MEASUREMENT REPORT of WIRELESS LAN PCI CARD

Applicant : ASUSTeK COMPUTER INC.

Model No. : WL-230

EUT : ASUS SpaceLink WL-230 PCI Card

FCC ID : MSQWL230

Report No. : A5415072

Tested by :

Training Research Co., Ltd.

TEL : 886-2-26935155 **FAX : 886-2-26934440**

255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C.

CERTIFICATION

We here by verify that:

The test data, data evaluation, test procedures and equipment configurations shown in this report were made mainly in accordance with the procedures given in ANSI C63.4 (1992) as a reference. All test were conducted by ***Training Research Co., Ltd.***, 255 Nanyang Street, Shijr, Taipei Hsien 221, 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** the technical requirements set forth in the FCC Rules Part 15 Subpart C Section 15.247.

Applicant	:	ASUSTeK COMPUTER INC.
Model No.	:	WL-230
EUT	:	ASUS SpaceLink WL-230 PCI Card
FCC ID	:	MSQWL230
Report No.	:	A5415072
Test Date	:	Dec 16th, 2002

Prepared by: *Eric Wong*

Approved by: *Frank Tsai*

Tested by :

Training Research Co., Ltd.

TEL: 886-2-26935155 **FAX: 886-2-26934440**

255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C.

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Ⅰ. GENERAL

1.1 Introduction

The following measurement report is submitted on behalf of applicant supporting that the *Wireless LAN PCI Card* certification in accordance with Part 2 Subpart J and Part 15 Subpart A and C of the Commission's Rules and Regulations.

1.2 Description of EUT

EUT	:	ASUS SpaceLink WL-230 PCI Card
Model No.	:	WL-230
FCC ID	:	MSQWL230
Frequency Range	:	2.4GHz-2.4835GHz / 5.725GHz-5.85GHz
Modulation Skill	:	DBPSK, DQPSK, CCK / OFDM
Interface	:	PCI interface
Power Type	:	By PCI slot of the client’ s device
Applicant	:	ASUSTeK COMPUTER INC. 4/F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

1.3 Description of Support Equipment

PC	**:**	**HP Brio 85xx 6/350**
Model No.	:	D6928A
Serial No.	:	SG91801535
FCC ID	:	N/A, DoC (Declaration of Confirmation) Approved
檢磁	:	3872H013
Power type	:	100 ~ 230VAC / 50 ~ 60Hz, 5A, Switching
Power cord	:	Non-shielded, 2.33m long, Plastic, No ferrite core

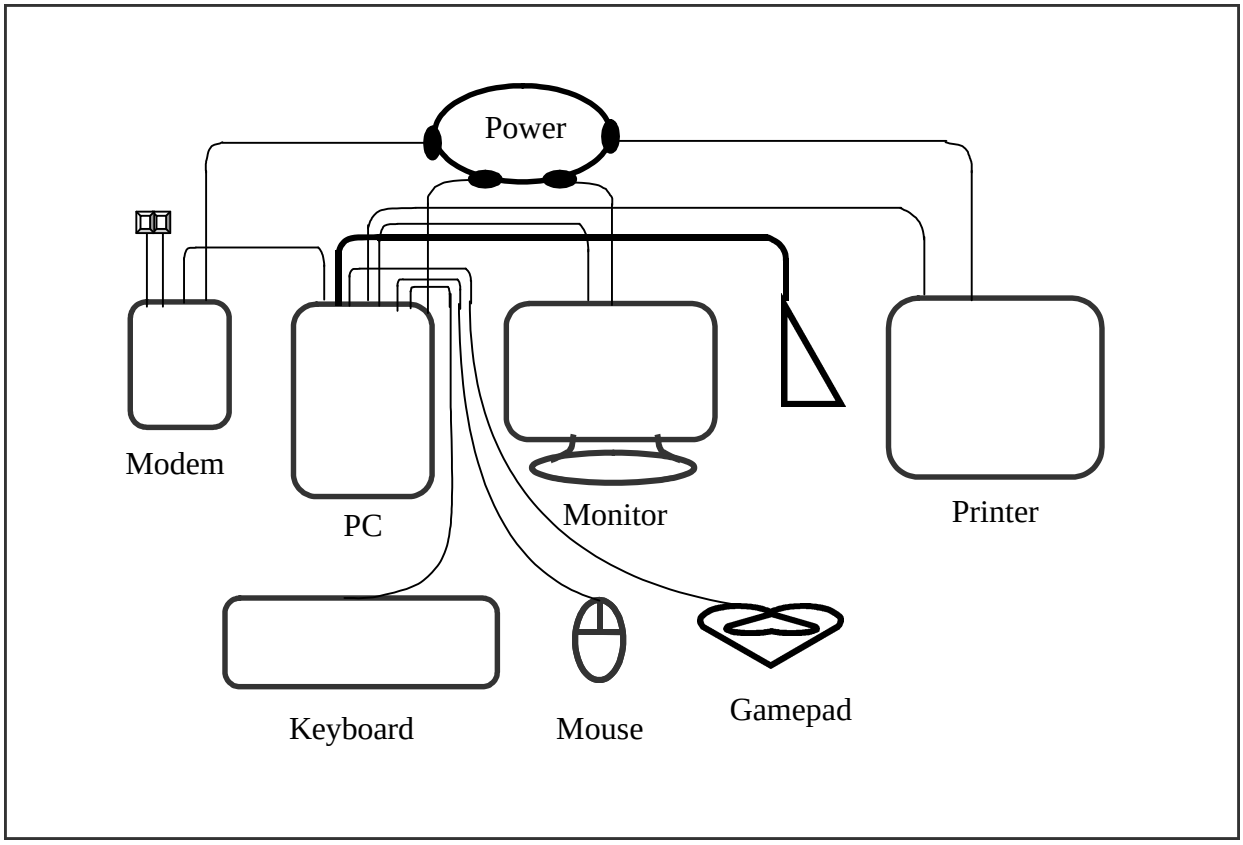
Monitor	**:**	**HP 15’ Color Monitor**
Model No.	:	D2827A
Serial No.	:	KR91161717
FCC ID	:	C5F7NFCMC1518X
檢磁	:	3872B039
Power type	:	100 ~ 240 VAC / 50 ~ 60 Hz, Switching
Power cord	:	Shielded, 1.83m long, No ferrite core
Data cable	:	Shielded, 1.46m long, with two ferrite cores

Keyboard	**:**	**HP**
Model No.	:	SK-2501K
Serial No.	:	M990308909
FCC ID	:	GYUR38SK
檢磁	:	3862A621
Power type	:	By PC
Data cable	:	Shielded, 1.73m long, with ferrite core

Mouse	**:**	**HP**
Model No.	:	M-S34
Serial No.	:	LZB90714122
FCC ID	:	DZL211029
檢磁	:	4862A011
Power type	:	By PC
Power cord	:	Non-shielded, 1.88m long, No ferrite core

USB Gamepad	**:**	**Padix**
Model No.	:	QF-606U
Serial No.	:	None
FCC ID	:	DoC Approval
Power type	:	Powered by PC
Power Cable	:	Shielded, 1.5m long, No ferrite bead data cable
Prineter	**:**	**HEWLETT-PACKARD**
Type No.	:	C4562A (Deskjet 690C)
Serial No.	:	SG73E1B2GY
FCC ID	:	B94C2164X
AC Adaptor	**:**	**NMB**
Model No.	:	C2175A
Serial No.	:	1607496
FCC ID	:	DoC Approved
Power Core	:	Shielded, Plastic hoods, w/o ferrite bead
Power type	:	120VAC, 60Hz, 0.22A / 30VDC, 400mA
Modem	**:**	**Acer Communication & Multimedia Inc**
Model No.	:	AcerModem 56K Surf
Serial No.	:	None
FCC ID	:	DoC Approval
Power type	:	Powered by AC Adapter (120VAC 60Hz / 9VAC 800mA

1.4 Configuration of System Under Test



The EUT was inserted into the PCI slot of the personal computer. The EUT is controlled in selection of output power level and channel number by the utilities installed in the personal computer.

The setting up procedure was recorded in <Appendix A>.

1.5 Test Procedure

All measurements contained in this report were performed mainly according to the techniques described in ANSI C63.4 (1992) and the pre-setup was written on Appendix A, the detail setup was written on each test item.

