

Measurement Report

Part 15 Subpart B & C (15.247)

Product: ***Wireless USB Dongle Card***
Manufacture: ***AMBIT Microsystems Corporation.***
FCC ID: ***MCLU10H010***
Model: ***K12H006 / U10H010***
Report No.: ***MLT0210P15001***
Test Date: ***October 31.2002***

Test By

Max Light Technology Co.,Ltd.

*Room 5, 8F, No.125, Section 3 Roosevelt Road,
Taipei, Taiwan., R.O.C.*

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CERTIFICATION

We here by verify that :

The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4-1992. All test were conducted by *MLT(Max Light Technology Co.,Ltd) Room 5, 8F, No.125, Section 3 Roosevelt Road, Taipei, Taiwan, R.O.C* Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is in compliance with Class B radiated and conducted emission limit of FCC Rules Part 15 Subpart B & C (15.247).

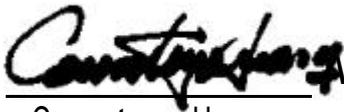
EUT : Wireless USB Dongle Card

Applicant : AMBIT MICROSYSTEMS CORPORATION.
5F-1, 5 Hsin-An Road, Hsinchu
Science-Based Industrial Park, Taiwan

Manufacturer : AMBIT MICROSYSTEMS CORPORATION.
5F-1, 5 Hsin-An Road, Hsinchu
Science-Based Industrial Park, Taiwan

Model No : K12H006 / U10H010

FCC ID : MCLU10H010

Prepared by :  Country Huang
Approved by :  Roger Chen



I. GENERAL

1.1 Introduction

The following measurement report is submitted on behalf of AMBIT Microsystems Corporation. . In support of a Class B Digital Device certification in accordance with Part2 Subpart J and Part 15 Subpart A And B&C of the Commission's and Regulations.

1.2 Description of EUT

EUT : Wireless USB Dongle Card

Applicant : AMBIT MICROSYSTEMS CORPORATION.
5F-1, 5 Hsin-An Road, Hsinchu
Science-Based Industrial Park, Taiwan

Manufacturer : AMBIT MICROSYSTEMS CORPORATION.
5F-1, 5 Hsin-An Road, Hsinchu
Science-Based Industrial Park, Taiwan

Model No : K12H006 / U10H010

FCC ID : MCLU10H010

Power Type : Powered by PC

Frequency of Channel : See Next page

Type of Modulation : Direct Sequence Spread Spectrum

Type of Antenna : Printed Antenna

During testing the EUT was operated at Tx or Rx mode for each emission measured. This was done in order to ensure that maximum emission levels were attained.



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Frequency of Each Channel (Working Frequency)

Channel No.	Frequency (MHz)
01	2412
02	2417
03	2422
04	2427
05	2432
06	2437
07	2442
08	2447
09	2452
10	2457
11	2462



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1.3 Summary Of Tests

47 CFR Part 15 Subpart C			
Reference	Test	Results	Note
15.107	AC Power Conducted Emission	PASS	
15.247(c)	Transmitter Radiated Emissions	PASS	
15.247(b)	Max. Output Power	PASS	
15.247(a)(2)	6dB RF Bandwidth	PASS	
15.247(d)	Max. Power Density	PASS	
15.247(c)	Out of Band Conducted Spurious Emission	PASS	
15.247(c)	Band Edge Measurement	PASS	
15.247(e)	Processing Gain of Direct Sequence	PASS	Provided by Applicant
15.203	Antenna Requirement	PASS	



1.4 Description of Support Equipment

In order to construct the minimum system which required by the ANSI C63.4-1991, following equipments were used as the support units.

Computer : IBM
Model No. : 16W
Serial No. : BNC345M
FCC ID : FCC DOC

Keyboard : IBM
Model No. : KB-9930
Serial No. : 09N5395
FCC ID : FCC DOC

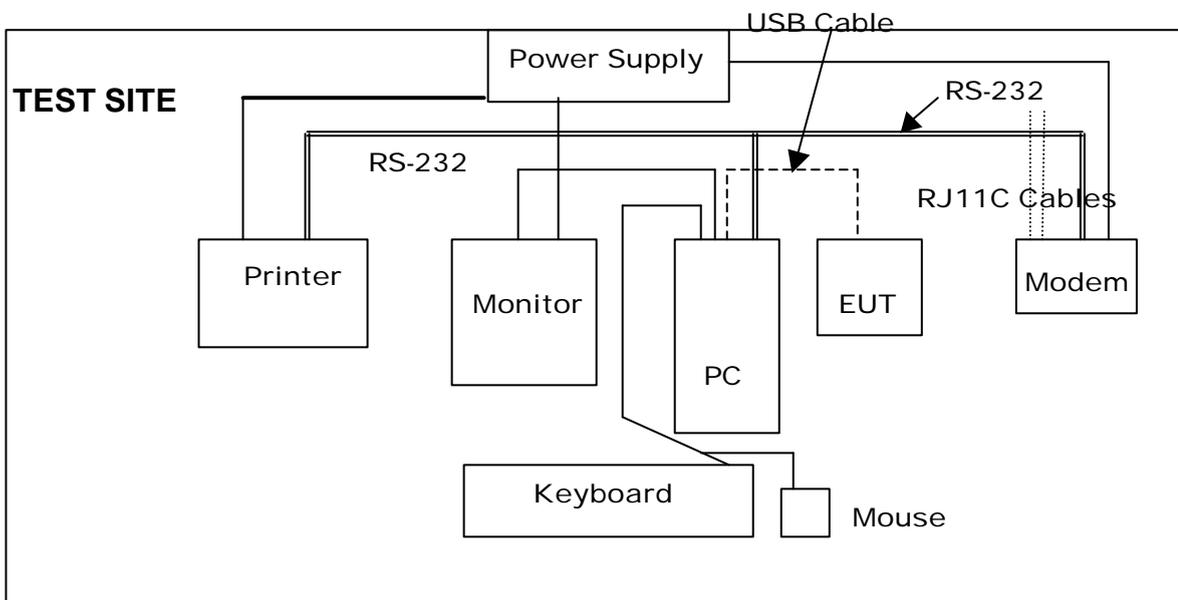
Monitor : IBM
Model No. : 10L6145 030
Serial No. : 23-092079
FCC ID : FCC DOC

Mouse : IBM
Model No. : 0180-05N
Serial No. : 23-96142
FCC ID : EMJMUSJJ

Printer : PANASONIC
Model No. : KX-P1080I
Serial No. : 7CKAKE98933
FCC ID : ACJ5Z6KX-P10801
FCC ID : FCC(DOC)

Modem : Askey (External Fax / Data Modem)
Model No. : WS1414VE
Serial No. : IAH-10811
FCC ID : H8N1414VE

1.4 Configuration of System Under Test



During testing the EUT(USB Wireless)'s USB port connected to the USB port of IBM computer. So there is No need for additional Ethernet card. A mouse was connected to the mouse port of IBM PC. and A keyboard was connected to the mouse port of IBM PC. And a printer was connected to the parallel port. A external modem connected the serial port and the external modem connected with two unterminated telephone cables on the line and phone jack.



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1.6 Test Procedure

All measurements contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4-1992 "Measurement of unIntentional Radiators."

1.7 General Test Condition

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests was chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated. The system's radiated and conducted emissions were investigated while the computer alternately transferred data to the EUT as well as to the monitor and printer. Using a test program which sent a continuous data and transferred data to and from the EUT was proven to worst case emissions. The system's physical layout and cabling was randomly arranged to ensure that maximum emission levels were attained.



II. Conducted Emissions Requirements

2.1 General & Setup :

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the backwall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3825/2 Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPER quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 450 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.6.

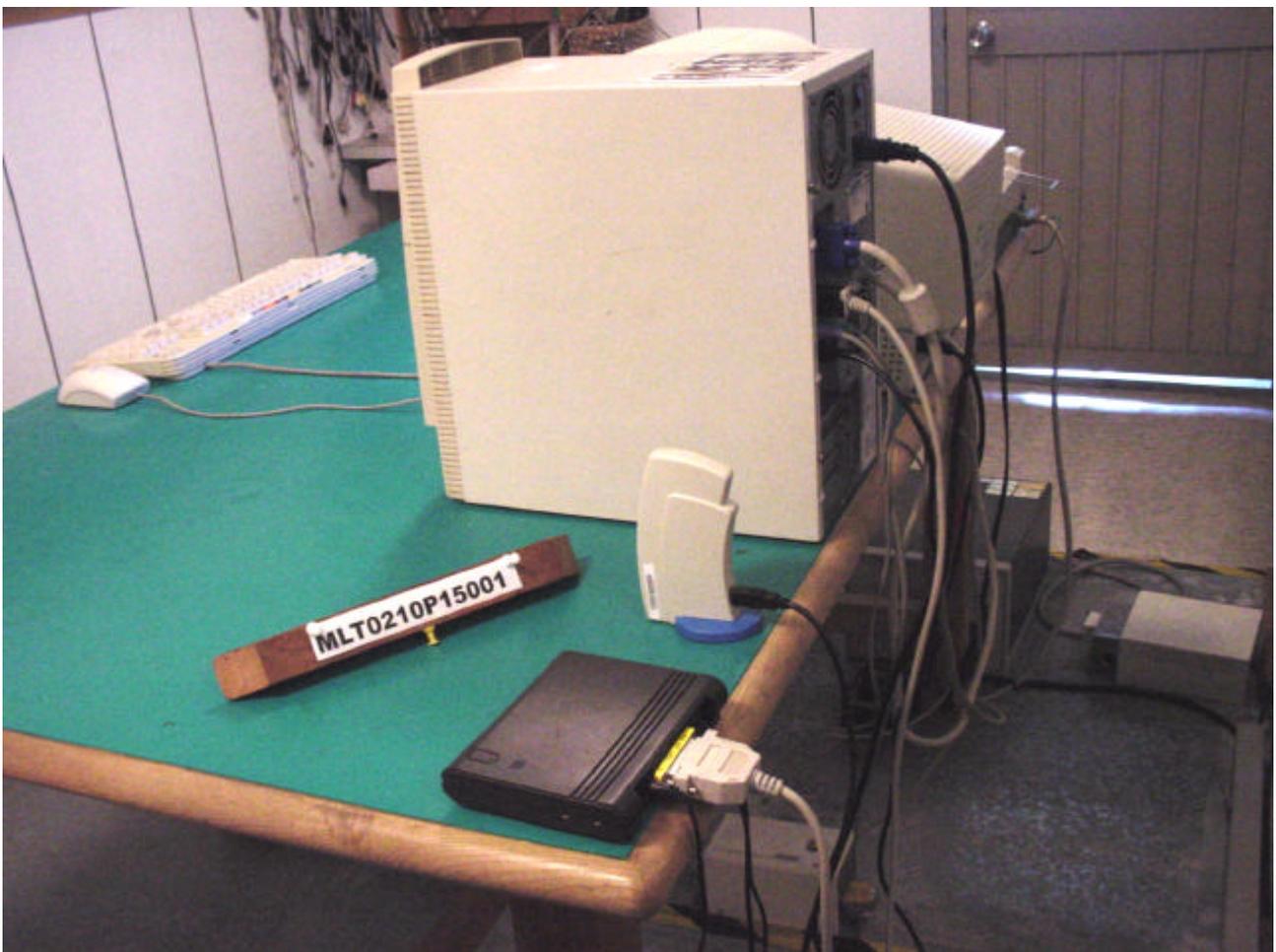
2.2 Test Equipment List:

- A. EMCO 3825/2 LISN (S/N:2654)
- B. EMCO 3825/2 LISN (S/N:2658)
- C. HP 8591EM 9KHZ-1.8GHz Spectrum Analyzer (S/N:73412A00110)
- D. Shielded Room (MLT-SR1)

2.3 Test Configuration:



Front View of The Test Configuration



Rear View of The Test Configuration



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2.4 Test condition:

EUT tested in accordance with the specifications given by the manufacturer , and exercised in the most unfavorable manner.

2.5 Conducted Emissions Limits:

<i>Frequency range (MHz)</i>	<i>Limits (dBuV)</i>
0.45 to 30	47.9

2.6 Measurement Data Of Conducted Emissions:

2.6.1 Conducted Emissions (Subpart B)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Manufacturer : AMBIT Microsystems Corporation.
Model No : K12H006 / U10H010
EUT : Wireless USB Dongle Card
Test Mode : Run "Ping" Command

Power Line Conducted Emissions (Class B)			
Conductor	Frequency (MHz)	Peak Amplitude (dBuV)	Limits (dBuV)
L1	0.52	40.64	47.9
	0.63	39.44	47.9
	0.82	44.22	47.9
	0.95	38.31	47.9
	1.40	38.17	47.9
	2.22	37.58	47.9
	18.14	43.44	47.9
L2	0.52	41.52	47.9
	0.63	42.23	47.9
	0.96	40.47	47.9
	1.07	40.37	47.9
	1.40	40.33	47.9
	1.95	40.61	47.9
	18.14	44.90	47.9

Notes :

- L1: One end & Ground L2: The other end & Ground
- Height of table on which the EUT was placed : 0.8 m.
- The above test results are obtained under the normal condition.



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2.6.2 Conducted Emissions (Subpart C)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Manufacturer : AMBIT Microsystems Corporation.
Model No : K12H006 / U10H010
EUT : Wireless USB Dongle Card
Test Mode : Channel No. 1

Power Line Conducted Emissions (Class B)			
Conductor	Frequency (MHz)	Peak Amplitude (dBuV)	Limits (dBuV)
L1	0.52	40.14	47.9
	0.63	38.94	47.9
	0.96	38.42	47.9
	1.40	38.47	47.9
	1.85	38.44	47.9
	2.64	37.69	47.9
	18.14	43.03	47.9
L2	0.52	41.41	47.9
	0.63	42.59	47.9
	0.74	38.74	47.9
	0.95	40.08	47.9
	1.41	40.27	47.9
	1.94	39.77	47.9
	18.14	45.18	47.9

Notes : 1.L1: One end & Ground L2: The other end & Ground
2.Height of table on which the EUT was placed : 0.8 m.
3.The above test results are obtained under the normal condition.



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2.6.3 Conducted Emissions (Subpart C)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 6*

Power Line Conducted Emissions (Class B)			
Conductor	Frequency (MHz)	Peak Amplitude (dBuV)	Limits (dBuV)
L1	0.52	40.25	47.9
	0.63	39.64	47.9
	0.96	38.72	47.9
	1.40	38.25	47.9
	1.84	38.78	47.9
	3.16	37.03	47.9
	18.14	43.75	47.9
L2	0.52	41.47	47.9
	0.63	42.34	47.9
	0.74	37.66	47.9
	0.96	40.44	47.9
	1.40	40.35	47.9
	1.85	39.86	47.9
	18.14	44.74	47.9

Notes : 1.L1: One end & Ground L2: The other end & Ground
2.Height of table on which the EUT was placed : 0.8 m.
3.The above test results are obtained under the normal condition.



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2.6.4 Conducted Emissions (Subpart C)

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NATURAL conductor of the EUT power.

Manufacturer : AMBIT Microsystems Corporation.
Model No : K12H006 / U10H010
EUT : Wireless USB Dongle Card
Test Mode : Channel No. 11

Power Line Conducted Emissions (Class B)			
Conductor	Frequency (MHz)	Peak Amplitude (dBuV)	Limits (dBuV)
L1	0.52	40.25	47.9
	0.63	39.81	47.9
	0.82	44.86	47.9
	0.96	38.28	47.9
	1.84	38.50	47.9
	9.06	43.69	47.9
	18.14	43.56	47.9
L2	0.52	41.58	47.9
	0.63	42.28	47.9
	0.74	38.71	47.9
	0.96	40.38	47.9
	1.40	40.30	47.9
	1.51	40.21	47.9
	1.94	40.16	47.9

Notes : 1.L1: One end & Ground L2: The other end & Ground
2.Height of table on which the EUT was placed : 0.8 m.
3.The above test results are obtained under the normal condition.



III. Radiated Emissions Requirements

3.1 General Configuration:

Prior to open-field testing, the EUT was placed in a shielded enclosure and scanned at a close distance to determine its emission characteristics. The physical arrangement of the EUT was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude, directivity, and frequency. The exact system configuration which produced the highest emissions was noted so it could be reproduced later during the open-field tests. This was done to ensure that the final measurements would demonstrate the worst-case interference potential of the EUT.

3.2 General Configuration:

Final radiation measurements were made on a three-meter, open-field test site. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 4 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

The field strength below 1 GHz was measured by EMCO Biconilog Antenna (mode 3142) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 40 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).



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Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post - detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in microvolts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in microvolts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m)} = \text{FI(dBuV)} + \text{AF(dBuV)} + \text{CL(dBuV)} - \text{Gain(dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(1) For fundamental frequency :

Transmitter Output < +30dBm

(2) For spurious frequency :

Spurious emission limits = fundamental emission limit /10



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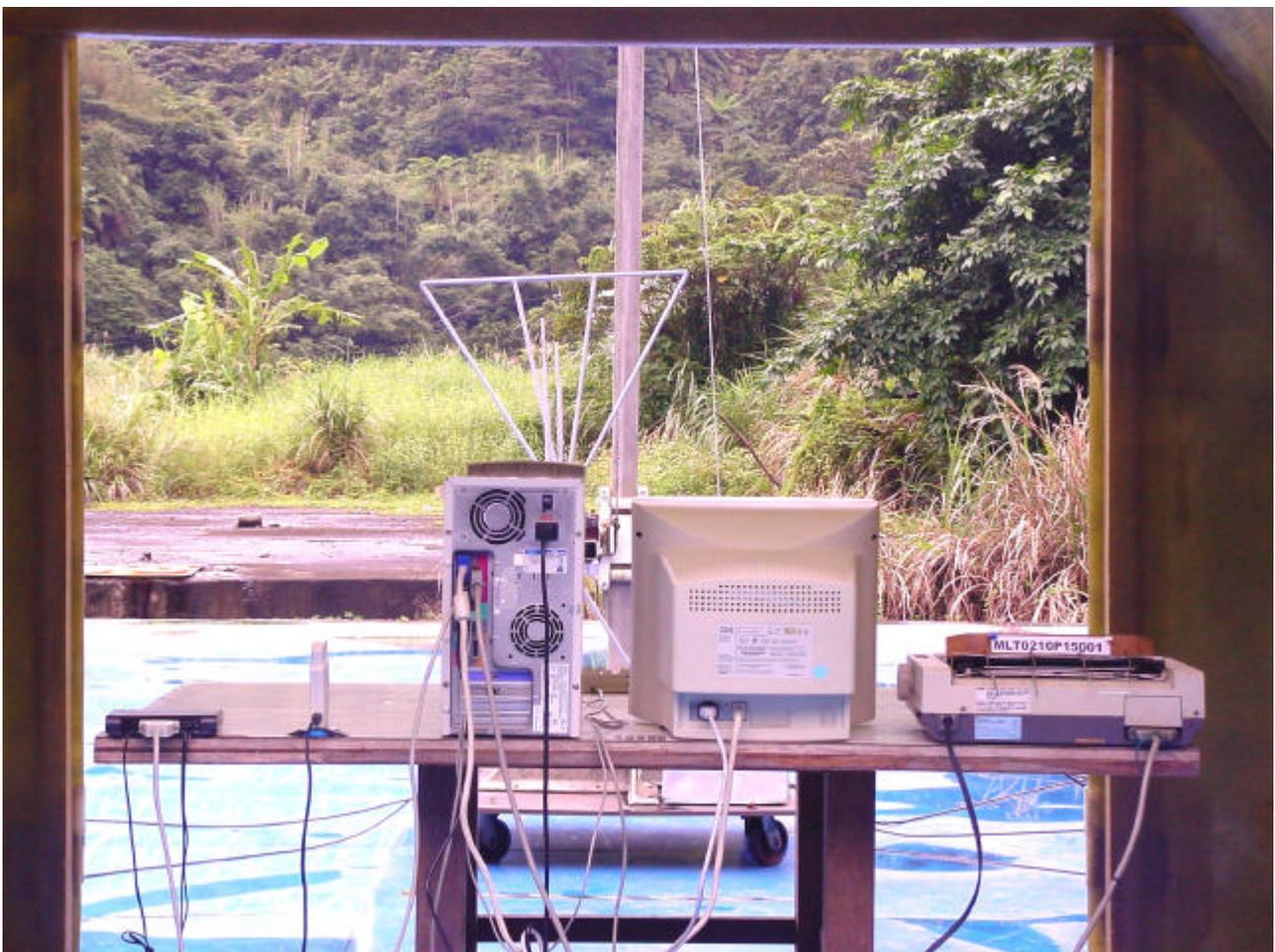
3.2 Test Equipment List:

- A. HP 8591EM 9KHz-1.8GHz Spectrum Analyzer (S/N:73412A00230)
- B. HP 8447D Pre Amplifier (S/N:2944A08954)
- C. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- D. HP 8449B Pre Amplifier (S/N:1982901A91)
- E. SCHWARZBECK BBHA 9120D Biconilog Antenna (S/N:141S3)
- F. SCHWARZBECK BBHA 9170 Biconilog Antenna (S/N:192S5)

3.3 Test Configuration:



Front View of The Test Configuration



Rear View of The Test Configuration



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3.4 Test condition:

EUT tested in accordance with the specifications given by the manufacturer , and exercised in the most unfavorable manner.

3.5 Radiated Emissions Limits:

<i>Frequency range (MHz)</i>	<i>Peak(dBuV)</i>
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54



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3.6 Measurement Data Of Radiated Emissions:

3.6.1 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Run "Ping" Command*

Radiated Emissions (HORIZONTAL)					
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Limits(Class B) (dBuV/m)	Margin (dB)
60.60	34.71	2	210	40	-5.29
108.71	29.88	1.5	360	43.5	-13.62
121.97	34.36	1	240	43.5	-9.14
176.37	32.76	2	300	43.5	-10.74
189.63	35.65	2.5	120	43.5	-7.85
197.79	32.32	2	270	43.5	-11.18
207.22	31.87	1.5	320	43.5	-11.63
301.60	33.87	2	250	46	-12.13
504.00	39.89	2	320	46	-6.11
594.40	34.65	1	340	46	-11.35
645.60	38.49	1.5	190	46	-7.51

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Amplitude= Reading Amplitude -Amplifier gain+Cable loss
+Antenna factor
(Auto calculate in spectrum analyzer)



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3.6.2 Open Field Radiated Emissions (Subpart B)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following.

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Run "Ping" Command*

Radiated Emissions (VERTICAL)					
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Limits(Class B) (dBuV/m)	Margin (dB)
60.60	34.76	1	290	40	-5.24
84.40	32.88	1.5	360	40	-7.12
133.36	32.86	1	290	43.5	-10.64
172.12	35.76	1.5	130	43.5	-7.74
189.63	34.76	1	40	43.5	-8.74
197.79	36.65	1.5	240	43.5	-6.85
207.20	35.76	1	350	43.5	-7.74
301.60	37.65	2	240	46	-8.35
510.40	38.65	1	210	46	-7.35
638.40	35.76	1.5	340	46	-10.24
779.20	39.87	1	130	46	-6.13

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Amplitude= Reading Amplitude -Amplifier gain+Cable loss +Antenna factor
(Auto calculate in spectrum analyzer)



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3.6.3 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 1*

Radiated Emissions (HORIZONTAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1082.00	56.35	1.1	360	0	9.54	46.81	74.00	-27.19
4824.09	51.87	1	240	0	9.54	42.33	74.00	-31.67
4832.50	63.29	1	290	0	9.54	53.75	74.00	-20.25
7244.00	53.78	1	120	0	9.54	44.24	74.00	-29.76
9648.74	55.10	1.1	340	0	9.54	45.56	74.00	-28.44
12059.87	56.93	1	230	0	9.54	47.39	74.00	-26.61
14472.23	55.92	1	200	0	9.54	46.38	74.00	-27.62

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss +Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



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3.6.4 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following.

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 1*

Radiated Emissions (VERTICAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1092.50	55.89	1	230	0	9.54	46.35	74.00	-27.65
4824.09	52.58	1.2	340	0	9.54	43.04	74.00	-30.96
4832.50	60.49	1	190	0	9.54	50.95	74.00	-23.05
7244.00	61.47	1	230	0	9.54	51.93	74.00	-22.07
9648.56	54.25	1	100	0	9.54	44.71	74.00	-29.29
12059.87	56.54	1	350	0	9.54	47.00	74.00	-27.00
14472.23	56.23	1	230	0	9.54	46.69	74.00	-27.31

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss +Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



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3.6.5 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 6*

Radiated Emissions (HORIZONTAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1091.87	54.28	1	220	0	9.54	44.74	74.00	-29.26
4832.50	61.45	1	300	0	9.54	51.91	74.00	-22.09
4874.21	51.49	1	320	0	9.54	41.95	74.00	-32.05
7244.76	60.73	1	120	0	9.54	51.19	74.00	-22.81
9748.56	55.22	1	280	0	9.54	45.68	74.00	-28.32
12186.09	54.08	1	360	0	9.54	44.54	74.00	-29.46
14620.78	55.17	1	230	0	9.54	45.63	74.00	-28.37

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss +Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



MAX LIGHT

MEASUREMENT REPORT

3.6.6 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following.

