



A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)
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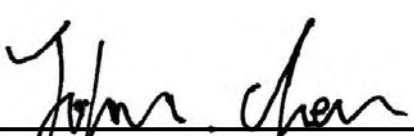
Part 15 C Measurement Report



Report No.	: 0908FR13
Applicant	: Partner Tech Corp.
Product Type	: E-Menu
Trade Mark	: Partner
Model No.	: EM-200
FCC ID	: NDPEM200
Dates of Test	: Aug. 12 ~ Aug. 19, 2009
Test Specification	: FCC CFR Title 47 Part 15 Subpart C (15.247) (2008-10) PUBLIC NOTICE :DA 00-705 Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems
Location of Test Lab.	: Chang-an Lab.

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full. This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp.
4. This document may be altered or revised by A Test Lab Techno. Corp. personnel only, and shall be noted in the revision section of the document.


Miller Lee 20090820
Approve Signer


John Cheng 20090820
Testing Engineer



CERTIFICATION

We hereby 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 C63.4:2003. All test were conducted by A Test Lab Techno Corp. No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.) Also, we attest to the accuracy of each.

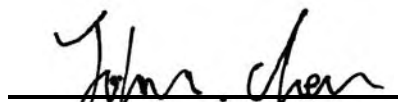
We further submit that the energy emitted by the sample EUT tested as described in the report is in compliance with Class B radiated and conducted emission limit of FCC Rules Part 15 Subpart C (15.247).

Product Name : E-Menu
Applicant : Partner Tech Corp.
Applicant Address : 10F, No 233-2, Pao Chiao Rd., Shin Tien, Taipei, Taiwan231
Manufacturer : Partner Tech Corp.
Manufacturer Address : 10F, No 233-2, Pao Chiao Rd., Shin Tien, Taipei, Taiwan231
Trade Name : Partner
Model No. : EM-200
FCC ID : NDPEM200
Rated Voltage : 100-240Vac, 1A, 50/60Hz
EUT Voltage : 12Vdc, 3A
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C (15.247) (2008-10)
Classification : B
Test Result : Complied

Approved by :


Miller Lee 2009/08/20

Prepared by :


John Cheng 2009/08/20

A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)
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1. General

1.1 Description of Equipment under Test (EUT)

Applicant	:	Partner Tech Corp.
Applicant Address	:	10F, No 233-2, Pao Chiao Rd., Shin Tien, Taipei, Taiwan231
Manufacturer	:	Partner Tech Corp.
Manufacturer Address	:	10F, No 233-2, Pao Chiao Rd., Shin Tien, Taipei, Taiwan231
Product Name	:	E-Menu
Trade Name	:	Partner
Model No.	:	EM-200
Frequency Range	:	2402 MHz – 2480 MHz
Type of Modulation	:	GFSK for 1Mbps; $\pi/4$ -DQPSK for 2Mbps; 8DPSK for 3Mbps
Hardware Version	:	2.0
Software Version	:	XP SP2
Component		
Power Adapter	:	DELTA , ADP-36EH C Input:100-240Vac, 1A, 50/60Hz Output: 12Vdc, 3A Cable in: Non-Shielded, 1.75 m Cable out: Non-Shielded, 1.75 m

1.2 Introduction

The following measurement report is submitted on behalf of **Partner Tech Corp.** 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.



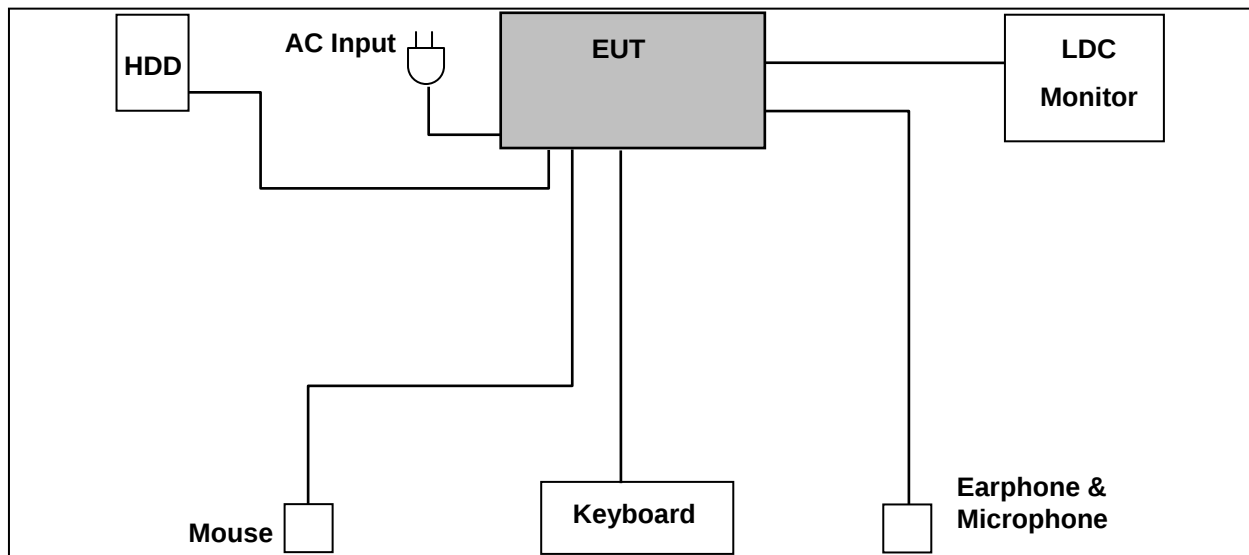
1.3 Summary of Tests

FCC CFR Title 47 Part 15 Subpart C (15.247)			
Reference	Test	Results	Note
15.207	AC Power Conducted Emission	PASS	-----
15.247(c)	Transmitter Radiated Emissions	PASS	-----
15.247(b)	Max. Output Power	PASS	-----
15.247(a)(1)	20dB RF Bandwidth	PASS	-----
15.247(a)(1)(ii)	Carrier Frequency Separation	PASS	-----
15.247(a)(1)(i)	Number of Hopping	PASS	-----
15.247(a)(1)(i)	Time of Occupancy (Dwell Time)	PASS	-----
15.247(c)	Out of Band Conducted Spurious Emission	PASS	-----
15.247(c)	Band Edge Measurement	PASS	-----
15.203	Antenna Requirement	PASS	-----

1.4 Description of Support Equipment

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Bluetooth Tester	R&S	CBT	100350	Mar. 11, 2009	Mar. 11, 2010

1.5 Configuration of System under Test



During testing the EUT's USB port1 connected to the hard discs and USB port2 connected to the mouse and USB port3 connected to the keyboard. The EUT's VGA port connected to the LCD monitor. The EUT's earphone port connected to the earphone and the microphone connected to the microphone.

1.6 Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	ANSI C63.4 CE	15-35	25
Humidity (%RH)		30-60	50
Barometric pressure (mbar)		860-1060	950-1000
Temperature (°C)	ANSI C63.4 RE	15-35	25
Humidity (%RH)		30-60	50
Barometric pressure (mbar)		860-1060	950-1000

Registration Number : 854525

Designation Number : TW1330

Test Site Name: A Test Lab Techno Corp.

Test Site Location: No. 140 -1, Changan Street, Bade City, Taoyuan County, Taiwan R.O.C.

TEL: 886-3-271-0188 FAX: 886-3-271-0190

The chamber meets the characteristics of ANSI C63.4-2006. This site is on file with the FCC.



2. Conducted Emissions Requirements

2.1 Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.2 Limits

Frequency range (MHz)	Limits (dBuV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

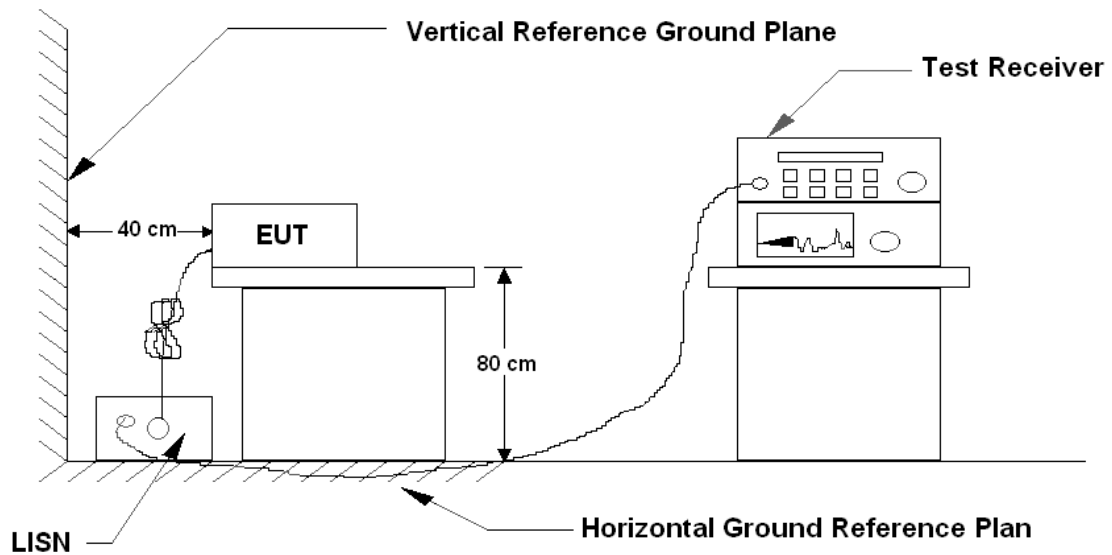
2.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Advantest	R3132	160300103	Mar. 10, 2009	Mar. 10, 2010
Test Receiver	R&S	ESCI	100367	Jun. 05, 2009	Jun. 05, 2010
LISN	EMCO	3816/2 SH	00060110	Jun. 05, 2009	Jun. 05, 2010
LISN	EMCO	3816/2 SH	00060111	Jun. 29, 2009	Jun. 29, 2010
Transient Limiter	ELECTRO-METRICS	EM-7600	777	Sep. 22, 2008	Sep. 22, 2009

