	TT
	31.710M	48.5	+0.3	+0.3	+0.0	+15.4	+0.0	36.6	39.1	-2.5	Horiz
			+0.0	-27.9					Maximized	at 4	
7	160.010M	41.2	+0.7	+0.8	+0.0	+15.6	+0.0	35.7	meters 43.5	-7.8	Horiz
/	100.010M	41.2	+0.7	+0.8 -27.7	+5.0	+13.0	+0.0	33.7	43.3	-7.8	попх
8	30.125M	41.7	+0.1	+0.3	+0.0	+16.1	+0.0	30.5	39.1	-8.6	Vert
0	30.123WI	41./	+0.0	+0.3 -27.9	+0.0	+10.1	+0.0	30.3	Maximized		vert
			+0.0	-21.9					meters	at <del>+</del>	
9	32.804M	42.6	+0.3	+0.4	+0.0	+14.9	+0.0	30.3	39.1	-8.8	Horiz
	32.00+W	72.0	+0.0	-27.9	10.0	117.7	10.0	30.3	Maximized		110112
			10.0	21.7					meters	at <del>T</del>	
10	49.845M	39.8	+0.4	+0.5	+0.0	+11.7	+0.0	29.6	39.1	-9.5	Horiz
10	19.0 1911	37.0	+0.1	-27.9	+5.0	111.7	10.0	27.0	37.1	7.3	HOHE
11	33.363M	39.9	+0.3	+0.4	+0.0	+14.6	+0.0	27.3	39.1	-11.8	Vert
	2010 00111	0,1,	+0.0	-27.9	. 0.0		. 0.0		Maximized		, 010
			. 0.0	_,,,					meters		
12	150.015M	37.5	+0.7	+0.8	+0.0	+15.2	+0.0	31.7	43.5	-11.8	Horiz
			+0.1	-27.6	+5.0						
13	240.990M	36.7	+0.9	+1.2	+0.0	+17.9	+0.0	34.3	46.4	-12.2	Vert
			+0.3	-27.7	+5.0						
14	150.030M	35.9	+0.7	+0.8	+0.0	+15.2	+0.0	30.1	43.5	-13.5	Vert
			+0.1	-27.6	+5.0						
15	225.035M	35.7	+0.8	+1.1	+0.0	+17.5	+0.0	32.6	46.4	-13.8	Vert
			+0.2	-27.7	+5.0						
16	160.920M	35.0	+0.7	+0.8	+0.0	+15.6	+0.0	29.5	43.5	-14.0	Vert
			+0.1	-27.7	+5.0						
17	319.985M	28.8	+1.0	+1.4	+19.5	+0.0	+0.0	27.8	46.4	-18.6	Vert
			+0.2	-28.1	+5.0						
18	479.985M	29.6	+1.3	+1.8	+17.2	+0.0	+0.0	27.1	46.4	-19.3	Vert
			+0.3	-28.1	+5.0						
19	400.005M	30.4	+1.2	+1.7	+16.2	+0.0	+0.0	26.3	46.4	-20.1	Vert
			+0.2	-28.4	+5.0						
20	374.990M	30.1	+1.1	+1.6	+15.7	+0.0	+0.0	25.4	46.4	-21.0	Vert
			+0.2	-28.3	+5.0						
21	450.040M	27.8	+1.2	+1.8	+16.6	+0.0	+0.0	24.3	46.4	-22.2	Vert
			+0.2	-28.3	+5.0						

Page 264 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 11:28:03
Equipment: BPL MV Gateway Sequence#: 160
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function Manufacturer Model #	S/N
-------------------------------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Log00978A T4=ANT-AN00503-

T3=Log00978A T4=ANT-AN00503-010505 T5=Cable 01185 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Meas	surement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1 31.985M	50.6	+0.3	+0.3	+0.0	+15.2	+0.0	38.5	39.1	-0.6	Vert
	QP		+0.0	-27.9		Maximized at 4			d at 4		
									meters		
	^ 31.985M	54.5	+0.3	+0.3	+0.0	+15.2	+0.0	42.4	39.1	+3.3	Vert
			+0.0	-27.9					Maximized	d at 4	
									meters		

Page 265 of 301 Report No.: FC06-025 Volume 3 of 9



3		49.5	+0.3	+0.3	+0.0	+16.0	+0.0	38.2			Vert
	QP		+0.0	-27.9					Maximized	at 4	
									meters		
٨	30.325M	53.1	+0.3	+0.3	+0.0	+16.0	+0.0	41.8	39.1	+2.7	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
	240.013M	46.9	+0.9	+1.2	+0.0	+17.9	+0.0	44.5	46.4	-1.9	Vert
	QP		+0.3	-27.7	+5.0						
^	240.013M	47.0	+0.9	+1.2	+0.0	+17.9	+0.0	44.6	46.4	-1.8	Vert
			+0.3	-27.7	+5.0						
7	49.855M	46.0	+0.4	+0.5	+0.0	+11.7	+0.0	35.8	39.1	-3.3	Vert
			+0.1	-27.9	+5.0						
8	240.014M	45.0	+0.9	+1.2	+0.0	+17.9	+0.0	42.6	46.4	-3.8	Horiz
	QP		+0.3	-27.7	+5.0						
٨	240.014M	45.2	+0.9	+1.2	+0.0	+17.9	+0.0	42.8	46.4	-3.6	Horiz
			+0.3	-27.7	+5.0						
10	31.883M	46.1	+0.3	+0.3	+0.0	+15.3	+0.0	34.1	39.1	-5.0	Horiz
	QP		+0.0	-27.9					Maximized	at 4	
									meters		
٨	31.883M	50.9	+0.3	+0.3	+0.0	+15.3	+0.0	38.9	39.1	-0.2	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
12	30.625M	45.3	+0.3	+0.3	+0.0	+15.9	+0.0	33.9	39.1	-5.2	Horiz
	QP		+0.0	-27.9					Maximized	at 4	
									meters		
٨	30.625M	51.1	+0.3	+0.3	+0.0	+15.9	+0.0	39.7	39.1	+0.6	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
14	160.005M	43.6	+0.7	+0.8	+0.0	+15.6	+0.0	38.1	43.5	-5.4	Vert
			+0.1	-27.7	+5.0						
15	32.584M	45.2	+0.3	+0.4	+0.0	+15.0	+0.0	33.0	39.1	-6.1	Horiz
			+0.0	-27.9					Maximized	at 4	
									meters		
16	32.836M	44.6	+0.3	+0.4	+0.0	+14.9	+0.0	32.3	39.1	-6.8	Vert
	QP		+0.0	-27.9					Maximized	at 4	
									meters		
^	32.836M	49.9	+0.3	+0.4	+0.0	+14.9	+0.0	37.6	39.1	-1.5	Vert
			+0.0	-27.9					Maximized	at 4	
									meters		
18	150.000M	42.2	+0.7	+0.8	+0.0	+15.2	+0.0	36.4	43.5	-7.1	Horiz
			+0.1	-27.6	+5.0						
19	49.865M	41.2	+0.4	+0.5	+0.0	+11.7	+0.0	31.0	39.1	-8.1	Horiz
			+0.1	-27.9	+5.0						
20	160.000M	39.0	+0.7	+0.8	+0.0	+15.6	+0.0	33.5	43.5	-10.0	Horiz
			+0.1	-27.7	+5.0						
21	320.015M	30.6	+1.0	+1.4	+19.5	+0.0	+0.0	29.6	46.4	-16.8	Horiz
			+0.2	-28.1	+5.0						

Page 266 of 301 Report No.: FC06-025 Volume 3 of 9



22	480.085M	31.2	+1.3	+1.8	+17.2	+0.0	+0.0	28.7	46.4	-17.7	Vert
			+0.3	-28.1	+5.0						
23	450.055M	31.9	+1.2	+1.8	+16.6	+0.0	+0.0	28.4	46.4	-18.0	Horiz
			+0.2	-28.3	+5.0						
24	375.025M	32.7	+1.1	+1.6	+15.7	+0.0	+0.0	28.0	46.4	-18.4	Vert
			+0.2	-28.3	+5.0						
25	399.950M	31.4	+1.2	+1.7	+16.2	+0.0	+0.0	27.3	46.4	-19.1	Vert
			+0.2	-28.4	+5.0						
26	480.015M	29.7	+1.3	+1.8	+17.2	+0.0	+0.0	27.2	46.4	-19.2	Horiz
			+0.3	-28.1	+5.0						