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 6*

Radiated Emissions (VERTICAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1091.87	56.87	1	270	0	9.54	47.33	74.00	-26.67
4832.50	60.92	1	180	0	9.54	51.38	74.00	-22.62
4874.21	52.78	1	300	0	9.54	43.24	74.00	-30.76
7244.76	61.47	1	280	0	9.54	51.93	74.00	-22.07
9748.56	54.34	1	180	0	9.54	44.80	74.00	-29.20
12186.09	55.79	1	310	0	9.54	46.25	74.00	-27.75
14620.78	54.23	1	360	0	9.54	44.69	74.00	-29.31

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss +Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



MAX LIGHT

MEASUREMENT REPORT

3.6.7 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following

Manufacturer : AMBIT Microsystems Corporation.
Model No : K12H006 / U10H010
EUT : Wireless USB Dongle Card
Test Mode : Channel No. 11

Radiated Emissions (HORIZONTAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1092.50	55.78	1	330	0	9.54	46.24	74.00	-27.76
4832.60	62.08	1.2	200	0	9.54	52.54	74.00	-21.46
4924.85	52.34	1	120	0	9.54	42.80	74.00	-31.20
7244.00	56.53	1	280	0	9.54	46.99	74.00	-27.01
9847.98	55.09	1	360	0	9.54	45.55	74.00	-28.45
12310.21	56.98	1	120	0	9.54	47.44	74.00	-26.56
14772.29	56.23	1	360	0	9.54	46.69	74.00	-27.31

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss
+Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



MAX LIGHT

MEASUREMENT REPORT

3.6.8 Open Field Radiated Emissions (Subpart C)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation , etc. are recorded on the following.

Manufacturer : *AMBIT Microsystems Corporation.*
Model No : *K12H006 / U10H010*
EUT : *Wireless USB Dongle Card*
Test Mode : *Channel No. 11*

Radiated Emissions (VERTICAL)								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1088.23	55.24	1	250	0	9.54	45.70	74.00	-28.30
4832.60	62.78	1	340	0	9.54	53.24	74.00	-20.76
4924.74	51.06	1	160	0	9.54	41.52	74.00	-32.48
7244.39	54.54	1	230	0	9.54	45.00	74.00	-29.00
9847.98	56.39	1	300	0	9.54	46.85	74.00	-27.15
12310.21	55.23	1	320	0	9.54	45.69	74.00	-28.31
14772.29	54.16	1	320	0	9.54	44.62	74.00	-29.38

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Distance of Measurement : 3 Meter (30-1000MHz)
 - 3.Height of table for EUT placed: 0.8 Meter.
 - 4.ANT= Antenna height.
 - 5.Duty= Duty cycle correction factor.
 - 6.Dis= Distance extrapolation factor.
 - 7.Amplitude= Reading Amplitude - Amplifier gain+Cable loss
+Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



IV. Maximum Conducted Output Power Requirements

4.1 Test Condition & Setup :

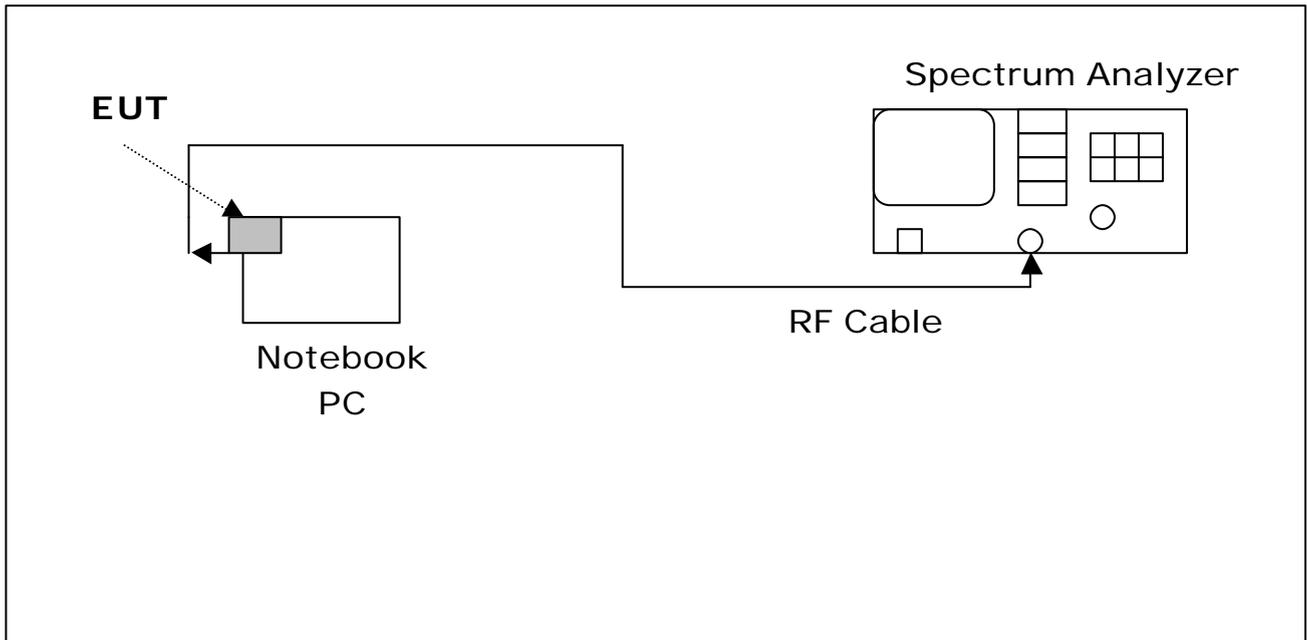
The tests below are run with the EUT's transmitter set at high power in TDD mode. A RJ-45 port from a computer to the EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to spectrum analyzer. The maximum peak output power shall not exceed 1 watt.

Use a direct connection between the antenna port of transmitter and the spectrum Analyzer, for prevent the spectrum analyzer input attenuation 40-50 dB. Set the RBW Bandwidth of the emission or use a channel power meter mode .

For antennas with gains of 6 dBi or less , maximum allowed transmitter output is 1 watt (+30 dBm). For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to $(\text{GAIN} - 6)/3$ dBm.

The antenna port of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

4.2 Test Instruments Configuration:



4.3 Test Equipment List:

- A. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- B. HP 8449B Pre Amplifier (S/N:1982901A91)
- E. Shielded Room (MLT-SR1)

4.4 Test Result:

Frequency (MHz)	Output(dBm)	Required Limit
2412	11.87	<30dBm
2437	11.92	<30dBm
2462	11.53	<30dBm

Note :Test Graphs See next page.



MAX LIGHT

MEASUREMENT REPORT

CH1 (MLT0210P15001)

Oct 28 14:19:50

REF 15.1 dBm

*ATT 40dB

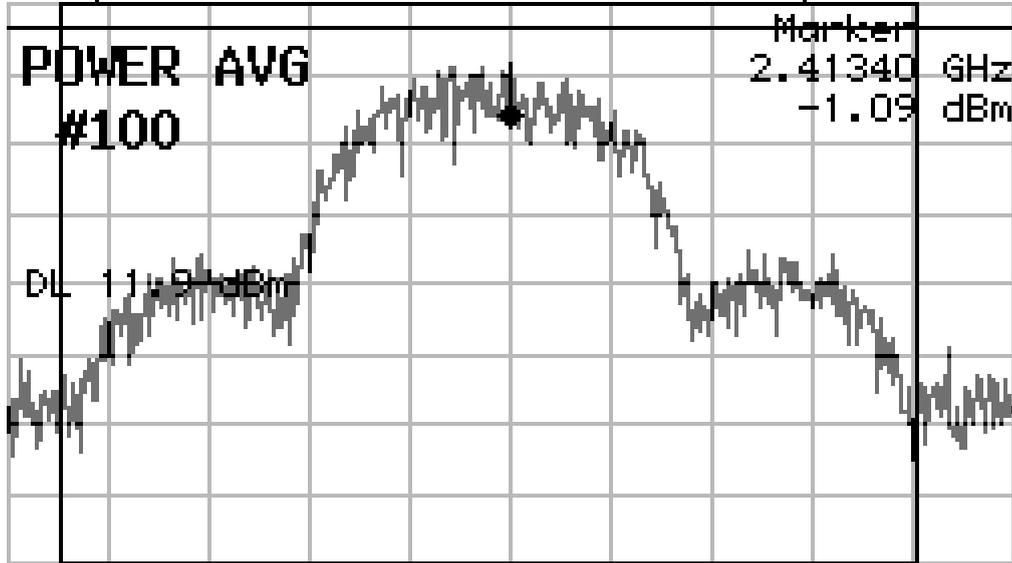
A_wrt

B_blink

10dB/

Smpl

Posi



CH Power

CH Power

ON /OFF

CH BW

POS /WD

CH BW

SRT /STP

Channel Power 100/100
11.87 dBm

CENTER 2.41340 GHz SPAN 50.0 MHz
 *RBW 1 MHz *VBW 1 MHz *SWP 100 ms



MAX LIGHT

MEASUREMENT REPORT

CH6 (MLT0210P15001)

Oct 28 14:16:26

REF 15.1 dBm

*ATT 40dB

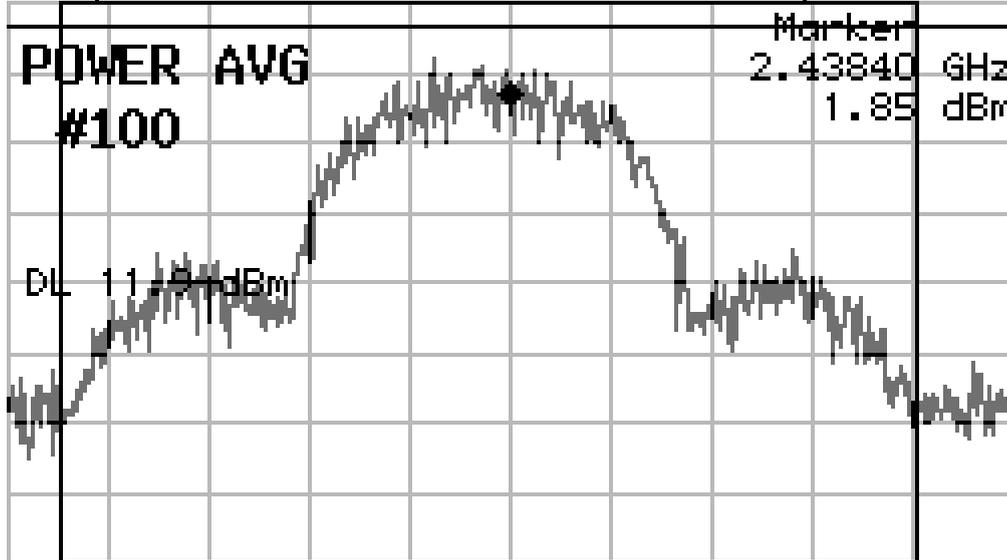
A_wrt

B_blnk

10dB/

Smpl

Posi



CH Power

CH Power

ON /OFF

CH BW

POS /WD

CH BW

SRT /STP

Channel Power 100/100

11.92 dBm

CENTER 2.43840 GHz SPAN 50.0 MHz
 *RBW 1 MHz *VBW 1 MHz *SWP 100 ms



MAX LIGHT

MEASUREMENT REPORT

CH11 (MLT0210P15001)

Oct 28 14:12:37

REF 15.1 dBm

*ATT 40dB

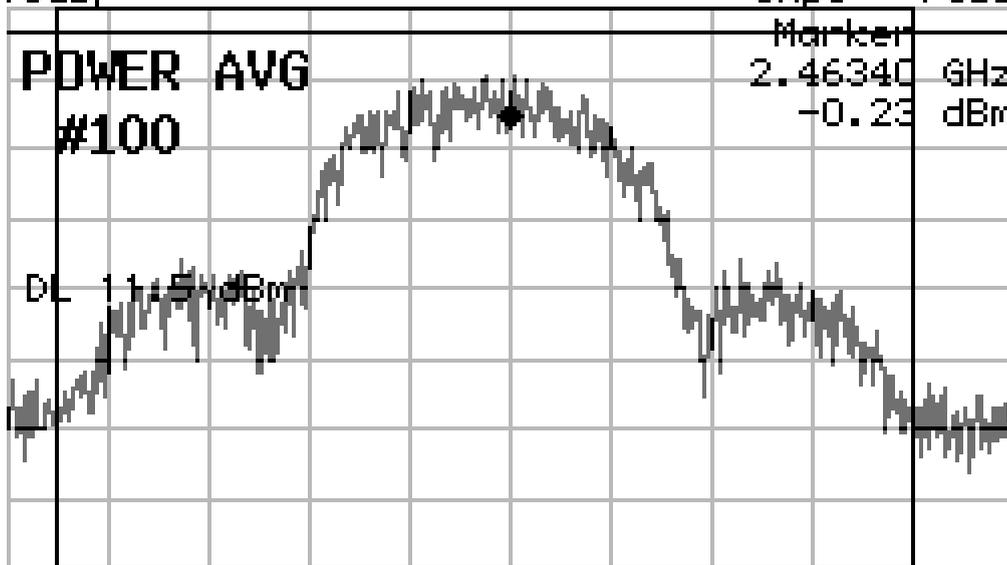
A_wrt

B_blink

10dB/

Smpl

Posi



CH Power

CH Power

ON /OFF

CH BW

POS /WD

CH BW

SRT /STP

Channel Power 100/100

11.53 dBm

CENTER 2.46350 GHz SPAN 50.0 MHz

*RBW 1 MHz *VBW 1 MHz *SWP 100 ms

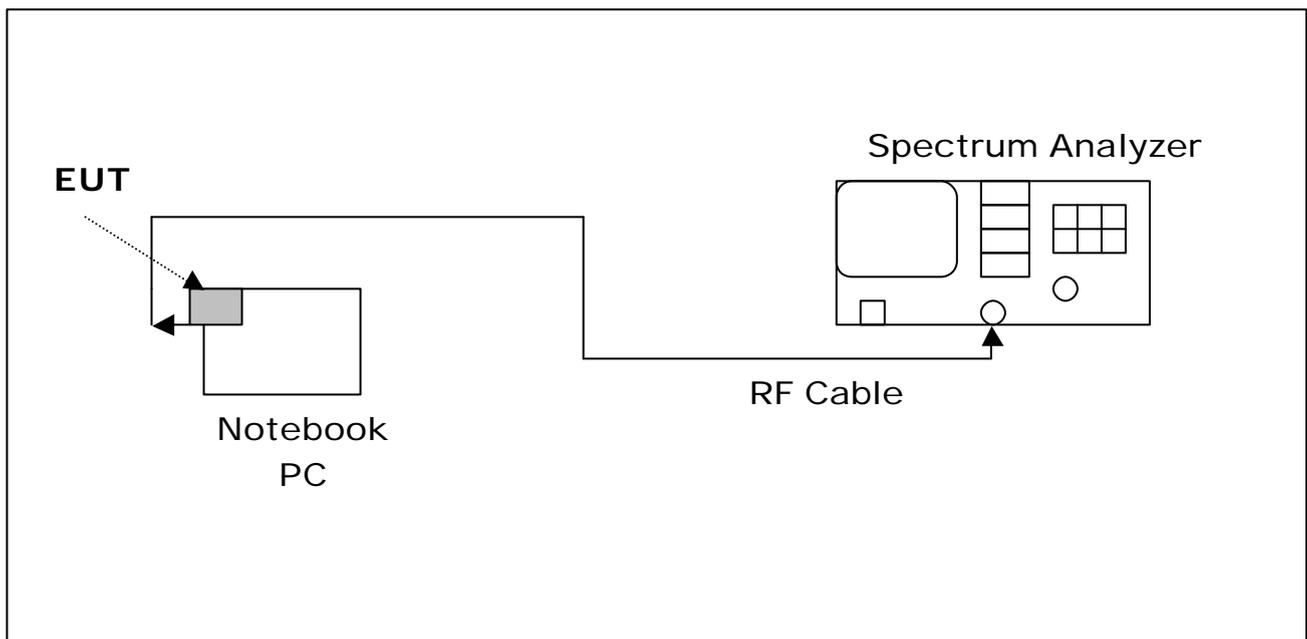
V. Minimum 6dB RF Bandwidth Requirements

5.1 Test Condition & Setup :

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

The test was performed at 3 channels (Channel 1, 6,11)

5.2 Test Instruments Configuration:





5.3 Test Equipment List:

- A. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- B. HP 8449B Pre Amplifier (S/N:1982901A91)
- E. Shielded Room (MLT-SR1)

5.4 Test Result:

Frequency (MHz)	Min. 6dB Bandwidth (MHz)	Required Limit
2412	12.50	>500KHz
2437	11.40	>500KHz
2462	11.50	>500KHz

Note :Test Graphs See next page.



MAX LIGHT

MEASUREMENT REPORT

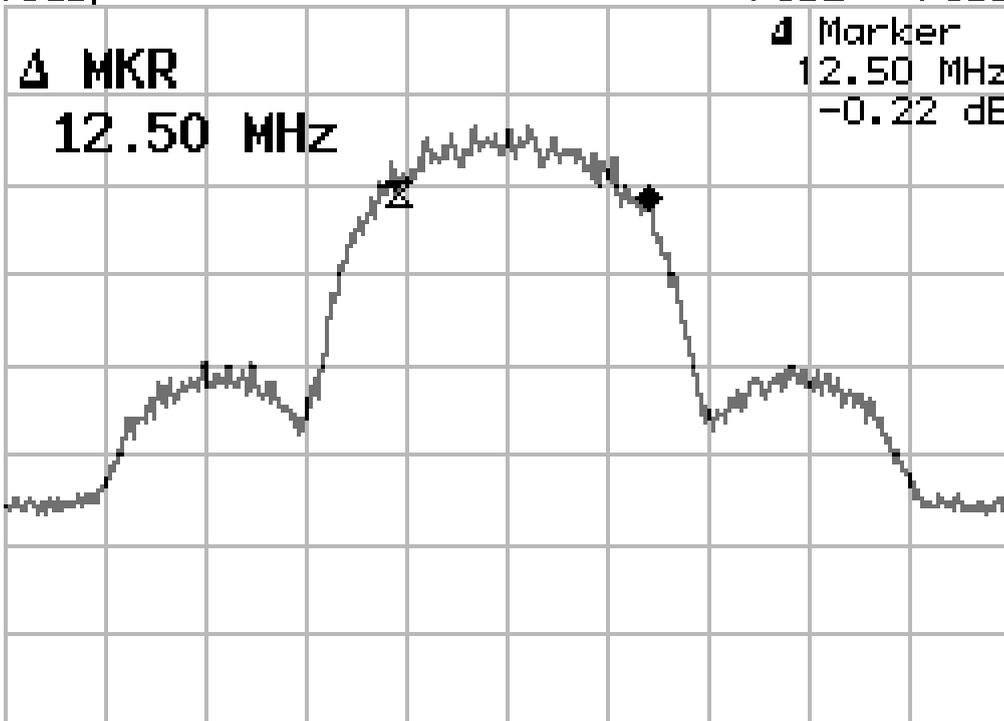
CH1 (MLT0210P15001)

Oct 28 15:13:25

REF 15.1 dBm
10dB/

*ATT 40dB

A_max B_blnk
Posi Posi



Marker(1)

Normal
Marker

Delta
Marker

Peak
Menu ▶

Sig Track
ON /OFF

Sound ▶

Marker
Off

CENTER 2.41220 GHz SPAN 50.0 MHz
*RBW 100 kHz *VBW 100 kHz *SWP 100 ms

1/2, more▶



MAX LIGHT

MEASUREMENT REPORT

CH6 (MLT0210P15001)

Oct 28 15:18:37

REF 15.1 dBm
10dB/

*ATT 40dB

A_max B_blnk
Posi Posi

Marker(1)

Δ MKR

11.40 MHz

Marker
11.40 MHz
0.00 dB

Normal
Marker

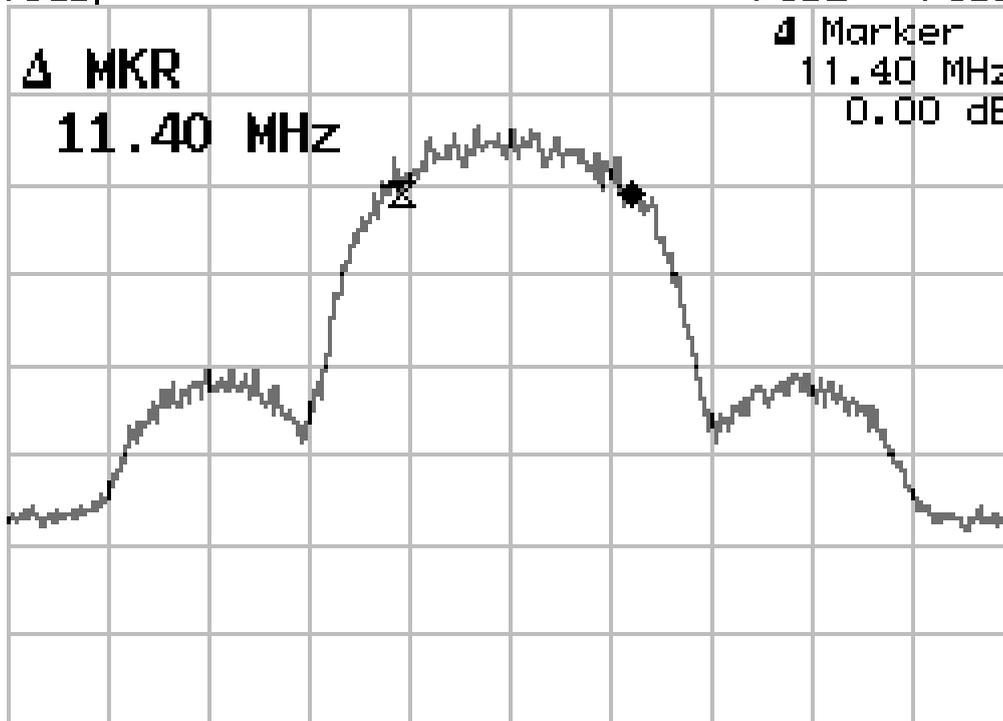
Delta
Marker

Peak
Menu ▶

Sig Track
ON /OFF

Sound ▶

Marker
Off



CENTER 2.43720 GHz SPAN 50.0 MHz
*RBW 100 kHz *VBW 100 kHz *SWP 100 ms

1/2, more▶



MAX LIGHT

MEASUREMENT REPORT

CH11 (MLT0210P15001)

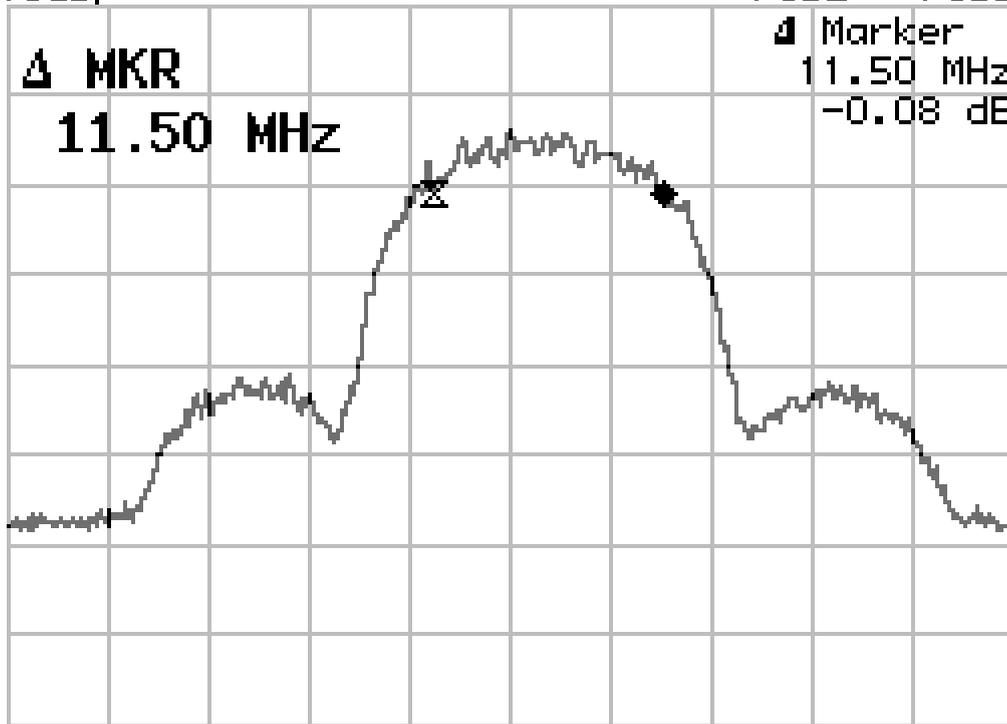
Oct 28 15:22:27

REF 15.1 dBm
10dB/

*ATT 40dB

A_max B_blnk
Posi Posi

Marker(1)



