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Dates of Tests: June 13 ~ July 18, 2007
 Test Report S/N: LR500190707D
 Test Site : LTA CO., LTD.

CERTIFICATION OF COMPLIANCE

FCC ID.

VHTEVERUN

APPLICANT

RAON Digital Co., Ltd.

FCC Classification	:	FCC Part 15 Spread Spectrum Transceiver (DSS)
Manufacturing Description	:	Ultra Mobile Personal Computer (UMPC)
Manufacturer	:	RAON Digital Co., Ltd.
Model name	:	S66HS / S60H / S6S / S36HS / S46HS / S40 / L30H / L6S-E
Test Device Serial No.:	:	Identical prototype
Rule Part(s)	:	FCC Part 15.247 Subpart C; ANSI C-63.4-2003 RSS-210, Issue 5: 2001/A1:2002/A2:2003
Frequency Range	:	2412MHz ~ 2462MHz
Max. Output Power	:	19.68dBm Peak Conducted (802.11b) 16.84dBm Peak Conducted (802.11g)
Data of issue	:	July 20, 2007

This test report is issued under the authority of:

The test was supervised by:

Dong -Min JUNG, Technical Manager

Kyung-Taek LEE, Test Engineer

This test result only responds to the tested sample. It is not allowed to copy this report even partly without the allowance of the test laboratory. This report must not be used by the applicant to claim product endorsement by any agency.



NVLAP LAB Code.: 200723-0

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1. General information's

1-1 Test Performed

Company name : LTA Co., Ltd.
 Address : 243, Jubug-ri, Yangji-Myeon, Youngin-Si, Kyunggi-Do, Korea. 449-822
 Web site : <http://www.ltalab.com>
 E-mail : chahn@ltalab.com
 Telephone : +82-31-323-6008
 Facsimile : +82-31-323-6010

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competents of calibration and testing laboratory”.

1-2 Accredited agencies

LTA Co., Ltd. is approved to perform EMC testing by the following agencies:

Agency	Country	Accreditation No.	Validity	Reference
NVLAP	U.S.A	200723-0	2007-09-30	ECT accredited Lab.
RRL	KOREA	KR0049	2009-06-20	EMC accredited Lab.
FCC	U.S.A	610755	2008-03-28	FCC filing
VCCI	JAPAN	R2133, C2307	2008-06-22	VCCI registration
IC	CANADA	IC5799	2008-04-23	IC filing

2. Information's about test item

2-1 Applicant & Manufacturer

Company name : RAON Digital Co., Ltd.
 Address : 18th Floor. KINS Tower, 25-1 Jeongja-Dong, Bundang-Gu,
 Seongnam-City, Gyeonggi-Do, 463-811, KOREA
 Tel / Fax : +82-31-782-3800 / +82-31-782-3810

2-2 Equipment Under Test (EUT)

Trade name : Ultra Mobile Personal Computer (UMPC)
 FCC ID : VHTEVERUN
 Model name : S66HS / S60H / S6S / S36HS / S46HS / S40H / L30H / L6S-E
 : → Refer to the Model Description
 Serial number : Identical prototype
 Date of receipt : June 11, 2007
 EUT condition : Pre-production, not damaged
 Antenna type : PIFA Antenna with Max. -0.43dBi gain for 802.11B/G
 Frequency Range : 2412MHz ~ 2462MHz (DSSS)
 RF output power Range : 19.68dBm Peak Conducted (802.11b)
 16.84dBm Peak Conducted (802.11g)
 Number of channels : 11
 Type of Modulation : CCK, DQPSK, DBPSK for DSSS
 64QAM, 16QAM, QPSK, BPSK for OFDM
 Transfer Rate : 11/5.5/2/1Mbps for 802.11b
 54/48/36/24/18/12/9/6Mbps for 802.11g
 Power Source for Batt. : Battery Pack: 11.1V (LITHIUM ION RECHARGEABLE BATTERY)
 Power Source for Adaptor. : Input: 100-240VAC, 1.2A Output: 16VDC, 2.6A

2-3 Tested frequency

	LOW	MID	HIGH
Frequency (MHz) for 802.11b	2412	2437	2462

2-4 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
PC	dx2200Microtower	CNG6500RX9	HP
Monitor	VS11353	E060T4021/1-1	View Sonic
Keyboard	SK-8115	641-OEWW	DELL
Mouse	MO56UO	510022473	DELL
Print	Deskjet 600K	SG7631B1XX	HP
USB Memory stick	memorette	N/A	FM

2-5 Model Description

Model	CPU	RAM	Data Storage	SSD Option
S66HS	600MHz	512M	60G HDD	6G SSD
S60H	600MHz	512M	60G HDD	-
S6S	600MHz	512M	-	6G SSD
S36HS	600MHz	512M	30G HDD	6G SSD
S46HS	600MHz	512M	40G HDD	6G SSD
S40H	600MHz	512M	30G HDD	-
L30H	500MHz	512M	30G HDD	-
L6S-E	500MHz	256M	-	6G SSD

3. Test Report

3.1 Summary of tests

FCC Part Section(s)	RSS-210 Section	Parameter	Limit	Test Condition	Status (note 1)
15.247(a)		6 dB Bandwidth	> 500kHz	Conducted	C
15.247(b)	6.2.2(o)(a3) 6.2.2(o)(b)	Transmitter Peak Output Power	< 1Watt		C
15.247(d)		Transmitter Power Spectral Density	< 8dBm @ 3kHz		C
15.247(d)	6.2.2(o)(e1)	Band Edge & Spurious	> 20 dBc		C
15.209	6.2.2(o)(e1)	Field Strength of Harmonics	Emission	Radiated	C
15.207	-	AC Conducted Emissions	Emissions	Conducted	C
15.203	-	Antenna requirement	-	-	C

Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable

Note 2: The data in this test report are traceable to the national or international standards.

→ Antenna Requirement

The RAON Digital. FCC ID: VHTEVERUN unit complies with the requirement of §15.203. The antenna is connected to inside of EUT.

The sample was tested according to the following specification:

FCC Parts 15.247; ANSI C-63.4-2003

RSS-210, Issue 5:2001

3.2 Technical Characteristics Test (802.11b/g)

3.2.1 6 dB Bandwidth

Procedure:

The bandwidth at 6dB below the highest in-band spectral density was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate frequencies.

After the trace being stable, Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 6dB 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 6 dB bandwidth of the emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 100 kHz

Span = 30 MHz

VBW = 300 kHz (VBW RBW)

Sweep = auto

Trace = max hold

Detector function = peak

Measurement Data:

Mode	Frequency (MHz)	Channel No.	Test Results	
			Measured Bandwidth (MHz)	Result
802.11b	2412	1	10.43	Complies
	2437	6	10.43	Complies
	2462	11	10.43	Complies
802.11g	2412	1	16.65	Complies
	2437	6	16.65	Complies
	2462	11	16.58	Complies

- See next pages for actual measured spectrum plots.

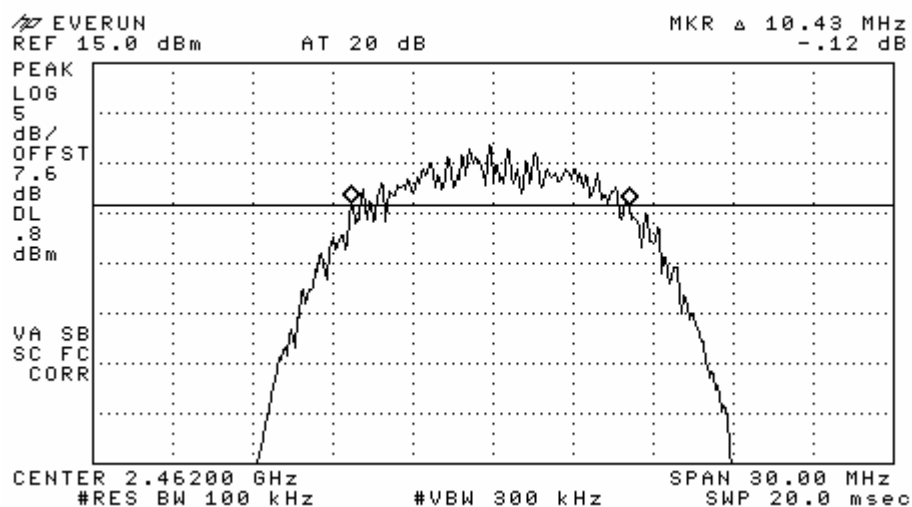
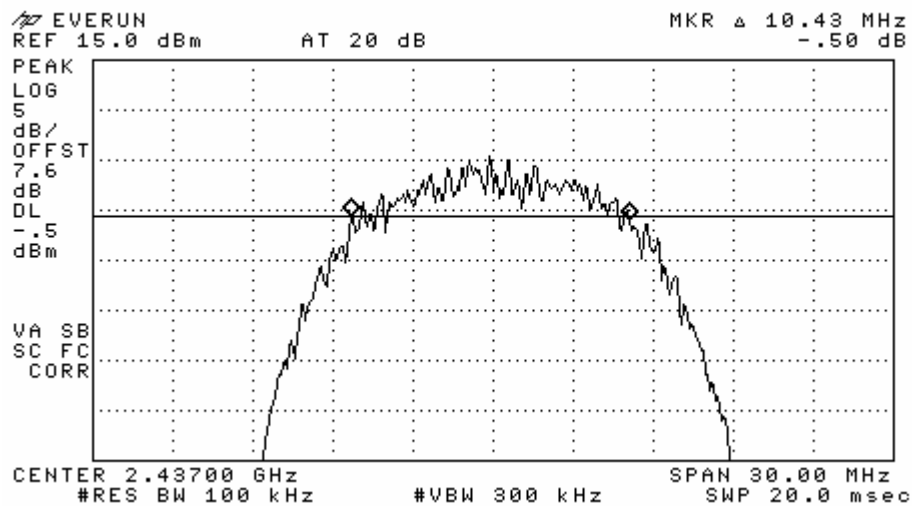
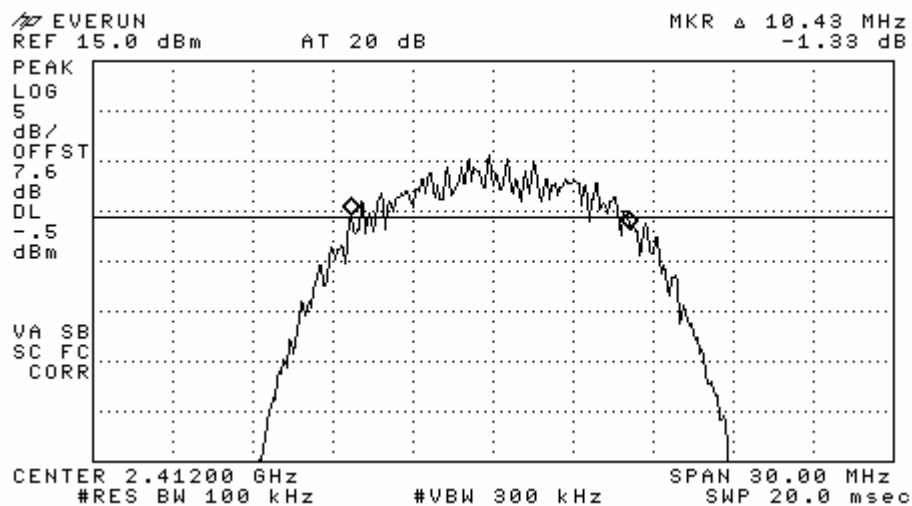
Minimum Standard:

6 dB Bandwidth > 500kHz

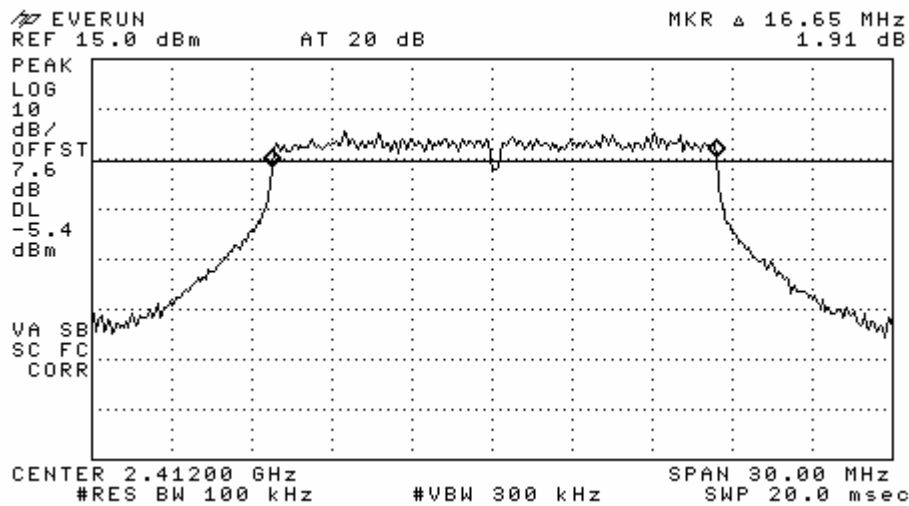
Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

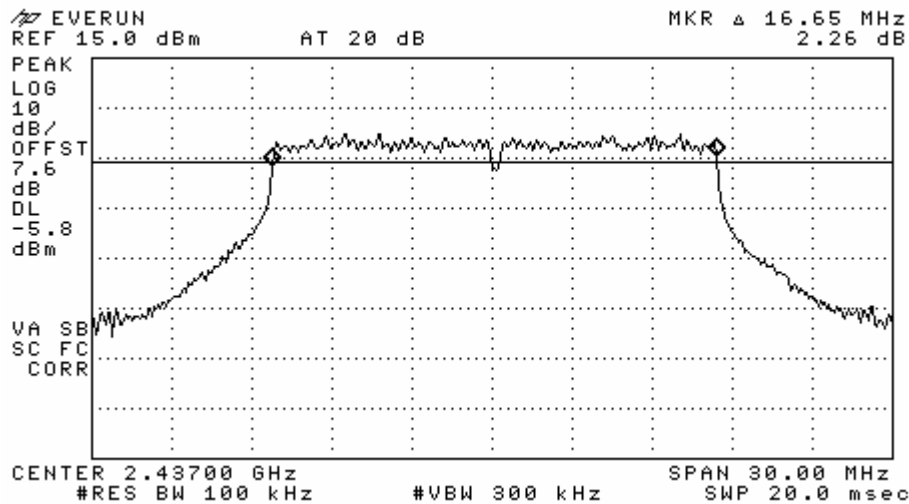
802.11b



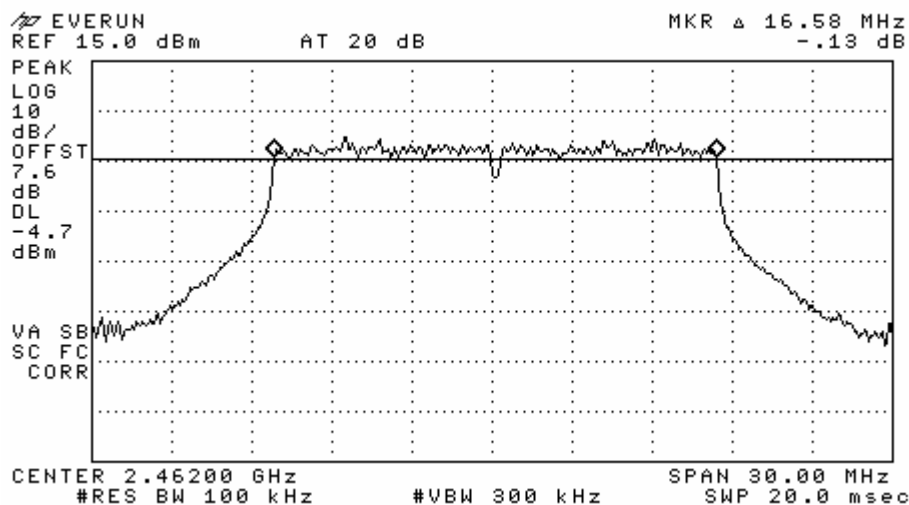
802.11g



RL



RL



RL

3.2.2 Peak Output Power Measurement

Procedure:

The maximum peak output power was measured with the spectrum analyzer connected to the antenna output of the EUT. The spectrum analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth. The EUT was operating in transmit mode at the appropriate center frequency.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 1MHz

Span = auto

VBW = 3MHz (VBW RBW)

Sweep = auto

Detector function = peak

Measurement Data:

Mode	Frequency (MHz)	Channel No.	Test Results	
			Measured Data (dBm)	Result
802.11b	2412	1	19.42	Complies
	2437	6	19.90	Complies
	2462	11	19.68	Complies
802.11g	2412	1	16.65	Complies
	2437	6	16.64	Complies
	2462	11	16.84	Complies

-

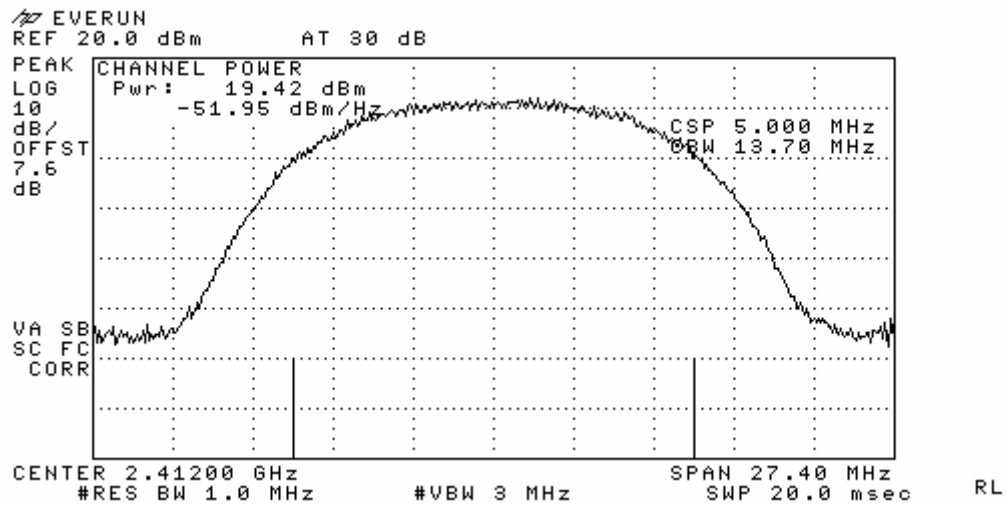
- See next pages for actual measured spectrum plots.