Page 267 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/16/2006
Test Type: Radiated Scan Time: 10:52:12
Equipment: BPL MV Gateway Sequence#: 159
Manufacturer: Corinex Tested By: C. Nicklas
Model: MV Gateway S/N: ENG1

*Equipment Under Test* (\* = EUT):

1 1			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

Function	Manufacturer	Model #	S/N	

### Test Conditions / Notes:

Formal Underground Test Site #2: At Grayson Lakes Section 9, Transformer #5 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 15dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The two transformers down the line from the transformer has a coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

1. ansancer Ecgenar	
T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Log00978A	T4=ANT-AN00503-010505
T5=Cable 01185	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	ement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.078M	50.1	+0.3	+0.3	+0.0	+16.2	+0.0	39.0	39.1	-0.1	Vert
	)P		+0.0	-27.9		Maximized at 4					
									meters		
٨	30.078M	53.8	+0.3	+0.3	+0.0	+16.2	+0.0	42.7	39.1	+3.6	Vert
			+0.0	-27.9					Maximized	d at 4	
									meters		
3	31.850M	50.9	+0.3	+0.3	+0.0	+15.3	+0.0	38.9	39.1	-0.2	Vert
	)P		+0.0	-27.9					Maximized	d at 4	
									meters		
٨	31.850M	55.2	+0.3	+0.3	+0.0	+15.3	+0.0	43.2	39.1	+4.1	Vert
			+0.0	-27.9					Maximized	d at 4	
									meters		

Page 268 of 301 Report No.: FC06-025 Volume 3 of 9



5	49.860M QP	46.2	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	36.0	39.1	-3.1	Vert
^	49.860M	50.0				. 11.7	. 0. 0	20.0	39.1	+0.7	17 a set
,	49.800M	30.0	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	39.8	39.1	+0.7	Vert
7	30.175M	44.8	+0.3	+0.3	+0.0	+16.1	+0.0	33.6	39.1	-5.5	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
8	31.988M	45.2	+0.3	+0.3	+0.0	+15.2	+0.0	33.1	39.1	-6.0	Horiz
	31.7001.1	15.2	+0.0	-27.9	10.0	113.2	10.0	33.1	Maximized		HOHE
			10.0	-21.7					meters	i at <del>T</del>	
9	31.113M	44.7	+0.3	+0.3	+0.0	+15.7	+0.0	33.1		-6.0	Horiz
9	31.113WI	44.7			+0.0	+13.7	+0.0	33.1	39.1		попх
			+0.0	-27.9					Maximized	at 4	
									meters		
10	240.025M	42.1	+0.9	+1.2	+0.0	+17.9	+0.0	39.7	46.4	-6.7	Vert
			+0.3	-27.7	+5.0						
11	33.228M	44.2	+0.3	+0.4	+0.0	+14.7	+0.0	31.7	39.1	-7.4	Vert
	QP		+0.0	-27.9					Maximized	l at 4	
									meters		
٨	33.228M	48.9	+0.3	+0.4	+0.0	+14.7	+0.0	36.4	39.1	-2.7	Vert
	00.2201.1	.0.,	+0.0	-27.9	. 0.0		. 0.0		Maximized		, 010
			10.0	27.5					meters		
13	160.025M	40.5	+0.7	+0.8	+0.0	+15.6	+0.0	35.0	43.5	-8.5	Vert
13	100.023WI	40.5				+13.0	+0.0	33.0	43.3	-0.5	Vert
1.4	150,00014	40.0	+0.1	-27.7	+5.0	15.6	. 0. 0	24.5	42.5	0.0	TT .
14	159.980M	40.0	+0.7	+0.8	+0.0	+15.6	+0.0	34.5	43.5	-9.0	Horiz
			+0.1	-27.7	+5.0						
15	49.850M	40.0	+0.4	+0.5	+0.0	+11.7	+0.0	29.8	39.1	-9.3	Horiz
			+0.1	-27.9	+5.0						
16	33.213M	37.7	+0.3	+0.4	+0.0	+14.7	+0.0	25.2	39.1	-13.9	Horiz
			+0.0	-27.9					Maximized	l at 4	
									meters		
17	149.970M	35.0	+0.7	+0.8	+0.0	+15.2	+0.0	29.2	43.5	-14.3	Horiz
			+0.1	-27.6	+5.0						
18	320.000M	28.8	+1.0	+1.4	+19.5	+0.0	+0.0	27.8	46.4	-18.6	Horiz
10	320.000W	20.0	+0.2	-28.1	+5.0	10.0	10.0	27.0	70.7	10.0	110112
19	240.015M	29.9	+0.2	+1.2	+0.0	+17.9	+0.0	27.5	46.4	-18.9	Horiz
19	240.013W	∠9.7		+1.2 -27.7		±1/.7	+0.0	41.3	40.4	-10.7	HOHZ
20	275 0103 4	21.7	+0.3		+5.0	. 0. 0	. 0. 0	26.0	4 < 4	10.6	тт. '
20	375.010M	31.5	+1.1	+1.6	+15.7	+0.0	+0.0	26.8	46.4	-19.6	Horiz
			+0.2	-28.3	+5.0						
21	325.000M	27.9	+1.0	+1.5	+18.8	+0.0	+0.0	26.3	46.4	-20.1	Horiz
			+0.2	-28.1	+5.0						
22	399.960M	30.3	+1.2	+1.7	+16.2	+0.0	+0.0	26.2	46.4	-20.2	Horiz
			+0.2	-28.4	+5.0						
23	450.040M	29.1	+1.2	+1.8	+16.6	+0.0	+0.0	25.6	46.4	-20.8	Horiz
			+0.2	-28.3	+5.0						
24	375.000M	29.3	+1.1	+1.6	+15.7	+0.0	+0.0	24.6	46.4	-21.8	Vert
	5.2.550111		+0.2	-28.3	+5.0	. 0.0	. 0.0			_1.0	. 510
L			10.4	-20.3	13.0						

Page 269 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/20/2006Test Type:Radiated ScanTime:16:52:55Equipment:BPL MV GatewaySequence#:223Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment entire Test ( - Ee 1).				_
Function	Manufacturer	Model #	S/N	
BPL MV Gateway*	Corinex	MV Gateway	ENG1	
Underground Coupler	Arteche	UNIC	0516632/26	
Combiner	Corinex	CXP-MVA-COM	none	
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none	
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none	

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 1: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	ement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.325M	44.8	+0.3	+0.3	+0.0	+0.0	+0.0	33.5	39.1	-5.6	Vert
			+16.0	-27.9		Maximized at 4					
									meters		
2	49.880M	42.5	+0.4	+0.5	+0.1	+0.0	+0.0	32.3	39.1	-6.8	Vert
			+11.7	-27.9	+5.0						
3	30.513M	42.4	+0.3	+0.3	+0.0	+0.0	+0.0	31.0	39.1	-8.1	Horiz
			+15.9	-27.9					Maximized	l at 4	
									meters		

Page 270 of 301 Report No.: FC06-025 Volume 3 of 9



4	31.575M	42.8	+0.3	+0.3	+0.0	+0.0	+0.0	30.9	39.1	-8.2	Vert
			+15.4	-27.9					Maximized	at 4	
									meters		
5	33.200M	42.6	+0.3	+0.4	+0.0	+0.0	+0.0	30.1	39.1	-9.0	Vert
			+14.7	-27.9					Maximized	at 4	
									meters		
6	31.675M	41.6	+0.3	+0.3	+0.0	+0.0	+0.0	29.7	39.1	-9.4	Horiz
			+15.4	-27.9					Maximized	at 4	
									meters		
7	33.025M	40.3	+0.3	+0.4	+0.0	+0.0	+0.0	27.9	39.1	-11.2	Horiz
			+14.8	-27.9					Maximized	at 4	
									meters		
8	149.765M	35.9	+0.7	+0.8	+0.1	+0.0	+0.0	30.1	43.5	-13.4	Vert
			+15.2	-27.6	+5.0						
9	479.995M	35.2	+1.3	+1.8	+0.3	+17.2	+0.0	32.7	46.4	-13.7	Horiz
			+0.0	-28.1	+5.0						
10	149.980M	35.6	+0.7	+0.8	+0.1	+0.0	+0.0	29.8	43.5	-13.7	Horiz
			+15.2	-27.6	+5.0						
11	160.025M	34.4	+0.7	+0.8	+0.1	+0.0	+0.0	28.9	43.5	-14.6	Horiz
			+15.6	-27.7	+5.0						
12	249.980M	34.1	+0.9	+1.2	+0.3	+0.0	+0.0	31.8	46.4	-14.6	Horiz
			+18.1	-27.8	+5.0						
13	450.035M	35.2	+1.2	+1.8	+0.2	+16.6	+0.0	31.7	46.4	-14.7	Vert
			+0.0	-28.3	+5.0						
14	160.025M	33.5	+0.7	+0.8	+0.1	+0.0	+0.0	28.0	43.5	-15.5	Vert
			+15.6	-27.7	+5.0						
15	49.875M	33.6	+0.4	+0.5	+0.1	+0.0	+0.0	23.4	39.1	-15.7	Horiz
			+11.7	-27.9	+5.0						
16	480.075M	32.9	+1.3	+1.8	+0.3	+17.2	+0.0	30.4	46.4	-16.0	Vert
			+0.0	-28.1	+5.0						

