



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

P.O. No.: 2006/SS/0018
W.O. No.: 84818

PREPARED BY:

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

Date of test: March 16 - May 2, 2006

Report No.: FC06-025 Volume 3 of 9

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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
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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:

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

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant
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						
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						
4	124.995M	31.1	+0.6	+0.8	+0.1	+0.0	+0.0	19.8	43.5	-23.7	Vert
			+13.3	-27.7	+1.6						

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 4/28/2006
 Test Type: **Radiated Scan** Time: 09:21:35
 Equipment: **BPL MV Gateway** Sequence#: 254
 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
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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:

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

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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					

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 4/28/2006
 Test Type: **Radiated Scan** Time: 09:27:38
 Equipment: **BPL MV Gateway** Sequence#: 255
 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
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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:

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

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/m	dB	Ant
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					
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					
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					
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					
5	480.045M	33.9	+1.3	+1.8	+0.2	+17.2	+0.0	32.9	46.4	-13.5	Vert
			+0.0	-28.1	+1.6	+5.0					
6	450.045M	34.6	+1.2	+1.8	+0.2	+16.6	+0.0	32.7	46.4	-13.7	Horiz
			+0.0	-28.3	+1.6	+5.0					

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •
 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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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					

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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:

Function	Manufacturer	Model #	S/N
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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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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
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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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						
^	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						

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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:

Function	Manufacturer	Model #	S/N
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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
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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
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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:

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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6			Table	dBμV/m	dBμV/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							
^	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							

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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
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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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •

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:

Function	Manufacturer	Model #	S/N
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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
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: LV Overhead Test Site #1 • Frisco Street west of Winchell Street • Houston, TX. •
 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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	T7 dB	dB	Table	dBμV/m	dBμV/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						

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 16:51:37
 Sequence#: 299
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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:

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
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						
^	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						
^	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						

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

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 16:40:47
 Sequence#: 298
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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' 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 MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	240.005M	41.0	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	41.5	46.4	-4.9	Horiz
2	150.020M	38.8	+1.9 +15.2	+0.1 +2.6	-27.6 +5.0	+0.0	+0.0	36.0	43.5	-7.5	Horiz
3	400.025M	39.9	+3.4 +0.0	+0.2 +2.6	-28.4 +5.0	+16.2	+0.0	38.9	46.4	-7.5	Vert
4	240.015M	35.5	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	36.0	46.4	-10.4	Vert
5	250.010M	34.0	+2.6 +18.1	+0.1 +2.6	-27.8 +5.0	+0.0	+0.0	34.6	46.4	-11.8	Vert
6	160.005M	31.8	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	29.4	43.5	-14.1	Vert

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

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 16:35:10
 Sequence#: 297
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	399.995M	39.3	+3.4 +0.0	+0.2 +2.6	-28.4 +5.0	+16.2	+0.0	38.3	46.4	-8.1	Vert
2	239.885M	37.4	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	37.9	46.4	-8.5	Horiz
3	160.010M	36.7	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	34.3	43.5	-9.2	Horiz
4	239.895M	35.7	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	36.2	46.4	-10.2	Vert
5	160.050M	32.1	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	29.7	43.5	-13.8	Vert
6	250.000M	31.7	+2.6 +18.1	+0.1 +2.6	-27.8 +5.0	+0.0	+0.0	32.3	46.4	-14.1	Vert
7	480.040M	28.1	+3.8 +0.0	+0.2 +2.6	-28.1 +5.0	+17.2	+0.0	28.7	46.4	-17.7	Vert

Test Location: LV Overhead Test Site #2 •Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX. •

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:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 5/1/2006
 Test Type: **Radiated Scan** Time: 16:23:22
 Equipment: **BPL MV Gateway** Sequence#: 295
 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
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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 $-20 \times \text{LOG}(10/13.5) = 2.6\text{dB}$ 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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	240.025M	37.3	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	37.8	46.4	-8.6	Horiz
2	239.980M	35.1	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	35.6	46.4	-10.8	Vert
3	160.000M	34.6	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	32.2	43.5	-11.3	Vert
4	400.015M	32.8	+3.4 +0.0	+0.2 +2.6	-28.4 +5.0	+16.2	+0.0	31.8	46.4	-14.6	Vert
5	319.980M	29.3	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	31.4	46.4	-15.0	Horiz
6	480.060M	30.2	+3.8 +0.0	+0.2 +2.6	-28.1 +5.0	+17.2	+0.0	30.9	46.4	-15.5	Horiz
7	480.075M	28.7	+3.8 +0.0	+0.2 +2.6	-28.1 +5.0	+17.2	+0.0	29.4	46.4	-17.0	Vert

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 16:17:18
 Sequence#: 294
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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
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
	MHz	dBμV	T5 dB	T6 dB	T7 dB		Table	dBμV/m	dBμV/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						

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 16:07:53
 Sequence#: 293
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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:

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 MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	239.995M	32.9	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	33.4	46.4	-13.0	Vert
2	124.980M	33.7	+1.7 +13.3	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	28.7	43.5	-14.8	Vert
3	319.975M	29.1	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	31.2	46.4	-15.2	Vert
4	160.015M	29.0	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	26.6	43.5	-16.9	Vert

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX.

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:

Function	Manufacturer	Model #	S/N
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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 $-20 \times \text{LOG}(10/13.5) = 2.6\text{dB}$ 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:

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 MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	150.000M	39.6	+1.9 +15.2	+0.1 +2.6	-27.6 +5.0	+0.0	+0.0	36.8	43.5	-6.7	Horiz
2	240.000M	39.2	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	39.7	46.4	-6.7	Horiz
3	240.015M	30.9	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	31.4	46.4	-15.0	Vert
4	320.010M	28.7	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	30.8	46.4	-15.6	Horiz
5	320.000M	28.1	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	30.2	46.4	-16.2	Vert
6	160.000M	28.9	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	26.5	43.5	-17.0	Vert
7	400.000M	28.5	+3.4 +0.0	+0.2 +2.6	-28.4 +5.0	+16.2	+0.0	27.5	46.4	-18.9	Vert

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX. •

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:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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	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	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	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						

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

Test Location: LV Overhead Test Site #2 •Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX. •
 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
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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 $-20 \cdot \log(10/13.5) = 2.6\text{dB}$ 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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	T7 dB	dB	Table	dBμV/m	dBμV/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						
^	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						

Test Location: LV Overhead Test Site #2 • Squatty Lyons Park on East Hardy Streetlight Pole #488951 • Houston, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/1/2006
 Time: 15:32:32
 Sequence#: 289
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \times \text{LOG}(10/13.5) = 2.6\text{dB}$ 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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	124.955M	40.4	+1.7 +13.3	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	35.4	43.5	-8.1	Vert
2	240.115M	37.5	+2.6 +17.9	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	38.0	46.4	-8.5	Horiz
3	174.955M	35.6	+2.1 +16.1	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	33.8	43.5	-9.7	Horiz
4	160.060M	32.2	+2.0 +15.6	+0.1 +2.6	-27.7 +5.0	+0.0	+0.0	29.8	43.5	-13.7	Vert
5	319.980M	29.2	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	31.3	46.4	-15.1	Horiz
6	319.980M	29.2	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	31.3	46.4	-15.1	Vert
7	320.000M	28.9	+3.0 +0.0	+0.1 +2.6	-28.1 +5.0	+19.5	+0.0	31.0	46.4	-15.4	Horiz

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: 6749420821

Date: 5/2/2006
 Time: 14:45:59
 Sequence#: 338
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						
^	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						

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

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 14:39:00
 Sequence#: 337
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$
 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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	T7 dB	dB	Table	dBμV/m	dBμV/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						
^	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						

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

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 14:32:59
 Sequence#: 336
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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=5dB Height Correction	

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

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

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

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 14:27:33
 Sequence#: 335
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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=5dB Height Correction	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.000M	34.7	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	32.6	43.5	-11.0	Vert
2	160.005M	32.7	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	30.6	43.5	-12.9	Horiz
3	399.970M	31.0	+3.4 -28.4	+0.2 +2.9	+16.2 +5.0	+0.0	+0.0	30.3	46.4	-16.1	Vert
4	320.015M	26.8	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	29.2	46.4	-17.2	Vert
5	240.015M	28.4	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	29.2	46.4	-17.3	Horiz
6	240.005M	27.3	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	28.1	46.4	-18.3	Vert

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

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 14:22:42
 Sequence#: 334
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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:

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.020M	33.5	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	31.4	43.5	-12.2	Horiz
2	240.010M	29.5	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	30.3	46.4	-16.1	Horiz
3	160.010M	28.0	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	25.9	43.5	-17.7	Vert
4	319.990M	26.2	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	28.6	46.4	-17.8	Horiz
5	240.010M	26.3	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	27.1	46.4	-19.3	Vert
6	400.020M	26.3	+3.4 -28.4	+0.2 +2.9	+16.2 +5.0	+0.0	+0.0	25.6	46.4	-20.8	Vert

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

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 13:32:19
 Sequence#: 333
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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=5dB Height Correction	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	159.985M	31.8	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	29.7	43.5	-13.8	Horiz
2	160.005M	28.8	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	26.7	43.5	-16.8	Vert
3	239.985M	27.7	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	28.5	46.4	-17.9	Horiz
4	320.005M	24.9	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	27.3	46.4	-19.1	Vert
5	320.000M	23.6	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	26.0	46.4	-20.4	Horiz
6	240.005M	24.5	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	25.3	46.4	-21.1	Vert

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 13:23:44
 Sequence#: 332
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$
 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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	T7 dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	320.005M	30.9	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	33.3	46.4	-13.1	Vert
2	320.005M	29.8	+3.0 -28.1	+0.1 +2.9	+19.5 +5.0	+0.0	+0.0	32.2	46.4	-14.2	Horiz
3	160.000M	29.6	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	27.5	43.5	-16.0	Horiz
4	160.010M	29.5	+2.0 -27.7	+0.1 +2.9	+0.0 +5.0	+15.6	+0.0	27.4	43.5	-16.1	Vert
5	150.000M	28.1	+1.9 -27.6	+0.1 +2.9	+0.0 +5.0	+15.2	+0.0	25.6	43.5	-17.9	Horiz
6	240.000M	25.0	+2.6 -27.7	+0.1 +2.9	+0.0 +5.0	+17.9	+0.0	25.8	46.4	-20.6	Horiz
7	400.070M	23.9	+3.4 -28.4	+0.2 +2.9	+16.2 +5.0	+0.0	+0.0	23.2	46.4	-23.2	Vert

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 #: **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
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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:

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	160.005M	37.8	+2.0 +2.9	+0.1 +5.0	+15.6	-27.7	+0.0	35.7	43.5	-7.8	Horiz
2	274.945M	31.2	+2.7 +2.9	+0.1 +5.0	+19.5	-27.9	+0.0	33.5	46.4	-12.9	Horiz
3	159.995M	29.1	+2.0 +2.9	+0.1 +5.0	+15.6	-27.7	+0.0	27.0	43.5	-16.5	Vert
4	240.020M	28.3	+2.6 +2.9	+0.1 +5.0	+17.9	-27.7	+0.0	29.1	46.4	-17.3	Horiz
5	240.025M	27.5	+2.6 +2.9	+0.1 +5.0	+17.9	-27.7	+0.0	28.3	46.4	-18.1	Vert
6	124.950M	28.0	+1.7 +2.9	+0.1 +5.0	+13.3	-27.7	+0.0	23.3	43.5	-20.2	Vert

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 5/2/2006
 Time: 13:07:52
 Sequence#: 330
 Tested By: C. Nicklas

Equipment Under Test (* = EUT):

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

Support Devices:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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=5dB Height Correction	

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

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

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 #: **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
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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:

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

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

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 #: **84818** 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
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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 $-20 \cdot \log(10/13.9) = 2.9\text{dB}$. 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:

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	160.000M	33.3	+2.0 +2.9	+0.1 +5.0	+15.6	-27.7	+0.0	31.2	43.5	-12.3	Horiz
2	150.000M	30.7	+1.9 +2.9	+0.1 +5.0	+15.2	-27.6	+0.0	28.2	43.5	-15.3	Horiz
3	159.980M	30.1	+2.0 +2.9	+0.1 +5.0	+15.6	-27.7	+0.0	28.0	43.5	-15.5	Vert

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.000M	41.9	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	36.4	43.5	-7.1	Vert
2	150.015M	35.5	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	29.7	43.5	-13.8	Horiz
3	240.000M	34.9	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	32.3	46.4	-14.1	Vert
4	320.000M	31.2	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	30.1	46.4	-16.3	Horiz
5	400.000M	33.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	29.6	46.4	-16.8	Horiz
6	250.075M	31.5	+0.9 +18.1	+1.2 -27.8	+0.1 +5.0	+0.0	+0.0	29.0	46.4	-17.4	Horiz
7	319.980M	29.8	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	28.6	46.4	-17.8	Vert
8	400.005M	31.9	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	27.8	46.4	-18.6	Vert
9	240.000M	29.3	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	26.7	46.4	-19.7	Horiz

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 4/24/2006
 Test Type: **Radiated Scan** Time: 16:26:47
 Equipment: **BPL MV Gateway** Sequence#: 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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	149.910M	36.7	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	30.9	43.5	-12.6	Horiz
2	399.985M	34.0	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	29.9	46.4	-16.5	Vert
3	240.030M	31.6	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	29.0	46.4	-17.4	Horiz
4	320.070M	29.7	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	28.6	46.4	-17.8	Horiz
5	480.025M	29.7	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	27.0	46.4	-19.4	Vert
6	375.213M	31.1	+1.1 +0.0	+1.6 -28.3	+0.2 +5.0	+15.7	+0.0	26.3	46.4	-20.1	Horiz

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar 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						

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

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.015M	43.1	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	37.6	43.5	-5.9	Vert
2	160.000M	43.1	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	37.6	43.5	-5.9	Horiz
3	49.850M	43.0	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	32.8	39.1	-6.3	Vert
4	240.015M	40.2	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	37.6	46.4	-8.8	Horiz
5	239.995M	37.0	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	34.4	46.4	-12.0	Vert
6	49.860M	33.8	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	23.6	39.1	-15.5	Horiz
7	225.095M	33.4	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	30.2	46.4	-16.2	Vert
8	225.020M	32.8	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	29.6	46.4	-16.8	Horiz

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

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar 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						
^	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						

9	224.988M	34.2	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	31.0	46.4	-15.4	Vert
10	225.010M	30.6	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	27.4	46.4	-19.0	Horiz
11	480.065M	28.1	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	25.4	46.4	-21.0	Horiz
12	319.990M	25.7	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	24.6	46.4	-21.8	Horiz
13	400.005M	26.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	22.6	46.4	-23.8	Horiz

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	159.980M	36.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	30.5	43.5	-13.0	Vert
2	239.990M	29.4	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	26.8	46.4	-19.6	Vert
3	175.265M	28.7	+0.7 +16.1	+1.0 -27.7	+0.1 +5.0	+0.0	+0.0	23.9	43.5	-19.6	Horiz
4	319.995M	26.4	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	25.3	46.4	-21.1	Vert
5	149.985M	27.4	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	21.6	43.5	-21.9	Horiz
6	320.020M	25.3	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	24.2	46.4	-22.2	Horiz
7	159.990M	25.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	19.5	43.5	-24.0	Horiz
8	399.995M	26.4	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	22.3	46.4	-24.1	Vert

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

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

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 4/25/2006
 Test Type: **Radiated Scan** Time: 09:50:02
 Equipment: **BPL MV Gateway** Sequence#: 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
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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

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

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	159.985M	36.4	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	30.9	43.5	-12.6	Vert
2	250.020M	35.8	+0.9 -27.8	+1.2 +5.0	+0.1	+18.1	+0.0	33.3	46.4	-13.1	Horiz
3	149.990M	32.4	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	26.6	43.5	-16.9	Horiz
4	160.020M	31.7	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	26.1	43.5	-17.4	Horiz
5	225.065M	30.7	+0.8 -27.7	+1.1 +5.0	+0.1	+17.5	+0.0	27.5	46.4	-18.9	Vert
6	239.985M	29.1	+0.9 -27.7	+1.2 +5.0	+0.1	+17.9	+0.0	26.5	46.4	-19.9	Vert

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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

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

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	159.960M	40.3	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	34.8	43.5	-8.7	Vert
2	239.975M	33.3	+0.9 -27.7	+1.2 +5.0	+0.1	+17.9	+0.0	30.7	46.4	-15.7	Vert
3	159.985M	32.4	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	26.9	43.5	-16.6	Horiz
4	239.995M	32.3	+0.9 -27.7	+1.2 +5.0	+0.1	+17.9	+0.0	29.7	46.4	-16.7	Horiz
5	224.990M	28.3	+0.8 -27.7	+1.1 +5.0	+0.1	+17.5	+0.0	25.0	46.4	-21.4	Horiz

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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	

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

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

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	240.005M	41.1	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	38.5	46.4	-7.9	Vert
2	160.000M	40.5	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	35.0	43.5	-8.5	Horiz
3	160.005M	35.3	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	29.8	43.5	-13.7	Vert
4	240.025M	34.9	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	32.3	46.4	-14.1	Horiz
5	250.025M	28.5	+0.9 +18.1	+1.2 -27.8	+0.1 +5.0	+0.0	+0.0	26.0	46.4	-20.4	Horiz
6	399.963M	29.6	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	25.5	46.4	-20.9	Horiz
7	274.975M	26.4	+1.0 +19.5	+1.3 -27.9	+0.1 +5.0	+0.0	+0.0	25.4	46.4	-21.0	Horiz
8	274.960M	25.7	+1.0 +19.5	+1.3 -27.9	+0.1 +5.0	+0.0	+0.0	24.7	46.4	-21.7	Vert
9	399.938M	27.8	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	23.7	46.4	-22.7	Vert

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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: **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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	240.000M	43.7	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	41.1	46.4	-5.3	Horiz
2	175.245M	36.9	+0.7 +16.1	+1.0 -27.7	+0.1 +5.0	+0.0	+0.0	32.1	43.5	-11.4	Vert
3	239.995M	37.1	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	34.4	46.4	-12.0	Vert
4	160.000M	36.3	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
5	159.995M	35.6	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	30.1	43.5	-13.4	Vert
6	320.010M	30.3	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	29.2	46.4	-17.2	Horiz
7	400.030M	27.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	23.6	46.4	-22.8	Vert
8	240.000M	23.5	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	20.9	46.4	-25.5	Horiz

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 4/24/2006
 Test Type: **Radiated Scan** Time: 16:59:01
 Equipment: **BPL MV Gateway** Sequence#: 46
 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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						
^	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						

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

Test Location: Underground Test Site #1 • Grayson Lakes Section 9, Transformer #5 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.025M	42.5	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
2	240.025M	38.3	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	35.7	46.4	-10.7	Vert
3	225.025M	34.5	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	31.3	46.4	-15.1	Vert
4	319.980M	31.1	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	30.0	46.4	-16.4	Vert
5	240.063M	31.5	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	28.9	46.4	-17.5	Horiz
6	320.025M	29.2	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	28.1	46.4	-18.3	Horiz
7	399.985M	29.1	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	25.0	46.4	-21.4	Vert

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	160.035M	38.2	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	32.7	43.5	-10.8	Horiz
2	160.005M	37.4	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	31.9	43.5	-11.6	Vert
3	240.015M	34.6	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	32.0	46.4	-14.4	Vert
4	240.040M	33.4	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	30.8	46.4	-15.6	Horiz
5	319.965M	30.2	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	29.1	46.4	-17.3	Vert
6	479.985M	30.5	+1.3 +0.0	+1.8 +17.2	+0.2 +5.0	-28.1	+0.0	27.9	46.4	-18.5	Horiz
7	320.020M	28.8	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	27.7	46.4	-18.7	Horiz
8	480.060M	28.7	+1.3 +0.0	+1.8 +17.2	+0.2 +5.0	-28.1	+0.0	26.1	46.4	-20.3	Vert
9	399.990M	29.5	+1.2 +0.0	+1.7 +16.2	+0.2 +5.0	-28.4	+0.0	25.4	46.4	-21.0	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	320.015M	31.3	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	30.2	46.4	-16.2	Horiz
2	160.010M	32.7	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	27.2	43.5	-16.3	Vert
3	240.030M	31.9	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	29.3	46.4	-17.1	Horiz
4	319.995M	30.0	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	28.9	46.4	-17.5	Vert
5	240.040M	31.0	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	28.4	46.4	-18.0	Vert
6	480.025M	29.7	+1.3 +0.0	+1.8 +17.2	+0.2 +5.0	-28.1	+0.0	27.0	46.4	-19.4	Horiz
7	160.050M	28.9	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	23.4	43.5	-20.1	Horiz
8	399.995M	30.1	+1.2 +0.0	+1.7 +16.2	+0.2 +5.0	-28.4	+0.0	26.0	46.4	-20.4	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	249.980M	34.3	+0.9 +18.1	+1.2 +0.0	+0.1 +5.0	-27.8	+0.0	31.8	46.4	-14.6	Vert
2	159.995M	34.4	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	28.9	43.5	-14.6	Horiz
3	319.995M	32.6	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	31.4	46.4	-15.0	Vert
4	159.980M	32.3	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	26.8	43.5	-16.7	Vert
5	320.005M	28.5	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	27.4	46.4	-19.0	Horiz
6	240.005M	29.8	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	27.2	46.4	-19.2	Vert
7	240.015M	29.7	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	27.0	46.4	-19.4	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	149.965M	35.4	+0.7 +15.2	+0.8 +0.0	+0.1 +5.0	-27.6	+0.0	29.6	43.5	-13.9	Horiz
2	160.080M	33.1	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	27.6	43.5	-15.9	Vert
3	320.015M	29.9	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	28.8	46.4	-17.6	Vert
4	319.990M	29.0	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	27.9	46.4	-18.5	Horiz
5	160.050M	29.4	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	23.9	43.5	-19.6	Horiz
6	240.050M	28.5	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	25.9	46.4	-20.5	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6							
			dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	149.995M	35.0	+0.7 +15.2	+0.8 +5.0	+0.1	-27.6	+0.0	29.2	43.5	-14.3	Horiz
2	159.985M	32.6	+0.7 +15.6	+0.8 +5.0	+0.1	-27.7	+0.0	27.1	43.5	-16.4	Vert
3	225.055M	28.3	+0.8 +17.5	+1.1 +5.0	+0.1	-27.7	+0.0	25.1	46.4	-21.3	Vert

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6			Table	dB μ V/m	dB μ 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							

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.000M	43.0	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	37.5	43.5	-6.0	Horiz
2	159.995M	41.2	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	35.7	43.5	-7.8	Vert
3	240.035M	40.1	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	37.5	46.4	-8.9	Horiz
4	240.015M	38.5	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	35.9	46.4	-10.5	Vert
5	319.995M	29.7	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	28.6	46.4	-17.8	Horiz
6	320.005M	29.0	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	27.9	46.4	-18.5	Vert

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7		Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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

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

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

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5 dB	T6 dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	159.995M	36.2	+0.7 +15.6	+0.8 +5.0	+0.1	-27.7	+0.0	30.7	43.5	-12.8	Vert
2	240.000M	30.8	+0.9 +17.9	+1.2 +5.0	+0.1	-27.7	+0.0	28.2	46.4	-18.2	Vert
3	159.960M	30.4	+0.7 +15.6	+0.8 +5.0	+0.1	-27.7	+0.0	24.9	43.5	-18.6	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7						
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7		Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	159.995M	34.3	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	28.8	43.5	-14.7	Vert
2	319.990M	32.4	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	31.3	46.4	-15.1	Vert
3	240.025M	32.5	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	29.9	46.4	-16.5	Vert
4	480.015M	28.3	+1.3 +0.0	+1.8 +17.2	+0.2 +5.0	-28.1	+0.0	25.7	46.4	-20.7	Horiz
5	150.010M	27.9	+0.7 +15.2	+0.8 +0.0	+0.1 +5.0	-27.6	+0.0	22.1	43.5	-21.4	Horiz
6	400.005M	28.6	+1.2 +0.0	+1.7 +16.2	+0.2 +5.0	-28.4	+0.0	24.5	46.4	-21.9	Horiz

Test Location: Underground Test Site #2 • Grayson Lakes Section 9, Transformer #6 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	159.970M	37.6	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	32.1	43.5	-11.4	Horiz
2	160.000M	36.0	+0.7 +15.6	+0.8 +0.0	+0.1 +5.0	-27.7	+0.0	30.5	43.5	-13.0	Vert
3	240.020M	35.8	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	33.2	46.4	-13.2	Vert
4	319.990M	32.2	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	31.1	46.4	-15.3	Horiz
5	240.025M	33.7	+0.9 +17.9	+1.2 +0.0	+0.1 +5.0	-27.7	+0.0	31.1	46.4	-15.3	Horiz
6	319.990M	29.7	+1.0 +0.0	+1.4 +19.5	+0.1 +5.0	-28.1	+0.0	28.6	46.4	-17.8	Vert
7	480.005M	29.1	+1.3 +0.0	+1.8 +17.2	+0.2 +5.0	-28.1	+0.0	26.5	46.4	-19.9	Horiz
8	399.990M	29.3	+1.2 +0.0	+1.7 +16.2	+0.2 +5.0	-28.4	+0.0	25.2	46.4	-21.2	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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:

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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7		Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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
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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6							
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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		
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		

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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:

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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7		Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/m	dB	Ant
			dB	dB	dB	dB					
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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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:

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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.010M	46.6	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	41.1	43.5	-2.4	Horiz
2	240.020M	41.1	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	38.5	46.4	-7.9	Horiz
3	319.975M	34.2	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	33.1	46.4	-13.3	Vert
4	400.000M	33.0	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	28.9	46.4	-17.5	Vert
5	320.000M	29.6	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	28.5	46.4	-17.9	Horiz
6	399.975M	32.1	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	28.0	46.4	-18.4	Horiz
7	159.980M	30.4	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	24.9	43.5	-18.6	Vert

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

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

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

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	320.000M	31.9	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	30.8	46.4	-15.6	Vert
2	160.015M	33.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	27.5	43.5	-16.0	Horiz
3	400.000M	33.9	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	29.8	46.4	-16.6	Vert
4	320.038M	29.6	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	28.5	46.4	-17.9	Horiz
5	324.363M	29.3	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+18.9	+0.0	27.6	46.4	-18.8	Vert
6	480.013M	30.0	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	27.4	46.4	-19.0	Vert
7	225.085M	30.3	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	27.1	46.4	-19.3	Horiz
8	399.975M	28.9	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	24.8	46.4	-21.6	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.040M	35.4	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	29.9	43.5	-13.7	Horiz
2	320.000M	32.9	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	31.8	46.4	-14.6	Vert
3	160.035M	33.1	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	27.6	43.5	-15.9	Vert
4	399.975M	33.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	29.6	46.4	-16.8	Vert
5	320.000M	29.0	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	27.9	46.4	-18.5	Horiz
6	240.010M	29.2	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	26.6	46.4	-19.8	Vert
7	240.010M	29.1	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	26.5	46.4	-19.9	Horiz

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

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	159.985M	37.4	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	31.9	43.5	-11.6	Horiz
2	160.020M	31.4	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	25.9	43.5	-17.6	Vert
3	240.035M	30.6	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	28.0	46.4	-18.4	Vert
4	400.013M	31.4	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	27.3	46.4	-19.1	Vert
5	319.988M	28.0	+1.0 +0.0	+1.4 -28.1	+0.1 +5.0	+19.5	+0.0	26.9	46.4	-19.5	Vert
6	399.975M	30.9	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	26.8	46.4	-19.6	Horiz
7	480.013M	29.0	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	26.4	46.4	-20.0	Horiz
8	125.005M	30.3	+0.6 +13.3	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	22.3	43.5	-21.2	Vert
9	480.013M	26.4	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	23.8	46.4	-22.6	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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
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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
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	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7		Table	dB μ V/m	dB μ 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						

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #7 • Katy, TX. •

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:

Function	Manufacturer	Model #	S/N
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	160.015M	40.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	34.5	43.5	-9.0	Horiz
2	240.040M	36.3	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	33.7	46.4	-12.7	Vert
3	240.020M	35.6	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	32.9	46.4	-13.5	Vert
4	240.015M	31.8	+0.9 +17.9	+1.2 -27.7	+0.1 +5.0	+0.0	+0.0	29.2	46.4	-17.2	Horiz
5	480.063M	30.9	+1.3 +0.0	+1.8 -28.1	+0.2 +5.0	+17.2	+0.0	28.3	46.4	-18.1	Horiz
6	225.020M	31.4	+0.8 +17.5	+1.1 -27.7	+0.1 +5.0	+0.0	+0.0	28.2	46.4	-18.2	Horiz
7	474.788M	28.7	+1.3 +0.0	+1.8 -28.2	+0.2 +5.0	+17.1	+0.0	25.9	46.4	-20.5	Vert
8	399.988M	29.5	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	25.4	46.4	-21.0	Horiz

Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •
 Customer: **Corinex**
 Specification: **FCC A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: 6749420821

Date: 3/28/2006
 Time: 13:38:26
 Sequence#: 305
 Tested By: C. Nicklas

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
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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 $-20 \cdot \text{LOG}(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/12) = +1.6\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ 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.		
^	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.		