2.4 Test condition

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

2.5 Test Instruments Configuration



2.6 Test Results

EUT : E-Menu

Model No. : EM-200

Test Mode : Link Mode

Test Date : 08/12/2009

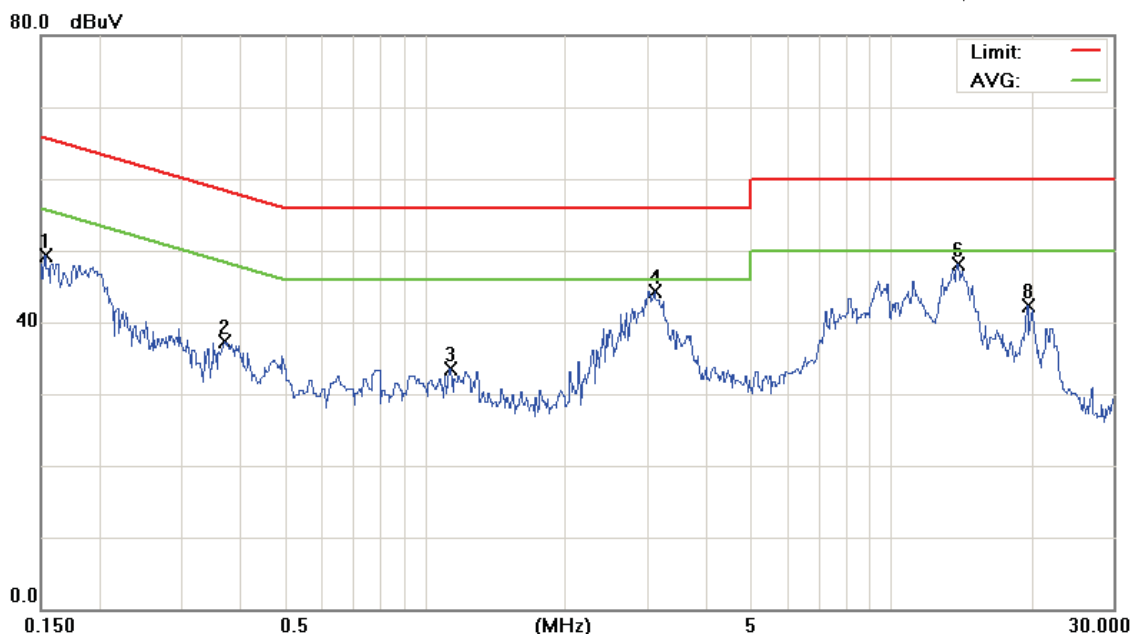
Please refer to next page of detail testing data.

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 Quasi-Peak Value have already met the Average Value Limit showed on above limits.
4. The above test results are obtained under the normal condition.



File :EM-200 Data :#1 Date: 2009/8/12 Time: 上午 03:36:16



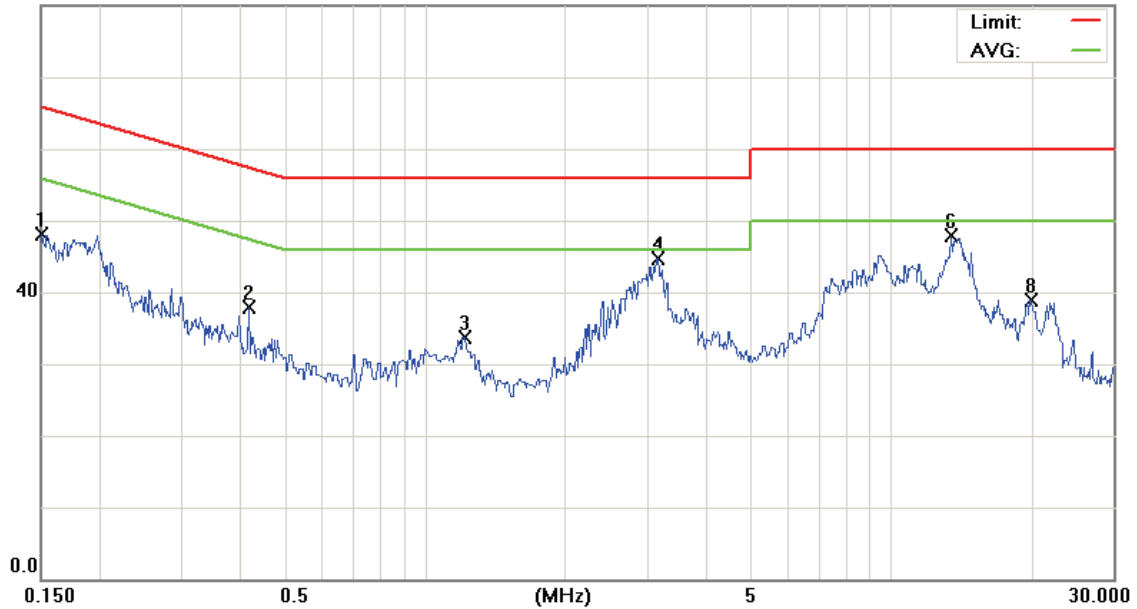
Site site #1 Phase: **L1** Temperature: 26 °C
 Limit: CISPR 22 Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 55 %
 EUT:
 M/N: 09-0206-SEO
 Mode: Link Mode
 Note:

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1528	39.51	9.73	49.24	65.85	-16.61	peak	
2	0.3704	27.61	9.78	37.39	58.49	-21.10	peak	
3	1.1300	23.73	9.80	33.53	56.00	-22.47	peak	
4 *	3.1010	34.47	9.90	44.37	56.00	-11.63	peak	
5	3.1010	14.77	9.90	24.67	46.00	-21.33	AVG	
6	13.8500	37.88	10.20	48.08	60.00	-11.92	peak	
7	13.8500	25.70	10.20	35.90	50.00	-14.10	AVG	
8	19.5500	31.97	10.28	42.25	60.00	-17.75	peak	

*:Maximum data x:Over limit !:over margin



File :EM-200 Data :#2 Date: 2009/8/12 Time: 上午 03:42:03
80.0 dBuV



Site site #1 Phase: **L2** Temperature: 26 °C
Limit: CISPR 22 Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 55 %
EUT:
M/N: 09-0206-SEO
Mode: Link Mode
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1507	38.39	9.73	48.12	65.96	-17.84	peak	
2		0.4181	28.20	9.78	37.98	57.49	-19.51	peak	
3		1.2110	23.84	9.81	33.65	56.00	-22.35	peak	
4	*	3.1460	34.72	9.91	44.63	56.00	-11.37	peak	
5		3.1460	14.99	9.91	24.90	46.00	-21.10	AVG	
6		13.4500	37.73	10.21	47.94	60.00	-12.06	peak	
7		13.4500	23.19	10.21	33.40	50.00	-16.60	AVG	
8		19.8500	28.71	10.24	38.95	60.00	-21.05	peak	

*:Maximum data x:Over limit !:over margin



3. Radiated Emissions Requirements

3.1 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.

The EUT was positioned such that the distance from antenna to the EUT was 10 meters for the frequency under 1GHz and 3 meters for the frequency above 1GHz.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 120 kHz and above 1GHz is 1MHz.

3.2 Radiated Emissions Limits

Frequency range (MHz)	Field strength (microvolts/meter)	Measure-ment dis-tance (meters)
0.009 to 0.490	2400/F(kHz)	300
0.490 to 1.705	24000/F(kHz)	30
1.705 to 30.0	30	30
30 to 88	100**	3
88 to 216	150**	3
216 to 960	200**	3
Above 960	500**	3

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

3.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY46181421	Mar. 13, 2009	Mar. 13, 2010
Pre Amplifier	Agilent	8449B	3008A02457	Mar. 04, 2009	Mar. 04, 2010
Pre Amplifier	Agilent	8447D	2944A11119	Jan. 19, 2009	Jan. 19, 2010
Test Receiver	R&S	ESCI	100367	Jun. 05, 2009	Jun. 05, 2010
Biconilog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	Jun. 23, 2009	Jun. 23, 2010
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jul. 01, 2009	Jul. 01, 2010
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	Jun. 30, 2009	Jun. 30, 2010
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120E	0899	Jun. 23, 2009	Jun. 23, 2010

3.4 Test condition

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

3.5 Test Results

EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth 2.1 Link Mode

Test Date : 08/17 ~ 08/18/2009

Please refer to next page of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
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)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested



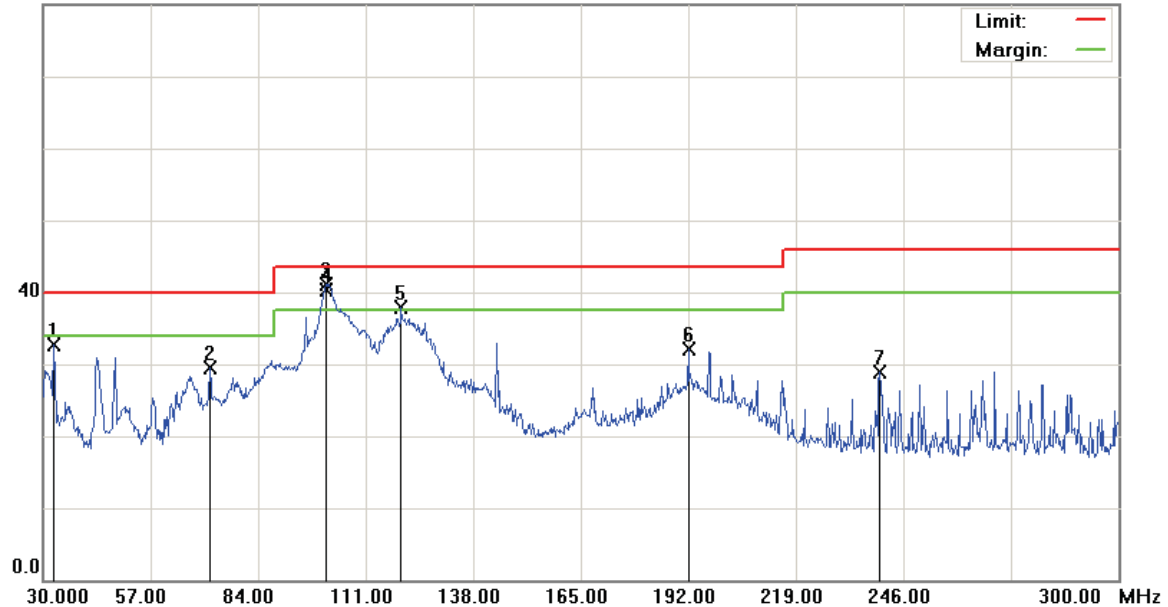
File :EM-200(new)

Data :#1

Date: 2009/8/17

Time: 上午 11:54:08

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note:

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		32.7000	45.88	-13.26	32.62	40.00	-7.38	peak		
2		71.8500	46.39	-16.79	29.60	40.00	-10.40	peak		
3	*	101.0100	52.97	-11.82	41.15	43.50	-2.35	peak		
4	!	101.0100	52.16	-11.82	40.34	43.50	-3.16	QP	102	52
5	!	119.9100	52.17	-14.18	37.99	43.50	-5.51	peak		
6		192.0000	45.44	-13.26	32.18	43.50	-11.32	peak		
7		240.0600	40.31	-11.43	28.88	46.00	-17.12	peak		

*:Maximum data x:Over limit !:over margin



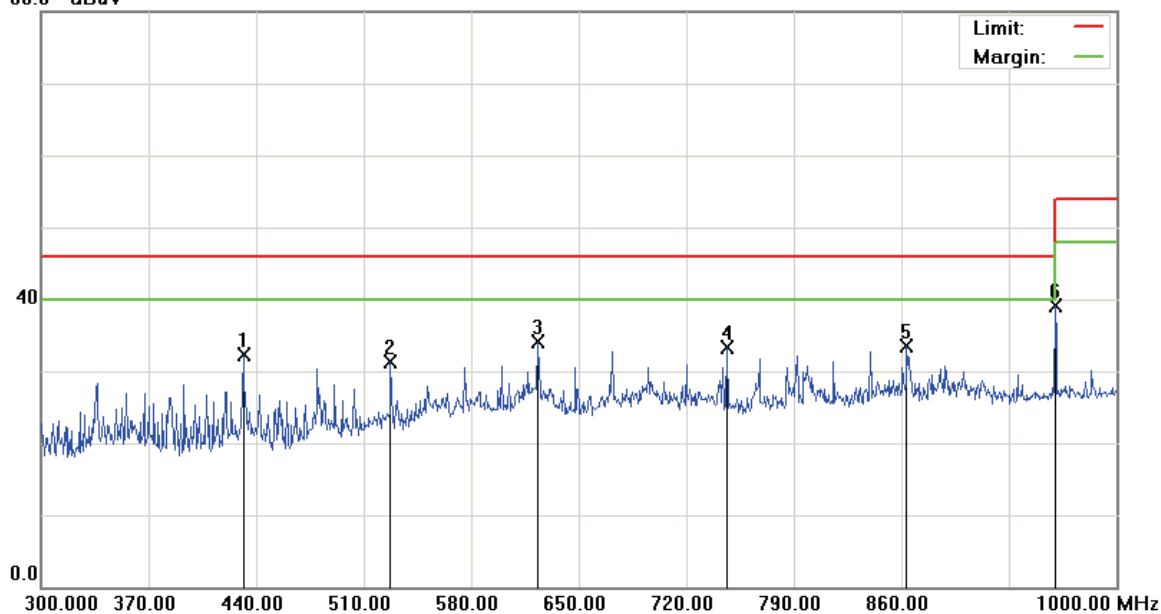
File :EM-200(new)

Data :#2

Date: 2009/8/17

Time: 上午 11:58:22

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note:

Polarization: *Vertical*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		431.6000	40.25	-8.03	32.22	46.00	-13.78	peak		
2		527.5000	37.79	-6.39	31.40	46.00	-14.60	peak		
3	*	623.4000	38.74	-4.56	34.18	46.00	-11.82	peak		
4		746.6000	36.39	-3.11	33.28	46.00	-12.72	peak		
5		863.5000	34.24	-0.68	33.56	46.00	-12.44	peak		
6		960.1000	38.69	0.43	39.12	54.00	-14.88	peak		

*:Maximum data x:Over limit !:over margin



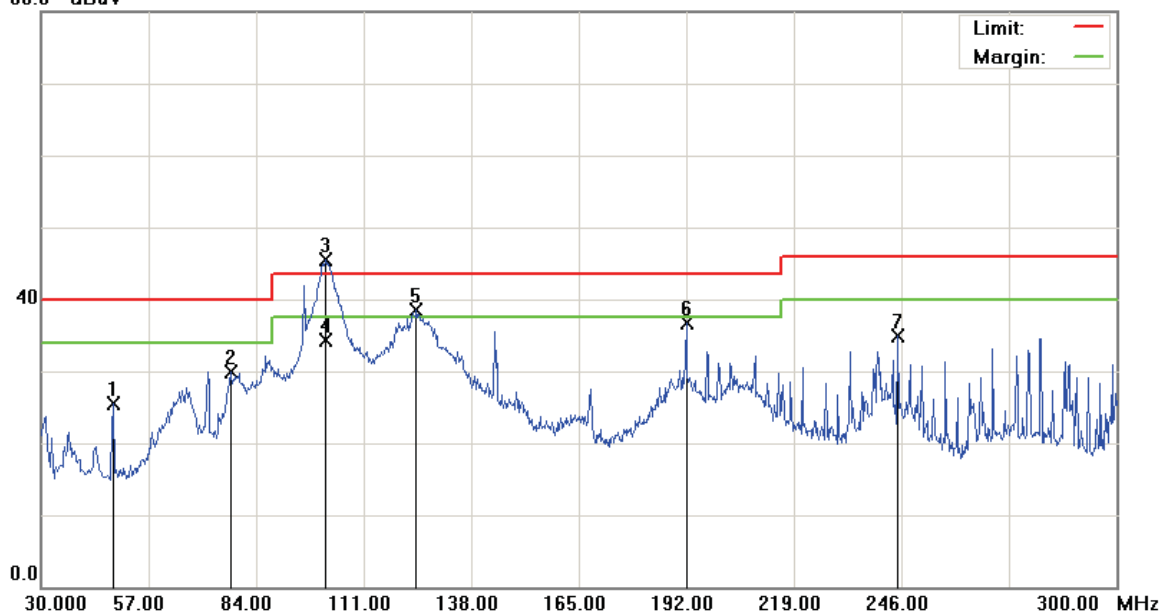
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Data :#3

Date: 2009/8/17

Time: 下午 12:02:36

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note:

Polarization: *Horizontal*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		48.0900	37.54	-12.04	25.50	40.00	-14.50	peak		
2		77.5200	46.81	-16.86	29.95	40.00	-10.05	peak		
3	*	101.5500	57.35	-11.86	45.49	43.50	1.99	peak		
4		101.5500	46.07	-11.86	34.21	43.50	-9.29	QP		
5	!	124.2300	53.46	-14.91	38.55	43.50	-4.95	peak		
6		192.0000	49.99	-13.26	36.73	43.50	-6.77	peak		
7		245.1900	46.08	-11.24	34.84	46.00	-11.16	peak		

*:Maximum data x:Over limit !:over margin



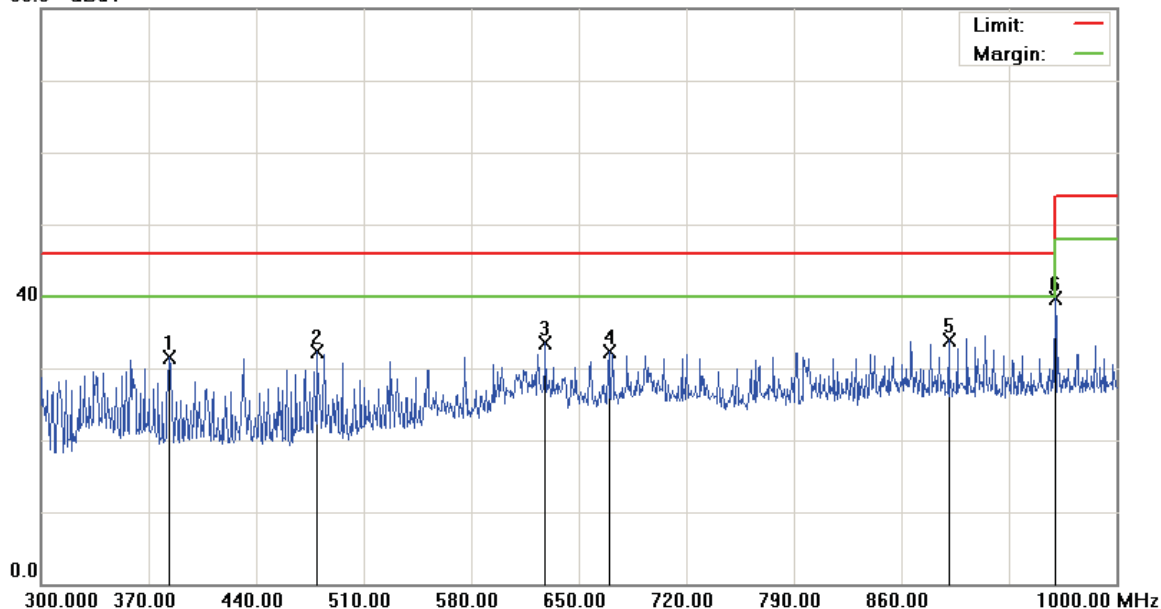
File :EM-200(new)

Data :#4

Date: 2009/8/17

Time: 下午 12:06:50

80.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT:

Distance: 3m

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		383.3000	40.10	-8.65	31.45	46.00	-14.55	peak		
2		479.9000	39.87	-7.53	32.34	46.00	-13.66	peak		
3		628.3000	37.87	-4.46	33.41	46.00	-12.59	peak		
4		669.6000	36.53	-4.29	32.24	46.00	-13.76	peak		
5	*	890.8000	34.72	-0.79	33.93	46.00	-12.07	peak		
6		960.1000	39.27	0.43	39.70	54.00	-14.30	peak		

*:Maximum data x:Over limit !:over margin



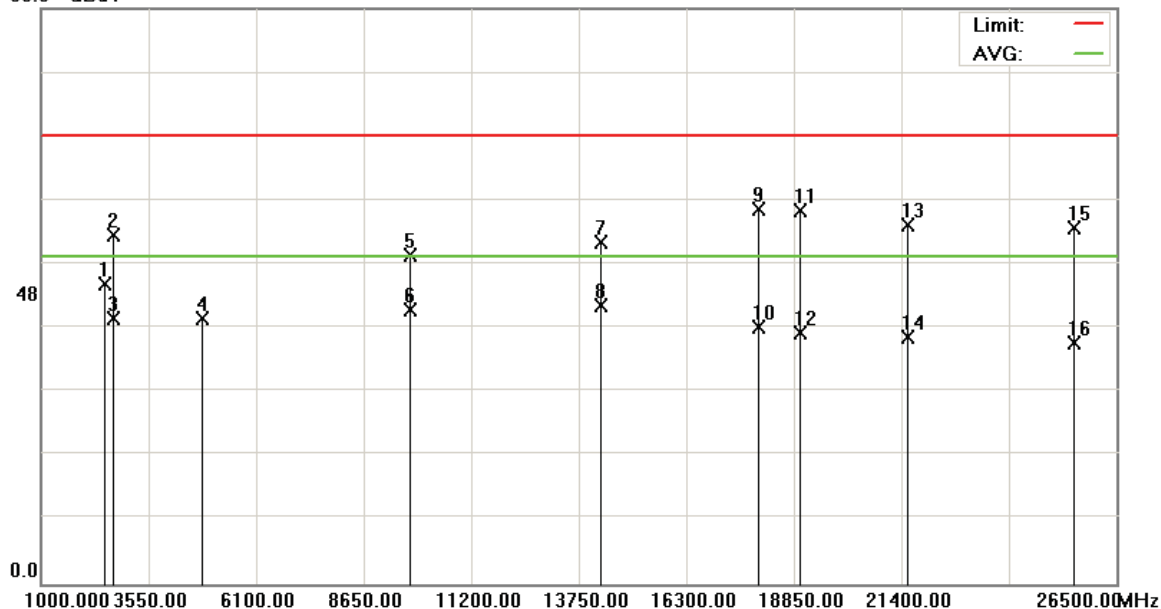
File :EM-200(2402MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:34:55