Page 271 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 13:08:38
Equipment: BPL MV Gateway Sequence#: 208
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( - Ec 1).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 2: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	ement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.875M	41.3	+0.4	+0.5	+0.1	+0.0	+0.0	31.1	39.1	-8.0	Vert
			+11.7	-27.9	+5.0						
2	30.350M	37.2	+0.3	+0.3	+0.0	+0.0	+0.0	25.9	39.1	-13.2	Horiz
			+16.0	-27.9					Maximized	1 at 4	
									meters		

Page 272 of 301 Report No.: FC06-025 Volume 3 of 9



3	32.500M	36.9	+0.3	+0.4	+0.0	+0.0	+0.0	24.7	39.1	-14.4	Horiz
			+15.0	-27.9					Maximized	l at 4	
									meters		
4	150.000M	34.6	+0.7	+0.8	+0.1	+0.0	+0.0	28.8	43.5	-14.7	Horiz
			+15.2	-27.6	+5.0						
5	249.925M	33.9	+0.9	+1.2	+0.3	+0.0	+0.0	31.6	46.4	-14.8	Vert
			+18.1	-27.8	+5.0						
6	175.025M	33.2	+0.7	+1.0	+0.1	+0.0	+0.0	28.4	43.5	-15.1	Vert
			+16.1	-27.7	+5.0						
7	150.015M	33.7	+0.7	+0.8	+0.1	+0.0	+0.0	27.9	43.5	-15.6	Vert
			+15.2	-27.6	+5.0						
8	49.865M	32.6	+0.4	+0.5	+0.1	+0.0	+0.0	22.4	39.1	-16.7	Horiz
			+11.7	-27.9	+5.0						
9	31.488M	33.4	+0.3	+0.3	+0.0	+0.0	+0.0	21.6	39.1	-17.5	Vert
			+15.5	-27.9					Maximized	l at 4	
									meters		
10	33.750M	33.6	+0.3	+0.4	+0.0	+0.0	+0.0	20.8	39.1	-18.3	Horiz
			+14.4	-27.9					Maximized		
									meters		
11	30.025M	31.2	+0.3	+0.3	+0.0	+0.0	+0.0	20.1	39.1	-19.0	Vert
			+16.2	-27.9					Maximized	l at 4	
									meters		
12	33.738M	32.8	+0.3	+0.4	+0.0	+0.0	+0.0	20.0	39.1	-19.1	Vert
			+14.4	-27.9					Maximized	l at 4	
									meters		
13	225.080M	29.8	+0.8	+1.1	+0.2	+0.0	+0.0	26.7	46.4	-19.7	Vert
			+17.5	-27.7	+5.0						
14	479.985M	28.6	+1.3	+1.8	+0.3	+17.2	+0.0	26.1	46.4	-20.3	Horiz
			+0.0	-28.1	+5.0						
15	174.990M	27.6	+0.7	+1.0	+0.1	+0.0	+0.0	22.8	43.5	-20.7	Horiz
			+16.1	-27.7	+5.0						
16	274.980M	24.6	+1.0	+1.3	+0.2	+0.0	+0.0	23.7	46.4	-22.7	Vert
			+19.5	-27.9	+5.0						
17	74.925M	31.1	+0.5	+0.5	+0.1	+0.0	+0.0	15.7	39.1	-23.4	Vert
			+6.4	-27.9	+5.0						
18	450.035M	25.2	+1.2	+1.8	+0.2	+16.6	+0.0	21.7	46.4	-24.7	Horiz
			+0.0	-28.3	+5.0						
19	249.990M	23.2	+0.9	+1.2	+0.3	+0.0	+0.0	20.9	46.4	-25.5	Horiz
			+18.1	-27.8	+5.0						

Page 273 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 13:26:01
Equipment: BPL MV Gateway Sequence#: 209
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( = ECT):			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 3: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Meas	surement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6					_	_	
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
	1 30.000M	39.4	+0.3	+0.3	+0.0	+16.2	+0.0	28.3	39.1	-10.8	Vert
			-27.9			Maximized at 4					
									meters		
	2 49.875M	37.1	+0.4	+0.5	+0.1	+11.7	+0.0	26.9	39.1	-12.2	Vert
			-27.9	+5.0							

Page 274 of 301 Report No.: FC06-025 Volume 3 of 9



3	31.550M	38.0	+0.3	+0.3	+0.0	+15.4	+0.0	26.1	39.1	-13.0	Vert
			-27.9						Maximized	l at 4	
									meters		
4	30.088M	33.7	+0.3	+0.3	+0.0	+16.2	+0.0	22.6	39.1	-16.5	Horiz
			-27.9						Maximized	l at 4	
									meters		
5	33.350M	33.3	+0.3	+0.4	+0.0	+14.6	+0.0	20.7	39.1	-18.4	Vert
			-27.9						Maximized	l at 4	
									meters		
6	149.735M	30.8	+0.7	+0.8	+0.1	+15.2	+0.0	25.0	43.5	-18.5	Vert
			-27.6	+5.0							
7	49.875M	30.6	+0.4	+0.5	+0.1	+11.7	+0.0	20.4	39.1	-18.7	Horiz
			-27.9	+5.0							
8	31.150M	32.0	+0.3	+0.3	+0.0	+15.6	+0.0	20.3	39.1	-18.8	Horiz
			-27.9						Maximized	l at 4	
									meters		
9	225.060M	29.2	+0.8	+1.1	+0.2	+17.5	+0.0	26.1	46.4	-20.3	Vert
			-27.7	+5.0							
10	150.010M	29.0	+0.7	+0.8	+0.1	+15.2	+0.0	23.2	43.5	-20.4	Horiz
			-27.6	+5.0							
11	33.188M	29.6	+0.3	+0.4	+0.0	+14.7	+0.0	17.1	39.1	-22.0	Horiz
			-27.9						Maximized	l at 4	
									meters		
12	274.995M	25.2	+1.0	+1.3	+0.2	+19.5	+0.0	24.3	46.4	-22.1	Vert
			-27.9	+5.0							
13	32.188M	28.5	+0.3	+0.3	+0.0	+15.1	+0.0	16.3	39.1	-22.8	Horiz
			-27.9						Maximized	l at 4	
									meters		
14	160.005M	20.9	+0.7	+0.8	+0.1	+15.6	+0.0	15.4	43.5	-28.1	Horiz
			-27.7	+5.0							

Page 275 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 13:53:53
Equipment: BPL MV Gateway Sequence#: 210
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( = ECT).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 4: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	rement Data:	Re	eading lis	ted by ma	ırgin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	299.945M	34.5	+1.0	+1.7	+0.2	+0.0	+0.0	35.1	46.4	-11.3	Vert
			+20.7	-28.0	+5.0						
2	49.875M	34.5	+0.4	+0.5	+0.1	+0.0	+0.0	24.3	39.1	-14.8	Vert
			+11.7	-27.9	+5.0						
3	30.313M	35.2	+0.3	+0.3	+0.0	+0.0	+0.0	23.9	39.1	-15.2	Vert
			+16.0	-27.9					Maximized	d at 4	
									meters		
4	31.863M	32.6	+0.3	+0.3	+0.0	+0.0	+0.0	20.6	39.1	-18.5	Vert
			+15.3	-27.9					Maximized	d at 4	
									meters		