3	33.860M QP	50.1	+0.3 -27.9	+0.4 +14.4	+0.0 +0.0	+0.0 +1.6	+0.0	38.9	39.1 Maximized at 4 meters in height.	-0.2	Horiz
^	33.860M	54.1	+0.3 -27.9	+0.4 +14.4	+0.0 +0.0	+0.0 +1.6	+0.0	42.9	39.1 Maximized at 4 meters in height.	+3.8	Horiz
5	31.812M QP	49.1	+0.3 -27.9	+0.3 +15.3	+0.0 +0.0	+0.0 +1.6	+0.0	38.7	39.1 Maximized at 4 meters in height.	-0.4	Horiz
^	31.812M	54.2	+0.3 -27.9	+0.3 +15.3	+0.0 +0.0	+0.0 +1.6	+0.0	43.8	39.1 Maximized at 4 meters in height.	+4.7	Horiz
7	30.497M QP	47.1	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	37.4	39.1 Maximized at 4 meters in height.	-1.7	Horiz
^	30.497M	52.2	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	42.5	39.1 Maximized at 4 meters in height.	+3.4	Horiz
9	30.052M QP	46.8	+0.3 -27.9	+0.3 +16.2	+0.0 +0.0	+0.0 +1.6	+0.0	37.3	39.1 Maximized at 4 meters in height.	-1.8	Horiz
^	30.052M	51.7	+0.3 -27.9	+0.3 +16.2	+0.0 +0.0	+0.0 +1.6	+0.0	42.2	39.1 Maximized at 4 meters in height.	+3.1	Horiz
11	32.780M QP	47.8	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	37.1	39.1 Maximized at 4 meters in height.	-2.0	Vert
^	32.780M	53.1	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	42.4	39.1 Maximized at 4 meters in height.	+3.3	Vert
13	240.019M QP	43.6	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	44.2	46.4	-2.2	Vert
^	240.019M	44.7	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	45.3	46.4	-1.1	Vert
15	160.000M QP	43.7	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	41.2	43.5	-2.3	Vert
^	160.000M	49.6	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	47.1	43.5	+3.6	Vert
17	31.306M QP	46.6	+0.3 -27.9	+0.3 +15.6	+0.0 +0.0	+0.0 +1.6	+0.0	36.5	39.1 Maximized at 4 meters in height.	-2.6	Vert
^	31.306M	51.9	+0.3 -27.9	+0.3 +15.6	+0.0 +0.0	+0.0 +1.6	+0.0	41.8	39.1 Maximized at 4 meters in height.	+2.7	Vert

19	33.421M QP	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 at 4 meters in height.	-3.0	Vert
^	33.421M	52.4	+0.3 -27.9	+0.4 +14.6	+0.0 +0.0	+0.0 +1.6	+0.0	41.4	39.1 Maximized at 4 meters in height.	+2.3	Vert
21	224.935M	43.2	+0.8 -27.6 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	43.2	46.4	-3.2	Horiz
22	174.850M	41.8	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	40.0	43.5	-3.5	Vert
23	274.935M QP	40.3	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	42.4	46.4	-4.0	Horiz
^	274.935M	45.6	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	47.7	46.4	+1.2	Horiz
25	274.890M	38.4	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	40.5	46.4	-5.9	Vert
26	30.100M QP	42.4	+0.3 -27.9	+0.3 +16.2	+0.0 +0.0	+0.0 +1.6	+0.0	32.9	39.1 Maximized at 4 meters in height.	-6.2	Vert
^	30.100M	46.2	+0.3 -27.9	+0.3 +16.2	+0.0 +0.0	+0.0 +1.6	+0.0	36.7	39.1 Maximized at 4 meters in height.	-2.4	Vert
28	49.835M	38.9	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	31.7	39.1	-7.4	Vert
29	224.935M	37.6	+0.8 -27.6 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	37.6	46.4	-8.8	Vert
30	319.995M	29.7	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	31.7	46.4	-14.7	Horiz
31	400.005M	31.6	+1.2 -28.4 +5.0	+1.7 +0.0	+0.2 +3.0	+16.2 +0.0	+0.0	30.5	46.4	-15.9	Vert
32	375.010M	31.9	+1.1 -28.3 +5.0	+1.6 +0.0	+0.2 +3.0	+15.7 +0.0	+0.0	30.2	46.4	-16.2	Vert
33	480.075M	28.7	+1.3 -28.1 +5.0	+1.8 +0.0	+0.3 +3.0	+17.2 +0.0	+0.0	29.2	46.4	-17.2	Horiz
34	324.825M	26.8	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+18.8 +0.0	+0.0	28.1	46.4	-18.3	Horiz

35	324.825M	26.6	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+18.8 +0.0	+0.0	27.9	46.4	-18.5	Vert
36	425.015M	27.8	+1.2 -28.4 +5.0	+1.7 +0.0	+0.2 +3.0	+16.4 +0.0	+0.0	26.9	46.4	-19.5	Vert
37	375.030M	25.9	+1.1 -28.3 +5.0	+1.6 +0.0	+0.2 +3.0	+15.7 +0.0	+0.0	24.2	46.4	-22.2	Horiz

Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •
 Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway

Date: 3/28/2006
 Time: 15:01:10
 Sequence#: 306
 Tested By: C. Nicklas
 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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ 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 at 4 meters		
^	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 at 4 meters		

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

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 at 1m	-4.4	Horiz
^	31.313M	49.2	+0.3 -27.9	+0.3 +15.6	+0.0 +3.0	+0.0 +0.0	+0.0	40.5	39.1 Maximized at 1m	+1.4	Horiz
20	33.973M	44.4	+0.3 -27.9	+0.4 +14.3	+0.0 +3.0	+0.0 +0.0	+0.0	34.5	39.1 Maximized at 1m	-4.6	Horiz
21	124.790M	43.6	+0.6 -27.7 +5.0	+0.8 +13.3	+0.1 +3.0	+0.0 +0.0	+0.0	38.7	43.5	-4.8	Vert
22	32.142M QP	42.8	+0.3 -27.9	+0.3 +15.2	+0.0 +3.0	+0.0 +0.0	+0.0	33.7	39.1 Maximized at 1m	-5.4	Horiz
^	32.142M	46.6	+0.3 -27.9	+0.3 +15.2	+0.0 +3.0	+0.0 +0.0	+0.0	37.5	39.1 Maximized at 1m	-1.6	Horiz
24	49.890M	40.7	+0.4 -27.9 +5.0	+0.5 +11.6	+0.1 +3.0	+0.0 +0.0	+0.0	33.4	39.1	-5.7	Vert
25	249.650M	39.9	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	40.6	46.4	-5.8	Vert
26	274.510M	38.5	+1.0 -27.9 +5.0	+1.3 +19.4	+0.2 +3.0	+0.0 +0.0	+0.0	40.5	46.4	-5.9	Vert
27	249.765M QP	39.2	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	39.9	46.4	-6.5	Horiz
^	249.765M	44.2	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	44.9	46.4	-1.5	Horiz
29	160.030M	39.5	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	37.0	43.5	-6.5	Horiz
30	49.790M	39.5	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	32.3	39.1	-6.8	Horiz
31	160.025M	38.9	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	36.4	43.5	-7.1	Vert
32	224.865M	39.0	+0.8 -27.6 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	39.0	46.4	-7.4	Vert
33	74.549M	43.1	+0.4 -27.9 +5.0	+0.5 +6.4	+0.0 +3.0	+0.0 +0.0	+0.0	30.5	39.1	-8.6	Horiz
34	74.510M	42.7	+0.4 -27.9 +5.0	+0.5 +6.4	+0.0 +3.0	+0.0 +0.0	+0.0	30.1	39.1	-9.0	Vert

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

Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •
 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
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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 $-20 \cdot \text{LOG}(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/12) = +1.6\text{dB}$ 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				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dB μ V	T9								
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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								

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

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	-6.0	Vert
									Maximized at ~2.5 meters. Use 1m slant distance correction factor as worst case.		
^	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	+0.6	Vert
									Maximized at ~2.5 meters. Use 1m slant distance correction factor as worst case.		
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
^	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	-7.9	Vert
									Maximized at ~2.5 meters. Use 1m slant distance correction factor as worst case.		
^	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	-2.4	Vert
									Maximized at ~2.5 meters. Use 1m slant distance correction factor as worst case.		
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

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

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

Customer: **Corinex**
 Specification: **FCC A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 3/28/2006
 Time: 16:15:28
 Sequence#: 308
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		
^	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 at 4 meters		

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

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

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

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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8					
			T9								
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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								
^	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								

3	149.770M QP	43.0	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	40.2	43.5	-3.3	Horiz
^	149.770M	46.2	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	43.4	43.5	-0.1	Horiz
5	32.755M	45.5	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	34.8	39.1 Maximized at 4 meters	-4.3	Horiz
6	33.961M	46.0	+0.3 -27.9	+0.4 +14.3	+0.0 +0.0	+0.0 +1.6	+0.0	34.7	39.1 Maximized at 4 meters	-4.4	Horiz
7	32.783M	44.1	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	33.4	39.1 Maximized at 4 meters	-5.7	Vert
8	30.377M	43.0	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	33.3	39.1 Maximized at 4 meters	-5.8	Horiz
9	49.780M	40.4	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	33.2	39.1	-6.0	Horiz
10	33.947M	44.2	+0.3 -27.9	+0.4 +14.4	+0.0 +0.0	+0.0 +1.6	+0.0	33.0	39.1 Maximized at 4 meters	-6.1	Vert
11	149.750M	40.2	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	37.4	43.5	-6.1	Vert
12	49.865M	40.1	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	32.9	39.1	-6.2	Vert
13	274.945M QP	38.1	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	40.2	46.4	-6.2	Horiz
^	274.945M	42.6	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	44.7	46.4	-1.7	Horiz
15	160.015M	39.6	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	37.1	43.5	-6.4	Horiz
16	249.983M QP	39.2	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	39.9	46.4	-6.5	Horiz
^	249.983M	43.9	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	44.6	46.4	-1.9	Horiz
18	30.374M QP	42.2	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	32.5	39.1 Maximized at 4 meters	-6.6	Vert
^	30.374M	45.0	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	35.3	39.1 Maximized at 4 meters	-3.8	Vert

20	124.640M	40.7	+0.6 -27.7 +5.0	+0.8 +13.3	+0.1 +3.0	+0.0 +0.0	+0.0	35.8	43.5	-7.7	Horiz
21	32.454M	41.9	+0.3 -27.9	+0.4 +15.0	+0.0 +0.0	+0.0 +1.6	+0.0	31.3	39.1 Maximized at 4 meters	-7.8	Vert
22	240.050M	37.6	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	38.2	46.4	-8.2	Vert
23	224.945M	37.0	+0.8 -27.7 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	36.9	46.4	-9.5	Horiz
24	240.035M	35.2	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	35.8	46.4	-10.6	Horiz
25	249.840M	34.8	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	35.5	46.4	-10.9	Vert
26	400.010M	35.8	+1.2 -28.4 +5.0	+1.7 +0.0	+0.2 +3.0	+16.2 +0.0	+0.0	34.7	46.4	-11.7	Vert

Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •
 Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: 6749420821

Date: 3/28/2006
 Time: 17:06:12
 Sequence#: 310
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	149.755M QP	44.7	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	41.9	43.5	-1.6	Vert
^	149.755M	47.6	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	44.8	43.5	+1.3	Vert

3	30.401M QP	47.2	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	37.5	39.1 Maximized at 4 meters	-1.6	Vert
^	30.401M	51.6	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	41.9	39.1 Maximized at 4 meters	+2.8	Vert
5	33.725M QP	47.9	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	36.8	39.1 Maximized at 4 meters	-2.3	Vert
^	33.725M	52.0	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	40.9	39.1 Maximized at 4 meters	+1.8	Vert
7	174.860M QP	41.7	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	39.9	43.5	-3.6	Horiz
^	174.860M	45.6	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	43.8	43.5	+0.3	Horiz
9	160.010M	42.0	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	39.5	43.5	-4.0	Vert
10	31.964M QP	45.3	+0.3 -27.9	+0.3 +15.3	+0.0 +0.0	+0.0 +1.6	+0.0	34.9	39.1 Maximized at 4 meters	-4.2	Vert
^	31.964M	51.6	+0.3 -27.9	+0.3 +15.3	+0.0 +0.0	+0.0 +1.6	+0.0	41.2	39.1 Maximized at 4 meters	+2.1	Vert
12	32.786M	45.5	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	34.8	39.1 Maximized at 4 meters	-4.3	Horiz
13	249.940M	41.2	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	41.9	46.4	-4.5	Horiz
14	240.020M	40.8	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	41.4	46.4	-5.0	Vert
15	224.955M	40.3	+0.8 -27.7 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	40.2	46.4	-6.2	Horiz
16	33.507M	43.8	+0.3 -27.9	+0.4 +14.6	+0.0 +0.0	+0.0 +1.6	+0.0	32.8	39.1 Maximized at 4 meters	-6.3	Horiz
17	49.686M QP	39.8	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	32.6	39.1	-6.5	Horiz
^	49.686M	43.9	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	36.7	39.1	-2.4	Horiz

19	160.090M QP	39.0	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	36.5	43.5	-7.0	Horiz
^	160.090M	43.3	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	40.8	43.5	-2.7	Horiz
21	49.835M	38.9	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	31.7	39.1	-7.4	Vert
22	34.058M	42.9	+0.3 -27.9	+0.4 +14.3	+0.0 +0.0	+0.0 +1.6	+0.0	31.6	39.1 Maximized at 4 meters	-7.5	Horiz
23	31.371M	41.4	+0.3 -27.9	+0.3 +15.5	+0.0 +0.0	+0.0 +1.6	+0.0	31.2	39.1 Maximized at 4 meters	-7.9	Horiz
24	319.995M	34.3	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	36.3	46.4	-10.1	Vert
25	224.795M	33.8	+0.8 -27.6 +5.0	+1.1 +17.5	+0.2 +3.0	+0.0 +0.0	+0.0	33.8	46.4	-12.6	Vert

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

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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	149.760M QP	43.2	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	40.4	43.5	-3.1	Horiz
^	149.760M	46.4	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	43.6	43.5	+0.1	Horiz
5	240.000M QP	42.0	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	42.6	46.4	-3.8	Vert
^	240.000M	43.5	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	44.1	46.4	-2.3	Vert
7	33.971M QP	45.7	+0.3 -27.9	+0.4 +14.3	+0.0 +0.0	+0.0 +1.6	+0.0	34.4	39.1 Maximized at 4 meters	-4.7	Horiz
^	33.971M	49.7	+0.3 -27.9	+0.4 +14.3	+0.0 +0.0	+0.0 +1.6	+0.0	38.4	39.1 Maximized at 4 meters	-0.7	Horiz
9	30.400M QP	43.0	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	33.3	39.1 Maximized at 4 meters	-5.8	Horiz
^	30.400M	47.5	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	37.8	39.1 Maximized at 4 meters	-1.3	Horiz
11	32.585M QP	43.1	+0.3 -27.9	+0.4 +15.0	+0.0 +0.0	+0.0 +1.6	+0.0	32.5	39.1 Maximized at 4 meters	-6.6	Horiz
^	32.585M	49.3	+0.3 -27.9	+0.4 +15.0	+0.0 +0.0	+0.0 +1.6	+0.0	38.7	39.1 Maximized at 4 meters	-0.4	Horiz
13	33.693M QP	42.9	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	31.8	39.1 Maximized at 4 meters	-7.3	Vert
^	33.693M	48.4	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Vert
15	30.680M QP	40.6	+0.3 -27.9	+0.3 +15.9	+0.0 +0.0	+0.0 +1.6	+0.0	30.8	39.1 Maximized at 4 meters	-8.3	Vert
^	30.680M	47.1	+0.3 -27.9	+0.3 +15.9	+0.0 +0.0	+0.0 +1.6	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Vert
17	249.855M	37.2	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	37.9	46.4	-8.5	Vert
18	174.810M	36.6	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	34.8	43.5	-8.7	Vert

19	240.010M	36.1	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	36.7	46.4	-9.7	Horiz
20	49.760M	36.4	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	29.2	39.1	-10.0	Horiz
21	124.635M	37.2	+0.6 -27.7 +5.0	+0.8 +13.3	+0.1 +3.0	+0.0 +0.0	+0.0	32.3	43.5	-11.2	Vert
22	159.965M	34.0	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	31.5	43.5	-12.0	Vert
23	320.010M	32.1	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	34.1	46.4	-12.3	Vert
24	480.125M	33.1	+1.3 -28.1 +5.0	+1.8 +0.0	+0.3 +3.0	+17.2 +0.0	+0.0	33.6	46.4	-12.8	Vert
25	160.010M	32.5	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	30.0	43.5	-13.5	Horiz

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

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6749420821**

Date: 3/28/2006
 Time: 17:47:27
 Sequence#: 312
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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:

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

Measurement Data:

Reading listed by margin.

Test Distance: 10Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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 at 4 meters		

3	33.677M	45.3	+0.3 +14.5	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	34.1	39.1 Maximized at 4 meters	-5.0	Horiz
4	240.000M QP	40.6	+0.9 +17.9	+1.2 +3.0	+0.3 +0.0	-27.7	+0.0	41.2	46.4	-5.2	Vert
^	240.000M	42.4	+0.9 +17.9	+1.2 +3.0	+0.3 +0.0	-27.7	+0.0	43.0	46.4	-3.5	Vert
6	30.488M QP	41.5	+0.3 +16.0	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	31.8	39.1 Maximized at 4 meters	-7.3	Horiz
^	30.488M	46.8	+0.3 +16.0	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	37.1	39.1 Maximized at 4 meters	-2.0	Horiz
8	49.710M	38.7	+0.4 +11.7	+0.5 +3.0	+0.1 +0.0	-27.9	+0.0	31.5	39.1	-7.6	Horiz
9	49.876M	37.7	+0.4 +11.7	+0.5 +3.0	+0.1 +0.0	-27.9	+0.0	30.5	39.1	-8.6	Vert
10	32.758M QP	40.8	+0.3 +14.9	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	30.1	39.1 Maximized at 4 meters	-9.0	Horiz
^	32.758M	46.4	+0.3 +14.9	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	35.7	39.1 Maximized at 4 meters	-3.4	Horiz
12	160.040M	36.9	+0.7 +15.6	+0.8 +3.0	+0.1 +0.0	-27.7	+0.0	34.4	43.5	-9.1	Vert
13	240.005M	34.9	+0.9 +17.9	+1.2 +3.0	+0.3 +0.0	-27.7	+0.0	35.5	46.4	-10.9	Horiz
14	224.955M	35.0	+0.8 +17.5	+1.1 +3.0	+0.2 +0.0	-27.7	+0.0	34.9	46.4	-11.5	Horiz
15	32.728M QP	38.0	+0.3 +14.9	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	27.3	39.1 Maximized at 4 meters	-11.8	Vert
^	32.728M	46.9	+0.3 +14.9	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	36.2	39.1 Maximized at 4 meters	-2.9	Vert
17	33.750M QP	38.4	+0.3 +14.4	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	27.2	39.1 Maximized at 4 meters	-11.9	Vert
^	33.750M	43.4	+0.3 +14.4	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	32.2	39.1 Maximized at 4 meters	-6.9	Vert
19	249.866M	33.4	+0.9 +18.1	+1.2 +3.0	+0.3 +0.0	-27.8	+0.0	34.1	46.4	-12.3	Vert

Test Location: MV Overhead Test Site #1 •Post Street East of Cochran Street • Houston, TX •
 Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 3/28/2006
 Test Type: **Radiated Scan** Time: 18:18:17
 Equipment: **BPL MV Gateway** Sequence#: 313
 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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dB μ V	T9								
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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 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								

3	30.638M QP	43.3	+0.3 -27.9	+0.3 +15.9	+0.0 +0.0	+0.0 +1.6	+0.0	33.5	39.1 Maximized at 4 meters	-5.6	Vert
^	30.638M	47.2	+0.3 -27.9	+0.3 +15.9	+0.0 +0.0	+0.0 +1.6	+0.0	37.4	39.1 Maximized at 4 meters	-1.7	Vert
5	32.263M	43.5	+0.3 -27.9	+0.3 +15.1	+0.0 +0.0	+0.0 +1.6	+0.0	32.9	39.1 Maximized at 4 meters	-6.2	Vert
6	240.030M	38.3	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	38.9	46.4	-7.5	Vert
7	30.363M	41.3	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	31.6	39.1 Maximized at 4 meters	-7.5	Horiz
8	33.702M	42.1	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	31.0	39.1 Maximized at 4 meters	-8.1	Vert
9	33.737M	41.9	+0.3 -27.9	+0.4 +14.4	+0.0 +0.0	+0.0 +1.6	+0.0	30.7	39.1 Maximized at 4 meters	-8.4	Horiz
10	174.835M	34.9	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	33.1	43.5	-10.5	Vert
11	320.015M	33.7	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	35.7	46.4	-10.7	Vert
12	49.870M	35.5	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	28.3	39.1	-10.8	Horiz
13	274.965M	33.2	+1.0 -27.9 +5.0	+1.3 +19.5	+0.2 +3.0	+0.0 +0.0	+0.0	35.3	46.4	-11.1	Horiz
14	174.790M	33.2	+0.7 -27.6 +5.0	+0.9 +16.1	+0.1 +3.0	+0.0 +0.0	+0.0	31.4	43.5	-12.1	Horiz

15	160.015M	33.7	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	31.2	43.5	-12.3	Vert
16	160.060M	32.9	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	30.4	43.5	-13.1	Horiz
17	49.895M	33.2	+0.4 -27.9 +5.0	+0.5 +11.6	+0.1 +3.0	+0.0 +0.0	+0.0	25.9	39.1	-13.2	Vert
18	74.485M	37.7	+0.4 -27.9 +5.0	+0.5 +6.4	+0.0 +3.0	+0.0 +0.0	+0.0	25.1	39.1	-14.0	Vert

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

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 3/28/2006
 Test Type: **Radiated Scan** Time: 18:29:10
 Equipment: **BPL MV Gateway** Sequence#: 314
 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
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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								
^	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					
			+5.0								