95.0 dBuV



Site: site #1

Polarization: **Vertical**

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT:

Distance: 3m

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2402MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2497.700	49.24	0.25	49.49	74.00	-24.51	peak		
2		2700.000	34.94	22.58	57.52	74.00	-16.48	peak		
3		2700.000	21.25	22.58	43.83	54.00	-10.17	AVG		
4		4804.000	36.45	7.32	43.77	74.00	-30.23	peak		
5		9726.250	36.61	17.60	54.21	74.00	-19.79	peak		
6		9726.250	27.76	17.60	45.36	54.00	-8.64	AVG		
7		14240.000	37.64	18.71	56.35	74.00	-17.65	peak		
8	*	14240.000	27.26	18.71	45.97	54.00	-8.03	AVG		
9		18000.000	36.33	25.57	61.90	74.00	-12.10	peak		
10		18000.000	16.89	25.57	42.46	54.00	-11.54	AVG		
11		18998.750	38.46	23.09	61.55	74.00	-12.45	peak		
12		18998.750	18.32	23.09	41.41	54.00	-12.59	AVG		
13		21548.750	37.83	21.33	59.16	74.00	-14.84	peak		
14		21548.750	19.37	21.33	40.70	54.00	-13.30	AVG		
15		25501.250	39.86	18.98	58.84	74.00	-15.16	peak		
16		25501.250	20.88	18.98	39.86	54.00	-14.14	AVG		

*:Maximum data x:Over limit !:over margin



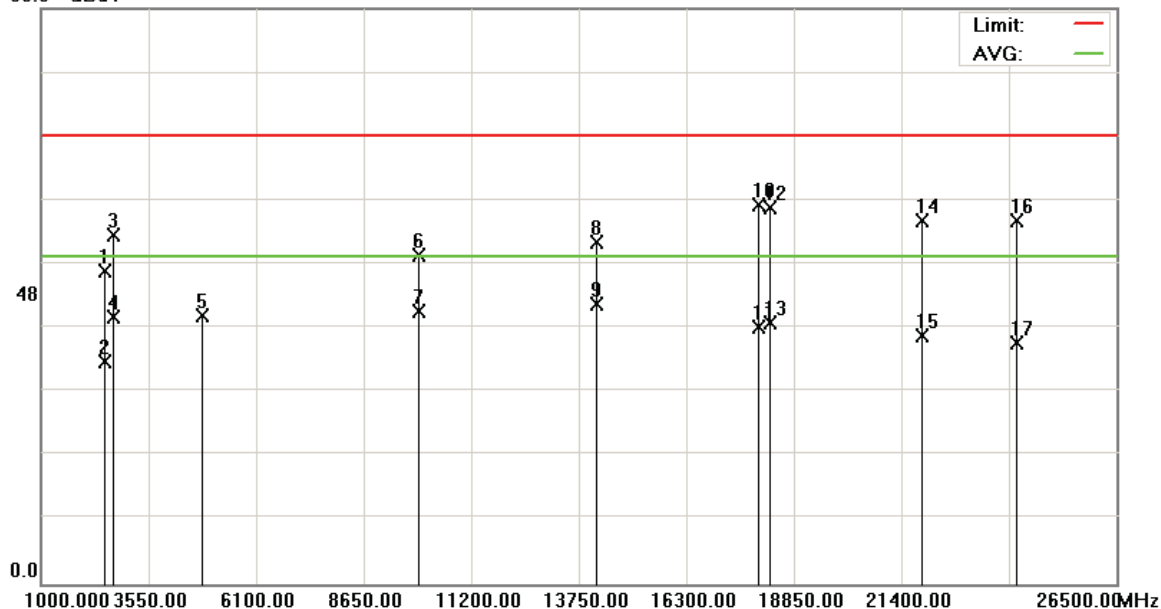
File :EM-200(2402MHz)

Data :#18

Date: 2009/8/18

Time: 上午 03:01:21

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2402MHz

Polarization: Horizontal

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	cm	degree	Comment
1		2490.900	51.45	0.26	51.71	74.00	-22.29	peak		
2		2490.900	36.39	0.26	36.65	54.00	-17.35	AVG		
3		2700.000	35.07	22.58	57.65	74.00	-16.35	peak		
4		2700.000	21.36	22.58	43.94	54.00	-10.06	AVG		
5		4804.000	37.06	7.32	44.38	74.00	-29.62	peak		
6		9945.250	36.48	17.78	54.26	74.00	-19.74	peak		
7		9945.250	27.12	17.78	44.90	54.00	-9.10	AVG		
8		14180.000	37.47	18.85	56.32	74.00	-17.68	peak		
9	*	14180.000	27.43	18.85	46.28	54.00	-7.72	AVG		
10		18000.000	36.90	25.57	62.47	74.00	-11.53	peak		
11		18000.000	16.89	25.57	42.46	54.00	-11.54	AVG		
12		18276.250	38.82	23.21	62.03	74.00	-11.97	peak		
13		18276.250	19.92	23.21	43.13	54.00	-10.87	AVG		
14		21867.500	38.87	21.19	60.06	74.00	-13.94	peak		
15		21867.500	19.79	21.19	40.98	54.00	-13.02	AVG		
16		24120.000	40.09	19.90	59.99	74.00	-14.01	peak		
17		24120.000	19.96	19.90	39.86	54.00	-14.14	AVG		

*:Maximum data x:Over limit !:over margin



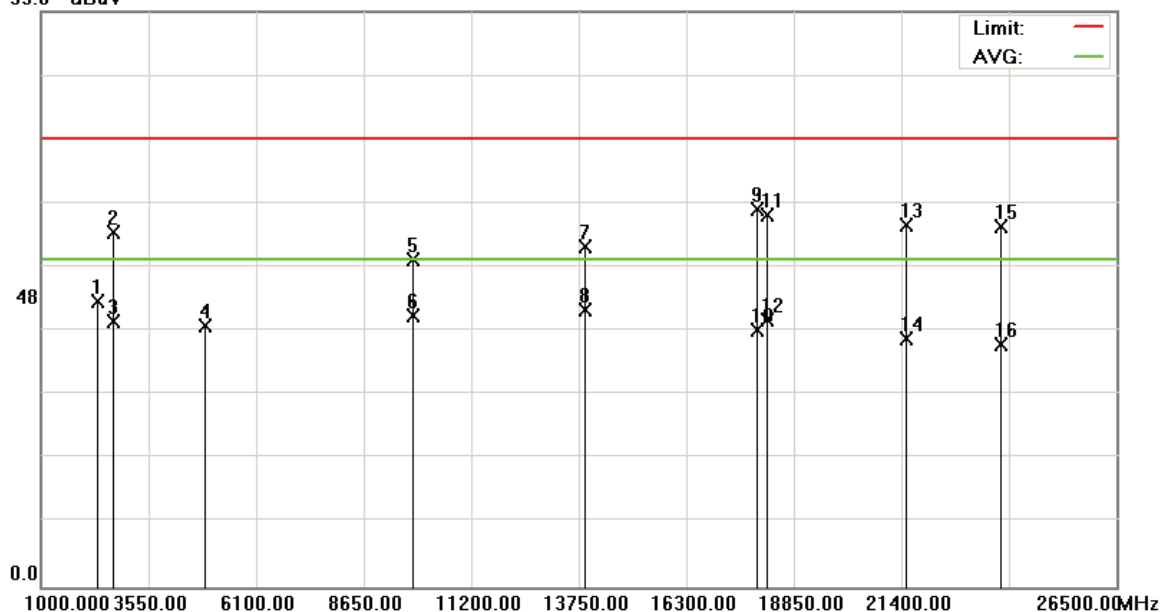
File :EM-200(2441MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:42:56

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2441MHz

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2322.600	46.87	0.27	47.14	74.00	-26.86	peak		
2		2700.000	36.01	22.58	58.59	74.00	-15.41	peak		
3		2700.000	21.23	22.58	43.81	54.00	-10.19	AVG		
4		4882.000	35.27	7.74	43.01	74.00	-30.99	peak		
5		9817.500	36.39	17.75	54.14	74.00	-19.86	peak		
6		9817.500	27.03	17.75	44.78	54.00	-9.22	AVG		
7		13880.000	37.90	18.38	56.28	74.00	-17.72	peak		
8	*	13880.000	27.41	18.38	45.79	54.00	-8.21	AVG		
9		17980.000	37.21	25.21	62.42	74.00	-11.58	peak		
10		17980.000	17.26	25.21	42.47	54.00	-11.53	AVG		
11		18191.250	38.14	23.22	61.36	74.00	-12.64	peak		
12		18191.250	20.82	23.22	44.04	54.00	-9.96	AVG		
13		21506.250	38.35	21.35	59.70	74.00	-14.30	peak		
14		21506.250	19.54	21.35	40.89	54.00	-13.11	AVG		
15		23737.500	39.20	20.30	59.50	74.00	-14.50	peak		
16		23737.500	19.62	20.30	39.92	54.00	-14.08	AVG		

