Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The antenna power conducted emissions were measured with the EUT set in receive mode. The measurements were made using a direct connection between each of the RF outputs of the EUT and the spectrum analyzer. The spectrum was scanned throughout the specified frequency range.

NORTHWEST EMC	SPURIOUS EMISSION	IS AT ANT		MINALS	XMit 2006.03.01
	MCRB			Work Order:	RAFN0062
Serial Number:	Various				05/23/06
Customer:	Radioframe Networks, Inc.			Temperature:	24°C
Attendees:	Dean Busch			Humidity:	41%
Project:				Barometric Pres.:	29.93
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV01
TEST SPECIFICATI	ONS		Test Method		
FCC 15.111: 2006			ANSI C63.4 2003		
COMMENTS					
800MHz Band					
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Ren Signature	chy te Reley	, مر		

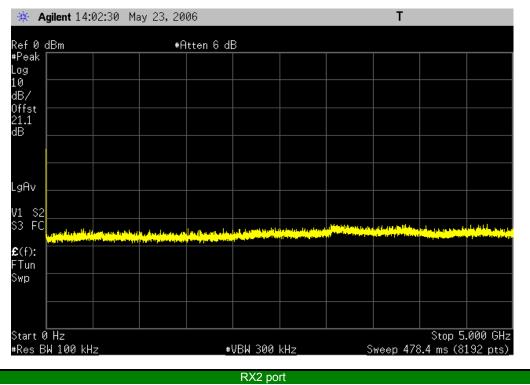
Modes of Operation and Test Conditions	Value	Limit	Result
RX1 port	< -60 dBm	≤ -57 dBm	Pass
RX2 port	< -60 dBm	≤ -57 dBm	Pass
RX3 port	< -60 dBm	≤ -57 dBm	Pass

NORTHWEST EMC

SPURIOUS EMISSIONS AT ANTENNA TERMINALS

t 2006.03.01





 Result:
 Pass
 Value:
 < -60 dBm</th>
 Limit:
 ≤ -57 dBm

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NORTHWEST EMC

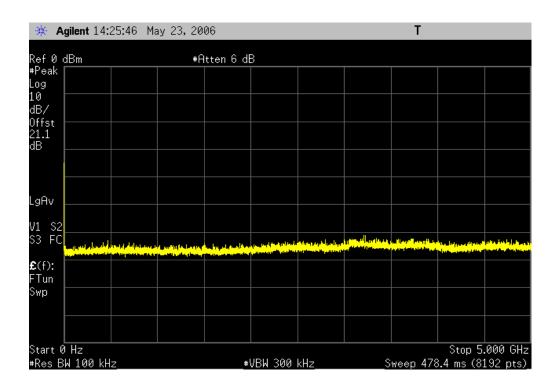
SPURIOUS EMISSIONS AT ANTENNA TERMINALS

t 2006.03.01

Result:	Pass	Value:

RX3 port e: < -60 dBm

Limit: ≤ -57 dBm



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

A spectrum analyzer was used to scan from 0 to 9 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST	SPURIOUS EMISSIONS A		ENNA TERI		XMit 2006.03.01
EMC					
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:	Various			Date:	05/18/06
Customer:	Radioframe Networks, Inc.			Temperature:	
Attendees:	Dean Busch			Humidity:	35%
Project:				Barometric Pres.:	
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATI	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	.002	
COMMENTS					
800MHz Band, High	Power Level				
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Signature	' Relu	<u>کر اور اور اور اور اور اور اور اور اور او</u>		

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, In Band	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
12 Channel Intermods, In Band, Lower group			

	Low Channel, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm		#Atten 20) dB				
Avg .og							
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Tun		A			 		
мр							
enter 860.50 M Res BW 100 kHz			#VBW 300	LU-	#\$110.0m	Spa 601 ms (n 30 MH 601 pt

	Low Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 17:54:54	May 18, 2006			Т		
Ref 40 dBm	#Atten 20) dB				
#Avg Log						
10						
dB/ Offst						
0ffst 41.3 dB						
#PAvg						
V1 S2						
S3 FC						
£(f):						
FTun					L,	
Swp		······································		 		
					St	
Start 0 Hz #Res BW 100 kHz		_#VBW 300	kHz	#Sweep	. Stop ۱ 601 ms (۱	.000 GHz 301 pts)

	Low Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

40 dBm	#Atten 2	0 dB			
1					
t					
/g					
\$2					
\$2					
·····			 	 	
t 995 MHz				Stop 2	

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:01:00 May 18,	2006	Т
Ref 40 dBm	#Atten 20 dB	
#Avg Log		
10 dB/		
Offst		
41.3 dB		
#PAvg		
V1 S2 S3 FC		
£(f): FTun		
Swp		
Start 2.795 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 4.500 GHz #Sweep 601 ms (601 pts)

	Low Channel, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

lef 40 dBm	#6	Atten 20 d	IB			
Avg						
og Ø						
IB/						
I.3						
B						
PAvg						
1 S2 3 FC						<u> </u>
3 FC						
:(f):						
Tun					 	
мр						
tart 4.495 GHz					 Stop 6	.000 GF

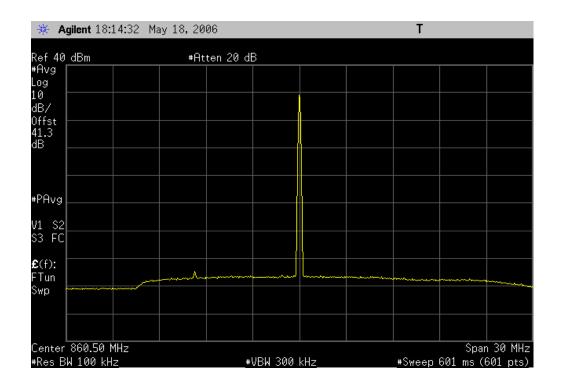
	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:07:	13 May 18, 200	6		Т		
Ref 40 dBm	#Att	en 20 dB				
ŧAvg _og						
.0						
IB/						
11.3 IB						
1B						
PAvg						
/1 S2 33 FC						
C(f): Tun				 		
Swp						
Start 5.995 GHz					Stop 7.	500 GH:
ŧRes BW 100 kHz_		#VBW 30	0 kHz	#Sweep 0	601 ms (6	601 pts)

	Low Channel, 7.495GHz-9GHz			
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

ten 20 di						
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					Stop 9	- 000 CU
				Image: Section of the section of th	Image: Second	

	Mid Channel, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm



	Mid C	Channel, 0-1GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

Start Ø Hz						<u></u>	 1.000 GH
Tun Swp				 	·····	L.A.	-
2(f):							
/1 S2 33 FC							
PAvg							
IB							
)ffst 1.3							
IB/							
og Ø							
Avg							
Ref 40 dBm	#A	tten 20 di	В				

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

★ Agilent 18:19:07 M	lay 18, 2006		Т	
Ref 40_dBm	#Atten 20 dl	В		
#Avg Log				
10 dB/				
Offst				
41.3 dB				
#PAvg				
V1 S2 S3 FC				
£ (f):				
FTun				
Swp				
Start 995 MHz				Stop 2.800 GHz
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)_