Minimum Standard:

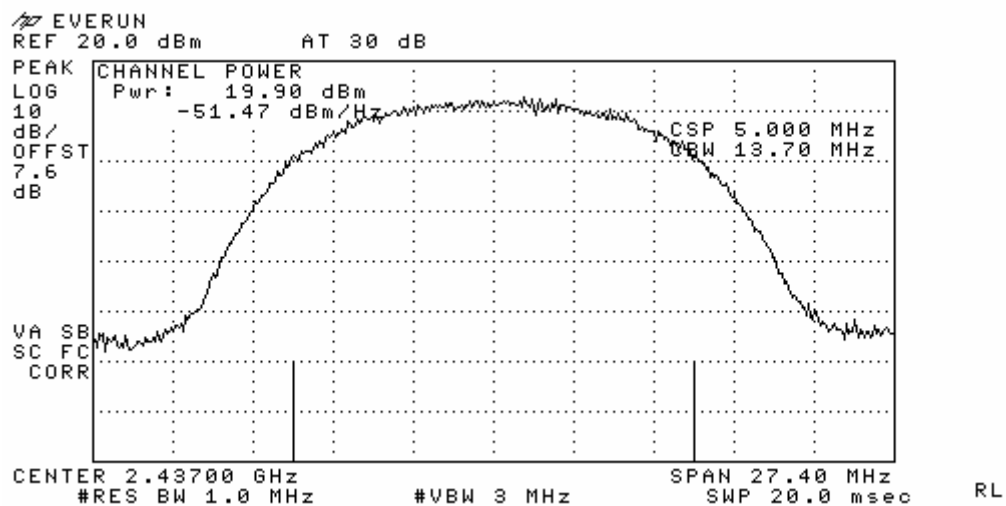
Peak output power	< 1W
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Measurement Data:

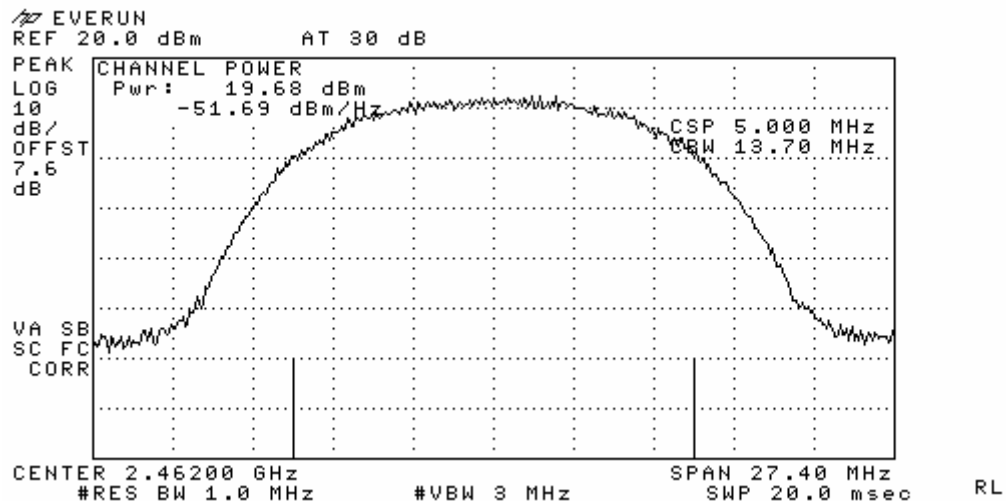
CH 1



CH 6

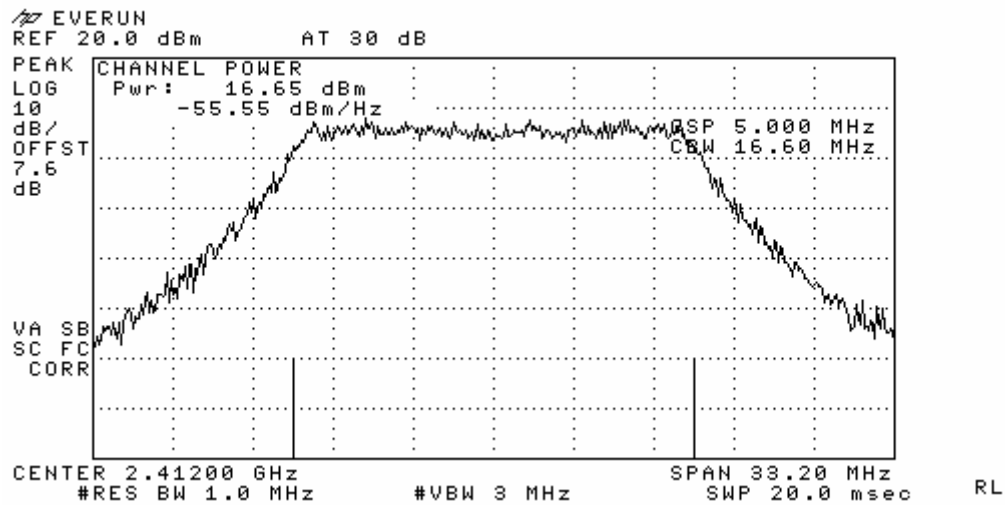


CH 11

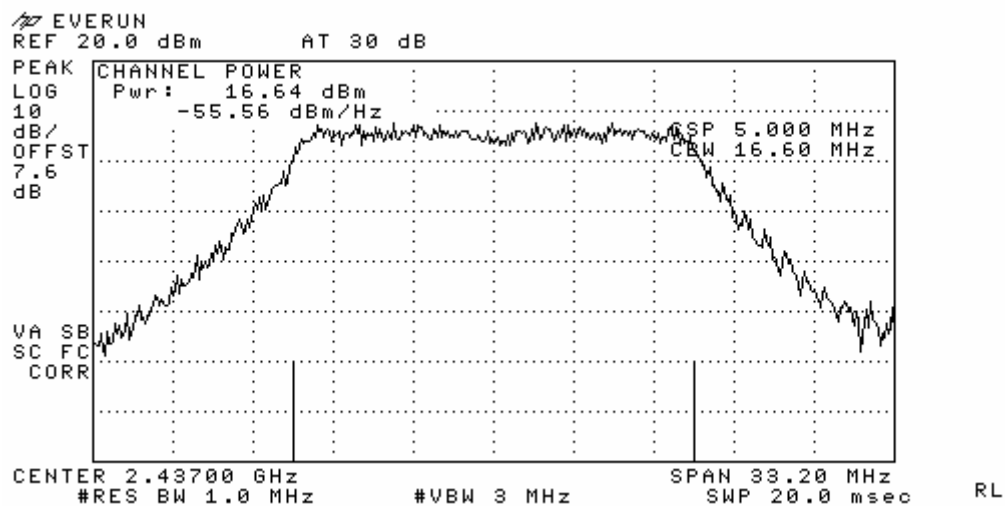


Measurement Data:

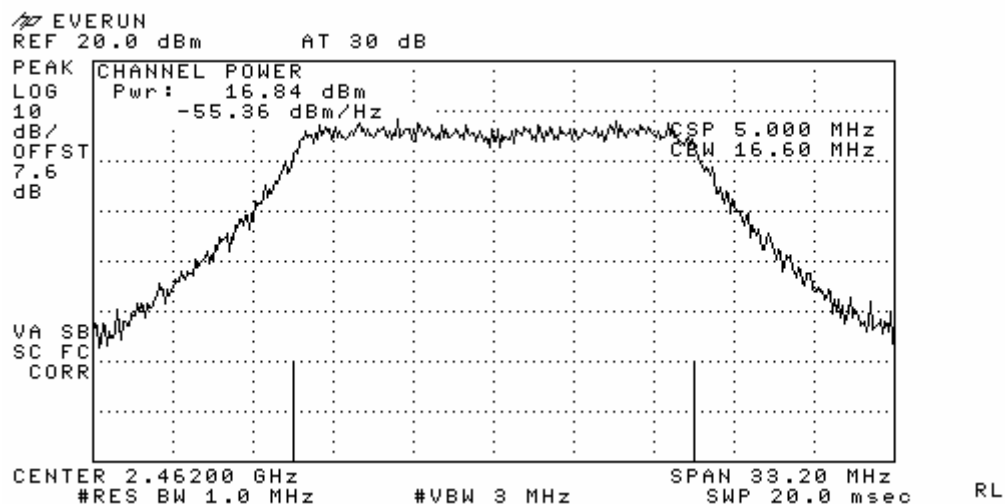
CH 1



CH 6



CH 11



3.2.3 Power Spectral Density

Procedure:

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

The spectrum analyzer is set to:

RBW = 3 kHz

Span = 300 kHz

VBW = 10 kHz

Sweep = 1000 sec

Detector function = peak

Trace = max hold

Measurement Data:

Mode	Frequency (MHz)	Ch.	Test Results	
			dBm	Result
802.11b	2412	1	-7.55	Complies
	2437	6	-7.67	Complies
	2462	11	-7.86	Complies
802.11b	2412	1	-15.31	Complies
	2437	6	-15.70	Complies
	2462	11	-15.53	Complies

- See next pages for actual measured spectrum plots.

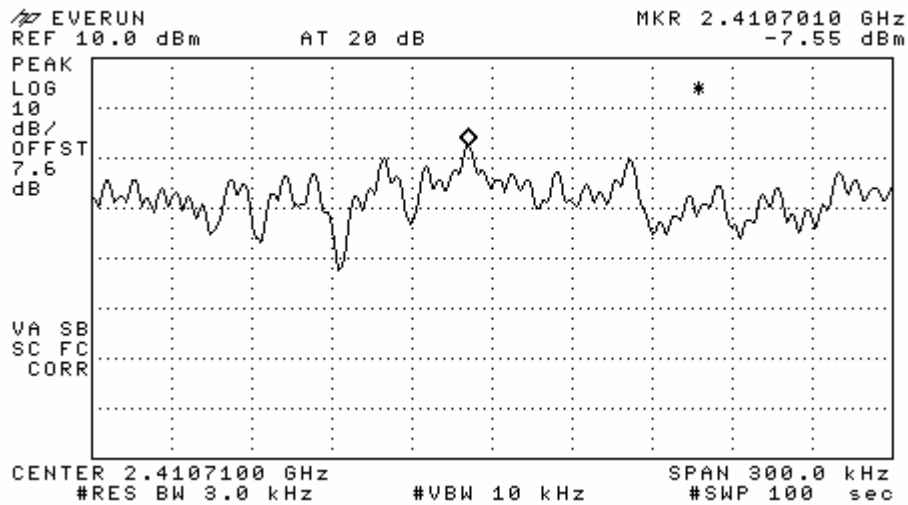
Minimum Standard:

Power Spectral Density	< 8dBm @ 3kHz BW
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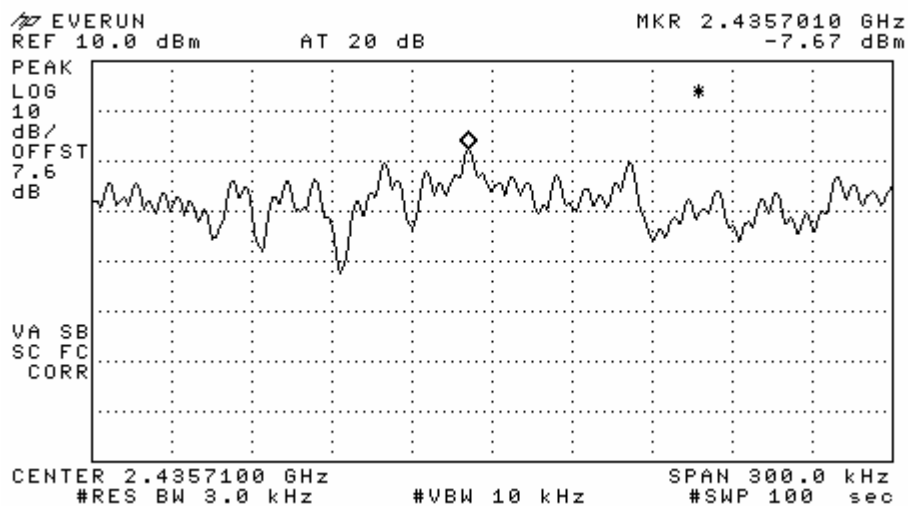
Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