3	149.750M	40.3	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	37.5	43.5	-6.0	Vert
4	240.020M	38.7	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	39.3	46.4	-7.2	Horiz
5	159.990M	38.2	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	35.7	43.5	-7.8	Vert
6	49.870M	37.8	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	30.6	39.1	-8.5	Vert
7	30.363M	38.8	+0.3 -27.9	+0.3 +16.0	+0.0 +0.0	+0.0 +1.6	+0.0	29.1	39.1 Maximized at 4 meters	-10.0	Horiz
8	319.990M	33.0	+1.0 -28.1 +5.0	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	35.0	46.4	-11.4	Vert
9	32.663M	38.0	+0.3 -27.9	+0.4 +14.9	+0.0 +0.0	+0.0 +1.6	+0.0	27.3	39.1 Maximized at 4 meters	-11.8	Horiz
10	49.875M	34.4	+0.4 -27.9 +5.0	+0.5 +11.7	+0.1 +3.0	+0.0 +0.0	+0.0	27.2	39.1	-11.9	Horiz
11	34.063M	38.3	+0.3 -27.9	+0.4 +14.3	+0.0 +0.0	+0.0 +1.6	+0.0	27.0	39.1 Maximized at 4 meters	-12.1	Horiz
12	30.675M	36.0	+0.3 -27.9	+0.3 +15.9	+0.0 +0.0	+0.0 +1.6	+0.0	26.2	39.1 Maximized at 4 meters	-12.9	Vert
13	32.025M	35.3	+0.3 -27.9	+0.3 +15.2	+0.0 +0.0	+0.0 +1.6	+0.0	24.8	39.1 Maximized at 4 meters	-14.3	Horiz
14	33.443M	35.7	+0.3 -27.9	+0.4 +14.6	+0.0 +0.0	+0.0 +1.6	+0.0	24.7	39.1 Maximized at 4 meters	-14.4	Vert
15	32.859M	34.9	+0.3 -27.9	+0.4 +14.8	+0.0 +0.0	+0.0 +1.6	+0.0	24.1	39.1 Maximized at 4 meters	-15.0	Vert
16	34.395M	32.0	+0.3 -27.9	+0.4 +14.2	+0.0 +0.0	+0.0 +1.6	+0.0	20.6	39.1 Maximized at 4 meters	-18.5	Vert

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

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	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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 at 4 meters		

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 at 4 meters	-3.7	Vert
^	32.280M	50.5	+0.3 -27.9	+0.3 +15.1	+0.0 +0.0	+0.0 +1.6	+0.0	39.9	39.1 Maximized at 4 meters	+0.8	Vert
5	240.015M	41.8	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	42.4	46.4	-4.0	Vert
6	249.855M	38.3	+0.9 -27.8 +5.0	+1.2 +18.1	+0.3 +3.0	+0.0 +0.0	+0.0	39.0	46.4	-7.4	Vert
7	240.020M	38.1	+0.9 -27.7 +5.0	+1.2 +17.9	+0.3 +3.0	+0.0 +0.0	+0.0	38.7	46.4	-7.7	Horiz
8	49.885M	38.6	+0.4 -27.9 +5.0	+0.5 +11.6	+0.1 +3.0	+0.0 +0.0	+0.0	31.3	39.1	-7.8	Vert
9	33.715M QP	42.2	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	31.1	39.1 Maximized at 4 meters	-8.0	Vert
^	33.715M	48.6	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	37.5	39.1 Maximized at 4 meters	-1.6	Vert
11	149.730M	38.3	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	35.5	43.5	-8.0	Horiz
12	149.760M	38.1	+0.7 -27.6 +5.0	+0.8 +15.2	+0.1 +3.0	+0.0 +0.0	+0.0	35.3	43.5	-8.2	Vert
13	160.010M	35.9	+0.7 -27.7 +5.0	+0.8 +15.6	+0.1 +3.0	+0.0 +0.0	+0.0	33.4	43.5	-10.1	Vert
14	32.313M	38.7	+0.3 -27.9	+0.3 +15.1	+0.0 +0.0	+0.0 +1.6	+0.0	28.1	39.1 Maximized at 4 meters	-11.0	Horiz
15	30.825M	36.8	+0.3 -27.9	+0.3 +15.8	+0.0 +0.0	+0.0 +1.6	+0.0	26.9	39.1 Maximized at 4 meters	-12.2	Horiz
16	480.085M	32.6	+1.3 -28.1 +5.0	+1.8 +0.0	+0.3 +3.0	+17.2 +0.0	+0.0	33.1	46.4	-13.3	Vert
17	49.885M	32.9	+0.4 -27.9 +5.0	+0.5 +11.6	+0.1 +3.0	+0.0 +0.0	+0.0	25.6	39.1	-13.5	Horiz
18	33.675M	34.8	+0.3 -27.9	+0.4 +14.5	+0.0 +0.0	+0.0 +1.6	+0.0	23.7	39.1 Maximized at 4 meters	-15.4	Horiz
19	320.025M	32.5	+1.0 -28.1	+1.4 +0.0	+0.2 +3.0	+19.5 +0.0	+0.0	29.5	46.4	-16.9	Horiz

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

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	Manufacturer	Model #	S/N
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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 $-20 \cdot \log(10/14) = +3\text{dB}$ at 1 meter test height. Slant Distance is 12.0 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12) = +1.6\text{dB}$ 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

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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					

4	124.730M	39.5	+0.6 +13.3	+0.8 +3.0	+0.1 +0.0	-27.7 +5.0	+0.0	34.6	43.5	-8.9	Vert
5	30.338M	38.2	+0.3 +16.0	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	28.5	39.1 Maximized at 4 meters	-10.6	Horiz
6	31.600M	38.5	+0.3 +15.4	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	28.2	39.1 Maximized at 4 meters	-10.9	Horiz
7	30.413M	35.9	+0.3 +16.0	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	26.2	39.1 Maximized at 4 meters	-12.9	Vert
8	32.288M	34.5	+0.3 +15.1	+0.3 +0.0	+0.0 +1.6	-27.9	+0.0	23.9	39.1 Maximized at 4 meters	-15.2	Vert
9	33.738M	34.7	+0.3 +14.4	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	23.5	39.1 Maximized at 4 meters	-15.6	Vert
10	33.700M	31.8	+0.3 +14.5	+0.4 +0.0	+0.0 +1.6	-27.9	+0.0	20.7	39.1 Maximized at 4 meters	-18.4	Horiz

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 #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: 6213625658

Date: 3/30/2006
 Time: 09:56:52
 Sequence#: 368
 Tested By: C. Nicklas

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
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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 $-20 \cdot \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 12.4 meters at 4 meters . Slant Distance correction factor is $-20 \cdot \text{LOG}(10/14.4) = +1.9\text{dB}$ 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	

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	dB μ V	T9								
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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								
^	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					
			+5.0								

3	149.770M QP	44.2	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	41.6	43.5	-1.9	Vert
^	149.770M	46.8	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	44.2	43.5	+0.7	Vert
5	33.880M QP	47.8	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	36.9	39.1 Maximized at 4 meters	-2.2	Horiz
^	33.880M	50.8	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	39.9	39.1 Maximized at 4 meters	+0.8	Horiz
7	149.735M	42.9	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	40.3	43.5	-3.2	Horiz
8	32.488M	44.9	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	34.6	39.1 Maximized at 4 meters	-4.5	Horiz
9	30.571M QP	42.7	+0.3 +15.9	+0.3 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0 +0.0	34.5	39.1 Maximized at 1 meter	-4.6	Vert
^	30.571M	47.2	+0.3 +15.9	+0.3 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0 +0.0	39.0	39.1 Maximized at 1 meter	-0.1	Vert
11	30.025M QP	43.5	+0.3 +16.2	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	34.3	39.1 Maximized at 4 meters	-4.8	Horiz
^	30.025M	45.8	+0.3 +16.2	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	36.6	39.1 Maximized at 4 meters	-2.5	Horiz
13	249.878M QP	39.3	+0.9 +18.1 +5.0	+1.2 -27.8	+0.3 +3.2	+0.0 +0.0	+0.0 +0.0	40.2	46.4	-6.2	Vert
^	249.878M	42.2	+0.9 +18.1 +5.0	+1.2 -27.8	+0.3 +3.2	+0.0 +0.0	+0.0 +0.0	43.1	46.4	-3.3	Vert
15	31.988M	40.9	+0.3 +15.2	+0.3 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0 +0.0	32.0	39.1 Maximized at 1 meter	-7.1	Vert
16	249.850M	37.8	+0.9 +18.1 +5.0	+1.2 -27.8	+0.3 +3.2	+0.0 +0.0	+0.0 +0.0	38.7	46.4	-7.7	Horiz
17	320.010M	36.1	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.2	+19.5 +0.0	+0.0 +0.0	38.3	46.4	-8.1	Vert
18	224.825M	37.3	+0.8 +17.5 +5.0	+1.1 -27.6	+0.2 +3.2	+0.0 +0.0	+0.0 +0.0	37.5	46.4	-8.9	Vert
19	160.005M	36.9	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	34.6	43.5	-8.9	Vert

20	240.030M	36.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	37.3	46.4	-9.1	Horiz
21	74.540M	40.9	+0.4 +6.4 +5.0	+0.5 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	28.5	39.1	-10.6	Horiz
22	33.675M	37.7	+0.3 +14.5	+0.4 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0	28.2	39.1 Maximized at 1 meter	-10.9	Vert
23	224.645M	35.0	+0.8 +17.5 +5.0	+1.1 -27.6	+0.2 +3.2	+0.0 +0.0	+0.0	35.2	46.4	-11.2	Horiz
24	49.865M	34.1	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0	27.1	39.1	-12.0	Vert
25	159.995M	32.6	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	30.3	43.5	-13.2	Horiz
26	319.975M	30.8	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.2	+19.5 +0.0	+0.0	33.0	46.4	-13.4	Horiz
27	400.020M	33.8	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.2	+16.2 +0.0	+0.0	32.9	46.4	-13.5	Vert
28	480.030M	31.7	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.2	+17.2 +0.0	+0.0	32.4	46.4	-14.0	Vert
29	480.035M	31.0	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.2	+17.2 +0.0	+0.0	31.7	46.4	-14.7	Horiz
30	400.025M	29.5	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.2	+16.2 +0.0	+0.0	28.6	46.4	-17.8	Horiz

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •
 Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818** Date: 3/30/2006
 Test Type: **Radiated Scan** Time: 10:25:30
 Equipment: **BPL MV Gateway** Sequence#: 369
 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
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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 $-20 \times \log(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \times \log(10/14.4) = +1.9\text{dB}$ 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	

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	dB μ V	T9								
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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								
^	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								

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	39.1 Maximized at 4 meters	-4.2	Horiz
4	31.313M	44.7	+0.3 +15.6	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	34.9	39.1 Maximized at 4 meters	-4.2	Horiz
5	174.940M	40.7	+0.7 +16.1 +5.0	+1.0 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	39.1	43.5	-4.4	Horiz
6	124.735M	42.9	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	38.2	43.5	-5.4	Horiz
7	174.895M	39.0	+0.7 +16.1 +5.0	+0.9 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0	37.4	43.5	-6.1	Vert
8	33.949M QP	43.6	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	32.7	39.1 Maximized at 4 meters	-6.4	Vert
^	33.949M	52.0	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	41.1	39.1 Maximized at 4 meters	+2.0	Vert
10	274.565M QP	37.8	+1.0 +19.4 +5.0	+1.3 -27.9	+0.2 +3.2	+0.0 +0.0	+0.0	40.0	46.4	-6.4	Vert
^	274.565M	43.3	+1.0 +19.4 +5.0	+1.3 -27.9	+0.2 +3.2	+0.0 +0.0	+0.0	45.5	46.4	-0.9	Vert
12	32.553M 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 at 4 meters	-6.8	Vert
^	32.553M	48.9	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	38.6	39.1 Maximized at 4 meters	-0.5	Vert
14	30.998M QP	41.2	+0.3 +15.7	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Vert
^	30.998M	48.5	+0.3 +15.7	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	38.8	39.1 Maximized at 4 meters	-0.3	Vert
16	240.040M	37.7	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	38.5	46.4	-7.9	Vert
17	349.265M	39.7	+1.1 +0.0 +5.0	+1.5 -28.2	+0.3 +3.2	+15.3 +0.0	+0.0	37.9	46.4	-8.5	Vert
18	33.444M QP	40.8	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	30.1	39.1 Maximized at 4 meters	-9.0	Horiz
^	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 at 4 meters	-3.7	Horiz

20	240.030M	34.5	+0.9 +17.9 +5.0	+1.2 -27.7 +3.2	+0.3 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0	35.3	46.4	-11.1	Horiz
21	224.940M	34.9	+0.8 +17.5 +5.0	+1.1 -27.6 +3.2	+0.2 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0	35.1	46.4	-11.3	Horiz
22	49.483M	32.9	+0.4 +11.8 +5.0	+0.5 -27.9 +3.2	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0	26.0	39.1	-13.1	Horiz
23	349.285M	34.7	+1.1 +0.0 +5.0	+1.5 -28.2 +3.2	+0.3 +3.2 +0.0	+15.3 +0.0 +0.0	+0.0	32.9	46.4	-13.5	Horiz
24	320.008M	30.2	+1.0 +0.0 +5.0	+1.4 -28.1 +3.2	+0.2 +3.2 +0.0	+19.5 +0.0 +0.0	+0.0	32.4	46.4	-14.0	Vert
25	480.053M	29.4	+1.3 +0.0 +5.0	+1.8 -28.1 +3.2	+0.3 +3.2 +0.0	+17.2 +0.0 +0.0	+0.0	30.1	46.4	-16.3	Vert
26	399.950M	30.3	+1.2 +0.0 +5.0	+1.7 -28.4 +3.2	+0.2 +3.2 +0.0	+16.2 +0.0 +0.0	+0.0	29.4	46.4	-17.0	Horiz

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6213625658**

Date: 3/30/2006
 Time: 10:44:39
 Sequence#: 370
 Tested By: C. Nicklas

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
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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 $-20 \cdot \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/14.4) = +1.9\text{dB}$ 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

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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 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					

3	32.881M	41.3	+0.3 +14.8	+0.4 -27.9	+0.0 +3.2	+0.0	+0.0	32.1	39.1 Maximized at 1 meter	-7.0	Vert
4	240.020M	38.1	+0.9 +17.9	+1.2 -27.7	+0.3 +3.2	+0.0 +5.0	+0.0	38.9	46.4	-7.5	Vert
5	31.884M QP	40.0	+0.3 +15.3	+0.3 -27.9	+0.0 +3.2	+0.0	+0.0	31.2	39.1 Maximized at 1 meter	-7.9	Vert
^	31.884M	45.8	+0.3 +15.3	+0.3 -27.9	+0.0 +3.2	+0.0	+0.0	37.0	39.1 Maximized at 1 meter	-2.1	Vert
7	149.685M	37.0	+0.7 +15.2	+0.8 -27.6	+0.1 +3.2	+0.0 +5.0	+0.0	34.4	43.5	-9.1	Vert
8	249.705M	36.0	+0.9 +18.1	+1.2 -27.8	+0.3 +3.2	+0.0 +5.0	+0.0	36.9	46.4	-9.5	Vert
9	349.265M	37.3	+1.1 +0.0	+1.5 -28.2	+0.3 +3.2	+15.3 +5.0	+0.0	35.5	46.4	-10.9	Vert
10	224.650M	34.9	+0.8 +17.5	+1.1 -27.6	+0.2 +3.2	+0.0 +5.0	+0.0	35.1	46.4	-11.3	Horiz
11	49.885M	34.1	+0.4 +11.6	+0.5 -27.9	+0.1 +3.2	+0.0 +5.0	+0.0	27.0	39.1	-12.1	Vert
12	159.990M	32.8	+0.7 +15.6	+0.8 -27.7	+0.1 +3.2	+0.0 +5.0	+0.0	30.5	43.5	-13.0	Vert
13	224.870M	32.9	+0.8 +17.5	+1.1 -27.6	+0.2 +3.2	+0.0 +5.0	+0.0	33.1	46.4	-13.3	Vert
14	239.990M	31.7	+0.9 +17.9	+1.2 -27.7	+0.3 +3.2	+0.0 +5.0	+0.0	32.5	46.4	-13.9	Horiz
15	349.260M	34.2	+1.1 +0.0	+1.5 -28.2	+0.3 +3.2	+15.3 +5.0	+0.0	32.4	46.4	-14.0	Horiz
16	174.810M	29.8	+0.7 +16.1	+0.9 -27.6	+0.1 +3.2	+0.0 +5.0	+0.0	28.2	43.5	-15.3	Vert
17	124.685M	32.1	+0.6 +13.3	+0.8 -27.7	+0.1 +3.2	+0.0 +5.0	+0.0	27.4	43.5	-16.1	Vert
18	480.008M	28.3	+1.3 +0.0	+1.8 -28.1	+0.3 +3.2	+17.2 +5.0	+0.0	29.0	46.4	-17.5	Vert
19	400.008M	29.4	+1.2 +0.0	+1.7 -28.4	+0.2 +3.2	+16.2 +5.0	+0.0	28.5	46.4	-17.9	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, 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):

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 #	S/N
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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 $-20 \cdot \log(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/14.4) = +1.9\text{dB}$ 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	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		
			+0.0								

2	174.835M QP	40.0	+0.7 +16.1 +0.0	+0.9 -27.6 +5.0	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	38.4	43.5	-5.1	Horiz
^	174.835M	43.7	+0.7 +16.1 +0.0	+0.9 -27.6 +5.0	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	42.1	43.5	-1.4	Horiz
4	33.473M QP	44.7	+0.3 +14.6 +0.0	+0.4 -27.9 +0.0	+0.0 +0.0 +1.9	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	34.0	39.1 Maximized at 4 meters	-5.1	Vert
^	33.473M	47.9	+0.3 +14.6 +0.0	+0.4 -27.9 +0.0	+0.0 +0.0 +1.9	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	37.2	39.1 Maximized at 4 meters	-1.9	Vert
6	33.992M	43.7	+0.3 +14.3 +2.3	+0.4 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	33.1	39.1 Maximized at 3 meters	-6.0	Horiz
7	30.838M	42.6	+0.3 +15.8 +0.0	+0.3 -27.9 +0.0	+0.0 +0.0 +1.9	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	33.0	39.1 Maximized at 4 meters	-6.1	Vert
8	32.763M	43.3	+0.3 +14.9 +0.0	+0.4 -27.9 +0.0	+0.0 +0.0 +1.9	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	32.9	39.1 Maximized at 4 meters	-6.2	Vert
9	240.005M	37.7	+0.9 +17.9 +0.0	+1.2 -27.7 +5.0	+0.3 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	38.5	46.4	-8.0	Vert
10	32.505M	41.1	+0.3 +15.0 +2.3	+0.4 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	31.1	39.1 Maximized at 3 meters	-8.0	Horiz
11	224.615M	38.0	+0.8 +17.5 +0.0	+1.1 -27.6 +5.0	+0.2 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	38.2	46.4	-8.3	Vert
12	160.045M	36.3	+0.7 +15.6 +0.0	+0.8 -27.7 +5.0	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	34.0	43.5	-9.5	Vert
13	124.665M	38.1	+0.6 +13.3 +0.0	+0.8 -27.7 +5.0	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	33.4	43.5	-10.1	Horiz
14	49.855M	35.7	+0.4 +11.7 +0.0	+0.5 -27.9 +5.0	+0.1 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	28.7	39.1	-10.4	Vert

15	30.525M	36.0	+0.3 +15.9 +2.3	+0.3 -27.9	+0.0 +0.0	+0.0 +0.0	+0.0	26.9	39.1 Maximized at 3 meters	-12.2	Horiz
^	30.525M	44.3	+0.3 +15.9 +2.3	+0.3 -27.9	+0.0 +0.0	+0.0 +0.0	+0.0	35.2	39.1 Maximized at 3 meters	-3.9	Horiz
17	74.460M	36.7	+0.4 +6.4 +0.0	+0.5 -27.9 +5.0	+0.0 +3.2	+0.0 +0.0	+0.0	24.3	39.1	-14.8	Horiz
18	349.243M	31.2	+1.1 +0.0 +0.0	+1.5 -28.2 +5.0	+0.3 +3.2	+15.3 +0.0	+0.0	29.4	46.4	-17.0	Horiz

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •
 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):

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
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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 $-20 \cdot \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/14.4) = +1.9\text{dB}$ 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					
	MHz	dB μ V	T9	T10							
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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							
^	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							

3	159.930M	40.5	+0.7 +15.6 +0.0	+0.8 -27.7 +5.0	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	38.2	43.5	-5.3	Vert
4	274.675M	37.5	+1.0 +19.4 +0.0	+1.3 -27.9 +5.0	+0.2 +3.2	+0.0 +0.0	+0.0 +0.0	39.7	46.4	-6.8	Vert
5	274.515M	37.4	+1.0 +19.4 +0.0	+1.3 -27.9 +5.0	+0.2 +3.2	+0.0 +0.0	+0.0 +0.0	39.6	46.4	-6.8	Horiz
6	240.030M	38.7	+0.9 +17.9 +0.0	+1.2 -27.7 +5.0	+0.3 +3.2	+0.0 +0.0	+0.0 +0.0	39.5	46.4	-6.9	Horiz
7	30.650M	40.8	+0.3 +15.9 +2.3	+0.3 -27.9	+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	31.6	39.1 Maximum height achieved 3 meters, tree in the way to go any higher for Horizontal polarity	-7.5	Horiz
8	32.485M	41.8	+0.3 +15.0 +0.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	31.4	39.1 Maximized at 4 meters	-7.7	Vert
9	174.400M	35.9	+0.7 +16.1 +0.0	+0.9 -27.6 +5.0	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	34.3	43.5	-9.2	Vert
10	124.725M	38.9	+0.6 +13.3 +0.0	+0.8 -27.7 +5.0	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	34.2	43.5	-9.3	Horiz
11	49.730M	36.6	+0.4 +11.7 +0.0	+0.5 -27.9 +5.0	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	29.6	39.1	-9.5	Horiz
12	34.066M	40.4	+0.3 +14.3 +0.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	29.4	39.1 Maximized at 4 meters	-9.7	Vert
13	159.995M	35.8	+0.7 +15.6 +0.0	+0.8 -27.7 +5.0	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	33.5	43.5	-10.0	Horiz

14	30.475M	37.4	+0.3 +16.0 +0.0	+0.3 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +1.9 +0.0	+0.0	28.0	39.1 Maximized at 4 meters	-11.1	Vert
^	30.475M	45.0	+0.3 +16.0 +0.0	+0.3 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +1.9 +0.0	+0.0	35.6	39.1 Maximized at 4 meters	-3.5	Vert
16	319.995M	32.8	+1.0 +0.0 +0.0	+1.4 -28.1 +5.0	+0.2 +3.2 +0.0	+19.5 +0.0 +0.0	+0.0	35.0	46.4	-11.4	Vert
17	74.495M	40.1	+0.4 +6.4 +0.0	+0.5 -27.9 +5.0	+0.0 +3.2 +0.0	+0.0 +0.0 +0.0	+0.0	27.7	39.1	-11.4	Vert
18	31.725M	36.9	+0.3 +15.4 +2.3	+0.3 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	+0.0	27.3	39.1 Maximum height achieved 3 meters, tree in the way to go any higher for Horizontal polarity	-11.8	Horiz
19	320.008M	31.1	+1.0 +0.0 +0.0	+1.4 -28.1 +5.0	+0.2 +3.2 +0.0	+19.5 +0.0 +0.0	+0.0	33.3	46.4	-13.1	Horiz
20	480.060M	32.3	+1.3 +0.0 +0.0	+1.8 -28.1 +5.0	+0.3 +3.2 +0.0	+17.2 +0.0 +0.0	+0.0	33.0	46.4	-13.4	Vert
21	33.200M	35.0	+0.3 +14.7 +2.3	+0.4 -27.9 +0.0	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	+0.0	24.8	39.1 Maximum height achieved 3 meters, tree in the way to go any higher for Horizontal polarity	-14.3	Horiz
22	324.858M	30.1	+1.0 +0.0 +0.0	+1.4 -28.1 +5.0	+0.2 +3.2 +0.0	+18.8 +0.0 +0.0	+0.0	31.6	46.4	-14.8	Vert
23	399.995M	28.6	+1.2 +0.0 +0.0	+1.7 -28.4 +5.0	+0.2 +3.2 +0.0	+16.2 +0.0 +0.0	+0.0	27.7	46.4	-18.7	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •
 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):

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
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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 $-20 \cdot \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/14.4) = +1.9\text{dB}$ 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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	240.021M QP	44.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	45.3	46.4	-1.1	Vert
^	240.021M	46.2	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	47.0	46.4	+0.6	Vert

3	240.035M	38.8	+0.9 +17.9 +5.0	+1.2 -27.7 +3.2	+0.3 +0.0 +0.0	+0.0 +0.0 +0.0	39.6	46.4	-6.8	Horiz
4	30.888M	40.7	+0.3 +15.8	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	31.1	39.1 Maximized at 4 meters	-8.0	Horiz
5	32.500M	40.7	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	30.4	39.1 Maximized at 4 meters	-8.7	Vert
6	31.000M	40.0	+0.3 +15.7	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	30.3	39.1 Maximized at 4 meters	-8.8	Vert
7	34.088M	41.2	+0.3 +14.3	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	30.2	39.1 Maximized at 4 meters	-8.9	Vert
8	32.513M	39.5	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	29.2	39.1 Maximized at 4 meters	-9.9	Horiz
9	224.885M	35.7	+0.8 +17.5 +5.0	+1.1 -27.6 +3.2	+0.2 +0.0 +0.0	+0.0 +0.0 +0.0	35.9	46.4	-10.5	Vert
10	174.890M	34.5	+0.7 +16.1 +5.0	+0.9 -27.6 +3.2	+0.1 +0.0 +0.0	+0.0 +0.0 +0.0	32.9	43.5	-10.6	Horiz
11	33.838M	37.8	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	26.9	39.1 Maximized at 4 meters	-12.2	Horiz
12	224.945M	33.6	+0.8 +17.5 +5.0	+1.1 -27.7 +3.2	+0.2 +0.0 +0.0	+0.0 +0.0 +0.0	33.7	46.4	-12.7	Horiz
13	320.023M	31.2	+1.0 +0.0 +5.0	+1.4 -28.1 +3.2	+0.2 +0.0 +0.0	+19.5 +0.0 +0.0	33.4	46.4	-13.0	Vert
14	74.510M	37.0	+0.4 +6.4 +5.0	+0.5 -27.9 +3.2	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	24.6	39.1	-14.5	Vert
15	74.505M	35.3	+0.4 +6.4 +5.0	+0.5 -27.9 +3.2	+0.0 +0.0 +0.0	+0.0 +0.0 +0.0	22.9	39.1	-16.2	Horiz
16	349.250M	30.7	+1.1 +0.0 +5.0	+1.5 -28.2 +3.2	+0.3 +0.0 +0.0	+15.3 +0.0 +0.0	28.9	46.4	-17.5	Vert
17	349.273M	28.5	+1.1 +0.0 +5.0	+1.5 -28.2 +3.2	+0.3 +0.0 +0.0	+15.3 +0.0 +0.0	26.7	46.4	-19.7	Horiz