	Mid Channel, 2.795GH	z-4.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

#0	1++on 20 d	IR					
	~~~~~			~		·····	
						Stop 4	.500 GH
	#f	#Atten 20 d	#Atten 20 dB	*Atten 20 dB	#Atten 20 dB         Image: Constraint of the second seco	#Atten 20 dB         Image: I	Image: selection of the

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:23:05 Ma	y 18,2006		Т	
Ref 40_dBm	#Atten 20 dB			
#Avg Log				
10 dB/				
ab/ Offst				
Offst 41.3 dB				
#PAvg				
V1 S2				
\$3 FC				
£(f): FTun				
Swp		······	_,,,_,,,,,,_,,,,,,,,,,,,,,,,,,,,,,,,,	
Start 4.495 GHz #Res BW 100 kHz	#\/{	3W 300 kHz	#Sween	Stop 6.000 GHz 601 ms (601 pts)_

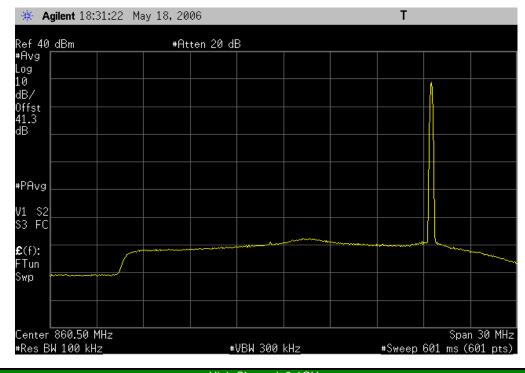
	Mid Channel, 5.995GHz-7.5G	Hz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

<b>* Agilent</b> 18:24:	55 May 18,2						
≷ef 40_dBm	#A	ltten 20 d	В				
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n s2							
/1 S2 33 FC							
C(f): Tun					 		
Śwp			yaan maaraa				*****
tart 5.995 GHz						Stop 7	.500 GH
Res BW 100 kHz_		#	VBW 300	kHz	_#Sweep	601 ms (	601 pts

	Mid Channel, 7.495GHz-9GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

≷ef 40 dBm ⊧Avg	#Ht	ten 20 dE	5				
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ffst 1.3 B							
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1 \$2							
3 FC							
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Tun	·····	· · · · · · · · · · · · · · · · · · ·			 		
мр							
tart 7.495 GHz							.000 GH
Res BW 100 kHz_		#\	/BW 300	kHz	#Sweep	601 ms (0	601 pts

	High Channel, In Band			
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	



	High Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:33:1	1 May 18, 2006		Т	
Ref 40 dBm	#Atten 20 d	łВ		
#Avg Log				
10 dB/				
ab/ Offst				
Offst 41.3 dB				
#PAvg				
V1 S2				
S3 FC				
<b>£</b> (f):				
FTun Swp	·····			
Start 0 Hz				Stop 1.000 GHz
#Res BW 100 kHz		⊭VBW 300 kHz	#Sweep	601 ms (601 pts)

	High Channel, 995MHz-2.8GF	lz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

★ Agilent 18:35:					-		
kef 40_dBm	;	Atten 20 🤇	ЯB		 		
Avg .og							
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tart 995 MHz						Stop 2	2.800 GF
Res BW 100 kHz_			#VBW 300	kHz	#Sween	601 ms (	601 nts

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:37	7:39 May 18, 20	96			Т	
Ref 40_dBm	#At	ten 20 dB				
#Avg Log						
10						
dB/						
Offst 41.3 dB						
#PAvg						
V1 S2 S3 FC						
€(f): FTun						
Swp						
Start 2.795 GHz					Stop 4	.500 GHz
#Res BW 100 kHz_		#VBW 3	300 kHz	#5	Gweep 601 ms (	601 pts)_

	High Channel, 4	.495GHz-6GHz	
Result: Pass	<b>Value:</b> < -30	) dBm Limit:	≤ -13 dBm

₩ Agilent 18:39:							
lef 40 dBm	#F	Atten 20 d	IB				
Avg og							
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I.3 B							
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tart 4.495 GHz						Stop_6	.000 GF
Res BW 100 kHz_			ŧVBW 300	kHz –	#Sween	601 ms (	

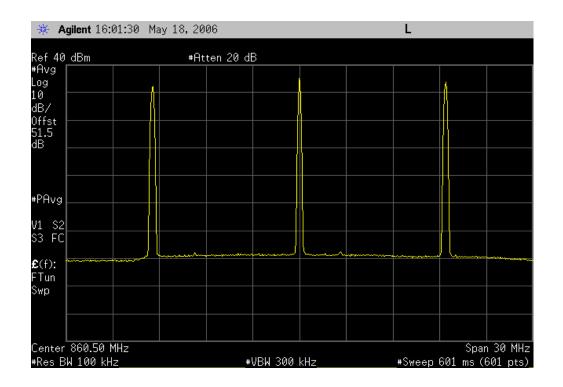
	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

* Agilent 18:41:2	,,				-		
kef 40_dBm	#Ati	ten 20 di	3		 		
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og Ø							
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мр							
tart 5.995 GHz						Stop 7.	500 GH
Res BW 100 kHz		#	VBW 300	kHz	#Sweep	601 ms (0	

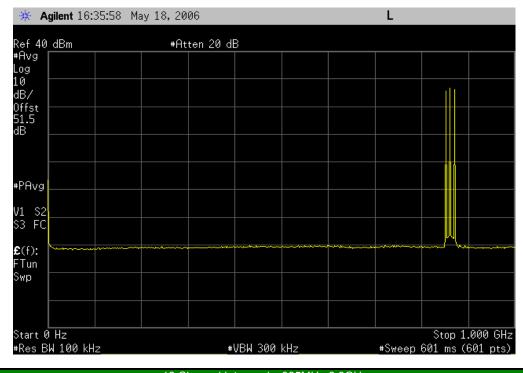
	High Channel, 7.495GHz-9GH	lz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

ef 40_dBm	#At	ten 20 dE	3				
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tart 7.495 GHz						Stop 9	 .000 GH
Res BW 100 kHz		#VBW 300 kHz			#Sweep	601 ms (	

	12 Channel Intermods, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm



	12 Channel Intermods, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm



	12 Channel Intermods, 995MHz-2.8GH	Z	
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 16:57	7:52 May 18, 20	06				L		
Ref 40_dBm	#At	ten 20 dE	3					
#Avg Log								
10 dB/								
Offst								
51.5 dB								
"DO								
#PAvg								
V1 S2 S3 FC								
£(f):					- <u></u>			
FTun								
Swp								
Start 995 MHz							Stop 2.	800 GHz
#Res BW 100 kHz		#\	/BW 300 I	kHz		#Sweep	601 ms (0	

12 Channel Intermods, 2.795GHz-4.5GHz					
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm	

ef 40_dBm	#Atten 2	0 dB			
Avg og					
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ffst 1.5 B					
PAvg					
1 \$2					
1 S2 3 FC					
:(f):	 		 ······································	 	
Tun vp					
tart 2.795 GHz				Stop 4	 .500 Gł

	12 Channel Intermods, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 17:01:5	9 May 18, 2006		L	
Ref 40 dBm	#Atten 20 d	В		
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δwp				
				C 888_CU
Start 4.495 GHz Res BW 100 kHz	#	VBW 300 kHz	#Sweep	Stop 6.000 GH: 601 ms (601 pts)

12 Channel Intermods, 5.995GHz-7.5GHz					
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm	

Ref 40_dBm	#Atte	en 20 dB			
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:(f):	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	*****			
Tun					
wp					
tart 5.995 GHz Res BW 100 kHz		#VBW 30	 	Stop eep 601 ms	7.500 GH

	12 Channel Intermods, 7.495GHz-9GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 17:05:29	9 May 18, 2006		L	
Ref 40_dBm	#Atten 20	dB		
#Avg Log				
.0				
dB/ Dffst ─────				
51.5 #B				
B				
PAvg				
/1 \$2				
53 FC				
E(f):				
Tun				
Gwp				
Start 7.495 GHz ⊧Res BW 100 kHz		. <b>#VBW 300 kHz</b>	#\$14000	Stop 9.000 GHz 601 ms (601 pts)

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### TEST DESCRIPTION

A spectrum analyzer was used to scan from 0 to 9 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST EMC	SPURIOUS EMISSIONS A	Τ ΑΝΤ	ENNA TERI	MINALS	XMit 2006.03.01
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:	Various			Date:	05/18/06
Customer:	Radioframe Networks, Inc.			Temperature:	
Attendees:	Dean Busch			Humidity:	35%
Project:				Barometric Pres.:	29.99
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATI	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	002	
				· · · · · · · · · · · · · · · · · · ·	
COMMENTS					
800MHz Band, Low	Power Level				
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Signature	- Relu	2 7		

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495MHz-9.0GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495MHz-9.0GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495MHz-9.0GHz	< -30 dBm	≤ -13 dBm	Pass

	Low Channel, In Band	
Result: Pass	<b>Value:</b> < -30 dBm	<b>Limit:</b> ≤ -13 dBm

<b>* Agilent</b> 18:49	20 May 18,	2006		Т		
Ref 40_dBm	+	Atten 20 dB				
ŧAvg .og						
.0						
IB/						
)ffst 41.3 1B	h					
PAvg						
/1 \$2						
3 FC	]]					
(f):	سيدسيا لر			 		
Tun Swp						
Center 860.50 MH	z				Span (	
Res BW 100 kHz		#VE	3W 300 kHz_	#Sweep 6	601 ms (60	1 pts

	Low Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 18:51:17 Ma	y 18, 2006		Т	
Ref 40 dBm	#Atten 20 dl	В		
#Avg Log				
10				
dB/				
Offst 41 3				
41.3 dB				
#PAvg				
V1 S2 S3 FC				
<b>£</b> (f):				h
FTun Swp				
Start 0 Hz #Res BW 100 kHz	#	VBW 300 kHz	#Sween	Stop 1.000 GHz 601 ms (601 pts)

	Low Channel, 995MHz-2.8GHz			
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm	#Ati	ten 20 di	3	 			
Avg							
.og .0							
IB/ I							
)ffst							
)ffst  1.3  B							
PAvg							
1 S2 3 FC							
:(f):							
Tun							
iwp qw	******	~~~~~		 			
itart 9 <mark>95 MHz</mark> Res BW 100 kHz			VBW 300		~	Stop 2 601 ms (	.800 GH

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:55:47 M	ay 18, 2006		Т	
Ref 40 dBm	#Atten 20 dE	3		
#Avg Log				
10 dB/				
Offst				
0ffst 41.3 dB				
#PAvg				
V1 S2				
S3 FC				
£(f): FTun				
Swp		<u>~_,</u>	·····	
Start 2.795 GHz #Res BW 100 kHz	#{	/BW 300 kHz	#Sween	Stop 4.500 GHz 601 ms (601 pts)_

	Low Chan	nel, 4.495GHz-6GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	#At	ten 20 dB			
Avg					
og Ø				 	
B/					
Iffst 1.3 B					
B					
PAvg					
1 00					
1 S2 3 FC					
:(f): Tun					
wp	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		 	 	
tart 4.495 GHz				Stop 6	6.000 GH

	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 19:00:27 May 18, 20	06	Т
Ref40_dBm #At	ten 20 dB	
#Avg Log		
10 dB/		
Offst		
0ffst 41.3 dB		
#PAvg		
V1 S2 S3 FC		
£(f): FTun	and the second	
Swp		
Start 5.995 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 7.500 GHz #Sweep 601 ms (601 pts)_

	Low Channel, 7.495MHz-9.0GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

Agilent 19:02:0	4 May 10, 20	00					
Ref 40_dBm	#At	ten 20 di	В				
Avg							
.og .0							
IB/							
)ffst I1.3							
IB							
PAvg							
/1 S2 53 FC							
53 FC							
:(f):							
Tun					 		
βwp							
Start 7.495 GHz							.000 GH
Res BW 100 kHz		#	VBW 300	kHz	_#Sweep	601 ms (	601 pts