Page 276 of 301 Report No.: FC06-025 Volume 3 of 9



5	32.500M	32.6	+0.3	+0.4	+0.0	+0.0	+0.0	20.4	39.1	-18.7	Vert
			+15.0	-27.9					Maximized	l at 4	
									meters		
6	160.005M	30.2	+0.7	+0.8	+0.1	+0.0	+0.0	24.7	43.5	-18.9	Vert
			+15.6	-27.7	+5.0						
7	150.005M	29.8	+0.7	+0.8	+0.1	+0.0	+0.0	24.0	43.5	-19.5	Horiz
			+15.2	-27.6	+5.0						
8	33.175M	31.8	+0.3	+0.4	+0.0	+0.0	+0.0	19.3	39.1	-19.8	Vert
			+14.7	-27.9					Maximized	l at 4	
									meters		
9	49.875M	28.8	+0.4	+0.5	+0.1	+0.0	+0.0	18.6	39.1	-20.5	Horiz
			+11.7	-27.9	+5.0						
10	240.005M	28.1	+0.9	+1.2	+0.3	+0.0	+0.0	25.7	46.4	-20.7	Vert
			+17.9	-27.7	+5.0						
11	249.895M	27.7	+0.9	+1.2	+0.3	+0.0	+0.0	25.4	46.4	-21.0	Vert
			+18.1	-27.8	+5.0						
12	149.720M	27.8	+0.7	+0.8	+0.1	+0.0	+0.0	22.0	43.5	-21.5	Vert
			+15.2	-27.6	+5.0						
13	160.000M	27.2	+0.7	+0.8	+0.1	+0.0	+0.0	21.7	43.5	-21.8	Horiz
			+15.6	-27.7	+5.0						
14	240.045M	26.6	+0.9	+1.2	+0.3	+0.0	+0.0	24.2	46.4	-22.2	Horiz
			+17.9	-27.7	+5.0						
15	225.010M	26.9	+0.8	+1.1	+0.2	+0.0	+0.0	23.8	46.4	-22.7	Vert
			+17.5	-27.7	+5.0						
16	480.010M	23.4	+1.3	+1.8	+0.3	+17.2	+0.0	20.9	46.4	-25.5	Vert
			+0.0	-28.1	+5.0						
17	32.213M	25.2	+0.3	+0.3	+0.0	+0.0	+0.0	13.0	39.1	-26.1	Horiz
			+15.1	-27.9					Maximized	l at 4	
									meters		
18	33.175M	25.2	+0.3	+0.4	+0.0	+0.0	+0.0	12.7	39.1	-26.4	Horiz
			+14.7	-27.9					Maximized	l at 4	
									meters		
19	30.175M	23.7	+0.3	+0.3	+0.0	+0.0	+0.0	12.5	39.1	-26.6	Horiz
			+16.1	-27.9					Maximized	l at 4	
									meters		
20	320.010M	20.8	+1.0	+1.4	+0.2	+19.5	+0.0	19.8	46.4	-26.6	Vert
			+0.0	-28.1	+5.0						
21	31.688M	24.2	+0.3	+0.3	+0.0	+0.0	+0.0	12.3	39.1	-26.8	Horiz
			+15.4	-27.9					Maximized	l at 4	
									meters		
22	375.025M	23.7	+1.1	+1.6	+0.2	+15.7	+0.0	19.0	46.4	-27.4	Horiz
			+0.0	-28.3	+5.0						
23	480.010M	21.2	+1.3	+1.8	+0.3	+17.2	+0.0	18.7	46.4	-27.7	Horiz
			+0.0	-28.1	+5.0						
24	225.005M	20.5	+0.8	+1.1	+0.2	+0.0	+0.0	17.4	46.4	-29.0	Horiz
			+17.5	-27.7	+5.0						

Page 277 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 14:06:14
Equipment: BPL MV Gateway Sequence#: 211
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 000BC2200043

Equipment Under Test (\* = EUT):

Function Manufacturer Model # S/N

BPL MV Gateway\* Corinex MV Gateway 000BC2200043

Coupler Artege

Support Devices:

Function Manufacturer Model # S/N

### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 5: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable T2=Cable 2410 T3=Cable 01185 T4=Log00978A

T5=ANT-AN00503-010505 T6=HP-8447D Pre Amp AN 00567

T7=5dB Height Correction

Measur	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.870M	36.3	+0.4	+0.5	+0.1	+0.0	+0.0	26.1	39.1	-13.0	Vert
			+11.7	-27.9	+5.0						
2	149.765M	36.3	+0.7	+0.8	+0.1	+0.0	+0.0	30.5	43.5	-13.0	Vert
			+15.2	-27.6	+5.0						
3	160.005M	34.8	+0.7	+0.8	+0.1	+0.0	+0.0	29.3	43.5	-14.2	Vert
			+15.6	-27.7	+5.0						
4	240.005M	33.8	+0.9	+1.2	+0.3	+0.0	+0.0	31.4	46.4	-15.0	Vert
			+17.9	-27.7	+5.0						
5	225.005M	33.0	+0.8	+1.1	+0.2	+0.0	+0.0	29.9	46.4	-16.5	Horiz
			+17.5	-27.7	+5.0						
6	32.813M	34.1	+0.3	+0.4	+0.0	+0.0	+0.0	21.8	39.1	-17.3	Vert
			+14.9	-27.9					Maximized	d at 4	
									meters		

Page 278 of 301 Report No.: FC06-025 Volume 3 of 9



7	320.000M	28.6	+1.0	+1.4	+0.2	+19.5	+0.0	27.6	46.4	-18.8	Horiz
			+0.0	-28.1	+5.0						
8	31.513M	31.0	+0.3	+0.3	+0.0	+0.0	+0.0	19.2	39.1	-19.9	Vert
			+15.5	-27.9					Maximized	l at 4	
									meters		
9	30.263M	29.6	+0.3	+0.3	+0.0	+0.0	+0.0	18.4	39.1	-20.7	Vert
			+16.1	-27.9					Maximized	l at 4	
									meters		
10	175.270M	25.6	+0.7	+1.0	+0.1	+0.0	+0.0	20.8	43.5	-22.7	Vert
			+16.1	-27.7	+5.0						
11	49.870M	26.5	+0.4	+0.5	+0.1	+0.0	+0.0	16.3	39.1	-22.8	Horiz
			+11.7	-27.9	+5.0						
12	320.010M	24.5	+1.0	+1.4	+0.2	+19.5	+0.0	23.5	46.4	-22.9	Vert
			+0.0	-28.1	+5.0						
13	225.005M	26.0	+0.8	+1.1	+0.2	+0.0	+0.0	22.9	46.4	-23.5	Vert
			+17.5	-27.7	+5.0						
14	480.005M	24.6	+1.3	+1.8	+0.3	+17.2	+0.0	22.1	46.4	-24.3	Horiz
			+0.0	-28.1	+5.0						
15	250.010M	24.0	+0.9	+1.2	+0.3	+0.0	+0.0	21.7	46.4	-24.7	Vert
			+18.1	-27.8	+5.0						
16	560.005M	21.7	+1.4	+2.0	+0.2	+18.5	+0.0	21.1	46.4	-25.3	Vert
			+0.0	-27.7	+5.0						
17	324.845M	22.2	+1.0	+1.4	+0.2	+18.8	+0.0	20.5	46.4	-25.9	Horiz
			+0.0	-28.1	+5.0						
18	31.763M	24.6	+0.3	+0.3	+0.0	+0.0	+0.0	12.5	39.1	-26.6	Horiz
			+15.3	-27.9					Maximized	l at 4	
									meters		
19	32.763M	24.5	+0.3	+0.4	+0.0	+0.0	+0.0	12.2	39.1	-26.9	Horiz
			+14.9	-27.9					Maximized	l at 4	
									meters		
20	560.005M	19.9	+1.4	+2.0	+0.2	+18.5	+0.0	19.3	46.4	-27.1	Horiz
			+0.0	-27.7	+5.0						
21	399.965M	22.9	+1.2	+1.7	+0.2	+16.2	+0.0	18.8	46.4	-27.6	Horiz
			+0.0	-28.4	+5.0						
22	30.375M	22.2	+0.3	+0.3	+0.0	+0.0	+0.0	10.9	39.1	-28.2	Horiz
			+16.0	-27.9					Maximized	l at 4	
									meters		
23	480.010M	20.2	+1.3	+1.8	+0.3	+17.2	+0.0	17.7	46.4	-28.7	Vert
			+0.0	-28.1	+5.0						

Page 279 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 14:18:21
Equipment: BPL MV Gateway Sequence#: 212
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 6: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	Measurement Data:		Reading listed by margin.				Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar		
			T5	T6	T7								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant		
1	49.880M	34.8	+0.4	+0.5	+0.1	+0.0	+0.0	24.6	39.1	-14.5	Vert		
			+11.7	-27.9	+5.0								
2	149.725M	33.6	+0.7	+0.8	+0.1	+0.0	+0.0	27.8	43.5	-15.7	Vert		
			+15.2	-27.6	+5.0								
3	30.525M	34.7	+0.3	+0.3	+0.0	+0.0	+0.0	23.3	39.1	-15.8	Horiz		
			+15.9	-27.9					Maximized	d at 4			
									meters				
4	160.005M	33.0	+0.7	+0.8	+0.1	+0.0	+0.0	27.5	43.5	-16.0	Vert		
			+15.6	-27.7	+5.0								