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •

Customer: **Corinex**
Specification: **FCC 15.109 CLASS A RADIATED**
Work Order #: **84818**
Test Type: **Radiated Scan**
Equipment: **BPL MV Gateway**
Manufacturer: **Corinex**
Model: **MV Gateway**
S/N: **6213625658**

Date: 3/30/2006
Time: 12:28:03
Sequence#: 374
Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/14.4) = +1.9\text{dB}$ 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
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	30.838M	41.1	+0.3 -27.9	+0.3 +0.0	+0.0 +1.9	+15.8	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Horiz
4	32.500M	41.5	+0.3 -27.9	+0.4 +0.0	+0.0 +1.9	+15.0	+0.0	31.2	39.1 Maximized at 4 meters	-7.9	Horiz
5	33.575M	41.9	+0.3 -27.9	+0.4 +0.0	+0.0 +1.9	+14.5	+0.0	31.1	39.1 Maximized at 4 meters	-8.0	Horiz
6	33.825M	41.8	+0.3 -27.9	+0.4 +0.0	+0.0 +1.9	+14.4	+0.0	30.9	39.1 Maximized at 4 meters	-8.2	Vert
7	240.030M	37.3	+0.9 -27.7	+1.2 +3.2	+0.3 +0.0	+17.9 +5.0	+0.0	38.1	46.4	-8.3	Vert
8	174.925M	33.9	+0.7 -27.6	+0.9 +3.2	+0.1 +0.0	+16.1 +5.0	+0.0	32.3	43.5	-11.2	Horiz
9	74.500M	38.3	+0.4 -27.9	+0.5 +3.2	+0.0 +0.0	+6.4 +5.0	+0.0	25.9	39.1	-13.2	Vert
10	240.055M	31.2	+0.9 -27.7	+1.2 +3.2	+0.3 +0.0	+17.9 +5.0	+0.0	32.0	46.4	-14.4	Horiz

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, 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
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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 $-20 \cdot \log(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/14.4) = +1.9\text{dB}$ 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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	240.034M	42.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	43.3	46.4	-3.1	Vert
QP											
^	240.034M	45.2	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	46.0	46.4	-0.4	Vert

3	159.990M	38.6	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	36.3	43.5	-7.2	Vert
4	30.988M	41.5	+0.3 +15.7	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	31.8	39.1 Maximized at 4 meters	-7.3	Horiz
5	240.040M	38.0	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0 +0.0	38.8	46.4	-7.6	Horiz
6	32.438M	40.9	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	30.6	39.1 Maximized at 4 meters	-8.5	Vert
7	33.813M	41.1	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	30.2	39.1 Maximized at 4 meters	-8.9	Vert
8	32.388M	39.7	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	29.4	39.1 Maximized at 4 meters	-9.7	Horiz
9	33.500M	40.0	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	29.3	39.1 Maximized at 4 meters	-9.8	Horiz
10	31.138M	38.9	+0.3 +15.6	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	29.1	39.1 Maximized at 4 meters	-10.0	Vert
11	174.805M	35.0	+0.7 +16.1 +5.0	+0.9 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	33.4	43.5	-10.1	Vert
12	320.007M	33.5	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.2	+19.5 +0.0	+0.0 +0.0	35.7	46.4	-10.7	Horiz
13	49.895M	34.5	+0.4 +11.6 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	27.4	39.1	-11.7	Vert
14	74.490M	37.5	+0.4 +6.4 +5.0	+0.5 -27.9	+0.0 +3.2	+0.0 +0.0	+0.0 +0.0	25.1	39.1	-14.0	Horiz
15	124.680M	32.7	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	28.0	43.5	-15.5	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **6213625658**

Date: 3/30/2006
 Time: 13:03:47
 Sequence#: 376
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/14.4) = +1.9\text{dB}$ 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
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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 at 4 meters		

3	33.363M	39.2	+0.3 -27.9	+0.4 +0.0	+0.0 +1.9	+14.6	+0.0	28.5	39.1 Maximized at 4 meters	-10.6	Vert
4	32.350M	38.5	+0.3 -27.9	+0.3 +0.0	+0.0 +1.9	+15.1	+0.0	28.2	39.1 Maximized at 4 meters	-10.9	Vert
5	160.000M	34.9	+0.7 -27.7	+0.8 +3.2	+0.1 +0.0	+15.6 +5.0	+0.0	32.6	43.5	-10.9	Horiz
6	49.885M	35.0	+0.4 -27.9	+0.5 +3.2	+0.1 +0.0	+11.6 +5.0	+0.0	27.9	39.1	-11.2	Vert
7	33.463M	36.9	+0.3 -27.9	+0.4 +0.0	+0.0 +1.9	+14.6	+0.0	26.2	39.1 Maximized at 4 meters	-12.9	Horiz
8	32.300M	35.6	+0.3 -27.9	+0.3 +0.0	+0.0 +1.9	+15.1	+0.0	25.3	39.1 Maximized at 4 meters	-13.8	Horiz
9	224.880M	32.4	+0.8 -27.6	+1.1 +3.2	+0.2 +0.0	+17.5 +5.0	+0.0	32.6	46.4	-13.8	Vert
10	124.755M	34.3	+0.6 -27.7	+0.8 +3.2	+0.1 +0.0	+13.3 +5.0	+0.0	29.6	43.5	-13.9	Horiz
11	30.800M	34.1	+0.3 -27.9	+0.3 +0.0	+0.0 +1.9	+15.8	+0.0	24.5	39.1 Maximized at 4 meters	-14.6	Horiz
12	74.435M	35.0	+0.4 -27.9	+0.5 +3.2	+0.0 +0.0	+6.4 +5.0	+0.0	22.6	39.1	-16.5	Horiz
13	74.555M	33.1	+0.4 -27.9	+0.5 +3.2	+0.0 +0.0	+6.4 +5.0	+0.0	20.7	39.1	-18.4	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, 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
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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 $-20 \times \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/14.4) = +1.9\text{dB}$ 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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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								
^	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								

3	174.840M	39.8	+0.7 +16.1 +5.0	+0.9 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	38.2	43.5	-5.3	Vert
4	124.735M	42.7	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	38.0	43.5	-5.5	Horiz
5	49.800M	39.7	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0 +0.0	32.7	39.1	-6.4	Horiz
6	224.855M	39.6	+0.8 +17.5 +5.0	+1.1 -27.6	+0.2 +3.2	+0.0 +0.0	+0.0 +0.0	39.8	46.4	-6.6	Vert
7	30.363M	41.5	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	32.1	39.1 Maximized at 4 meters	-7.0	Horiz
8	30.388M	40.4	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	31.0	39.1 Maximized at 4 meters	-8.1	Vert
9	33.800M	41.2	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	30.3	39.1 Maximized at 4 meters	-8.8	Horiz
10	32.275M	39.9	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	29.6	39.1 Maximized at 4 meters	-9.5	Vert
11	32.525M	38.7	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	28.4	39.1 Maximized at 4 meters	-10.7	Horiz
12	33.825M	38.7	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0 +0.0	27.8	39.1 Maximized at 4 meters	-11.3	Vert
13	324.870M	30.5	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.2	+18.8 +0.0	+0.0 +0.0	32.0	46.4	-14.4	Vert
14	480.075M	27.5	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.2	+17.2 +0.0	+0.0 +0.0	28.2	46.4	-18.2	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, 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
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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 $-20 \times \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/12.4) = +1.9\text{dB}$ 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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	49.870M	39.8	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0	32.8	39.1	-6.3	Vert

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	Horiz	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	Horiz	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	Horiz	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	Vert	Maximized at 4 meters
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	Horiz	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	Vert	Maximized at 4 meters
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	Vert	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	

12	240.020M	31.4	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	32.2	46.4	-14.2	Vert
13	399.970M	32.0	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.2	+16.2 +0.0	+0.0	31.1	46.4	-15.3	Vert
14	320.015M	28.1	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.2	+19.5 +0.0	+0.0	30.3	46.4	-16.1	Vert

Test Location: MV Overhead Test Site #2 • Westford Street West of Cochran Street Streetlight Pole #465477 • Houston, TX •
 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:

Function	Manufacturer	Model #	S/N
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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 $-20 \cdot \text{LOG}(10/14.4) = +3.2\text{dB}$ at 1 meter test height. Slant Distance is 13 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/13) = +2.3\text{dB}$ at 3 meters test height. Slant Distance is 12.4 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \text{LOG}(10/14.4) = +1.9\text{dB}$ 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	

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	dB μ V	T9								
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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 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 at 4 meters		

3	30.867M	39.2	+0.3 +15.8	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	29.6	39.1 Maximized at 4 meters	-9.5	Horiz
4	33.463M	40.2	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	29.5	39.1 Maximized at 4 meters	-9.6	Vert
5	32.060M	37.0	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	26.8	39.1 Maximized at 4 meters	-12.3	Horiz
6	49.695M	33.3	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.2	+0.0 +0.0	+0.0	26.3	39.1	-12.8	Horiz
7	149.670M	32.0	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.2	+0.0 +0.0	+0.0	29.4	43.5	-14.2	Vert
8	33.932M	35.8	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +1.9	+0.0	24.9	39.1 Maximized at 4 meters	-14.2	Horiz
9	399.933M	31.8	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.2	+16.2 +0.0	+0.0	30.9	46.4	-15.5	Horiz
10	240.035M	29.9	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.2	+0.0 +0.0	+0.0	30.7	46.4	-15.7	Vert
11	160.015M	29.0	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.2	+0.0 +0.0	+0.0	26.7	43.5	-16.8	Vert
12	399.918M	29.6	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.2	+16.2 +0.0	+0.0	28.7	46.4	-17.7	Vert

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters	

^	33.523M	50.6	+0.3 +14.5	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	40.0	39.1 Maximized at 4 meters	+0.9	Vert
3	32.363M QP	47.0	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	36.9	39.1 Maximized at 4 meters	-2.2	Vert
^	32.363M	53.0	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	42.9	39.1 Maximized at 4 meters	+3.8	Vert
5	31.550M QP	45.4	+0.3 +15.4	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	35.6	39.1 Maximized at 4 meters	-3.5	Horiz
^	31.550M	51.1	+0.3 +15.4	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	41.3	39.1 Maximized at 4 meters	+2.2	Horiz
7	31.389M QP	45.2	+0.3 +15.5	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	35.5	39.1 Maximized at 4 meters	-3.6	Vert
^	31.389M	50.7	+0.3 +15.5	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	41.0	39.1 Maximized at 4 meters	+1.9	Vert
9	32.614M QP	45.6	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	35.5	39.1 Maximized at 4 meters	-3.6	Horiz
^	32.614M	50.7	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	40.6	39.1 Maximized at 4 meters	+1.5	Horiz
11	33.290M QP	44.7	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	34.2	39.1 Maximized at 4 meters	-4.9	Horiz
^	33.290M	50.7	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	40.2	39.1 Maximized at 4 meters	+1.1	Horiz
13	149.753M	37.3	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.4	+0.0 +0.0	+0.0	34.9	43.5	-8.7	Horiz
14	239.990M	36.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	37.5	46.4	-8.9	Vert
15	160.000M	34.3	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	32.2	43.5	-11.3	Vert
16	160.038M	33.3	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	31.2	43.5	-12.3	Horiz
17	400.008M	32.9	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	32.2	46.4	-14.2	Vert

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/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		
^	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		

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 at 4 meters	-4.3	Vert
4	240.020M	39.8	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	40.8	46.4	-5.6	Vert
5	30.888M	41.8	+0.3 +15.8	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	32.4	39.1 Maximized at 4 meters	-6.7	Horiz
6	32.562M	41.7	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	31.6	39.1 Maximized at 4 meters	-7.5	Vert
7	32.138M	41.6	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Horiz
8	160.005M	37.4	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	35.3	43.5	-8.2	Vert
9	239.985M	36.6	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	37.6	46.4	-8.8	Horiz
10	400.000M	37.4	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	36.7	46.4	-9.7	Horiz
11	160.008M	35.7	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	33.6	43.5	-9.9	Horiz
12	33.650M	39.3	+0.3 +14.5	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.7	39.1 Maximized at 4 meters	-10.4	Horiz
13	149.700M	34.3	+0.7 +15.2 +5.0	+0.8 -27.6	+0.1 +3.4	+0.0 +0.0	+0.0	31.9	43.5	-11.6	Horiz
14	320.045M	31.5	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	33.9	46.4	-12.5	Vert
15	124.490M	35.5	+0.6 +13.2 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	30.9	43.5	-12.6	Horiz
16	399.993M	34.0	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	33.3	46.4	-13.1	Vert
17	480.038M	31.6	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	32.5	46.4	-13.9	Vert
18	49.575M	31.8	+0.4 +11.8 +5.0	+0.5 -27.9	+0.1 +3.4	+0.0 +0.0	+0.0	25.1	39.1	-14.0	Vert
19	124.600M	32.6	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	28.1	43.5	-15.4	Vert

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	dB	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	30.985M	44.5	+0.3 +15.7	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	35.0	39.1	-4.1	Vert
Maximized at 4 meters											

2	159.985M	40.8	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	38.7	43.5	-4.8	Vert
3	240.000M	40.1	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	41.1	46.4	-5.3	Vert
4	160.005M	38.4	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	36.3	43.5	-7.2	Horiz
5	240.005M QP	38.2	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	39.2	46.4	-7.2	Horiz
^	240.005M	44.3	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	45.3	46.4	-1.1	Horiz
7	320.000M	35.7	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	38.1	46.4	-8.3	Vert
8	32.631M	40.9	+0.3 +14.9	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	30.7	39.1 Maximized at 4 meters	-8.4	Vert
9	320.000M	35.2	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	37.6	46.4	-8.8	Horiz
10	32.100M	39.0	+0.3 +15.2	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	30.3	39.1 Maximized at 1 meter	-8.8	Horiz
11	33.715M	39.5	+0.3 +14.5	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.9	39.1 Maximized at 4 meters	-10.2	Vert
12	31.600M	37.3	+0.3 +15.4	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	28.8	39.1 Maximized at 1 meter	-10.3	Horiz
13	324.835M	34.4	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+18.8 +0.0	+0.0	36.1	46.4	-10.4	Vert
14	32.563M	37.5	+0.3 +15.0	+0.4 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	28.7	39.1 Maximized at 1 meter	-10.4	Horiz
15	124.585M	35.9	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	31.4	43.5	-12.2	Vert
16	480.030M	32.9	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	33.8	46.4	-12.6	Vert
17	49.505M	32.8	+0.4 +11.8 +5.0	+0.5 -27.9	+0.1 +3.4	+0.0 +0.0	+0.0	26.1	39.1	-13.1	Vert

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	239.990M	41.1	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	42.1	46.4	-4.3	Vert
2	160.050M	40.7	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	38.6	43.5	-4.9	Vert

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 at 1 meter	-5.2	Vert
4	30.400M	40.9	+0.3 +16.0	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	33.0	39.1 Maximized at 1 meter	-6.1	Vert
5	240.038M	38.0	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	39.0	46.4	-7.4	Horiz
6	319.985M	36.2	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	38.6	46.4	-7.8	Vert
7	31.738M	39.4	+0.3 +15.4	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	29.6	39.1 Maximized at 4 meters	-9.5	Horiz
8	33.025M	38.4	+0.3 +14.8	+0.4 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	29.4	39.1 Maximized at 1 meter	-9.7	Vert
9	30.375M	38.6	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	29.4	39.1 Maximized at 4 meters	-9.8	Horiz
10	320.008M	33.8	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	36.2	46.4	-10.2	Horiz
11	399.978M	35.4	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	34.7	46.4	-11.7	Vert
12	480.038M	33.8	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	34.7	46.4	-11.8	Vert
13	480.038M	33.6	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	34.5	46.4	-11.9	Horiz
14	400.008M	34.8	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	34.1	46.4	-12.4	Horiz
15	49.685M	32.5	+0.4 +11.7 +5.0	+0.5 -27.9	+0.1 +3.4	+0.0 +0.0	+0.0	25.7	39.1	-13.4	Vert
16	33.413M	36.1	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	25.6	39.1 Maximized at 4 meters	-13.5	Horiz
17	124.625M	33.6	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	29.1	43.5	-14.4	Vert
18	249.318M	30.8	+0.9 +18.1 +5.0	+1.2 -27.8	+0.3 +3.4	+0.0 +0.0	+0.0	31.9	46.4	-14.6	Horiz
19	374.723M	30.2	+1.1 +0.0 +5.0	+1.6 -28.3	+0.2 +3.4	+15.7 +0.0	+0.0	28.9	46.4	-17.6	Horiz

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	160.000M QP	41.9	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	39.8	43.5	-3.7	Vert
^	160.000M	43.4	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	41.3	43.5	-2.2	Vert

3	240.013M QP	41.0	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0 +0.0	42.0	46.4	-4.4	Vert
^	240.013M	43.6	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0 +0.0	44.6	46.4	-1.8	Vert
5	31.950M	42.6	+0.3 +15.3	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0 +0.0	34.0	39.1 Maximized at 1 meter	-5.1	Vert
6	30.350M	39.5	+0.3 +16.0	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0 +0.0	31.6	39.1 Maximized at 1 meter	-7.5	Vert
7	399.985M	39.5	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	38.8	46.4	-7.6	Vert
8	30.600M	33.8	+0.3 +15.9 +5.0	+0.3 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	30.8	39.1	-8.3	Horiz
9	32.938M	39.5	+0.3 +14.8	+0.4 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	30.5	39.1 Maximized at 1 meter	-8.6	Vert
10	319.978M	33.7	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	36.1	46.4	-10.3	Vert
11	319.993M	32.9	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	35.3	46.4	-11.1	Horiz
12	324.348M	33.5	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+18.9 +0.0	+0.0	35.3	46.4	-11.1	Vert
13	239.985M	38.0	+0.9 +17.9	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	34.0	46.4 Measured at 1m. Add 5dB height correction factor to readings.	-12.4	Horiz
14	480.060M	32.9	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	33.8	46.4	-12.6	Vert
15	399.940M	32.7	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	32.0	46.4	-14.4	Horiz
16	124.575M	33.5	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	29.0	43.5	-14.5	Vert

17	32.100M	34.3	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	24.3	39.1 Maximized at 4 meters	-14.8	Horiz
18	33.213M	34.6	+0.3 +14.7	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	24.2	39.1 Maximized at 4 meters	-14.9	Horiz
19	349.213M	32.4	+1.1 +0.0 +5.0	+1.5 -28.2	+0.3 +3.4	+15.3 +0.0	+0.0	30.8	46.4	-15.6	Horiz
20	74.530M	33.4	+0.4 +6.4 +5.0	+0.5 -27.9	+0.0 +3.4	+0.0 +0.0	+0.0	21.2	39.1	-17.9	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG2**

Date: 3/30/2006
 Time: 17:13:54
 Sequence#: 385
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	49.540M	36.4	+0.4 +11.8 +5.0	+0.5 -27.9	+0.1 +3.4	+0.0 +0.0	+0.0	29.7	39.1	-9.4	Vert

2	33.775M	39.4	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.7	39.1 Maximized at 4 meters	-10.4	Vert
3	319.985M	32.9	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	35.3	46.4	-11.1	Vert
4	32.463M	37.6	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	27.5	39.1 Maximized at 4 meters	-11.6	Vert
5	240.035M	33.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	34.5	46.4	-11.9	Vert
6	30.513M	35.3	+0.3 +15.9	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	26.0	39.1 Maximized at 4 meters	-13.1	Vert
7	239.963M	32.1	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	33.1	46.4	-13.3	Horiz
8	249.810M	30.7	+0.9 +18.1 +5.0	+1.2 -27.8	+0.3 +3.4	+0.0 +0.0	+0.0	31.8	46.4	-14.6	Vert
9	30.225M	33.2	+0.3 +16.1	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	24.1	39.1 Maximized at 4 meters	-15.0	Horiz
10	32.175M	33.5	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	23.5	39.1 Maximized at 4 meters	-15.6	Horiz
11	33.788M	34.0	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	23.3	39.1 Maximized at 4 meters	-15.9	Horiz
12	124.590M	30.5	+0.6 +13.3 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	26.0	43.5	-17.5	Vert

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 A RADIATED**

Work Order #: **84818**

Test Type: **Radiated Scan**

Equipment: **BPL MV Gateway**

Manufacturer: **Corinex**

Model: **MV Gateway**

S/N: **ENG2**

Date: 3/30/2006

Time: 17:29:29

Sequence#: 386

Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	160.000M QP	44.2	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	42.1	43.5	-1.4	Vert
^	160.000M	47.7	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	45.6	43.5	+2.1	Vert

3	160.000M QP	41.9	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	39.8	43.5	-3.7	Horiz
^	160.000M	44.6	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	42.5	43.5	-1.0	Horiz
5	240.030M	40.6	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	41.6	46.4	-4.8	Vert
6	239.985M	40.3	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	41.3	46.4	-5.1	Horiz
7	33.425M	44.3	+0.3 +14.6 +0.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	33.8	39.1 Maximized at 4 meters	-5.3	Vert
8	30.500M	42.4	+0.3 +16.0 +0.0	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	33.2	39.1 Maximized at 4 meters	-5.9	Vert
9	32.513M	39.3	+0.3 +15.0 +0.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	29.2	39.1 Maximized at 4 meters	-9.9	Vert
10	319.993M	33.5	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	35.9	46.4	-10.5	Vert
11	32.438M	38.7	+0.3 +15.0	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.6	39.1 Maximized at 4 meters	-10.5	Horiz
12	400.023M	35.4	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	34.7	46.4	-11.7	Vert
13	320.008M	31.6	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	34.0	46.4	-12.4	Horiz
14	33.463M	36.4	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	25.9	39.1 Maximized at 4 meters	-13.2	Horiz
15	400.000M	31.7	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	31.0	46.4	-15.4	Horiz
16	30.513M	32.9	+0.3 +15.9	+0.3 -27.9	+0.0 +0.0	+0.0 +0.0	+0.0	23.6	39.1 Maximized at 4 meters	-15.5	Horiz

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: 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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/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								

2	32.038M	42.7	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	32.7	39.1 Maximized at 4 meters	-6.4	Vert
3	33.813M	41.1	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	30.4	39.1 Maximized at 4 meters	-8.7	Vert
4	30.475M	39.6	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	30.4	39.1 Maximized at 4 meters	-8.7	Vert
5	159.975M	36.1	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	34.0	43.5	-9.5	Vert
6	320.025M	34.0	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	36.4	46.4	-10.0	Horiz
7	399.985M	36.8	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	36.1	46.4	-10.4	Vert
8	240.005M	34.1	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	35.1	46.4	-11.3	Horiz
9	320.000M	32.6	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	35.0	46.4	-11.4	Vert
10	30.250M	31.7	+0.3 +16.1	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	22.6	39.1 Maximized at 4 meters	-16.5	Horiz
11	31.988M	30.3	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	20.3	39.1 Maximized at 4 meters	-18.8	Horiz
12	33.525M	29.6	+0.3 +14.5	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	19.0	39.1 Maximized at 4 meters	-20.1	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG2**

Date: 3/30/2006
 Time: 17:56:30
 Sequence#: 388
 Tested By: C. Nicklas

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
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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 $-20 \cdot \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \cdot \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \cdot \log(10/12.8) = +2.1\text{dB}$ 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 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	160.010M	41.0	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	38.9	43.5	-4.6	Vert

2	240.017M	39.7	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	40.7	46.4	-5.7	Vert
3	319.985M	38.0	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	40.4	46.4	-6.0	Horiz
4	49.510M	39.8	+0.4 +11.8 +5.0	+0.5 -27.9	+0.1 +3.4	+0.0 +0.0	+0.0	33.1	39.1	-6.0	Vert
5	160.010M	39.4	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	37.3	43.5	-6.2	Horiz
6	319.993M	37.6	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	40.0	46.4	-6.4	Vert
7	240.010M	37.9	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	38.9	46.4	-7.5	Horiz
8	30.363M	37.8	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.6	39.1 Maximized at 4 meters	-10.5	Vert
9	33.330M	37.1	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	26.6	39.1 Maximized at 4 meters	-12.5	Vert
10	399.978M	34.2	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	33.5	46.4	-13.0	Horiz
11	30.513M	31.2	+0.3 +15.9	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	21.9	39.1 Maximized at 4 meters	-17.2	Horiz
12	34.221M	31.8	+0.3 +14.2	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	20.9	39.1 Maximized at 4 meters	-18.2	Vert
13	32.300M	28.2	+0.3 +15.1	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	18.1	39.1 Maximized at 4 meters	-21.0	Horiz
14	33.775M	28.4	+0.3 +14.4	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	17.7	39.1 Maximized at 4 meters	-21.4	Horiz

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: 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
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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 $-20 \times \text{LOG}(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/12.8) = +2.1\text{dB}$ 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					
	MHz	dBμV	T9								
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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								

2	159.985M	40.1	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	38.0	43.5	-5.5	Horiz
3	31.413M	41.0	+0.3 +15.5	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	31.3	39.1 Maximized at 4 meters	-7.8	Vert
4	240.000M	37.5	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	38.5	46.4	-7.9	Horiz
5	240.005M	37.4	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	38.4	46.4	-8.0	Vert
6	319.995M	35.6	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	38.0	46.4	-8.4	Horiz
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 at 4 meters	-9.5	Vert
8	30.525M	38.1	+0.3 +15.9	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	28.8	39.1 Maximized at 4 meters	-10.3	Vert
9	400.020M	36.4	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	35.7	46.4	-10.7	Vert
10	400.000M	36.4	+1.2 +0.0 +5.0	+1.7 -28.4	+0.2 +3.4	+16.2 +0.0	+0.0	35.7	46.4	-10.7	Horiz
11	320.010M	33.0	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	35.4	46.4	-11.0	Vert
12	559.995M	32.5	+1.4 +0.0 +5.0	+2.0 -27.7	+0.2 +3.4	+18.5 +0.0	+0.0	35.3	46.4	-11.1	Vert
13	480.080M	34.0	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	34.9	46.4	-11.5	Vert
14	559.980M	31.7	+1.4 +0.0 +5.0	+2.0 -27.7	+0.2 +3.4	+18.5 +0.0	+0.0	34.5	46.4	-11.9	Horiz
15	480.060M	32.4	+1.3 +0.0 +5.0	+1.8 -28.1	+0.3 +3.4	+17.2 +0.0	+0.0	33.3	46.4	-13.1	Horiz
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 at 4 meters	-15.9	Horiz
17	31.950M	31.6	+0.3 +15.3	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	21.7	39.1 Maximized at 4 meters	-17.4	Horiz
18	33.538M	29.4	+0.3 +14.5	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	18.8	39.1 Maximized at 4 meters	-20.3	Horiz