1.6 Location of the Test Site

The radiated emissions measurements required by the rules were performed on the **three-meter**, **Anechoic Chamber (Registration Number: 93906)** maintained by *Training Research Co., Ltd.* - 255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Complete description and measurement data have been placed on file with the commission. The conducted power line emissions tests and other test items were performed in an anechoic chamber also located at Training Research Co., Ltd.

255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C., *Training Research Co., Ltd.* is listed by the FCC as a facility available to do measurement work for others on a contract basis.

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 were chosen as that which produced the highest emission levels. However, only those conditions, which the EUT was considered likely to encounter in normal uses were investigated.

The setting up procedure is recorded on <Appendix A>.

II. Section 15.203: Antenna requirement

The EUT has an integrated antenna (with the “locktite” property). It is an external antenna connected through a cable with a MCX connector. It deems a unique connector as the connector is passed the “RadioShack” evaluation and satisfies the antenna requirement stated in Rules Sect.15.203.

III. Section 15.207: Power Line Conducted Emissions for AC Powered Units

3.1 Test Condition & Setup

The power line conducted emission measurements were performed in an anechoic chamber. The EUT was assembled on a wooden table, which is 80 centimeters high, was placed 40 centimeters from the back-wall 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 Line Impedance Stabilization Networks (LISNs). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer (or EMI receiver) 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 6dB bandwidth was set to 9KHz. No post-detector video filter was used.

The spectrum was scanned from 150 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 2.4.

There is test conditions apply in this test item, the test procedure description as the following:

The setting up procedure is recorded on <Appendix A>.

3.2 List of Test Instruments

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Jun/29/02	Jun/29/03
RF Filter Section	85460A	H P	3448A00217	Jun/29/02	Jun/29/03
LISN (EUT)	LISN-01	TRC	9912-03,04	Dec/09/02	Dec/09/03
LISN (Support E.)	LISN-01	TRC	9912-05	Jan/04/02	Jan/04/03
Switch/Control Unit (< 30MHz)	3488A	HP	N/A	Nov/20/02	Nov/20/03
Auto Switch Box (< 30MHz)	ASB-01	TRC	9904-01	Nov/20/02	Nov/20/03

3.3 Test configuration

Conducted Emissions Test Configuration

3.4 Test Results of Conducted Emissions

Testing Condition: Temperature: 22.5° C Humidity: 55.8 % RH

Line 1

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBmV/m)	*Quasi-Peak (dBmV/m)*	*Average (dBmV/m)*	*Quasi-Peak (dBmV/m)*	*Average (dBmV/m)*	
183.000	52.75	---	---	65.06	55.06	-2.31
370.000	39.26	---	---	59.71	49.71	-10.45
461.000	43.33	---	---	57.11	47.11	-3.78
674.000	41.17	---	---	56.00	46.00	-4.83
774.840	44.62	44.54	43.71	56.00	46.00	-2.29
867.000	41.88	---	---	56.00	46.00	-4.12
1017.000	42.74	---	---	56.00	46.00	-3.26
1113.000	42.11	---	---	56.00	46.00	-3.89
1534.000	38.72	---	---	56.00	46.00	-7.28
3936.000	31.84	---	---	56.00	46.00	-14.16

Line 2

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBmV/m)	*Quasi-Peak (dBmV/m)*	*Average (dBmV/m)*	*Quasi-Peak (dBmV/m)*	*Average (dBmV/m)*	
185.000	49.94	---	---	65.00	55.00	-5.06
370.000	35.17	---	---	59.71	49.71	-14.54
461.000	39.78	---	---	57.11	47.11	-7.33
674.000	36.72	---	---	56.00	46.00	-9.28
774.000	40.32	---	---	56.00	46.00	-5.68
867.000	38.54	---	---	56.00	46.00	-7.46
1017.000	38.82	---	---	56.00	46.00	-7.18
1550.000	34.66	---	---	56.00	46.00	-11.34
1783.000	33.35	---	---	56.00	46.00	-12.65
20490.000	33.24	---	---	60.00	50.00	-16.76

(NOTE: Margin = Peak Amplitude – Limit)

IV. Section 15.247 (a): Technical description of the EUT

Based on the Section 2.1, *Direct Sequence System* is a spread spectrum system in which the carrier has been modulated by a high speed spreading code and an information data stream. The high speed code sequence dominates the “modulating function” and is the direct cause of the wide spreading of the transmitted signal. Operational Description demonstrates the operation principles of the base-band processor employed by the EUT, shows that which is a complete DSSS base-band processor and meets the definition of the Direct sequence spread spectrum system. Further information about the operation of the OFDM and DSSS, please refer to the Operation Description as a separate exhibit uploaded.

V. Section 15.247(a)(1): Carrier Frequency Separation

5.1 Test Condition

The EUT must have its hopping function enabled. Use the following spectrum analyzer setting:

Span = wide enough to capture the peaks of two adjacent channels

Resolution (or IF) bandwidth (RBW)≧ 1% of the span

Video (or Average) Bandwidth (VBW) ≧ RBW

Sweep = Auto

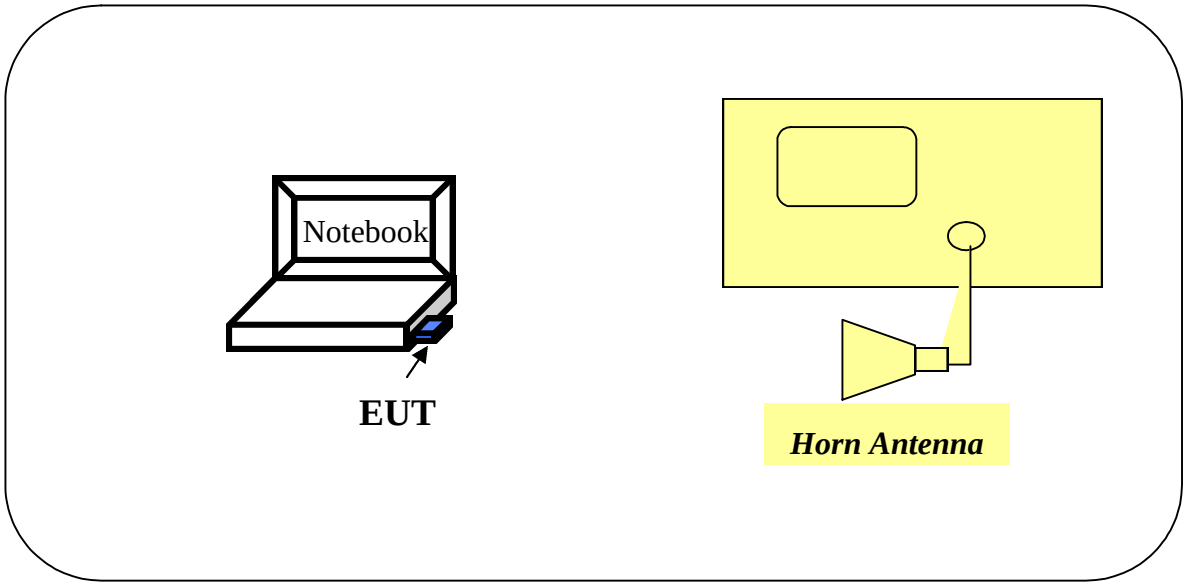
Detector Function = peak

Trace = max hold

Setting up procedure is written on <Appendix A>.

Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channel. The limit is specified in one of the subparagraphs of this section. Submit this plot.