Page 280 of 301 Report No.: FC06-025 Volume 3 of 9



5	150.010M	32.4	+0.7	+0.8	+0.1	+0.0	+0.0	26.6	43.5	-16.9	Horiz
			+15.2	-27.6	+5.0						
6	160.005M	32.0	+0.7	+0.8	+0.1	+0.0	+0.0	26.5	43.5	-17.0	Horiz
			+15.6	-27.7	+5.0						
7	320.005M	29.1	+1.0	+1.4	+0.2	+19.5	+0.0	28.1	46.4	-18.3	Horiz
			+0.0	-28.1	+5.0						
8	240.005M	30.5	+0.9	+1.2	+0.3	+0.0	+0.0	28.1	46.4	-18.3	Vert
			+17.9	-27.7	+5.0						
9	49.875M	28.9	+0.4	+0.5	+0.1	+0.0	+0.0	18.7	39.1	-20.4	Horiz
			+11.7	-27.9	+5.0						
10	32.138M	30.6	+0.3	+0.3	+0.0	+0.0	+0.0	18.5	39.1	-20.6	Horiz
			+15.2	-27.9					Maximized	at 4	
									meters		
11	240.005M	27.8	+0.9	+1.2	+0.3	+0.0	+0.0	25.4	46.4	-21.0	Horiz
			+17.9	-27.7	+5.0						
12	33.600M	29.1	+0.3	+0.4	+0.0	+0.0	+0.0	16.4	39.1	-22.7	Horiz
			+14.5	-27.9					Maximized	at 4	
									meters		
13	31.838M	28.4	+0.3	+0.3	+0.0	+0.0	+0.0	16.4		-22.7	Vert
			+15.3	-27.9					Maximized	at 4	
									meters		
14	30.413M	27.3	+0.3	+0.3	+0.0	+0.0	+0.0	16.0		-23.1	Vert
			+16.0	-27.9					Maximized	at 4	
									meters		
15	480.005M	25.2	+1.3	+1.8	+0.3	+17.2	+0.0	22.7	46.4	-23.7	Horiz
			+0.0	-28.1	+5.0						
16	33.213M	27.3	+0.3	+0.4	+0.0	+0.0	+0.0	14.8	39.1	-24.3	Vert
			+14.7	-27.9					Maximized	at 4	
									meters		
17	480.010M	23.9	+1.3	+1.8	+0.3	+17.2	+0.0	21.4	46.4	-25.0	Vert
			+0.0	-28.1	+5.0						
18	320.025M	21.7	+1.0	+1.4	+0.2	+19.5	+0.0	20.7	46.4	-25.7	Vert
			+0.0	-28.1	+5.0						
19	250.010M	22.3	+0.9	+1.2	+0.3	+0.0	+0.0	20.0	46.4	-26.4	Vert
			+18.1	-27.8	+5.0						
20	375.025M	23.3	+1.1	+1.6	+0.2	+15.7	+0.0	18.6	46.4	-27.8	Horiz
			+0.0	-28.3	+5.0						
21	225.010M	20.9	+0.8	+1.1	+0.2	+0.0	+0.0	17.8	46.4	-28.6	Horiz
			+17.5	-27.7	+5.0						
22	400.005M	21.7	+1.2	+1.7	+0.2	+16.2	+0.0	17.6	46.4	-28.8	Horiz
			+0.0	-28.4	+5.0						

Page 281 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 14:30:03
Equipment: BPL MV Gateway Sequence#: 213
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 7: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	Т3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.238M	36.4	+0.3	+0.3	+0.0	+0.0	+0.0	25.2	39.1	-13.9	Horiz
			+16.1	-27.9		Maximized at 4					
									meters		
2	149.995M	35.0	+0.7	+0.8	+0.1	+0.0	+0.0	29.2	43.5	-14.3	Horiz
			+15.2	-27.6	+5.0						
3	33.438M	33.8	+0.3	+0.4	+0.0	+0.0	+0.0	21.2	39.1	-17.9	Horiz
			+14.6	-27.9					Maximized	l at 4	
									meters		
4	240.005M	30.0	+0.9	+1.2	+0.3	+0.0	+0.0	27.6	46.4	-18.8	Vert
			+17.9	-27.7	+5.0						

Page 282 of 301 Report No.: FC06-025 Volume 3 of 9



5	31.950M	32.2	+0.3	+0.3	+0.0	+0.0	+0.0	20.2	39.1	-18.9	Horiz
			+15.3	-27.9					Maximized	l at 4	
									meters		
6	160.005M	28.8	+0.7	+0.8	+0.1	+0.0	+0.0	23.3	43.5	-20.2	Vert
			+15.6	-27.7	+5.0						
7	49.871M	28.3	+0.4	+0.5	+0.1	+0.0	+0.0	18.1	39.1	-21.0	Vert
			+11.7	-27.9	+5.0						
8	274.960M	25.7	+1.0	+1.3	+0.2	+0.0	+0.0	24.8	46.4	-21.6	Horiz
			+19.5	-27.9	+5.0						
9	49.855M	25.4	+0.4	+0.5	+0.1	+0.0	+0.0	15.2	39.1	-23.9	Horiz
			+11.7	-27.9	+5.0						
10	33.438M	26.6	+0.3	+0.4	+0.0	+0.0	+0.0	14.0	39.1	-25.1	Vert
			+14.6	-27.9					Maximized	l at 4	
									meters		
11	480.010M	23.6	+1.3	+1.8	+0.3	+17.2	+0.0	21.1	46.4	-25.3	Vert
			+0.0	-28.1	+5.0						
12	160.005M	23.3	+0.7	+0.8	+0.1	+0.0	+0.0	17.8	43.5	-25.7	Horiz
			+15.6	-27.7	+5.0						
13	31.988M	24.6	+0.3	+0.3	+0.0	+0.0	+0.0	12.5	39.1	-26.6	Vert
			+15.2	-27.9					Maximized	l at 4	
									meters		
14	375.020M	24.2	+1.1	+1.6	+0.2	+15.7	+0.0	19.5	46.4	-26.9	Horiz
			+0.0	-28.3	+5.0						
15	30.738M	23.0	+0.3	+0.3	+0.0	+0.0	+0.0	11.5	39.1	-27.6	Vert
			+15.8	-27.9					Maximized	l at 4	
									meters		
16	240.035M	20.0	+0.9	+1.2	+0.3	+0.0	+0.0	17.6	46.4	-28.8	Horiz
			+17.9	-27.7	+5.0						

Page 283 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 14:43:19
Equipment: BPL MV Gateway Sequence#: 214
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 8: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	30.275M	40.3	+0.3	+0.3	+0.0	+0.0	+0.0	29.1	39.1	-10.0	Vert
			+16.1	-27.9					Maximized	d at 4	
									meters		
2	49.870M	36.4	+0.4	+0.5	+0.1	+0.0	+0.0	26.2	39.1	-12.9	Vert
			+11.7	-27.9	+5.0						
3	325.750M	34.8	+1.0	+1.5	+0.2	+18.6	+0.0	33.0	46.4	-13.4	Horiz
			+0.0	-28.1	+5.0						