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: 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
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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 $-20 \times \text{LOG}(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \times \text{LOG}(10/12.8) = +2.1\text{dB}$ 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					
	MHz	dBμV	T9								
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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								

2	160.015M	34.5	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	32.4	43.5	-11.1	Vert
3	159.985M	33.7	+0.7 +15.6 +5.0	+0.8 -27.7	+0.1 +3.4	+0.0 +0.0	+0.0	31.6	43.5	-11.9	Horiz
4	319.990M	31.8	+1.0 +0.0 +5.0	+1.4 -28.1	+0.2 +3.4	+19.5 +0.0	+0.0	34.2	46.4	-12.2	Horiz
5	33.450M	37.4	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	26.9	39.1 Maximized at 4 meters	-12.2	Vert
6	240.050M	32.6	+0.9 +17.9 +5.0	+1.2 -27.7	+0.3 +3.4	+0.0 +0.0	+0.0	33.6	46.4	-12.8	Vert
7	31.900M	34.9	+0.3 +15.3	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	25.0	39.1 Maximized at 4 meters	-14.1	Vert
8	30.338M	33.3	+0.3 +16.0	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	24.1	39.1 Maximized at 4 meters	-15.0	Vert
9	33.413M	33.3	+0.3 +14.6	+0.4 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	22.8	39.1 Maximized at 4 meters	-16.3	Horiz
10	32.175M	32.6	+0.3 +15.2	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	22.6	39.1 Maximized at 4 meters	-16.5	Horiz
11	30.563M	31.2	+0.3 +15.9	+0.3 -27.9	+0.0 +0.0	+0.0 +2.1	+0.0	21.9	39.1 Maximized at 4 meters	-17.2	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG2**

Date: 3/30/2006
 Time: 18:34:31
 Sequence#: 391
 Tested By: C. Nicklas

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
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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 $-20 \times \log(10/14.8) = +3.4\text{dB}$ at 1 meter test height. Slant Distance is 13.4 meters at 3 meters. Slant Distance correction factor is $-20 \times \log(10/13.4) = +2.5\text{dB}$ at 3 meters test height. Slant Distance is 12.8 meters at 4 meters. Slant Distance correction factor is $-20 \times \log(10/12.8) = +2.1\text{dB}$ 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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	T8	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	31.763M	40.9	+0.3 -27.9	+0.3 +0.0	+0.0 +2.1	+15.3	+0.0	31.0	39.1 Maximized at 4 meters	-8.1	Horiz
4	160.020M	36.9	+0.7 -27.7	+0.8 +3.4	+0.1 +0.0	+15.6 +5.0	+0.0	34.8	43.5	-8.7	Vert
5	33.456M	40.1	+0.3 -27.9	+0.4 +0.0	+0.0 +2.1	+14.6	+0.0	29.6	39.1 Maximized at 4 meters	-9.5	Vert
6	31.050M	38.0	+0.3 -27.9	+0.3 +0.0	+0.0 +2.1	+15.7	+0.0	28.5	39.1 Maximized at 4 meters	-10.6	Horiz
7	33.363M	37.4	+0.3 -27.9	+0.4 +0.0	+0.0 +2.1	+14.6	+0.0	26.9	39.1 Maximized at 4 meters	-12.2	Horiz
8	160.005M	33.2	+0.7 -27.7	+0.8 +3.4	+0.1 +0.0	+15.6 +5.0	+0.0	31.1	43.5	-12.4	Horiz
9	240.015M	32.7	+0.9 -27.7	+1.2 +3.4	+0.3 +0.0	+17.9 +5.0	+0.0	33.7	46.4	-12.7	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG2**

Date: 3/15/2006
 Time: 13:46:11
 Sequence#: 120
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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
	QP		+0.0	+0.0					Maximized at 4 meters		
^	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 at 4 meters		

4	32.750M	46.0	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	33.7	39.1 Maximized at 4 meters	-5.4	Vert
5	32.675M	45.8	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	33.4	39.1 Maximized at 4 meters	-5.7	Horiz
6	31.738M	45.2	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	33.3	39.1 Maximized at 4 meters	-5.8	Horiz
7	31.475M	44.9	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Vert
8	240.010M	42.1	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	39.7	46.4	-6.7	Horiz
9	33.528M QP	43.7	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	31.0	39.1 Maximized at 4 meters	-8.1	Horiz
^	33.528M	52.5	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	39.8	39.1 Maximized at 4 meters	+0.7	Horiz
11	240.030M	39.2	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.8	46.4	-9.6	Vert
12	160.005M	39.2	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	33.7	43.5	-9.8	Vert
13	49.840M	36.5	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	26.3	39.1	-12.8	Horiz
14	175.265M	35.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	30.3	43.5	-13.2	Horiz
15	160.050M	35.7	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	30.2	43.5	-13.3	Horiz
16	150.005M	34.0	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	28.2	43.5	-15.3	Horiz
17	225.100M	33.2	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.1	46.4	-16.3	Vert
18	375.000M	33.3	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	28.6	46.4	-17.8	Vert
19	319.995M	28.9	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.9	46.4	-18.5	Vert
20	225.020M	30.6	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	27.5	46.4	-18.9	Horiz
21	250.355M	29.6	+0.9 +0.0	+1.2 +0.3	+18.1 +5.0	-27.8	+0.0	27.3	46.4	-19.1	Horiz
22	124.965M	32.1	+0.6 +0.0	+0.8 +0.1	+13.3 +5.0	-27.7	+0.0	24.2	43.5	-19.4	Vert
23	480.015M	29.5	+1.3 +17.2	+1.8 +0.3	+0.0 +5.0	-28.1	+0.0	27.0	46.4	-19.4	Vert

24	399.995M	30.1	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	26.0	46.4	-20.4	Horiz
25	375.055M	30.6	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	25.9	46.4	-20.5	Horiz
26	125.320M	30.9	+0.6 +0.0	+0.8 +0.1	+13.3 +5.0	-27.7	+0.0	23.0	43.5	-20.5	Horiz
27	400.000M	29.6	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	25.5	46.4	-20.9	Vert

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: 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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	31.463M	46.5	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	34.7	39.1	-4.4	Horiz
									Maximized at 4 meters		
2	30.025M	45.7	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	34.6	39.1	-4.5	Horiz
									Maximized at 4 meters		
3	33.675M	45.9	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	33.1	39.1	-6.0	Horiz
									Maximized at 4 meters		

4	49.913M	41.6	+0.4 +0.0	+0.5 +0.1	+11.6 +5.0	-27.9	+0.0	31.3	39.1	-7.8	Vert
5	30.100M	42.2	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	31.1	39.1 Maximized at 4 meters	-8.0	Vert
6	33.038M	43.3	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	30.9	39.1 Maximized at 4 meters	-8.2	Vert
7	33.800M	42.7	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	29.9	39.1 Maximized at 4 meters	-9.2	Vert
8	150.030M	39.4	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	33.6	43.5	-9.9	Horiz
9	49.880M	38.5	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	28.3	39.1	-10.9	Horiz
10	175.245M	37.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	32.3	43.5	-11.2	Horiz
11	149.755M	37.0	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	31.2	43.5	-12.3	Vert
12	160.050M	35.7	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	30.2	43.5	-13.3	Vert
13	240.010M	34.9	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	32.5	46.4	-13.9	Vert
14	225.135M	33.4	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.3	46.4	-16.1	Vert
15	375.010M	33.9	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	29.2	46.4	-17.3	Vert
16	399.985M	30.7	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	26.6	46.4	-19.8	Vert
17	399.935M	29.4	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	25.3	46.4	-21.1	Horiz

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: 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):

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

3	33.031M QP	47.1	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	34.7	39.1 Maximized at 4 meters	-4.4	Horiz
^	33.031M	53.2	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	40.8	39.1 Maximized at 4 meters	+1.7	Horiz
5	32.495M	46.8	+0.3 +0.0	+0.4 +0.0	+15.0	-27.9	+0.0	34.6	39.1 Maximized at 4 meters	-4.5	Horiz
6	30.525M QP	46.0	+0.3 +0.0	+0.3 +0.0	+15.9	-27.9	+0.0	34.6	39.1 Maximized at 4 meters	-4.5	Horiz
^	30.525M	50.2	+0.3 +0.0	+0.3 +0.0	+15.9	-27.9	+0.0	38.8	39.1 Maximized at 4 meters	-0.3	Horiz
8	31.975M	45.7	+0.3 +0.0	+0.3 +0.0	+15.2	-27.9	+0.0	33.6	39.1 Maximized at 4 meters	-5.5	Vert
9	31.525M	45.2	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	33.4	39.1 Maximized at 4 meters	-5.7	Vert
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 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	34.3	43.5	-9.2	Vert
13	49.840M	39.3	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	29.1	39.1	-10.0	Horiz
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 +15.2	+1.5 +0.3	+0.0 +5.0	-28.2	+0.0	36.2	46.4	-10.2	Horiz
16	240.020M	38.5	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.1	46.4	-10.3	Vert
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	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	31.0	43.5	-12.5	Horiz
19	225.080M	36.1	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	33.0	46.4	-13.5	Vert
20	240.010M	35.3	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	32.9	46.4	-13.5	Horiz
21	320.055M	30.4	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	29.4	46.4	-17.0	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 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	25.1	46.4	-21.3	Vert
24	74.855M	32.5	+0.5 +0.0	+0.5 +0.1	+6.4 +5.0	-27.9	+0.0	17.1	39.1	-22.0	Vert

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: 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
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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
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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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
	QP		+0.0	+0.0					Maximized at 4 meters		
^	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 at 4 meters		

3	30.472M QP	45.7	+0.3 +0.0	+0.3 +0.0	+16.0	-27.9	+0.0	34.4	39.1 Maximized at 4 meters	-4.7	Horiz
^	30.472M	53.1	+0.3 +0.0	+0.3 +0.0	+16.0	-27.9	+0.0	41.8	39.1 Maximized at 4 meters	+2.7	Horiz
5	150.000M QP	44.5	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	38.7	43.5	-4.8	Horiz
^	150.000M	48.7	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	42.9	43.5	-0.6	Horiz
7	49.850M	44.5	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	34.3	39.1	-4.8	Vert
8	32.500M QP	44.2	+0.3 +0.0	+0.4 +0.0	+15.0	-27.9	+0.0	32.0	39.1 Maximized at 4 meters	-7.1	Horiz
^	32.500M	48.1	+0.3 +0.0	+0.4 +0.0	+15.0	-27.9	+0.0	35.9	39.1 Maximized at 4 meters	-3.2	Horiz
10	31.738M	43.4	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Vert
11	160.015M	40.9	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	35.4	43.5	-8.2	Horiz
12	33.563M	43.0	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	30.3	39.1 Maximized at 4 meters	-8.8	Vert
13	32.863M	42.1	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	29.7	39.1 Maximized at 4 meters	-9.4	Vert
14	49.875M	39.5	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	29.3	39.1	-9.8	Horiz
15	239.980M	38.3	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	35.9	46.4	-10.5	Horiz
16	149.995M	34.6	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	28.8	43.5	-14.7	Vert
17	224.995M	33.5	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.4	46.4	-16.0	Vert
18	225.060M	33.3	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.2	46.4	-16.2	Horiz
19	375.015M	34.4	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	29.7	46.4	-16.7	Vert
20	319.990M	28.5	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.5	46.4	-18.9	Vert
21	400.010M	30.8	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	26.7	46.4	-19.7	Vert

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: 3/14/2006
 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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7						
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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 at 4 meters		

2	30.253M	48.4	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.2	39.1 Maximized at 4 meters	-1.9	Horiz
^	30.253M	55.7	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	44.5	39.1 Maximized at 4 meters	+5.4	Horiz
^	30.297M	52.3	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	41.1	39.1 Maximized at 4 meters	+2.0	Horiz
5	30.000M	48.1	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	37.0	39.1 Maximized at 4 meters	-2.1	Vert
^	30.000M	52.7	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	41.6	39.1 Maximized at 4 meters	+2.5	Vert
7	33.696M	49.3	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	36.6	39.1 Maximized at 4 meters	-2.5	Horiz
^	33.696M	53.2	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	40.5	39.1 Maximized at 4 meters	+1.4	Horiz
9	33.696M	49.2	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	36.5	39.1 Maximized at 4 meters	-2.6	Vert
^	33.696M	54.2	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	41.5	39.1 Maximized at 4 meters	+2.4	Vert
11	32.650M	48.7	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	36.4	39.1 Maximized at 4 meters	-2.7	Horiz
^	32.650M	55.1	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	42.8	39.1 Maximized at 4 meters	+3.7	Horiz
13	33.294M	48.2	+0.3 +0.0	+0.4 +0.0	+14.6	-27.9	+0.0	35.6	39.1 Maximized at 4 meters	-3.5	Vert
^	33.294M	52.9	+0.3 +0.0	+0.4 +0.0	+14.6	-27.9	+0.0	40.3	39.1 Maximized at 4 meters	+1.2	Vert
15	33.149M	46.8	+0.3 +0.0	+0.4 +0.0	+14.7	-27.9	+0.0	34.3	39.1 Maximized at 4 meters	-4.8	Horiz
16	150.425M	43.1	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	37.3	43.5	-6.2	Vert
17	239.995M	41.8	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	39.4	46.4	-7.0	Vert
18	150.005M	39.8	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	34.0	43.5	-9.5	Horiz

19	325.770M	36.0	+1.0 +18.6	+1.5 +0.2	+0.0 +5.0	-28.1	+0.0	34.2	46.4	-12.2	Horiz
20	159.995M	36.8	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	31.3	43.5	-12.2	Vert
21	175.275M	35.6	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	30.8	43.5	-12.7	Vert
22	240.035M	33.3	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	30.9	46.4	-15.5	Horiz
23	399.785M	33.7	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	29.6	46.4	-16.8	Vert
24	250.000M	31.3	+0.9 +0.0	+1.2 +0.3	+18.1 +5.0	-27.8	+0.0	29.0	46.4	-17.4	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: ENG1

Date: 3/14/2006
 Time: 11:15:59
 Sequence#: 105
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/m	dB	Ant
1	150.438M	46.5	+0.7 +0.0	+0.8 +0.1	-27.6 +5.0	+15.2	+0.0	40.7	43.5	-2.8	Vert
2	720.833M	37.5	+1.6 +22.4	+2.4 +0.3	-27.8 +5.0	+0.0	+0.0	41.4	46.4	-5.0	Horiz
3	240.000M	41.5	+0.9 +0.0	+1.2 +0.3	-27.7 +5.0	+17.9	+0.0	39.1	46.4	-7.3	Horiz
4	159.975M	40.6	+0.7 +0.0	+0.8 +0.1	-27.7 +5.0	+15.6	+0.0	35.1	43.5	-8.4	Horiz
5	299.973M	36.0	+1.0 +0.0	+1.7 +0.2	-28.0 +5.0	+20.7	+0.0	36.6	46.4	-9.8	Vert
6	159.975M	38.1	+0.7 +0.0	+0.8 +0.1	-27.7 +5.0	+15.6	+0.0	32.6	43.5	-10.9	Vert

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	+1.0 +18.6	+1.5 +0.2	-28.1 +5.0	+0.0	+0.0	34.0	46.4	-12.4	Horiz
11	319.990M	34.9	+1.0 +19.5	+1.4 +0.2	-28.1 +5.0	+0.0	+0.0	33.9	46.4	-12.5	Horiz
12	240.000M	35.8	+0.9 +0.0	+1.2 +0.3	-27.7 +5.0	+17.9	+0.0	33.4	46.4	-13.0	Vert
13	320.040M	34.0	+1.0 +19.5	+1.4 +0.2	-28.1 +5.0	+0.0	+0.0	33.0	46.4	-13.4	Vert
14	33.799M QP	48.7	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	21.5	39.1 Maximized at 4 meters	-17.6	Vert
^	33.799M	51.6	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	24.4	39.1 Maximized at 4 meters	-14.7	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 4 meters	-17.9	Horiz
^	30.025M	53.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	26.1	39.1 Maximized at 4 meters	-13.0	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 4 meters	-18.5	Vert
^	32.878M	53.7	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	26.5	39.1 Maximized at 4 meters	-12.6	Vert
20	30.026M QP	46.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	19.1	39.1 Maximized at 4 meters	-20.0	Vert
^	30.026M	52.6	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	25.3	39.1 Maximized at 4 meters	-13.8	Vert
22	33.758M QP	46.2	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	19.0	39.1 Maximized at 4 meters	-20.1	Horiz
^	33.758M	52.3	+0.3 +0.0	+0.4 +0.0	-27.9	+0.0	+0.0	25.1	39.1 Maximized at 4 meters	-14.0	Horiz
24	31.475M QP	43.4	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	16.1	39.1 Maximized at 4 meters	-23.0	Horiz
^	31.475M	50.2	+0.3 +0.0	+0.3 +0.0	-27.9	+0.0	+0.0	22.9	39.1 Maximized at 4 meters	-16.2	Horiz

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: 3/14/2006
 Test Type: **Radiated Scan** Time: 14:17:29
 Equipment: **BPL MV Gateway** Sequence#: 107
 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
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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.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

3	30.109M QP	49.5	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	38.3	39.1 Maximized at 4 meters	-0.8	Horiz
^	30.109M	51.9	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	40.7	39.1 Maximized at 4 meters	+1.6	Horiz
5	30.071M QP	49.1	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	38.0	39.1 Maximized at 4 meters	-1.1	Vert
^	30.071M	52.1	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	41.0	39.1 Maximized at 4 meters	+1.9	Vert
7	33.603M QP	49.6	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	36.9	39.1 Maximized at 4 meters	-2.2	Vert
^	33.603M	53.3	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	40.6	39.1 Maximized at 4 meters	+1.5	Vert
9	31.738M QP	48.0	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	36.1	39.1 Maximized at 4 meters	-3.0	Horiz
^	31.738M	51.8	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	39.9	39.1 Maximized at 4 meters	+0.8	Horiz
11	32.301M QP	48.0	+0.3 +0.0	+0.3 +0.0	+15.1	-27.9	+0.0	35.8	39.1 Maximized at 4 meters	-3.3	Vert
^	32.301M	53.7	+0.3 +0.0	+0.3 +0.0	+15.1	-27.9	+0.0	41.5	39.1 Maximized at 4 meters	+2.4	Vert
13	239.990M	41.3	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	38.9	46.4	-7.5	Vert
14	299.525M	37.1	+1.0 +0.0	+1.7 +0.2	+20.7 +5.0	-28.0	+0.0	37.7	46.4	-8.7	Vert
15	159.990M	40.0	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	34.5	43.5	-9.0	Horiz
16	239.990M	37.6	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	35.2	46.4	-11.2	Horiz
17	150.430M	36.2	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	30.4	43.5	-13.1	Horiz
18	175.280M	35.2	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	30.4	43.5	-13.1	Vert
19	320.020M	31.8	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	30.8	46.4	-15.6	Horiz
20	225.005M	30.8	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	27.7	46.4	-18.7	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: Corinex
 Model: MV Gateway
 S/N: ENG1

Date: 3/14/2006
 Time: 15:55:21
 Sequence#: 109
 Tested By: C. Nicklas

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
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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.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7		Table	dBμV/m	dBμV/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		
^	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 at 4 meters		

3	32.138M	50.3	+0.3 +0.0	+0.3 +0.0	+15.2	-27.9	+0.0	38.2	39.1 Maximized at 4 meters	-0.9	Horiz
^	32.138M	55.1	+0.3 +0.0	+0.3 +0.0	+15.2	-27.9	+0.0	43.0	39.1 Maximized at 4 meters	+3.9	Horiz
5	32.900M	50.0	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	37.6	39.1 Maximized at 4 meters	-1.5	Vert
^	32.900M	55.5	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	43.1	39.1 Maximized at 4 meters	+4.0	Vert
7	30.133M	48.5	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Vert
^	30.133M	51.2	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	40.0	39.1 Maximized at 4 meters	+0.9	Vert
9	30.050M	48.4	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Horiz
^	30.050M	51.0	+0.3 +0.0	+0.3 +0.0	+16.2	-27.9	+0.0	39.9	39.1 Maximized at 4 meters	+0.8	Horiz
11	33.540M	49.8	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	37.1	39.1 Maximized at 4 meters	-2.0	Vert
^	33.540M	53.7	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	41.0	39.1 Maximized at 4 meters	+1.9	Vert
13	160.013M	41.3	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	35.8	43.5	-7.7	Vert
14	240.013M	38.7	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.3	46.4	-10.1	Vert
15	225.038M	33.0	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	29.9	46.4	-16.5	Vert
16	49.863M	32.7	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	22.5	39.1	-16.6	Horiz
17	159.975M	32.3	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	26.8	43.5	-16.7	Horiz
18	239.975M	31.9	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	29.5	46.4	-16.9	Horiz
19	320.000M	30.5	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	29.5	46.4	-16.9	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/14/2006
 Time: 16:45:21
 Sequence#: 110
 Tested By: C. Nicklas

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
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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.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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						

3	32.725M	49.9	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	37.6	39.1 Maximized at 4 meters	-1.5	Horiz
^	32.725M	55.2	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	42.9	39.1 Maximized at 4 meters	+3.8	Horiz
5	33.618M	50.1	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	37.4	39.1 Maximized at 4 meters	-1.7	Vert
^	33.618M	54.8	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	42.1	39.1 Maximized at 4 meters	+3.0	Vert
7	30.262M	48.5	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Vert
^	30.262M	53.4	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	42.2	39.1 Maximized at 4 meters	+3.1	Vert
9	30.195M	48.5	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Horiz
^	30.195M	49.6	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	38.4	39.1 Maximized at 4 meters	-0.8	Horiz
11	34.003M	47.3	+0.3 +0.0	+0.4 +0.0	+14.3	-27.9	+0.0	34.4	39.1 Maximized at 4 meters	-4.7	Horiz
^	34.003M	51.9	+0.3 +0.0	+0.4 +0.0	+14.3	-27.9	+0.0	39.0	39.1 Maximized at 4 meters	-0.2	Horiz
13	299.950M	37.7	+1.0 +0.0	+1.7 +0.2	+20.7 +5.0	-28.0	+0.0	38.3	46.4	-8.1	Vert
14	249.950M	36.3	+0.9 +0.0	+1.2 +0.3	+18.1 +5.0	-27.8	+0.0	34.0	46.4	-12.4	Vert
15	160.025M	35.6	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	30.1	43.5	-13.4	Vert
16	274.960M	33.4	+1.0 +0.0	+1.3 +0.2	+19.5 +5.0	-27.9	+0.0	32.5	46.4	-13.9	Vert
17	49.813M	34.8	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	24.6	39.1	-14.5	Horiz
18	240.025M	34.3	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	31.9	46.4	-14.5	Vert
19	175.225M	31.4	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	26.6	43.5	-16.9	Horiz
20	150.475M	31.1	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	25.3	43.5	-18.3	Horiz
21	320.000M	28.0	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.0	46.4	-19.4	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/15/2006
 Time: 12:05:44
 Sequence#: 116
 Tested By: C. Nicklas

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
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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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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		

3	31.950M	45.9	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	33.9	39.1 Maximized at 4 meters	-5.2	Vert
4	33.638M	46.3	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	33.6	39.1 Maximized at 4 meters	-5.5	Vert
5	150.445M	42.6	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	36.8	43.5	-6.7	Vert
6	240.020M	40.8	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	38.4	46.4	-8.0	Vert
7	30.875M	41.8	+0.3 +0.0	+0.3 +0.0	+15.8	-27.9	+0.0	30.3	39.1 Maximized at 4 meters	-8.8	Vert
8	31.475M	41.1	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	29.3	39.1 Maximized at 4 meters	-9.8	Horiz
9	49.855M	37.7	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	27.5	39.1	-11.6	Horiz
10	33.338M	39.9	+0.3 +0.0	+0.4 +0.0	+14.6	-27.9	+0.0	27.3	39.1 Maximized at 4 meters	-11.8	Horiz
11	175.255M	35.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	30.3	43.5	-13.2	Vert
12	160.020M	33.8	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	28.3	43.5	-15.2	Vert
13	175.270M	33.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	28.3	43.5	-15.2	Horiz
14	150.000M	32.0	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	26.2	43.5	-17.3	Horiz
15	225.140M	31.0	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	27.9	46.4	-18.5	Vert
16	239.990M	30.0	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	27.6	46.4	-18.8	Horiz
17	399.935M	31.3	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	27.2	46.4	-19.2	Vert
18	399.950M	30.0	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	25.9	46.4	-20.5	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/15/2006
 Time: 11:44:16
 Sequence#: 115
 Tested By: C. Nicklas

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
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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
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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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						

3	33.138M	46.8	+0.3 +0.0	+0.4 +0.0	+14.7	-27.9	+0.0	34.3	39.1 Maximized at 4 meters	-4.8	Vert
4	33.925M	46.8	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	34.0	39.1 Maximized at 4 meters	-5.1	Vert
5	240.020M	43.2	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	40.8	46.4	-5.6	Vert
6	149.995M	43.3	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	37.5	43.5	-6.0	Horiz
7	31.013M	43.9	+0.3 +0.0	+0.3 +0.0	+15.7	-27.9	+0.0	32.3	39.1 Maximized at 4 meters	-6.8	Vert
8	33.125M	44.0	+0.3 +0.0	+0.4 +0.0	+14.7	-27.9	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Horiz
9	49.845M	41.1	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	30.9	39.1	-8.2	Vert
10	30.613M	42.1	+0.3 +0.0	+0.3 +0.0	+15.9	-27.9	+0.0	30.7	39.1 Maximized at 4 meters	-8.4	Horiz
11	240.025M	40.0	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	37.6	46.4	-8.8	Horiz
12	175.270M	39.3	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	34.5	43.5	-9.0	Horiz
13	33.788M	41.8	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	29.0	39.1 Maximized at 4 meters	-10.1	Horiz
14	49.880M	38.1	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	27.9	39.1	-11.2	Horiz
15	159.995M	36.0	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	30.5	43.5	-13.0	Vert
16	175.270M	33.4	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	28.6	43.5	-14.9	Vert
17	160.000M	33.1	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	27.6	43.5	-15.9	Horiz
18	319.975M	30.5	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	29.5	46.4	-16.9	Vert
19	399.985M	30.8	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	26.7	46.4	-19.7	Vert