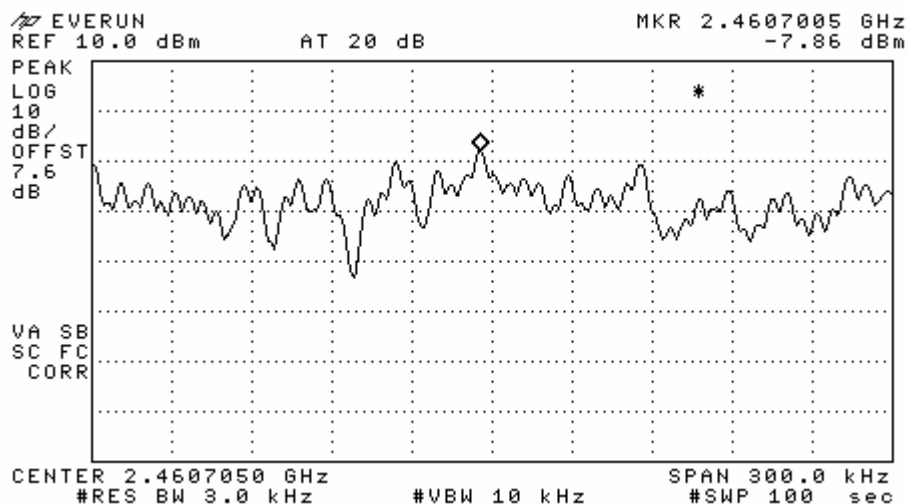
802.11b Power Density Measurement



RL

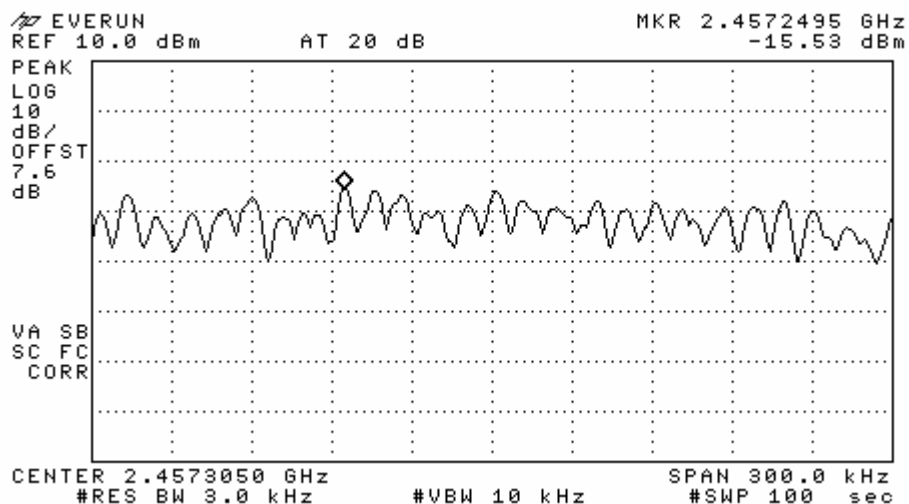
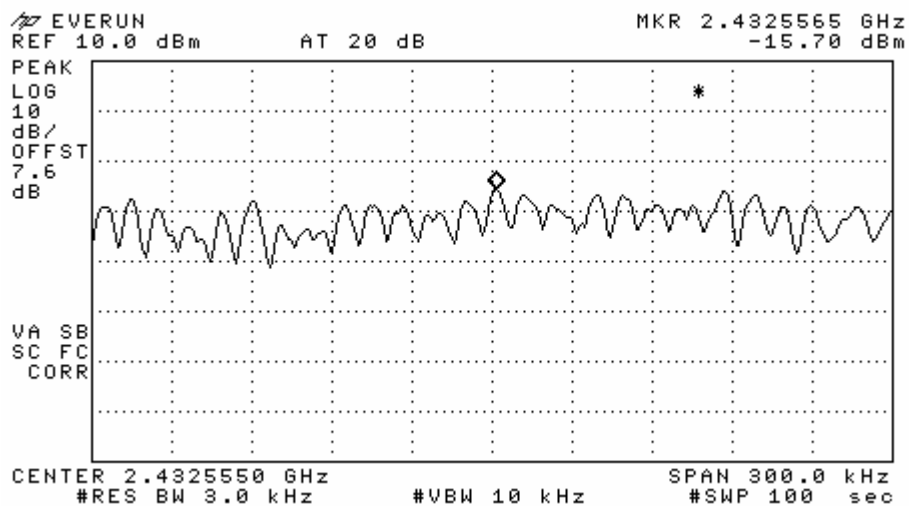
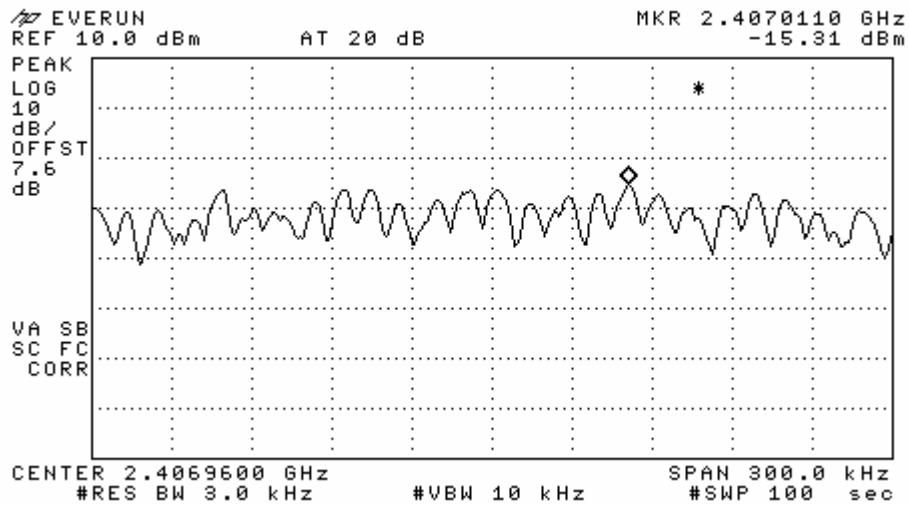


RL



RL

802.11g Power Density Measurement



3.2.4 Band - edge & Spurious

Procedure:

The bandwidth at 20dB down from the highest inband spectral density is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate frequencies.

After the trace being stable, Use the marker-to-peak function to measure 20 dB down both sides of the intentional emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 100 kHz

VBW = 100 kHz

Span = 40 MHz

Detector function = peak

Trace = max hold

Sweep = auto

Radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

The spectrum analyzer is set to:

Center frequency = the highest, the lowest channels

PEAK: RBW = VBW = 1MHz, Sweep=Auto

Average: RBW = 1MHz, VBW=10Hz, Sweep=Auto

Measurement Distance: 3m

Polarization: Horizontal / Vertical

Measurement Data: Complies

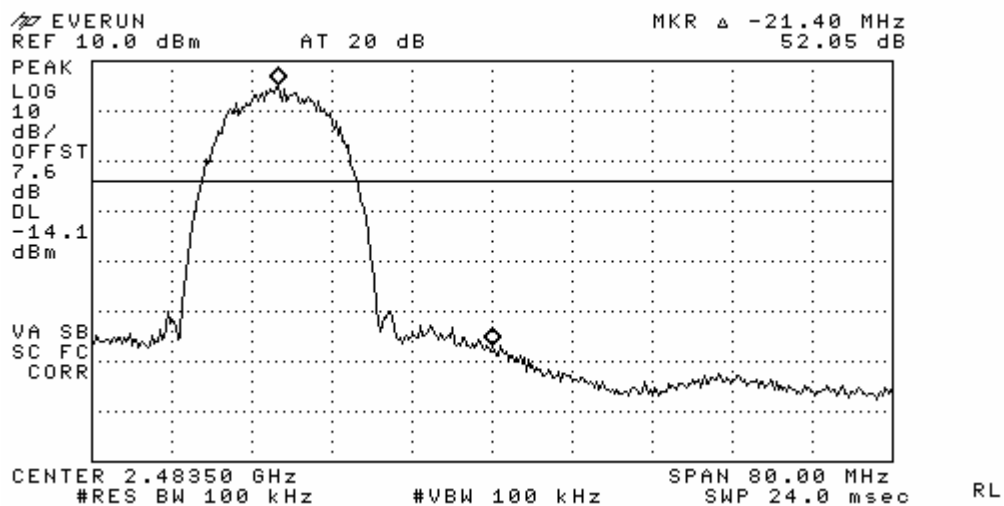
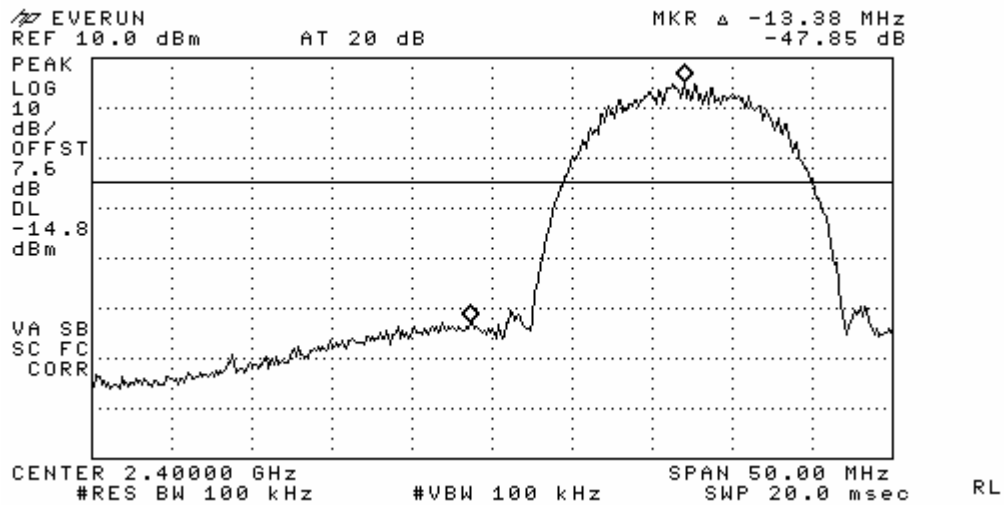
- All conducted emission in any 100kHz bandwidth outside of the spread spectrum band was at least 20dB lower than the highest inband spectral density. Therefore the applying equipment meets the requirement.
- See next pages for actual measured spectrum plots.

Minimum Standard:	> 20 dBc
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Minimum Standard: FCC Part 15.209(a)

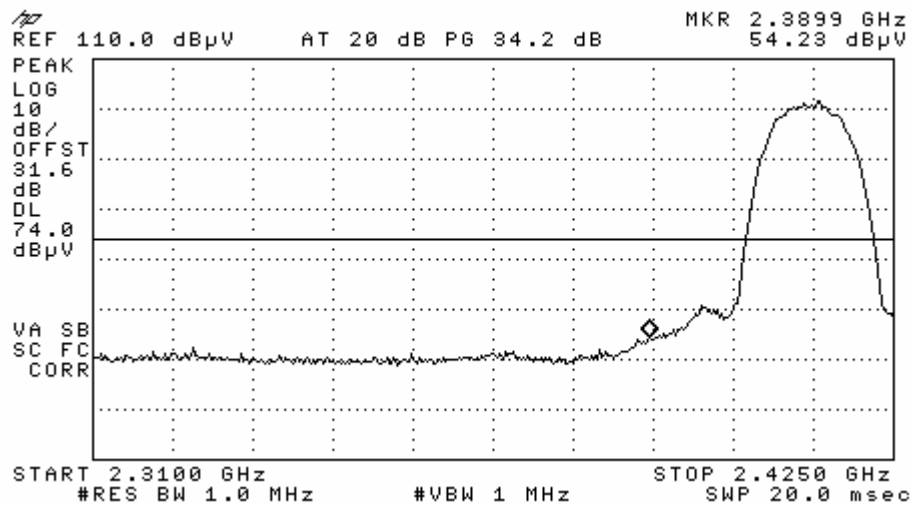
Frequency (MHz)	Limit (uV/m) @ 3m
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

802.11b Band-edge : Conducted Measurements

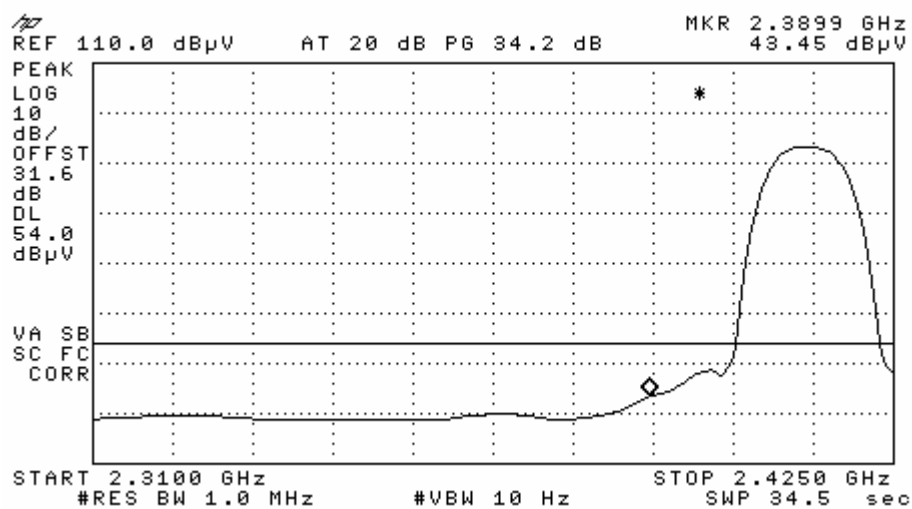


802.11b Band-edge : Radiated Measurements (Restricted bands)

CH 1 / Horizontal / Peak data

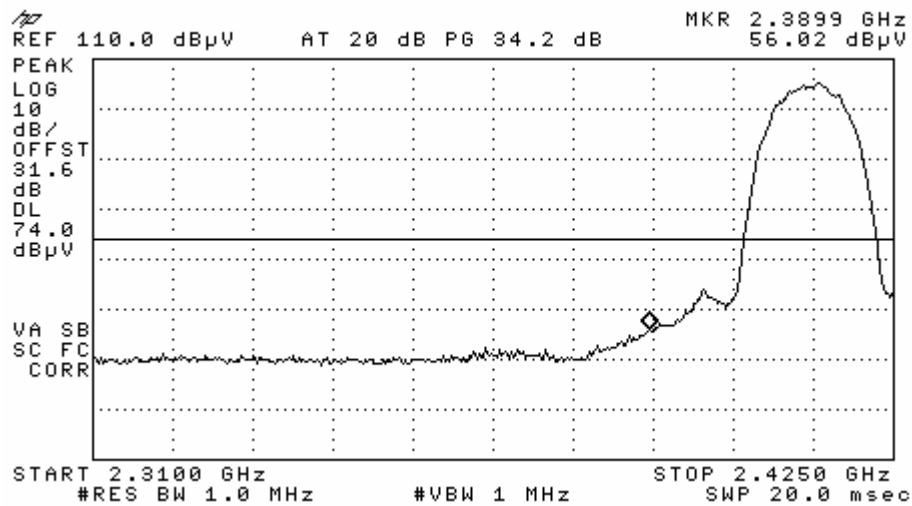


CH 1 / Horizontal / Average data



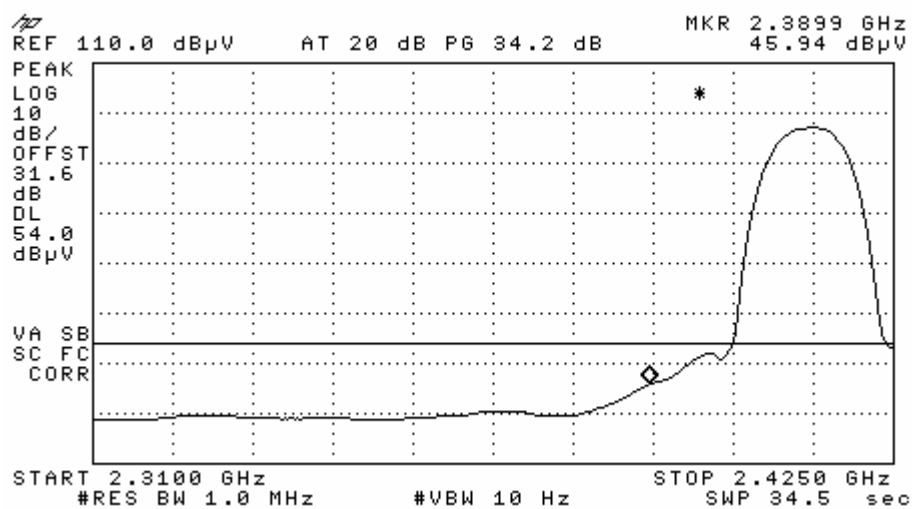
802.11b Band-edge : Radiated Measurements (Restricted bands)

CH 1 / Vertical / Peak data



L

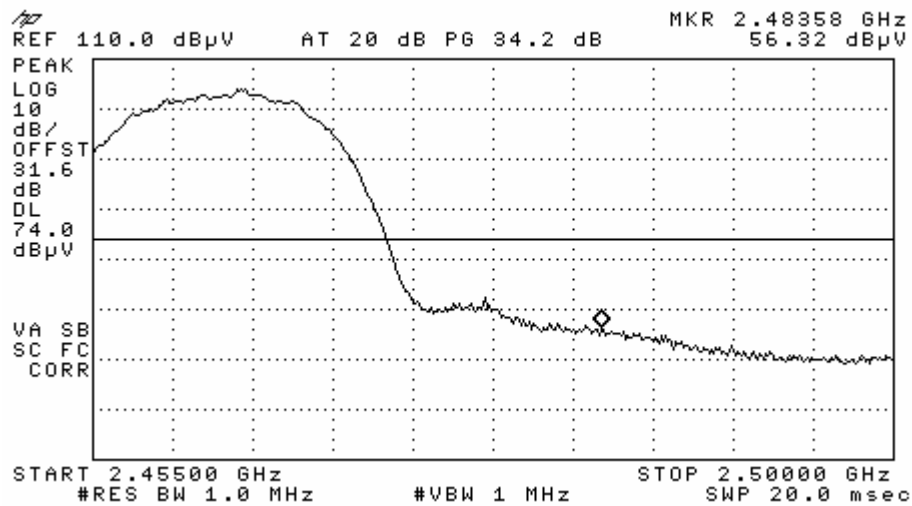
CH 1 / Vertical / Average data



L

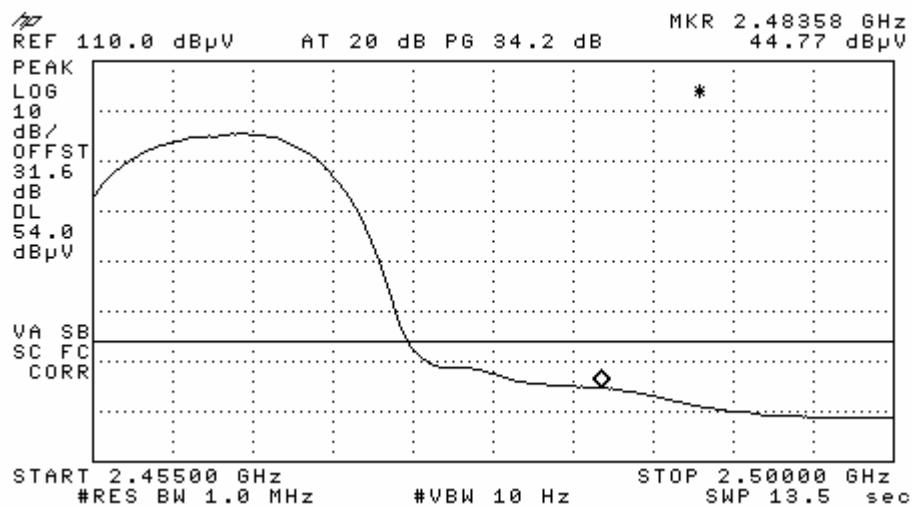
802.11b Band-edge : Radiated Measurements (Restricted bands)