5.2 Test Instruments Configuration



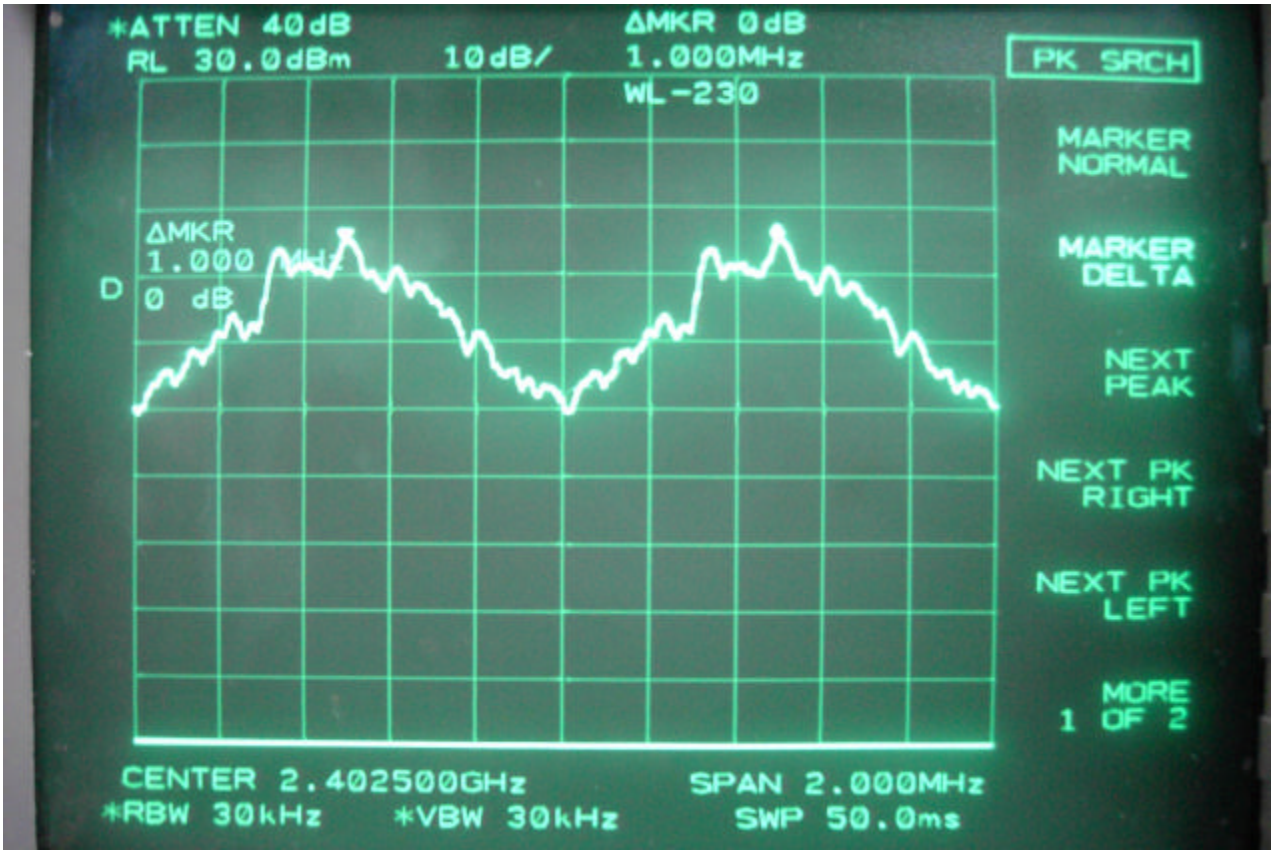
Test Configuration of carrier frequency separation

5.3 List of Test Instruments

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/02	Oct/18/03
RF FilterSection	85460A	H P	3448A00217	Oct/18/02	Oct/18/03
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

5.4 Test Results

Channel Separation: 1MHz



VI. Section 15.247(a)(1)(ii) Number of Hopping Frequencies

6.1 Test Condition

The EUT must have its Hopping function enabled. Use the following spectrum analyzer setting:

Span = the frequency band of operation

RBW ≧ 1% of the span

VBW ≧ RBW

Sweep = auto

Detector function = peak

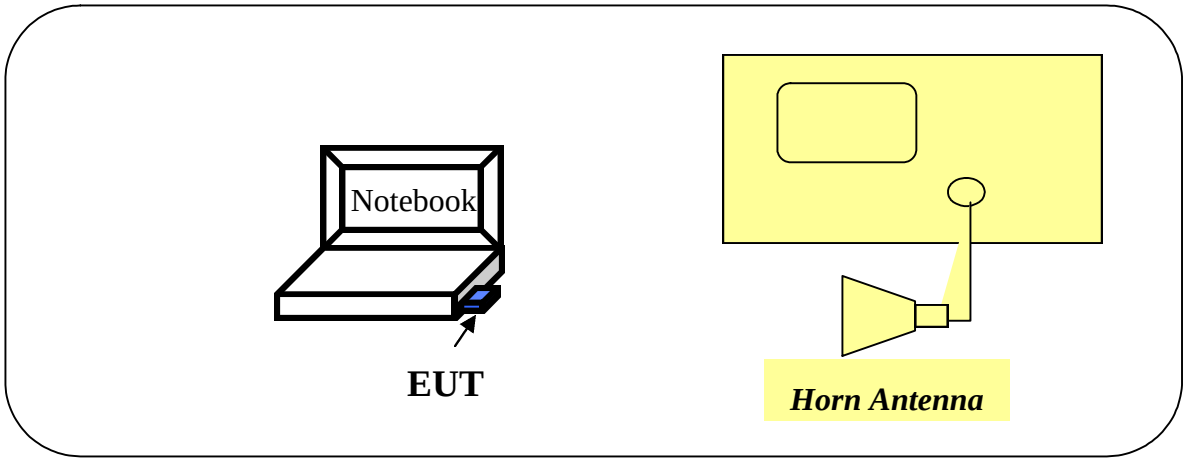
Trace = max hold

Allow the trace to stabilize. It may prove necessary to break the span up to sections. In order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this section. Submit this plots.

6.2 List of Test Instruments

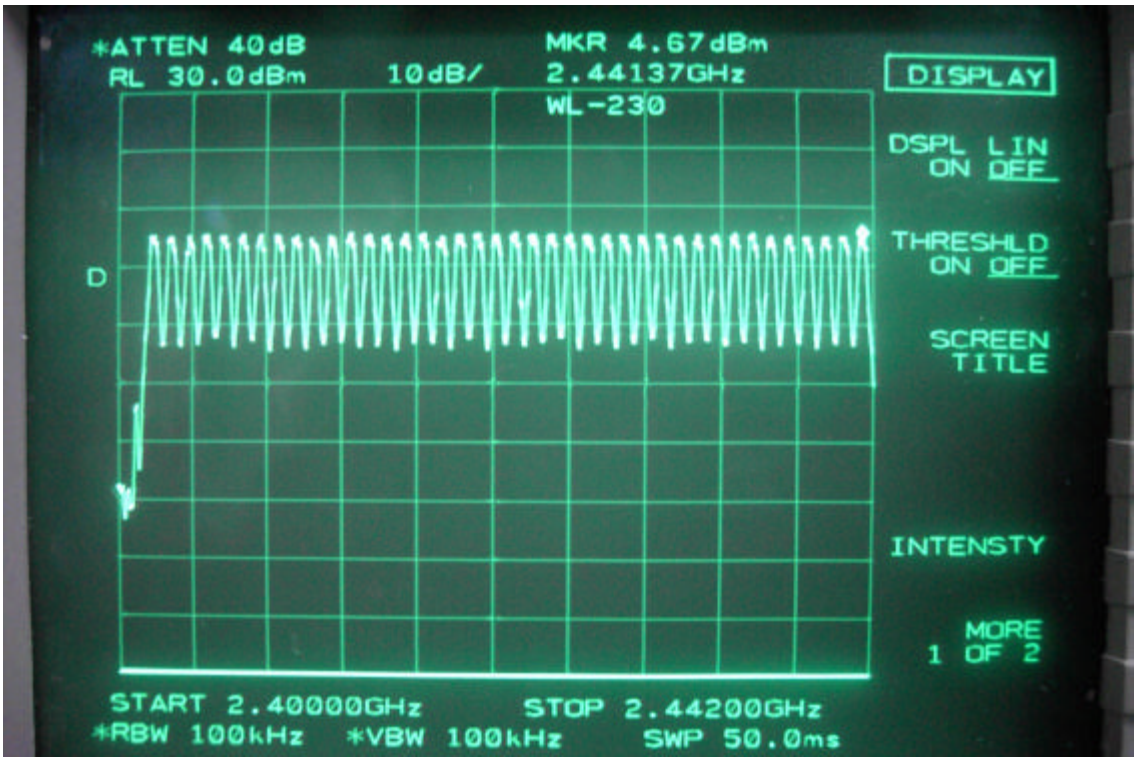
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
Spectrum Analyzer	8564E	H P	US36433002	Aug/13/02	Aug/13/03
Microwave Preamplifier	83051A	H P	3232A00347	Aug/13/02	Aug/13/03
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