	Mid Channel, In Band		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 19:07:	41 May 18, 20	ð6				Т		
Ref 40 dBm	#Ati	ten 20 dE	3					
#Avg Log								
10								
dB/ Offst								
Offst 41.3 dB				(				
			,					
#PAvg								
V1 S2								
S3 FC								
£(f):								
FTun Swp		·····			· ^			
Center 860.50 MHz								30 MHz
#Res BW 100 kHz_		#	VBW 300	kHz		_#Sweep	601 ms (6	601 pts)_

	Mid Channel, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	 #Atten 20	dB	 			
ŧÂvg .og						
.0 1B/						
ID/						
)ffst 41.3 #B						
DO						
PAvg						
/1 \$2						
53 FC						
<b>2</b> (f):						
Tun						
wp	 			**************************************		*
Start Ø Hz					Stop 1	.000 G

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

<b>Agilent</b> 19:11:2	2 May 18, 2006			Т		
Ref 40 <u>dBm</u>	#Atten	20 dB				
ŧÂvg .og						
0						
B/ ffst						
Iffst 1.3 B						
PAvg						
1 \$2						
3 FC						
:(f):						
Tun				 		
wp						
tart 995 MHz					Stop 2.	800 GH
Res BW 100 kHz		#VBW 300	0 kHz	#Sweep	601 ms (0	601 pts

	Mid Channel, 2.795GHz-4.50	GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

tart 2.795 GHz					  .500 GH
qw				 	
Tun	 				
:(f):					
1 S2 3 FC					
1 \$2					
PAvg					
1.3 B					
ffst 1.3					
0 B/					
Avg og					
ef 40 dBm	 #Atten 20	dB			_

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 19:16:	20 May 18, 2006	ò		T	
Ref 40 dBm	#Atte	n 20 dB			
#Avg Log					
10					
dB/ Offst					
Offst 41.3 dB					
#PAvg					
V1 S2					
\$3 FC					
£(f):					
FTun Swp	<u></u>	·····			<u>,,                                   </u>
Start 4.495 GHz				Stop	6.000 GHz
#Res BW 100 kHz_		#VBW 300 I	kHz	_#Sweep 601 ms	(601 pts)_

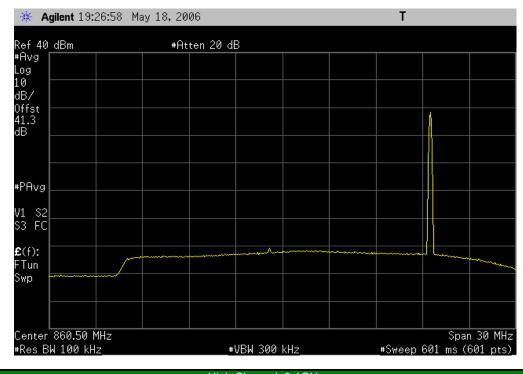
	Mid Channel, 5.995GHz	2-7.5GHz	
Result: Pass	<b>Value:</b> < -30 dBm	<b>Limit:</b> ≤ -13	dBm

Agilent 19:18:	Agilent 19:18:23 May 18, 2006						
Ref 40_dBm	#Att	en 20 dB:					
Avg .og							
.0							
IB/							
0ffst 11.3 IB							
PAvg							
1 \$2							
3 FC							
:(f):							
Tun			and the second s		······		
бмр							
tart 5.995 GHz						op 7.500 GH	
Res BW 100 kHz_		#VBW 3	300 kHz	-	⊧Sweep 601	ms (601 pts	

	Mid Channel, 7.495MHz-9.0GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 19:20:05 May	18,2006	Т	
Ref 40_dBm	#Atten 20 dB		
#Avg Log			
10			
dB/ Offst			
41.3 dB			
#PAvg			
V1 S2			
S3 FC			
£(f):			
FTun			·····
Start 7.495 GHz			.000 GHz
#Res BW 100 kHz	#VBW 300 kHz_	#Sweep 601 ms (6	601 pts)_

	High Channel, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm



	High Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 18:33:11	l May 18, 2006		Т	
Ref 40_dBm	#Atten 20 c	lΒ		
#Avg Log				
10				
HB/				
0ffst 41.3 dB				
:В				
PAvg				
И \$2 53 FC				
53 FC				
E(f):				
Tun				
òwp wp				
Start 0 Hz •Res BW 100 kHz		ŧVBW 300 kHz	#\$14000	Stop 1.000 GH: 601 ms (601 pts)

	High Channel, 995MHz-2.8GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	dBm #Atten 20 dB						
Avg	+nu						
.og							
.0 IB/							
ID/							
)ffst  1.3  B							
IR							
PAvg							
1 52							
/1 S2 53 FC							
C(f):							
Swp						· · · · · · · · · · · · · · · · · · ·	
Start 995 MHz Res BW 100 kHz		- UB	300 kHz_		#\$110.0D	ے Stop 601 ms (	2.800 GH

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 19:33	:10 May 18, 20	ð6		1	•	
Ref 40 dBm	#At	ten 20 dB				
#Avg Log						
10						
dB/ Offst						
Offst 41.3 dB						
#PAvg						
V1 S2						
\$3 FC						
£(f): FTun						
Swp		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			·····	
Start 2.795 GHz		"UDU 2				500 GHz
#Res BW 100 kHz_		#VDW 3	300 kHz	#SWe	ep 601 ms (6	pts/_

	High Channel, 4.495GHz-6GHz			
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

ef 40 <u>dBm</u>	#A1	ten 20 dB				
Avg og						
0  B/						
Iffst 1.3 B						
PAvg						
1 \$2						
1 S2 3 FC						
:(f): Tun						
wp	<u> </u>	*,	·····	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 19:36:58 May	18,2006	Т
Ref 40_dBm	#Atten 20 dB	
#Avg Log		
10 dB/		
Offst		
41.3 dB		
#PAvg		
V1 S2 S3 FC		
<b>£</b> (f):		
FTun		
Swp		
Start 5.995 GHz		Stop 7.500 GHz
#Res BW 100 kHz	#VBW 300 kHz	#Sweep 601 ms (601 pts)_

	High Channel, 7.495MHz-9.0GH	Z	
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 19:38	:55 May 18, 20	96		Т	
Ref 40 dBm	#At	ten 20 dB			
#Avg Log					
10 dB/					
dB/ Offst					
Offst 41.3 dB					
#PAvg					
V1 S2					
V1 S2 S3 FC					
<b>£</b> (f):					
FTun		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·····		·····
Swp					
Start 7.495 GHz					Stop 9.000 GHz
#Res BW 100 kHz_		#VBW (	300 kHz	#Swee	ep 601 ms (601 pts)_

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### TEST DESCRIPTION

A spectrum analyzer was used to scan from 0 to 9 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST					XMit 2006.03.01
EMC	SPURIOUS EMISSIONS A	I ANI	ENNA TERI	WINALS	
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:	Various			Date:	05/18/06
	Radioframe Networks, Inc.			Temperature:	24°C
Attendees:	Dean Busch			Humidity:	35%
Project:				Barometric Pres.:	29.99
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATION	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	2002	
				· · · · · · · · · · · · · · · · · · ·	
COMMENTS					
800MHz Band, Mid I					
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Signature	- Pelu			

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495GHz-9GHz	< -30 dBm	≤ -13 dBm	Pass

	Low Channel, In Band		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

ef 40 <u>dBm</u>	40 dBm #A				tten 20 dB				
Avg og									
0									
B/									
Ifst 1.3 B									
	- í								
PAvg									
1 \$2									
3 FC									
:(f): Tun									
wp	~~~~ ~				•	******			
enter 860.50 MH:									n 30 MF

Low Channel, 0-1GHz						
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm			

# Agilent 19:54:32         May 18, 2006         T						
Ref 40_dBm	#Atten 20 d	В				
#Avg Log						
10						
dB/ Offst						
41.3 dB						
#PAvg						
V1 S2						
V1 S2 S3 FC						
£(f):						
FTun						
Swp						
Start Ø Hz				Stop 1.000 GHz		
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)_		

	Low Channel, 995MHz-2.8GH	Ηz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

ef 40 dBm	#F	Atten 20 c	IB				
Avg 🛛 👘							
og Ø							
B/							
ffst 1.3							
B							
PAvg							
1 S2 3 FC							
:(f):							
Tun wp	*	· · · · · · · · · · · · · · · · · · ·		 	Ļ,		
tart 995 MHz						L	2.800 GH

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 19:59:01 May	18,2006	Т	
Ref 40_dBm	#Atten 20 dB		
#Avg Log			
10			
dB/ Offst			
0ffst 41.3 dB			
#PAvg			
V1 S2			
\$3 FC			
£(f):			
FTun FTun	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Swp			
Start 2.795 GHz			Stop 4.500 GHz
#Res BW 100 kHz	#VBW 300 kH	lz#Sweep	601 ms (601 pts)

	Low Channel, 4.495GHz-6GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

ef 40_dBm	#	Atten 20 c	IB			
Avg og						
0						
B/						
Iffst 1.3 B						
в						
PAvg						
1 \$2						
3 FC						
:(f):						
Tun 📘 📃						
wp						
itart 4.495 GHz					Stop 6	6.000

	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

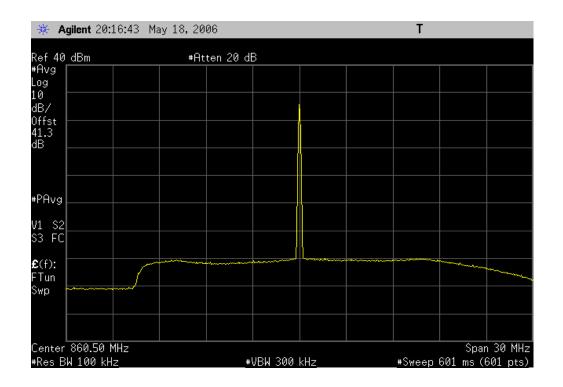
🔆 Agilent 20:03:09 May 18, 20	06 <b>T</b>
	ten 20 dB
#Avg Log	
10 dB/	
Offst	
41.3 dB	
#PAvg	
V1 S2 S3 FC	
<b>£</b> (f):	
FTun Swp	
Start 5.995 GHz #Res BW 100 kHz	Stop 7.500 GHz #VBW 300 kHz#Sweep 601 ms (601 pts)_

Ľ

	Low Channel, 7.495GHz-9GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

Start 7.495 GHz					Stop_9	.000 GH
Swp						
C(f):	 				 	
/1 S2 53 FC						
PAvg						
IB						
Iffst						
IB/						
.0						
Avg .og						
lef 40 dBm	#Atter	n 20 d	В			

Mid Channel, In Band					
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm		



Mid Channel, 0-1GHz						
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm			

Hart 0 Hz Res BW 100 kHz_			3W 300 kHz		#\$u000	Stop 1.0 601 ms (6	000 GH
Tun Wp				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
(f):						- M	
3 FC							
/1 S2 3 FC							
PAvg							
B							
Iffst 1.3 B							
IB/							
0							
Avg og							
ef 40_dBm	#A	tten 20 dB					

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:2	21:28 May 18, 2	:006		Т	
Ref 40_dBm	#F	Atten 20 dB			
ŧAvg .og					
0					
B/ Iffst					
1.3 IB					
PAvg					
1 \$2					
3 FC					
:(f): Tun					
wp	·····				
tart 995 MHz					Stop 2.800 GH
Res BW 100 kH:	2	#V[	3W 300 kHz_	_#Sweep 60	01 ms (601 pts)

	Mid Channel, 2.795GH	z-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

C(f): Tun Wp		 		-
/1 S2				
PAvg				
IB				
Iffst				
0 0 B/				
ef 40 dBm Avg og	itten 20 dB			

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:25:15	May 18, 2006		Т	
Ref 40_dBm	#Atten 20 d	В		
#Avg Log				
10 dB/				
Offst				
Offst 41.3 dB				
#PAvg				
V1 S2				
\$3 FC				
€(f): FTun				
Swp				
Start 4.495 GHz			^	Stop 6.000 GHz
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)