*:Maximum data x:Over limit !:over margin



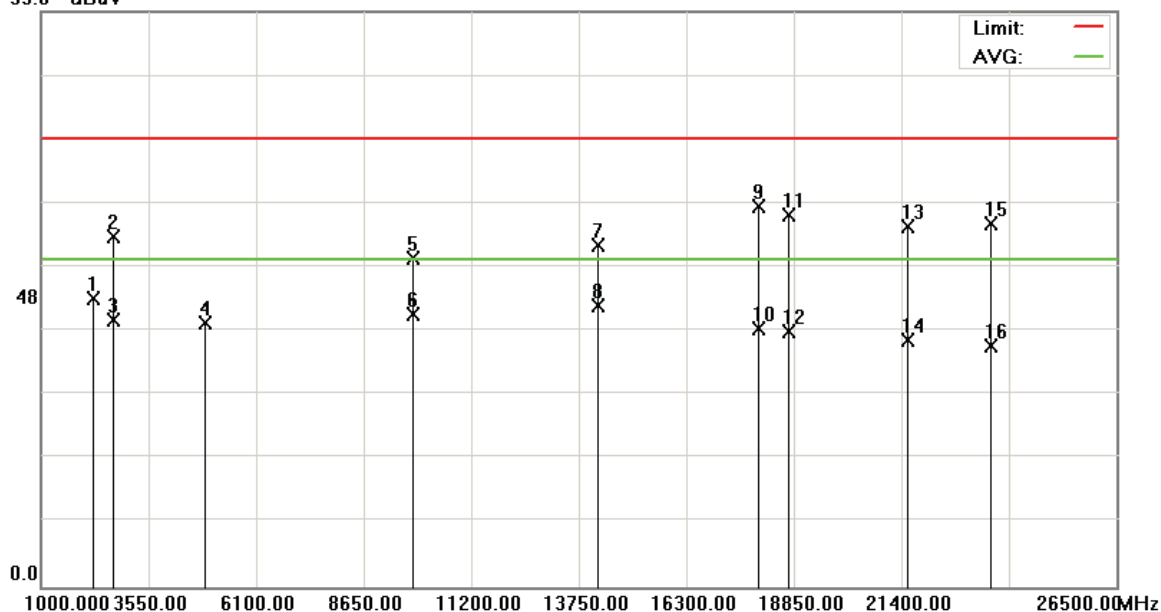
File :EM-200(2441MHz)

Data :#18

Date: 2009/8/18

Time: 上午 02:54:41

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2441MHz

Polarization: Horizontal

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	cm	degree	Comment
1		2205.300	47.21	0.47	47.68	74.00	-26.32	peak		
2		2700.000	35.19	22.58	57.77	74.00	-16.23	peak		
3		2700.000	21.36	22.58	43.94	54.00	-10.06	AVG		
4		4882.000	35.82	7.74	43.56	74.00	-30.44	peak		
5		9817.500	36.42	17.75	54.17	74.00	-19.83	peak		
6		9817.500	27.24	17.75	44.99	54.00	-9.01	AVG		
7		14200.000	37.56	18.86	56.42	74.00	-17.58	peak		
8	*	14200.000	27.64	18.86	46.50	54.00	-7.50	AVG		
9		18000.000	37.15	25.57	62.72	74.00	-11.28	peak		
10		18000.000	17.12	25.57	42.69	54.00	-11.31	AVG		
11		18722.500	38.34	23.12	61.46	74.00	-12.54	peak		
12		18722.500	19.08	23.12	42.20	54.00	-11.80	AVG		
13		21548.750	38.15	21.33	59.48	74.00	-14.52	peak		
14		21548.750	19.48	21.33	40.81	54.00	-13.19	AVG		
15		23503.750	39.29	20.58	59.87	74.00	-14.13	peak		
16		23503.750	19.22	20.58	39.80	54.00	-14.20	AVG		

*:Maximum data x:Over limit !:over margin



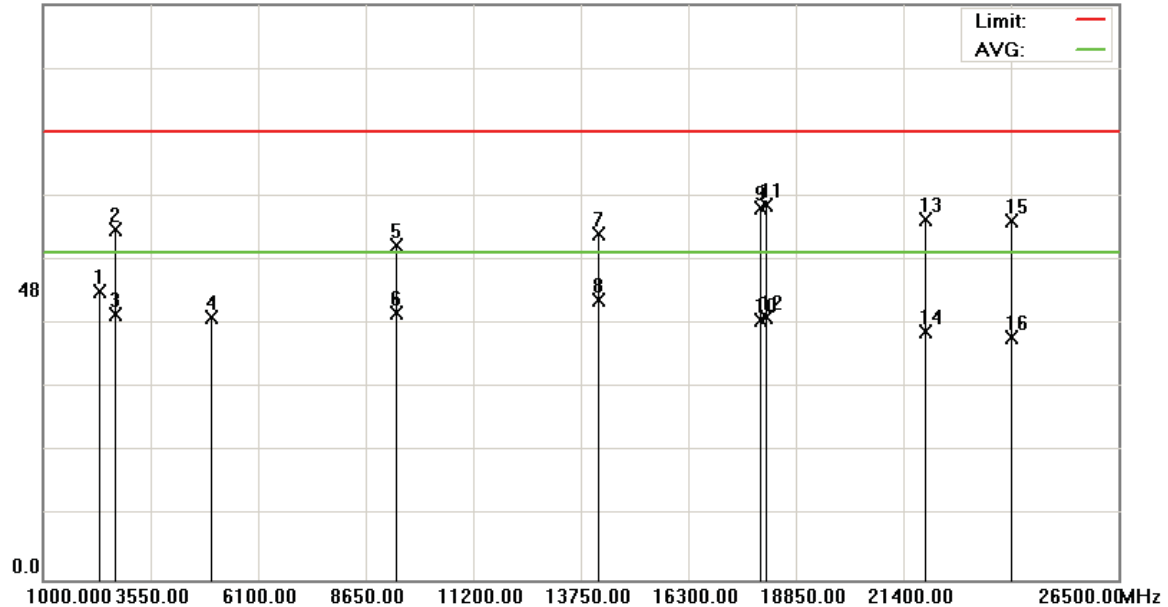
File :EM-200(2480MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:45:05

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2480MHz

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2327.700	47.29	0.29	47.58	74.00	-26.42	peak		
2		2700.000	35.37	22.58	57.95	74.00	-16.05	peak		
3		2700.000	21.16	22.58	43.74	54.00	-10.26	AVG		
4		4960.000	35.57	7.80	43.37	74.00	-30.63	peak		
5		9343.000	38.33	16.93	55.26	74.00	-18.74	peak		
6		9343.000	27.09	16.93	44.02	54.00	-9.98	AVG		
7		14160.000	38.26	18.83	57.09	74.00	-16.91	peak		
8	*	14160.000	27.32	18.83	46.15	54.00	-7.85	AVG		
9		18000.000	35.94	25.57	61.51	74.00	-12.49	peak		
10		18000.000	17.23	25.57	42.80	54.00	-11.20	AVG		
11		18127.500	38.66	23.23	61.89	74.00	-12.11	peak		
12		18127.500	20.22	23.23	43.45	54.00	-10.55	AVG		
13		21888.750	38.34	21.18	59.52	74.00	-14.48	peak		
14		21888.750	19.82	21.18	41.00	54.00	-13.00	AVG		
15		23928.750	39.13	20.10	59.23	74.00	-14.77	peak		
16		23928.750	19.86	20.10	39.96	54.00	-14.04	AVG		

Maximum data x:Over limit !:over margin



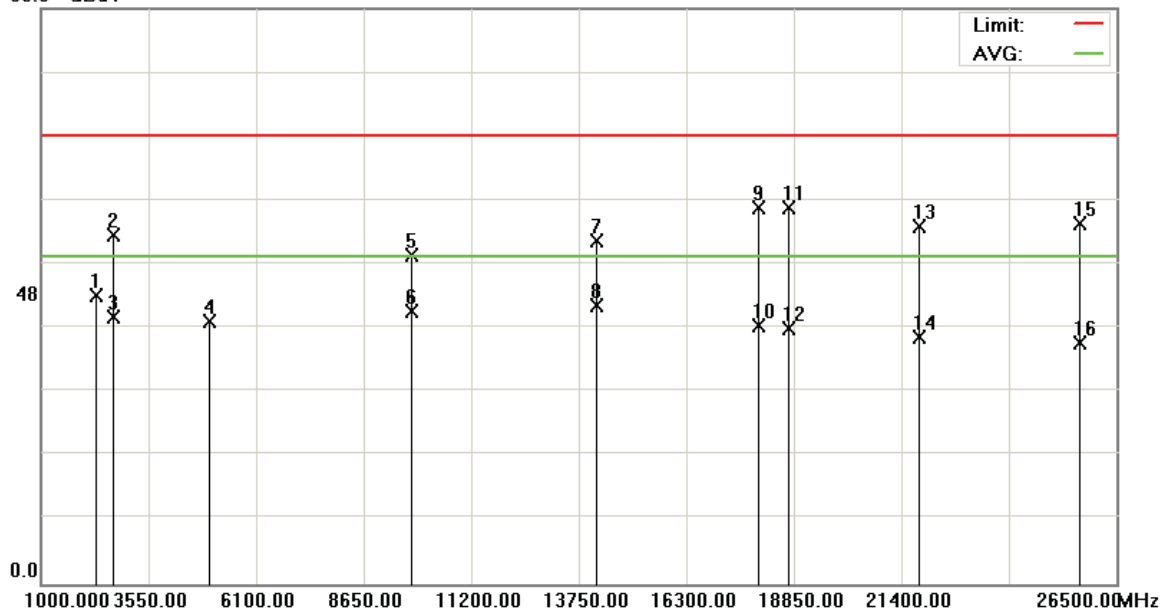
File :EM-200(2480MHz)

Data :#18

Date: 2009/8/18

Time: 上午 02:52:26

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2480MHz

Polarization: Horizontal

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2280.100	47.05	0.46	47.51	74.00	-26.49	peak		
2		2700.000	34.98	22.58	57.56	74.00	-16.44	peak		
3		2700.000	21.42	22.58	44.00	54.00	-10.00	AVG		
4		4960.000	35.48	7.80	43.28	74.00	-30.72	peak		
5		9762.750	36.52	17.70	54.22	74.00	-19.78	peak		
6		9762.750	27.24	17.70	44.94	54.00	-9.06	AVG		
7		14160.000	37.71	18.83	56.54	74.00	-17.46	peak		
8	*	14160.000	27.14	18.83	45.97	54.00	-8.03	AVG		
9		18000.000	36.52	25.57	62.09	74.00	-11.91	peak		
10		18000.000	17.10	25.57	42.67	54.00	-11.33	AVG		
11		18701.250	39.06	23.11	62.17	74.00	-11.83	peak		
12		18701.250	19.05	23.11	42.16	54.00	-11.84	AVG		
13		21803.750	37.89	21.21	59.10	74.00	-14.90	peak		
14		21803.750	19.52	21.21	40.73	54.00	-13.27	AVG		
15		25628.750	40.65	18.89	59.54	74.00	-14.46	peak		
16		25628.750	20.95	18.89	39.84	54.00	-14.16	AVG		

*:Maximum data x:Over limit !:over margin



EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth EDR Link Mode

Test Date : 08/17 ~ 08/18/2009

Please refer to next page of detail testing data.

Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
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)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambient noise.
8. All frequencies from 30MHz to 26.5GHz have been tested



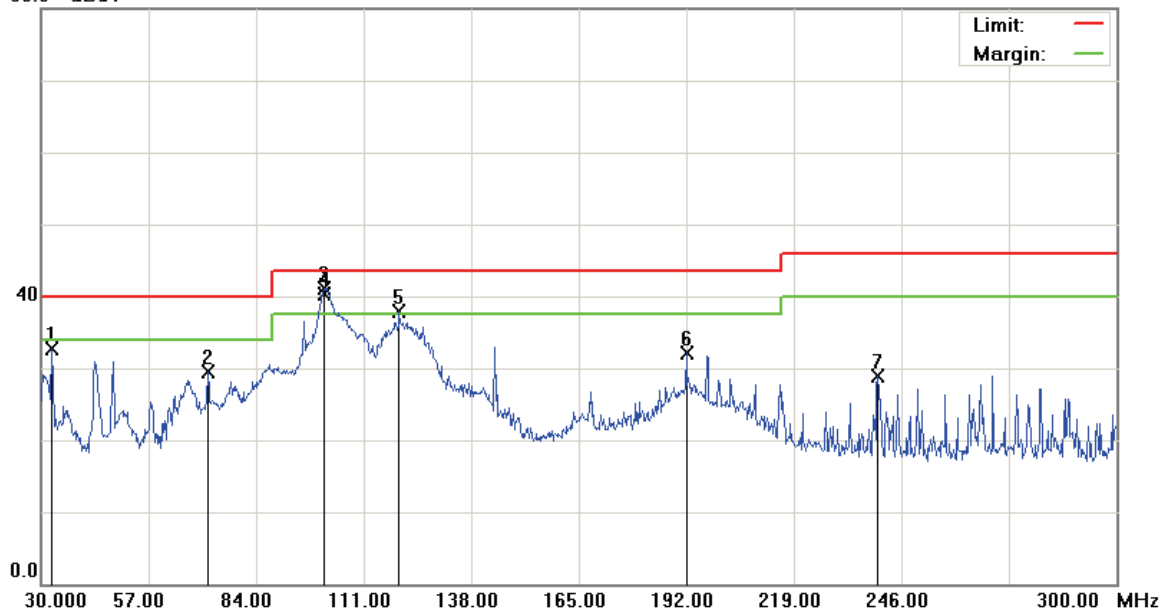
File :EM-200(new)

Data :#1

Date: 2009/8/17

Time: 上午 11:54:08

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note:

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		32.7000	45.88	-13.26	32.62	40.00	-7.38	peak		
2		71.8500	46.39	-16.79	29.60	40.00	-10.40	peak		
3	*	101.0100	52.97	-11.82	41.15	43.50	-2.35	peak		
4	!	101.0100	52.16	-11.82	40.34	43.50	-3.16	QP	102	52
5	!	119.9100	52.17	-14.18	37.99	43.50	-5.51	peak		
6		192.0000	45.44	-13.26	32.18	43.50	-11.32	peak		
7		240.0600	40.31	-11.43	28.88	46.00	-17.12	peak		

*:Maximum data x:Over limit !:over margin



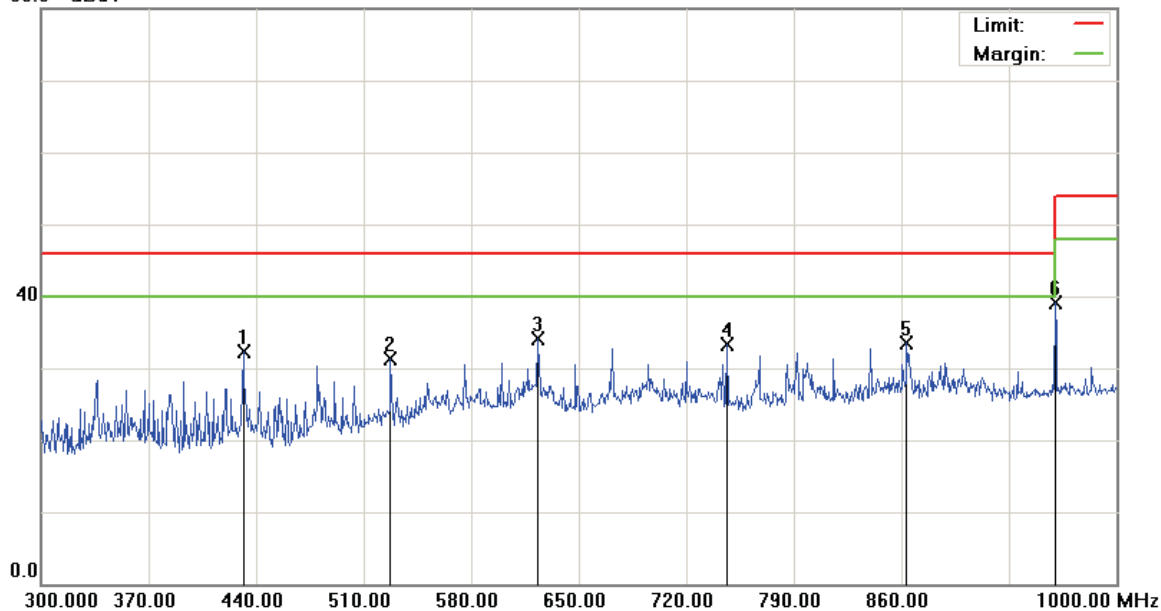
File :EM-200(new)

Data :#2

Date: 2009/8/17

Time: 上午 11:58:22

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note:

Polarization: *Vertical*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		431.6000	40.25	-8.03	32.22	46.00	-13.78	peak		
2		527.5000	37.79	-6.39	31.40	46.00	-14.60	peak		
3	*	623.4000	38.74	-4.56	34.18	46.00	-11.82	peak		
4		746.6000	36.39	-3.11	33.28	46.00	-12.72	peak		
5		863.5000	34.24	-0.68	33.56	46.00	-12.44	peak		
6		960.1000	38.69	0.43	39.12	54.00	-14.88	peak		

*:Maximum data x:Over limit !:over margin



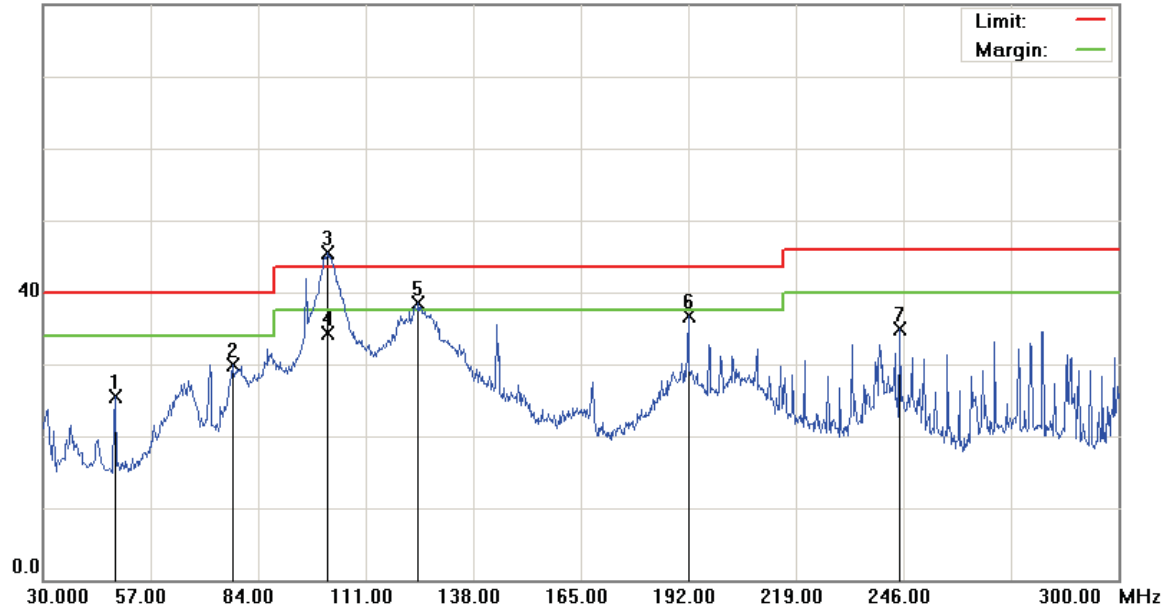
File :EM-200(new)

Data :#3

Date: 2009/8/17

Time: 下午 12:02:36

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note:

Polarization: *Horizontal*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		48.0900	37.54	-12.04	25.50	40.00	-14.50	peak		
2		77.5200	46.81	-16.86	29.95	40.00	-10.05	peak		
3	*	101.5500	57.35	-11.86	45.49	43.50	1.99	peak		
4		101.5500	46.07	-11.86	34.21	43.50	-9.29	QP		
5	!	124.2300	53.46	-14.91	38.55	43.50	-4.95	peak		
6		192.0000	49.99	-13.26	36.73	43.50	-6.77	peak		
7		245.1900	46.08	-11.24	34.84	46.00	-11.16	peak		