Page 284 of 301 Report No.: FC06-025 Volume 3 of 9



	21.0001/	24.6	.0.2	.0.2	. 0. 0	. 0. 0	. 0. 0	22.6	20.1	1.6.5	<b>X</b> 7 4
4	31.900M	34.6	+0.3	+0.3	+0.0	+0.0	+0.0	22.6		-16.5	Vert
			+15.3	-27.9					Maximized	at 4	
5	40.975M	22.2	+0.4	.0.5	.0.1	٠, ٥, ٥	. 0. 0	22.0	meters	17.1	<b>V</b> =4
3	49.875M	32.2	+0.4	+0.5	+0.1	+0.0	+0.0	22.0	39.1	-17.1	Vert
	150,00014	20.1	+11.7	-27.9	+5.0	. 0. 0	. 0. 0	26.2	12.5	17.0	<b>X</b> 7 4
6	150.000M	32.1	+0.7	+0.8	+0.1	+0.0	+0.0	26.3	43.5	-17.2	Vert
	275 22014	22.0	+15.2	-27.6	+5.0	. 15.7	. 0. 0	20.1	16.1	17.2	TT
7	375.238M	33.8	+1.1	+1.6	+0.2	+15.7	+0.0	29.1	46.4	-17.3	Horiz
	1.40.7703.4	20.2	+0.0	-28.3	+5.0	0.0	0.0	22.4	10.5	20.1	T.7
8	149.770M	29.2	+0.7	+0.8	+0.1	+0.0	+0.0	23.4	43.5	-20.1	Vert
	240.0053.5	20.6	+15.2	-27.6	+5.0	0.0	0.0	2	15.4	20.2	**
9	240.005M	28.6	+0.9	+1.2	+0.3	+0.0	+0.0	26.2	46.4	-20.2	Vert
10	1.50.0053.5	2.50	+17.9	-27.7	+5.0	0.0	0.0		10.7	22.2	**
10	160.005M	26.9	+0.7	+0.8	+0.1	+0.0	+0.0	21.4	43.5	-22.2	Vert
			+15.6	-27.7	+5.0						
11	249.845M	24.7	+0.9	+1.2	+0.3	+0.0	+0.0	22.4	46.4	-24.0	Horiz
			+18.1	-27.8	+5.0						
12	240.005M	23.3	+0.9	+1.2	+0.3	+0.0	+0.0	20.9	46.4	-25.5	Horiz
			+17.9	-27.7	+5.0						
13	275.000M	21.8	+1.0	+1.3	+0.2	+0.0	+0.0	20.9	46.4	-25.5	Horiz
			+19.5	-27.9	+5.0						
14	30.588M	23.1	+0.3	+0.3	+0.0	+0.0	+0.0	11.7	39.1	-27.4	Vert
			+15.9	-27.9					Maximized	l at 4	
									meters		
15	32.050M	22.8	+0.3	+0.3	+0.0	+0.0	+0.0	10.7	39.1	-28.4	Vert
			+15.2	-27.9					Maximized	l at 4	
									meters		
16	159.995M	20.6	+0.7	+0.8	+0.1	+0.0	+0.0	15.1	43.5	-28.4	Horiz
			+15.6	-27.7	+5.0						
17	33.225M	20.8	+0.3	+0.4	+0.0	+0.0	+0.0	8.3	39.1	-30.8	Horiz
			+14.7	-27.9					Maximized	l at 4	
									meters		

Page 285 of 301 Report No.: FC06-025 Volume 3 of 9



Corinex Customer:

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: Date: 3/20/2006 84818 Test Type: Time: 15:05:50 **Radiated Scan** Equipment: **BPL MV Gateway** Sequence#: 215 Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N:

ENG1

# Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

# Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 9: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

## Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measu	rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	480.235M	43.7	+1.3	+1.8	+0.3	+17.2	+0.0	41.2	46.4	-5.2	Horiz
			+0.0	-28.1	+5.0						
2	49.850M	44.1	+0.4	+0.5	+0.1	+0.0	+0.0	33.9	39.1	-5.2	Vert
			+11.7	-27.9	+5.0						
3	349.760M	42.2	+1.1	+1.5	+0.3	+15.2	+0.0	37.1	46.4	-9.3	Horiz
			+0.0	-28.2	+5.0						

Page 286 of 301 Report No.: FC06-025 Volume 3 of 9



4	30.488M	40.9	+0.3	+0.3	+0.0	+0.0	+0.0	29.5	39.1	-9.6	Horiz
			+16.0	-27.9					Maximized	l at 4	
									meters		
5	299.980M	36.2	+1.0	+1.7	+0.2	+0.0	+0.0	36.8	46.4	-9.6	Vert
			+20.7	-28.0	+5.0						
6	32.500M	40.4	+0.3	+0.4	+0.0	+0.0	+0.0	28.2	39.1	-10.9	Horiz
			+15.0	-27.9					Maximized	l at 4	
									meters		
7	424.760M	38.6	+1.2	+1.7	+0.2	+16.4	+0.0	34.7	46.4	-11.7	Horiz
			+0.0	-28.4	+5.0						
8	150.025M	35.2	+0.7	+0.8	+0.1	+0.0	+0.0	29.4	43.5	-14.1	Horiz
			+15.2	-27.6	+5.0						
9	240.070M	33.7	+0.9	+1.2	+0.3	+0.0	+0.0	31.3	46.4	-15.2	Vert
			+17.9	-27.7	+5.0						
10	33.725M	36.6	+0.3	+0.4	+0.0	+0.0	+0.0	23.9	39.1	-15.2	Horiz
			+14.5	-27.9					Maximized	l at 4	
									meters		
11	49.863M	32.9	+0.4	+0.5	+0.1	+0.0	+0.0	22.7	39.1	-16.4	Horiz
			+11.7	-27.9	+5.0						
12	31.413M	34.5	+0.3	+0.3	+0.0	+0.0	+0.0	22.7	39.1	-16.4	Vert
			+15.5	-27.9					Maximized	l at 4	
									meters		
13	32.863M	34.6	+0.3	+0.4	+0.0	+0.0	+0.0	22.2	39.1	-16.9	Vert
			+14.8	-27.9					Maximized	l at 4	
									meters		
14	160.010M	31.8	+0.7	+0.8	+0.1	+0.0	+0.0	26.3	43.5	-17.2	Vert
			+15.6	-27.7	+5.0						
15	30.813M	32.8	+0.3	+0.3	+0.0	+0.0	+0.0	21.3	39.1	-17.8	Vert
			+15.8	-27.9					Maximized	l at 4	
									meters		
16	320.010M	29.2	+1.0	+1.4	+0.2	+19.5	+0.0	28.2	46.4	-18.2	Vert
			+0.0	-28.1	+5.0						

Page 287 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 15:18:25
Equipment: BPL MV Gateway Sequence#: 216
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

Equipment Under Test (\* = EUT):

Equipment Chack Test ( = ECT).			
Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 10: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	ement Data:	Re	eading lis	ted by ma	ırgin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.880M	43.9	+0.4	+0.5	+0.1	+0.0	+0.0	33.7	39.1	-5.4	Vert
			+11.7	-27.9	+5.0						
2	30.575M	43.5	+0.3	+0.3	+0.0	+0.0	+0.0	32.1	39.1	-7.0	Horiz
			+15.9	-27.9					Maximized	d at 4	
									meters		

Page 288 of 301 Report No.: FC06-025 Volume 3 of 9



3	32.063M	42.4	+0.3	+0.3	+0.0	+0.0	+0.0	30.3	39.1	-8.8	Horiz
			+15.2	-27.9					Maximized	at 4	
									meters		
4	150.010M	40.3	+0.7	+0.8	+0.1	+0.0	+0.0	34.5	43.5	-9.0	Horiz
			+15.2	-27.6	+5.0						
5	159.980M	37.6	+0.7	+0.8	+0.1	+0.0	+0.0	32.1	43.5	-11.4	Vert
			+15.6	-27.7	+5.0						
6	33.225M	39.6	+0.3	+0.4	+0.0	+0.0	+0.0	27.1	39.1	-12.0	Horiz
			+14.7	-27.9					Maximized	at 4	
									meters		
7	480.275M	36.7	+1.3	+1.8	+0.3	+17.2	+0.0	34.2	46.4	-12.2	Horiz
			+0.0	-28.1	+5.0						
8	240.010M	36.1	+0.9	+1.2	+0.3	+0.0	+0.0	33.7	46.4	-12.7	Vert
			+17.9	-27.7	+5.0						
9	49.870M	34.6	+0.4	+0.5	+0.1	+0.0	+0.0	24.4	39.1	-14.7	Horiz
			+11.7	-27.9	+5.0						
10	30.050M	31.8	+0.3	+0.3	+0.0	+0.0	+0.0	20.7	39.1	-18.4	Vert
			+16.2	-27.9					Maximized	at 4	
									meters		
11	399.915M	31.7	+1.2	+1.7	+0.2	+16.2	+0.0	27.6	46.4	-18.8	Vert
			+0.0	-28.4	+5.0						
12	31.900M	31.2	+0.3	+0.3	+0.0	+0.0	+0.0	19.2	39.1	-19.9	Vert
			+15.3	-27.9					Maximized		
									meters		
13	33.550M	30.8	+0.3	+0.4	+0.0	+0.0	+0.0	18.1	39.1	-21.0	Vert
			+14.5	-27.9					Maximized		
									meters		

Page 289 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #:84818Date:3/20/2006Test Type:Radiated ScanTime:15:26:13Equipment:BPL MV GatewaySequence#:217Manufacturer:CorinexTested By:C. Nicklas