Normal

Marker

Delta
Marker

Peak
Menu ▶

Sig Track
ON /OFF

Sound ▶

Marker
Off

CENTER 2.46050 GHz SPAN 50.0 MHz
*RBW 100 kHz *VBW 100 kHz *SWP 100 ms

1/2, more▶

VI. Maximum Power Density Requirements

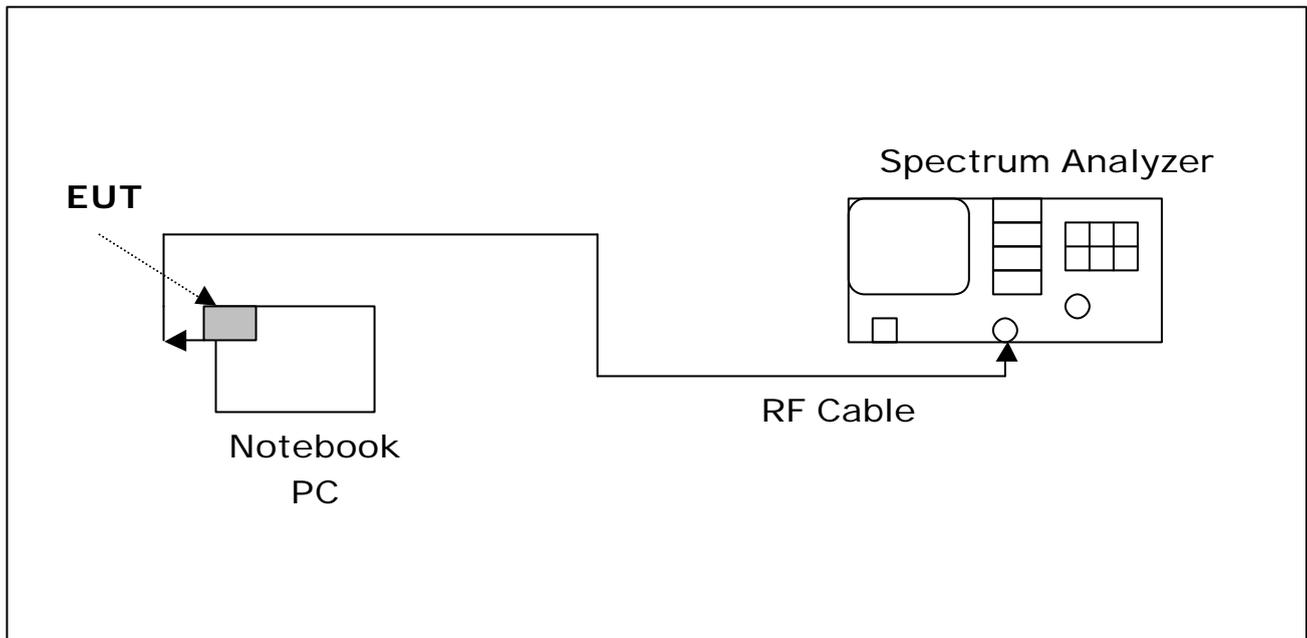
6.1 Test Condition & Setup :

The spectrum analyzer RES BW was set to 3 kHz. The START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs. The specification calls for a 1 second interval at each 3 kHz bandwidth; total SWEEP TIME is calculated as follows:

$$\text{SWEEP TIME (SEC)} = (\text{Fstop, kHz} - \text{Fstart, kHz}) / 3 \text{ kHz}$$

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

6.2 Test Instruments Configuration:





MAX LIGHT

MEASUREMENT REPORT

6.3 Test Equipment List:

- A. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- B. HP 8449B Pre Amplifier (S/N:1982901A91)
- E. Shielded Room (MLT-SR1)

6.4 Test Result:

Frequency (MHz)	Power Density (dBm)	Required Limit
2412	-11.86	<8dBm
2437	-11.53	<8dBm
2462	-10.36	<8dBm

Note :

1. Frequency Span= 600 kHz
2. Sweep Time = Frequency Span/3 kHz=200secs
3. Test Graphs See next page.



MAX LIGHT

MEASUREMENT REPORT

CH1 (MLT0210P15001)

Oct 28 16:17:44

Sweep

REF 10.0 dBm

*ATT 40dB

A_wrt

B_blnk

10dB/

Posi

Posi

SWP Time

SWEEP

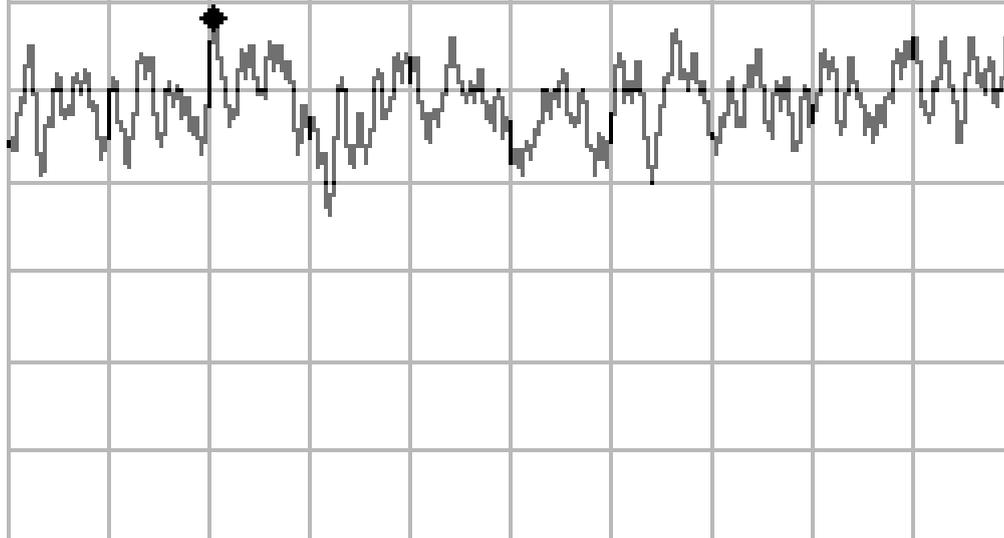
Marker
2.4117224 GHz

AUTO /MNL

200 s

-11.86 dBm

Auto All



Gate Sig
External
ON /OFF

CENTER 2.4119000 GHz SPAN 600 kHz
*RBW 3 kHz *VBW 10 kHz *SWP 200 s



MAX LIGHT

MEASUREMENT REPORT

CH6 (MLT0210P15001)

Oct 28 16:12:01

Sweep

REF 10.0 dBm

*ATT 40dB

A_wrt

B_blnk

10dB/

Posi

Posi

SWP Time

SWEEP

Marker

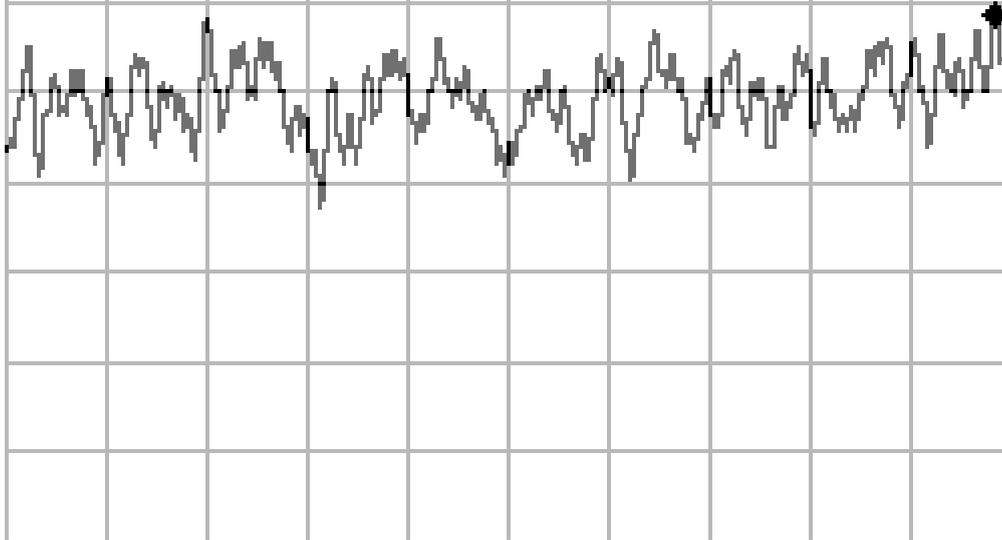
AUTO /MNL

200 s

2.4371892 GHz

-11.53 dBm

Auto All



Gate Sig
External
ON /OFF

CENTER 2.4369000 GHz SPAN 600 kHz
*RBW 3 kHz *VBW 10 kHz *SWP 200 s



MAX LIGHT

MEASUREMENT REPORT

CH11 (MLT0210P15001)

Oct 28 16:02:20

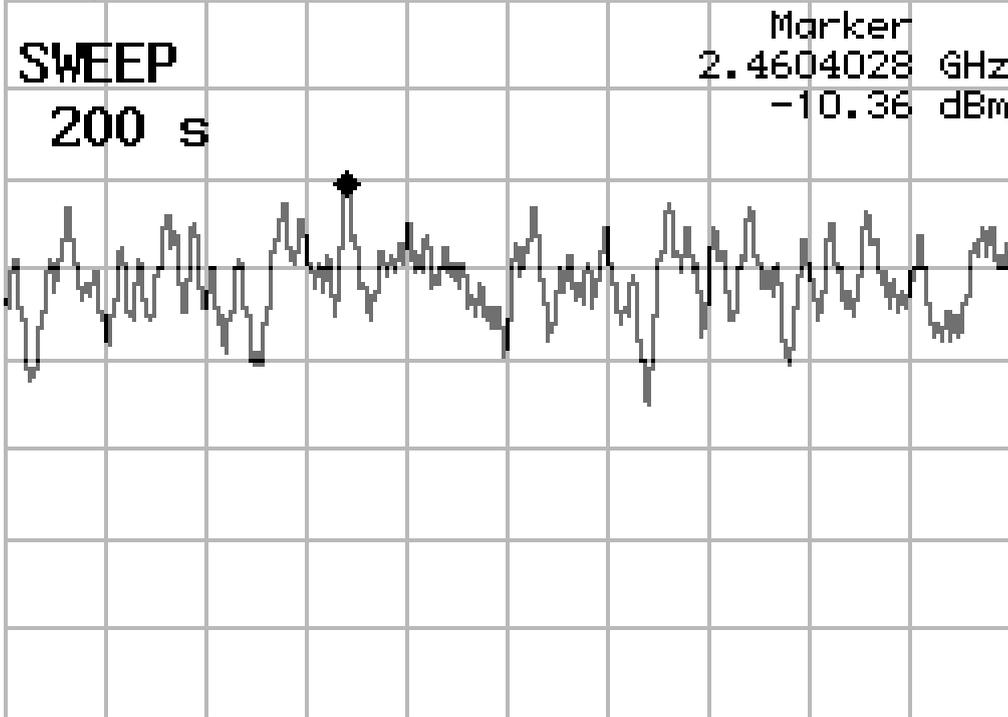
REF 10.0 dBm
10dB/

*ATT 40dB

A_wrt B_blnk

Posi Posi

Sweep



SWP Time
AUTO /MNL

Auto All

Gate Sig
External
ON /OFF

CENTER 2.460500 GHz SPAN 600 kHz
*RBW 3 kHz *VBW 10 kHz *SWP 200 s

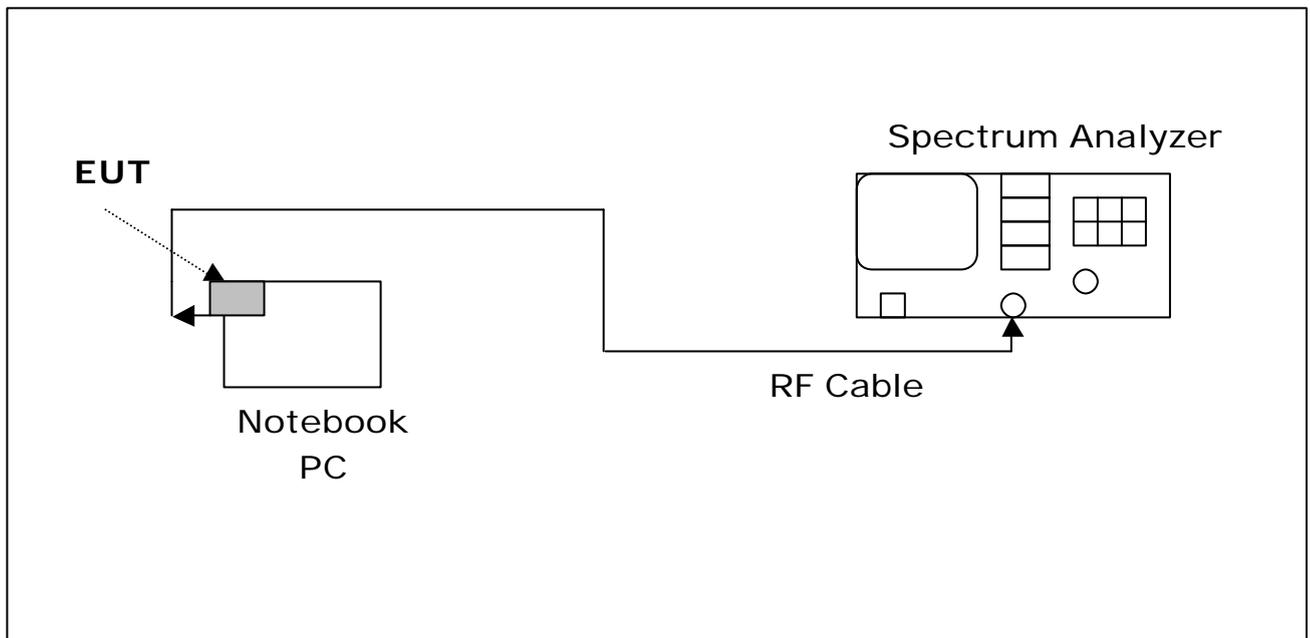
VII. Out of Band Conducted Emissions Requirements

7.1 Test Condition & Setup :

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband. the test was performed at 3 channels (Channel 1, 6,11)

7.2 Test Instruments Configuration:





7.3 Test Equipment List:

- A. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- B. Shielded Room (MLT-SR1)

7.4 Test Result:

Refer to attached data sheets. Data shows out of band emissions are suppressed well below the -20 dBc minimum required by the Rules.

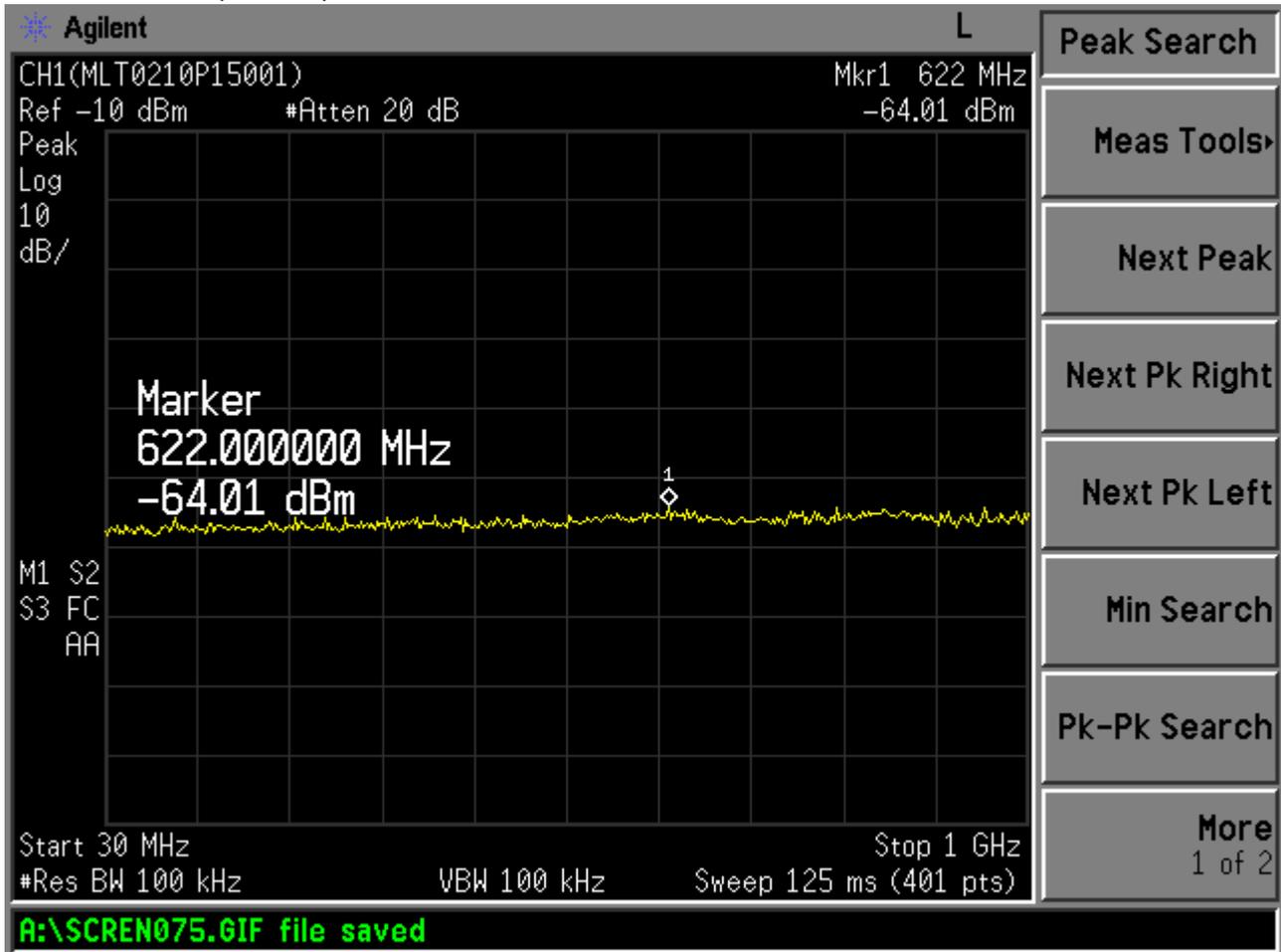
Note : Test Graphs See next page.



MAX LIGHT

MEASUREMENT REPORT

Channel 01 (1 of 5)

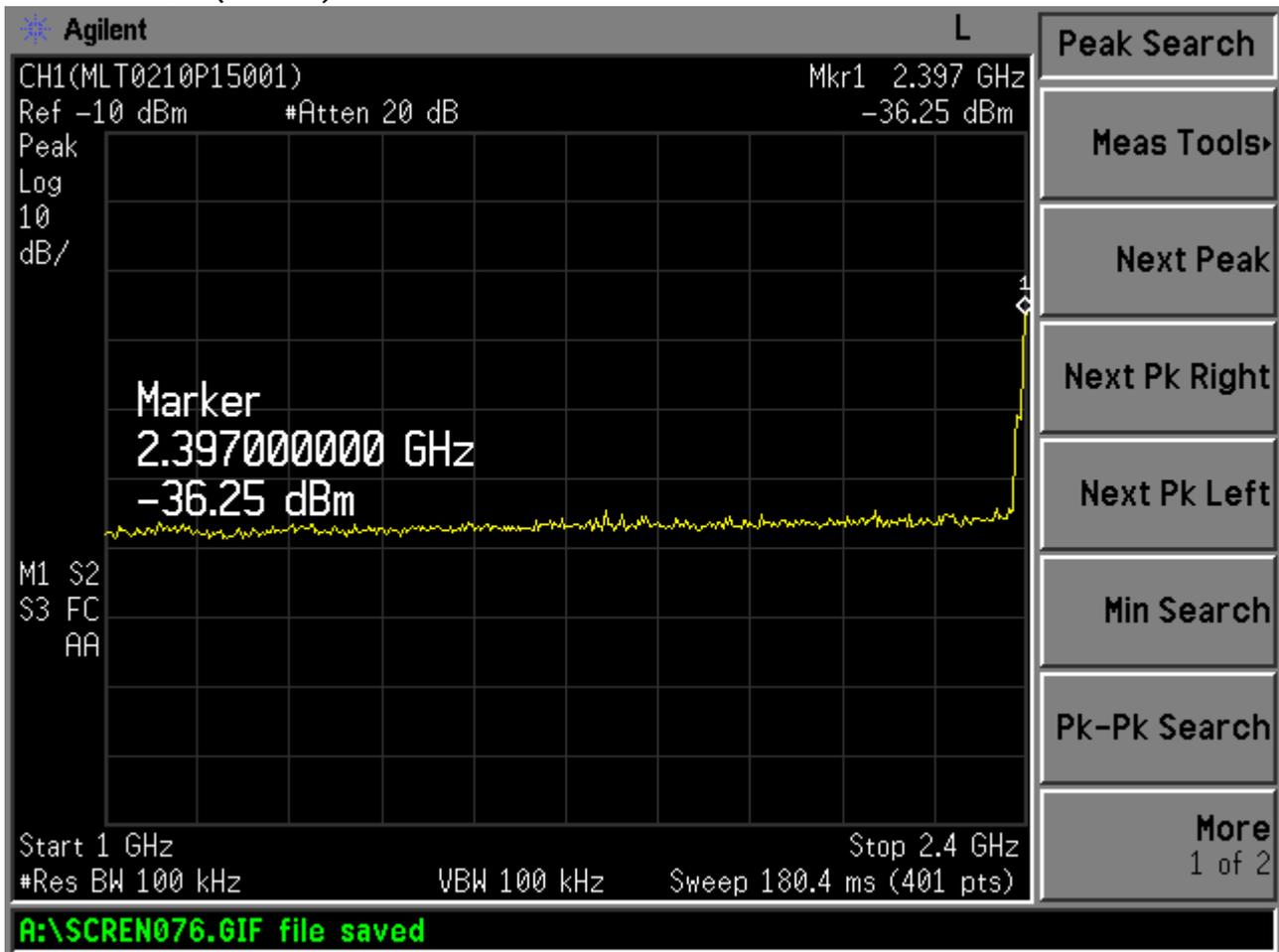




MAX LIGHT

MEASUREMENT REPORT

Channel 01 (2 of 5)