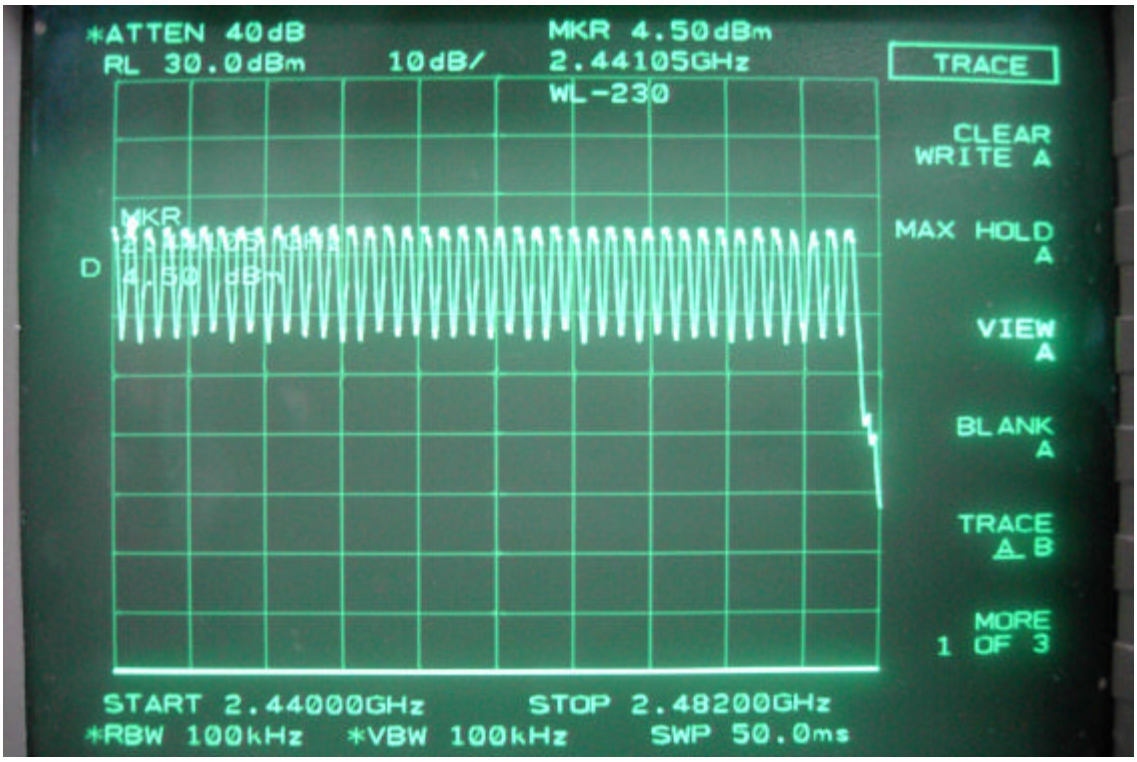
6.3 Test Instruments Configuration



Test Configuration for number of hopping frequencies

6.4 Test Results





VII. Section 15.247(a)(1)(ii) Time of Occupancy (Dwell Time)

7.1 Test Condition

The EUT must have its hopping function enabled. Use the following spectrum analyzer setting:

Span = zero span, centered on a hopping channel
RBW = 1M
VBW ≧ RBW
Sweep = as necessary to capture the entire dwell time per hopping channel
Detector function = peak
Trace = max hold

If possible, use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this section. Submit this plot(s). An oscilloscope may be used instead of a spectrum analyzer.

7.2 List of Test Instruments

Instrument Name	Model No	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/02	Oct/18/03
RF Filter Section	85460A	H P	3448A00217	Oct/18/02	Oct/18/03
Switch/Control Unit (> 30MHz)	3488A	H P	N/A	Nov/22/02	Nov/22/03
Auto Switch Box (> 30MHz)	ASB-01	TRC	9904-01	Nov/22/02	Nov/22/03
Spectrum Analyzer	8564E	H P	US36433002	Aug/13/02	Aug/13/03
Microwave Preamplifier	83051A	H P	3232A00347	Aug/13/02	Aug/13/03
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

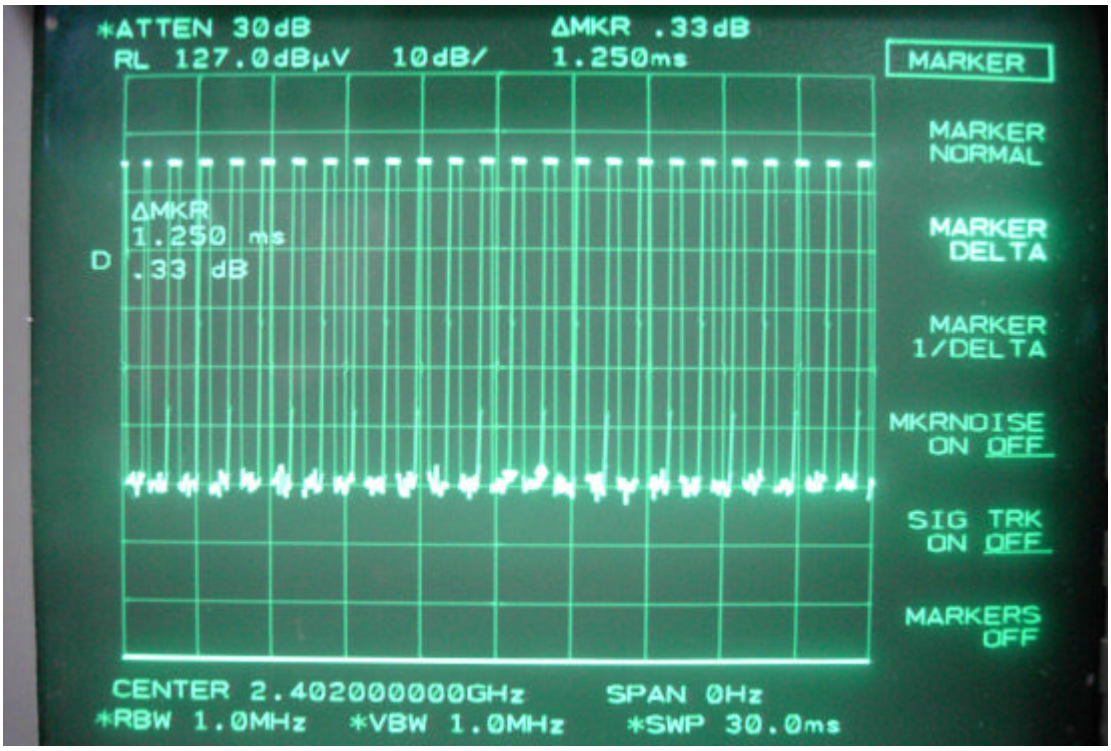
7.3 Test Results

1.Pulse width of one slot measurement:

Results: 1.250 ms.

2.Dwell time measurement

Results: The average time of occupancy is less than 0.4 second within a 30 second period.