	Mid Channel, 5.995GHz-7.5G	iHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

ef 40 dBm	#	Atten 20 d	dB			
Avg						
og Ø					 	
IB/						
Ifst 1.3						
1.3 B						
						<u> </u>
PAvg						
1 \$2						
1 S2 3 FC						
×0.						<u> </u>
:(f): Tun				 	 	4
wp	·····					
tart 5.995 GHz						 7.500 GH

	Mid Channel, 7.495GHz-9GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:29:	36 May 18, 2006			T	
Ref 40 dBm	#Atten 2	0 dB			
≇Avg Log					
.0					
1B/					
Offst 41.3 3B					
PAvg					
л s2					
53 FC					
<b>E</b> (f):					
Tun	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			·····	
Swp					
Start 7.495 GHz					9.000 GHz
#Res BW 100 kHz_		<u> </u> #VBW 300 k	Hz	_#Sweep 601 ms	(601 pts)

# NORTHWEST

	High Channel, In Band			
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm	#8	ltten 20 d	IB				
Avg							
.og							
.0							
IBZ						1	
)ffst 11.3							
iB							
						┼╂	
PAvg							
11 52							
/1 S2 S3 FC							
<b>2</b> (f):							
Tun				h	 		
qwó							
Center 860.50 MHz							⊥ n 30 M⊦

	High Channel, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:35:5	i0 May 18, 2006				Т	
Ref 40_dBm	#Atten	20 dB				
ŧAvg ₋og						
0 IB/						
)ffst  1.3  B						
PAvg						
1 52						
3 FC						
:(f): Tun						
wp			~ <u>+</u>			
tart 0 Hz						.000 GH
ŧRes BW 100 kHz <u>_</u>		<u></u> #VBW 300	ı kHz	#Sw	eep 601 ms (	601 pts)

	High Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	#F	ltten 20 d	B				
Avg .og							
0							
IB/							
Iffst							
IB							
PAvg							
1 \$2							
3 FC							
:(f):							
Tun							
wp							
tart 995 MHz						Stop 2	800 GH
Res BW 100 kHz		#	VBW 300	kHz	#Sweep	601 ms (	601 p

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:38:5	59 May 18, 2006			Т		
Ref 40_dBm	#Atten	20 dB				
#Avg Log						
10						
dB/ Offst						
41.3 dB						
#PAvg						
V1 S2						
S3 FC						
£(f):						
FTun				 		
Swp						
Start 2.795 GHz					Stop 4	500 GHz
#Res BW 100 kHz		#VBW 300	kHz	#Sweep	601 ms (6	

	High Channel, 4.495GHz-6GH	Ηz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

<b>* Agilent</b> 20:38:	:59 May 18,	2006					
Ref 40_dBm	;	Atten 20 c	∄B				
Avg							
.og .0							
1B/							
)ffst 41.3 #B							
iB							
PAvg							
и оо							
/1 \$2 33 FC							
2(f):							
Tun Swp					 		
Start 2.795 GHz						Stop 4	 .500 GH
Res BW 100 kHz_			⊭VBW 300 k	(Hz	#Sween	א סנטף 4 601 ms (	. <del>.</del> 00 GF 601 nts

	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 20:41:37 May 18, 20	96	Т
Ref 40 dBm #At	ten 20 dB	
#Avg Log		
10 dB/		
Offst		
41.3 dB		
#PAvg		
V1 S2 S3 FC		
£(f): FTun		
Swp		
Start 5.995 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 7.500 GHz _#Sweep 601 ms (601 pts)_

# NORTHWEST

	High Channel, 7.495GHz-9Gł	Hz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

🔆 Agilent 20:43:	:32 May 18, 200	ð6		Т		
Ref 40 dBm	#Ati	ten 20 dB				
#Avg Log						
10						
dB/ 📔 👘						
Offst 41.3 dB						
#PAvg						
J1 S2						
53 FC						
E(f): Tun				 		,
бжр						
Start 7.495 GHz						000 GHz
#Res BW 100 kHz_		#VBh	300 kHz	#Sweep	601 ms (6	601 pts)

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

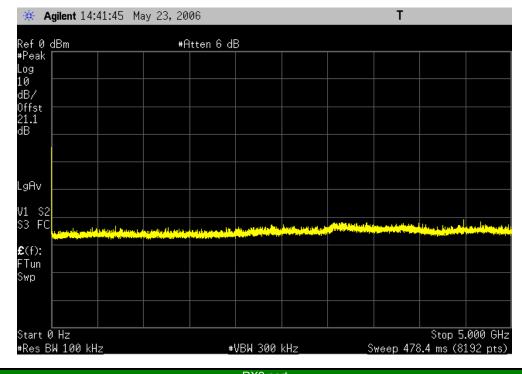
#### TEST DESCRIPTION

The antenna power conducted emissions were measured with the EUT set in receive mode. The measurements were made using a direct connection between each of the RF outputs of the EUT and the spectrum analyzer. The spectrum was scanned throughout the specified frequency range.

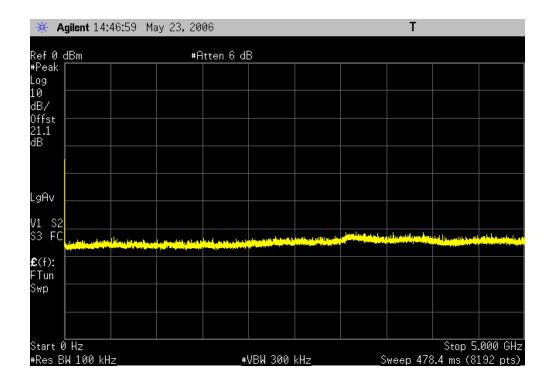
NORTHWEST EMC	SPURIOUS EMISSION	IS AT ANT		MINALS	XMit 2006.03.01
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:	Various			Date:	05/23/06
Customer:	Radioframe Networks, Inc.			Temperature:	24°C
Attendees:	Dean Busch			Humidity:	41%
Project:				Barometric Pres.:	
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV01
TEST SPECIFICATI	ONS		Test Method		
FCC 15.111:2006			ANSI C63.4 2003		
COMMENTS					
900MHz Band					
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Roc Signature	hy he Reley			

Modes of Operation and Test Conditions	Value	Limit	Result
RX1 port	< -60 dBm	≤ -57 dBm	Pass
RX2 port	< -60 dBm	≤ -57 dBm	Pass
RX3 port	< -60 dBm	≤ -57 dBm	Pass

		RX1 port		
Result: Pass	Value:	< -60 dBm	Limit:	≤ -57 dBm



	RX2 port	
Result: Pass	Value: < -60 dBm	<b>Limit:</b> ≤ -57 dBm



NORTHWEST

	RX3 port	
Result: Pass	<b>Value:</b> < -60 dBm	<b>Limit:</b> ≤ -57 dBm

🔆 Agilent 14	.50.40 m	u, 20, 20	~~				RT		
əf 0 dBm		<b>#</b> A	ltten 6 dl	В					
Peak									
ig )									
37									
fst 🚽 🚽									
.1									
Av									
. S2									
	detelant land	al		ويستريلها والتروي	والمراو المروي	Nobilitud oto	and dan be	ومعادلهم المربي العما	hateletere
					And in colored where			A State of a second state of the second state	
f): un									
'p									
art 0 Hz es BW 100 k				VBW 300		~	47	Stop 5. 3.4 ms (8:	

XMit 2006.03.01

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

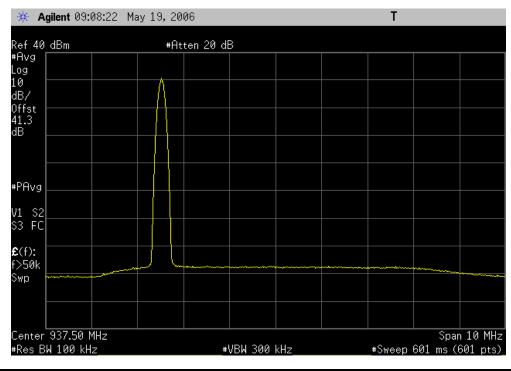
#### **TEST DESCRIPTION**

A spectrum analyzer was used to scan from 0 to 10 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST					XMit 2006.03.01
EMC	SPURIOUS EMISSIONS A	I ANI	ENNA IERI	WINALS	
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:	Various			Date:	05/19/06
Customer:	Radioframe Networks, Inc.			Temperature:	
Attendees:	Dean Busch			Humidity:	34%
Project:				Barometric Pres.:	29.89
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATI	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	2002	
				· · · · · · · · · · · · · · · · · · ·	
COMMENTS					
900MHz Band, High	Power Level				
i i					
DEVIATIONS FROM	TEST STANDARD				
L					
Configuration #	1 Rocky la	- Rely	2		
	Signature				

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, In Band	-22.4 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
9 Channel Intermods, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass

	Low Channel, In Band		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm



	Low Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

<b># Agilent</b> 09:10:	14 May 19,200	06			Т		
Ref 40 dBm	#Att	en 20 dB:					
Avg .og							
0							
IB/ I							
Iffst 1.3 B							
B							
PAvg							
1 \$2							
3 FC							
vo.							
:(f): Tun							
wp					 		lharm
tart 0 Hz						Stop 1.	000 GH
Res BW 100 kHz_		<b>#</b> V	BW 300 k	:Hz_	#Sweep	601 ms (6	

	Low Cha	annel, 995MHz-2.8GHz	
Result: Pass	Value:	< -30 dBm Limi	:: ≤ -13 dBm

n 20 dB					
					ļ
 ·····	 		· ······	······	~~~~ <i>~~~</i> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
				Stop 2	ംരം ല
	Image: Sector	Image: Second	Image: Second	Image: Second	Stop 2

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 09:20:35 Ma	y 19,2006		Т	
Ref 40 dBm	#Atten 20 dB			
#Avg Log				
10 dB/				
0ffst				
Offst 41.3 dB				
#PAvg				
V1 S2 S3 FC				
£(f): FTun				
Swp				
				Stop 4.500 GHz
Start 2.795 GHz #Res BW 100 kHz	#V	BW 300 kHz	#Sweep	5top 4.500 GHZ 601 ms (601 pts)

	Low Channel, 4.495GHz-6GH	lz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40_dBm	#	Atten 20 d	ltten 20 dB					
Avg .og								
0								
B/								
Iffst 1.3								
B								
PAvg								
1 S2 3 FC								
:(f):								
Tun	········							
tart 4.495 GHz							Stop 6	000 GH

	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

ef 40_dBm	#Atten	20 dE	3			
Avg og						
0						
B/						
ffst 1.3 B						
в						
PAvg						
1 \$2						
3 FC						
(f): Tun				 	 	
wb	 					

	Low Channel, 7.49	5GHz-9.45GHz	
Result: Pass	<b>Value:</b> < -30 (	dBm Limit:	≤ -13 dBm

Ref 40 dBm	#f	Atten 20 d	B			
Avg						
.og						
.0						
IB/						
offst 1.3						
IB						
PAvg						
1109						
1 \$2						
3 FC						
:(f): Tun				 		
iwp					 	
tart 7.495 GHz					Stop 9	.450 GH

	Mid Channel, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

<b>Agilent</b> 09:29:52	May 19, 2006		Т	
Ref 40 dBm	#Atten 20 d	В		
#Avg Log				
10		Δ		
dB/ Offst				
41.3 dB		I - 11		
		<u>├──</u>		
#PAvg				
V1 S2 S3 FC				
<b>£</b> (f): f>50k				
Swp				
Center 937.50 MHz				Span 10 MHz
#Res BW 100 kHz	•	VBW 300 kHz	#Sweep 6	i01 ms (601 pts)_

	Mid Channel, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	#	Atten 20 d	зB				
ŧAvg							
.og .0							
.ø ιΒ/							
)ffst 41.3							
H1.3 HB							
-DO							
PAvg							
/1 \$2 33 FC							
S3 FC							
C(f):							
Tun							
wp wp				 	**		
tart0Hz						Stop 1.	ааа сн

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

₩ Agilent 09:33:28 May 19, 20	106	T
Ref40_dBm #At	ten 20 dB	
+Avg .og		
0		
IB/		
Iffst 1.3 B		
PAvg		
1 \$2		
3 FC		
(f): Tun		
wp		
tart 995 MHz Res BW 100 kHz	#VBW 300 kHz	Stop 2.800 GH #Sweep 601 ms (601 pts=

	Mid Chanr	nel, 2.795GHz-4.5	GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm	

ef 40 dBm	#	Atten 20 d	dB			