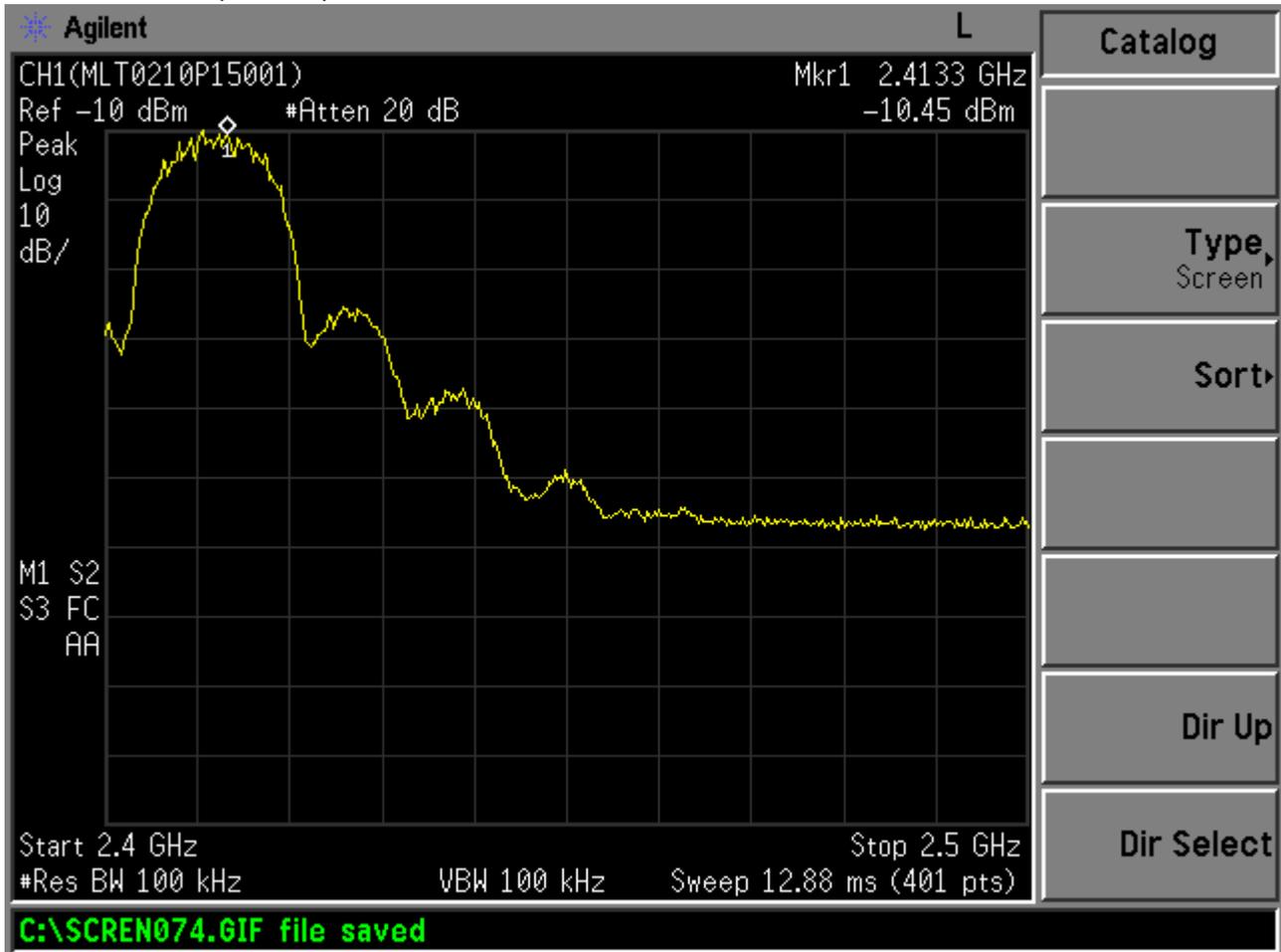




MAX LIGHT

MEASUREMENT REPORT

Channel 01 (3 of 5)

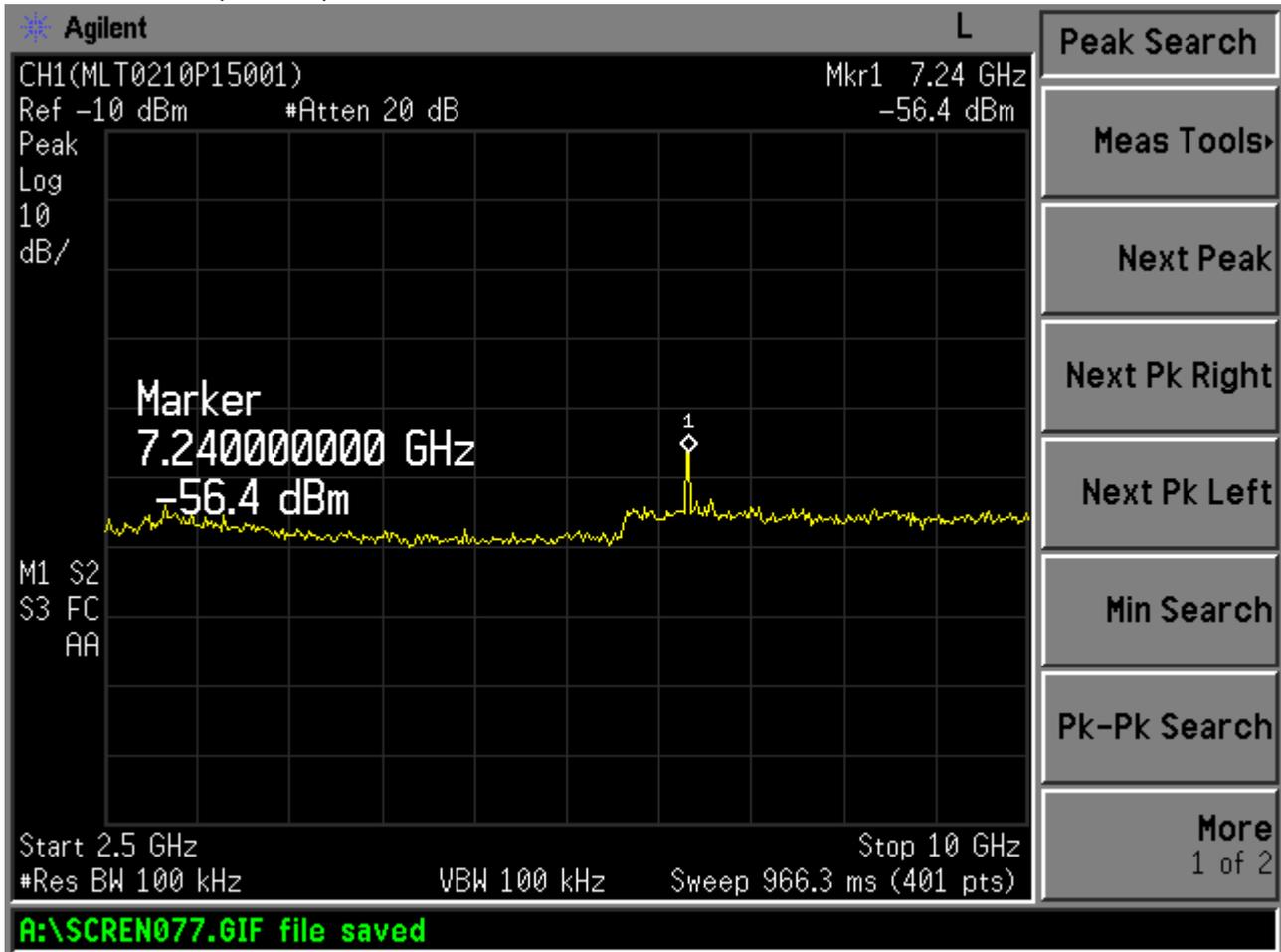




MAX LIGHT

MEASUREMENT REPORT

Channel 01 (4 of 5)





MAX LIGHT

MEASUREMENT REPORT

Channel 01 (5 of 5)

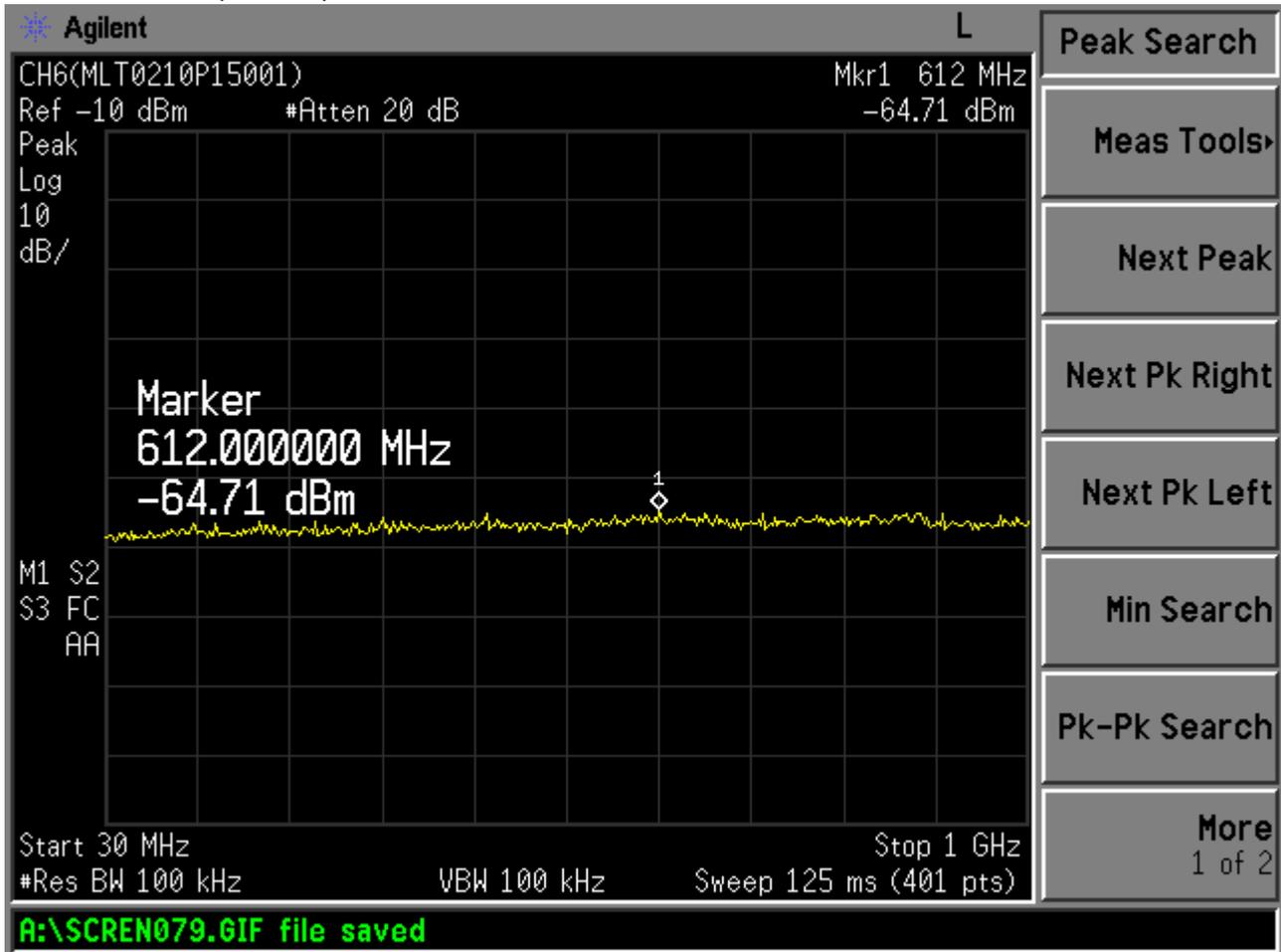




MAX LIGHT

MEASUREMENT REPORT

Channel 06 (1 of 5)

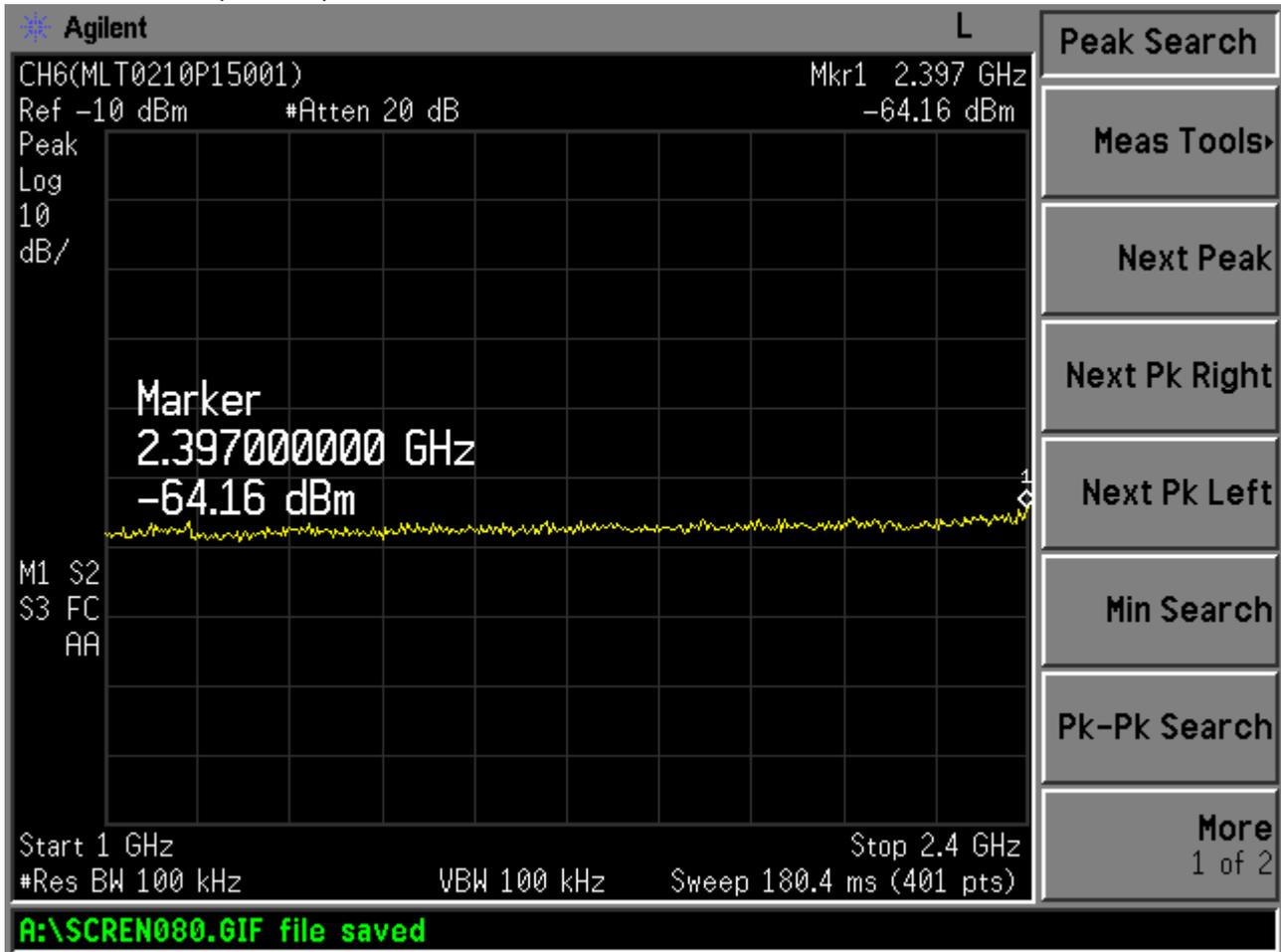




MAX LIGHT

MEASUREMENT REPORT

Channel 06 (2 of 5)

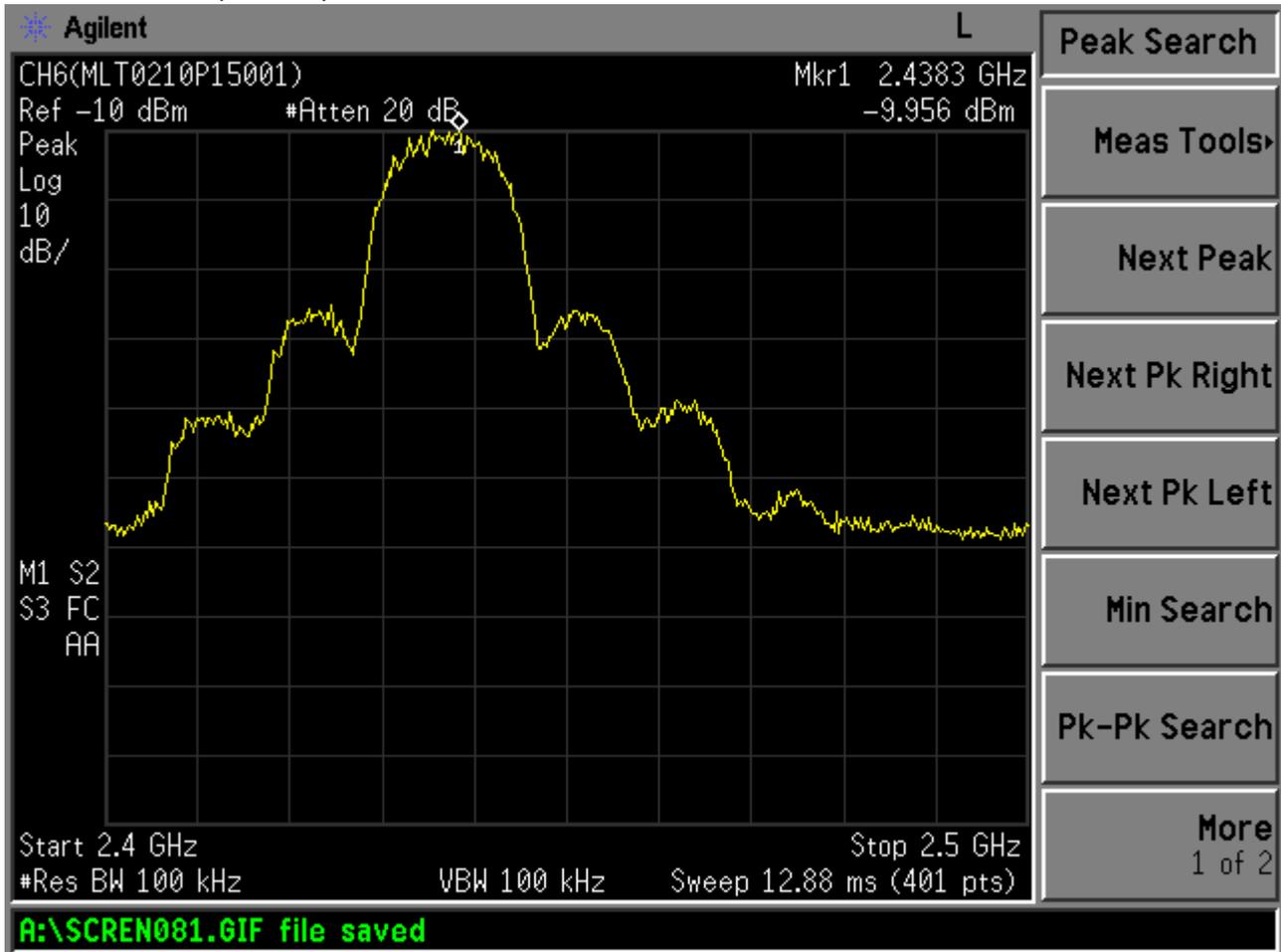




MAX LIGHT

MEASUREMENT REPORT

Channel 06 (3 of 5)

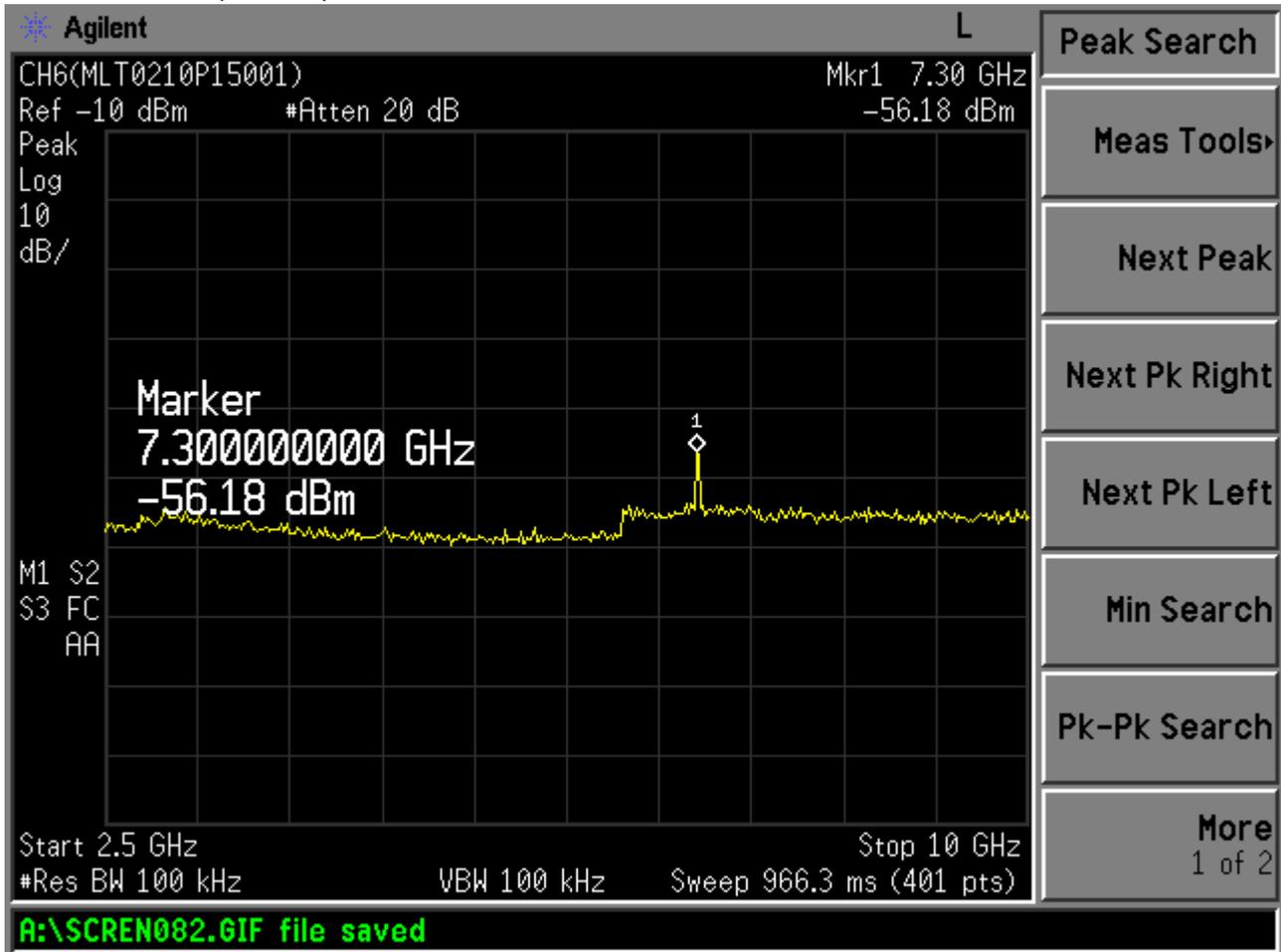




MAX LIGHT

MEASUREMENT REPORT

Channel 06 (4 of 5)





MAX LIGHT

MEASUREMENT REPORT

Channel 06 (5 of 5)

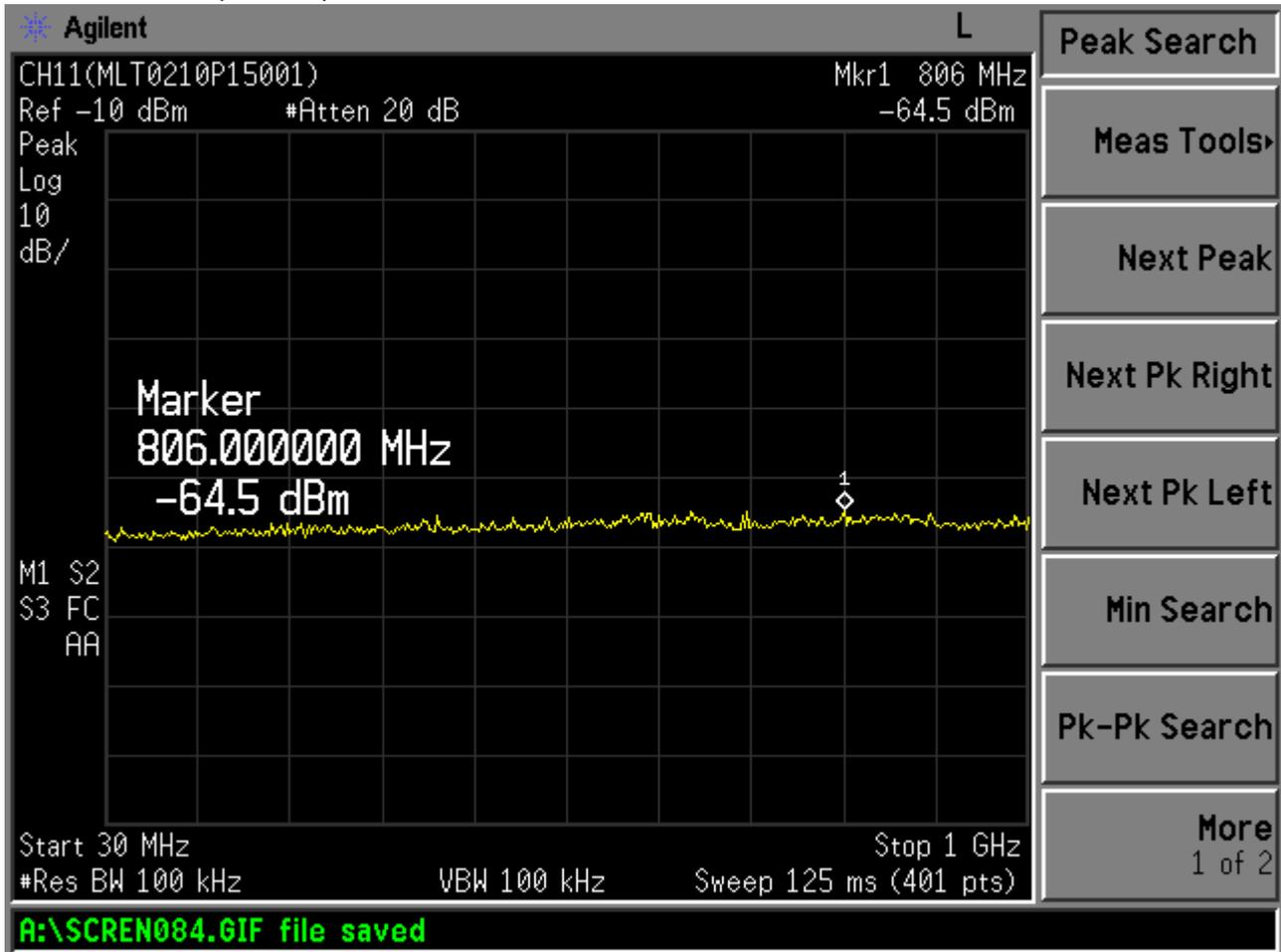




MAX LIGHT

MEASUREMENT REPORT

Channel 11 (1 of 5)