VIII. Section 15.247(a)(1)(ii) 20dB Bandwidth

8.1 Test Condition

Use the following spectrum analyzer setting:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW ≧ 1% of the 20 dB bandwidth

VBW ≧ RBW

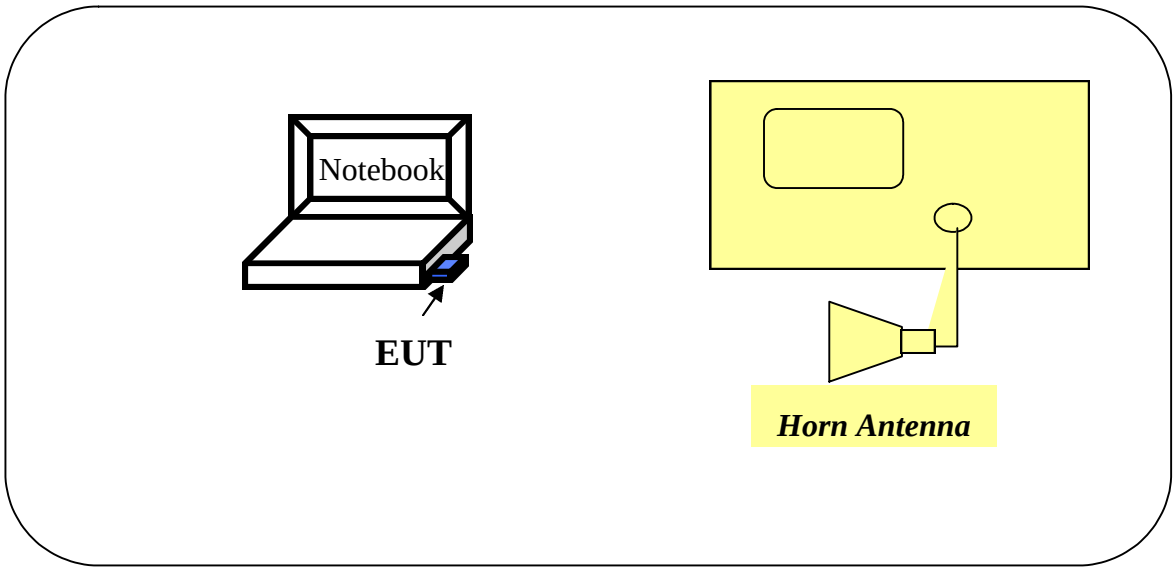
Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of emission. Use the marker-delta function to measure 20dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this section. Submit this plot(s).

8.2 Test Instruments Configuration



Test Configuration of Bandwidth for Frequency Hopping Spread Spectrum System

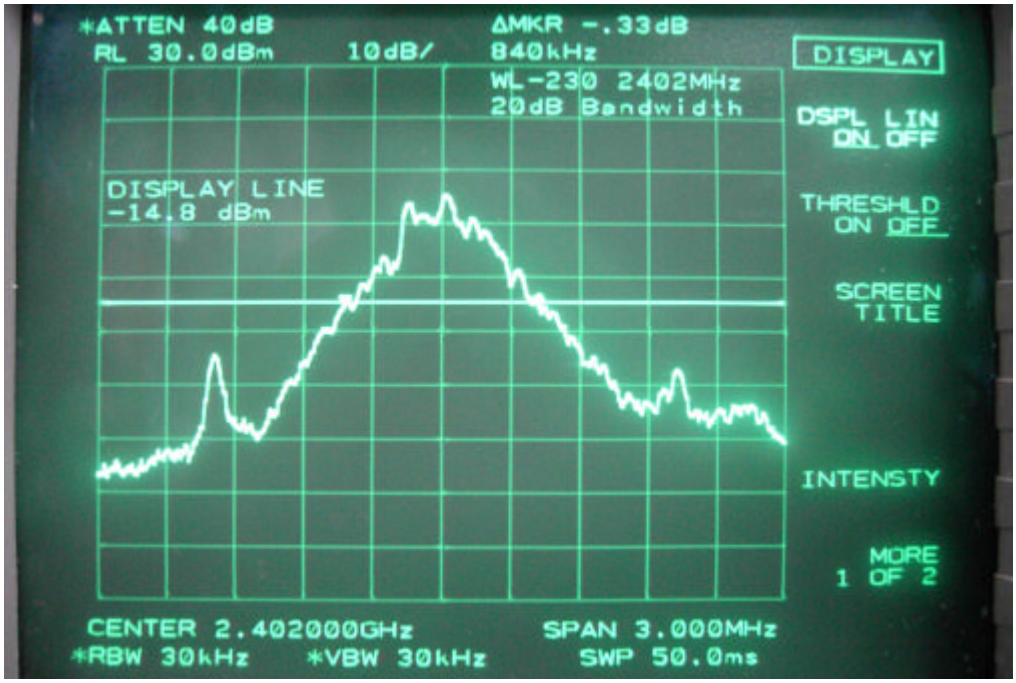
8.3 List of Test Instruments

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/02	Oct/18/03
RF FilterSection	85460A	H P	3448A00217	Oct/18/02	Oct/18/03
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

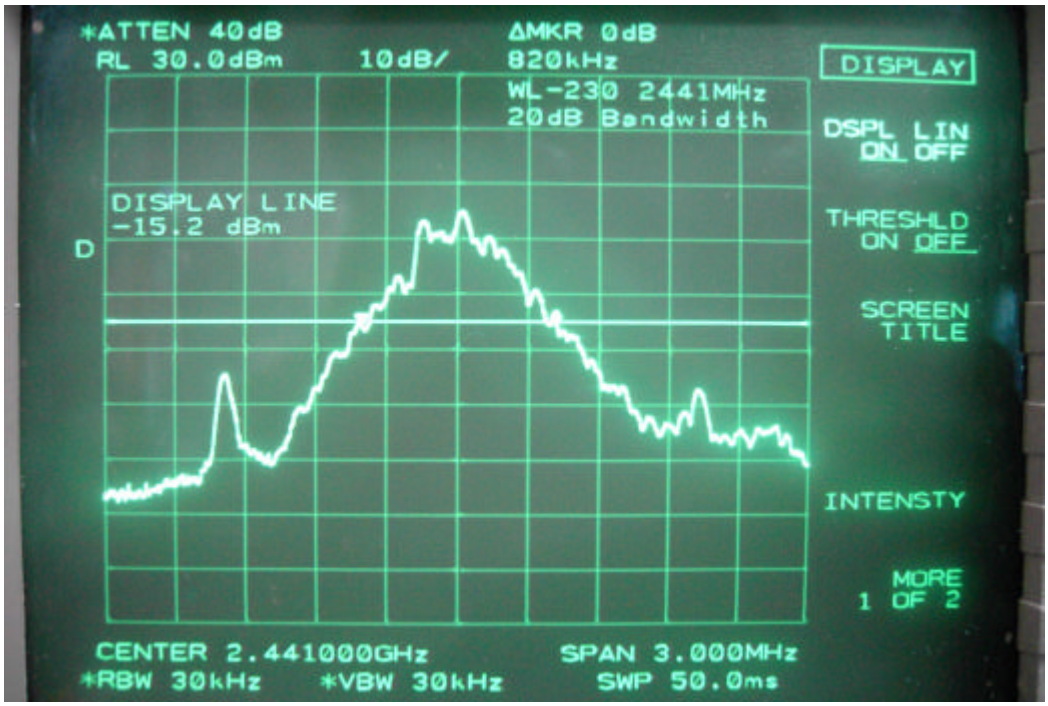
8.4 Test Results

Channel	Bandwidth
Channel 0	840 kHz
Channel 39	820 kHz
Channel 78	785 kHz

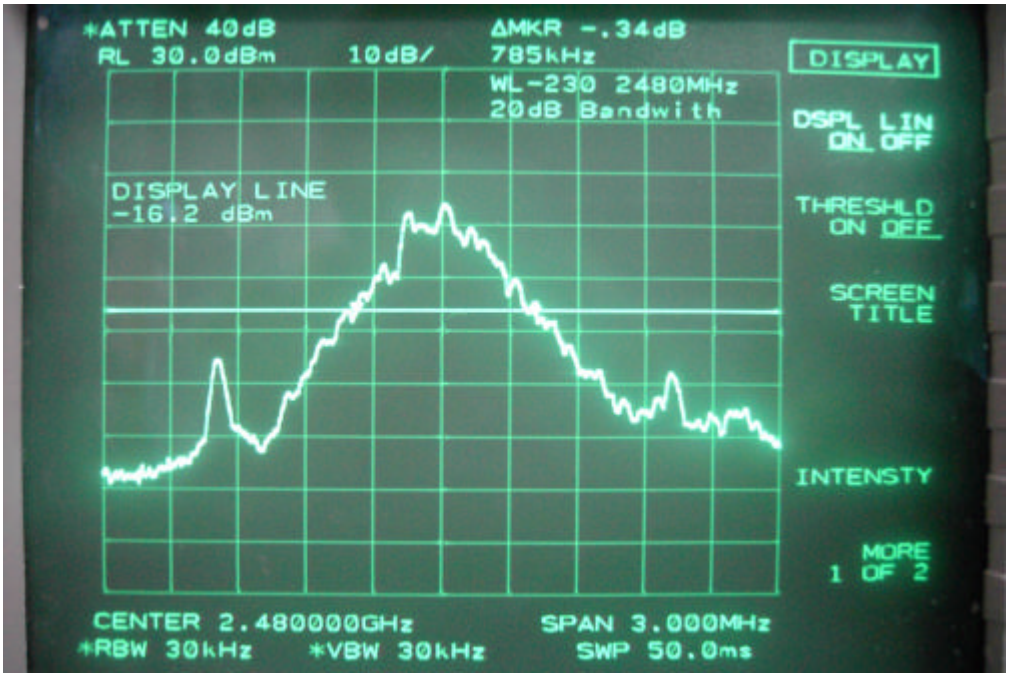
Bandwidth of Channel 0:



Bandwidth of Channel 39:

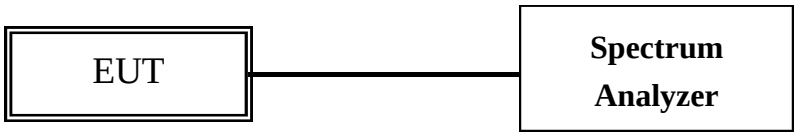


Bandwidth of Channel 78:



IX. Section 15.247(b) Peak Output Power

9.1 Test Condition & Setup



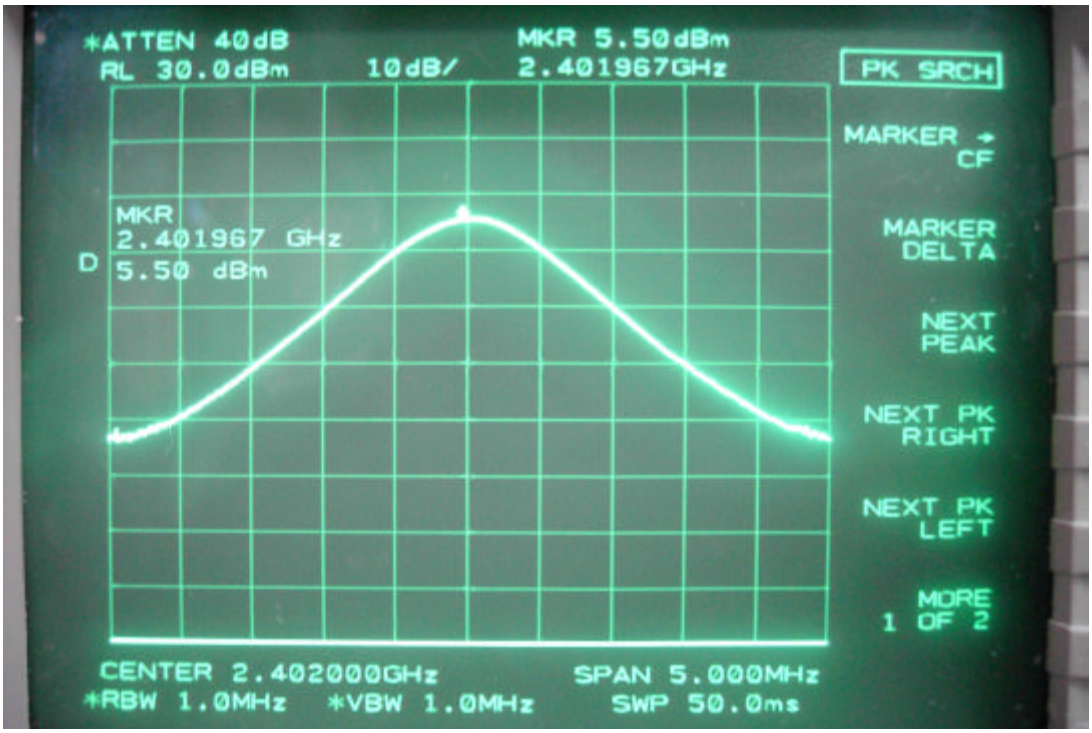
9.2 List of Test Instruments

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/02	Oct/18/03
RF FilterSection	85460A	H P	3448A00217	Oct/18/02	Oct/18/03

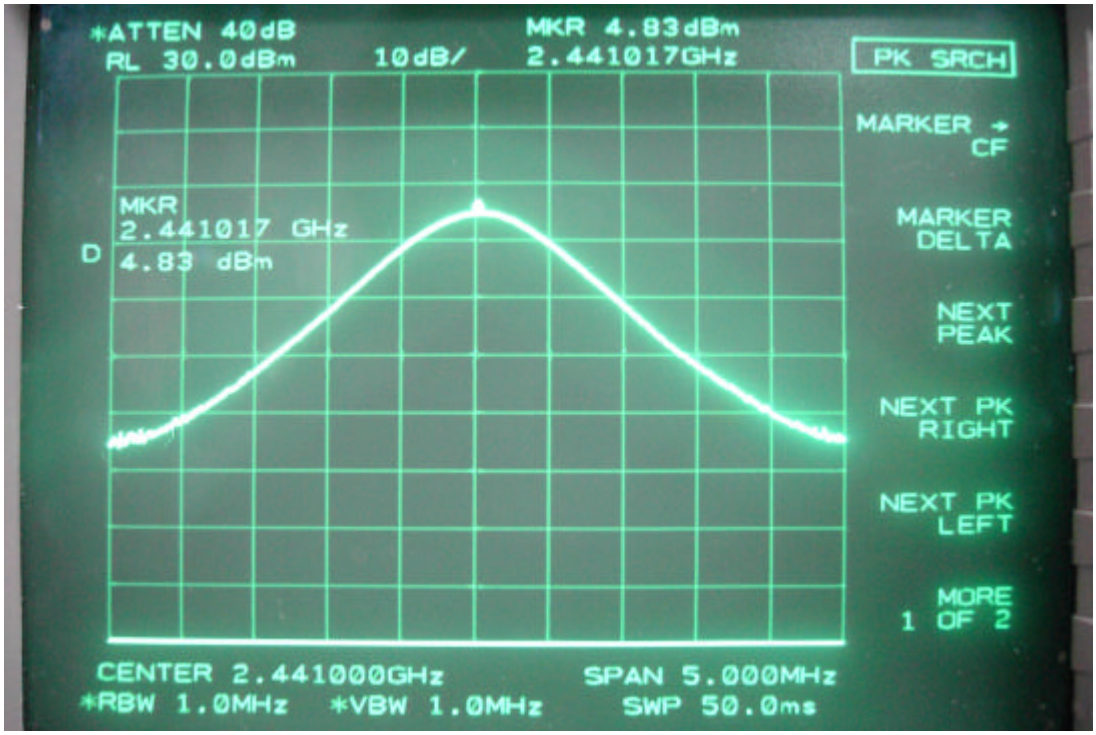
9.3 Test Results

Channel	***Frequency***	***Corrected Amplitude***	***Output peak power***	
	GHz	***dBuV/m***	***dBm***	***mW***
CH.00	2.402	100.73	5.50	3.55
CH.39	2.441	100.06	4.83	3.04
CH.78	2.480	99.23	4.00	2.51