Avg 🛛 👘						
og						
0  B/						
ffst						
Iffst 1.3						
в						
PAvg						
1 S2 3 FC						
:(f):						
Tun				 		ļ
wp						
tart 2.795 GHz					Stop 4	1.500 GH

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 09:37:24	4 May 19, 2006		Т	
Ref 40_dBm	#Atten 20 d	łВ		
#Avg Log				
10				
dB/ Offst				
Offst 41.3 dB				
#PAvg				
V1 S2 S3 FC				
£(f): FTun				
Swp	<u></u>		····	
Start 4.495 GHz				Stop 6.000 GHz
#Res BW 100 kHz		⊭VBW 300 kHz	#Sweep	) 601 ms (601 pts)

	Mid Channel, 5.995GHz-	7.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

ef 40 dBm	#Atten 20	dB			
Avg					
.og					
0					
B/					
Iffst					
в					
PAvg					
1 \$2					
3 FC					
:(f):					
Tun			 	 	4
wp	 ~~~~				
tart 5.995 GHz Res BW 100 kHz		_#VBW 300		Stop 7 601 ms (	7.500 GH

	Mid Channel, 7.495GHz-9.45GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 09:40:	51 May 19, 2006		Т	
Ref 40 dBm	#Atten 2	0 dB		
ŧAvg _og				
.0				
£B/				
Offst 41.3				
41.3 4B				
PAvg				
л s2				
53 FC				
<b>E</b> (f):				
Tun				
Эwp				
Start 7.495 GHz				Stop 9.450 GH:
ŧRes BW 100 kHz_		<b>#VBW</b> 300 kHz_	#Sweep	601 ms (601 pts)

	High Channel, In Band			
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm	#At	ten 20 c	lВ						
Avg									
.og									
.0 IB/							}		
Iffst							1		
)ffst  1.3									
IB						+			
						+			
PAvg									
1 \$2									
3 FC									
:(f):					_				
>50k		·····		× × •	L		L		
ý aver aver aver aver aver aver aver aver									·
Center 937.50 MHz Res BW 100 kHz			ŧVBW 300					Spa 601 ms (	n 10 MH

	High Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 09:45:46 Ma	y 19, 2006		Т	
Ref 40 dBm	#Atten 20 dE	3		
#Avg Log				
10 dB/				
Offst				
41.3 dB				
#PAvg				
V1 S2 S3 FC				
S3 FC				
€(f): FTun				
Swp				^
Start O Hz				Stop 1.000 GHz
#Res BW 100 kHz	#1	/BW 300 kHz	#Sweep	601 ms (601 pts)

	High Channel, 995MHz-2.8GF	Ηz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

<b>* Agilent</b> 09:47	:38 May 19,2	2006			T		
ef 40_dBm	#[	Atten 20 di	В				
Avg og							
0							
B/							
Iffst 1.3 B							
B							
PAvg							
1 \$2							
3 FC							
:(f):							
Tun					 		
wp							
tart 995 MHz Res BW 100 kHz_		#	VBW 300	kHz	#Sween	5top 2 601 ms (	2.800 GH 601 nts

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 09:49:13 May 19, 20	006	Т
Ref40dBm #A	tten 20 dB	
#Avg Log		
10 dB/		
Offst		
41.3 dB		
#PAvg		
V1 S2 S3 FC		
£(f): FTun		
Swp manufacture and some some some some some some some some	Marina and a sub-	and a second
Start 2.795 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 4.500 GHz #Sweep 601 ms (601 pts)

	High Cha	nnel, 4.495GHz-6GHz		
Result: Pa	ss Value:	< -30 dBm Lin	mit: :	≤ -13 dBm

#A	tten 20 d	В					
~~ <u>~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							********
							 5.000 GI
	*A	*Atten 20 d	#Atten 20 dB	*Atten 20 dB	#Atten 20 dB	#Atten 20 dB	Image: selection of the

	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

<b>Agilent</b> 09:53:38	3 May 19, 2006		Т	
Ref 40 dBm	#Atten 20	dB		
ŧAvg _og				
.0 IB/				
)ffst 11.3 IB				
PAvg				
1 S2				
3 FC				
:(f): Tun				
qw				
tart 5.995 GHz				Stop 7.500 GH
Res BW 100 kHz		#VBW 300 kHz	#Sweep	601 ms (601 pts

	High Channel, 7.495GHz-9.45GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

( 10 ID			15				
ef 40 dBm Avg	#	Atten 20 d	3B		 		
og							
0							
B/ 📔 👘 👘							
ffst 1.3							
B							
PAvg							
1 \$2							
3 FC							
(f):							
Tun wp				······································	 		
tart 7.495 GHz						Stop 9	.450 GH
Res BW 100 kHz_			#VBW 300	kHz	#Sweep	601 ms (	

	9 Channel Intermods, In Band		
Result: Pass	Value: -22.4 dBm	Limit:	≤ -13 dBm

🔆 Agilent 13:20:12	4ay 19, 2006		Т	ML=1 042.44 MU-
Ref 40 dBm	#Atten 20 dB			Mkr1 942.44 MHz –22.42 dBm
#Avg Log				
10 dB/			٨	
Offst				
51.6 dB				
#PAvg				
V1 S2				1
S3 FC				MA
€(f): FTun				
Swp				
Center 937.50 MHz #Res BW 100 kHz		300 kHz		Span 12 MHz 01 ms (601 pts)

	9 Channel Intermods, 0-1GH	Z		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm ≢Avg	#	Atten 20 d	B	 		
_og						
10 187						
Dffst 51.5 4B						
PAvg						
11 S2						
/1 \$2 53 FC						
C(f):				 	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Swp						
∫ Start 0 Hz					Ston	1.000 GH

	9 Channel Intermods, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 13:52:18 May 19, 2	2006	T
Ref40dBm #M	Atten 20 dB	
#Avg Log		
10 dB/		
Offst		
51.5 dB		
#PAvg		
V1 S2 S3 FC		
€(f): FTun		
Swp		
Start 995 MHz #Res BW 100 kHz	#VBW 300 kHz	Stop 2.800 GHz #Sweep 601 ms (601 pts)

	9 Channel Inter	mods, 2.795GHz-4.5GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

₩ Agilent 13:54:	C/ 1103 IV;	2000		Ť				
ef 40_dBm	:	#Atten 20	dB					
Avg								
og Ø								
IB/								
ffst 1.5								
B								
PAvg								
1 \$2								
3 FC								
:(f):			··· <b>_</b> ··		·	·		<u></u>
Tun								
wp								
tart 2.795 GHz							Stop 4	.550 Gł
Res BW 100 kHz_			#VBW 300	kHz		#Sweep	601 ms (	

	9 Channel Intermods, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 13:57:1	.2 May 19, 2006		Т	
Ref 40 dBm	#Atten 20	dB		
#Avg Log				
10 187				
Dffst 51.5 4B				
PAvg				
1 S2				
53 FC				
C(f): Tun				
οwp				
Start 4.500 GHz Res BW 100 kHz		_#VBW 300 kHz	#Succes	Stop 6.000 GH 601 ms (601 pts)

## NORTHWEST

## SPURIOUS EMISSIONS AT ANTENNA TERMINALS

	9 Channel Inte	rmods, 5.995GHz-7.5GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

Agilent 13:59:	.01 May 19	, 2005			Т		
Ref 40_dBm		#Atten 20	dB				
Avg							
.og .0							
IB/							
offst							
IB							
PAvg							
/1 S2 53 FC							
53 FC				سسسيهر	 ·		L
<b>2</b> (f):		~~ <u>~</u> ~					
Tun							
Gwp							
Start 5.995 GHz						Stop 7	500 GH
Res BW 100 kHz_			#VBW 300	) kHz	#Sweep	601 ms (	

	9 Channel Intermods, 7.495GHz-9.45GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

* Agilent 14:00:	49 May 19,20	00			T		
Ref 40_dBm	#At	ten 20 dł	3				
ŧÂvg .og							
.0							
IB/							
)ffst							
1.5 B							
PAvg							
/1 S2 53 FC							
				·····	 		
C(f):							
Tun							
qw							
tart 7.495 GHz Res BW 100 kHz_			VBW 300			Stop 9. 601 ms (0	.450 GH

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### **TEST DESCRIPTION**

A spectrum analyzer was used to scan from 0 to 10 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST EMC	SPURIOUS EMISSI	IONS AT ANT	ENNA TER	MINALS	XMit 2006.03.01
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:					05/19/06
Customer:	Radioframe Networks, Inc.			Temperature:	
Attendees:	Dean Busch			Humidity:	34%
Project:				Barometric Pres.:	29.89
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATION	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	2002	
COMMENTS					
900MHz Band, High	Power Level				
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Sianature	Porty to Reley	, 7		

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass

# NORTHWEST

## SPURIOUS EMISSIONS AT ANTENNA TERMINALS

XMit 2006.03.01

	Low Channel, In Band			
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40_dBm	#Atte	en 20 dB		
ŧAvg ₋og				
.0				
HB/				
Dffst 41.3 4B	$\land$			
PAvg				
rrrvg				
/1 \$2 53 FC				
53 FC				
<b>2</b> (f): >50k				
Śwp			 	
Center 937.50 MHz	2			Span 10 MH

	Low Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 11:11:50	) May 19, 2006		Т	
Ref 40 dBm	#Atten 20 c	IB		
#Avg Log				
10				
dB/ Offst				
Offst 41.3 dB				
#PAvg				
V1 S2				
S3 FC				
<b>£</b> (f):				
FTun Swp				
Start 0 Hz				Stop 1.000 GHz
#Res BW 100 kHz		ŧVBW 300 kHz	#Sweep	o 601 ms (601 pts)

	Low Channel, 995MHz-2.80	GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

* Agilent 11:13:5								
Ref 40 dBm	#Att	en 20 dB						
Avg .og								
.0								
IB/								
)ffst								
)ffst  1.3  B								
PAvg								
11 60								
/1 S2 53 FC								
<b>2</b> (f):								
Tun				1				
wp								
tart 995 MHz					1		Stop 2	800 GH
Res BW 100 kHz		#V	BW 300 I	kHz		#Sweep	601 ms (	601 pts

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

★ Agilent 11:16:54 May 19, 20	006	Т
Ref40_dBm #A	tten 20 dB	
#Avg Log		
10		
dB/ Offst		
0ffst 41.3 dB		
#PAvg		
V1 S2		
S3 FC		
£(f): FTun		
Swp		······································
Start 2.795 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 4.500 GHz #Sweep 601 ms (601 pts)

	Low Ch	annel, 4.495GHz-6GHz		
Result: F	Pass Value	: < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	#H1	ten 20 d	8			
Avg .og						
.0						
IB/ I						
Iffst						
Iffst 11.3 IB						
PAvg						
1 S2 3 FC						
:(f):						
Tun						
iwp 👘						
tart 4.495 GHz Res BW 100 kHz			VBW 300		 Stop 6 601 ms (	.000 GH

	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

	0 May 19, 2006					
Ref 40_dBm	#Atten 2	20 dB				
+Avg						
og Ø						
iB/						
Iffst						
)ffst  1.3  B						
IB						
PAvg						