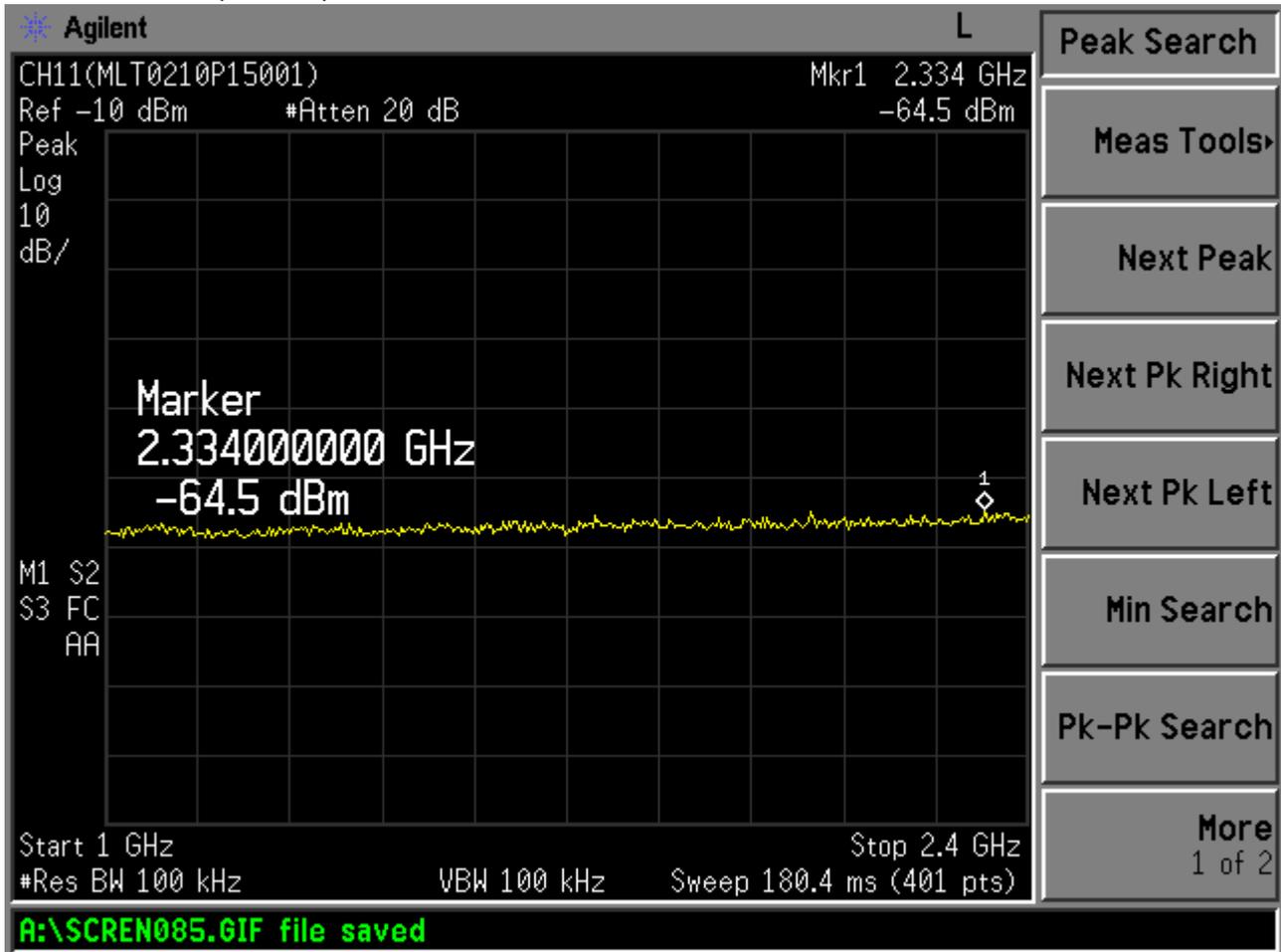




MAX LIGHT

MEASUREMENT REPORT

Channel 11 (2 of 5)

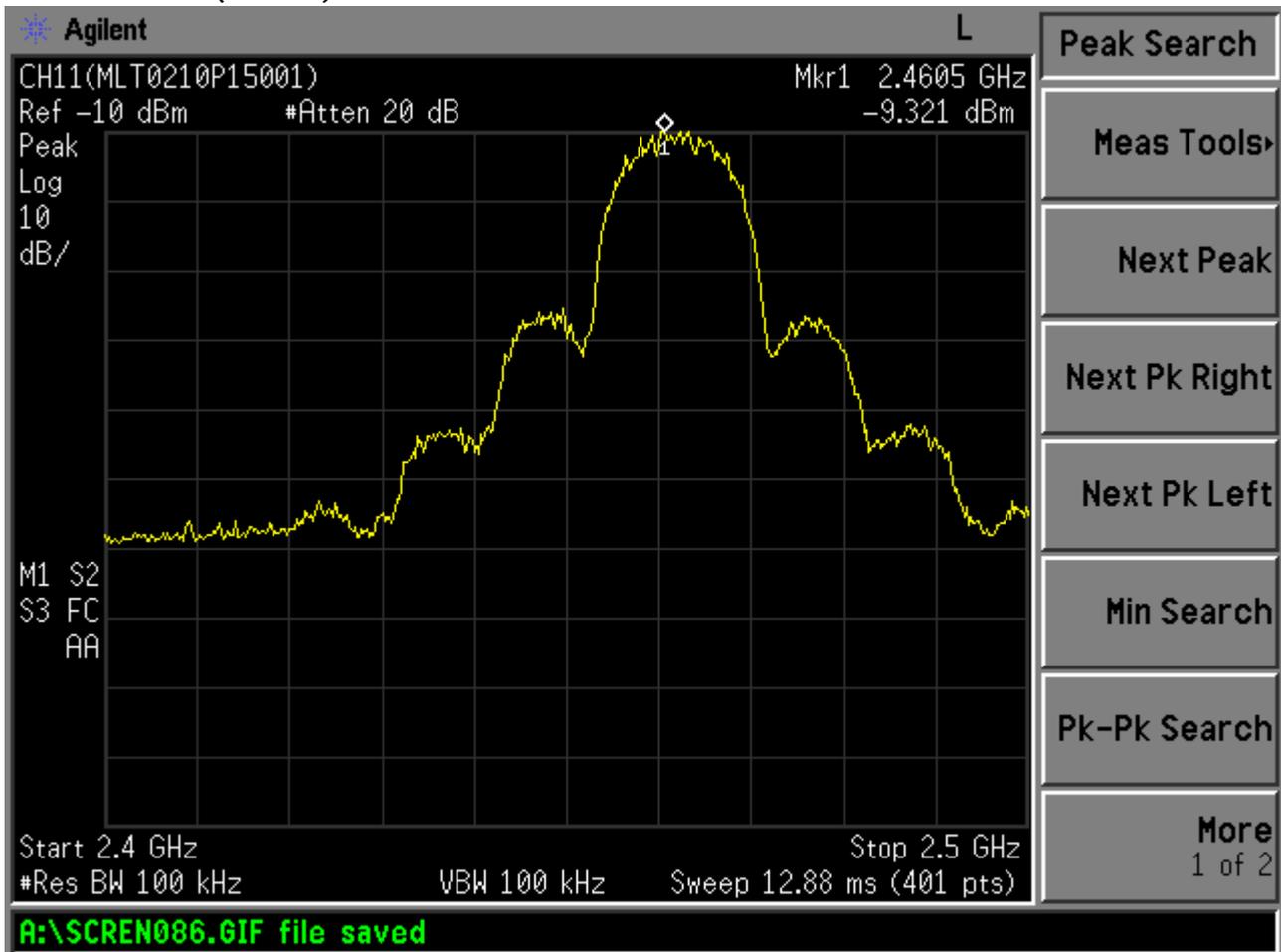




MAX LIGHT

MEASUREMENT REPORT

Channel 11 (3 of 5)

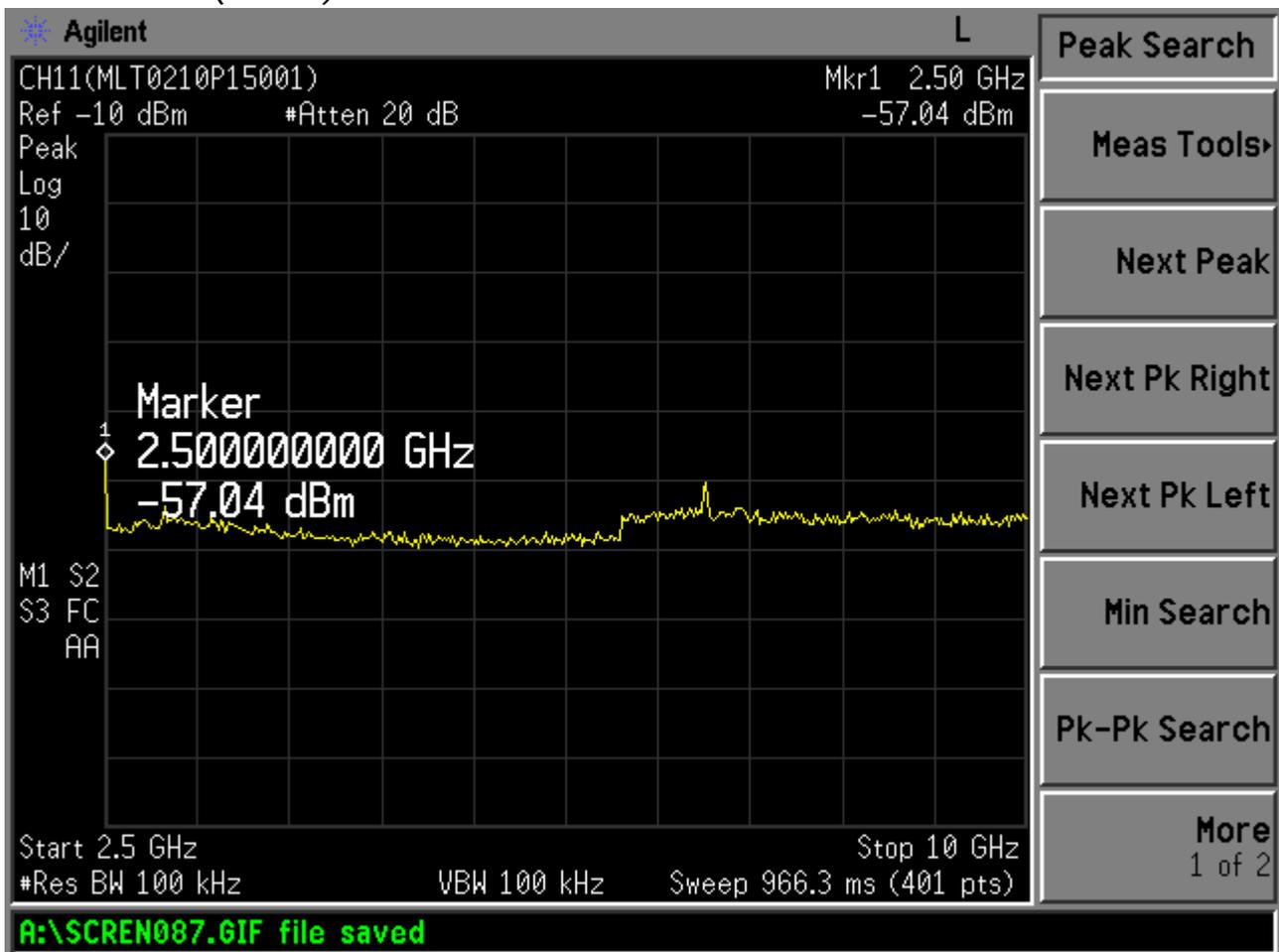




MAX LIGHT

MEASUREMENT REPORT

Channel 11 (4 of 5)

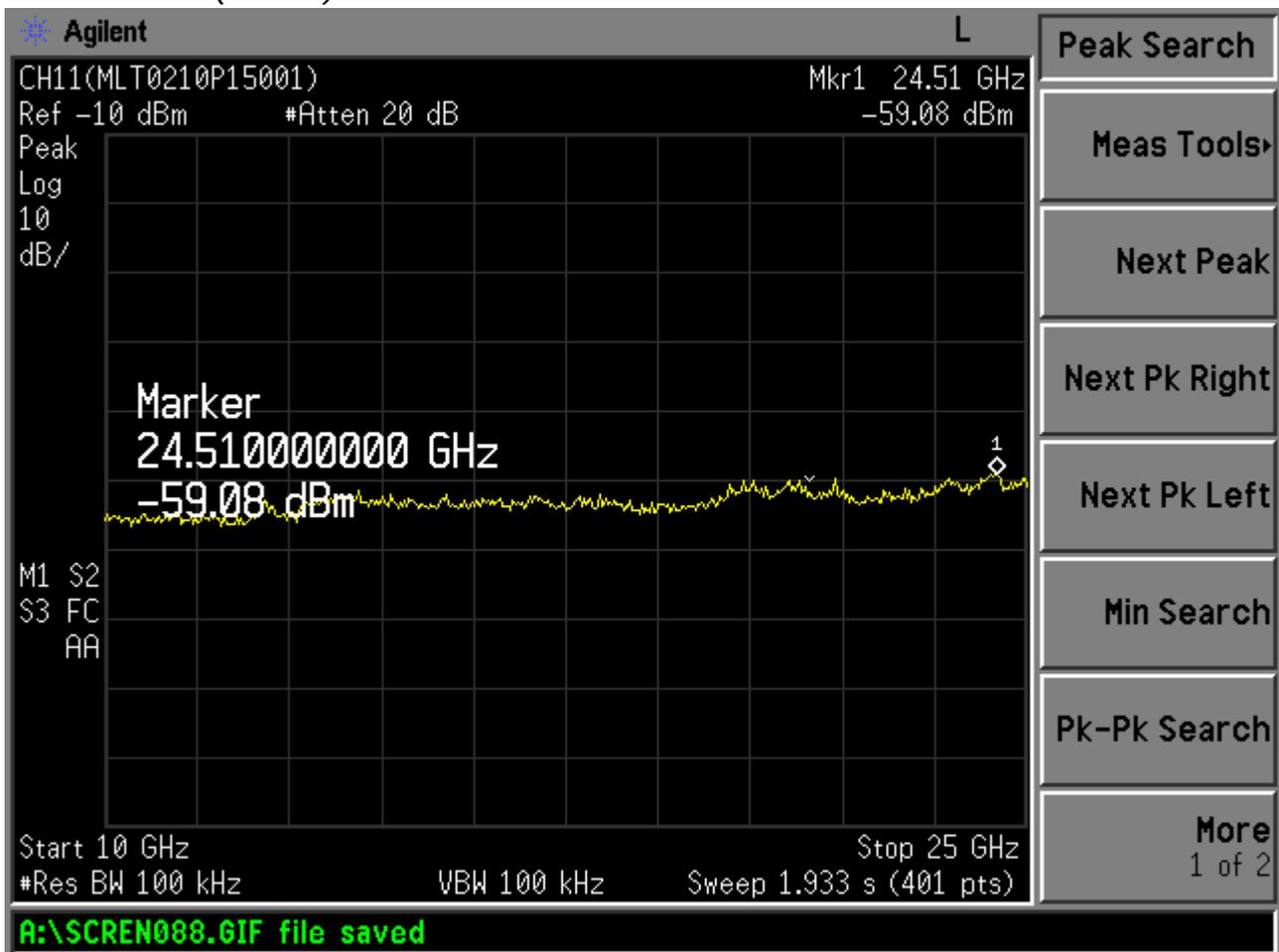




MAX LIGHT

MEASUREMENT REPORT

Channel 11 (5 of 5)



VIII. Band Edges Requirements

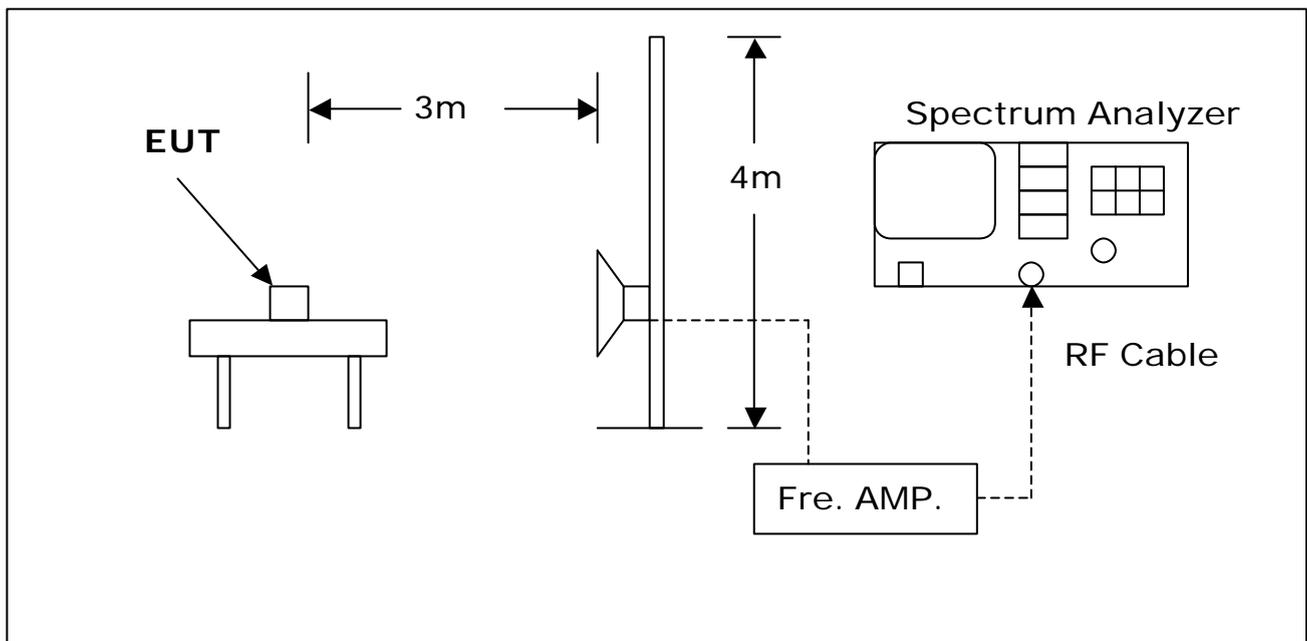
8.1 Test Condition & Setup :

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz. These tests were performed at 4 different bit rates.

8.2 Test Instruments Configuration:





8.3 Test Equipment List:

- A. Agilent E4407B 9KHz-26.5GHz Spectrum Analyzer (S/N:A872JS02291)
- B. HP 8449B Pre Amplifier (S/N:1982901A91)
- C. SCHWARZBECK BBHA 9120D Biconilog Antenna (S/N:141S3)

8.4 Test Result:

Radiated Emissions (HORIZONTAL) CH1								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2389.51	58.98	1	320	0	9.54	49.44	54.00	-4.56

Radiated Emissions (VERTICAL) CH1								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2389.51	59.72	1	300	0	9.54	50.18	54.00	-3.82

Radiated Emissions (HORIZONTAL) CH11								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2484.43	55.76	1	270	0	9.54	46.22	54.00	-7.78

Radiated Emissions (VERTICAL) CH11								
Frequency (MHz)	Amplitude (dBuV/m)	Ant. (m)	Table (Degree)	Duty (dB)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2484.58	57.98	1	290	0	9.54	48.44	54.00	-5.56

- Notes :
- 1.Margin= Amplitude - Limits
 - 2.Height of table for EUT placed: 0.8 Meter.
 - 3.ANT= Antenna height.
 - 4.Duty= Duty cycle correction factor.
 - 5.Dis= Distance extrapolation factor.
 - 6.Amplitude= Reading Amplitude - Amplifier gain+Cable loss
+Antenna factor
(Auto calculate in spectrum analyzer)
 - 8.Actual Amp= Amplitude - Duty - Dis.



IX. Processing Gain Requirements

9.1 Test Condition & Setup :

The processing gain shall be determined from the ratio in dB of the signal to noise ratio with the system spreading code turned OFF, to the signal to noise ratio with the system spreading code turned ON, as measured at the demodulated output of the receiver. The processing gain shall be at least 10 dB for a direct sequence spread spectrum system.

Note : Refer to circuit analysis and processing gain calculations provided by manufacturer. (Next page)

1. Summary:

This document describes the Receiver Processing Gain verification measurements performed at the Wireless USB Adapter, according to Ref.[2].

2. Conclusion:

The Lucent Wireless USB Adapter product confirms to the minimum required 10 dB processing gain, as set forth by the FCC for operation in the 2.4 GHz ISM band.

3. References:

- 1- Document FCC 97-114, Appendix C, Guidance on Measurements for Direct Sequence Spread Spectrum Systems.
- 2- Hardware Functional Specification for Wireless USB Adapter Embedded, High Speed, Doc. No. 011735, Rev. A,

4. Measurement description:

4.1 Test introduction - FCC requirements:

Part of FCC certification for the Lucent WaveLAN IEEE 802.11 High Speed compliant Network Interface Card (NIC) is a processing gain test. This test proves that the receiver of the tested product employs a true spread spectrum device receiver structure, taking full advantage of the direct sequence spread spectrum modulation technique.

This test verifies the receiver processing gain to be 10 dB or more for a data rate of 1, 2, 5.5 and 11 Mbit/s, by monitoring the Bit Error Rate (BER) of the product under test for each data rate, while operating under strict defined received signal conditions.

Several methods of showing compliance to the rules are possible, from a stepped CW jammer to a continuous sweeping CW interferer. For this test the discrete stepped CW jammer method was chosen, as described in Ref.[1].

Therefore a receiver input signal is applied to the product under test, in the presence of a Continuous Wave (CW) interference source, also referred to as CW jammer.

The test takes place at the product Functional Specification (Ref.[2]) specified conditions for BER rate measurements, specifying a BER equal or better than 10^{-8} at a receiver input level of -55 dBm. For practical reasons these test are performed at -55 dBm or -53 dBm. This small deviation from the Functional Specification should not cause any deviation from the specified Bit Error Rate, since the received levels are well above the thermal noise.

The test criteria for meeting the minimal processing gain is such that it takes the theoretical calculated SNR for the applied modulation technique and specified BER as a reference.

4.2 Test sequence:

The measurements are performed at a 50 KHz CW jammer raster. For each CW jammer frequency 10^8 bits are transmitted by the reference transmitter, and received by the product under test. For practical reasons 50.000 messages are transmitted. After blanking out frame overhead 1927 bits per frame are monitored. This results in $50.000 * 1927 = 9650000$ transmitted bits for a BER test, which is a mere 1.4% less than the targeted 10^8 bits. Though it would be more elegant to show BER compliance for at least say ten times 10^8 transmitted/received bits, the time involved with this grows significantly. Since the CW interferer is stepped in a 50 KHz raster, covering the receiver bandwidth of 14 MHz, it is considered that the BER requirement is sufficiently met since such a multitude of measurements are taken.

The total measurement is being performed under computer control, hereafter referred to as controller. It involves the control over the reference transmitter, CW-interference generator, receiver under test and received data error-checker/frame counter. The controller is programmed by a configuration file, that lists the CW jammer frequencies and CW jammer signal levels. The controller program flow chart is given in Annex A, WaveLAN-II FCC Processing Gain Measurements, Controller Flow Chart.