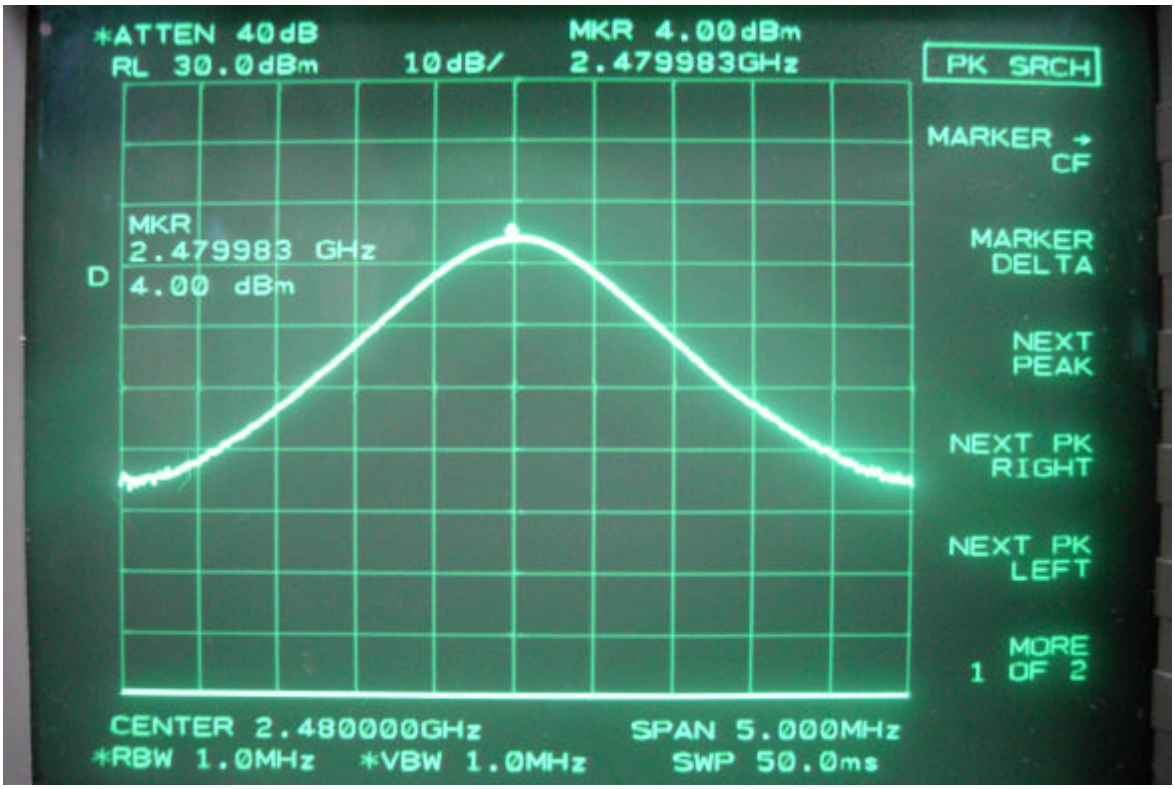
Ch.0


*ATTEN 40dB
RL 30.0dBm
10dB/
MKR 5.50dBm
2.401967GHz
PK SRCH
MARKER → CF
MARKER DELTA
NEXT PEAK
NEXT PK RIGHT
NEXT PK LEFT
MORE 1 OF 2
MKR
2.401967 GHz
D
5.50 dBm
CENTER 2.402000GHz
SPAN 5.000MHz
*RBW 1.0MHz
*VBW 1.0MHz
SWP 50.0ms

Ch.39


*ATTEN 40dB
RL 30.0dBm
10dB/
MKR 4.83dBm
2.441017GHz
PK SRCH
MARKER → CF
MARKER DELTA
NEXT PEAK
NEXT PK RIGHT
NEXT PK LEFT
MORE 1 OF 2
MKR
2.441017 GHz
D
4.83 dBm
CENTER 2.441000GHz
SPAN 5.000MHz
*RBW 1.0MHz
*VBW 1.0MHz
SWP 50.0ms

Ch.78


*ATTEN 40dB
RL 30.0dBm
10dB/
MKR 4.00dBm
2.479983GHz
PK SRCH
MARKER → CF
MARKER DELTA
NEXT PEAK
NEXT PK RIGHT
NEXT PK LEFT
MORE 1 OF 2
MKR
2.479983 GHz
D
4.00 dBm
CENTER 2.480000GHz
SPAN 5.000MHz
*RBW 1.0MHz
*VBW 1.0MHz
SWP 50.0ms

X. Section 15.247(c) Band-edge Compliance

10.1 Test Condition

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation

RBW ≧ 1% of the span

VBW ≧ RBW

Sweep = auto

Detector function = peak

Trace = max hold

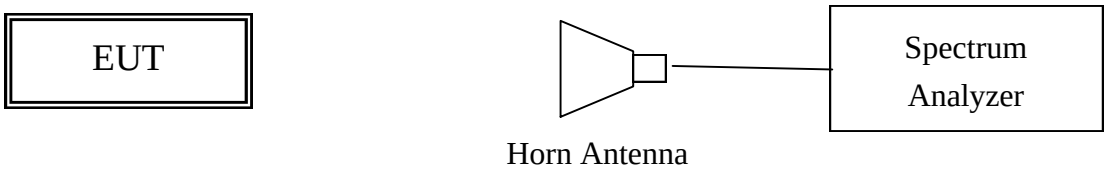
Allow the trace to stabilize. Set the marker on the emission at the band-edge, or on the highest modulation product outside of the band, if this level is greater than that at the band-edge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. the marker-delta value now displayed must comply with the limit specified in this section. Submit this plot.

Now, using the same instrument setting, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emission caused by the hopping function also comply with the specified limit. Submit this plot.

10.2 List of Test Instruments

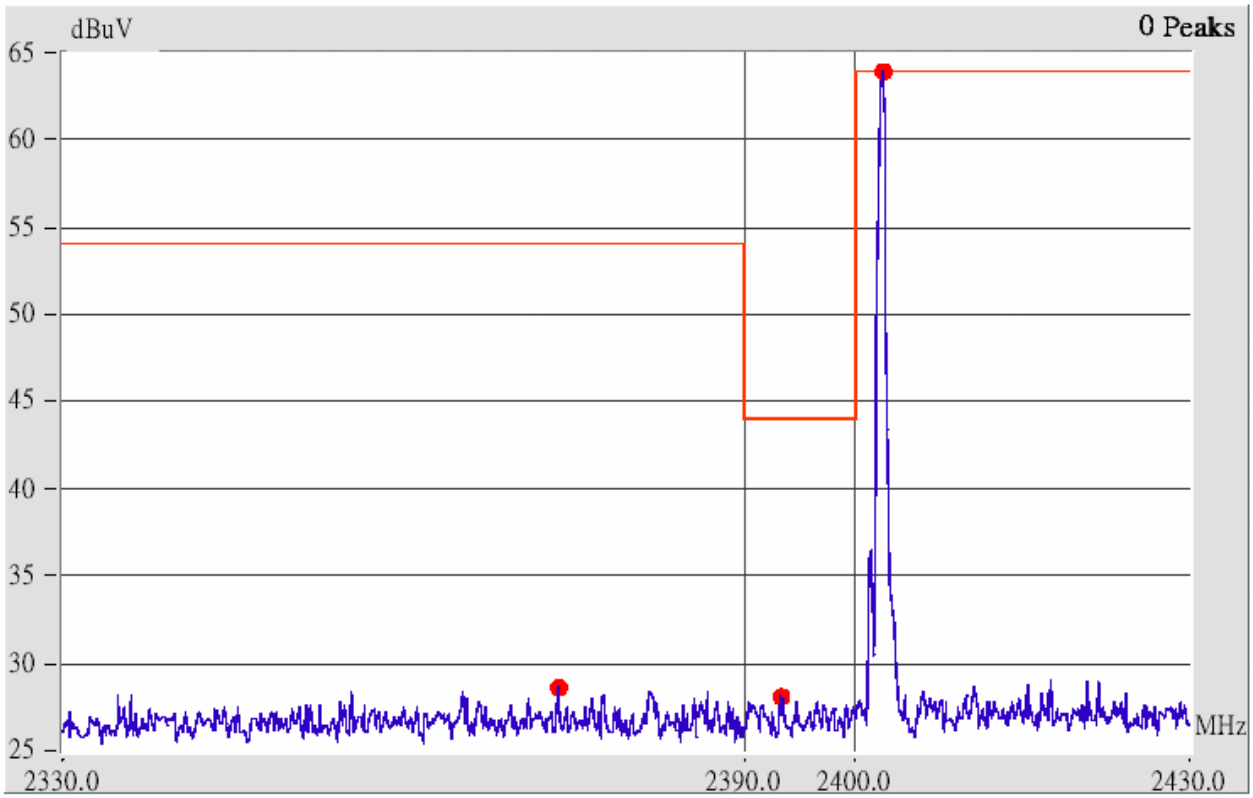
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/01	Oct/18/02
RF FilterSection	85460A	H P	3448A00217	Oct/18/01	Oct/18/02
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