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

3	240.027M	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
^	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 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	33.7	39.1 Maximized at 4 meters	-5.4	Vert
6	30.263M	43.7	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	32.5	39.1 Maximized at 4 meters	-6.6	Horiz
^	30.263M	54.4	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	43.2	39.1 Maximized at 4 meters	+4.1	Horiz
8	49.924M	42.0	+0.4 +0.0	+0.5 +0.1	+11.6 +5.0	-27.9	+0.0	31.7	39.1	-7.4	Vert
9	175.270M	40.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	35.3	43.5	-8.2	Vert
10	31.870M	41.9	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	29.9	39.1 Maximized at 4 meters	-9.2	Vert
^	31.870M	48.3	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	36.3	39.1 Maximized at 4 meters	-2.8	Vert
12	33.713M	42.5	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	29.8	39.1 Maximized at 4 meters	-9.3	Vert
^	33.713M	48.5	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	35.8	39.1 Maximized at 4 meters	-3.3	Vert
14	33.796M	42.2	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	29.4	39.1 Maximized at 4 meters	-9.7	Horiz
15	160.010M	38.6	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	33.1	43.5	-10.4	Vert
16	160.010M	38.3	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	32.8	43.5	-10.7	Horiz
17	250.028M	37.0	+0.9 +0.0	+1.2 +0.3	+18.1 +5.0	-27.8	+0.0	34.7	46.4	-11.7	Vert
18	125.288M	38.3	+0.6 +0.0	+0.8 +0.1	+13.3 +5.0	-27.7	+0.0	30.4	43.5	-13.1	Vert
19	320.005M	33.0	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	32.0	46.4	-14.4	Horiz
20	150.450M	34.8	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	29.0	43.5	-14.5	Horiz
21	49.890M	34.7	+0.4 +0.0	+0.5 +0.1	+11.6 +5.0	-27.9	+0.0	24.4	39.1	-14.8	Horiz

22	400.020M	32.8	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	28.7	46.4	-17.7	Vert
23	399.985M	31.9	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	27.8	46.4	-18.6	Vert
24	480.080M	30.3	+1.3 +17.2	+1.8 +0.3	+0.0 +5.0	-28.1	+0.0	27.8	46.4	-18.6	Vert
25	125.285M	32.7	+0.6 +0.0	+0.8 +0.1	+13.3 +5.0	-27.7	+0.0	24.8	43.5	-18.7	Horiz
26	319.980M	28.5	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.5	46.4	-18.9	Vert

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	30.150M QP	48.9	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	37.7	39.1 Maximized at 4 meters	-1.4	Horiz
^	30.150M	50.7	+0.3 +0.0	+0.3 +0.0	+16.1	-27.9	+0.0	39.5	39.1 Maximized at 4 meters	+0.4	Horiz
5	30.796M QP	48.8	+0.3 +0.0	+0.3 +0.0	+15.8	-27.9	+0.0	37.3	39.1 Maximized at 4 meters	-1.8	Vert
^	30.796M	53.7	+0.3 +0.0	+0.3 +0.0	+15.8	-27.9	+0.0	42.2	39.1 Maximized at 4 meters	+3.1	Vert
7	33.743M QP	49.6	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	36.8	39.1 Maximized at 4 meters	-2.3	Vert
^	33.743M	54.0	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	41.2	39.1 Maximized at 4 meters	+2.1	Vert
9	31.562M QP	48.6	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	36.7	39.1 Maximized at 4 meters	-2.4	Horiz
^	31.526M	52.5	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	40.7	39.1 Maximized at 4 meters	+1.6	Horiz
^	31.626M	49.4	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	37.5	39.1 Maximized at 4 meters	-1.6	Horiz
12	150.000M QP	45.3	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	39.5	43.5	-4.0	Horiz
^	150.005M	47.6	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	41.8	43.5	-1.7	Horiz
14	31.626M QP	46.3	+0.3 +0.0	+0.3 +0.0	+15.4	-27.9	+0.0	34.4	39.1 Maximized at 4 meters	-4.7	Horiz
15	33.637M QP	45.3	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	32.6	39.1 Maximized at 4 meters	-6.5	Horiz
^	33.637M	47.7	+0.3 +0.0	+0.4 +0.0	+14.5	-27.9	+0.0	35.0	39.1 Maximized at 4 meters	-4.1	Horiz
17	150.415M	42.3	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	36.5	43.5	-7.0	Vert
18	160.000M	40.2	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	34.7	43.5	-8.8	Vert

19	175.260M	38.8	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	34.0	43.5	-9.5	Vert
20	240.005M	39.1	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.7	46.4	-9.7	Horiz
21	240.005M	38.5	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.1	46.4	-10.3	Vert
22	224.890M	34.4	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.6	+0.0	31.4	46.4	-15.0	Horiz
23	320.000M	31.1	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	30.1	46.4	-16.3	Vert
24	320.038M	28.3	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.3	46.4	-19.1	Horiz
25	399.988M	28.7	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	24.6	46.4	-21.8	Vert

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						

4	49.900M	44.9	+0.4 +0.0	+0.5 +0.1	+11.6 +5.0	-27.9	+0.0	34.6	39.1	-4.5	Horiz
5	31.475M	45.6	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	33.8	39.1 Maximized at 4 meters	-5.3	Horiz
6	33.163M	46.2	+0.3 +0.0	+0.4 +0.0	+14.7	-27.9	+0.0	33.7	39.1 Maximized at 4 meters	-5.4	Vert
7	32.913M	45.2	+0.3 +0.0	+0.4 +0.0	+14.8	-27.9	+0.0	32.8	39.1 Maximized at 4 meters	-6.3	Horiz
8	33.738M	45.5	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	32.7	39.1 Maximized at 4 meters	-6.4	Vert
9	30.850M	44.1	+0.3 +0.0	+0.3 +0.0	+15.8	-27.9	+0.0	32.6	39.1 Maximized at 4 meters	-6.5	Horiz
10	31.850M	44.2	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	32.2	39.1 Maximized at 4 meters	-6.9	Vert
11	74.860M	47.2	+0.5 +0.0	+0.5 +0.1	+6.4 +5.0	-27.9	+0.0	31.8	39.1	-7.3	Horiz
12	33.738M	44.5	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	31.7	39.1 Maximized at 4 meters	-7.4	Horiz
13	30.675M	41.8	+0.3 +0.0	+0.3 +0.0	+15.9	-27.9	+0.0	30.4	39.1 Maximized at 4 meters	-8.7	Vert
14	175.245M	37.1	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	32.3	43.5	-11.2	Vert
15	159.970M	37.5	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	32.0	43.5	-11.5	Vert
16	240.005M	36.1	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	33.7	46.4	-12.7	Vert
17	320.020M	32.2	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	31.2	46.4	-15.2	Horiz
18	225.030M	33.9	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.8	46.4	-15.6	Vert
19	480.015M	28.6	+1.3 +17.2	+1.8 +0.3	+0.0 +5.0	-28.1	+0.0	26.1	46.4	-20.3	Vert
20	400.015M	29.4	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	25.3	46.4	-21.1	Horiz

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
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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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	31.875M QP	49.2	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	37.2	39.1 Maximized at 4 meters	-1.9	Vert
^	31.875M	52.7	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	40.7	39.1 Maximized at 4 meters	+1.6	Vert
5	33.903M QP	49.5	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	36.7	39.1 Maximized at 4 meters	-2.4	Vert
^	33.903M	54.7	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	41.9	39.1 Maximized at 4 meters	+2.8	Vert
7	33.825M	47.4	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	34.6	39.1 Maximized at 4 meters	-4.5	Horiz
8	49.875M	44.5	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	34.3	39.1	-4.8	Vert
9	32.700M	45.9	+0.3 +0.0	+0.4 +0.0	+14.9	-27.9	+0.0	33.6	39.1 Maximized at 4 meters	-5.5	Horiz
10	31.850M	45.4	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	33.4	39.1 Maximized at 4 meters	-5.7	Horiz
11	240.050M	38.8	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	36.4	46.4	-10.0	Horiz
12	150.013M	38.6	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	32.8	43.5	-10.7	Horiz
13	175.275M	36.9	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	32.1	43.5	-11.4	Vert
14	49.850M	37.4	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	27.2	39.1	-11.9	Horiz
15	149.760M	35.5	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	29.7	43.5	-13.8	Vert
16	160.010M	34.9	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	29.4	43.5	-14.1	Horiz
17	240.000M	34.7	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	32.3	46.4	-14.1	Vert
18	225.080M	35.1	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	32.0	46.4	-14.4	Vert
19	274.955M	31.9	+1.0 +0.0	+1.3 +0.2	+19.5 +5.0	-27.9	+0.0	31.0	46.4	-15.4	Vert
20	175.270M	32.5	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	27.7	43.5	-15.8	Horiz

21	160.000M	31.8	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	26.3	43.5	-17.2	Vert
22	320.015M	29.2	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	28.2	46.4	-18.2	Horiz
23	320.030M	28.5	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	27.5	46.4	-18.9	Vert
24	400.015M	30.7	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	26.6	46.4	-19.8	Horiz
25	374.995M	31.1	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	26.4	46.4	-20.0	Horiz

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5	T6	T7						
			dB	dB	dB	dB	Table	dB μ V/m	dB μ 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 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 at 4 meters		

3	33.863M QP	46.6	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	33.8	39.1 Maximized at 4 meters	-5.3	Vert
^	33.863M	49.5	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	36.7	39.1 Maximized at 4 meters	-2.4	Vert
5	31.875M	45.3	+0.3 +0.0	+0.3 +0.0	+15.3	-27.9	+0.0	33.3	39.1 Maximized at 4 meters	-5.8	Horiz
6	31.513M	45.1	+0.3 +0.0	+0.3 +0.0	+15.5	-27.9	+0.0	33.3	39.1 Maximized at 4 meters	-5.8	Horiz
7	49.895M	43.0	+0.4 +0.0	+0.5 +0.1	+11.6 +5.0	-27.9	+0.0	32.7	39.1	-6.4	Vert
8	33.150M	44.4	+0.3 +0.0	+0.4 +0.0	+14.7	-27.9	+0.0	31.9	39.1 Maximized at 4 meters	-7.2	Horiz
9	33.900M	44.4	+0.3 +0.0	+0.4 +0.0	+14.4	-27.9	+0.0	31.6	39.1 Maximized at 4 meters	-7.5	Horiz
10	30.964M	42.1	+0.3 +0.0	+0.3 +0.0	+15.7	-27.9	+0.0	30.5	39.1 Maximized at 4 meters	-8.6	Vert
11	49.870M	37.4	+0.4 +0.0	+0.5 +0.1	+11.7 +5.0	-27.9	+0.0	27.2	39.1	-11.9	Horiz
12	149.745M	36.9	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	31.1	43.5	-12.4	Vert
13	159.990M	36.4	+0.7 +0.0	+0.8 +0.1	+15.6 +5.0	-27.7	+0.0	30.9	43.5	-12.6	Vert
14	240.010M	34.0	+0.9 +0.0	+1.2 +0.3	+17.9 +5.0	-27.7	+0.0	31.6	46.4	-14.8	Vert
15	225.080M	33.1	+0.8 +0.0	+1.1 +0.2	+17.5 +5.0	-27.7	+0.0	30.0	46.4	-16.4	Vert
16	175.255M	31.7	+0.7 +0.0	+1.0 +0.1	+16.1 +5.0	-27.7	+0.0	26.9	43.5	-16.6	Horiz
17	150.435M	31.8	+0.7 +0.0	+0.8 +0.1	+15.2 +5.0	-27.6	+0.0	26.0	43.5	-17.5	Horiz
18	375.045M	32.8	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	28.1	46.4	-18.3	Horiz
19	320.005M	29.1	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	28.1	46.4	-18.3	Vert
20	400.015M	31.9	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	27.8	46.4	-18.6	Horiz

21	450.045M	30.7	+1.2 +16.6	+1.8 +0.2	+0.0 +5.0	-28.3	+0.0	27.2	46.4	-19.2	Horiz
22	320.010M	27.9	+1.0 +19.5	+1.4 +0.2	+0.0 +5.0	-28.1	+0.0	26.9	46.4	-19.5	Horiz
23	479.985M	28.9	+1.3 +17.2	+1.8 +0.3	+0.0 +5.0	-28.1	+0.0	26.4	46.4	-20.0	Vert
24	400.010M	28.9	+1.2 +16.2	+1.7 +0.2	+0.0 +5.0	-28.4	+0.0	24.8	46.4	-21.6	Vert
25	374.995M	28.8	+1.1 +15.7	+1.6 +0.2	+0.0 +5.0	-28.3	+0.0	24.1	46.4	-22.3	Vert

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
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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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						
^	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						

3	30.912M	46.2	+0.3 +0.0	+0.3 -27.9	+0.0	+15.8	+0.0	34.7	39.1 Maximized at 4 meters	-4.4	Vert
^	30.912M	50.5	+0.3 +0.0	+0.3 -27.9	+0.0	+15.8	+0.0	39.0	39.1 Maximized at 4 meters	-0.1	Vert
5	31.679M	45.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	33.4	39.1 Maximized at 4 meters	-5.7	Vert
^	31.679M	48.8	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	36.9	39.1 Maximized at 4 meters	-2.2	Vert
7	30.113M	44.3	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
^	30.113M	48.6	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	37.4	39.1 Maximized at 4 meters	-1.7	Horiz
9	32.405M	45.3	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
10	33.173M	44.5	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	32.0	39.1 Maximized at 4 meters	-7.1	Vert
11	33.118M	44.1	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	31.6	39.1 Maximized at 4 meters	-7.5	Horiz
12	160.005M	39.7	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	34.2	43.5	-9.3	Vert
13	49.840M	39.8	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	29.6	39.1	-9.5	Horiz
14	149.975M	38.6	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	32.8	43.5	-10.7	Horiz
15	175.255M	33.7	+0.7 +0.1	+1.0 -27.7	+0.0 +5.0	+16.1	+0.0	28.9	43.5	-14.6	Horiz
16	240.005M	33.2	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	30.8	46.4	-15.6	Vert
17	159.885M	32.9	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	27.4	43.5	-16.1	Horiz
18	225.083M	32.5	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	29.4	46.4	-17.0	Vert
19	450.025M	27.4	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	23.9	46.4	-22.5	Horiz

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	Manufacturer	Model #	S/N
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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:

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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6							
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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							

5	32.609M	47.1	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	34.9	39.1	-4.2	Vert
^	32.609M	51.3	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	39.1	39.1	+0.0	Vert
7	30.238M	44.8	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	33.6	39.1	-5.5	Horiz
8	49.862M	47.0	+0.4 +0.1	+0.5 -27.9	+0.0	+11.7	+0.0	31.8	39.1	-7.3	Vert
									Measured at 1m. Add 5dB height correction factor to readings.		
^	49.862M	49.1	+0.4 +0.1	+0.5 -27.9	+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 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	28.8	39.1	-10.3	Horiz
11	32.214M	41.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.1	+0.0	28.8	39.1	-10.3	Horiz
12	49.850M	41.7	+0.4 +0.1	+0.5 -27.9	+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 +0.1	+0.8 -27.6	+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 +0.1	+0.8 -27.7	+0.0	+15.6	+0.0	25.2	43.5	-18.3	Vert
									Measured at 1m. Add 5dB height correction factor to readings.		
15	225.165M	35.6	+0.8 +0.2	+1.1 -27.7	+0.0	+17.5	+0.0	27.5	46.4	-18.9	Vert
									Measured at 1m. Add 5dB height correction factor to readings.		
16	320.015M	31.5	+1.0 +0.2	+1.4 -28.1	+19.5	+0.0	+0.0	25.5	46.4	-20.9	Horiz
									Measured at 1m. Add 5dB height correction factor to readings.		
17	160.000M	31.5	+0.7 +0.1	+0.8 -27.7	+0.0	+15.6	+0.0	21.0	43.5	-22.5	Horiz
									Measured at 1m. Add 5dB height correction factor to readings.		

18	319.985M	29.7	+1.0 +0.2	+1.4 -28.1	+19.5	+0.0	+0.0	23.7	46.4	-22.7	Vert
Measured at 1m. Add 5dB height correction factor to readings.											
19	239.985M	29.6	+0.9 +0.3	+1.2 -27.7	+0.0	+17.9	+0.0	22.2	46.4	-24.2	Vert
Measured at 1m. Add 5dB height correction factor to readings.											
20	375.015M	28.4	+1.1 +0.2	+1.6 -28.3	+15.7	+0.0	+0.0	18.7	46.4	-27.7	Horiz
Measured at 1m. Add 5dB height correction factor to readings.											

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/16/2006
 Time: 15:09:23
 Sequence#: 169
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						
^	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						

3	30.300M QP	47.7	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	36.5	39.1 Maximized at 4 meters	-2.6	Horiz
^	30.300M	50.0	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	38.8	39.1 Maximized at 4 meters	-0.3	Horiz
5	31.484M QP	46.4	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	34.6	39.1 Maximized at 4 meters	-4.5	Vert
^	31.484M	50.5	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	38.7	39.1 Maximized at 4 meters	-0.4	Vert
7	30.263M QP	45.2	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	34.0	39.1 Maximized at 4 meters	-5.1	Vert
^	30.263M	48.8	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	37.6	39.1 Maximized at 4 meters	-1.5	Vert
9	32.567M	46.1	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	33.9	39.1 Maximized at 4 meters	-5.2	Horiz
10	33.418M	45.6	+0.3 +0.0	+0.4 -27.9	+0.0	+14.6	+0.0	33.0	39.1 Maximized at 4 meters	-6.1	Vert
11	32.707M	44.5	+0.3 +0.0	+0.4 -27.9	+0.0	+14.9	+0.0	32.2	39.1 Maximized at 4 meters	-6.9	Horiz
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 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	38.4	46.4	-8.0	Horiz
14	424.760M	40.7	+1.2 +0.2	+1.7 -28.4	+16.4 +5.0	+0.0	+0.0	36.8	46.4	-9.6	Horiz
15	225.045M	39.7	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	36.6	46.4	-9.8	Vert
16	240.015M	38.2	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	35.8	46.4	-10.6	Vert
17	149.990M	37.9	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	32.1	43.5	-11.4	Horiz
18	150.000M	37.2	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	31.4	43.5	-12.1	Vert
19	160.015M	35.5	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	30.0	43.5	-13.5	Vert
20	450.013M	36.0	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	32.5	46.4	-13.9	Horiz
21	274.895M	31.6	+1.0 +0.2	+1.3 -27.9	+0.0 +5.0	+19.5	+0.0	30.7	46.4	-15.7	Vert

22	225.025M	32.2	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	29.1	46.4	-17.3	Horiz
23	274.910M	29.9	+1.0 +0.2	+1.3 -27.9	+0.0 +5.0	+19.5	+0.0	29.0	46.4	-17.4	Horiz
24	350.255M	31.7	+1.1 +0.3	+1.5 -28.3	+15.2 +5.0	+0.0	+0.0	26.5	46.4	-19.9	Horiz
25	375.030M	28.2	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	23.5	46.4	-22.9	Vert

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						

3	30.399M QP	48.1	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	36.8	39.1 Maximized at 4 meters	-2.3	Horiz
^	30.399M	50.6	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	39.3	39.1 Maximized at 4 meters	+0.2	Horiz
5	33.658M	46.6	+0.3 +0.0	+0.4 -27.9	+0.0	+14.5	+0.0	33.9	39.1 Maximized at 4 meters	-5.2	Horiz
6	150.020M	43.3	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	37.5	43.5	-6.0	Horiz
7	239.995M	42.0	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	39.6	46.4	-6.8	Vert
8	32.297M QP	44.2	+0.3 +0.0	+0.3 -27.9	+0.0	+15.1	+0.0	32.0	39.1 Maximized at 4 meters	-7.1	Horiz
^	32.297M	47.6	+0.3 +0.0	+0.3 -27.9	+0.0	+15.1	+0.0	35.4	39.1 Maximized at 4 meters	-3.7	Horiz
10	160.005M	41.7	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	36.2	43.5	-7.3	Horiz
11	31.713M QP	43.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	31.8	39.1 Maximized at 4 meters	-7.3	Vert
^	31.713M	48.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	36.8	39.1 Maximized at 4 meters	-2.3	Vert
13	33.063M	44.0	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Vert
14	49.850M	41.2	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	31.0	39.1	-8.1	Horiz
15	240.005M	40.6	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	38.2	46.4	-8.2	Horiz
16	30.218M QP	41.4	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	30.2	39.1 Maximized at 4 meters	-8.9	Vert
^	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 meters	-4.1	Vert
18	225.020M	34.4	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	31.3	46.4	-15.1	Horiz
19	159.995M	33.7	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	28.2	43.5	-15.4	Vert
20	225.040M	32.5	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	29.4	46.4	-17.0	Vert

21	474.985M	31.6	+1.3 +0.3	+1.8 -28.1	+17.1 +5.0	+0.0	+0.0	29.0	46.4	-17.4	Vert
22	319.985M	29.8	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	28.8	46.4	-17.6	Vert
23	480.090M	29.3	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	26.8	46.4	-19.6	Vert
24	374.995M	29.9	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	25.2	46.4	-21.3	Vert

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):

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6							
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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							
^	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							

3	150.010M	44.0	+0.7 -27.6	+0.8 +5.0	+15.2	+0.1	+0.0	38.2	43.5	-5.3	Horiz
4	30.582M QP	44.6	+0.3 -27.9	+0.3	+15.9	+0.0	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
^	30.582M	48.5	+0.3 -27.9	+0.3	+15.9	+0.0	+0.0	37.1	39.1 Maximized at 4 meters	-2.0	Horiz
6	32.557M QP	44.5	+0.3 -27.9	+0.4	+15.0	+0.0	+0.0	32.3	39.1 Maximized at 4 meters	-6.8	Horiz
^	32.557M	47.1	+0.3 -27.9	+0.4	+15.0	+0.0	+0.0	34.9	39.1 Maximized at 4 meters	-4.2	Horiz
8	240.020M	41.5	+0.9 -27.7	+1.2 +5.0	+17.9	+0.3	+0.0	39.1	46.4	-7.3	Vert
9	31.488M	43.0	+0.3 -27.9	+0.3	+15.5	+0.0	+0.0	31.2	39.1 Maximized at 4 meters	-7.9	Vert
10	30.113M	42.3	+0.3 -27.9	+0.3	+16.1	+0.0	+0.0	31.1	39.1 Maximized at 4 meters	-8.0	Vert
11	33.817M QP	43.7	+0.3 -27.9	+0.4	+14.4	+0.0	+0.0	30.9	39.1 Maximized at 4 meters	-8.2	Horiz
^	33.817M	47.3	+0.3 -27.9	+0.4	+14.4	+0.0	+0.0	34.5	39.1 Maximized at 4 meters	-4.6	Horiz
13	32.938M	41.8	+0.3 -27.9	+0.4	+14.8	+0.0	+0.0	29.4	39.1 Maximized at 4 meters	-9.7	Vert
14	49.900M	38.7	+0.4 -27.9	+0.5 +5.0	+11.6	+0.1	+0.0	28.4	39.1	-10.8	Horiz
15	160.005M	37.8	+0.7 -27.7	+0.8 +5.0	+15.6	+0.1	+0.0	32.3	43.5	-11.2	Vert
16	224.925M	34.3	+0.8 -27.6	+1.1 +5.0	+17.5	+0.2	+0.0	31.3	46.4	-15.1	Horiz
17	225.110M	30.9	+0.8 -27.7	+1.1 +5.0	+17.5	+0.2	+0.0	27.8	46.4	-18.6	Vert

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: 15:59:37
 Equipment: **BPL MV Gateway** Sequence#: 172
 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
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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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	49.855M	46.6	+0.4	+0.5	+0.0	+11.7	+0.0	36.4	39.1	-2.7	Vert
QP			+0.1	-27.9	+5.0						
^	49.855M	48.0	+0.4	+0.5	+0.0	+11.7	+0.0	37.8	39.1	-1.3	Vert
			+0.1	-27.9	+5.0						

3	31.000M	45.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.7	+0.0	34.1	39.1 Maximized at 4 meters	-5.0	Vert
4	32.000M	44.9	+0.3 +0.0	+0.3 -27.9	+0.0	+15.2	+0.0	32.8	39.1 Maximized at 4 meters	-6.3	Vert
5	30.175M	43.2	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	32.0	39.1 Maximized at 4 meters	-7.1	Vert
6	30.563M	41.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	29.9	39.1 Maximized at 4 meters	-9.2	Horiz
7	33.275M	41.1	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	28.6	39.1 Maximized at 4 meters	-10.5	Vert
8	31.413M	39.8	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	28.0	39.1 Maximized at 4 meters	-11.1	Horiz
9	32.475M	38.9	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	26.7	39.1 Maximized at 4 meters	-12.4	Horiz
10	240.000M	36.0	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	33.6	46.4	-12.8	Vert
11	33.663M	37.4	+0.3 +0.0	+0.4 -27.9	+0.0	+14.5	+0.0	24.7	39.1 Maximized at 4 meters	-14.4	Horiz
12	149.980M	34.9	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	29.1	43.5	-14.4	Horiz
13	150.020M	33.9	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	28.1	43.5	-15.4	Vert
14	49.880M	32.9	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	22.7	39.1	-16.4	Horiz
15	160.035M	32.5	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	27.0	43.5	-16.5	Vert
16	225.085M	32.2	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	29.1	46.4	-17.3	Vert
17	240.010M	29.4	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	27.0	46.4	-19.4	Horiz
18	399.945M	29.6	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	25.5	46.4	-20.9	Horiz
19	399.905M	29.4	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	25.3	46.4	-21.2	Vert