The transmitted data pattern is fixed, and known at the receiver. Therefore the error checker compares the known transmitted data sequence with received data sequence. Received data errors and missing received frames information is retrieved by the controller.

In the receiver at the inter-connection between the received data demodulator output at the DSP and the digital interface the demodulated received RF signal is made available to an error checker. This error checker is a dedicated piece of hardware that monitors real-time the received data, gating-out any other non-relevant information that is present in the received data (message header, message length field, CRC field, diagnostic information field etc.). For a chosen Tx message length of 230 bytes this yields 1927 useable bits.

The test sequence is as follows: the controller issues a request to the transmitter for 1000 frames to be transmitted. Once this number of frames has been transmitted the transmitter signals to the controller the completion of this. The controller reads the number of received frames and number

of erroneous received frames. If there are no missing frames or received data errors detected, the controller increases the CW interference level by 1 dB. Consequently it re-issues a 1000 frames transmit request, and the test is re-started. This sequence is repeated until received data errors or missing frames are detected.

Now instead of a quick error scan using 1000 frames, 50000 frames (equals 10^8 bits) are transmitted to verify the BER. For this test the CW jammer level is lowered 1 dB, compared to the CW jammer level at which the first receive data errors and/or missing frames were detected. All the measurement results are recorded for later use.

After completion of the 50000 frames BER test, the spreading gain verification test continues by raising the CW jammer frequency by 50 KHz and re-setting the CW jammer level to the start value, taken from the controller configuration file. For this new CW frequency the measurements are repeated as described above (see Annex A).

All CW frequencies and power levels are listed in a command-file that is read by the controller at start up.

Before measurements are started, the receiver input level and CW jammer level need to be calibrated. See figure 1 for the test set-up.

4.3 Receiver level calibration:

The receiver input level is calibrated using the RF power meter. For this purpose, the reference transmitter output attenuator is set to 0 dB. The CW jammer is disabled during the calibration. Using the RF power meter at the receiver input of the device under test, the received level at the receiver input is measured for a continuous active reference transmitter. The attenuator value is calculated to achieve a received level of -55 dBm. Finally the attenuator is adjusted to this value.

4.4 CW level calibration:

The reference transmitter is disabled during this calibration. The CW jammer generator output level is set to 0 dBm, and the RF power meter value is read. The difference in CW output level setting and RF power meter measured at receiver input of the device under test is the attenuation of the test set-up. This is the correction factor that needs to be applied for analysis of the measurements results.

5. Equipment used:

# Item needed	Description
1	Portable PC with Wireless USB Adapter, Zenith Z-lite, SN-3GSAZW000061, for receiver.
1	Portable PC with WaveLAN-II NIC, NCR 3150, SN 17-26106224, for transmitter.
1	Software 'Testware, V5.09', Rev. 0, <TW.EXE>, 141456 bytes, 11-13-2001. Used for the transmitter and receiver.
2	WaveLAN IEEE Turbo NIC.
1	PC + IEEE interface card, NCR PC6, SN 17-17039925 and CEC PC<>488 interface card.
1	Received error checker, wire-wrap prototype, WCND designed and built.
1	Power supply, Delta D030-1, for error checker.
1	Spectrum Analyzer, HP 9592B SN 3009U00102.
1	Power Meter, Rohde & Schwarz, Millivolt meter URV5, SN 893430/070.
1	Power Sensor, Rhode & Schwarz, type NRV-Z2 828218.02, SN 860925/005.
1	CW jammer generator, Gigatronics 7200, SN 746604.
1	Variable attenuator, 0-70 dB, Midwest Microwave, Model 1044.
2	Fixed attenuator, 10 dB, Inmet Corp., model 18AH-10.
1	RF power splitter, ARRA 3-9200-2, SN 2001.
1	Misc. IEEE cabling.
1	Misc. SMA cabling.
1	RF shielded cage.

6. Measurement set_up:

The test setup is given below in Figure 1, measurement test set-up. To avoid interference that can disrupt the measurement, the whole test is performed within a RF shielded cage.

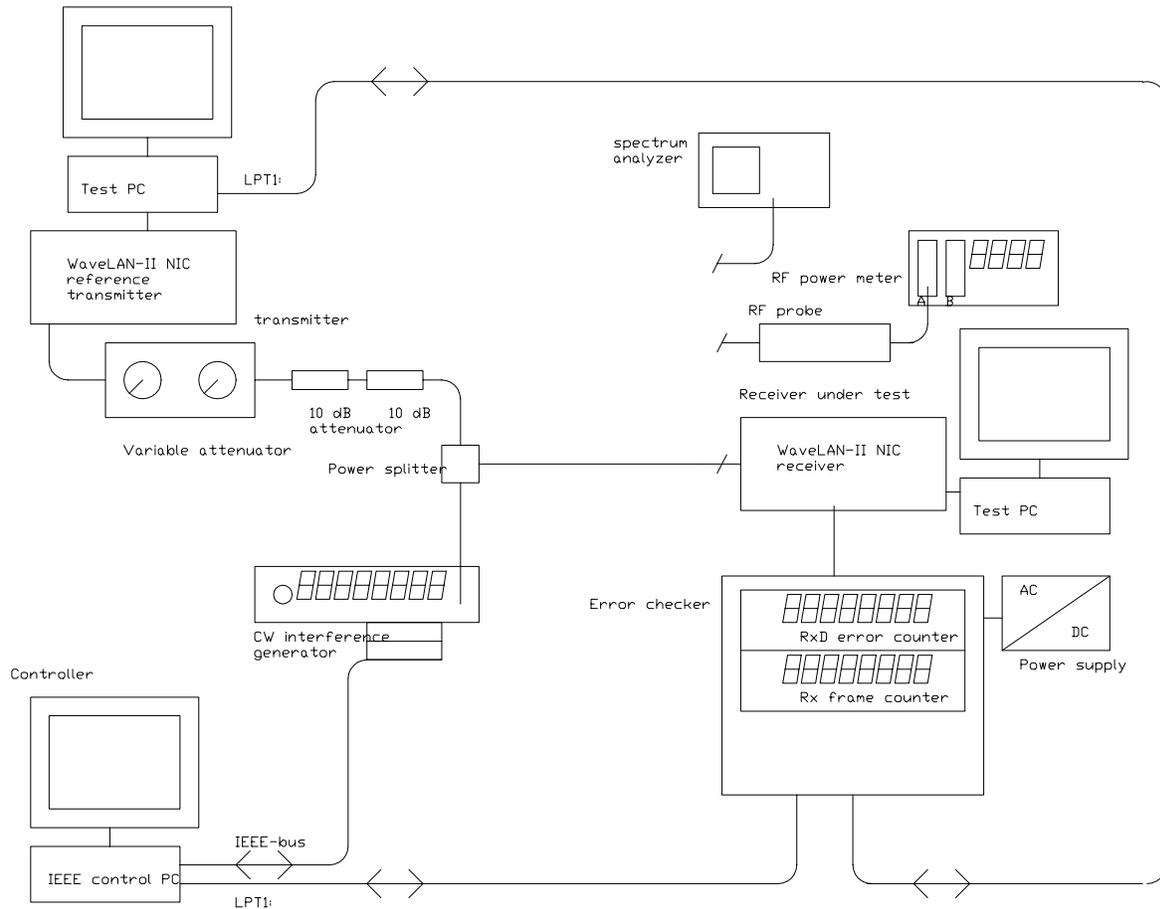


Figure 1, measurement test set-up.

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2403.50	28.7	16.4	10.3	2.0	-49.6	<=8.0
2403.55	27.6	16.4	9.2	2.0	-50.7	<=8.0
2403.60	27.3	16.4	8.9	2.0	-51.0	<=8.0
2403.65	27.1	16.4	8.7	2.0	-51.2	<=8.0
2403.70	26.9	16.4	8.5	2.0	-51.4	<=8.0
2403.75	27.0	16.4	8.6	2.0	-51.3	<=8.0
2403.80	27.1	16.4	8.7	2.0	-51.2	<=8.0
2403.85	27.0	16.4	8.6	2.0	-51.3	<=8.0
2403.90	26.9	16.4	8.5	2.0	-51.4	<=8.0
2403.95	26.7	16.4	8.3	2.0	-51.6	<=8.0
2404.00	26.3	16.4	7.9	2.0	-52.0	<=8.0
2404.05	25.9	16.4	7.5	2.0	-52.4	<=8.0
2404.10	25.7	16.4	7.3	2.0	-52.6	<=8.0
2404.15	25.8	16.4	7.4	2.0	-52.5	<=8.0
2404.20	25.6	16.4	7.2	2.0	-52.7	<=8.0
2404.25	25.8	16.4	7.4	2.0	-52.5	<=8.0
2404.30	25.8	16.4	7.4	2.0	-52.5	<=8.0
2404.35	25.4	16.4	7.0	2.0	-52.9	<=8.0
2404.40	25.0	16.4	6.6	2.0	-53.3	<=8.0
2404.45	24.4	16.4	6.0	2.0	-53.9	<=8.0
2404.50	23.9	16.4	5.5	2.0	-54.4	<=8.0
2404.55	23.6	16.4	5.2	2.0	-54.7	<=8.0
2404.60	23.4	16.4	5.0	2.0	-54.9	<=8.0
2404.65	23.0	16.4	4.6	2.0	-55.3	<=8.0
2404.70	22.8	16.4	4.4	2.0	-55.5	<=8.0
2404.75	22.4	16.4	4.0	2.0	-55.9	<=8.0
2404.80	22.2	16.4	3.8	2.0	-56.1	<=8.0
2404.85	22.1	16.4	3.7	2.0	-56.2	<=8.0
2404.90	21.6	16.4	3.2	2.0	-56.7	<=8.0
2404.95	21.4	16.4	3.0	2.0	-56.9	<=8.0
2405.00	21.1	16.4	2.7	2.0	-57.2	<=8.0
2405.05	20.8	16.4	2.4	2.0	-57.5	<=8.0
2405.10	20.4	16.4	2.0	2.0	-57.9	<=8.0
2405.15	20.1	16.4	1.7	2.0	-58.2	<=8.0
2405.20	19.9	16.4	1.5	2.0	-58.4	<=8.0
2405.25	19.6	16.4	1.2	2.0	-58.7	<=8.0
2405.30	19.4	16.4	1.0	2.0	-58.9	<=8.0
2405.35	19.1	16.4	0.7	2.0	-59.2	<=8.0
2405.40	19.0	16.4	0.6	2.0	-59.3	<=8.0
2405.45	18.9	16.4	0.5	2.0	-59.4	<=8.0
2405.50	18.8	16.4	0.4	2.0	-59.5	<=8.0
2405.55	18.4	16.4	0.0	2.0	-59.9	<=8.0
2405.60	18.5	16.4	0.1	2.0	-59.8	<=8.0
2405.65	18.4	16.4	0.0	2.0	-59.9	<=8.0
2405.70	18.0	16.4	-0.4	2.0	-60.3	<=8.0
2405.75	17.9	16.4	-0.5	2.0	-60.4	<=8.0
2405.80	17.5	16.4	-0.9	2.0	-60.8	<=8.0
2405.85	17.6	16.4	-0.8	2.0	-60.7	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2405.90	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2405.95	16.9	16.4	-1.5	2.0	-61.4	<=8.0
2406.00	16.8	16.4	-1.6	2.0	-61.5	<=8.0
2406.05	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2406.10	16.5	16.4	-1.9	2.0	-61.8	<=8.0
2406.15	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2406.20	16.4	16.4	-2.0	2.0	-61.9	<=8.0
2406.25	16.3	16.4	-2.1	2.0	-62.0	<=8.0
2406.30	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2406.35	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2406.40	15.8	16.4	-2.6	2.0	-62.5	<=8.0
2406.45	15.6	16.4	-2.8	2.0	-62.7	<=8.0
2406.50	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2406.55	15.2	16.4	-3.2	2.0	-63.1	<=8.0
2406.60	15.2	16.4	-3.2	2.0	-63.1	<=8.0
2406.65	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2406.70	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2406.75	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2406.80	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2406.85	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2406.90	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2406.95	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2407.00	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2407.05	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2407.10	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2407.15	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2407.20	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2407.25	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2407.30	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2407.35	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2407.40	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2407.45	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2407.50	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2407.55	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2407.60	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2407.65	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2407.70	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2407.75	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2407.80	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2407.85	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2407.90	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2407.95	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2408.00	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2408.05	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2408.10	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2408.15	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2408.20	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2408.25	13.4	16.4	-5.0	2.0	-64.9	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2408.30	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2408.35	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2408.40	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2408.45	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2408.50	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2408.55	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2408.60	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2408.65	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2408.70	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2408.75	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2408.80	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2408.85	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2408.90	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2408.95	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2409.00	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2409.05	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2409.10	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2409.15	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2409.20	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2409.25	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2409.30	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2409.35	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2409.40	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2409.45	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2409.50	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2409.55	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2409.60	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2409.65	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2409.70	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2409.75	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2409.80	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2409.85	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2409.90	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2409.95	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2410.00	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2410.05	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2410.10	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2410.15	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2410.20	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2410.25	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2410.30	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2410.35	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2410.40	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2410.45	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2410.50	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2410.55	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2410.60	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2410.65	12.0	16.4	-6.4	2.0	-66.3	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2410.70	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2410.75	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2410.80	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2410.85	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2410.90	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2410.95	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2411.00	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2411.05	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2411.10	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2411.15	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2411.20	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2411.25	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2411.30	8.1	16.4	-10.3	2.0	-70.2	<=8.0
2411.35	5.5	16.4	-12.9	2.0	-72.8	<=8.0
2411.40	5.6	16.4	-12.8	2.0	-72.7	<=8.0
2411.45	7.8	16.4	-10.6	2.0	-70.5	<=8.0
2411.50	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2411.55	9.9	16.4	-8.5	2.0	-68.4	<=8.0
2411.60	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2411.65	9.9	16.4	-8.5	2.0	-68.4	<=8.0
2411.70	8.1	16.4	-10.3	2.0	-70.2	<=8.0
2411.75	7.6	16.4	-10.8	2.0	-70.7	<=8.0
2411.80	8.8	16.4	-9.6	2.0	-69.5	<=8.0
2411.85	6.3	16.4	-12.1	2.0	-72.0	<=8.0
2411.90	6.9	16.4	-11.5	2.0	-71.4	<=8.0
2411.95	7.5	16.4	-10.9	2.0	-70.8	<=8.0
2412.00	8.9	16.4	-9.5	2.0	-69.4	<=8.0
2412.05	9.6	16.4	-8.8	2.0	-68.7	<=8.0
2412.10	6.9	16.4	-11.5	2.0	-71.4	<=8.0
2412.15	7.1	16.4	-11.3	2.0	-71.2	<=8.0
2412.20	7.5	16.4	-10.9	2.0	-70.8	<=8.0
2412.25	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2412.30	10.1	16.4	-8.3	2.0	-68.2	<=8.0
2412.35	10.7	16.4	-7.7	2.0	-67.6	<=8.0
2412.40	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2412.45	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2412.50	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2412.55	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2412.60	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2412.65	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2412.70	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2412.75	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2412.80	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2412.85	8.0	16.4	-10.4	2.0	-70.3	<=8.0
2412.90	5.1	16.4	-13.3	2.0	-73.2	<=8.0
2412.95	7.7	16.4	-10.7	2.0	-70.6	<=8.0
2413.00	10.3	16.4	-8.1	2.0	-68.0	<=8.0
2413.05	11.4	16.4	-7.0	2.0	-66.9	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2413.10	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2413.15	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2413.20	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2413.25	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2413.30	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2413.35	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2413.40	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2413.45	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2413.50	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2413.55	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2413.60	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2413.65	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2413.70	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2413.75	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2413.80	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2413.85	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2413.90	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2413.95	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2414.00	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.05	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2414.10	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.15	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2414.20	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.25	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.30	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2414.35	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.40	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2414.45	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.50	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.55	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2414.60	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.65	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2414.70	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.75	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2414.80	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2414.85	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2414.90	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2414.95	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2415.00	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2415.05	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2415.10	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2415.15	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2415.20	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2415.25	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2415.30	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2415.35	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2415.40	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2415.45	12.6	16.4	-5.8	2.0	-65.7	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2415.50	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2415.55	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2415.60	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2415.65	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2415.70	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2415.75	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2415.80	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2415.85	13.1	16.4	-5.3	2.0	-65.2	<=8.0
2415.90	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2415.95	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2416.00	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2416.05	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2416.10	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2416.15	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2416.20	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2416.25	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2416.30	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2416.35	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2416.40	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2416.45	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2416.50	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2416.55	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2416.60	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2416.65	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2416.70	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2416.75	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2416.80	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2416.85	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2416.90	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2416.95	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2417.00	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2417.05	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2417.10	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2417.15	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2417.20	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2417.25	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2417.30	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2417.35	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2417.40	14.6	16.4	-3.8	2.0	-63.7	<=8.0
2417.45	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2417.50	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2417.55	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2417.60	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2417.65	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2417.70	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2417.75	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2417.80	15.2	16.4	-3.2	2.0	-63.1	<=8.0
2417.85	15.4	16.4	-3.0	2.0	-62.9	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2417.90	15.7	16.4	-2.7	2.0	-62.6	<=8.0
2417.95	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2418.00	16.0	16.4	-2.4	2.0	-62.3	<=8.0
2418.05	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2418.10	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2418.15	16.2	16.4	-2.2	2.0	-62.1	<=8.0
2418.20	16.5	16.4	-1.9	2.0	-61.8	<=8.0
2418.25	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2418.30	16.7	16.4	-1.7	2.0	-61.6	<=8.0
2418.35	16.9	16.4	-1.5	2.0	-61.4	<=8.0
2418.40	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2418.45	17.4	16.4	-1.0	2.0	-60.9	<=8.0
2418.50	17.5	16.4	-0.9	2.0	-60.8	<=8.0
2418.55	17.8	16.4	-0.6	2.0	-60.5	<=8.0
2418.60	18.0	16.4	-0.4	2.0	-60.3	<=8.0
2418.65	18.2	16.4	-0.2	2.0	-60.1	<=8.0
2418.70	18.3	16.4	-0.1	2.0	-60.0	<=8.0
2418.75	18.4	16.4	0.0	2.0	-59.9	<=8.0
2418.80	18.6	16.4	0.2	2.0	-59.7	<=8.0
2418.85	18.7	16.4	0.3	2.0	-59.6	<=8.0
2418.90	18.8	16.4	0.4	2.0	-59.5	<=8.0
2418.95	19.0	16.4	0.6	2.0	-59.3	<=8.0
2419.00	19.4	16.4	1.0	2.0	-58.9	<=8.0
2419.05	19.6	16.4	1.2	2.0	-58.7	<=8.0
2419.10	20.0	16.4	1.6	2.0	-58.3	<=8.0
2419.15	20.1	16.4	1.7	2.0	-58.2	<=8.0
2419.20	20.2	16.4	1.8	2.0	-58.1	<=8.0
2419.25	20.4	16.4	2.0	2.0	-57.9	<=8.0
2419.30	20.9	16.4	2.5	2.0	-57.4	<=8.0
2419.35	21.0	16.4	2.6	2.0	-57.3	<=8.0
2419.40	21.6	16.4	3.2	2.0	-56.7	<=8.0
2419.45	21.7	16.4	3.3	2.0	-56.6	<=8.0
2419.50	22.4	16.4	4.0	2.0	-55.9	<=8.0
2419.55	22.5	16.4	4.1	2.0	-55.8	<=8.0
2419.60	22.6	16.4	4.2	2.0	-55.7	<=8.0
2419.65	22.8	16.4	4.4	2.0	-55.5	<=8.0
2419.70	22.9	16.4	4.5	2.0	-55.4	<=8.0
2419.75	23.0	16.4	4.6	2.0	-55.3	<=8.0
2419.80	23.4	16.4	5.0	2.0	-54.9	<=8.0
2419.85	24.1	16.4	5.7	2.0	-54.2	<=8.0
2419.90	24.8	16.4	6.4	2.0	-53.5	<=8.0
2419.95	25.0	16.4	6.6	2.0	-53.3	<=8.0
2420.00	25.4	16.4	7.0	2.0	-52.9	<=8.0
2420.05	25.5	16.4	7.1	2.0	-52.8	<=8.0
2420.10	25.6	16.4	7.2	2.0	-52.7	<=8.0
2420.15	25.9	16.4	7.5	2.0	-52.4	<=8.0
2420.20	25.7	16.4	7.3	2.0	-52.6	<=8.0
2420.25	26.0	16.4	7.6	2.0	-52.3	<=8.0

Processing Gain

11Mbps CHANNEL 1 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2420.30	26.4	16.4	8.0	2.0	-51.9	<=8.0
2420.35	26.7	16.4	8.3	2.0	-51.6	<=8.0
2420.40	26.7	16.4	8.3	2.0	-51.6	<=8.0
2420.45	26.9	16.4	8.5	2.0	-51.4	<=8.0
2420.50	26.8	16.4	8.4	2.0	-51.5	<=8.0