CH 11 / Horizontal / Peak data



L

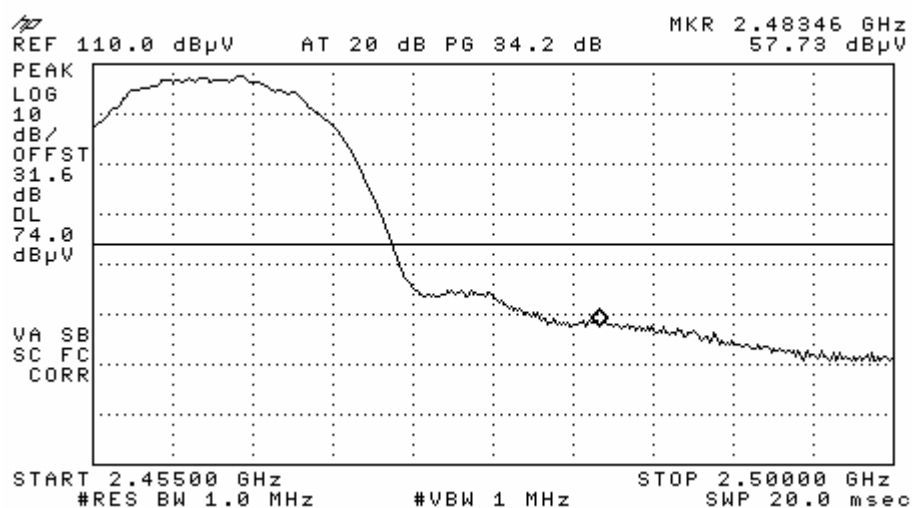
CH 11 / Horizontal / Average data



L

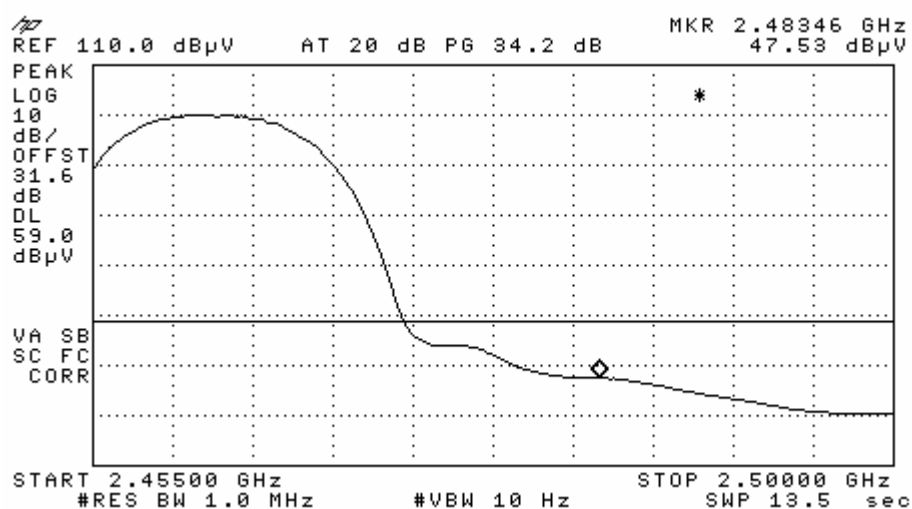
802.11b Band-edge : Radiated Measurements (Restricted bands)

CH 11 / Vertical / Peak data



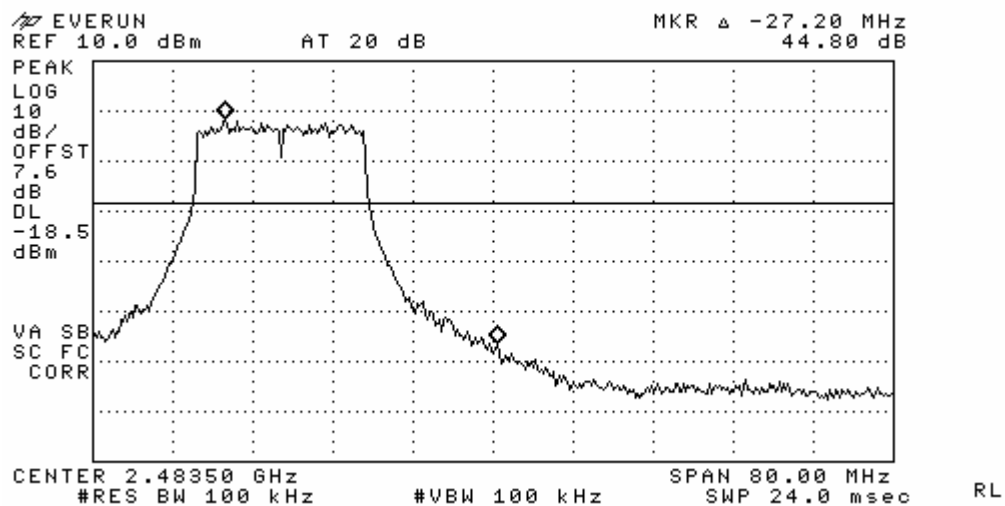
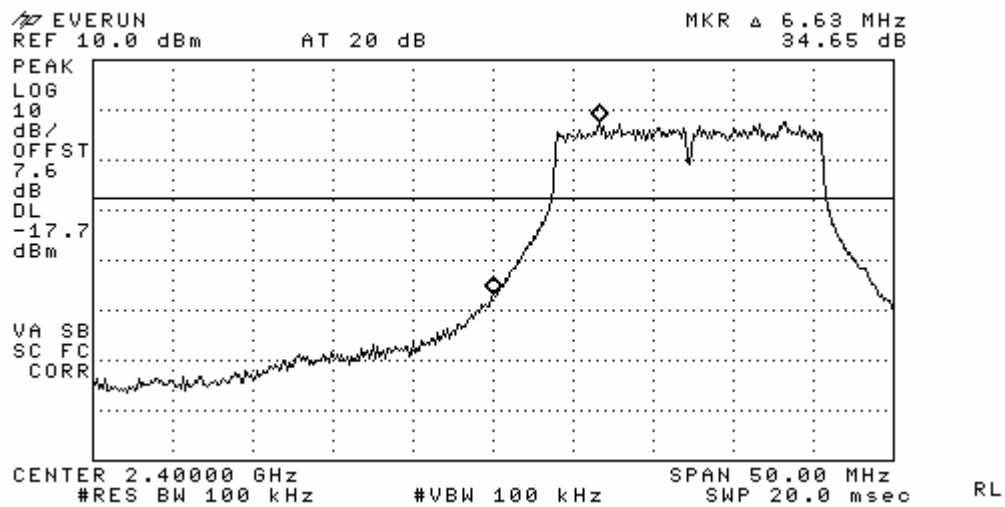
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CH 11 / Vertical / Average data



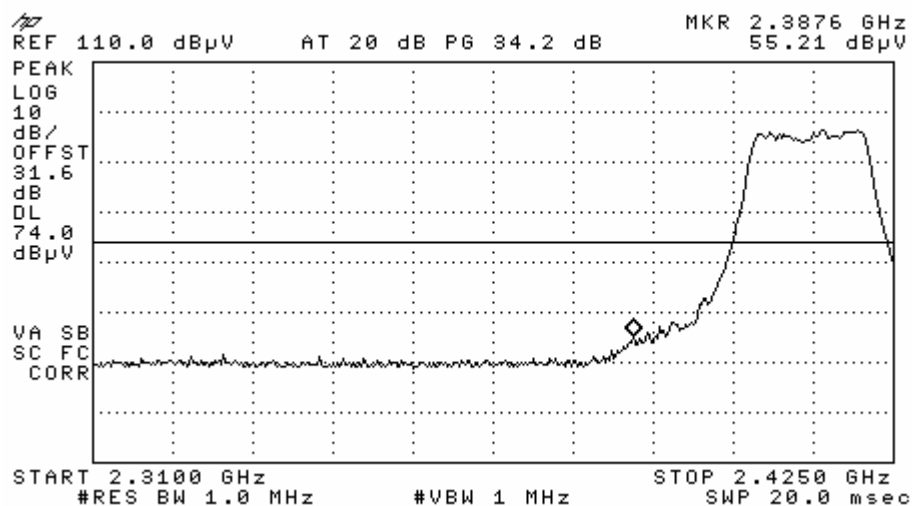
L

802.11g Band-edge : Conducted Measurements



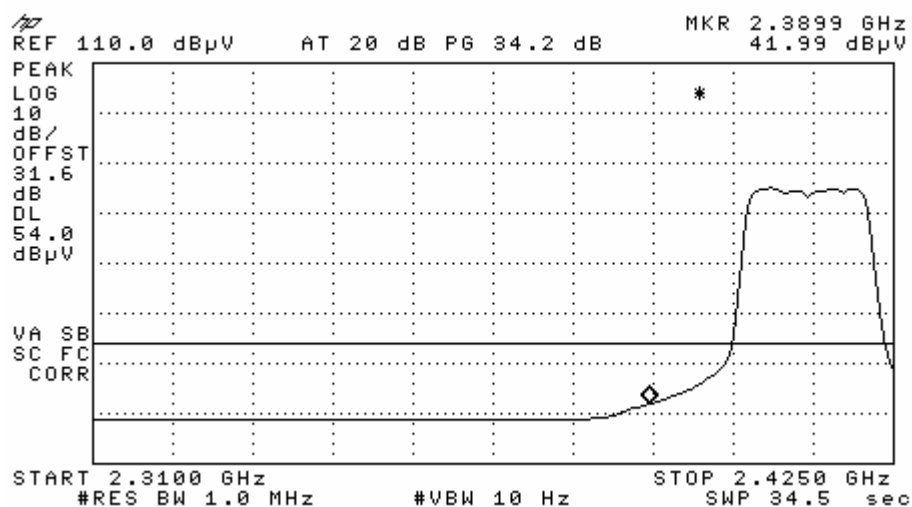
802.11g Band-edge : Radiated Measurements (Restricted bands)

CH 1 / Horizontal / Peak data



L

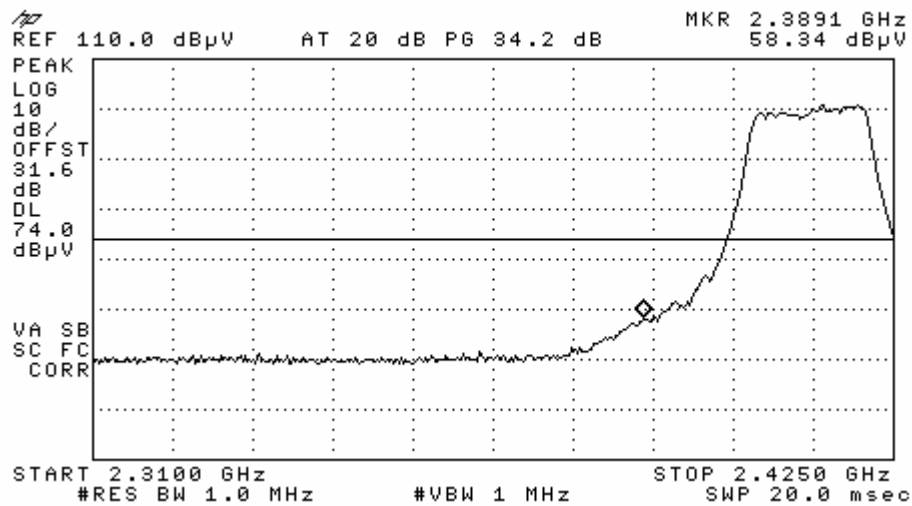
CH 1 / Horizontal / Average data



L

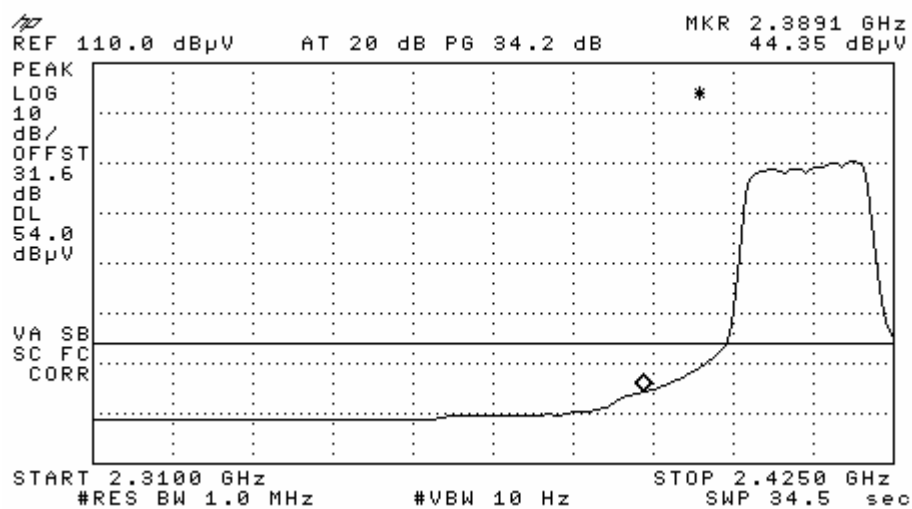
802.11g Band-edge : Radiated Measurements (Restricted bands)

CH 1 / Vertical / Peak data



L

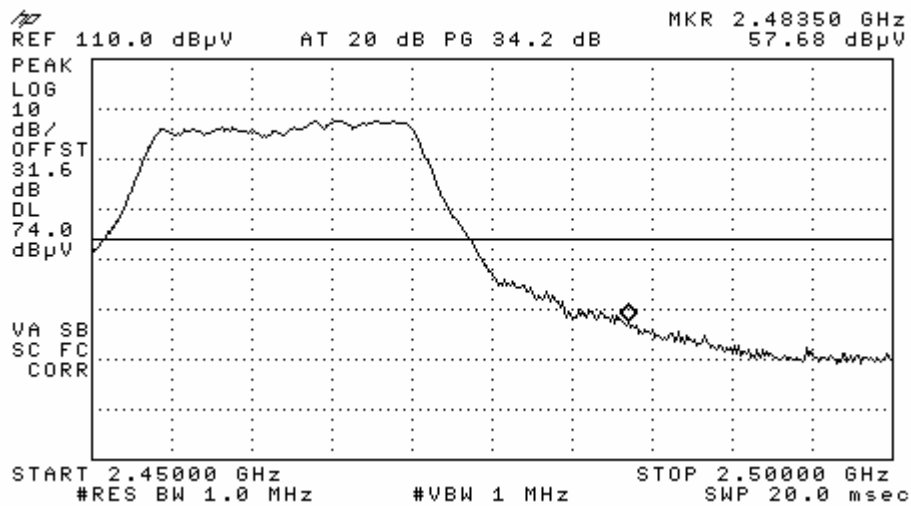
CH 1 / Vertical / Average data



L

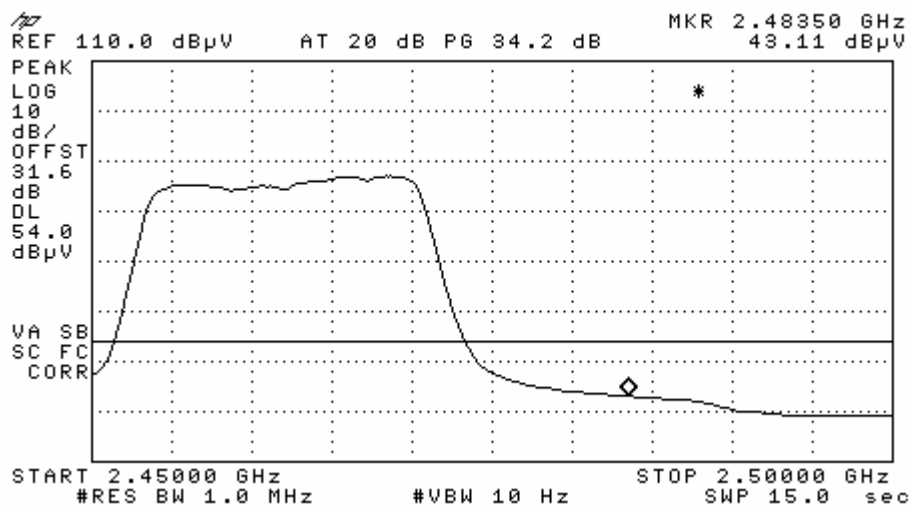
802.11g Band-edge : Radiated Measurements (Restricted bands)