1 \$2						
3 FC						
:(f):						
Tun				 		
wp qw						
tart 5.995 GHz						.500 GH
Res BW 100 kHz <u></u>		<u>+</u> VBW 300	kHz	#Sweep	601 ms (	601 pts

	Low Channel, 7.495GHz-9.45	GHz	
Result: Pass	<b>Value:</b> < -30 dBm	<b>Limit:</b> ≤ -13 dBm	

ten 20 di					
 	 		·		
					ĺ
		Image: second	Image: second	Image: second	Image: state of the state o

	Mid Channel, In Band		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

★ Agilent 11:28:29         May 19, 2006         T				
Ref 40 dBm	#Atten 20 d	В		
#Avg Log				
10				
dB/ Offst				
Offst 41.3 dB		Δ		
#PAvg				
V1 S2				
\$3 FC				
<b>£</b> (f): f>50k				
Swp	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		······	
Center 937.50 MHz Span 10 MHz				
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)

	Mid Channel, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

ffst 1.3 B					
ffst	Avg				
ffst 1.3 B	Ava				
ffst					
	fst				
	g g				

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 11:34:16	May 19, 2006			Т	
Ref 40_dBm	#Atten 20 c	IB			
#Avg Log					
10					
dB/ Offst					
41.3 dB					
#PAvg					
J1 S2					
53 FC					
€(f):					
FTun			<u>,</u>		
Swp					
Start 995 MHz				Stop 2	2.800 GHz
#Res BW 100 kHz	+	ŧVBW 300 kHz	<b>#</b> S	weep 601 ms (	601 pts)

	Mid Channel, 2.795GHz-4.5G	Hz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm Avg	#	Atten 20 (	dB			
.og						
.0 IB/						
)ffst 1.3						
I1.3 IB						
PAvg						
/1 S2 S3 FC						
(f):						
Tun Wp		••	~ <u>~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	 · · · · · · · · · · · · · · · · · · ·	 	
Start 2.795 GHz						  .500 GH

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

★ Agilent 11:38:27	' May 19, 2006		T	
Ref 40_dBm	#Atten 20 d	В		
#Avg Log				
10 dB/				
Offst 41.3 dB				
#PAvg				
V1 S2				
S3 FC				
€(f): FTun				
Swp				
Start 4.495 GHz #Res BW 100 kHz	#	VBW 300 kHz	#Sweep	Stop 6.000 GHz 601 ms (601 pts)

	Mid Channel, 5.995GHz-7.5G	Hz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

ef 40_dBm	+	Atten 20	dB		 	
Avg og						
0						
B/						
ffst 1.3						
B						
DOUL						
PAvg						
1 S2 3 FC						
3 FC						
:(f):						
Tun	~ <u>~</u>			 	 	
qwp						
tart 5.995 GHz					<u> </u>	7.500 GH

	Mid Channel, 7.495GHz-9.45GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

Ref 40 dBm	#At	ten 20 di	В					
Avg								
og								
0 B/								
ffst								
ffst 1.3 B								
B								
PAvg								
1 S2 3 FC								
:(f):								
Tun					· · · · · · · · · · · · · · · · · · ·			
wp								
tart 7.495 GHz							Stop 9	450 GH
Res BW 100 kHz_		#	VBW 300	kHz		#Sween	601 ms (6	

	High Channel, In Band			
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm	#A:	tten 20 dE	3					
Avg								
.og								
.0								
IB/								
)ffst 41.3 #B					۸			
IB					$\square$			
					$\vdash$			
PAvg								
/1 S2 53 FC								
53 FC						ļ		
<b>2</b> (f):								
>50k								
Śwp www.		****		~~~ <b>~</b> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	 			
Center 937.50 MHz Res BW 100 kHz			VBW 300				Spa	an 10 MH (601 pts

	High Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 11:50:0	95 May 19, 2006		Т	
Ref 40_dBm	#Atten 20 d	В		
#Avg Log				
10				
dB/ Offst				
41.3 dB				
#PAvg				
V1 S2 S3 FC				
S3 FC				
<b>£</b> (f):				
FTun Swp		·····		
Start 0 Hz				Stop 1.000 GHz
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)

	High Channel, 995MHz-2.8G	GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

Ref 40 dBm	щ	Atten 20 d	ID				
Avg	#1	ntten ZU d					
og							
õ – – –							
IB/							
ffst 1.3							
1.3 B							
PAvg					 		ļ
1 S2 3 FC							
:(f):							
Tun							
wp							
						Stop 2	
Start 995 MHz Res BW 100 kHz			VBW 300	LU⇒	#\$4000	ے stop / 601 ms	.800 GH

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

	May 19, 2006		T	
Ref 40 dBm	#Atten 20 d	IB		
#Avg Log				
10 dB/				
Offst				
0ffst 41.3 dB				
#PAvg				
V1 S2 S3 FC				
£(f): FTun				
Swp				
Start 2.795 GHz #Res BW 100 kHz		ŧVBW 300 kHz	#Sween	Stop 4.500 GHz 601 ms (601 pts)

	High Cha	nnel, 4.495GHz-6GHz		
Result: Pa	ss Value:	< -30 dBm Lin	mit: :	≤ -13 dBm

Ref 40 dBm	#P	ltten 20 d	В			
Avg						
og Ø						
B/						
Iffst 1.3 B						
B						
PAvg						
1 S2 3 FC						
:(f): Tun						
wp	***			 	 	
tart 4.495 GHz Res BW 100 kHz			VBW 300		 Stop 6 601 ms (	5.000 GH

	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 <b>Agilent</b> 11:57:53	8 May 19, 2006		T	
Ref 40 dBm	#Atten 20 d	В		
#Avg Log				
10				
dB/ 📔 👘				
0ffst 41.3 dB				
+PAvg				
л s2				
3 FC				
C(f):				
Śwp				
Start 5.995 GHz				Stop 7.500 GHz
#Res BW 100 kHz	#	VBW 300 kHz	#Sweep	601 ms (601 pts)

# NORTHWEST

# SPURIOUS EMISSIONS AT ANTENNA TERMINALS

	High Channel, 7.495GHz-9.450	GHz	
Result: Pass	<b>Value:</b> < -30 dBm	<b>Limit:</b> ≤ -13 dBm	

🔆 Agilent 11:5	9:50 May 19, 20	06			T		
Ref 40 dBm	#At	ten 20 dE	3				
#Avg Log							
10 dB/							
aB/ Offst							
Offst 41.3 dB							
#PAvg							
V1 S2							
S3 FC							
<b>£</b> (f):							
FTun Swp	******				 	~~	••••••
Start 7.495 GHz							450 GHz
#Res BW 100 kHz		#\	/BW 300	kHz	#Sweep	601 ms (6	601 pts)

< -30 dBm

≤ -13 dBm

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24

#### MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### **TEST DESCRIPTION**

A spectrum analyzer was used to scan from 0 to 10 GHz. A 100kHz resolution bandwidth was used. No video filtering was employed. A 30dB external attenuator was used on the RF input of the spectrum analyzer.

NORTHWEST					XMit 2006.03.01
EMC	SPURIOUS EMISSIONS A		ENNA TERI	MINALS	
EUT:	MCRB			Work Order:	RAFN0062
Serial Number:				Date:	05/19/06
	Radioframe Networks, Inc.			Temperature:	23°C
Attendees:	Dean Busch			Humidity:	34%
Project:				Barometric Pres.:	29.89
	Rod Peloquin	Power:	-48Vdc	Job Site:	EV06
TEST SPECIFICATION	ONS		Test Method		
FCC 90.691:2005			ANSI/TIA/EIA-603-B:2	2002	
				· · · · · · · · · · · · · · · · · · ·	
COMMENTS					
900MHz Band, High					
DEVIATIONS FROM	TEST STANDARD				
Configuration #	1 Signature	- Rely	, ٣		

Modes of Operation and Test Conditions	Value	Limit	Result
Low Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Low Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
Mid Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, In Band	< -30 dBm	≤ -13 dBm	Pass
High Channel, 0-1GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 995MHz-2.8GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 2.795GHz-4.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 4.495GHz-6GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 5.995GHz-7.5GHz	< -30 dBm	≤ -13 dBm	Pass
High Channel, 7.495GHz-9.45GHz	< -30 dBm	≤ -13 dBm	Pass

	Low Channel, In Band		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

lef 40_dBm	#Att	en 20 dB		
Avg og				
0 IB/	٨			
Iffst 1.3 IB				
PAvg				
/1 S2 3 FC				
3 FC				
:(f): >50k				
бир				

	Low Channel, 0-1GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

<b>Agilent</b> 10:02:	15 May 19, 2006		T	
Ref 40_dBm	#Atten 20 ·	dB		
#Avg Log				
10				
dB/				
0ffst 41.3 dB				
dB				
#PAvg				
V1 S2				
V1 S2 S3 FC				
€(f): FTun				
Swp				h
Start Ø Hz				Stop 1.000 GHz
ŧRes BW 100 kHz_		#VBW 300 kHz	#Sweep	601 ms (601 pts)

	Low Channel, 995MHz-2.8G	Hz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

Agilent 10:03:	:57 May 19, 2	006					
Ref 40_dBm	#Ĥ	tten 20 dE	3				
Avg .og							
.0							
IB/							
)ffst  1.3  B							
IR							
PAvg							
rnvy							
1 S2							
3 FC							
(f):							
Tun Wap			·		 		
itart 995 MHz						Stop 2	 .800 GH
Res BW 100 kHz_		#\	/BW 300 I	kHz	#Sweep	601 ms (	601 pts

	Low Channel, 2.795GHz-4.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:0	6:04 May 19, 20	06			Т	
Ref 40 dBm	#At	ten 20 dB				
#Avg Log						
10						
dB/ Offst						
Offst 41.3 dB						
#PAvg						
V1 S2						
\$3 FC						
<b>£</b> (f):						
FTun Swp						
Start 2.795 GHz						.500 GHz
#Res BW 100 kHz		#VBW	300 kHz	#S	weep 601 ms (	601 pts)

	Low Ch	annel, 4.495GHz-6GHz		
Result: F	Pass Value	: < -30 dBm	Limit:	≤ -13 dBm

_	51 May 19, 20					
lef 40_dBm	#A	tten 20 dB	;			
Avg						
og Ø						
IB/						
ffst						
Iffst 1.3 B						
PAvg						
1 52						
1 S2 3 FC						
:(f):						
Tun				·····	 	~~~~~
tart 4.495 GHz Res BW 100 kHz			/BW 300 kH:		Stop 6 601 ms (	.000 GH

	Low Channel, 5.995GHz-7.5GHz		
Result: Pass	<b>Value:</b> < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:23:03 May 19,	2006	Т
Ref40_dBm #	Atten 20 dB	
#Avg Log		
10 dB/		
Offst		
41.3 dB		
#PAvg		
V1 S2 S3 FC		
<b>£</b> (f):		
FTun		
Swp		
Start 5.995 GHz		Stop 7.500 GHz
#Res BW 100 kHz	#VBW 300 kHz	_#Sweep 601 ms (601 pts)_

	Low Channel, 7.495GHz-9.45	GHz	
Result: Pass	<b>Value:</b> < -30 dBm	<b>Limit:</b> ≤ -13 dBm	

 		~~~~
	Stop 9 <u>.450</u>	GH
	I 300 kHz #Sw	Stop 9.450 300 kHz #Sweep 601 ms (601