Processing Gain (dB)= **11.9**

Test Conditions

TX Card U01H010 Rev B

S/N 99360038

RX Card J01H010 RevA1

S/N 01200010

TX Firmware P10002C0, MS11168A3

RX Firmware PF010004, SF01000

Software Ver. 3.0.24

Mode 11 MB Pseudo IBSS

Pkt Size 1024

Pkt Dly 1

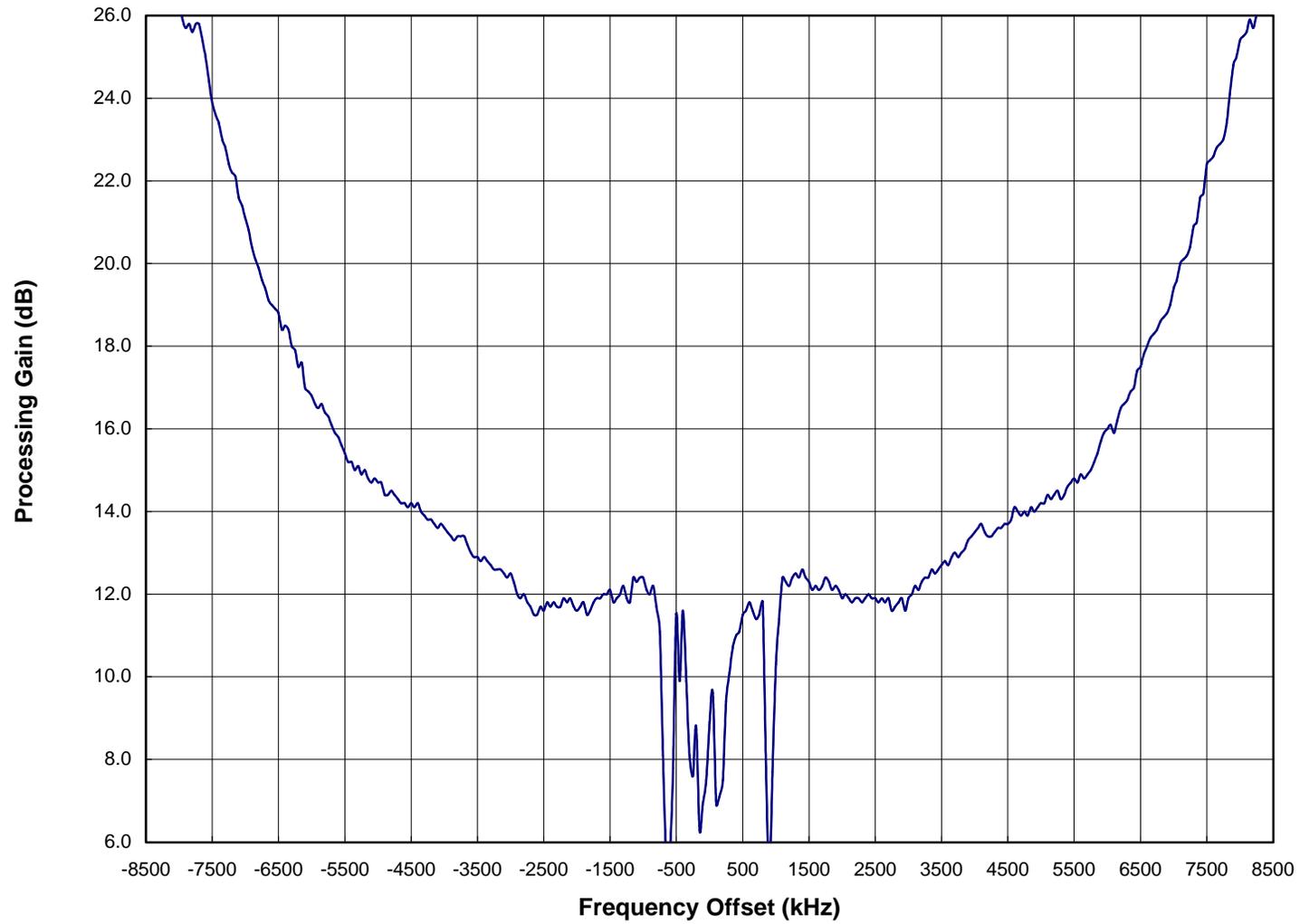
Pkt Burst 6

Intersil Chips on Card: ISL3984

ISL3684

ISL3084

Processing Gain Channel 1 (fc=2412Mhz) @ 11Mbps



Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2428.50	28.8	16.4	10.4	2.0	-49.5	<=8.0
2428.55	28.1	16.4	9.7	2.0	-50.2	<=8.0
2428.60	27.6	16.4	9.2	2.0	-50.7	<=8.0
2428.65	27.1	16.4	8.7	2.0	-51.2	<=8.0
2428.70	27.0	16.4	8.6	2.0	-51.3	<=8.0
2428.75	27.1	16.4	8.7	2.0	-51.2	<=8.0
2428.80	27.2	16.4	8.8	2.0	-51.1	<=8.0
2428.85	27.2	16.4	8.8	2.0	-51.1	<=8.0
2428.90	27.0	16.4	8.6	2.0	-51.3	<=8.0
2428.95	26.8	16.4	8.4	2.0	-51.5	<=8.0
2429.00	26.5	16.4	8.1	2.0	-51.8	<=8.0
2429.05	26.1	16.4	7.7	2.0	-52.2	<=8.0
2429.10	25.8	16.4	7.4	2.0	-52.5	<=8.0
2429.15	25.8	16.4	7.4	2.0	-52.5	<=8.0
2429.20	25.8	16.4	7.4	2.0	-52.5	<=8.0
2429.25	25.9	16.4	7.5	2.0	-52.4	<=8.0
2429.30	25.9	16.4	7.5	2.0	-52.4	<=8.0
2429.35	25.4	16.4	7.0	2.0	-52.9	<=8.0
2429.40	24.9	16.4	6.5	2.0	-53.4	<=8.0
2429.45	24.5	16.4	6.1	2.0	-53.8	<=8.0
2429.50	24.1	16.4	5.7	2.0	-54.2	<=8.0
2429.55	23.9	16.4	5.5	2.0	-54.4	<=8.0
2429.60	23.5	16.4	5.1	2.0	-54.8	<=8.0
2429.65	23.3	16.4	4.9	2.0	-55.0	<=8.0
2429.70	22.9	16.4	4.5	2.0	-55.4	<=8.0
2429.75	22.4	16.4	4.0	2.0	-55.9	<=8.0
2429.80	22.2	16.4	3.8	2.0	-56.1	<=8.0
2429.85	21.8	16.4	3.4	2.0	-56.5	<=8.0
2429.90	21.8	16.4	3.4	2.0	-56.5	<=8.0
2429.95	21.6	16.4	3.2	2.0	-56.7	<=8.0
2430.00	21.3	16.4	2.9	2.0	-57.0	<=8.0
2430.05	20.9	16.4	2.5	2.0	-57.4	<=8.0
2430.10	20.4	16.4	2.0	2.0	-57.9	<=8.0
2430.15	20.2	16.4	1.8	2.0	-58.1	<=8.0
2430.20	20.0	16.4	1.6	2.0	-58.3	<=8.0
2430.25	19.8	16.4	1.4	2.0	-58.5	<=8.0
2430.30	19.4	16.4	1.0	2.0	-58.9	<=8.0
2430.35	19.0	16.4	0.6	2.0	-59.3	<=8.0
2430.40	19.0	16.4	0.6	2.0	-59.3	<=8.0
2430.45	18.9	16.4	0.5	2.0	-59.4	<=8.0
2430.50	18.8	16.4	0.4	2.0	-59.5	<=8.0
2430.55	18.5	16.4	0.1	2.0	-59.8	<=8.0
2430.60	18.5	16.4	0.1	2.0	-59.8	<=8.0
2430.65	18.2	16.4	-0.2	2.0	-60.1	<=8.0
2430.70	18.1	16.4	-0.3	2.0	-60.2	<=8.0
2430.75	17.8	16.4	-0.6	2.0	-60.5	<=8.0
2430.80	17.6	16.4	-0.8	2.0	-60.7	<=8.0
2430.85	17.4	16.4	-1.0	2.0	-60.9	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2430.90	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2430.95	17.1	16.4	-1.3	2.0	-61.2	<=8.0
2431.00	16.9	16.4	-1.5	2.0	-61.4	<=8.0
2431.05	16.8	16.4	-1.6	2.0	-61.5	<=8.0
2431.10	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2431.15	16.4	16.4	-2.0	2.0	-61.9	<=8.0
2431.20	16.3	16.4	-2.1	2.0	-62.0	<=8.0
2431.25	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2431.30	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2431.35	15.8	16.4	-2.6	2.0	-62.5	<=8.0
2431.40	15.7	16.4	-2.7	2.0	-62.6	<=8.0
2431.45	15.6	16.4	-2.8	2.0	-62.7	<=8.0
2431.50	15.5	16.4	-2.9	2.0	-62.8	<=8.0
2431.55	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2431.60	15.2	16.4	-3.2	2.0	-63.1	<=8.0
2431.65	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2431.70	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2431.75	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2431.80	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2431.85	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2431.90	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2431.95	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2432.00	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2432.05	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2432.10	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2432.15	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2432.20	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2432.25	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2432.30	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2432.35	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2432.40	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2432.45	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2432.50	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2432.55	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2432.60	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2432.65	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2432.70	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2432.75	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2432.80	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2432.85	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2432.90	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2432.95	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2433.00	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2433.05	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2433.10	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2433.15	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2433.20	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2433.25	13.1	16.4	-5.3	2.0	-65.2	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2433.30	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2433.35	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2433.40	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2433.45	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2433.50	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2433.55	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2433.60	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2433.65	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2433.70	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2433.75	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2433.80	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2433.85	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2433.90	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2433.95	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2434.00	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2434.05	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2434.10	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2434.15	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2434.20	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2434.25	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2434.30	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2434.35	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2434.40	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2434.45	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2434.50	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2434.55	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2434.60	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2434.65	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2434.70	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2434.75	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2434.80	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2434.85	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2434.90	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2434.95	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2435.00	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2435.05	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2435.10	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2435.15	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2435.20	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2435.25	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2435.30	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.35	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.40	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2435.45	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.50	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2435.55	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.60	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.65	12.0	16.4	-6.4	2.0	-66.3	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2435.70	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2435.75	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2435.80	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2435.85	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2435.90	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2435.95	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2436.00	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2436.05	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2436.10	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2436.15	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2436.20	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2436.25	10.9	16.4	-7.5	2.0	-67.4	<=8.0
2436.30	9.9	16.4	-8.5	2.0	-68.4	<=8.0
2436.35	5.5	16.4	-12.9	2.0	-72.8	<=8.0
2436.40	5.6	16.4	-12.8	2.0	-72.7	<=8.0
2436.45	8.0	16.4	-10.4	2.0	-70.3	<=8.0
2436.50	7.9	16.4	-10.5	2.0	-70.4	<=8.0
2436.55	7.6	16.4	-10.8	2.0	-70.7	<=8.0
2436.60	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2436.65	9.7	16.4	-8.7	2.0	-68.6	<=8.0
2436.70	5.4	16.4	-13.0	2.0	-72.9	<=8.0
2436.75	7.4	16.4	-11.0	2.0	-70.9	<=8.0
2436.80	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2436.85	7.5	16.4	-10.9	2.0	-70.8	<=8.0
2436.90	7.7	16.4	-10.7	2.0	-70.6	<=8.0
2436.95	7.9	16.4	-10.5	2.0	-70.4	<=8.0
2437.00	8.5	16.4	-9.9	2.0	-69.8	<=8.0
2437.05	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2437.10	6.6	16.4	-11.8	2.0	-71.7	<=8.0
2437.15	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2437.20	7.2	16.4	-11.2	2.0	-71.1	<=8.0
2437.25	10.0	16.4	-8.4	2.0	-68.3	<=8.0
2437.30	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2437.35	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2437.40	9.6	16.4	-8.8	2.0	-68.7	<=8.0
2437.45	8.8	16.4	-9.6	2.0	-69.5	<=8.0
2437.50	8.6	16.4	-9.8	2.0	-69.7	<=8.0
2437.55	8.4	16.4	-10.0	2.0	-69.9	<=8.0
2437.60	8.3	16.4	-10.1	2.0	-70.0	<=8.0
2437.65	10.5	16.4	-7.9	2.0	-67.8	<=8.0
2437.70	10.6	16.4	-7.8	2.0	-67.7	<=8.0
2437.75	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2437.80	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2437.85	10.8	16.4	-7.6	2.0	-67.5	<=8.0
2437.90	7.2	16.4	-11.2	2.0	-71.1	<=8.0
2437.95	4.9	16.4	-13.5	2.0	-73.4	<=8.0
2438.00	9.3	16.4	-9.1	2.0	-69.0	<=8.0
2438.05	10.6	16.4	-7.8	2.0	-67.7	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2438.10	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2438.15	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2438.20	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2438.25	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2438.30	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2438.35	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.40	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.45	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2438.50	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.55	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2438.60	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2438.65	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2438.70	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.75	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.80	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2438.85	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2438.90	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2438.95	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2439.00	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.05	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.10	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.15	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.20	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.25	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.30	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.35	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.40	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.45	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.50	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.55	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2439.60	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2439.65	10.9	16.4	-7.5	2.0	-67.4	<=8.0
2439.70	10.8	16.4	-7.6	2.0	-67.5	<=8.0
2439.75	10.9	16.4	-7.5	2.0	-67.4	<=8.0
2439.80	10.7	16.4	-7.7	2.0	-67.6	<=8.0
2439.85	10.8	16.4	-7.6	2.0	-67.5	<=8.0
2439.90	10.9	16.4	-7.5	2.0	-67.4	<=8.0
2439.95	10.9	16.4	-7.5	2.0	-67.4	<=8.0
2440.00	11.0	16.4	-7.4	2.0	-67.3	<=8.0
2440.05	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2440.10	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2440.15	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2440.20	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2440.25	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2440.30	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2440.35	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2440.40	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2440.45	11.9	16.4	-6.5	2.0	-66.4	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2440.50	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2440.55	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2440.60	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2440.65	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2440.70	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2440.75	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2440.80	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2440.85	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2440.90	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2440.95	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2441.00	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2441.05	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2441.10	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2441.15	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2441.20	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2441.25	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2441.30	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2441.35	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2441.40	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2441.45	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2441.50	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2441.55	13.1	16.4	-5.3	2.0	-65.2	<=8.0
2441.60	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2441.65	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2441.70	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2441.75	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2441.80	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2441.85	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2441.90	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2441.95	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2442.00	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2442.05	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2442.10	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2442.15	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2442.20	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2442.25	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2442.30	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2442.35	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2442.40	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2442.45	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2442.50	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2442.55	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2442.60	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2442.65	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2442.70	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2442.75	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2442.80	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2442.85	14.7	16.4	-3.7	2.0	-63.6	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2442.90	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2442.95	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2443.00	15.3	16.4	-3.1	2.0	-63.0	<=8.0
2443.05	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2443.10	15.2	16.4	-3.2	2.0	-63.1	<=8.0
2443.15	15.7	16.4	-2.7	2.0	-62.6	<=8.0
2443.20	15.8	16.4	-2.6	2.0	-62.5	<=8.0
2443.25	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2443.30	16.0	16.4	-2.4	2.0	-62.3	<=8.0
2443.35	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2443.40	16.2	16.4	-2.2	2.0	-62.1	<=8.0
2443.45	16.5	16.4	-1.9	2.0	-61.8	<=8.0
2443.50	16.8	16.4	-1.6	2.0	-61.5	<=8.0
2443.55	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2443.60	17.3	16.4	-1.1	2.0	-61.0	<=8.0
2443.65	17.4	16.4	-1.0	2.0	-60.9	<=8.0
2443.70	17.5	16.4	-0.9	2.0	-60.8	<=8.0
2443.75	17.6	16.4	-0.8	2.0	-60.7	<=8.0
2443.80	17.8	16.4	-0.6	2.0	-60.5	<=8.0
2443.85	17.9	16.4	-0.5	2.0	-60.4	<=8.0
2443.90	18.0	16.4	-0.4	2.0	-60.3	<=8.0
2443.95	18.4	16.4	0.0	2.0	-59.9	<=8.0
2444.00	18.5	16.4	0.1	2.0	-59.8	<=8.0
2444.05	18.6	16.4	0.2	2.0	-59.7	<=8.0
2444.10	18.9	16.4	0.5	2.0	-59.4	<=8.0
2444.15	19.2	16.4	0.8	2.0	-59.1	<=8.0
2444.20	19.6	16.4	1.2	2.0	-58.7	<=8.0
2444.25	19.9	16.4	1.5	2.0	-58.4	<=8.0
2444.30	20.1	16.4	1.7	2.0	-58.2	<=8.0
2444.35	20.4	16.4	2.0	2.0	-57.9	<=8.0
2444.40	20.7	16.4	2.3	2.0	-57.6	<=8.0
2444.45	20.8	16.4	2.4	2.0	-57.5	<=8.0
2444.50	21.1	16.4	2.7	2.0	-57.2	<=8.0
2444.55	21.6	16.4	3.2	2.0	-56.7	<=8.0
2444.60	22.1	16.4	3.7	2.0	-56.2	<=8.0
2444.65	22.4	16.4	4.0	2.0	-55.9	<=8.0
2444.70	22.6	16.4	4.2	2.0	-55.7	<=8.0
2444.75	22.8	16.4	4.4	2.0	-55.5	<=8.0
2444.80	23.0	16.4	4.6	2.0	-55.3	<=8.0
2444.85	23.4	16.4	5.0	2.0	-54.9	<=8.0
2444.90	24.0	16.4	5.6	2.0	-54.3	<=8.0
2444.95	24.4	16.4	6.0	2.0	-53.9	<=8.0
2445.00	24.8	16.4	6.4	2.0	-53.5	<=8.0
2445.05	24.6	16.4	6.2	2.0	-53.7	<=8.0
2445.10	24.7	16.4	6.3	2.0	-53.6	<=8.0
2445.15	24.9	16.4	6.5	2.0	-53.4	<=8.0
2445.20	25.0	16.4	6.6	2.0	-53.3	<=8.0
2445.25	25.4	16.4	7.0	2.0	-52.9	<=8.0

Processing Gain

11Mbps CHANNEL 6 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2445.30	25.8	16.4	7.4	2.0	-52.5	<=8.0
2445.35	25.9	16.4	7.5	2.0	-52.4	<=8.0
2445.40	26.2	16.4	7.8	2.0	-52.1	<=8.0
2445.45	26.3	16.4	7.9	2.0	-52.0	<=8.0
2445.50	26.1	16.4	7.7	2.0	-52.2	<=8.0

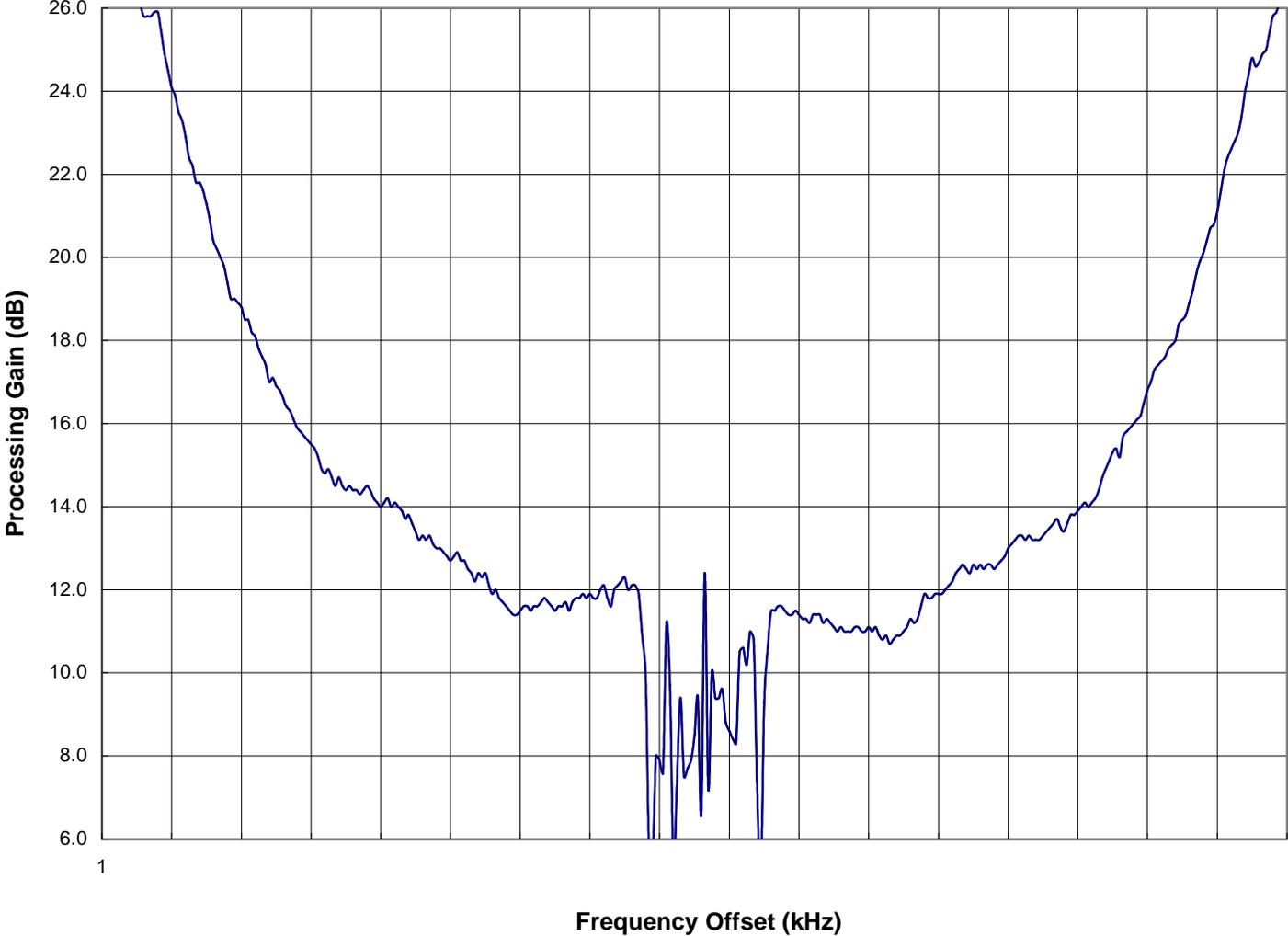
Processing Gain (dB)= **11.4**

Test Conditions

TX Card **U01H010 RevS2**
S/N **0039840010**
RX Card **U01H010 RevS2**
S/N **0039840012**
TX Firmware **P1.1.0+S1.4.3**
RX Firmware **P1.1.0+S1.4.3**
Mode **11 MB Pseudo IBSS**
Pkt Size **1024**
Pkt Dly **1**
Pkt Burst **6**