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						

3	31.900M	44.2	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	32.2	39.1 Maximized at 4 meters	-6.9	Vert
4	30.538M	42.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	30.9	39.1 Maximized at 4 meters	-8.2	Vert
5	32.538M	42.4	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	30.2	39.1 Maximized at 4 meters	-8.9	Horiz
6	30.325M	41.4	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	30.1	39.1 Maximized at 4 meters	-9.0	Horiz
7	49.865M	40.2	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	30.0	39.1	-9.1	Horiz
8	31.500M	40.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	28.9	39.1 Maximized at 4 meters	-10.2	Horiz
9	33.700M	39.8	+0.3 +0.0	+0.4 -27.9	+0.0	+14.5	+0.0	27.1	39.1 Maximized at 4 meters	-12.0	Horiz
10	32.975M	39.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.8	+0.0	26.8	39.1 Maximized at 4 meters	-12.3	Vert
11	150.020M	36.7	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	30.9	43.5	-12.6	Vert
12	159.985M	36.3	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	30.8	43.5	-12.7	Vert
13	149.980M	34.3	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	28.5	43.5	-15.1	Horiz
14	240.010M	33.4	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	31.0	46.4	-15.4	Vert
15	225.020M	29.2	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	26.1	46.4	-20.3	Vert
16	375.020M	30.6	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	25.9	46.4	-20.5	Horiz
17	399.940M	29.7	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	25.6	46.4	-20.8	Vert
18	399.895M	28.3	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	24.2	46.4	-22.2	Horiz

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):

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
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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:

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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						
^	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						

3	31.375M	44.2	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	32.4	39.1 Maximized at 4 meters	-6.7	Vert
4	30.325M	42.1	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	30.8	39.1 Maximized at 4 meters	-8.3	Vert
5	32.588M	42.8	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	30.6	39.1 Maximized at 4 meters	-8.5	Vert
6	49.855M	40.1	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	29.9	39.1	-9.2	Horiz
7	159.990M	39.6	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	34.1	43.5	-9.4	Vert
8	33.500M	41.3	+0.3 +0.0	+0.4 -27.9	+0.0	+14.6	+0.0	28.7	39.1 Maximized at 4 meters	-10.4	Vert
9	30.588M	37.8	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	26.4	39.1 Maximized at 4 meters	-12.7	Horiz
10	31.488M	38.0	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	26.2	39.1 Maximized at 4 meters	-12.9	Horiz
11	33.950M	37.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.4	+0.0	25.1	39.1 Maximized at 4 meters	-14.0	Horiz
12	32.788M	37.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.9	+0.0	24.9	39.1 Maximized at 4 meters	-14.2	Horiz
13	225.050M	34.4	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	31.3	46.4	-15.2	Vert
14	240.010M	33.3	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	30.9	46.4	-15.6	Vert
15	149.990M	32.1	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	26.3	43.5	-17.3	Horiz
16	375.005M	28.8	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	24.1	46.4	-22.4	Horiz

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: 16:51:56
 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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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	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						
4	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						

5	30.238M	37.6	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	26.4	39.1 Maximized at 4 meters	-12.7	Horiz
6	30.100M	37.0	+0.3 +0.0	+0.3 -27.9	+0.0	+16.2	+0.0	25.9	39.1 Maximized at 4 meters	-13.2	Vert
7	149.995M	35.9	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	30.1	43.5	-13.4	Vert
8	33.725M	38.3	+0.3 +0.0	+0.4 -27.9	+0.0	+14.5	+0.0	25.6	39.1 Maximized at 4 meters	-13.5	Vert
9	32.900M	37.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.8	+0.0	25.5	39.1 Maximized at 4 meters	-13.6	Vert
10	31.500M	35.9	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	24.1	39.1 Maximized at 4 meters	-15.0	Vert
11	240.005M	32.5	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	30.1	46.4	-16.3	Vert
12	225.070M	33.0	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	29.9	46.4	-16.5	Vert
13	31.250M	34.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.6	+0.0	22.4	39.1 Maximized at 4 meters	-16.7	Horiz
14	33.913M	34.7	+0.3 +0.0	+0.4 -27.9	+0.0	+14.4	+0.0	21.9	39.1 Maximized at 4 meters	-17.2	Horiz
15	450.025M	32.6	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	29.1	46.4	-17.3	Horiz
16	150.005M	31.4	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	25.6	43.5	-17.9	Horiz
17	32.950M	33.4	+0.3 +0.0	+0.4 -27.9	+0.0	+14.8	+0.0	21.0	39.1 Maximized at 4 meters	-18.1	Horiz
18	159.950M	29.4	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	23.9	43.5	-19.6	Horiz
19	250.005M	28.3	+0.9 +0.3	+1.2 -27.8	+0.0 +5.0	+18.1	+0.0	26.0	46.4	-20.4	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/16/2006
 Time: 13:35:50
 Sequence#: 165
 Tested By: C. Nicklas

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
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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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						
^	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						

3	31.213M QP	47.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.6	+0.0	35.4	39.1 Maximized at 4 meters	-3.7	Vert
^	31.213M	50.4	+0.3 +0.0	+0.3 -27.9	+0.0	+15.6	+0.0	38.7	39.1 Maximized at 4 meters	-0.4	Vert
5	30.076M QP	45.9	+0.3 +0.0	+0.3 -27.9	+0.0	+16.2	+0.0	34.7	39.1 Maximized at 4 meters	-4.4	Vert
^	30.076M	49.2	+0.3 +0.0	+0.3 -27.9	+0.0	+16.2	+0.0	38.1	39.1 Maximized at 4 meters	-1.0	Vert
7	30.594M	44.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	32.7	39.1 Maximized at 4 meters	-6.4	Horiz
8	49.875M	41.9	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	31.7	39.1	-7.4	Horiz
9	33.190M QP	42.7	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	30.2	39.1 Maximized at 4 meters	-8.9	Vert
^	33.190M	48.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	35.7	39.1 Maximized at 4 meters	-3.4	Vert
11	31.903M	42.0	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	30.0	39.1 Maximized at 4 meters	-9.1	Horiz
12	33.878M	41.8	+0.3 +0.0	+0.4 -27.9	+0.0	+14.4	+0.0	29.0	39.1 Maximized at 4 meters	-10.1	Horiz
13	160.005M	36.8	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	31.3	43.5	-12.2	Vert
14	240.025M	34.2	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	31.8	46.4	-14.6	Vert
15	160.025M	33.0	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	27.5	43.5	-16.0	Horiz
16	225.160M	33.4	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	30.3	46.4	-16.1	Vert
17	320.005M	29.0	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	28.0	46.4	-18.4	Horiz
18	450.070M	31.5	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	28.0	46.4	-18.5	Vert
19	319.990M	28.5	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	27.5	46.4	-18.9	Vert
20	480.070M	28.9	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	26.4	46.4	-20.0	Vert
21	480.070M	28.0	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	25.5	46.4	-20.9	Horiz
22	450.070M	28.1	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	24.6	46.4	-21.8	Horiz

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/16/2006
 Time: 12:50:18
 Sequence#: 164
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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
QP			+0.1	-27.9	+5.0						
^	49.872M	49.0	+0.4	+0.5	+0.0	+11.7	+0.0	38.8	39.1	-0.3	Vert
			+0.1	-27.9	+5.0						

3	31.806M QP	45.0	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	33.0	39.1 Maximized at 4 meters	-6.1	Vert
^	31.806M	48.5	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	36.5	39.1 Maximized at 4 meters	-2.6	Vert
5	30.269M QP	43.7	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	32.5	39.1 Maximized at 4 meters	-6.6	Vert
^	30.269M	48.4	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	37.2	39.1 Maximized at 4 meters	-1.9	Vert
7	150.000M	42.2	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	36.4	43.5	-7.1	Vert
8	159.995M	40.6	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	35.1	43.5	-8.4	Vert
9	30.325M	41.7	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	30.4	39.1 Maximized at 4 meters	-8.7	Horiz
10	31.961M	41.9	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	29.9	39.1 Maximized at 4 meters	-9.2	Horiz
11	49.850M	40.0	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	29.8	39.1	-9.3	Horiz
12	33.192M QP	42.1	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	29.6	39.1 Maximized at 4 meters	-9.5	Vert
^	33.192M	47.5	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	35.0	39.1 Maximized at 4 meters	-4.1	Vert
14	240.020M	38.6	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	36.2	46.4	-10.2	Vert
15	150.010M	38.1	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	32.3	43.5	-11.2	Horiz
16	33.481M	40.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.6	+0.0	27.6	39.1 Maximized at 4 meters	-11.5	Horiz
17	225.060M	33.8	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	30.7	46.4	-15.7	Vert
18	480.080M	30.2	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	27.7	46.4	-18.7	Horiz
19	480.105M	28.2	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	25.7	46.4	-20.7	Vert

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: 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
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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. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						
^	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 at 4 meters		

4	30.425M QP	44.8	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	33.5	39.1 Maximized at 4 meters	-5.6	Horiz
^	30.425M	51.0	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	39.7	39.1 Maximized at 4 meters	+0.6	Horiz
6	32.587M QP	45.3	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
^	32.587M	50.0	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	37.8	39.1 Maximized at 4 meters	-1.3	Horiz
8	34.137M QP	45.4	+0.3 +0.0	+0.4 -27.9	+0.0	+14.3	+0.0	32.5	39.1 Maximized at 4 meters	-6.6	Horiz
^	34.137M	50.4	+0.3 +0.0	+0.4 -27.9	+0.0	+14.3	+0.0	37.5	39.1 Maximized at 4 meters	-1.6	Horiz
10	30.205M	43.0	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	31.8	39.1 Maximized at 4 meters	-7.3	Vert
11	31.914M	43.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	31.3	39.1 Maximized at 4 meters	-7.8	Vert
12	149.985M	40.8	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	35.0	43.5	-8.5	Horiz
13	49.860M	40.6	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	30.4	39.1	-8.8	Horiz
14	33.442M	42.8	+0.3 +0.0	+0.4 -27.9	+0.0	+14.6	+0.0	30.2	39.1 Maximized at 4 meters	-8.9	Vert
15	150.020M	39.3	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	33.5	43.5	-10.0	Vert
16	240.000M	37.6	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	35.2	46.4	-11.2	Vert
17	159.985M	37.2	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	31.7	43.5	-11.8	Horiz
18	225.015M	35.2	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	32.1	46.4	-14.3	Vert
19	224.955M	34.6	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	31.5	46.4	-15.0	Horiz
20	274.950M	32.0	+1.0 +0.2	+1.3 -27.9	+0.0 +5.0	+19.5	+0.0	31.1	46.4	-15.4	Vert
21	240.000M	31.5	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	29.1	46.4	-17.3	Horiz
22	74.860M	36.9	+0.5 +0.1	+0.5 -27.9	+0.0 +5.0	+6.4	+0.0	21.5	39.1	-17.6	Horiz
23	74.860M	36.9	+0.5 +0.1	+0.5 -27.9	+0.0 +5.0	+6.4	+0.0	21.5	39.1	-17.6	Horiz
24	319.990M	29.8	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	28.8	46.4	-17.6	Vert

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**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/16/2006
 Time: 12:09:31
 Sequence#: 162
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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
	QP		+0.0	-27.9					Maximized at 4 meters		
^	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 at 4 meters		

4	31.375M	44.9	+0.3 +0.0	+0.3 -27.9	+0.0	+15.5	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Vert
5	30.050M	43.9	+0.3 +0.0	+0.3 -27.9	+0.0	+16.2	+0.0	32.8	39.1 Maximized at 4 meters	-6.3	Vert
6	32.568M QP	43.5	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	31.3	39.1 Maximized at 4 meters	-7.8	Horiz
^	32.568M	49.2	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	37.0	39.1 Maximized at 4 meters	-2.1	Horiz
8	33.827M QP	42.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.4	+0.0	30.1	39.1 Maximized at 4 meters	-9.0	Horiz
^	33.827M	47.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.4	+0.0	34.4	39.1 Maximized at 4 meters	-4.7	Horiz
10	33.138M	42.5	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	30.0	39.1 Maximized at 4 meters	-9.1	Vert
11	49.875M	39.0	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	28.8	39.1	-10.4	Horiz
12	174.995M	36.2	+0.7 +0.1	+1.0 -27.7	+0.0 +5.0	+16.1	+0.0	31.4	43.5	-12.1	Horiz
13	149.995M	35.1	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	29.3	43.5	-14.2	Horiz
14	149.995M	34.5	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	28.7	43.5	-14.8	Vert
15	320.010M	30.8	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	29.8	46.4	-16.6	Vert
16	274.940M	29.1	+1.0 +0.2	+1.3 -27.9	+0.0 +5.0	+19.5	+0.0	28.2	46.4	-18.2	Vert
17	240.005M	30.0	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	27.6	46.4	-18.8	Horiz
18	399.965M	29.5	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	25.4	46.4	-21.0	Horiz
19	450.080M	26.6	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	23.1	46.4	-23.3	Horiz

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: 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	Manufacturer	Model #	S/N
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7	dB	Table	dBμV/m	dBμV/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 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						

4	31.713M	44.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	32.8	39.1 Maximized at 4 meters	-6.3	Vert
5	31.710M QP	44.5	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	32.6	39.1 Maximized at 4 meters	-6.5	Horiz
^	31.710M	48.5	+0.3 +0.0	+0.3 -27.9	+0.0	+15.4	+0.0	36.6	39.1 Maximized at 4 meters	-2.5	Horiz
7	160.010M	41.2	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	35.7	43.5	-7.8	Horiz
8	30.125M	41.7	+0.3 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	30.5	39.1 Maximized at 4 meters	-8.6	Vert
9	32.804M	42.6	+0.3 +0.0	+0.4 -27.9	+0.0	+14.9	+0.0	30.3	39.1 Maximized at 4 meters	-8.8	Horiz
10	49.845M	39.8	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	29.6	39.1	-9.5	Horiz
11	33.363M	39.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.6	+0.0	27.3	39.1 Maximized at 4 meters	-11.8	Vert
12	150.015M	37.5	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	31.7	43.5	-11.8	Horiz
13	240.990M	36.7	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	34.3	46.4	-12.2	Vert
14	150.030M	35.9	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	30.1	43.5	-13.5	Vert
15	225.035M	35.7	+0.8 +0.2	+1.1 -27.7	+0.0 +5.0	+17.5	+0.0	32.6	46.4	-13.8	Vert
16	160.920M	35.0	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	29.5	43.5	-14.0	Vert
17	319.985M	28.8	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	27.8	46.4	-18.6	Vert
18	479.985M	29.6	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	27.1	46.4	-19.3	Vert
19	400.005M	30.4	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	26.3	46.4	-20.1	Vert
20	374.990M	30.1	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	25.4	46.4	-21.0	Vert
21	450.040M	27.8	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	24.3	46.4	-22.2	Vert

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: 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
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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-AN00503-010505
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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 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 at 4 meters		

3	30.325M QP	49.5	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	38.2	39.1 Maximized at 4 meters	-0.9	Vert
^	30.325M	53.1	+0.3 +0.0	+0.3 -27.9	+0.0	+16.0	+0.0	41.8	39.1 Maximized at 4 meters	+2.7	Vert
5	240.013M QP	46.9	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	44.5	46.4	-1.9	Vert
^	240.013M	47.0	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	44.6	46.4	-1.8	Vert
7	49.855M	46.0	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	35.8	39.1	-3.3	Vert
8	240.014M QP	45.0	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	42.6	46.4	-3.8	Horiz
^	240.014M	45.2	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	42.8	46.4	-3.6	Horiz
10	31.883M QP	46.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	34.1	39.1 Maximized at 4 meters	-5.0	Horiz
^	31.883M	50.9	+0.3 +0.0	+0.3 -27.9	+0.0	+15.3	+0.0	38.9	39.1 Maximized at 4 meters	-0.2	Horiz
12	30.625M QP	45.3	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	33.9	39.1 Maximized at 4 meters	-5.2	Horiz
^	30.625M	51.1	+0.3 +0.0	+0.3 -27.9	+0.0	+15.9	+0.0	39.7	39.1 Maximized at 4 meters	+0.6	Horiz
14	160.005M	43.6	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	38.1	43.5	-5.4	Vert
15	32.584M	45.2	+0.3 +0.0	+0.4 -27.9	+0.0	+15.0	+0.0	33.0	39.1 Maximized at 4 meters	-6.1	Horiz
16	32.836M QP	44.6	+0.3 +0.0	+0.4 -27.9	+0.0	+14.9	+0.0	32.3	39.1 Maximized at 4 meters	-6.8	Vert
^	32.836M	49.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.9	+0.0	37.6	39.1 Maximized at 4 meters	-1.5	Vert
18	150.000M	42.2	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	36.4	43.5	-7.1	Horiz
19	49.865M	41.2	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	31.0	39.1	-8.1	Horiz
20	160.000M	39.0	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	33.5	43.5	-10.0	Horiz
21	320.015M	30.6	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	29.6	46.4	-16.8	Horiz

22	480.085M	31.2	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	28.7	46.4	-17.7	Vert
23	450.055M	31.9	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	28.4	46.4	-18.0	Horiz
24	375.025M	32.7	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	28.0	46.4	-18.4	Vert
25	399.950M	31.4	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	27.3	46.4	-19.1	Vert
26	480.015M	29.7	+1.3 +0.3	+1.8 -28.1	+17.2 +5.0	+0.0	+0.0	27.2	46.4	-19.2	Horiz

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: 10:52:12
 Equipment: **BPL MV Gateway** Sequence#: 159
 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
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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:

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
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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
	QP		+0.0	-27.9					Maximized at 4 meters		
^	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 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
	QP		+0.0	-27.9					Maximized at 4 meters		
^	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 at 4 meters		

5	49.860M	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
QP											
^	49.860M	50.0	+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 +0.0	+0.3 -27.9	+0.0	+16.1	+0.0	33.6	39.1 Maximized at 4 meters	-5.5	Horiz
8	31.988M	45.2	+0.3 +0.0	+0.3 -27.9	+0.0	+15.2	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
9	31.113M	44.7	+0.3 +0.0	+0.3 -27.9	+0.0	+15.7	+0.0	33.1	39.1 Maximized at 4 meters	-6.0	Horiz
10	240.025M	42.1	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	39.7	46.4	-6.7	Vert
11	33.228M	44.2	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	31.7	39.1 Maximized at 4 meters	-7.4	Vert
QP											
^	33.228M	48.9	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	36.4	39.1 Maximized at 4 meters	-2.7	Vert
13	160.025M	40.5	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	35.0	43.5	-8.5	Vert
14	159.980M	40.0	+0.7 +0.1	+0.8 -27.7	+0.0 +5.0	+15.6	+0.0	34.5	43.5	-9.0	Horiz
15	49.850M	40.0	+0.4 +0.1	+0.5 -27.9	+0.0 +5.0	+11.7	+0.0	29.8	39.1	-9.3	Horiz
16	33.213M	37.7	+0.3 +0.0	+0.4 -27.9	+0.0	+14.7	+0.0	25.2	39.1 Maximized at 4 meters	-13.9	Horiz
17	149.970M	35.0	+0.7 +0.1	+0.8 -27.6	+0.0 +5.0	+15.2	+0.0	29.2	43.5	-14.3	Horiz
18	320.000M	28.8	+1.0 +0.2	+1.4 -28.1	+19.5 +5.0	+0.0	+0.0	27.8	46.4	-18.6	Horiz
19	240.015M	29.9	+0.9 +0.3	+1.2 -27.7	+0.0 +5.0	+17.9	+0.0	27.5	46.4	-18.9	Horiz
20	375.010M	31.5	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	26.8	46.4	-19.6	Horiz
21	325.000M	27.9	+1.0 +0.2	+1.5 -28.1	+18.8 +5.0	+0.0	+0.0	26.3	46.4	-20.1	Horiz
22	399.960M	30.3	+1.2 +0.2	+1.7 -28.4	+16.2 +5.0	+0.0	+0.0	26.2	46.4	-20.2	Horiz
23	450.040M	29.1	+1.2 +0.2	+1.8 -28.3	+16.6 +5.0	+0.0	+0.0	25.6	46.4	-20.8	Horiz
24	375.000M	29.3	+1.1 +0.2	+1.6 -28.3	+15.7 +5.0	+0.0	+0.0	24.6	46.4	-21.8	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 16:52:55
 Sequence#: 223
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	30.325M	44.8	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	33.5	39.1 Maximized at 4 meters	-5.6	Vert
2	49.880M	42.5	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	32.3	39.1	-6.8	Vert
3	30.513M	42.4	+0.3 +15.9	+0.3 -27.9	+0.0	+0.0	+0.0	31.0	39.1 Maximized at 4 meters	-8.1	Horiz

4	31.575M	42.8	+0.3 +15.4	+0.3 -27.9	+0.0	+0.0	+0.0	30.9	39.1 Maximized at 4 meters	-8.2	Vert
5	33.200M	42.6	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	30.1	39.1 Maximized at 4 meters	-9.0	Vert
6	31.675M	41.6	+0.3 +15.4	+0.3 -27.9	+0.0	+0.0	+0.0	29.7	39.1 Maximized at 4 meters	-9.4	Horiz
7	33.025M	40.3	+0.3 +14.8	+0.4 -27.9	+0.0	+0.0	+0.0	27.9	39.1 Maximized at 4 meters	-11.2	Horiz
8	149.765M	35.9	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	30.1	43.5	-13.4	Vert
9	479.995M	35.2	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	32.7	46.4	-13.7	Horiz
10	149.980M	35.6	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	29.8	43.5	-13.7	Horiz
11	160.025M	34.4	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	28.9	43.5	-14.6	Horiz
12	249.980M	34.1	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	31.8	46.4	-14.6	Horiz
13	450.035M	35.2	+1.2 +0.0	+1.8 -28.3	+0.2 +5.0	+16.6	+0.0	31.7	46.4	-14.7	Vert
14	160.025M	33.5	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	28.0	43.5	-15.5	Vert
15	49.875M	33.6	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	23.4	39.1	-15.7	Horiz
16	480.075M	32.9	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	30.4	46.4	-16.0	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 13:08:38
 Sequence#: 208
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

3	32.500M	36.9	+0.3 +15.0	+0.4 -27.9	+0.0	+0.0	+0.0	24.7	39.1 Maximized at 4 meters	-14.4	Horiz
4	150.000M	34.6	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	28.8	43.5	-14.7	Horiz
5	249.925M	33.9	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	31.6	46.4	-14.8	Vert
6	175.025M	33.2	+0.7 +16.1	+1.0 -27.7	+0.1 +5.0	+0.0	+0.0	28.4	43.5	-15.1	Vert
7	150.015M	33.7	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	27.9	43.5	-15.6	Vert
8	49.865M	32.6	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	22.4	39.1	-16.7	Horiz
9	31.488M	33.4	+0.3 +15.5	+0.3 -27.9	+0.0	+0.0	+0.0	21.6	39.1 Maximized at 4 meters	-17.5	Vert
10	33.750M	33.6	+0.3 +14.4	+0.4 -27.9	+0.0	+0.0	+0.0	20.8	39.1 Maximized at 4 meters	-18.3	Horiz
11	30.025M	31.2	+0.3 +16.2	+0.3 -27.9	+0.0	+0.0	+0.0	20.1	39.1 Maximized at 4 meters	-19.0	Vert
12	33.738M	32.8	+0.3 +14.4	+0.4 -27.9	+0.0	+0.0	+0.0	20.0	39.1 Maximized at 4 meters	-19.1	Vert
13	225.080M	29.8	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	26.7	46.4	-19.7	Vert
14	479.985M	28.6	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	26.1	46.4	-20.3	Horiz
15	174.990M	27.6	+0.7 +16.1	+1.0 -27.7	+0.1 +5.0	+0.0	+0.0	22.8	43.5	-20.7	Horiz
16	274.980M	24.6	+1.0 +19.5	+1.3 -27.9	+0.2 +5.0	+0.0	+0.0	23.7	46.4	-22.7	Vert
17	74.925M	31.1	+0.5 +6.4	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	15.7	39.1	-23.4	Vert
18	450.035M	25.2	+1.2 +0.0	+1.8 -28.3	+0.2 +5.0	+16.6	+0.0	21.7	46.4	-24.7	Horiz
19	249.990M	23.2	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	20.9	46.4	-25.5	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 13:26:01
 Sequence#: 209
 Tested By: C. Nicklas

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6			Table	dBμV/m	dBμV/m	dB	Ant
1	30.000M	39.4	+0.3 -27.9	+0.3	+0.0	+16.2	+0.0	28.3	39.1	-10.8	Vert
									Maximized at 4 meters		
2	49.875M	37.1	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	26.9	39.1	-12.2	Vert

3	31.550M	38.0	+0.3 -27.9	+0.3	+0.0	+15.4	+0.0	26.1	39.1 Maximized at 4 meters	-13.0	Vert
4	30.088M	33.7	+0.3 -27.9	+0.3	+0.0	+16.2	+0.0	22.6	39.1 Maximized at 4 meters	-16.5	Horiz
5	33.350M	33.3	+0.3 -27.9	+0.4	+0.0	+14.6	+0.0	20.7	39.1 Maximized at 4 meters	-18.4	Vert
6	149.735M	30.8	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	25.0	43.5	-18.5	Vert
7	49.875M	30.6	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	20.4	39.1	-18.7	Horiz
8	31.150M	32.0	+0.3 -27.9	+0.3	+0.0	+15.6	+0.0	20.3	39.1 Maximized at 4 meters	-18.8	Horiz
9	225.060M	29.2	+0.8 -27.7	+1.1 +5.0	+0.2	+17.5	+0.0	26.1	46.4	-20.3	Vert
10	150.010M	29.0	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	23.2	43.5	-20.4	Horiz
11	33.188M	29.6	+0.3 -27.9	+0.4	+0.0	+14.7	+0.0	17.1	39.1 Maximized at 4 meters	-22.0	Horiz
12	274.995M	25.2	+1.0 -27.9	+1.3 +5.0	+0.2	+19.5	+0.0	24.3	46.4	-22.1	Vert
13	32.188M	28.5	+0.3 -27.9	+0.3	+0.0	+15.1	+0.0	16.3	39.1 Maximized at 4 meters	-22.8	Horiz
14	160.005M	20.9	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	15.4	43.5	-28.1	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 13:53:53
 Sequence#: 210
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	299.945M	34.5	+1.0 +20.7	+1.7 -28.0	+0.2 +5.0	+0.0	+0.0	35.1	46.4	-11.3	Vert
2	49.875M	34.5	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	24.3	39.1	-14.8	Vert
3	30.313M	35.2	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	23.9	39.1 Maximized at 4 meters	-15.2	Vert
4	31.863M	32.6	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	20.6	39.1 Maximized at 4 meters	-18.5	Vert