10.3 Test Instruments Configuration



10.4 Test Results

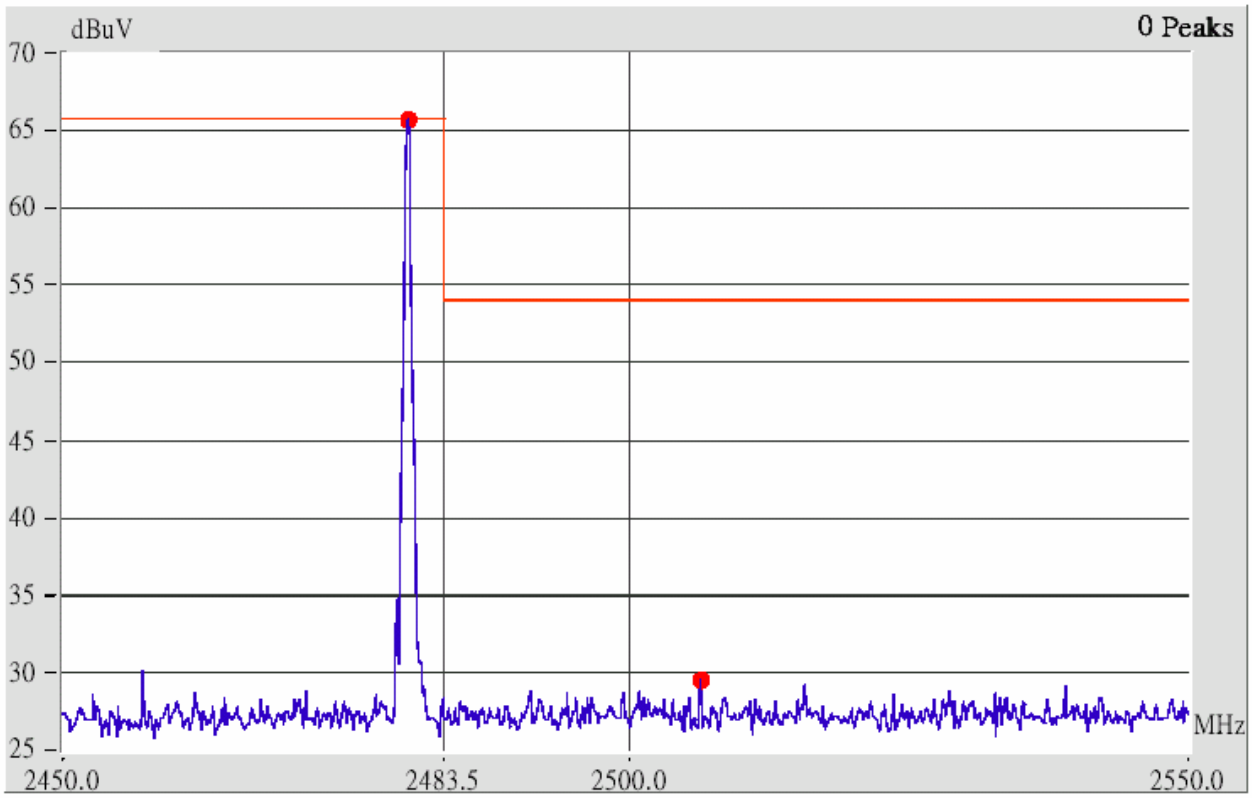
Channel 00



This is the hard copy of our band-edge measurement generated by our band-edge testing program. The picture shown above is the band-edge of channel 0.

1. The lobe right by the fundamental side is already 20dB below the highest emission level.
2. The emissions recorded in the restricted band (<2400MHz) is do comply with the Part 15.209(a) – under the limited line marked in red color.

Channel 78



This is the hard copy of our band-edge measurement generated by our band-edge testing program. The picture shown above is the band-edge of channel 78.

1. The lobe right by the fundamental side is already 20dB below the highest emission level.
2. The emissions recorded in the restricted band (>2483.5MHz) is do comply with the Part 15.209(a) – under the limited line marked in red color.

XI Section 15.247(c) Spurious Radiated Emissions

11.1 Test Condition

This test is required for any spurious emission or modulation product that falls in a restricted band, as defined in section 15.205. It must be performed with highest gain or each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured
RBW = 1 MHz for f > 1 GHz, 100 KHz for f < 1 GHz
VBW = RBW
Sweep = auto
Detector function = peak
Trace = max hold

Following the guidelines in ANSI C63.4-1992 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. a pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in section 15.35(b). submit this data.

Now set the VBW to 10 Hz, while maintaining all the other instrument settings. This peak level, once corrected, must comply with the limit specified in section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a “duty cycle correction factor”, derived from 20log (dwell time/100ms), in an effort to demonstrate compliance with the 15.209 limit. If the emission on which a reading measurement must be made is located at the edge of the authorized band of operation, then the alternative “marker-delta” method, listed at the end of this document, may be employed.

11.2 List of Test Instruments

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
EMI Receiver	8546A	H P	3520A00242	Oct/18/02	Oct/18/03
RF FilterSection	85460A	H P	3448A00217	Oct/18/02	Oct/18/03
Horn Antenna	3115	EMCO	9704 – 5178	Aug/15/02	Aug/15/03

11.3 Test Instruments Configuration

Front View of the Test Configuration

Rear View of the Test Configuration

11.4 Test Results of Spurious Radiated Emissions

EUT's transmit only

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

Test Conditions: Testing room : Temperature : 25.0 ° C Humidity : 50.2 % RH

Open Field Radiated Emissions For 9KHz 1GHz [Bluetooth mode, Horizontal]

Radiated Emission				*Correction Factors*	*Corrected Amplitude*	*FCC Class B (3 m)*	
Frequency (MHz)	*Amplitude (dBmV/m)*	*Ant. H. (m)*	*Table (°)*	*(dB)*	*(dBmV/m)*	*Limit (dBmV/m)*	*Margin (dB)*
67.94	26.22	3.73	157	6.24	32.46	40.00	-7.54
139.12	29.86	1.00	153	2.20	32.06	43.50	-11.44
239.16	29.00	1.00	151	1.66	30.66	46.00	-15.34
292.51	29.49	1.00	66	2.05	31.54	46.00	-14.46
433.16	24.57	1.00	182	6.54	31.11	46.00	-14.89
672.13	19.85	1.00	85	16.07	35.92	46.00	-10.08

Note: 1. Margin = Corrected Amplitude – Limit. (The emissions recorded are all at least 20dB below the limits.)

2. Peak Amplitude – Correction Factors = Corrected Amplitude

Open Field Radiated Emissions For 9KHz 1GHz [Bluetooth mode, Vertical]

Radiated Emission				Correction Factors	Corrected Amplitude	FCC Class B (3 m)	
Frequency (MHz)	Amplitude (dBmV/m)	Ant. H. (m)	Table (°)	(dB)	(dBmV/m)	Limit (dBmV/m)	Margin (dB)
239.16	27.90	1.00	272	1.66	29.56	46.00	-16.44
*273.11	25.65	1.00	167	1.82	27.47	46.00	-18.53
433.16	25.02	1.00	148	6.54	31.56	46.00	-14.44
481.66	24.98	1.00	253	8.25	33.23	46.00	-12.77
576.84	20.44	1.00	253	12.92	33.36	46.00	-12.64
672.13	22.43	1.00	34	16.07	38.50	46.00	-7.50

Open Field Radiated Emissions For 1GHz 25GHz [Bluetooth mode, Horizontal]

Radiated Emission				Correction Factors	Corrected Amplitude		FCC Class B (3 m)	
Frequency (GHz)	Amplitude (dBmV/m)	Ant. H. (m)	Table (°)	(dB)	Peak	Average	Limit (dBmV/m)	Margin (dB)
2.402	60.67	1.00	179	2.98	---	---	---	---

Open Field Radiated Emissions For 1GHz 25GHz [Bluetooth mode, Vertical]

Radiated Emission				*Correction Factors*	*Corrected Amplitude*		*FCC Class B (3 m)*	
Frequency (GHz)	*Amplitude (dBmV/m)*	*Ant. H. (m)*	*Table (°)*	*(dB)*	*Peak*	*Average*	*Limit (dBmV/m)*	*Margin (dB)*
2.402	62.99	1.00	218	2.98	---	---	---	---

Appendix A

Setting up Procedure

1. The EUT inserted into the PCI slot of the personal computer..
2. Use the software that is given by the manufacturer to control the EUT at specific mode of transmission.
3. Then making access to the mode of continuous transmission and set the testing channel.