Intersil Chips on Card: **ISL3984**
ISL3684
ISL3084
ISL3871

**Processing Gain
Channel 6 (fc=2437MHz) @ 11Mbps**



1

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2453.50	28.7	16.4	10.3	2.0	-49.6	<=8.0
2453.55	28.0	16.4	9.6	2.0	-50.3	<=8.0
2453.60	27.5	16.4	9.1	2.0	-50.8	<=8.0
2453.65	27.2	16.4	8.8	2.0	-51.1	<=8.0
2453.70	26.9	16.4	8.5	2.0	-51.4	<=8.0
2453.75	27.1	16.4	8.7	2.0	-51.2	<=8.0
2453.80	27.0	16.4	8.6	2.0	-51.3	<=8.0
2453.85	27.1	16.4	8.7	2.0	-51.2	<=8.0
2453.90	26.9	16.4	8.5	2.0	-51.4	<=8.0
2453.95	26.6	16.4	8.2	2.0	-51.7	<=8.0
2454.00	26.3	16.4	7.9	2.0	-52.0	<=8.0
2454.05	26.0	16.4	7.6	2.0	-52.3	<=8.0
2454.10	25.7	16.4	7.3	2.0	-52.6	<=8.0
2454.15	25.6	16.4	7.2	2.0	-52.7	<=8.0
2454.20	25.5	16.4	7.1	2.0	-52.8	<=8.0
2454.25	25.6	16.4	7.2	2.0	-52.7	<=8.0
2454.30	25.7	16.4	7.3	2.0	-52.6	<=8.0
2454.35	25.3	16.4	6.9	2.0	-53.0	<=8.0
2454.40	24.8	16.4	6.4	2.0	-53.5	<=8.0
2454.45	24.4	16.4	6.0	2.0	-53.9	<=8.0
2454.50	24.0	16.4	5.6	2.0	-54.3	<=8.0
2454.55	23.6	16.4	5.2	2.0	-54.7	<=8.0
2454.60	23.3	16.4	4.9	2.0	-55.0	<=8.0
2454.65	23.0	16.4	4.6	2.0	-55.3	<=8.0
2454.70	22.8	16.4	4.4	2.0	-55.5	<=8.0
2454.75	22.6	16.4	4.2	2.0	-55.7	<=8.0
2454.80	22.3	16.4	3.9	2.0	-56.0	<=8.0
2454.85	22.0	16.4	3.6	2.0	-56.3	<=8.0
2454.90	21.7	16.4	3.3	2.0	-56.6	<=8.0
2454.95	21.4	16.4	3.0	2.0	-56.9	<=8.0
2455.00	21.1	16.4	2.7	2.0	-57.2	<=8.0
2455.05	20.8	16.4	2.4	2.0	-57.5	<=8.0
2455.10	20.4	16.4	2.0	2.0	-57.9	<=8.0
2455.15	20.2	16.4	1.8	2.0	-58.1	<=8.0
2455.20	19.9	16.4	1.5	2.0	-58.4	<=8.0
2455.25	19.7	16.4	1.3	2.0	-58.6	<=8.0
2455.30	19.3	16.4	0.9	2.0	-59.0	<=8.0
2455.35	19.0	16.4	0.6	2.0	-59.3	<=8.0
2455.40	18.9	16.4	0.5	2.0	-59.4	<=8.0
2455.45	18.8	16.4	0.4	2.0	-59.5	<=8.0
2455.50	18.6	16.4	0.2	2.0	-59.7	<=8.0
2455.55	18.4	16.4	0.0	2.0	-59.9	<=8.0
2455.60	18.4	16.4	0.0	2.0	-59.9	<=8.0
2455.65	18.2	16.4	-0.2	2.0	-60.1	<=8.0
2455.70	17.9	16.4	-0.5	2.0	-60.4	<=8.0
2455.75	17.7	16.4	-0.7	2.0	-60.6	<=8.0
2455.80	17.5	16.4	-0.9	2.0	-60.8	<=8.0
2455.85	17.2	16.4	-1.2	2.0	-61.1	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2455.90	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2455.95	16.7	16.4	-1.7	2.0	-61.6	<=8.0
2456.00	16.5	16.4	-1.9	2.0	-61.8	<=8.0
2456.05	16.7	16.4	-1.7	2.0	-61.6	<=8.0
2456.10	16.5	16.4	-1.9	2.0	-61.8	<=8.0
2456.15	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2456.20	16.4	16.4	-2.0	2.0	-61.9	<=8.0
2456.25	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2456.30	15.8	16.4	-2.6	2.0	-62.5	<=8.0
2456.35	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2456.40	15.6	16.4	-2.8	2.0	-62.7	<=8.0
2456.45	15.5	16.4	-2.9	2.0	-62.8	<=8.0
2456.50	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2456.55	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2456.60	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2456.65	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2456.70	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2456.75	14.9	16.4	-3.5	2.0	-63.4	<=8.0
2456.80	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2456.85	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2456.90	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2456.95	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2457.00	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2457.05	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2457.10	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2457.15	14.6	16.4	-3.8	2.0	-63.7	<=8.0
2457.20	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2457.25	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2457.30	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2457.35	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2457.40	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2457.45	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2457.50	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2457.55	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2457.60	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2457.65	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2457.70	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2457.75	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2457.80	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2457.85	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2457.90	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2457.95	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2458.00	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2458.05	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2458.10	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2458.15	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2458.20	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2458.25	13.3	16.4	-5.1	2.0	-65.0	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2458.30	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2458.35	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2458.40	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2458.45	13.1	16.4	-5.3	2.0	-65.2	<=8.0
2458.50	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2458.55	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2458.60	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2458.65	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2458.70	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2458.75	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2458.80	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2458.85	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2458.90	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2458.95	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2459.00	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2459.05	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2459.10	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2459.15	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2459.20	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2459.25	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2459.30	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2459.35	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2459.40	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2459.45	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2459.50	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2459.55	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2459.60	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2459.65	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2459.70	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2459.75	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2459.80	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2459.85	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2459.90	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2459.95	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2460.00	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2460.05	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2460.10	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2460.15	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2460.20	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2460.25	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2460.30	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2460.35	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2460.40	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2460.45	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2460.50	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2460.55	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2460.60	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2460.65	12.1	16.4	-6.3	2.0	-66.2	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2460.70	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2460.75	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2460.80	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2460.85	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2460.90	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2460.95	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2461.00	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2461.05	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2461.10	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2461.15	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2461.20	11.8	16.4	-6.6	2.0	-66.5	<=8.0
2461.25	11.1	16.4	-7.3	2.0	-67.2	<=8.0
2461.30	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2461.35	8.9	16.4	-9.5	2.0	-69.4	<=8.0
2461.40	10.0	16.4	-8.4	2.0	-68.3	<=8.0
2461.45	11.3	16.4	-7.1	2.0	-67.0	<=8.0
2461.50	11.7	16.4	-6.7	2.0	-66.6	<=8.0
2461.55	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2461.60	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2461.65	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2461.70	10.3	16.4	-8.1	2.0	-68.0	<=8.0
2461.75	10.4	16.4	-8.0	2.0	-67.9	<=8.0
2461.80	10.4	16.4	-8.0	2.0	-67.9	<=8.0
2461.85	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2461.90	10.1	16.4	-8.3	2.0	-68.2	<=8.0
2461.95	10.1	16.4	-8.3	2.0	-68.2	<=8.0
2462.00	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2462.05	10.3	16.4	-8.1	2.0	-68.0	<=8.0
2462.10	6.9	16.4	-11.5	2.0	-71.4	<=8.0
2462.15	7.4	16.4	-11.0	2.0	-70.9	<=8.0
2462.20	7.3	16.4	-11.1	2.0	-71.0	<=8.0
2462.25	8.8	16.4	-9.6	2.0	-69.5	<=8.0
2462.30	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2462.35	10.1	16.4	-8.3	2.0	-68.2	<=8.0
2462.40	10.2	16.4	-8.2	2.0	-68.1	<=8.0
2462.45	10.4	16.4	-8.0	2.0	-67.9	<=8.0
2462.50	10.1	16.4	-8.3	2.0	-68.2	<=8.0
2462.55	11.2	16.4	-7.2	2.0	-67.1	<=8.0
2462.60	11.6	16.4	-6.8	2.0	-66.7	<=8.0
2462.65	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2462.70	11.5	16.4	-6.9	2.0	-66.8	<=8.0
2462.75	11.4	16.4	-7.0	2.0	-66.9	<=8.0
2462.80	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2462.85	9.4	16.4	-9.0	2.0	-68.9	<=8.0
2462.90	5.3	16.4	-13.1	2.0	-73.0	<=8.0
2462.95	8.2	16.4	-10.2	2.0	-70.1	<=8.0
2463.00	10.3	16.4	-8.1	2.0	-68.0	<=8.0
2463.05	11.8	16.4	-6.6	2.0	-66.5	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2463.10	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2463.15	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.20	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2463.25	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.30	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2463.35	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2463.40	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.45	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2463.50	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.55	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2463.60	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.65	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.70	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2463.75	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.80	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2463.85	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2463.90	12.5	16.4	-5.9	2.0	-65.8	<=8.0
2463.95	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2464.00	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2464.05	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2464.10	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2464.15	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.20	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2464.25	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.30	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.35	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2464.40	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2464.45	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2464.50	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.55	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.60	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.65	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2464.70	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2464.75	11.9	16.4	-6.5	2.0	-66.4	<=8.0
2464.80	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2464.85	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2464.90	12.0	16.4	-6.4	2.0	-66.3	<=8.0
2464.95	12.1	16.4	-6.3	2.0	-66.2	<=8.0
2465.00	12.2	16.4	-6.2	2.0	-66.1	<=8.0
2465.05	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2465.10	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2465.15	12.3	16.4	-6.1	2.0	-66.0	<=8.0
2465.20	12.4	16.4	-6.0	2.0	-65.9	<=8.0
2465.25	12.6	16.4	-5.8	2.0	-65.7	<=8.0
2465.30	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2465.35	12.7	16.4	-5.7	2.0	-65.6	<=8.0
2465.40	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2465.45	12.7	16.4	-5.7	2.0	-65.6	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2465.50	12.9	16.4	-5.5	2.0	-65.4	<=8.0
2465.55	12.8	16.4	-5.6	2.0	-65.5	<=8.0
2465.60	13.0	16.4	-5.4	2.0	-65.3	<=8.0
2465.65	13.1	16.4	-5.3	2.0	-65.2	<=8.0
2465.70	13.2	16.4	-5.2	2.0	-65.1	<=8.0
2465.75	13.3	16.4	-5.1	2.0	-65.0	<=8.0
2465.80	13.4	16.4	-5.0	2.0	-64.9	<=8.0
2465.85	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2465.90	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2465.95	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2466.00	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2466.05	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2466.10	13.5	16.4	-4.9	2.0	-64.8	<=8.0
2466.15	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2466.20	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2466.25	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2466.30	13.6	16.4	-4.8	2.0	-64.7	<=8.0
2466.35	13.8	16.4	-4.6	2.0	-64.5	<=8.0
2466.40	13.7	16.4	-4.7	2.0	-64.6	<=8.0
2466.45	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2466.50	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2466.55	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2466.60	14.0	16.4	-4.4	2.0	-64.3	<=8.0
2466.65	13.9	16.4	-4.5	2.0	-64.4	<=8.0
2466.70	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2466.75	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2466.80	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2466.85	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2466.90	14.1	16.4	-4.3	2.0	-64.2	<=8.0
2466.95	14.2	16.4	-4.2	2.0	-64.1	<=8.0
2467.00	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2467.05	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2467.10	14.6	16.4	-3.8	2.0	-63.7	<=8.0
2467.15	14.5	16.4	-3.9	2.0	-63.8	<=8.0
2467.20	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2467.25	14.3	16.4	-4.1	2.0	-64.0	<=8.0
2467.30	14.4	16.4	-4.0	2.0	-63.9	<=8.0
2467.35	14.7	16.4	-3.7	2.0	-63.6	<=8.0
2467.40	14.8	16.4	-3.6	2.0	-63.5	<=8.0
2467.45	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2467.50	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2467.55	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2467.60	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2467.65	15.0	16.4	-3.4	2.0	-63.3	<=8.0
2467.70	15.1	16.4	-3.3	2.0	-63.2	<=8.0
2467.75	15.3	16.4	-3.1	2.0	-63.0	<=8.0
2467.80	15.4	16.4	-3.0	2.0	-62.9	<=8.0
2467.85	15.6	16.4	-2.8	2.0	-62.7	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq.	Gp	(S/N)o	Mj=J/S	Lsys	Jammer	PER
(MHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(%)
2467.90	15.8	16.4	-2.6	2.0	-62.5	<=8.0
2467.95	15.7	16.4	-2.7	2.0	-62.6	<=8.0
2468.00	15.9	16.4	-2.5	2.0	-62.4	<=8.0
2468.05	16.1	16.4	-2.3	2.0	-62.2	<=8.0
2468.10	16.0	16.4	-2.4	2.0	-62.3	<=8.0
2468.15	16.4	16.4	-2.0	2.0	-61.9	<=8.0
2468.20	16.6	16.4	-1.8	2.0	-61.7	<=8.0
2468.25	16.7	16.4	-1.7	2.0	-61.6	<=8.0
2468.30	16.8	16.4	-1.6	2.0	-61.5	<=8.0
2468.35	17.0	16.4	-1.4	2.0	-61.3	<=8.0
2468.40	17.1	16.4	-1.3	2.0	-61.2	<=8.0
2468.45	17.4	16.4	-1.0	2.0	-60.9	<=8.0
2468.50	17.7	16.4	-0.7	2.0	-60.6	<=8.0
2468.55	17.8	16.4	-0.6	2.0	-60.5	<=8.0
2468.60	18.1	16.4	-0.3	2.0	-60.2	<=8.0
2468.65	18.3	16.4	-0.1	2.0	-60.0	<=8.0
2468.70	18.4	16.4	0.0	2.0	-59.9	<=8.0
2468.75	18.6	16.4	0.2	2.0	-59.7	<=8.0
2468.80	18.7	16.4	0.3	2.0	-59.6	<=8.0
2468.85	18.9	16.4	0.5	2.0	-59.4	<=8.0
2468.90	18.8	16.4	0.4	2.0	-59.5	<=8.0
2468.95	19.1	16.4	0.7	2.0	-59.2	<=8.0
2469.00	19.5	16.4	1.1	2.0	-58.8	<=8.0
2469.05	19.6	16.4	1.2	2.0	-58.7	<=8.0
2469.10	19.9	16.4	1.5	2.0	-58.4	<=8.0
2469.15	20.1	16.4	1.7	2.0	-58.2	<=8.0
2469.20	20.5	16.4	2.1	2.0	-57.8	<=8.0
2469.25	20.9	16.4	2.5	2.0	-57.4	<=8.0
2469.30	21.4	16.4	3.0	2.0	-56.9	<=8.0
2469.35	21.5	16.4	3.1	2.0	-56.8	<=8.0
2469.40	21.6	16.4	3.2	2.0	-56.7	<=8.0
2469.45	21.8	16.4	3.4	2.0	-56.5	<=8.0
2469.50	22.4	16.4	4.0	2.0	-55.9	<=8.0
2469.55	22.6	16.4	4.2	2.0	-55.7	<=8.0
2469.60	22.9	16.4	4.5	2.0	-55.4	<=8.0
2469.65	23.1	16.4	4.7	2.0	-55.2	<=8.0
2469.70	23.5	16.4	5.1	2.0	-54.8	<=8.0
2469.75	23.8	16.4	5.4	2.0	-54.5	<=8.0
2469.80	24.0	16.4	5.6	2.0	-54.3	<=8.0
2469.85	24.4	16.4	6.0	2.0	-53.9	<=8.0
2469.90	25.0	16.4	6.6	2.0	-53.3	<=8.0
2469.95	25.2	16.4	6.8	2.0	-53.1	<=8.0
2470.00	25.5	16.4	7.1	2.0	-52.8	<=8.0
2470.05	25.4	16.4	7.0	2.0	-52.9	<=8.0
2470.10	25.4	16.4	7.0	2.0	-52.9	<=8.0
2470.15	25.5	16.4	7.1	2.0	-52.8	<=8.0
2470.20	25.7	16.4	7.3	2.0	-52.6	<=8.0
2470.25	26.0	16.4	7.6	2.0	-52.3	<=8.0

Processing Gain

11Mbps CHANNEL 11 Processing Gain						
Gp = (S/N)o + Mj + Lsys						
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj=J/S (dB)	Lsys (dB)	Jammer (dBm)	PER (%)
2470.30	26.4	16.4	8.0	2.0	-51.9	<=8.0
2470.35	26.6	16.4	8.2	2.0	-51.7	<=8.0
2470.40	26.8	16.4	8.4	2.0	-51.5	<=8.0
2470.45	26.9	16.4	8.5	2.0	-51.4	<=8.0
2470.50	27.0	16.4	8.6	2.0	-51.3	<=8.0

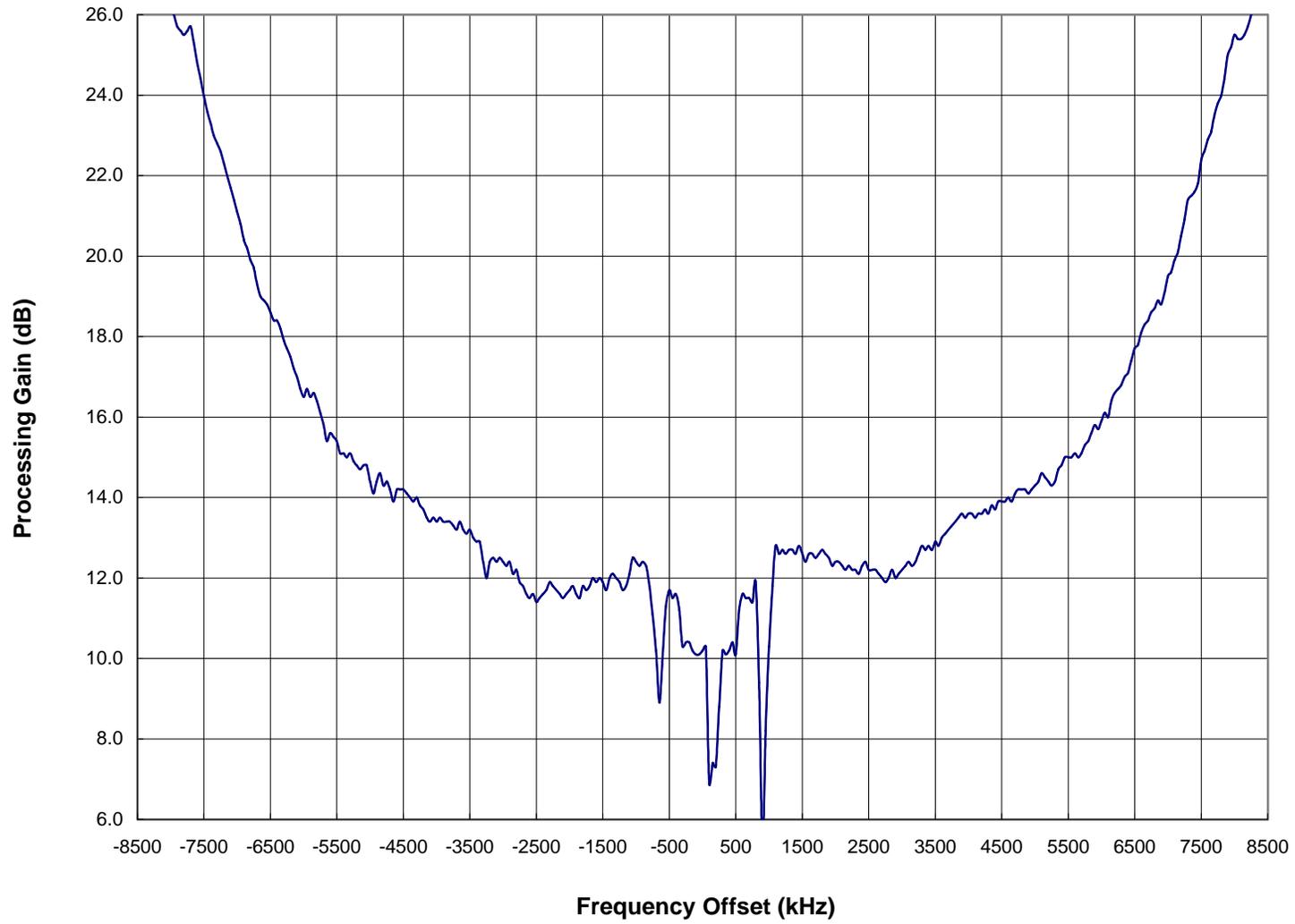
Processing Gain (dB)= **12.0**

Test Conditions

TX Card **U01H010 RevS2**
S/N **0039840010**
RX Card **U01H010 RevS2**
S/N **0039840012**
TX Firmware **P1.1.0+S1.4.3**
RX Firmware **P1.1.0+S1.4.3**
Mode **11 MB Pseudo IBSS**
Pkt Size **1024**
Pkt Dly **1**
Pkt Burst **6**

Intersil Chips on Card: **ISL3984**
ISL3684
ISL3084
ISL3871

Processing Gain Channel 11 (fc=2462MHz) @ 11Mbps





X. Antenna Requirements

10.1 Standard Applicable :

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2 Antenna Connector Construction

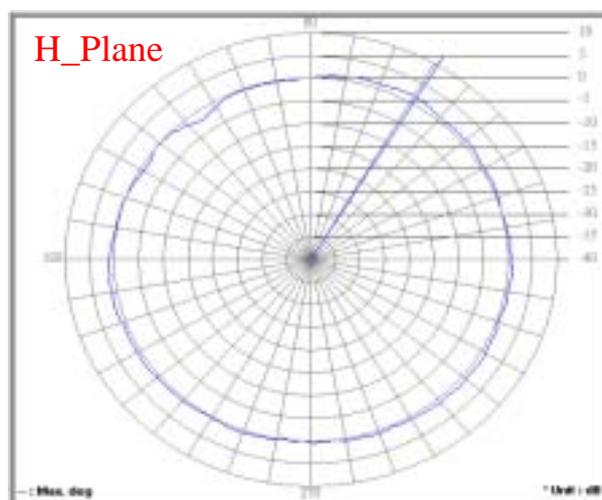
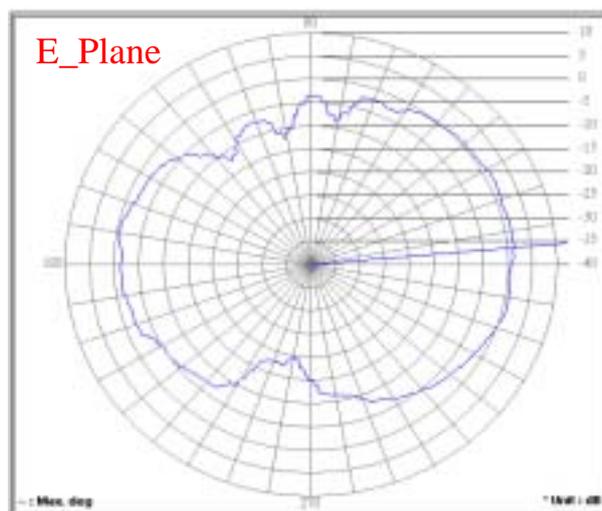
The antenna used in this product is Printed antenna. No antenna connector is provided in this product. And the maximum Gain of this antenna is only 1.72dBi .

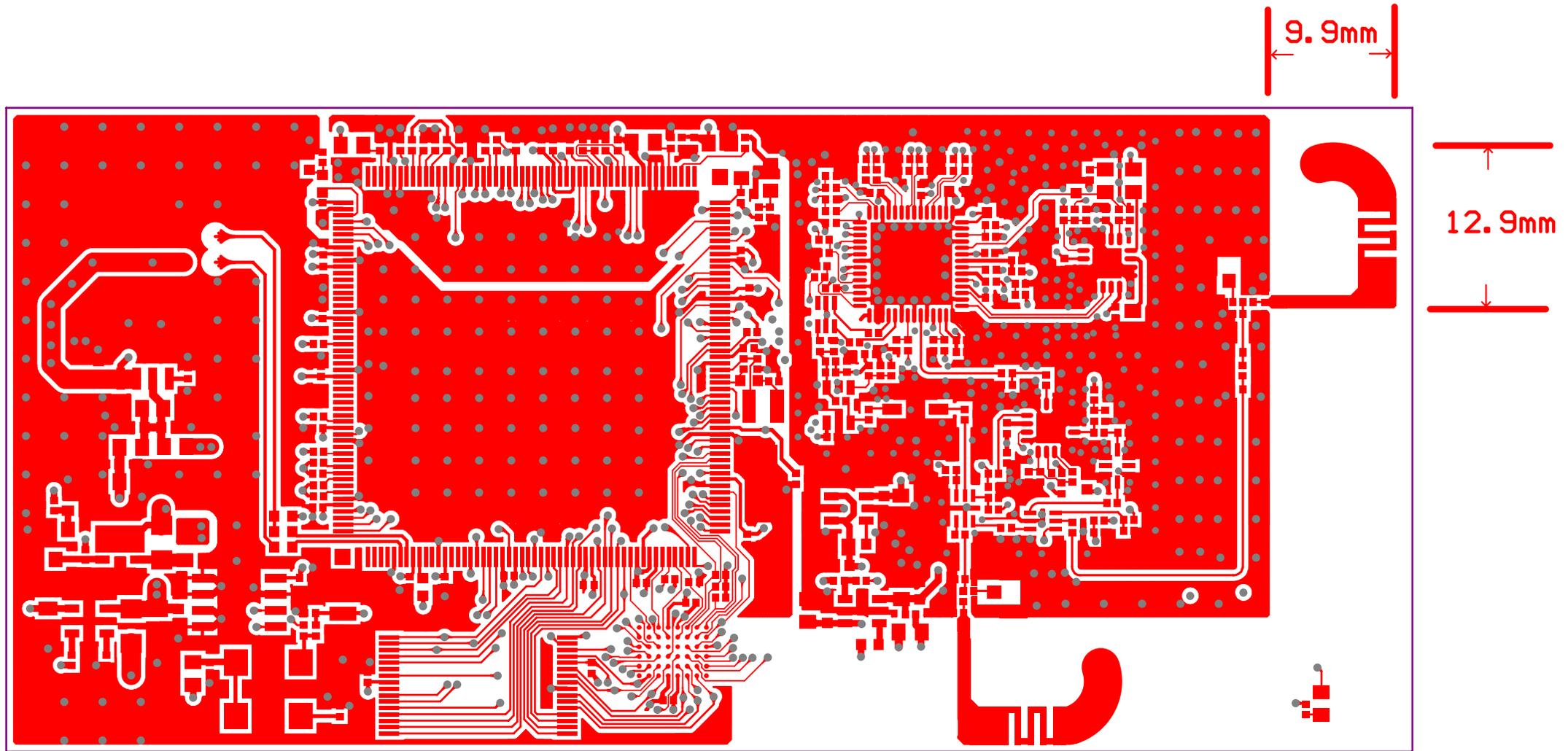
2.4GHz PCB Printed Omni-Directional Antenna

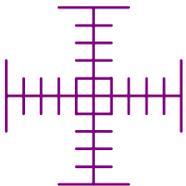
1. Electrical specification

Frequency range	2.4 GHz~2.5 GHz
Peak Gain	1.72 dBi
VSWR	2.0 Max
Polarization	Linear
Impedance	50 ohm

2. Antenna Pattern

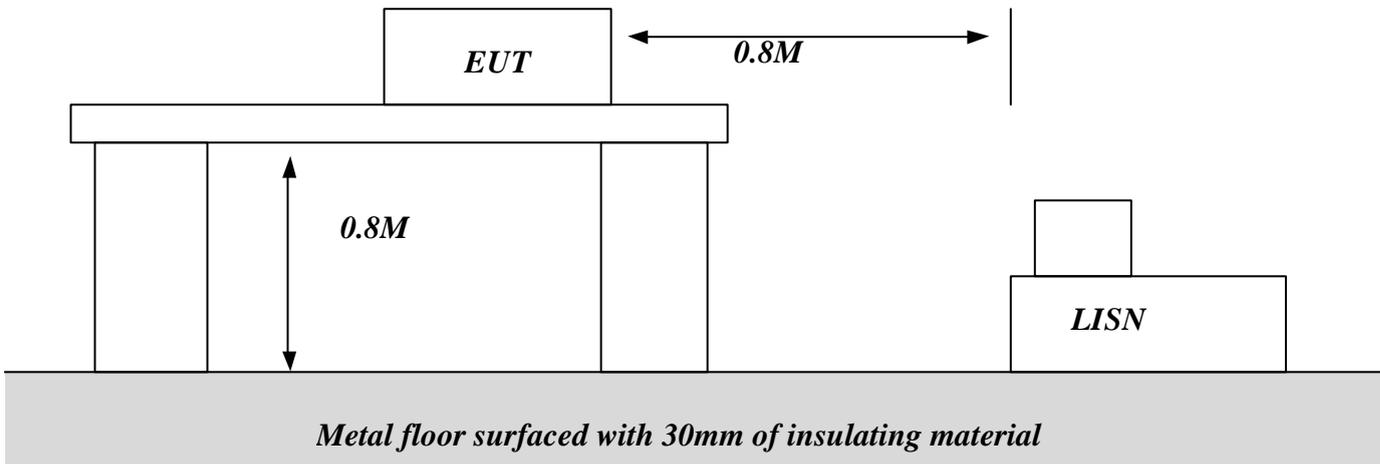




AMBIT SCALE 10MM 	FILM NUMBER	K12H006T00-6C1 -01	
	Mechanical Layer 1		
	P/N	19.XXXX.01	
	Rev.	1	28-Oct-2002

Appendix I- EUT Test SETUP

MEASUREMENT OF POWER LINE CONDUCTED RFI
VOLTAGE



Appendix I- EUT Test SETUP

MEASUREMENT OF RADIATED EMISSION