*:Maximum data x:Over limit !:over margin



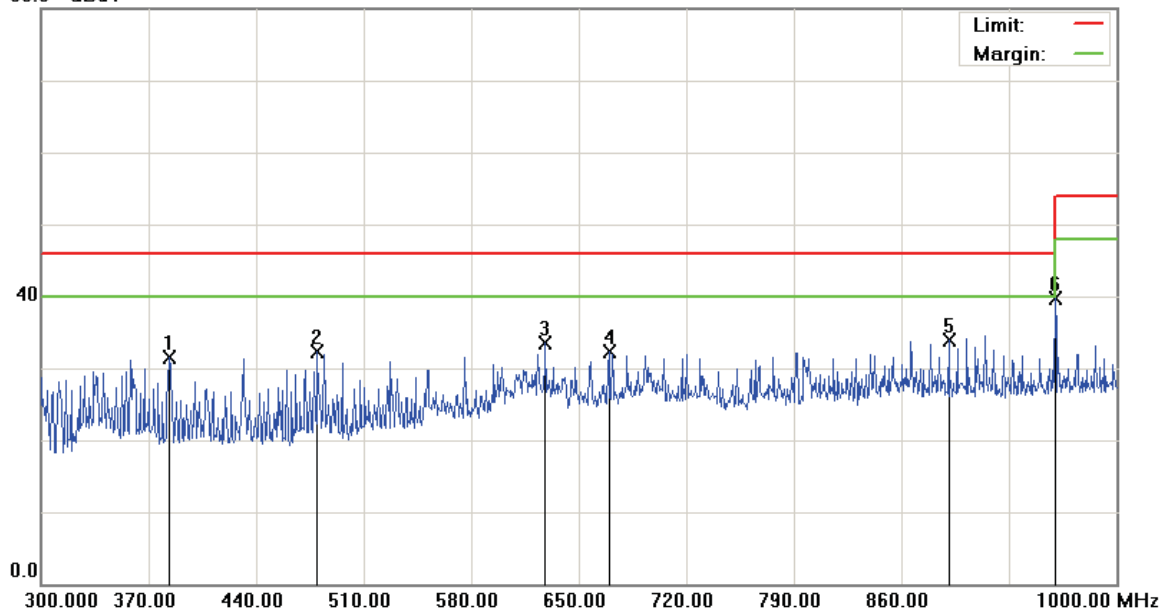
File :EM-200(new)

Data :#4

Date: 2009/8/17

Time: 下午 12:06:50

80.0 dBuV



Site: site #1

Limit: FCC Class B 3M Radiation

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note:

Polarization: *Horizontal*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		383.3000	40.10	-8.65	31.45	46.00	-14.55	peak		
2		479.9000	39.87	-7.53	32.34	46.00	-13.66	peak		
3		628.3000	37.87	-4.46	33.41	46.00	-12.59	peak		
4		669.6000	36.53	-4.29	32.24	46.00	-13.76	peak		
5	*	890.8000	34.72	-0.79	33.93	46.00	-12.07	peak		
6		960.1000	39.27	0.43	39.70	54.00	-14.30	peak		

*:Maximum data x:Over limit !:over margin



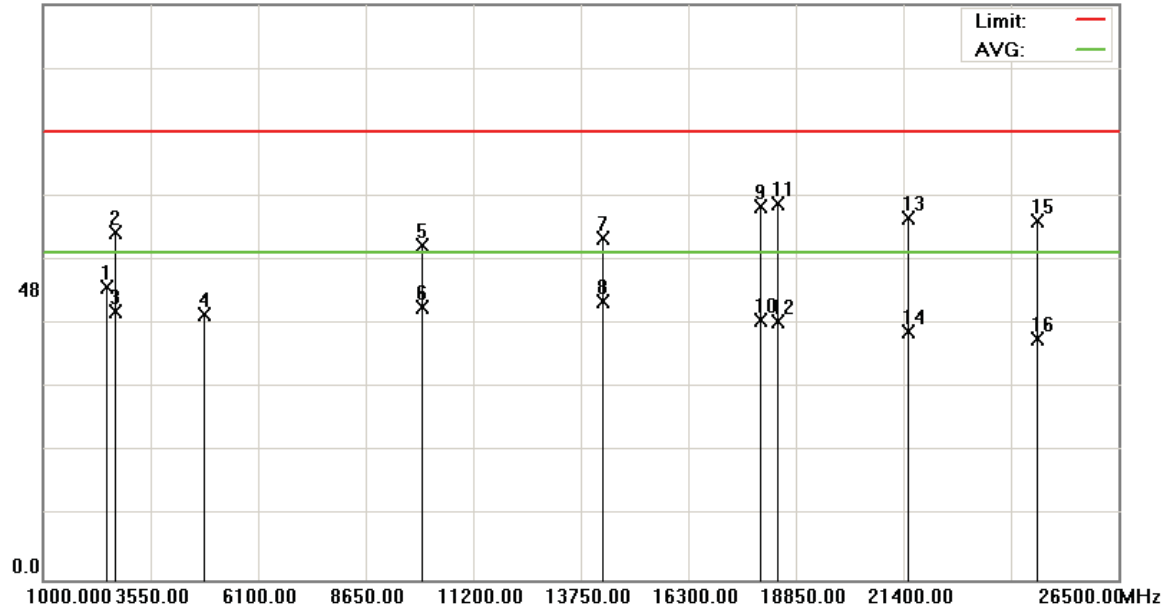
File :EM-200(2402MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:38:25

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2402MHz

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2492.600	48.17	0.25	48.42	74.00	-25.58	peak		
2		2700.000	34.86	22.58	57.44	74.00	-16.56	peak		
3		2700.000	21.67	22.58	44.25	54.00	-9.75	AVG		
4		4804.000	36.47	7.32	43.79	74.00	-30.21	peak		
5		10000.000	37.32	17.94	55.26	74.00	-18.74	peak		
6		10000.000	27.13	17.94	45.07	54.00	-8.93	AVG		
7		14280.000	37.80	18.63	56.43	74.00	-17.57	peak		
8	*	14280.000	27.25	18.63	45.88	54.00	-8.12	AVG		
9		18000.000	36.17	25.57	61.74	74.00	-12.26	peak		
10		18000.000	17.31	25.57	42.88	54.00	-11.12	AVG		
11		18403.750	38.93	23.15	62.08	74.00	-11.92	peak		
12		18403.750	19.44	23.15	42.59	54.00	-11.41	AVG		
13		21527.500	38.50	21.35	59.85	74.00	-14.15	peak		
14		21527.500	19.62	21.35	40.97	54.00	-13.03	AVG		
15		24587.500	39.67	19.62	59.29	74.00	-14.71	peak		
16		24587.500	20.16	19.62	39.78	54.00	-14.22	AVG		

*:Maximum data x:Over limit !:over margin



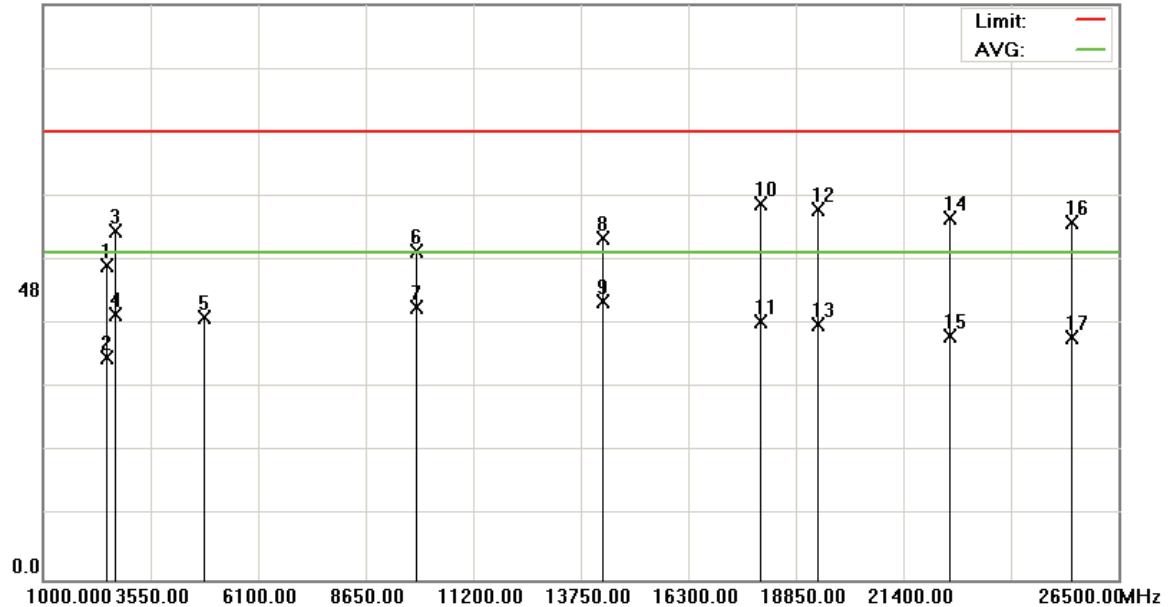
File :EM-200(2402MHz)

Data :#18

Date: 2009/8/18

Time: 上午 02:59:12

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2402MHz

Polarization: *Horizontal*

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2494.300	51.53	0.26	51.79	74.00	-22.21	peak		
2		2494.300	36.34	0.26	36.60	54.00	-17.40	AVG		
3		2700.000	34.97	22.58	57.55	74.00	-16.45	peak		
4		2700.000	21.28	22.58	43.86	54.00	-10.14	AVG		
5		4804.000	36.07	7.32	43.39	74.00	-30.61	peak		
6		9835.750	36.54	17.83	54.37	74.00	-19.63	peak		
7		9835.750	27.10	17.83	44.93	54.00	-9.07	AVG		
8		14240.000	37.63	18.71	56.34	74.00	-17.66	peak		
9	*	14240.000	27.14	18.71	45.85	54.00	-8.15	AVG		
10		18000.000	36.51	25.57	62.08	74.00	-11.92	peak		
11		18000.000	17.05	25.57	42.62	54.00	-11.38	AVG		
12		19381.250	38.41	22.82	61.23	74.00	-12.77	peak		
13		19381.250	19.32	22.82	42.14	54.00	-11.86	AVG		
14		22483.750	38.89	20.90	59.79	74.00	-14.21	peak		
15		22483.750	19.34	20.90	40.24	54.00	-13.76	AVG		
16		25373.750	40.03	19.05	59.08	74.00	-14.92	peak		
17		25373.750	20.89	19.05	39.94	54.00	-14.06	AVG		