CH 11 / Horizontal / Peak data



L

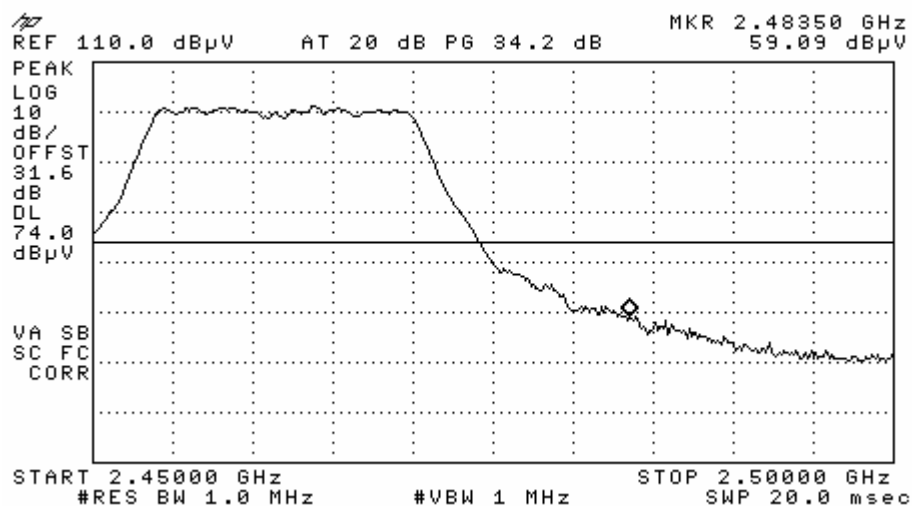
CH 11 / Horizontal / Average data



L

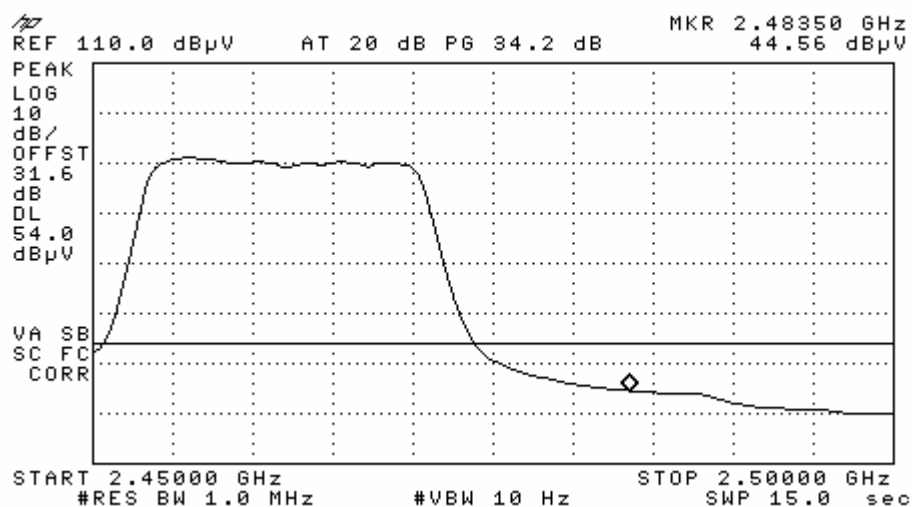
802.11g Band-edge : Radiated Measurements (Restricted bands)

CH 11 / Vertical / Peak data



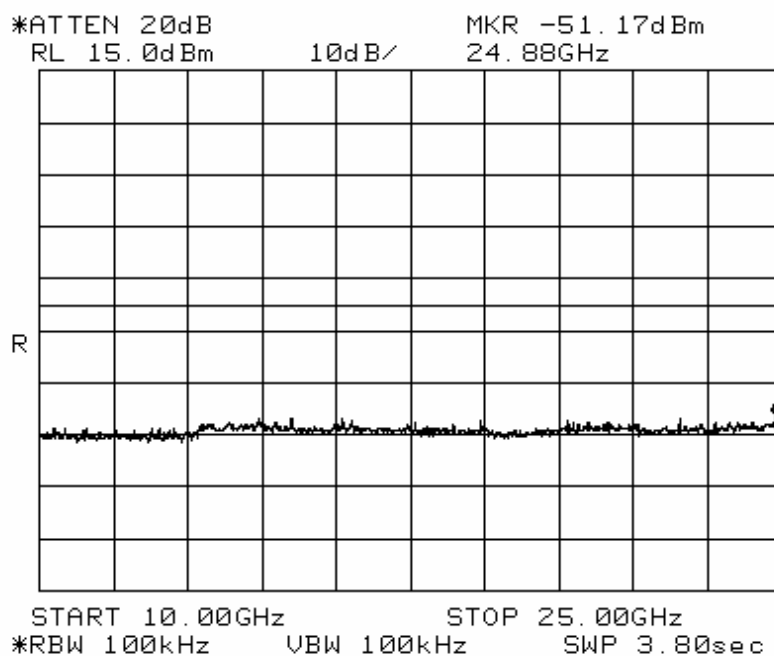
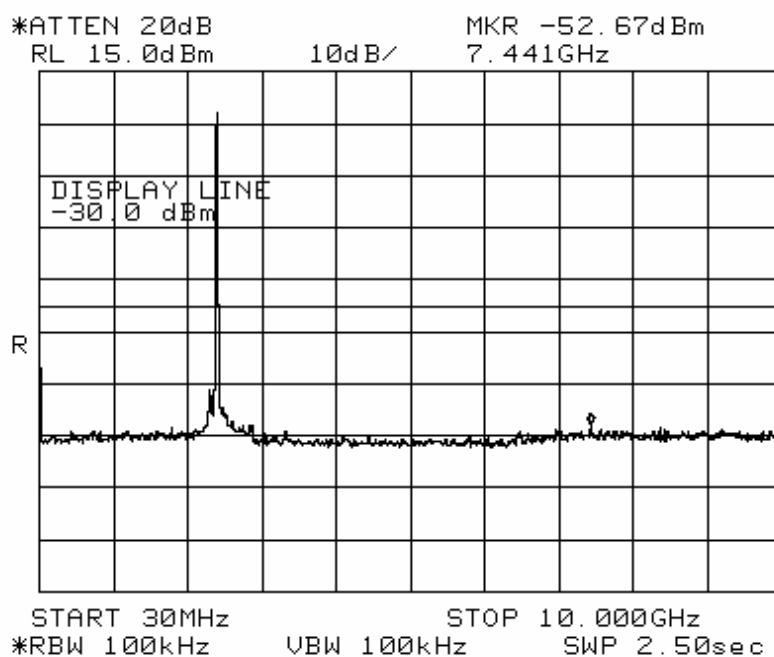
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CH 11 / Vertical / Average data

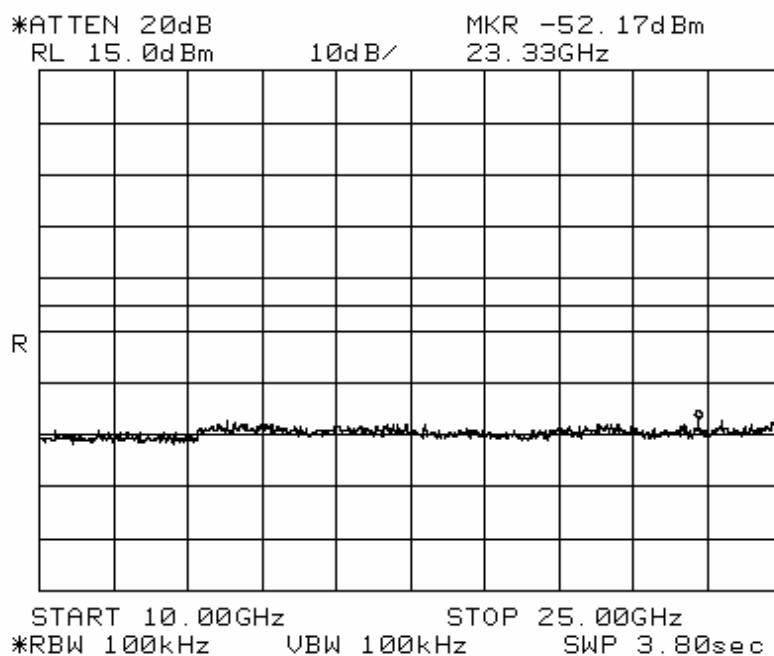
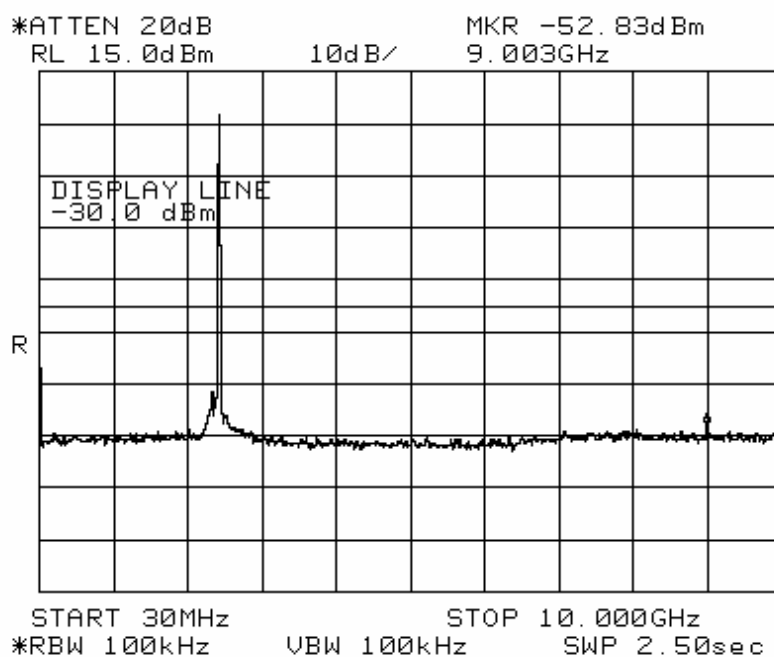


L

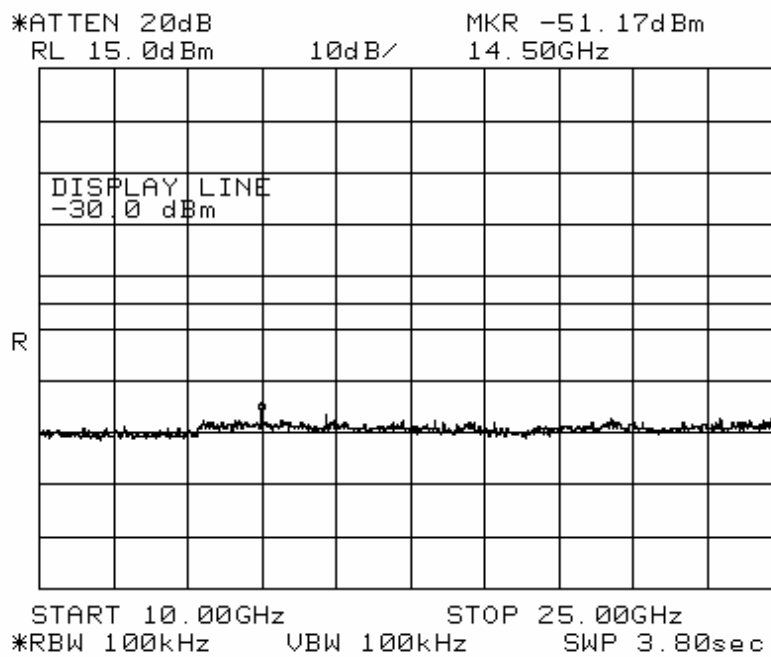
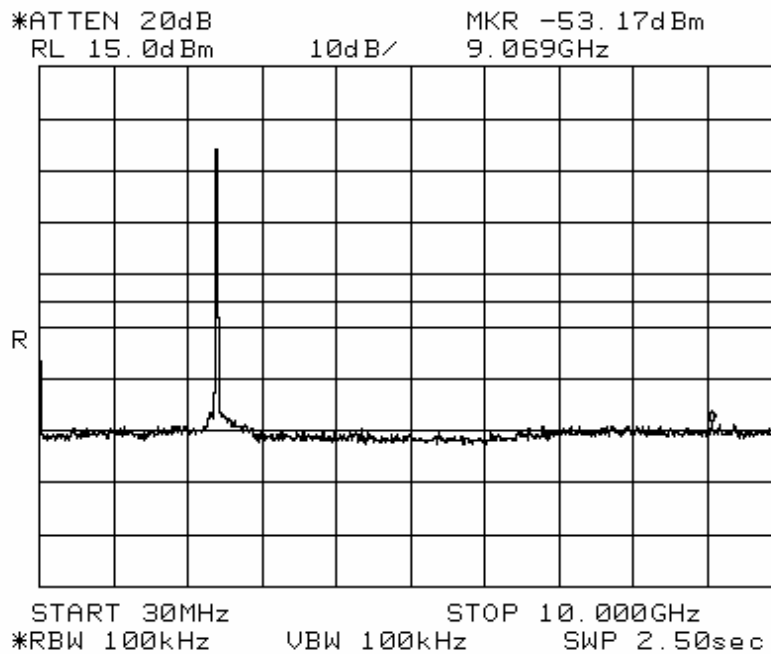
802.11b - Low channel
Frequency Range = 30 MHz ~ 10th harmonic.



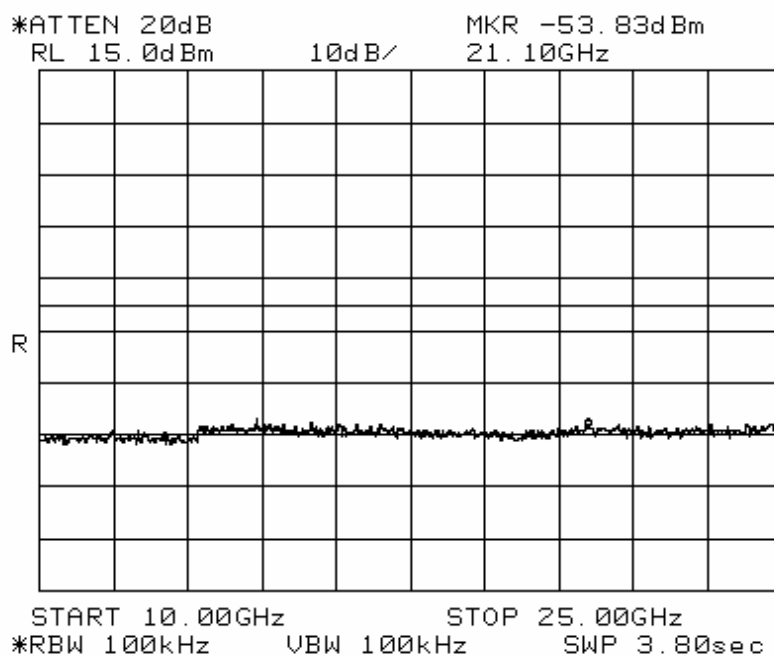
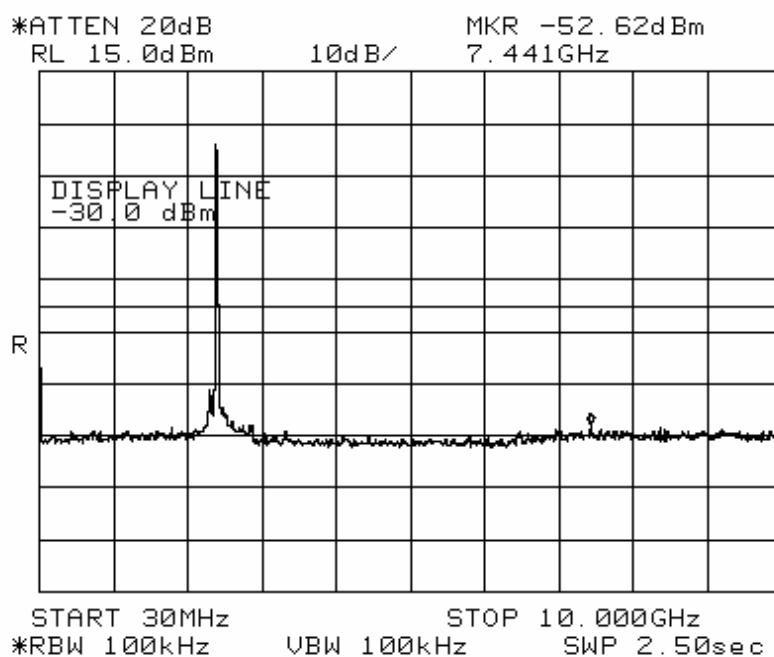
802.11b - Mid channel
Frequency Range = 30 MHz ~ 10th harmonic.