Model: MV Gateway S/N: ENG1

#### *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 11: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measurement Data: Reading 1			eading list	sted by margin. Test Distance: 10 Meters							
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	240.000M	44.4	+0.9	+1.2	+0.3	+17.9	+0.0	42.0	46.4	-4.4	Vert
			-27.7	+5.0							
2	49.825M	43.8	+0.4	+0.5	+0.1	+11.7	+0.0	33.6	39.1	-5.5	Vert
			-27.9	+5.0							
3	160.000M	40.9	+0.7	+0.8	+0.1	+15.6	+0.0	35.4	43.5	-8.1	Vert
			-27.7	+5.0							

Page 290 of 301 Report No.: FC06-025 Volume 3 of 9





Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 15:41:12
Equipment: BPL MV Gateway Sequence#: 218
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

#### Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 12: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	160.015M	45.3	+0.7	+0.8	+0.1	+0.0	+0.0	39.8	43.5	-3.7	Horiz
			+15.6	-27.7	+5.0						
2	160.010M	41.4	+0.7	+0.8	+0.1	+0.0	+0.0	35.9	43.5	-7.7	Vert
			+15.6	-27.7	+5.0						
3	49.860M	41.6	+0.4	+0.5	+0.1	+0.0	+0.0	31.4	39.1	-7.7	Vert
			+11.7	-27.9	+5.0						

Page 292 of 301 Report No.: FC06-025 Volume 3 of 9



4	31.688M	41.0	+0.3	+0.3	+0.0	+0.0	+0.0	29.1	39.1	-10.0	Horiz
			+15.4	-27.9					Maximized	l at 4	
									meters		
5	30.613M	39.7	+0.3	+0.3	+0.0	+0.0	+0.0	28.3	39.1	-10.8	Horiz
			+15.9	-27.9					Maximized	l at 4	
									meters		
6	33.075M	39.2	+0.3	+0.4	+0.0	+0.0	+0.0	26.7	39.1	-12.4	Horiz
			+14.7	-27.9					Maximized	l at 4	
									meters		
7	240.030M	41.4	+0.9	+1.2	+0.3	+0.0	+0.0	34.0	46.4	-12.4	Vert
			+17.9	-27.7					Measured a	at 1m.	
									Add 5dB h	eight	
									correction	_	
									readings.		
8	49.825M	34.9	+0.4	+0.5	+0.1	+0.0	+0.0	24.7	39.1	-14.4	Horiz
			+11.7	-27.9	+5.0						
9	240.025M	37.8	+0.9	+1.2	+0.3	+0.0	+0.0	30.4	46.4	-16.0	Horiz
			+17.9	-27.7					Measured a	at 1m.	
									Add 5dB h	eight	
									correction	_	
									readings.		
10	479.965M	33.8	+1.3	+1.8	+0.3	+17.2	+0.0	26.3	46.4	-20.1	Vert
			+0.0	-28.1					Measured a	at 1m.	
									Add 5dB h		
									correction	_	
									readings.		
11	33.450M	31.4	+0.3	+0.4	+0.0	+0.0	+0.0	18.8	39.1	-20.3	Vert
			+14.6	-27.9					Maximized		
									meters		
12	30.575M	29.9	+0.3	+0.3	+0.0	+0.0	+0.0	18.5	39.1	-20.6	Vert
			+15.9	-27.9					Maximized		
									meters		
13	31.875M	29.8	+0.3	+0.3	+0.0	+0.0	+0.0	17.8	39.1	-21.3	Vert
		,	+15.3	-27.9					Maximized		
									meters		
<u> </u>											

Page 293 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 15:51:15
Equipment: BPL MV Gateway Sequence#: 219
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 13: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

### Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measui	rement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.865M	41.3	+0.4	+0.5	+0.1	+0.0	+0.0	31.1	39.1	-8.0	Vert
			+11.7	-27.9	+5.0						
2	149.990M	39.2	+0.7	+0.8	+0.1	+0.0	+0.0	33.4	43.5	-10.1	Horiz
			+15.2	-27.6	+5.0						
3	30.463M	38.9	+0.3	+0.3	+0.0	+0.0	+0.0	27.6	39.1	-11.5	Horiz
			+16.0	-27.9					Maximized	d at 4	
									meters		

Page 294 of 301 Report No.: FC06-025 Volume 3 of 9



4	149.760M	37.3	+0.7	+0.8	+0.1	+0.0	+0.0	31.5	43.5	-12.0	Vert
			+15.2	-27.6	+5.0						
5	31.800M	39.0	+0.3	+0.3	+0.0	+0.0	+0.0	27.0	39.1	-12.1	Horiz
			+15.3	-27.9					Maximized	at 4	
									meters		
6	160.030M	36.5	+0.7	+0.8	+0.1	+0.0	+0.0	31.0	43.5	-12.5	Vert
			+15.6	-27.7	+5.0						
7	240.030M	36.2	+0.9	+1.2	+0.3	+0.0	+0.0	33.8	46.4	-12.7	Vert
			+17.9	-27.7	+5.0						
8	49.865M	34.5	+0.4	+0.5	+0.1	+0.0	+0.0	24.3	39.1	-14.8	Horiz
			+11.7	-27.9	+5.0						
9	160.005M	33.3	+0.7	+0.8	+0.1	+0.0	+0.0	27.8	43.5	-15.7	Horiz
			+15.6	-27.7	+5.0						
10	479.990M	32.9	+1.3	+1.8	+0.3	+17.2	+0.0	30.4	46.4	-16.0	Horiz
			+0.0	-28.1	+5.0						
11	399.940M	34.3	+1.2	+1.7	+0.2	+16.2	+0.0	30.2	46.4	-16.2	Horiz
			+0.0	-28.4	+5.0						
12	33.425M	34.4	+0.3	+0.4	+0.0	+0.0	+0.0	21.8	39.1	-17.3	Horiz
			+14.6	-27.9					Maximized	at 4	
									meters		
13	30.138M	32.6	+0.3	+0.3	+0.0	+0.0	+0.0	21.4	39.1	-17.7	Vert
			+16.1	-27.9					Maximized	at 4	
									meters		
14	31.650M	31.2	+0.3	+0.3	+0.0	+0.0	+0.0	19.3	39.1	-19.8	Vert
			+15.4	-27.9					Maximized	at 4	
									meters		
15	33.275M	30.3	+0.3	+0.4	+0.0	+0.0	+0.0	17.8	39.1	-21.3	Vert
			+14.7	-27.9					Maximized	at 4	
									meters		

Page 295 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 16:04:32
Equipment: BPL MV Gateway Sequence#: 220
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: ENG1

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

### Support Devices:

	Function	Manufacturer	Model #	S/N
--	----------	--------------	---------	-----

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 14: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=Log00978A
T5=ANT-AN00503-010505	T6=HP-8447D Pre Amp AN 00567
T7=5dB Height Correction	

Measur	rement Data:	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 10 Meter	rs	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	150.025M	45.3	+0.7	+0.8	+0.1	+0.0	+0.0	39.5	43.5	-4.0	Horiz
			+15.2	-27.6	+5.0						
2	49.860M	42.3	+0.4	+0.5	+0.1	+0.0	+0.0	32.1	39.1	-7.0	Vert
			+11.7	-27.9	+5.0						
3	30.238M	42.5	+0.3	+0.3	+0.0	+0.0	+0.0	31.3	39.1	-7.8	Horiz
			+16.1	-27.9					Maximized	d at 4	
									meters		