	Mid Channel, In Band		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:30:14	May 19, 2006		Т	
Ref 40_dBm	#Atten 20 d	В		
#Avg Log				
10 dB/		٨		
0ffst 41.3 dB				
#PAvg				
V1 S2 S3 FC				
€(f): f>50k				
Swp				
Center 937.50 MHz #Res BW 100 kHz	#	VBW 300 kHz	#Sweep	Span 10 MHz 601 ms (601 pts)

	Mid Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

+Avg .og					
10 187					
)ffst 41.3 4B					
PAvg					
И \$2 53 FC					
C(f): Tun					
Śwp	······	 	 	 ·····	/h

	Mid Channel, 995MHz-2.8GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:33:47 Ma	ay 19, 2006		T	
Ref 40 dBm	#Atten 20 dB	}		
#Avg Log				
10				
dB/ Offst				
41.3 dB				
#PAvg				
л s2				
53 FC				
E(f):				
Tun				
Эмр				
				0.000 CU-
Start 995 MHz +Res BW 100 kHz		/BW 300 kHz	#Sweep	Stop 2.800 GHz 601 ms (601 pts)

	Mid Channel, 2.795GHz-4.5G	Hz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

10 dB/ Offst 41.3 dB *PAvg *PAvg V1 S2 S3 FC E(f):	
HB/ Dffst 41.3 HB +PAvg	
HB/ Dffst H1.3 HB	
IB/ Offst 11.3	
IB/ Offst 11.3	
IB/	
Avg	

	Mid Channel, 4.495GHz-6GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

* Agilent 10:37:48	8 May 19, 2006					
Ref 40_dBm	#Atten 2	20 dB				
Avg .og						
0						
B/						
Iffst 1.3 B						
PAvg						
1 \$2						
3 FC						
(f): Tun						
wp						
tart 4.495 GHz Res BW 100 kHz		 #VBW 30		_	Stop 6 601 ms (.000 GH

	Mid Channel, 5.995GHz-7.5G	Hz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

	28 May 19, 20					
Ref 40_dBm	#At	ten 20 dB		 		
Avg .og						
.0						
IB/						
)ffst 1.3						
IB						
PAvg						
n s2						
/1 \$2 3 FC						
C(f): Tun				 ween and the second		
ivp						
tart 5.995 GHz Res BW 100 kHz			BW 300 kH:		Stop 7 601 ms (.500 GH

	Mid Channel, 7.495GHz-9.45GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

* Agilent 10:42:	:00 May 19, 2006	i		Т	
Ref 40 <u>dBm</u>	#Atte	n 20 dB			
Avg .og					
0					
B/					
)ffst 1.3					
1.3 IB					
PAvg					
1 S2					
3 FC					
C(f):					
Gwp gwg					
tart 7.495 GHz					Stop 9.450 GH
Res BW 100 kHz_		#VBW 300	kHz	#Sweep 6	01 ms (601 pts)

	High Channel, In Band	1	
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

Center 937.50 MHz Res BW 100 kHz	2		:00 kHz		Span 10 MH 601 ms (601 pts
jan dag		······································	<u></u>	manufad ha	
:(f): >50k					
/1 S2 3 FC					
PAvg					
1.3 IB					
)ffst 11.3				——————————————————————————————————————	
0 IB/					
.og					
lef 40 dBm Avg	#At	ten 20 dB		1	

	High Channel, 0-1GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

Stop 1.000 GH

	High Channel, 995MHz-2.8GHz	2		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm	

ef 40 dBm		Atten 20 d	1B				
Avg		Htten 20 (
.og							
.0							
IB7							
Iffst							
IB							
PAvg							
11109							
/1 S2 3 FC							
3 FC							
:(f):							
Tun							
wp	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			 		· · · · · · · · · · · · · · · · · · ·	
tart 995 MHz Res BW 100 kHz_			#VBW 300		~	Stop 2 601 ms (.800 GF

	High Channel, 2.795GHz-4.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:51	:14 May 19, 200	96			Т		
Ref 40 dBm	#Atı	ten 20 dE	3				
#Avg Log							
10							
dB/							
Offst 41.3 dB							
ав							
#PAvg							
V1 S2 S3 FC							
€(f): FTun							
Swp					 		
Start 2.795 GHz							500 GHz
#Res BW 100 kHz_		#\	/BW 300	kHz	#Sweep	601 ms (6	601 pts)_

		High Char	nnel, 4.495GHz-6GHz		
Result:	Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 10:53	:01 May 1	9,2006				Т		
Ref 40 dBm		#Atten 2	0 dB					
Avg .og								
.0								
IB/								
)ffst 1.3 B								
IR								
PAvg								
1 S2 3 FC								
×0.								
:(f): Tun								
wp	~~~~		·····		····	······································		
tart 4.495 GHz							Stop 6	5.000 GH
Res BW 100 kHz_			#VBW 30)0 kHz		_#Sweep	601 ms (,601 pts

	High Channel, 5.995GHz-7.5GHz		
Result: Pass	Value: < -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 11:04:10 May 19, 2	006	Т
	itten 20 dB	
#Avg Log		
10		
dB/ Offst		
41.3 dB		
#PAvg		
V1 S2		
\$3 FC		
£ (f):		
FTun		
Swp		
Start 5.995 GHz		Stop 7.500 GHz
#Res BW 100 kHz	#VBW 300 kHz	#Sweep 601 ms (601 pts)

	High Chann	el, 7.495GHz-9.45GHz		
Result: Pass	Value:	< -30 dBm	Limit:	≤ -13 dBm

🔆 Agilent 11:0	5:46 May 19, 20	06	Т	
Ref 40_dBm	#At	ten 20 dB		
#Avg Log				
10 dB/				
Offst				
41.3 dB				
#PAvg				
V1 S2				
\$3 FC				
£ (f):				
FTun Swp				
Start 7.495 GHz #Res BW 100 kHz		#VBW 300	Stop 9 #Sweep 601 ms (.450 GHz

Field Strength of Spurious Radiation

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

PSA 2006.04.:

MODES OF OPERATION

EMC

-48\/dc

Transmitting typical sector configuration, 800 and 900MHz bands

POWER SETTINGS INVESTIGATED

FREQUENCY RANGE INVESTIGATED								
Start Frequency	30 MHz	Stop Frequency	10 GHz					

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
High Pass Filter 1.2 - 18 GHz	Micro-Tronics	HPM50108	HFV	9/28/2005	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	1/4/2006	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Antenna, Dipole	EMCO	3121C	ADE	8/3/2004	24
Signal Generator	HP	8648D	TGC	1/27/2006	13
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12

MEASUREMENT BANDWIDTH

Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0
Measurements were mad	e using the bandwidths and det	tectors specified. No video filt	er was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Per 2.1053 and 90.691, the Field Strength of Spurious Radiation was measured in the far-field at an FCC Listed OATS up to 10 GHz. Spectrum analyzer, signal generator, and linearly polarized antennas were used to measure radiated harmonics and spurious emissions. The orientation of the EUT and measurement antenna were manipulated to maximize the level of emissions. The EUT was configured to transmit at the highest output power into a dummy load at low, mid, and high frequencies for both the 800MHz and 900MHz bands.

For licensed transmitters, the FCC references TIA/EIA-603 as the measurement procedure standard. TIA/EIA-603 Section 2.2.12 describes a method for measuring radiated spurious emissions that utilizes an antenna substitution method:

At an approved test site, the transmitter is place on a remotely controlled turntable, and the measurement antenna is placed 3 meters from the transmitter. The turntable azimuth is varied to maximize the level of spurious emissions. The height of the measurement antenna is also varied from 1 to 4 meters. The amplitude and frequency of the highest emissions are noted. The transmitter is then replaced with a ½ wave dipole that is successively tuned to each of the highest spurious emissions. A signal generator is connected to the dipole (horn antenna for frequencies above 1 GHz), and its output is adjusted to match the level previously noted for each frequency. The output of the signal generator is recorded, and by factoring in the cable loss to the dipole antenna and its gain; the power (dBm) into an ideal ½ wave dipole antenna is determined for each radiated spurious emission.