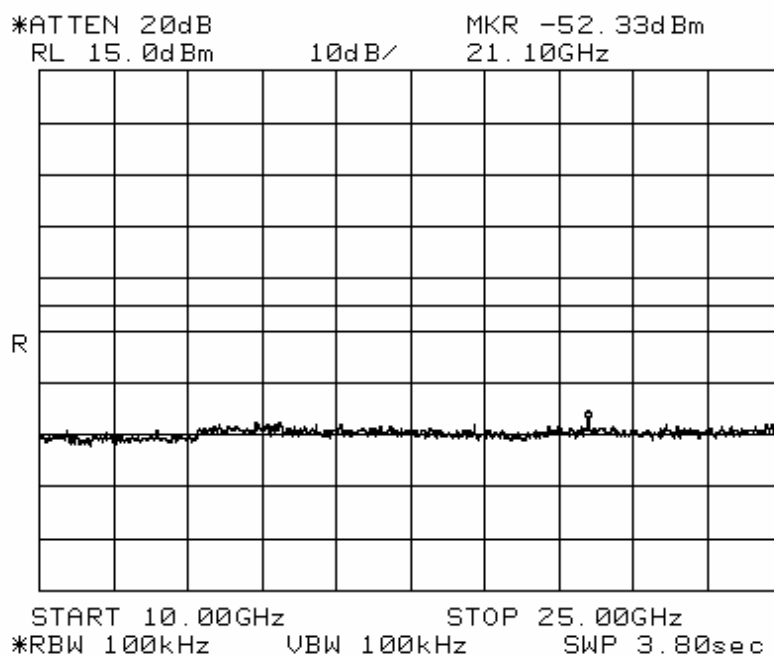
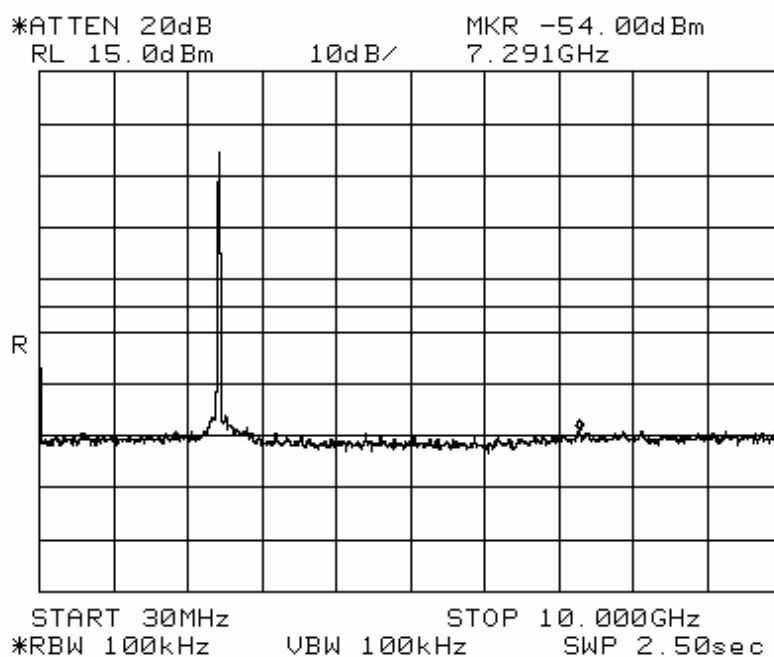
802.11b – High channel
Frequency Range = 30 MHz ~ 10th harmonic.



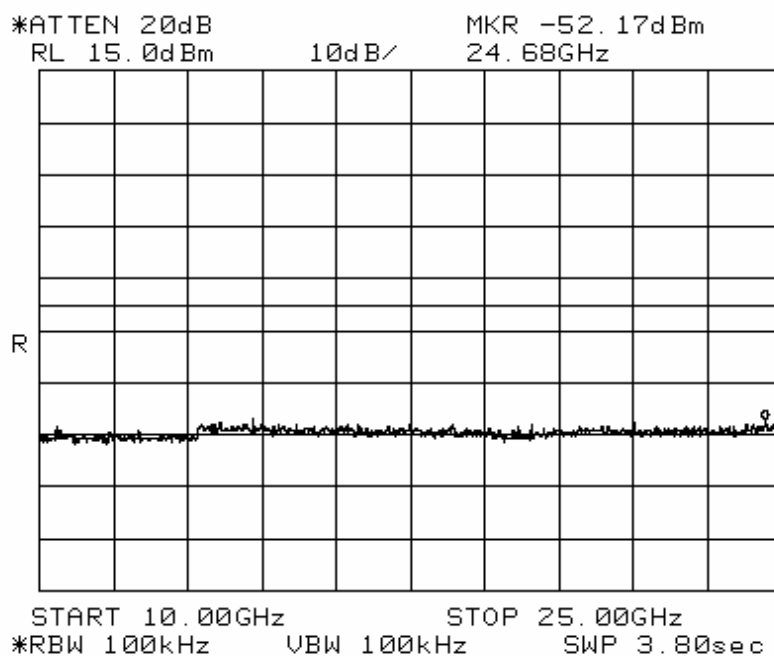
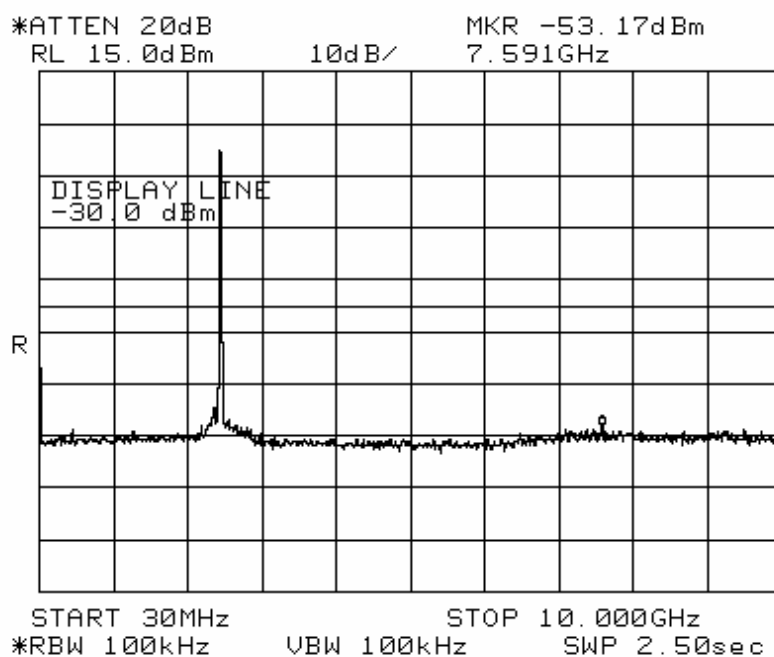
802.11g - Low channel
Frequency Range = 30 MHz ~ 10th harmonic.



802.11g - Mid channel
Frequency Range = 30 MHz ~ 10th harmonic.



802.11g – High channel
Frequency Range = 30 MHz ~ 10th harmonic.



3.2.5 Field Strength of Harmonics

Procedure:

The EUT was placed on a 0.8m high wooden table inside a shielded enclosure. An antenna was placed near the EUT and measurements of frequencies and amplitudes of field strengths were recorded for reference during final measurements. For final radiated testing, measurements were performed in OATS. Measurements were performed with the EUT oriented in 3 orthogonal axis and rotated 360 degrees to determine worst-case orientation for maximum emissions.

The spectrum analyzer is set to:

Center frequency = the worst channel

Frequency Range = 30 MHz ~ 10th harmonic.

RBW = 100 kHz (30MHz ~ 1 GHz)

VBW RBW

= 1 MHz (1 GHz ~ 10th harmonic)

Span = 100 MHz

Detector function = peak

Trace = max hold

Sweep = auto

Measurement Data: Complies

- See next pages for actual measured data.

Minimum Standard: FCC Part 15.209(a)

Frequency (MHz)	Limit (uV/m) @ 3m
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

Minimum Standard: FCC Part 15.109

Frequency (MHz)	Limit (uV/m) @ 10m
30 ~ 88	90
88 ~ 216	150
216 ~ 960	210
Above 960	300

802.11b Measurement Data:

Low channel		Mid channel		High channel	
Frequency (MHz)	Level (dBuV)	Frequency (MHz)	Level (dBuV)	Frequency (MHz)	Level (dBuV)
-	-	-	-	-	-
-	-	-	-	-	-
No emissions were detected at a level greater than 20dB below limit.					
-	-	-	-	-	-
-	-	-	-	-	-
Measurement uncertainty		± 6 dB			

802.11g Measurement Data:

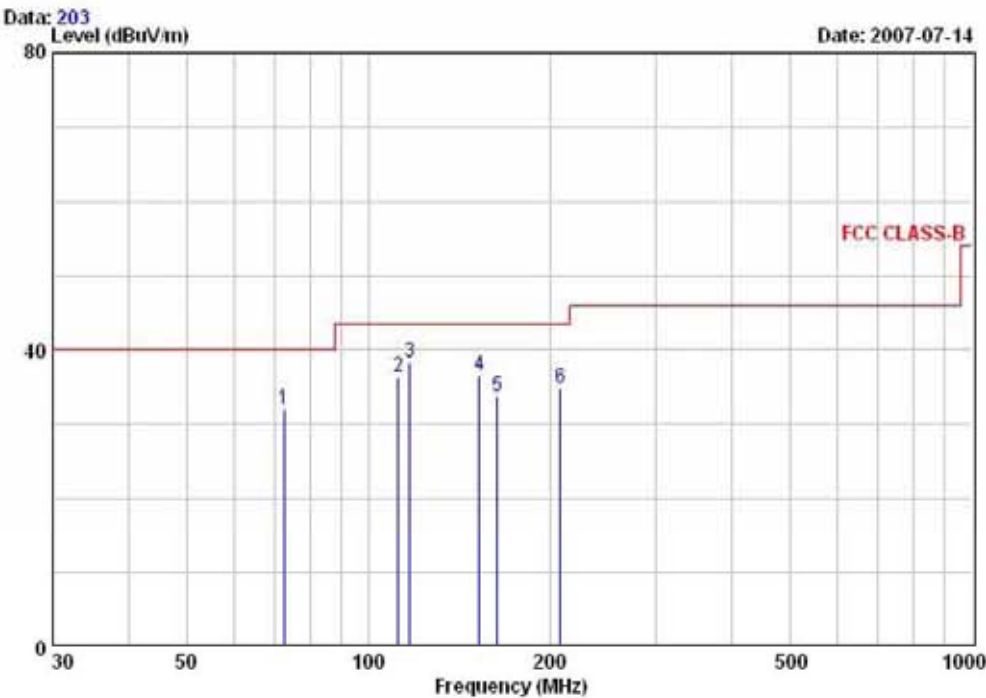
Low channel		Mid channel		High channel	
Frequency (MHz)	Level (dBuV)	Frequency (MHz)	Level (dBuV)	Frequency (MHz)	Level (dBuV)
-	-	-	-	-	-
-	-	-	-	-	-
No emissions were detected at a level greater than 20dB below limit.					
-	-	-	-	-	-
-	-	-	-	-	-
Measurement uncertainty		± 6 dB			

Radiated Emissions –WLAN 802.11b



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EUT/Model No.: EVERUN TEST MODE: WLAN 802.11b mode
Temp Humi : 29 / 60 Tested by: B. S. KIM



	Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
	MHz	dBuV	dB	QK	dBuV/m	dB	cm	deg	
1	72.51	46.80	-14.78	32.02	40.00	7.98	100	214	VERTICAL
2	112.25	49.80	-13.41	36.39	43.50	7.11	100	304	VERTICAL
3	117.24	51.20	-12.86	38.34	43.50	5.16	100	306	VERTICAL
4	152.81	46.80	-10.23	36.57	43.50	6.93	100	192	VERTICAL
5	163.81	44.20	-10.33	33.87	43.50	9.63	100	207	VERTICAL
6	208.24	47.80	-12.96	34.84	43.50	8.66	282	111	HORIZONTAL

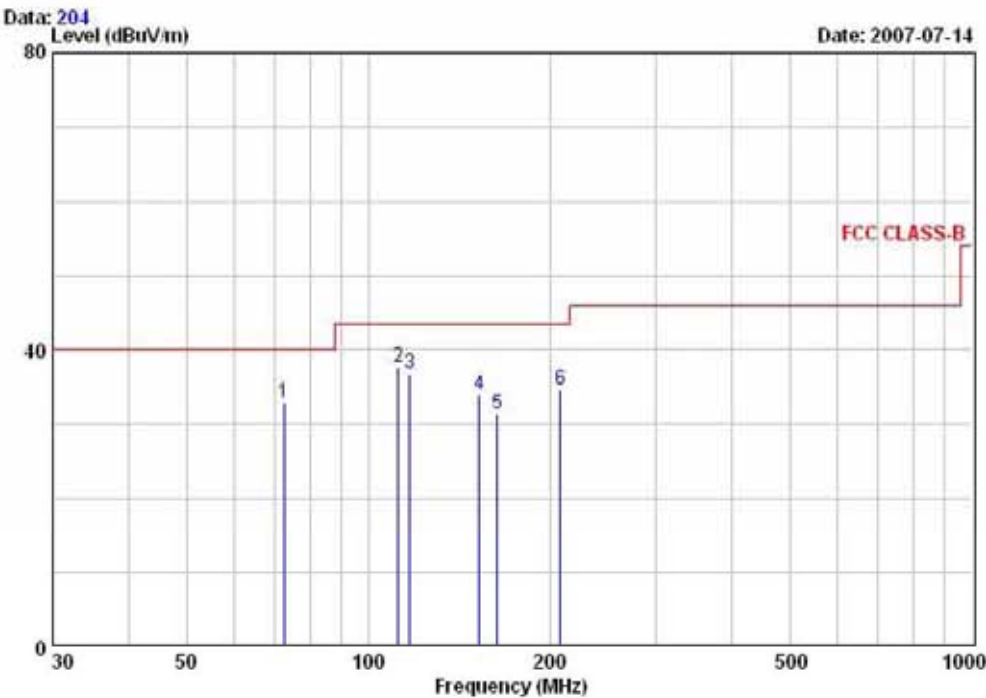
Remarks: C.F {Correction Factor} = Antenna factor + Cable loss - Preamp gain

Radiated Emissions –WLAN 802.11g



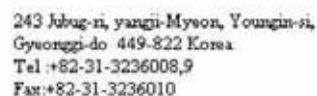
243 Jibug-ni, yangji-Myeon, Youngin-si,
Gyeonggi-do 449-822 Korea
Tel :+82-31-3236008,9
Fax:+82-31-3236010

EUT/Model No.: EVERUN TEST MODE: WLAN 802.11g mode
Temp Humi : 29 / 60 Tested by: B. S. KIM



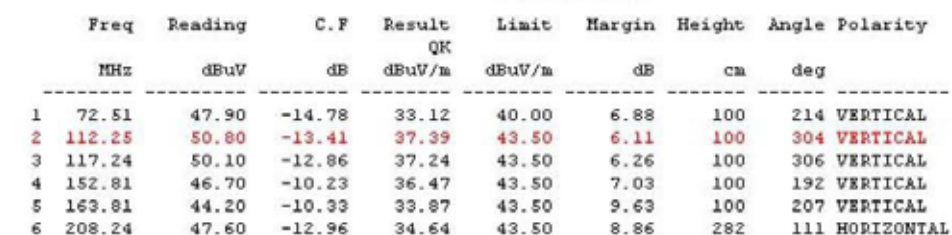
Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
MHz	dBuV	dB	QK dBuV/m	dBuV/m	dB	cm	deg	
1	72.51	47.70	-14.78	32.92	40.00	7.08	100	214 VERTICAL
2	112.25	51.20	-13.41	37.79	43.50	5.71	100	304 VERTICAL
3	117.24	49.80	-12.86	36.94	43.50	6.56	100	306 VERTICAL
4	152.81	44.20	-10.23	33.97	43.50	9.53	100	192 VERTICAL
5	163.81	41.80	-10.33	31.47	43.50	12.03	100	207 VERTICAL
6	208.24	47.70	-12.96	34.74	43.50	8.76	282	111 HORIZONTAL