Page 296 of 301 Report No.: FC06-025 Volume 3 of 9



4	32.238M	42.0	+0.3	+0.3	+0.0	+0.0	+0.0	29.8	39.1	-9.3	Horiz
			+15.1	-27.9					Maximized	l at 4	
									meters		
5	30.313M	40.7	+0.3	+0.3	+0.0	+0.0	+0.0	29.4	39.1	-9.7	Vert
			+16.0	-27.9					Maximized	l at 4	
									meters		
6	31.975M	41.4	+0.3	+0.3	+0.0	+0.0	+0.0	29.3	39.1	-9.8	Vert
	011,97,011,1		+15.2	-27.9	. 0.0	. 0.0	. 0.0	_,	Maximized		, 010
			113.2	27.5					meters		
7	33.175M	41.0	+0.3	+0.4	+0.0	+0.0	+0.0	28.5	39.1	-10.6	Vert
,	33.173141	41.0	+14.7	-27.9	10.0	10.0	10.0	20.5	Maximized		VOIT
			117.7	21.7					meters	i ai T	
-	40.0053.4	20.2	. 0. 4	.0.5	. 0. 1	. 0. 0	. 0. 0	20.0		11.0	TT .
8	49.885M	38.3	+0.4	+0.5	+0.1	+0.0	+0.0	28.0	39.1	-11.2	Horiz
			+11.6	-27.9	+5.0						
9	33.513M	40.2	+0.3	+0.4	+0.0	+0.0	+0.0	27.5	39.1	-11.6	Horiz
			+14.5	-27.9					Maximized	l at 4	
									meters		
10	149.780M	35.9	+0.7	+0.8	+0.1	+0.0	+0.0	30.1	43.5	-13.4	Vert
			+15.2	-27.6	+5.0						
11	159.985M	35.3	+0.7	+0.8	+0.1	+0.0	+0.0	29.8	43.5	-13.7	Vert
			+15.6	-27.7	+5.0			, , ,			
12	450.055M	35.7	+1.2	+1.8	+0.2	+16.6	+0.0	32.2	46.4	-14.2	Horiz
1 .2	.50.055141	55.7	+0.0	-28.3	+5.0	110.0	10.0	32.2		12	110112
1			+0.0	-20.3	$\pm 3.0$						

Page 297 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 16:21:36
Equipment: BPL MV Gateway Sequence#: 221
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway

S/N: ENG1

## *Equipment Under Test* (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway*	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 15: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measu	Measurement Data: Reading listed by margin.				Test Distance: 10 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.860M	44.4	+0.4	+0.5	+0.1	+11.7	+0.0	34.2	39.1	-4.9	Vert
			-27.9	+5.0							
2	31.513M	45.0	+0.3	+0.3	+0.0	+15.5	+0.0	33.2	39.1	-5.9	Vert
			-27.9						Maximized	d at 4	
									meters		
3	149.985M	43.1	+0.7	+0.8	+0.1	+15.2	+0.0	37.3	43.5	-6.2	Horiz
			-27.6	+5.0							

Page 298 of 301 Report No.: FC06-025 Volume 3 of 9



4	30.563M	42.6	+0.3	+0.3	+0.0	+15.9	+0.0	31.2	39.1	-7.9	Vert
			-27.9						Maximized	l at 4	
									meters		
5	30.275M	42.2	+0.3	+0.3	+0.0	+16.1	+0.0	31.0	39.1	-8.1	Horiz
			-27.9						Maximized	l at 4	
									meters		
6	33.025M	43.2	+0.3	+0.4	+0.0	+14.8	+0.0	30.8	39.1	-8.3	Vert
			-27.9						Maximized	l at 4	
									meters		
7	31.538M	41.8	+0.3	+0.3	+0.0	+15.5	+0.0	30.0	39.1	-9.1	Horiz
			-27.9						Maximized	l at 4	
									meters		
8	49.885M	39.2	+0.4	+0.5	+0.1	+11.6	+0.0	28.9	39.1	-10.2	Horiz
			-27.9	+5.0							
9	32.725M	40.3	+0.3	+0.4	+0.0	+14.9	+0.0	28.0	39.1	-11.1	Horiz
			-27.9						Maximized	l at 4	
									meters		
10	250.000M	37.1	+0.9	+1.2	+0.3	+18.1	+0.0	34.8	46.4	-11.6	Horiz
			-27.8	+5.0							
11	159.980M	35.5	+0.7	+0.8	+0.1	+15.6	+0.0	30.0	43.5	-13.6	Vert
			-27.7	+5.0							
12	160.070M	33.8	+0.7	+0.8	+0.1	+15.6	+0.0	28.3	43.5	-15.3	Horiz
			-27.7	+5.0							
13	149.770M	33.8	+0.7	+0.8	+0.1	+15.2	+0.0	28.0	43.5	-15.5	Vert
			-27.6	+5.0							

Page 299 of 301 Report No.: FC06-025 Volume 3 of 9



Customer: Corinex

Specification: FCC 15.109 CLASS A RADIATED

Work Order #: 84818 Date: 3/20/2006
Test Type: Radiated Scan Time: 16:39:01
Equipment: BPL MV Gateway Sequence#: 222
Manufacturer: Corinex Tested By: C. Nicklas

Model: MV Gateway S/N: 000BC2200043

### Equipment Under Test (\* = EUT):

Function	Manufacturer	Model #	S/N
BPL MV Gateway	Corinex	MV Gateway	ENG1
Underground Coupler	Arteche	UNIC	0516632/26
Combiner	Corinex	CXP-MVA-COM	none
Medium Voltage Powerline Filter Mode 2	Corinex	CXF-MVA-M2	none
Medium Voltage Powerline Filter Mode 3	Corinex	CXF-MVA-M3	none

## Support Devices:

Function	Manufacturer	Model #	S/N	

#### Test Conditions / Notes:

Formal Underground Test Site #3: At Grayson Lakes Section 9, Transformer #3 in Katy, TX Testing using the Biconical Antenna from 30-300MHz and Log Periodic Antenna from 300-1000MHz. Test distance of antenna to transformer is 10 meters. Test Position 16: Unit is setup for maximum transmission over the medium voltage lines at the maximum power level for underground lines only. Notch Filters are off line. Tested from 30-1000MHz. All unlabeled data is measured at an antenna height of 1 meter so a 5dB correction factor is added per FCC Part 15, Subpart G guidelines. Test data represents the worst case mode for above 30MHz. Worst case mode is MODE3 on one port, transmitting from 24-34MHz at full power from 24-29.5MHz and 18dB below full power from 30-32MHz and 20dB below full power from 32-34MHz. The other port is running MODE2 only. The coupler on the appropriate line which is terminated into 75 ohms which simulated the unit termination.

# Transducer Legend:

T1=PO 05440 RG214/U Cable	T2=Cable 2410
T3=Cable 01185	T4=ANT-AN00503-010505
T5=HP-8447D Pre Amp AN 00567	T6=5dB Height Correction

Measur	ement Data:	Reading listed by margin.				Test Distance: 10 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\muV/m$	$dB\mu V/m$	dB	Ant
1	49.865M	43.8	+0.4	+0.5	+0.1	+11.7	+0.0	33.6	39.1	-5.5	Vert
			-27.9	+5.0							
2	30.438M	43.9	+0.3	+0.3	+0.0	+16.0	+0.0	32.6	39.1	-6.5	Horiz
			-27.9						Maximized	l at 4	
									meters		
3	31.638M	43.4	+0.3	+0.3	+0.0	+15.4	+0.0	31.5	39.1	-7.6	Horiz
			-27.9						Maximized	l at 4	
									meters		

Page 300 of 301 Report No.: FC06-025 Volume 3 of 9



4	30.338M	42.7	+0.3	+0.3	+0.0	+16.0	+0.0	31.4	39.1	-7.7	Vert
			-27.9						Maximized	l at 4	
									meters		
5	31.663M	41.9	+0.3	+0.3	+0.0	+15.4	+0.0	30.0	39.1	-9.1	Vert
			-27.9						Maximized	l at 4	
									meters		
6	150.010M	40.0	+0.7	+0.8	+0.1	+15.2	+0.0	34.2	43.5	-9.3	Horiz
			-27.6	+5.0							
7	32.813M	41.7	+0.3	+0.4	+0.0	+14.9	+0.0	29.4	39.1	-9.7	Horiz
			-27.9						Maximized	l at 4	
									meters		
8	49.855M	38.1	+0.4	+0.5	+0.1	+11.7	+0.0	27.9	39.1	-11.2	Horiz
			-27.9	+5.0							
9	33.025M	40.1	+0.3	+0.4	+0.0	+14.8	+0.0	27.6	39.1	-11.5	Vert
			-27.9						Maximized	l at 4	
									meters		
10	249.980M	37.0	+0.9	+1.2	+0.3	+18.1	+0.0	34.7	46.4	-11.7	Horiz
			-27.8	+5.0							
11	149.740M	36.5	+0.7	+0.8	+0.1	+15.2	+0.0	30.7	43.5	-12.8	Vert
			-27.6	+5.0							
12	160.065M	36.1	+0.7	+0.8	+0.1	+15.6	+0.0	30.6	43.5	-12.9	Horiz
			-27.7	+5.0							
13	159.995M	34.2	+0.7	+0.8	+0.1	+15.6	+0.0	28.7	43.5	-14.8	Vert
			-27.7	+5.0							
14	240.060M	33.8	+0.9	+1.2	+0.3	+17.9	+0.0	31.4	46.4	-15.0	Vert
			-27.7	+5.0							

Page 301 of 301 Report No.: FC06-025 Volume 3 of 9