5	32.500M	32.6	+0.3 +15.0	+0.4 -27.9	+0.0	+0.0	+0.0	20.4	39.1 Maximized at 4 meters	-18.7	Vert
6	160.005M	30.2	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	24.7	43.5	-18.9	Vert
7	150.005M	29.8	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	24.0	43.5	-19.5	Horiz
8	33.175M	31.8	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	19.3	39.1 Maximized at 4 meters	-19.8	Vert
9	49.875M	28.8	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	18.6	39.1	-20.5	Horiz
10	240.005M	28.1	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	25.7	46.4	-20.7	Vert
11	249.895M	27.7	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	25.4	46.4	-21.0	Vert
12	149.720M	27.8	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	22.0	43.5	-21.5	Vert
13	160.000M	27.2	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	21.7	43.5	-21.8	Horiz
14	240.045M	26.6	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	24.2	46.4	-22.2	Horiz
15	225.010M	26.9	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	23.8	46.4	-22.7	Vert
16	480.010M	23.4	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	20.9	46.4	-25.5	Vert
17	32.213M	25.2	+0.3 +15.1	+0.3 -27.9	+0.0	+0.0	+0.0	13.0	39.1 Maximized at 4 meters	-26.1	Horiz
18	33.175M	25.2	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	12.7	39.1 Maximized at 4 meters	-26.4	Horiz
19	30.175M	23.7	+0.3 +16.1	+0.3 -27.9	+0.0	+0.0	+0.0	12.5	39.1 Maximized at 4 meters	-26.6	Horiz
20	320.010M	20.8	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	19.8	46.4	-26.6	Vert
21	31.688M	24.2	+0.3 +15.4	+0.3 -27.9	+0.0	+0.0	+0.0	12.3	39.1 Maximized at 4 meters	-26.8	Horiz
22	375.025M	23.7	+1.1 +0.0	+1.6 -28.3	+0.2 +5.0	+15.7	+0.0	19.0	46.4	-27.4	Horiz
23	480.010M	21.2	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	18.7	46.4	-27.7	Horiz
24	225.005M	20.5	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	17.4	46.4	-29.0	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	49.870M	36.3	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	26.1	39.1	-13.0	Vert
2	149.765M	36.3	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	30.5	43.5	-13.0	Vert
3	160.005M	34.8	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	29.3	43.5	-14.2	Vert
4	240.005M	33.8	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	31.4	46.4	-15.0	Vert
5	225.005M	33.0	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	29.9	46.4	-16.5	Horiz
6	32.813M	34.1	+0.3 +14.9	+0.4 -27.9	+0.0	+0.0	+0.0	21.8	39.1 Maximized at 4 meters	-17.3	Vert

7	320.000M	28.6	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	27.6	46.4	-18.8	Horiz
8	31.513M	31.0	+0.3 +15.5	+0.3 -27.9	+0.0	+0.0	+0.0	19.2	39.1 Maximized at 4 meters	-19.9	Vert
9	30.263M	29.6	+0.3 +16.1	+0.3 -27.9	+0.0	+0.0	+0.0	18.4	39.1 Maximized at 4 meters	-20.7	Vert
10	175.270M	25.6	+0.7 +16.1	+1.0 -27.7	+0.1 +5.0	+0.0	+0.0	20.8	43.5	-22.7	Vert
11	49.870M	26.5	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	16.3	39.1	-22.8	Horiz
12	320.010M	24.5	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	23.5	46.4	-22.9	Vert
13	225.005M	26.0	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	22.9	46.4	-23.5	Vert
14	480.005M	24.6	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	22.1	46.4	-24.3	Horiz
15	250.010M	24.0	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	21.7	46.4	-24.7	Vert
16	560.005M	21.7	+1.4 +0.0	+2.0 -27.7	+0.2 +5.0	+18.5	+0.0	21.1	46.4	-25.3	Vert
17	324.845M	22.2	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+18.8	+0.0	20.5	46.4	-25.9	Horiz
18	31.763M	24.6	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	12.5	39.1 Maximized at 4 meters	-26.6	Horiz
19	32.763M	24.5	+0.3 +14.9	+0.4 -27.9	+0.0	+0.0	+0.0	12.2	39.1 Maximized at 4 meters	-26.9	Horiz
20	560.005M	19.9	+1.4 +0.0	+2.0 -27.7	+0.2 +5.0	+18.5	+0.0	19.3	46.4	-27.1	Horiz
21	399.965M	22.9	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	18.8	46.4	-27.6	Horiz
22	30.375M	22.2	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	10.9	39.1 Maximized at 4 meters	-28.2	Horiz
23	480.010M	20.2	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	17.7	46.4	-28.7	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 14:18:21
 Sequence#: 212
 Tested By: C. Nicklas

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
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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	

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	49.880M	34.8	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	24.6	39.1	-14.5	Vert
2	149.725M	33.6	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	27.8	43.5	-15.7	Vert
3	30.525M	34.7	+0.3 +15.9	+0.3 -27.9	+0.0	+0.0	+0.0	23.3	39.1 Maximized at 4 meters	-15.8	Horiz
4	160.005M	33.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	27.5	43.5	-16.0	Vert

5	150.010M	32.4	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	26.6	43.5	-16.9	Horiz
6	160.005M	32.0	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	26.5	43.5	-17.0	Horiz
7	320.005M	29.1	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	28.1	46.4	-18.3	Horiz
8	240.005M	30.5	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	28.1	46.4	-18.3	Vert
9	49.875M	28.9	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	18.7	39.1	-20.4	Horiz
10	32.138M	30.6	+0.3 +15.2	+0.3 -27.9	+0.0	+0.0	+0.0	18.5	39.1 Maximized at 4 meters	-20.6	Horiz
11	240.005M	27.8	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	25.4	46.4	-21.0	Horiz
12	33.600M	29.1	+0.3 +14.5	+0.4 -27.9	+0.0	+0.0	+0.0	16.4	39.1 Maximized at 4 meters	-22.7	Horiz
13	31.838M	28.4	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	16.4	39.1 Maximized at 4 meters	-22.7	Vert
14	30.413M	27.3	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	16.0	39.1 Maximized at 4 meters	-23.1	Vert
15	480.005M	25.2	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	22.7	46.4	-23.7	Horiz
16	33.213M	27.3	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	14.8	39.1 Maximized at 4 meters	-24.3	Vert
17	480.010M	23.9	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	21.4	46.4	-25.0	Vert
18	320.025M	21.7	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	20.7	46.4	-25.7	Vert
19	250.010M	22.3	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	20.0	46.4	-26.4	Vert
20	375.025M	23.3	+1.1 +0.0	+1.6 -28.3	+0.2 +5.0	+15.7	+0.0	18.6	46.4	-27.8	Horiz
21	225.010M	20.9	+0.8 +17.5	+1.1 -27.7	+0.2 +5.0	+0.0	+0.0	17.8	46.4	-28.6	Horiz
22	400.005M	21.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	17.6	46.4	-28.8	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	30.238M	36.4	+0.3 +16.1	+0.3 -27.9	+0.0	+0.0	+0.0	25.2	39.1 Maximized at 4 meters	-13.9	Horiz
2	149.995M	35.0	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	29.2	43.5	-14.3	Horiz
3	33.438M	33.8	+0.3 +14.6	+0.4 -27.9	+0.0	+0.0	+0.0	21.2	39.1 Maximized at 4 meters	-17.9	Horiz
4	240.005M	30.0	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	27.6	46.4	-18.8	Vert

5	31.950M	32.2	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	20.2	39.1 Maximized at 4 meters	-18.9	Horiz
6	160.005M	28.8	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	23.3	43.5	-20.2	Vert
7	49.871M	28.3	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	18.1	39.1	-21.0	Vert
8	274.960M	25.7	+1.0 +19.5	+1.3 -27.9	+0.2 +5.0	+0.0	+0.0	24.8	46.4	-21.6	Horiz
9	49.855M	25.4	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	15.2	39.1	-23.9	Horiz
10	33.438M	26.6	+0.3 +14.6	+0.4 -27.9	+0.0	+0.0	+0.0	14.0	39.1 Maximized at 4 meters	-25.1	Vert
11	480.010M	23.6	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	21.1	46.4	-25.3	Vert
12	160.005M	23.3	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	17.8	43.5	-25.7	Horiz
13	31.988M	24.6	+0.3 +15.2	+0.3 -27.9	+0.0	+0.0	+0.0	12.5	39.1 Maximized at 4 meters	-26.6	Vert
14	375.020M	24.2	+1.1 +0.0	+1.6 -28.3	+0.2 +5.0	+15.7	+0.0	19.5	46.4	-26.9	Horiz
15	30.738M	23.0	+0.3 +15.8	+0.3 -27.9	+0.0	+0.0	+0.0	11.5	39.1 Maximized at 4 meters	-27.6	Vert
16	240.035M	20.0	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	17.6	46.4	-28.8	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 14:43:19
 Sequence#: 214
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 T7 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	30.275M	40.3	+0.3 +16.1	+0.3 -27.9	+0.0	+0.0	+0.0	29.1	39.1	-10.0	Vert
									Maximized at 4 meters		
2	49.870M	36.4	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	26.2	39.1	-12.9	Vert
3	325.750M	34.8	+1.0 +0.0	+1.5 -28.1	+0.2 +5.0	+18.6	+0.0	33.0	46.4	-13.4	Horiz

4	31.900M	34.6	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	22.6	39.1 Maximized at 4 meters	-16.5	Vert
5	49.875M	32.2	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	22.0	39.1	-17.1	Vert
6	150.000M	32.1	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	26.3	43.5	-17.2	Vert
7	375.238M	33.8	+1.1 +0.0	+1.6 -28.3	+0.2 +5.0	+15.7	+0.0	29.1	46.4	-17.3	Horiz
8	149.770M	29.2	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	23.4	43.5	-20.1	Vert
9	240.005M	28.6	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	26.2	46.4	-20.2	Vert
10	160.005M	26.9	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	21.4	43.5	-22.2	Vert
11	249.845M	24.7	+0.9 +18.1	+1.2 -27.8	+0.3 +5.0	+0.0	+0.0	22.4	46.4	-24.0	Horiz
12	240.005M	23.3	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	20.9	46.4	-25.5	Horiz
13	275.000M	21.8	+1.0 +19.5	+1.3 -27.9	+0.2 +5.0	+0.0	+0.0	20.9	46.4	-25.5	Horiz
14	30.588M	23.1	+0.3 +15.9	+0.3 -27.9	+0.0	+0.0	+0.0	11.7	39.1 Maximized at 4 meters	-27.4	Vert
15	32.050M	22.8	+0.3 +15.2	+0.3 -27.9	+0.0	+0.0	+0.0	10.7	39.1 Maximized at 4 meters	-28.4	Vert
16	159.995M	20.6	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	15.1	43.5	-28.4	Horiz
17	33.225M	20.8	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	8.3	39.1 Maximized at 4 meters	-30.8	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 15:05:50
 Sequence#: 215
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	T7 dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	480.235M	43.7	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	41.2	46.4	-5.2	Horiz
2	49.850M	44.1	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	33.9	39.1	-5.2	Vert
3	349.760M	42.2	+1.1 +0.0	+1.5 -28.2	+0.3 +5.0	+15.2	+0.0	37.1	46.4	-9.3	Horiz

4	30.488M	40.9	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	29.5	39.1 Maximized at 4 meters	-9.6	Horiz
5	299.980M	36.2	+1.0 +20.7	+1.7 -28.0	+0.2 +5.0	+0.0	+0.0	36.8	46.4	-9.6	Vert
6	32.500M	40.4	+0.3 +15.0	+0.4 -27.9	+0.0	+0.0	+0.0	28.2	39.1 Maximized at 4 meters	-10.9	Horiz
7	424.760M	38.6	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.4	+0.0	34.7	46.4	-11.7	Horiz
8	150.025M	35.2	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	29.4	43.5	-14.1	Horiz
9	240.070M	33.7	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	31.3	46.4	-15.2	Vert
10	33.725M	36.6	+0.3 +14.5	+0.4 -27.9	+0.0	+0.0	+0.0	23.9	39.1 Maximized at 4 meters	-15.2	Horiz
11	49.863M	32.9	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	22.7	39.1	-16.4	Horiz
12	31.413M	34.5	+0.3 +15.5	+0.3 -27.9	+0.0	+0.0	+0.0	22.7	39.1 Maximized at 4 meters	-16.4	Vert
13	32.863M	34.6	+0.3 +14.8	+0.4 -27.9	+0.0	+0.0	+0.0	22.2	39.1 Maximized at 4 meters	-16.9	Vert
14	160.010M	31.8	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	26.3	43.5	-17.2	Vert
15	30.813M	32.8	+0.3 +15.8	+0.3 -27.9	+0.0	+0.0	+0.0	21.3	39.1 Maximized at 4 meters	-17.8	Vert
16	320.010M	29.2	+1.0 +0.0	+1.4 -28.1	+0.2 +5.0	+19.5	+0.0	28.2	46.4	-18.2	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 15:18:25
 Sequence#: 216
 Tested By: C. Nicklas

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
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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	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

3	32.063M	42.4	+0.3 +15.2	+0.3 -27.9	+0.0	+0.0	+0.0	30.3	39.1 Maximized at 4 meters	-8.8	Horiz
4	150.010M	40.3	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	34.5	43.5	-9.0	Horiz
5	159.980M	37.6	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	32.1	43.5	-11.4	Vert
6	33.225M	39.6	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	27.1	39.1 Maximized at 4 meters	-12.0	Horiz
7	480.275M	36.7	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	34.2	46.4	-12.2	Horiz
8	240.010M	36.1	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	33.7	46.4	-12.7	Vert
9	49.870M	34.6	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	24.4	39.1	-14.7	Horiz
10	30.050M	31.8	+0.3 +16.2	+0.3 -27.9	+0.0	+0.0	+0.0	20.7	39.1 Maximized at 4 meters	-18.4	Vert
11	399.915M	31.7	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	27.6	46.4	-18.8	Vert
12	31.900M	31.2	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	19.2	39.1 Maximized at 4 meters	-19.9	Vert
13	33.550M	30.8	+0.3 +14.5	+0.4 -27.9	+0.0	+0.0	+0.0	18.1	39.1 Maximized at 4 meters	-21.0	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **ENG1**

Date: 3/20/2006
 Time: 15:26:13
 Sequence#: 217
 Tested By: C. Nicklas

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
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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 listed by margin. Test Distance: 10 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6			Table	dBμV/m	dBμV/m	dB	Ant
1	240.000M	44.4	+0.9 -27.7	+1.2 +5.0	+0.3	+17.9	+0.0	42.0	46.4	-4.4	Vert
2	49.825M	43.8	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	33.6	39.1	-5.5	Vert
3	160.000M	40.9	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	35.4	43.5	-8.1	Vert

4	30.675M	38.1	+0.3 -27.9	+0.3	+0.0	+15.9	+0.0	26.7	39.1 Maximized at 4 meters	-12.4	Horiz
5	159.995M	36.4	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	30.9	43.5	-12.6	Horiz
6	32.075M	37.4	+0.3 -27.9	+0.3	+0.0	+15.2	+0.0	25.3	39.1 Maximized at 4 meters	-13.8	Horiz
7	240.030M	34.8	+0.9 -27.7	+1.2 +5.0	+0.3	+17.9	+0.0	32.4	46.4	-14.0	Horiz
8	49.890M	35.1	+0.4 -27.9	+0.5 +5.0	+0.1	+11.6	+0.0	24.8	39.1	-14.3	Horiz
9	249.990M	33.4	+0.9 -27.8	+1.2 +5.0	+0.3	+18.1	+0.0	31.1	46.4	-15.3	Vert
10	33.163M	36.1	+0.3 -27.9	+0.4	+0.0	+14.7	+0.0	23.6	39.1 Maximized at 4 meters	-15.5	Horiz
11	30.225M	29.7	+0.3 -27.9	+0.3	+0.0	+16.1	+0.0	18.5	39.1 Maximized at 4 meters	-20.6	Vert
12	33.413M	31.0	+0.3 -27.9	+0.4	+0.0	+14.6	+0.0	18.4	39.1 Maximized at 4 meters	-20.7	Vert
13	32.213M	29.6	+0.3 -27.9	+0.3	+0.0	+15.1	+0.0	17.4	39.1 Maximized at 4 meters	-21.7	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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						

4	31.688M	41.0	+0.3 +15.4	+0.3 -27.9	+0.0	+0.0	+0.0	29.1	39.1 Maximized at 4 meters	-10.0	Horiz
5	30.613M	39.7	+0.3 +15.9	+0.3 -27.9	+0.0	+0.0	+0.0	28.3	39.1 Maximized at 4 meters	-10.8	Horiz
6	33.075M	39.2	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	26.7	39.1 Maximized at 4 meters	-12.4	Horiz
7	240.030M	41.4	+0.9 +17.9	+1.2 -27.7	+0.3	+0.0	+0.0	34.0	46.4 Measured at 1m. Add 5dB height correction factor to readings.	-12.4	Vert
8	49.825M	34.9	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	24.7	39.1	-14.4	Horiz
9	240.025M	37.8	+0.9 +17.9	+1.2 -27.7	+0.3	+0.0	+0.0	30.4	46.4 Measured at 1m. Add 5dB height correction factor to readings.	-16.0	Horiz
10	479.965M	33.8	+1.3 +0.0	+1.8 -28.1	+0.3	+17.2	+0.0	26.3	46.4 Measured at 1m. Add 5dB height correction factor to readings.	-20.1	Vert
11	33.450M	31.4	+0.3 +14.6	+0.4 -27.9	+0.0	+0.0	+0.0	18.8	39.1 Maximized at 4 meters	-20.3	Vert
12	30.575M	29.9	+0.3 +15.9	+0.3 -27.9	+0.0	+0.0	+0.0	18.5	39.1 Maximized at 4 meters	-20.6	Vert
13	31.875M	29.8	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	17.8	39.1 Maximized at 4 meters	-21.3	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

4	149.760M	37.3	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	31.5	43.5	-12.0	Vert
5	31.800M	39.0	+0.3 +15.3	+0.3 -27.9	+0.0	+0.0	+0.0	27.0	39.1 Maximized at 4 meters	-12.1	Horiz
6	160.030M	36.5	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	31.0	43.5	-12.5	Vert
7	240.030M	36.2	+0.9 +17.9	+1.2 -27.7	+0.3 +5.0	+0.0	+0.0	33.8	46.4	-12.7	Vert
8	49.865M	34.5	+0.4 +11.7	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	24.3	39.1	-14.8	Horiz
9	160.005M	33.3	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	27.8	43.5	-15.7	Horiz
10	479.990M	32.9	+1.3 +0.0	+1.8 -28.1	+0.3 +5.0	+17.2	+0.0	30.4	46.4	-16.0	Horiz
11	399.940M	34.3	+1.2 +0.0	+1.7 -28.4	+0.2 +5.0	+16.2	+0.0	30.2	46.4	-16.2	Horiz
12	33.425M	34.4	+0.3 +14.6	+0.4 -27.9	+0.0	+0.0	+0.0	21.8	39.1 Maximized at 4 meters	-17.3	Horiz
13	30.138M	32.6	+0.3 +16.1	+0.3 -27.9	+0.0	+0.0	+0.0	21.4	39.1 Maximized at 4 meters	-17.7	Vert
14	31.650M	31.2	+0.3 +15.4	+0.3 -27.9	+0.0	+0.0	+0.0	19.3	39.1 Maximized at 4 meters	-19.8	Vert
15	33.275M	30.3	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	17.8	39.1 Maximized at 4 meters	-21.3	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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	

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5	T6	T7						
			dB	dB	dB	dB	Table	dBμV/m	dBμV/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 at 4 meters		

4	32.238M	42.0	+0.3 +15.1	+0.3 -27.9	+0.0	+0.0	+0.0	29.8	39.1 Maximized at 4 meters	-9.3	Horiz
5	30.313M	40.7	+0.3 +16.0	+0.3 -27.9	+0.0	+0.0	+0.0	29.4	39.1 Maximized at 4 meters	-9.7	Vert
6	31.975M	41.4	+0.3 +15.2	+0.3 -27.9	+0.0	+0.0	+0.0	29.3	39.1 Maximized at 4 meters	-9.8	Vert
7	33.175M	41.0	+0.3 +14.7	+0.4 -27.9	+0.0	+0.0	+0.0	28.5	39.1 Maximized at 4 meters	-10.6	Vert
8	49.885M	38.3	+0.4 +11.6	+0.5 -27.9	+0.1 +5.0	+0.0	+0.0	28.0	39.1	-11.2	Horiz
9	33.513M	40.2	+0.3 +14.5	+0.4 -27.9	+0.0	+0.0	+0.0	27.5	39.1 Maximized at 4 meters	-11.6	Horiz
10	149.780M	35.9	+0.7 +15.2	+0.8 -27.6	+0.1 +5.0	+0.0	+0.0	30.1	43.5	-13.4	Vert
11	159.985M	35.3	+0.7 +15.6	+0.8 -27.7	+0.1 +5.0	+0.0	+0.0	29.8	43.5	-13.7	Vert
12	450.055M	35.7	+1.2 +0.0	+1.8 -28.3	+0.2 +5.0	+16.6	+0.0	32.2	46.4	-14.2	Horiz

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

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
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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

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

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB μ V	T5 dB	T6 dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant
1	49.860M	44.4	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	34.2	39.1	-4.9	Vert
2	31.513M	45.0	+0.3 -27.9	+0.3	+0.0	+15.5	+0.0	33.2	39.1 Maximized at 4 meters	-5.9	Vert
3	149.985M	43.1	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	37.3	43.5	-6.2	Horiz

4	30.563M	42.6	+0.3 -27.9	+0.3	+0.0	+15.9	+0.0	31.2	39.1 Maximized at 4 meters	-7.9	Vert
5	30.275M	42.2	+0.3 -27.9	+0.3	+0.0	+16.1	+0.0	31.0	39.1 Maximized at 4 meters	-8.1	Horiz
6	33.025M	43.2	+0.3 -27.9	+0.4	+0.0	+14.8	+0.0	30.8	39.1 Maximized at 4 meters	-8.3	Vert
7	31.538M	41.8	+0.3 -27.9	+0.3	+0.0	+15.5	+0.0	30.0	39.1 Maximized at 4 meters	-9.1	Horiz
8	49.885M	39.2	+0.4 -27.9	+0.5 +5.0	+0.1	+11.6	+0.0	28.9	39.1	-10.2	Horiz
9	32.725M	40.3	+0.3 -27.9	+0.4	+0.0	+14.9	+0.0	28.0	39.1 Maximized at 4 meters	-11.1	Horiz
10	250.000M	37.1	+0.9 -27.8	+1.2 +5.0	+0.3	+18.1	+0.0	34.8	46.4	-11.6	Horiz
11	159.980M	35.5	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	30.0	43.5	-13.6	Vert
12	160.070M	33.8	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	28.3	43.5	-15.3	Horiz
13	149.770M	33.8	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	28.0	43.5	-15.5	Vert

Test Location: Underground Test Site #3 • Grayson Lakes Section 9, Transformer #3 • Katy, TX •

Customer: **Corinex**
 Specification: **FCC 15.109 CLASS A RADIATED**
 Work Order #: **84818**
 Test Type: **Radiated Scan**
 Equipment: **BPL MV Gateway**
 Manufacturer: **Corinex**
 Model: **MV Gateway**
 S/N: **000BC2200043**

Date: 3/20/2006
 Time: 16:39:01
 Sequence#: 222
 Tested By: C. Nicklas

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
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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

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

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	49.865M	43.8	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	33.6	39.1	-5.5	Vert
2	30.438M	43.9	+0.3 -27.9	+0.3	+0.0	+16.0	+0.0	32.6	39.1 Maximized at 4 meters	-6.5	Horiz
3	31.638M	43.4	+0.3 -27.9	+0.3	+0.0	+15.4	+0.0	31.5	39.1 Maximized at 4 meters	-7.6	Horiz

4	30.338M	42.7	+0.3 -27.9	+0.3	+0.0	+16.0	+0.0	31.4	39.1 Maximized at 4 meters	-7.7	Vert
5	31.663M	41.9	+0.3 -27.9	+0.3	+0.0	+15.4	+0.0	30.0	39.1 Maximized at 4 meters	-9.1	Vert
6	150.010M	40.0	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	34.2	43.5	-9.3	Horiz
7	32.813M	41.7	+0.3 -27.9	+0.4	+0.0	+14.9	+0.0	29.4	39.1 Maximized at 4 meters	-9.7	Horiz
8	49.855M	38.1	+0.4 -27.9	+0.5 +5.0	+0.1	+11.7	+0.0	27.9	39.1	-11.2	Horiz
9	33.025M	40.1	+0.3 -27.9	+0.4	+0.0	+14.8	+0.0	27.6	39.1 Maximized at 4 meters	-11.5	Vert
10	249.980M	37.0	+0.9 -27.8	+1.2 +5.0	+0.3	+18.1	+0.0	34.7	46.4	-11.7	Horiz
11	149.740M	36.5	+0.7 -27.6	+0.8 +5.0	+0.1	+15.2	+0.0	30.7	43.5	-12.8	Vert
12	160.065M	36.1	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	30.6	43.5	-12.9	Horiz
13	159.995M	34.2	+0.7 -27.7	+0.8 +5.0	+0.1	+15.6	+0.0	28.7	43.5	-14.8	Vert
14	240.060M	33.8	+0.9 -27.7	+1.2 +5.0	+0.3	+17.9	+0.0	31.4	46.4	-15.0	Vert