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



TEST MODE: BLUETOOTH +WLAN 802.11b mode

Tested by: B. S. KIM



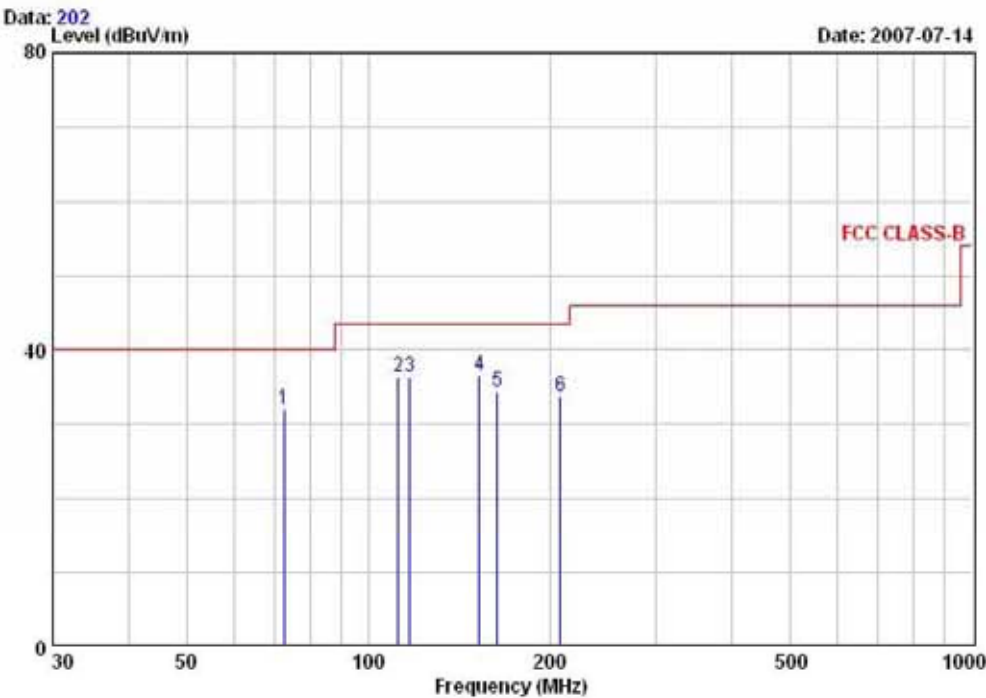
Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

Radiated Emissions –WLAN 802.11g + BT



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EUT/Model No.: EVERUN TEST MODE: BLUETOOTH + WLAN 802.11g mode
Temp Humi : 29 / 60 Tested by: B. S. KIM



	Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
	MHz	dBuV	dB	QK dBuV/m	dBuV/m	dB	cm	deg	
1	72.51	46.80	-14.78	32.02	40.00	7.98	100	214	VERTICAL
2	112.25	49.90	-13.41	36.49	43.50	7.01	100	304	VERTICAL
3	117.24	49.20	-12.86	36.34	43.50	7.16	100	306	VERTICAL
4	152.81	46.80	-10.23	36.57	43.50	6.93	100	192	VERTICAL
5	163.81	44.80	-10.33	34.47	43.50	9.03	100	207	VERTICAL
6	208.24	46.70	-12.96	33.74	43.50	9.76	282	111	HORIZONTAL

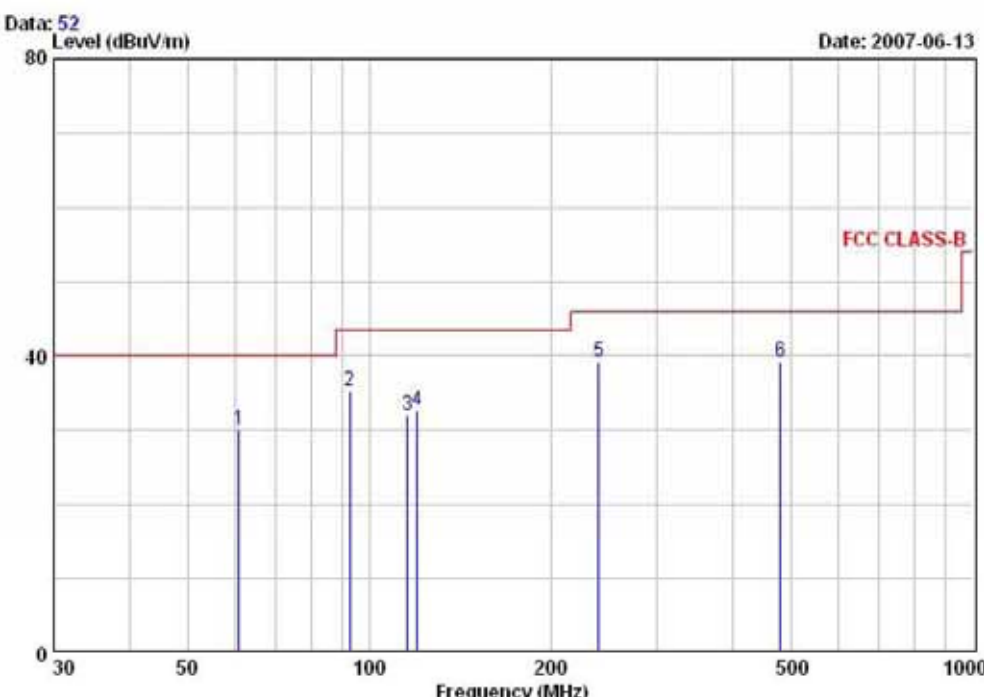
Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain

Radiated Emissions



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EUT/Model No.: EVERUN TEST MODE: 'H'+Movie+File up / down mode
Temp Humi : 34 / 42 Tested by: B. S. KIM



	Freq	Reading	C.F	Result	Limit	Margin	Height	Angle	Polarity
	MHz	dBuV	dB	QK dBuV/m	dBuV/m	dB	cm	deg	
1	60.81	42.80	-12.69	30.11	40.00	9.89	100	214	VERTICAL
2	92.78	50.80	-15.48	35.32	43.50	8.18	100	271	VERTICAL
3	115.52	45.00	-13.05	31.95	43.50	11.55	400	259	HORIZONTAL
4	120.24	45.20	-12.55	32.65	43.50	10.85	100	308	VERTICAL
5	240.03	50.60	-11.43	39.17	46.00	6.83	354	11	HORIZONTAL
6	480.20	45.00	-5.83	39.17	46.00	6.83	381	119	HORIZONTAL

Remarks: C.F (Correction Factor) = Antenna factor + Cable loss - Preamp gain



3.2.6 AC Conducted Emissions

Procedure:

The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. While the measurement, EUT had its hopping function disabled at the middle channels in line with Section 15.31(m). Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation and Exerciser operation. The highest emissions relative to the limit are listed.

Measurement Data: Complies

- See next pages for actual measured spectrum plots.
- No emissions were detected at a level greater than 10dB below limit.

Minimum Standard: FCC Part 15.207(a)/EN 55022

Class B

Frequency Range	quasi-peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency

Class A

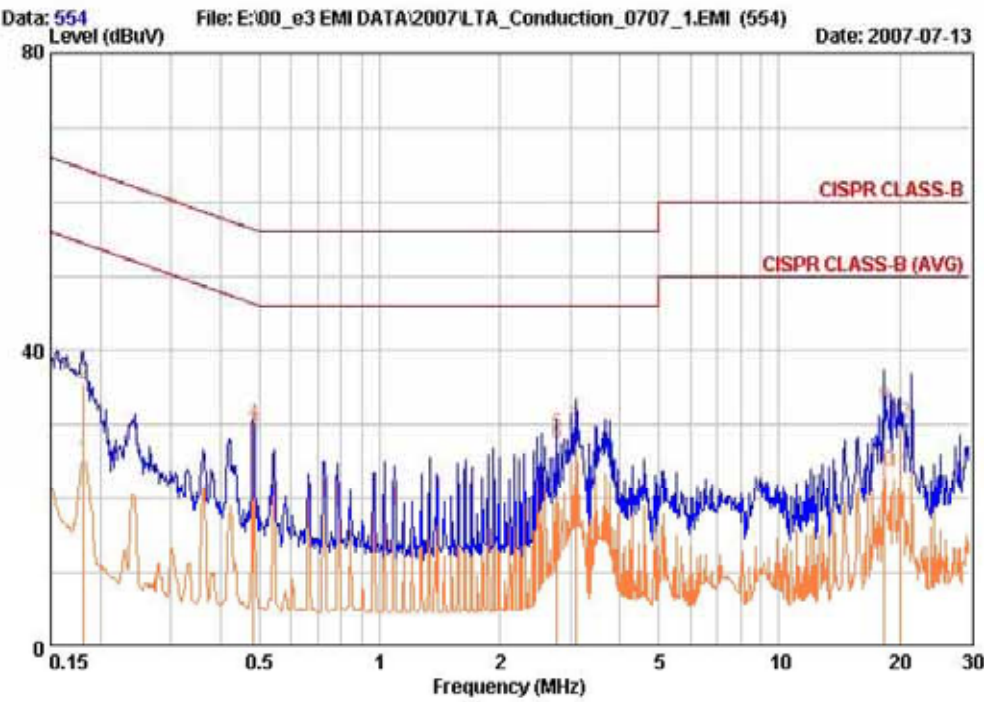
Frequency Range	quasi-peak	Average
0.15 ~ 0.5 MHz	79 dBuV	66 dBuV
0.5 ~ 30 MHz	73 dBuV	60 dBuV

AC Conducted Emissions –WLAN 802.11b -Line



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EUT / Model No. : EVERUN	Phase : LINE
Test Mode : WLAN802.11b mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
0.182	35.20	24.96	0.33	35.53	25.29	64.42	54.42	28.89	29.13
0.484	29.80	28.93	0.31	30.11	29.24	56.27	46.27	26.17	17.04
2.779	29.10	26.74	0.62	28.72	27.36	56.00	46.00	27.28	18.64
3.090	29.10	26.75	0.65	29.75	27.40	56.00	46.00	26.25	18.60
18.328	31.10	22.48	1.34	32.44	23.82	60.00	50.00	27.56	26.18
20.162	28.70	22.06	1.53	30.23	23.59	60.00	50.00	29.77	26.41

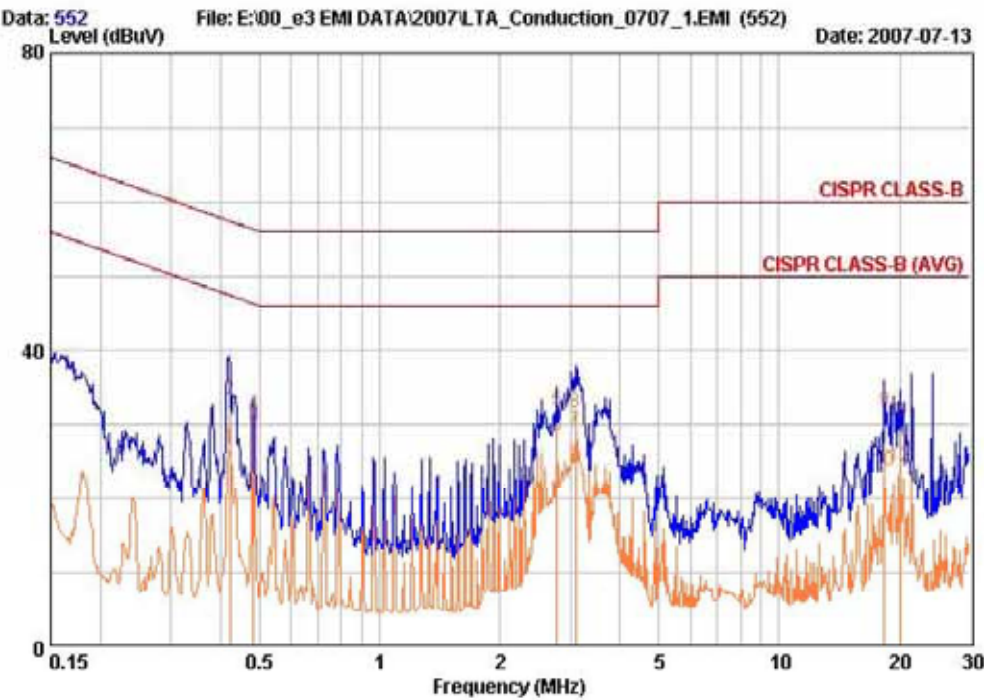
Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

AC Conducted Emissions – WLAN 802.11b - Neutral



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EUT / Model No. : EVERUN	Phase : NEUTRAL
Test Mode : WLAN802.11b mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
	dBuV	dBuV	dB	dBuV	dBuV	dBuV	dBuV	dB	dB
0.421	33.10	26.41	0.36	33.46	26.77	57.42	47.42	23.96	20.65
0.484	31.20	29.67	0.30	31.50	29.97	56.27	46.27	24.78	16.31
2.779	31.30	27.99	0.59	31.89	28.58	56.00	46.00	24.11	17.42
3.090	30.90	28.62	0.62	31.52	29.24	56.00	46.00	24.48	16.76
18.328	30.70	22.61	1.19	31.89	23.80	60.00	50.00	28.11	26.20
20.162	29.20	23.18	1.33	30.53	24.51	60.00	50.00	29.47	25.49

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

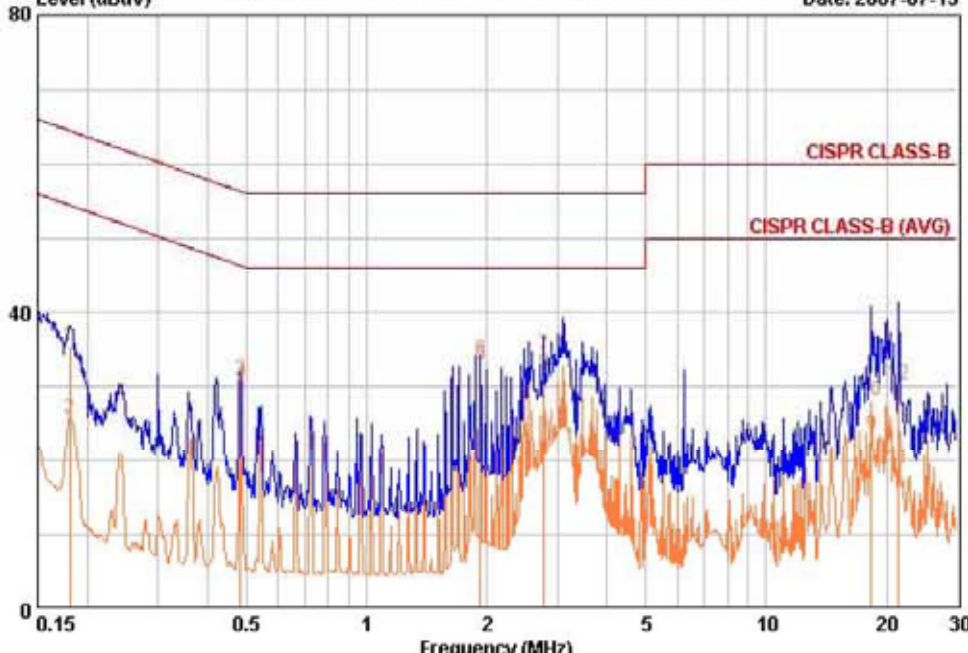
AC Conducted Emissions – WLAN 802.11g - Line



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EUT / Model No. : EVERUN	Phase : LINE
Test Mode : WLAN802.11g mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM

Data: 548 File: E:\00_e3 EMI DATA\2007\LTA_Conduction_0707_1.EMI (548) Date: 2007-07-13



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
0.180	35.20	25.40	0.34	35.54	25.74	64.49	54.49	28.94	28.74
0.483	30.70	30.00	0.31	31.01	30.31	56.29	46.29	25.28	15.98
1.931	33.20	32.40	0.42	33.62	32.82	56.00	46.00	22.38	13.18
2.779	33.70	31.20	0.62	34.32	31.82	56.00	46.00	21.68	14.18
18.357	26.70	22.20	1.34	28.04	23.54	60.00	50.00	31.96	26.46
21.371	28.80	17.40	1.57	30.37	18.97	60.00	50.00	29.63	31.03

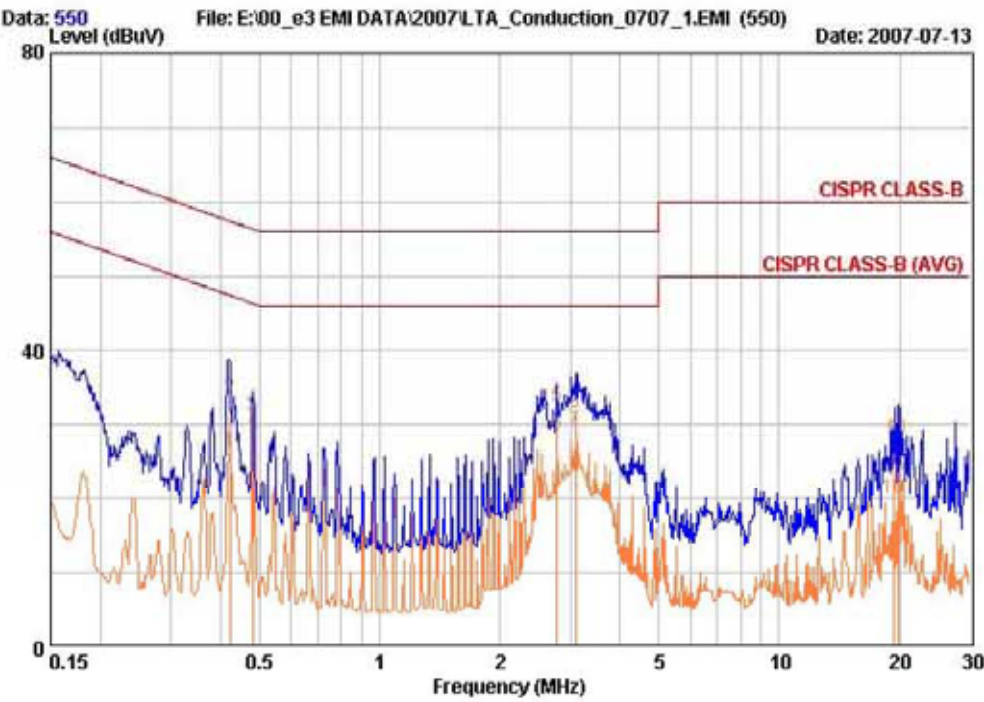
Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