For the purposes of preliminary measurements, the field strength of the spurious emissions can be measured and compared with a 3 meter limit. The 3 meter limit was calculated to be 82.5 dBuV/m at 3 meters. The final measurements must be made utilizing the substitution method described above.

	Field	d Strengt	h of Spu	rious R	adiation	PSA 2006.04 EMI 2006.4
EMC						ork Order: RAFN0062
Serial Number: Var					VV	Date: 05/19/06
	dioframe Networ	ks, Inc.			Tei	nperature: 23°C
Attendees: Nor						Humidity: 34%
Project: Nor					Barome	etric Pres.: 29.89
	lly Ashkannejhad	ł	Pov	ver: -48Vdc		Job Site: EV01
TEST SPECIFICATIONS	S			Test Method		
FCC 90.691:2005				ANSI/TIA/EIA	-603-B:2002	
TEST PARAMETERS						
Antenna Height(s) (m) COMMENTS	1 - 4		Test D	istance (m)	3	
Antenna ports terminar EUT OPERATING MOD Transmitting typical se DEVIATIONS FROM TE No deviations.	ES ector configuration	on, 800 and 900MHz b	ands			
Run #	1					Alingh
Configuration #	1				11 &	Salinghi
Results	Pass	NVLAP Lab Code 20	0630-0	S	ignature Hory	
-10.0						
-40.0						•
-60.0						
-70.0						
-80.0						
1700.000	1720.000 174	0.000 1760.000 1	1780.000 1800.0 MH2		1840.000 1860.	000 1880.000 1900.000
Freq (MHz)		Azimuth Height (degrees) (meters)			Detector EIRP (Watts)	EIRP Spec. Limit (dBm) (dBm) (dBm)
1874.809		280.0 1.2		H-Horn	PK 1.56E-08	-48.1 -13.0 -35.1
1791.108 1791.315 1875.379		183.01.252.02.7302.01.9		H-Horn V-Horn V-Horn	PK9.34E-09PK1.23E-08PK5.98E-09	-50.3 -13.0 -37.3 -49.1 -13.0 -36.1 -52.2 -13.0 -39.2

NORTHWEST	Fiel	d Strengt	h of Spuri	ous Ra	adiatior	PSA 2006. EMI 200
EUT:						ork Order: RAFN0062
Serial Number:						Date: 05/19/06
	Radioframe Netwo	rks, Inc.			Ter	nperature: 23°C
Attendees: Project:					Baram	Humidity: 34% etric Pres.: 29.89
	None Holly Ashkannejha	h	Power:	-48Vdc	Barome	Job Site: EV01
IEST SPECIFICATIO			l'ower.	Test Method		000 0100 2001
FCC 90.691:2005				ANSI/TIA/EIA-6	03-B:2002	
TEST PARAMETERS Antenna Height(s) (I			Test Dista	ince (m)	3	
COMMENTS	.,		1001 2101		0	
DEVIATIONS FROM	ODES sector configurat	ion, 800 and 900MHz t	bands			
lo deviations.		-				_
Run #	2	4			11 0	slight
Configuration #	1				Holy	Jounder
Results	Pass	NVLAP Lab Code 20	00630-0	Sigi	nature	
0.0						
-10.0						
-20.0						
-30.0						
Eg -40.0						
-50.0		▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲		•		
-60.0						
-70.0						
-80.0						
1000.000	0 1020.000 104	40.000 1060.000	1080.000 1100.000 MHz	1120.000 1	140.000 1160.	000 1180.000 1200.00
Freq (MHz)		Azimuth Height (degrees) (meters)			tector EIRP (Watts)	EIRP Spec. Limit Spe (dBm) (dBm) (dBm)
1000.165		184.0 1.0			PK 8.93E-09	-50.5 -13.0 -37
1124.965		317.0 1.0			PK 8.29E-09	-50.8 -13.0 -37
1000.115		360.0 1.7			PK 3.83E-09	-54.2 -13.0 -41
1124.564 1099.841		17.0 1.2 95.0 1.2			PK 2.98E-09 PK 2.94E-09	-55.3 -13.0 -42 -55.3 -13.0 -42
1050.008		75.0 1.1			PK 2.99E-09	-55.2 -13.0 -42
1050.081		37.0 1.0			PK 5.99E-09	-52.2 -13.0 -39
1099.035		360.0 1.0			PK 4.73E-09	-53.3 -13.0 -40

	Field	d S <u>tre</u>	ngth o	f Spuri	ous	Radi	atior	۱		SA 2006.04.25 EMI 2006.4.26
EUT: M									RAFN0062	
Serial Number: Va									05/19/06	
	adioframe Networ	ks, Inc.					Ten	nperature:		
Attendees: De								Humidity:		
Project: No							Barome	etric Pres.:		
	olly Ashkannejhad	ł		Power:	-48Vdc			Job Site:	EV01	
TEST SPECIFICATION	NS				Test Meth					
FCC 90.691:2005					ANSI/11A/	EIA-603-B:2	2002			
Antenna Height(s) (m) 1 - 4			Test Dista	nce (m)	C				
COMMENTS) 1 - 4			Test Dista	nce (m)					
Antenna ports termin EUT OPERATING MO Transmitting typical s DEVIATIONS FROM T No deviations. Run #	DES sector configuration	on, 800 and 9	000MHz bands				Holy		· . (7
Configuration #	1						11 les	Al	mi	
Results	Pass	NVLAP Lat	Code 200630-0			Signature	400	1.	1	
-10.0										
-30.0										
E P -40.0										
-50.0	*								*	
-60.0										
-70.0										
-80.0										
100.000	150.00	0	200.000	250.000 MHz		300.000	3	850.000	4	00.000
Freq (MHz)		Azimuth (degrees)	Height (meters)		Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
125.002 124.998 375.012 375.040		215.0 7.0 169.0 71.0	1.6 1.0 1.3 1.4		H-Bilog V-Bilog V-Bilog H-Bilog	PK PK PK PK	8.18E-09 1.24E-08 5.08E-09 3.06E-09	-50.9 -49.1 -52.9 -55.1	-13.0 -13.0 -13.0 -13.0	-37.9 -36.1 -39.9 -42.1

EMC

RADIATED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

Receive mode typical sector	configuration, 800 and 900	MHz bands	
POWER SETTINGS INVEST	IGATED		
-48Vdc			
EDEALIENAY DAMAE INV			
FREQUENCY RANGE INVE	STIGATED	Stop Frequency	

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12

Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level will be detected. This requires the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search is utilized for frequency scans of the EUT field strength with both polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the periphery of the EUT.

Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance shall be 3 meters or 10 meters. At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna shall be increased so that the lowest point of the bottom of the antenna clears the ground surface by at least 25 cm.

NORTHWEST EMC		R/	ADIAT	ED E	MISS	IONS	DATA	SHE	ET		P	2SA 2006.04.25 EMI 2006.4.26
	MCRB								W		RAFN006	2
Serial Number:	Various Radiofram	o Notres-1	. Ino								05/19/06	
Attendees:		e network	lə, IIIC.						Ter	nperature: Humidity:		
Project:	None								Barome	etric Pres.:	29.89	
	Holly Ash	annejhad				Power:	-48Vdc	ad a		Job Site:	EV01	
TEST SPECIFICAT FCC 15.109:2006	IONS						Test Metho ANSI C63.					
								4.2003				
TEST PARAMETER Antenna Height(s)		1 - 4				Test Dista	nce (m)	3				
COMMENTS	dimente al											
Antenna ports tern	ninated.											
EUT OPERATING												
Receive mode typi DEVIATIONS FROM			on, 800 and	900MHz b	ands							
No deviations.												
Run #	1										- 11	2
Configuration #	1								Holy	Sil	mi	
Results	Pa	SS	NVLAP Lat	o Code 200	630-0			Signature	11-0		20	
80.0												
80.0												
70.0												
co o												
60.0												
50.0												_
E												
₩ / 10.0		•									•	
			•									
5 (•										
30.0		•			•							
20.0												
20.0												
10.0												
0.0												
1100.000	า	1600.0	00	2100.	000	2600	0.000	31	00.000	2	3600.000	
1100.000	5	1000.0	00	2100.	000			01	00.000	,		
						MHz						
		_				External			Distance			Compared to
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	Attenuation (dB)	Polarity	Detector	Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Spec. (dB)
1466.541	35.6	-3.5	266.0	1.2	3.0	0.0	H-Horn	AV	0.0	32.1	60.0	-27.9
1125.050	36.6	-4.8	22.0	1.2	3.0	0.0	H-Horn	AV	0.0	31.8	60.0	-28.2
3729.053 2199.747	24.6 29.4	4.7 -0.2	155.0 107.0	1.2 1.2	3.0 3.0	0.0 0.0	H-Horn H-Horn	AV AV	0.0 0.0	29.3 29.2	60.0 60.0	-30.7 -30.8
1799.796	29.4 30.5	-0.2 -1.8	228.0	1.2	3.0	0.0	H-Horn	AV	0.0	29.2 28.7	60.0	-30.8
3731.483	37.6	4.7	155.0	1.2	3.0	0.0	H-Horn	PK	0.0	42.3	80.0	-37.7
1466.692	45.2	-3.5	266.0	1.2	3.0	0.0	H-Horn	PK	0.0	41.7	80.0	-38.3
2199.969 1125.157	40.7 45.2	-0.2 -5.0	107.0 22.0	1.2 1.2	3.0 3.0	0.0 0.0	H-Horn H-Horn	PK PK	0.0 0.0	40.5 40.2	80.0 80.0	-39.5 -39.8
1799.479	41.4	-1.8	228.0	1.2	3.0	0.0	H-Horn	PK	0.0	39.6	80.0	-40.4

CONDUCTED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Receive mode typical sector configuration, 800 and 900MHz bands.

POWER SETTINGS INVESTIGATED

-48V DC

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Hewlett-Packard	8593EM	AAM	12/8/2005	13
LISN	Solar	9252-50-R-24-BNC	LIM	1/9/2006	13

EASUREMEN	T BANDWIDTHS			
	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0
Ν	leasurements were made usi	ng the bandwidths and det	ectors specified. No video filte	r was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

ACQ-2006.05.30