AC Conducted Emissions – WLAN 802.11g - Neutral



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EUT / Model No. : EVERUN	Phase : NEUTRAL
Test Mode : WLAN802.11g mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
0.421	33.20	25.89	0.36	33.56	26.25	57.42	47.42	23.86	21.17
0.481	31.70	29.43	0.30	32.00	29.73	56.32	46.32	24.32	16.59
2.779	31.90	28.20	0.59	32.49	28.79	56.00	46.00	23.51	17.21
3.090	30.90	28.62	0.62	31.52	29.24	56.00	46.00	24.48	16.76
19.326	26.70	18.87	1.24	27.94	20.11	60.00	50.00	32.06	29.89
19.950	26.70	22.02	1.32	28.02	23.34	60.00	50.00	31.98	26.66

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

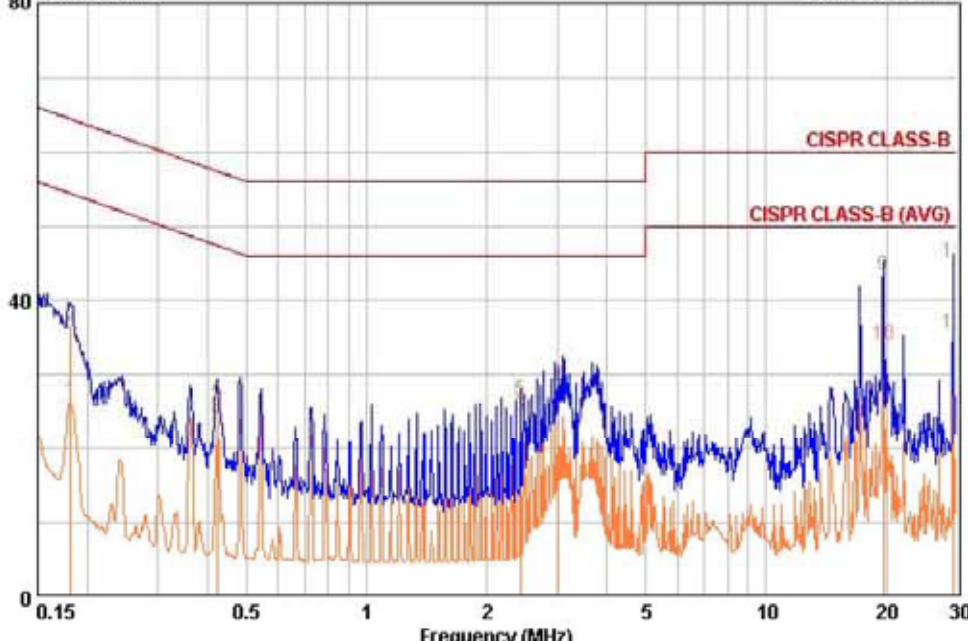
AC Conducted Emissions – Line



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EUT / Model No. : EVERUN	Phase : LINE
Test Mode : 'H' + Movie File up/down mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM

Data: 556 Level (dBuV) File: E:\00_e3 EMI DATA\2007\LTA_Conduction_0707_1.EMI (562) Date: 2007-07-13



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
	dBuV	dBuV	dB	dBuV	dBuV	dBuV	dBuV	dB	dB
0.182	36.20	25.96	0.33	36.53	26.29	64.42	54.42	27.89	28.13
0.421	26.40	23.91	0.37	26.77	24.28	57.42	47.42	30.65	23.14
2.422	26.00	23.80	0.53	26.53	24.33	56.00	46.00	29.47	21.67
3.025	28.00	24.34	0.66	28.66	25.00	56.00	46.00	27.34	21.00
19.635	41.80	32.61	1.47	43.27	34.08	60.00	50.00	16.73	15.92
29.371	43.20	33.69	1.81	45.01	35.50	60.00	50.00	14.99	14.50

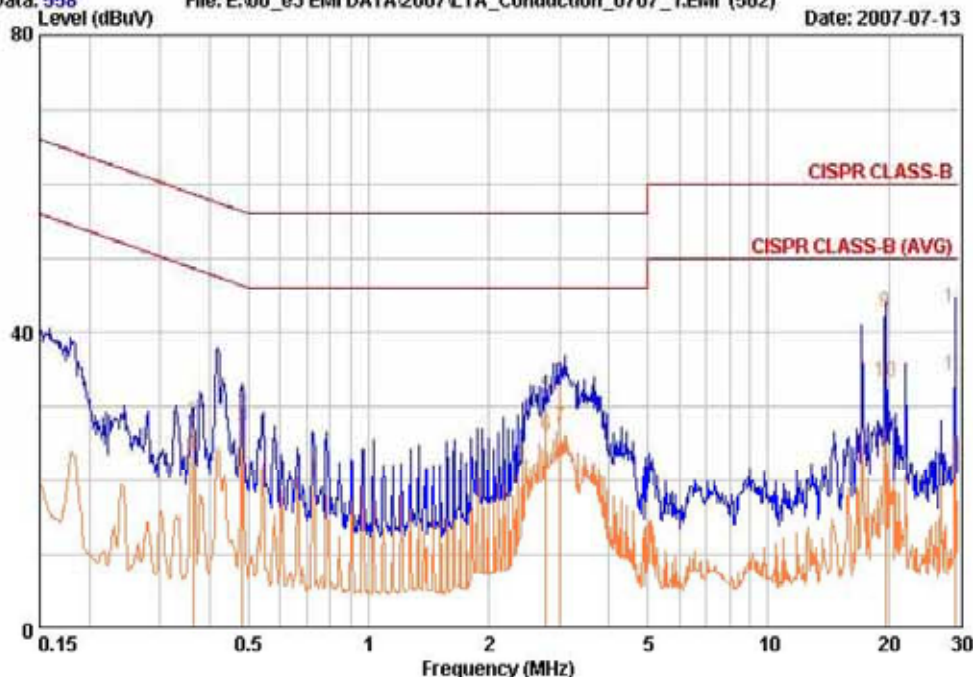
Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

AC Conducted Emissions –Neutral

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Fax:+82-31-323-6010

EUT / Model No. : EVERUN	Phase : NEUTRAL
Test Mode : 'H' + Movie+File up/down mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM

Data: 558 File: E:\00_e3 EMI DATA\2007\LTA_Conduction_0707_1.EMI (562) Date: 2007-07-13



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
	dBuV	dBuV	dB	dBuV	dBuV	dBuV	dBuV	dB	dB
0.363	27.60	26.14	0.34	27.94	26.48	58.65	48.65	30.71	22.17
0.484	29.80	26.92	0.30	30.10	27.22	56.27	46.27	26.18	19.06
2.779	30.90	25.55	0.59	31.49	26.14	56.00	46.00	24.51	19.86
3.025	32.50	26.59	0.63	33.13	27.22	56.00	46.00	22.87	18.78
19.635	41.40	31.96	1.28	42.68	33.24	60.00	50.00	17.32	16.76
29.371	41.80	32.56	1.64	43.44	34.20	60.00	50.00	16.56	15.80

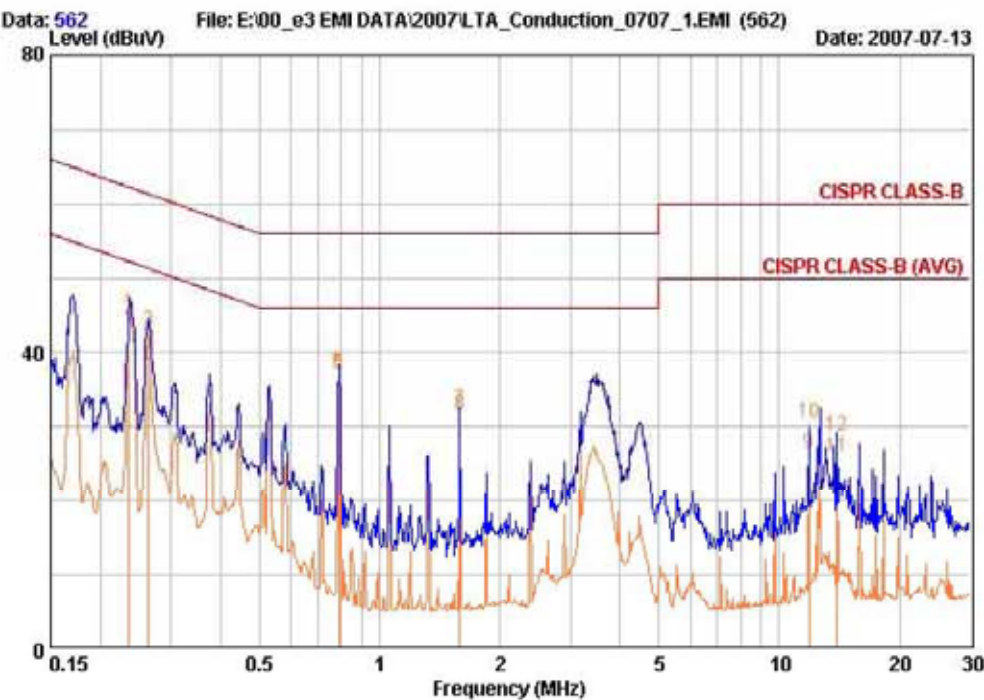
Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

AC Conducted Emissions –PC Mode - Line



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EUT / Model No. : EVERUN	Phase : LINE
Test Mode : PC mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV		QP	AV	QP	AV	QP	AV
	dBuV	dBuV	dB	dBuV	dBuV	dBuV	dBuV	dB	dB
0.236	45.10	44.30	0.22	45.32	44.52	62.24	52.24	16.92	7.72
0.264	42.70	41.60	0.25	42.95	41.85	61.30	51.30	18.36	9.46
0.791	37.10	36.60	0.39	37.49	36.99	56.00	46.00	18.51	9.01
1.583	31.80	31.20	0.38	32.18	31.58	56.00	46.00	23.82	14.42
11.868	29.50	25.30	1.00	30.50	26.30	60.00	50.00	29.50	23.70
13.979	27.60	24.80	1.12	28.72	25.92	60.00	50.00	31.28	24.08

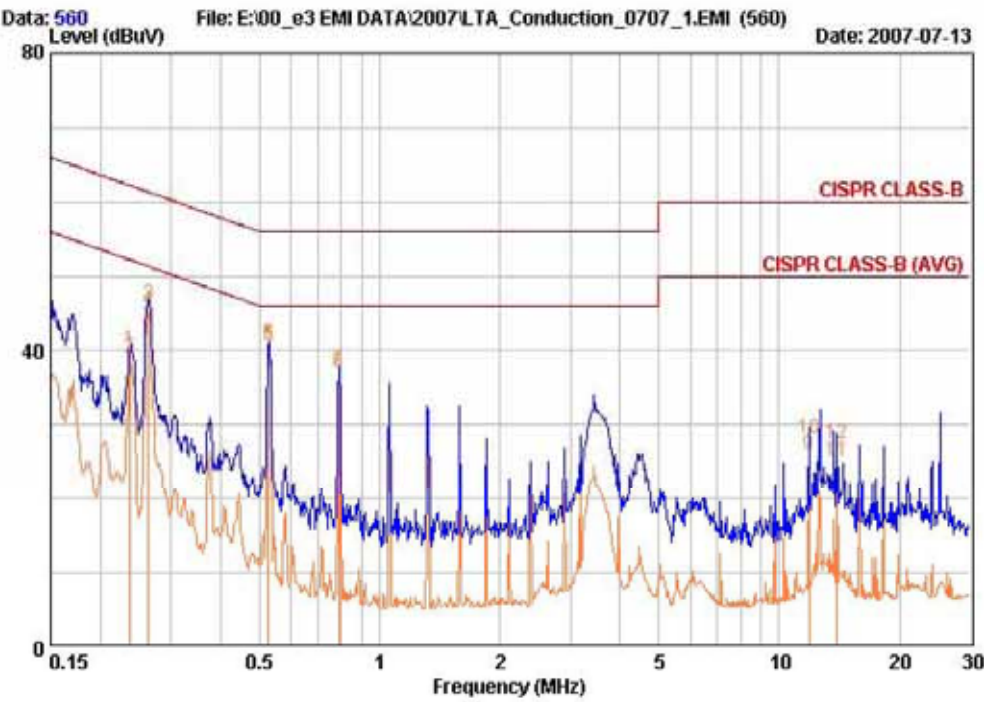
Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

AC Conducted Emissions – PC Mode - Neutral



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EUT / Model No. : EVERUN	Phase : NEUTRAL
Test Mode : PC mode	Test Power : 120 / 60
Temp./Humi. : 25 / 49	Test Engineer : B.S.KIM



Freq	RD	RD	C.F	Result	Result	Limit	Limit	Margin	Margin
MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
0.237	39.90	38.90	0.22	40.12	39.12	62.20	52.20	22.08	13.08
0.264	46.00	45.20	0.24	46.24	45.44	61.30	51.30	15.06	5.86
0.527	40.60	40.20	0.28	40.88	40.48	56.00	46.00	15.12	5.52
0.790	37.10	36.60	0.38	37.48	36.98	56.00	46.00	18.52	9.02
11.867	27.10	25.00	0.96	28.06	25.96	60.00	50.00	31.94	24.04
13.978	26.40	24.00	1.06	27.46	25.06	60.00	50.00	32.54	24.94

Remarks: C.F (Correction Factor) = Insertion loss + Cable loss

APPENDIX

TEST EQUIPMENT USED FOR TESTS

	Description	Model No.	Serial No.	Manufacturer	Next Cal. Date
1	Spectrum Analyzer	8594E	3649A03649	HP	Apr-08
2	Signal Generater	8648C	3623A02597	HP	Apr-08
3	Attenuator (3dB)	8491A	37822	HP	Nov-07
4	Attenuator (10dB)	8491A	63196	HP	Nov-07
5	EMI Test Receiver	ESVD	843748/001	R&S	Jan-08
6	LISN	KNW-407	8-1430-1	Kyoritsu	Jan-08
7	Two-Line V-Network	ESH3-Z5	893045/017	R&S	Jan-08
8	RF Amplifier	8447D	2949A02670	HP	Jan-08
9	RF Amplifier	8447D	2439A09058	HP	Jan-08
10	RF Amplifier	8449B	3008A02126	HP	Apr-09
11	Test Receiver	ESHS10	828404009	R&S	Jan-08
12	TRILOG Antenna	VULB 9160	9160-3212	SCHWARZBECK	Jul-07
13	Log.-Per. Antenna	VULP 9118	9118 A 401	SCHWARZBECK	Apr-09
14	Biconical Antenna	BBA 9106	VHA 9103-2315	SCHWARZBECK	Apr-09
15	Horn Antenna	3115	00055005	ETS LINDGREN	Mar-09
16	Dipole Antenna	VHA9103	2116	Schwarzbeck	Nov-07
17	Dipole Antenna	VHA9103	2117	Schwarzbeck	Nov-07
18	Dipole Antenna	UHA9105	2261	Schwarzbeck	Nov-07
19	Dipole Antenna	UHA9105	2262	Schwarzbeck	Nov-07
20	Spectrum Analyzer	8591E	3649A05888	HP	Jan-08
21	Spectrum Analyzer	8563E	3425A02505	HP	Apr-08
22	Hygro-Thermograph	THB-36	0041557-01	ISUZU	Feb-08
23	Splitter (SMA)	ZFSC-2-2500	SF617800326	Mini-Circuits	Jun-08
24	RF Switch	MP59B	6200414971	ANRITSU	Jun-08
25	RF Switch	MP59B	6200438565	ANRITSU	Jun-08
26	Power Divider	11636A	6243	HP	Nov-07
27	DC Power Supply	6622A	3448A03079	HP	Oct-07
28	Attenuator (30dB)	11636A	6243	HP	Nov-07
29	Frequency Counter	5342A	2826A12411	HP	Apr-08
30	Power Meter	EPM-441A	GB32481702	HP	Apr-08
31	Power Sensor	8481A	2702A64048	HP	Apr-08
32	Audio Analyzer	8903B	3729A18901	HP	Nov-07
33	Modulation Analyzer	8901B	3749A05878	HP	Nov-07
34	TEMP & HUMIDITY Chamber	YJ-500	L05022	JinYoung Tech	Oct-07
35	LOOP-ANTENNA	FMZB 1516	151602/94	SCHWARZBECK	Mar-09