*:Maximum data x:Over limit !:over margin



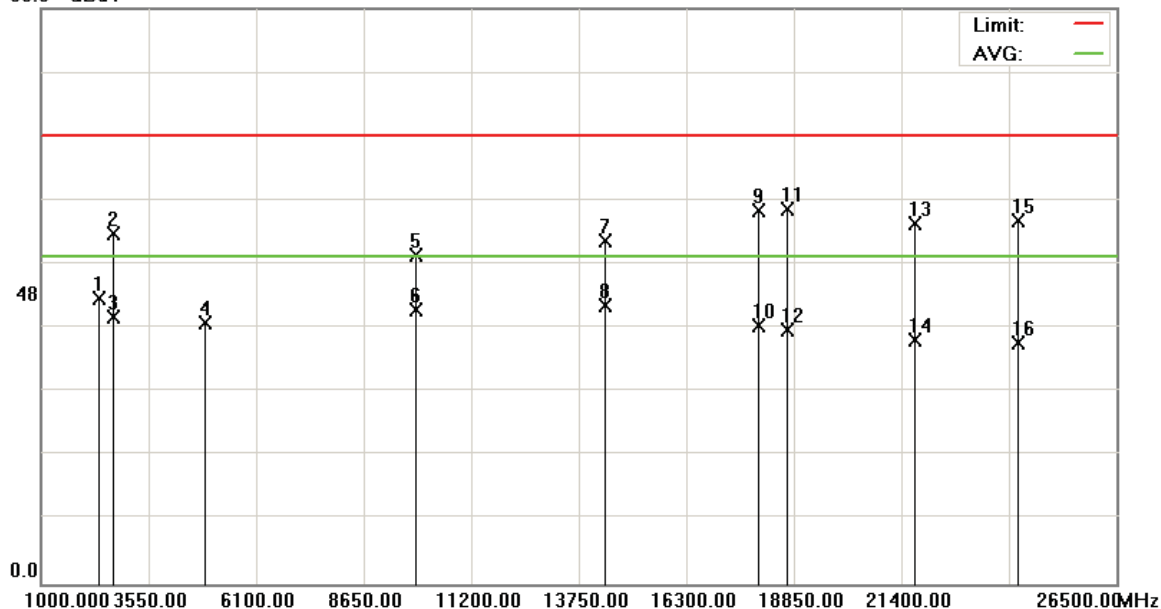
File :EM-200(2441MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:40:42

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2441MHz

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2358.300	47.02	0.21	47.23	74.00	-26.77	peak		
2		2700.000	35.16	22.58	57.74	74.00	-16.26	peak		
3		2700.000	21.43	22.58	44.01	54.00	-9.99	AVG		
4		4882.000	35.48	7.74	43.22	74.00	-30.78	peak		
5		9890.500	36.42	17.80	54.22	74.00	-19.78	peak		
6		9890.500	27.42	17.80	45.22	54.00	-8.78	AVG		
7		14340.000	38.10	18.54	56.64	74.00	-17.36	peak		
8	*	14340.000	27.33	18.54	45.87	54.00	-8.13	AVG		
9		18000.000	36.14	25.57	61.71	74.00	-12.29	peak		
10		18000.000	16.98	25.57	42.55	54.00	-11.45	AVG		
11		18680.000	38.72	23.09	61.81	74.00	-12.19	peak		
12		18680.000	18.92	23.09	42.01	54.00	-11.99	AVG		
13		21718.750	38.20	21.23	59.43	74.00	-14.57	peak		
14		21718.750	19.06	21.23	40.29	54.00	-13.71	AVG		
15		24162.500	40.11	19.88	59.99	74.00	-14.01	peak		
16		24162.500	19.88	19.88	39.76	54.00	-14.24	AVG		

*:Maximum data x:Over limit !:over margin



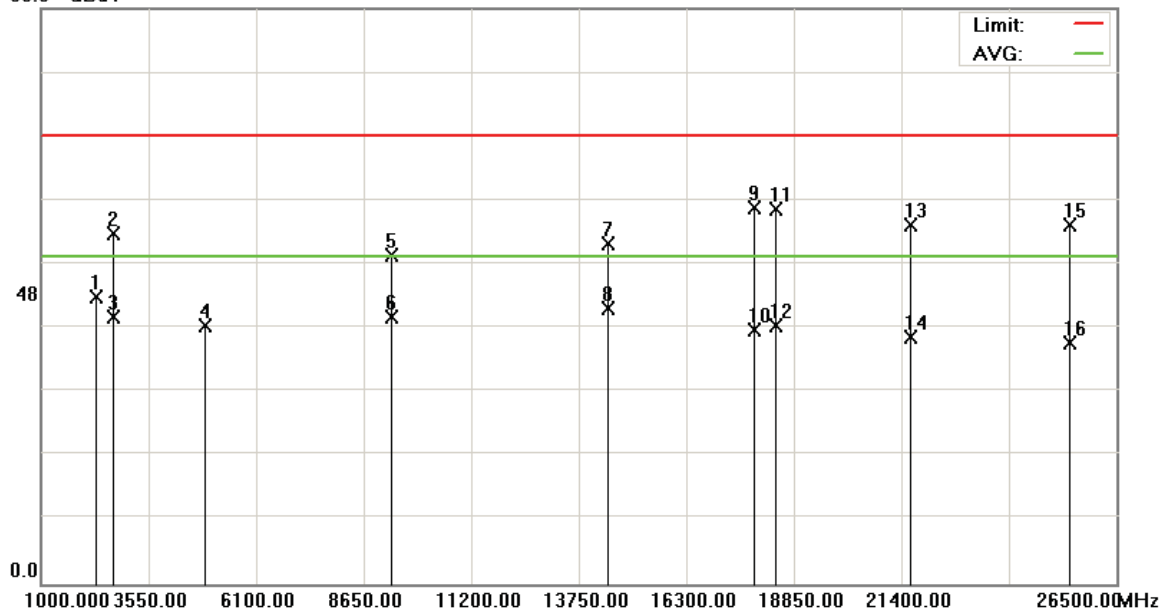
File :EM-200(2441MHz)

Data :#18

Date: 2009/8/18

Time: 上午 02:56:54

95.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT:

Distance: 3m

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2441MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2300.500	46.78	0.54	47.32	74.00	-26.68	peak		
2		2700.000	35.35	22.58	57.93	74.00	-16.07	peak		
3		2700.000	21.49	22.58	44.07	54.00	-9.93	AVG		
4		4882.000	34.81	7.74	42.55	74.00	-31.45	peak		
5		9306.500	37.38	16.89	54.27	74.00	-19.73	peak		
6		9306.500	27.18	16.89	44.07	54.00	-9.93	AVG		
7		14420.000	38.19	17.97	56.16	74.00	-17.84	peak		
8	*	14420.000	27.40	17.97	45.37	54.00	-8.63	AVG		
9		17900.000	37.21	24.96	62.17	74.00	-11.83	peak		
10		17900.000	16.89	24.96	41.85	54.00	-12.15	AVG		
11		18403.750	38.81	23.15	61.96	74.00	-12.04	peak		
12		18403.750	19.55	23.15	42.70	54.00	-11.30	AVG		
13		21612.500	37.98	21.28	59.26	74.00	-14.74	peak		
14		21612.500	19.43	21.28	40.71	54.00	-13.29	AVG		
15		25395.000	40.30	19.04	59.34	74.00	-14.66	peak		
16		25395.000	20.85	19.04	39.89	54.00	-14.11	AVG		

*:Maximum data x:Over limit !:over margin



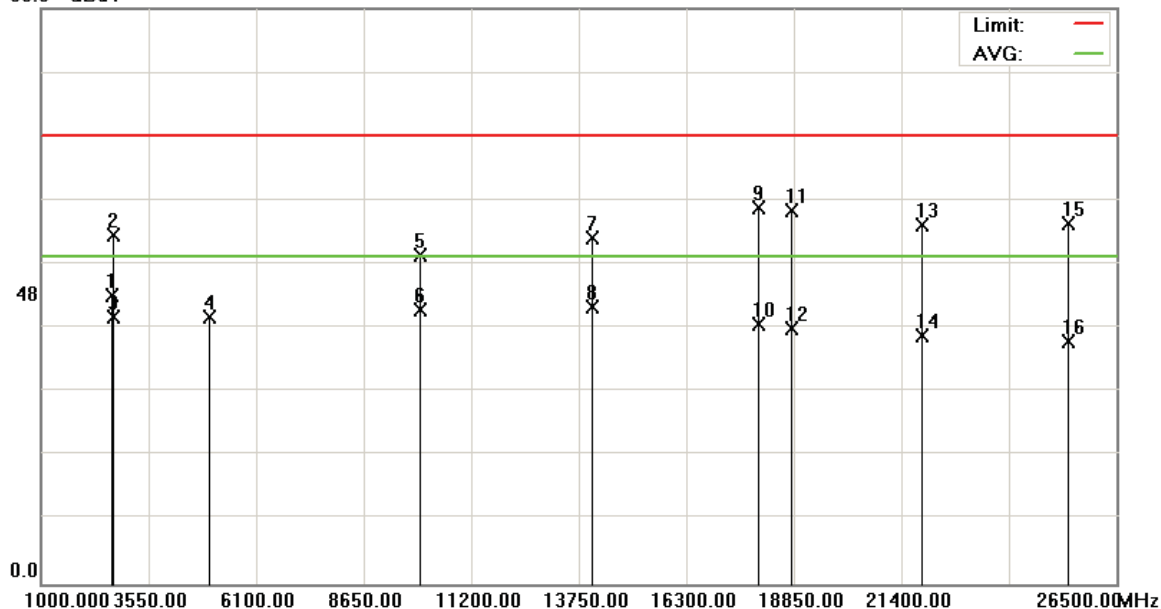
File :EM-200(2480MHz)

Data :#17

Date: 2009/8/18

Time: 上午 02:47:19

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2480MHz

Polarization: Vertical

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	cm	degree	Comment
1		2676.200	46.60	1.02	47.62	74.00	-26.38	peak		
2		2700.000	35.02	22.58	57.60	74.00	-16.40	peak		
3		2700.000	21.41	22.58	43.99	54.00	-10.01	AVG		
4		4960.000	36.26	7.80	44.06	74.00	-29.94	peak		
5		9981.750	36.43	17.88	54.31	74.00	-19.69	peak		
6		9981.750	27.32	17.88	45.20	54.00	-8.80	AVG		
7		14040.000	38.36	18.66	57.02	74.00	-16.98	peak		
8	*	14040.000	27.01	18.66	45.67	54.00	-8.33	AVG		
9		18000.000	36.44	25.57	62.01	74.00	-11.99	peak		
10		18000.000	17.28	25.57	42.85	54.00	-11.15	AVG		
11		18786.250	38.39	23.14	61.53	74.00	-12.47	peak		
12		18786.250	19.06	23.14	42.20	54.00	-11.80	AVG		
13		21867.500	38.13	21.19	59.32	74.00	-14.68	peak		
14		21867.500	19.67	21.19	40.86	54.00	-13.14	AVG		
15		25331.250	40.41	19.09	59.50	74.00	-14.50	peak		
16		25331.250	20.87	19.09	39.96	54.00	-14.04	AVG		

*:Maximum data x:Over limit !:over margin



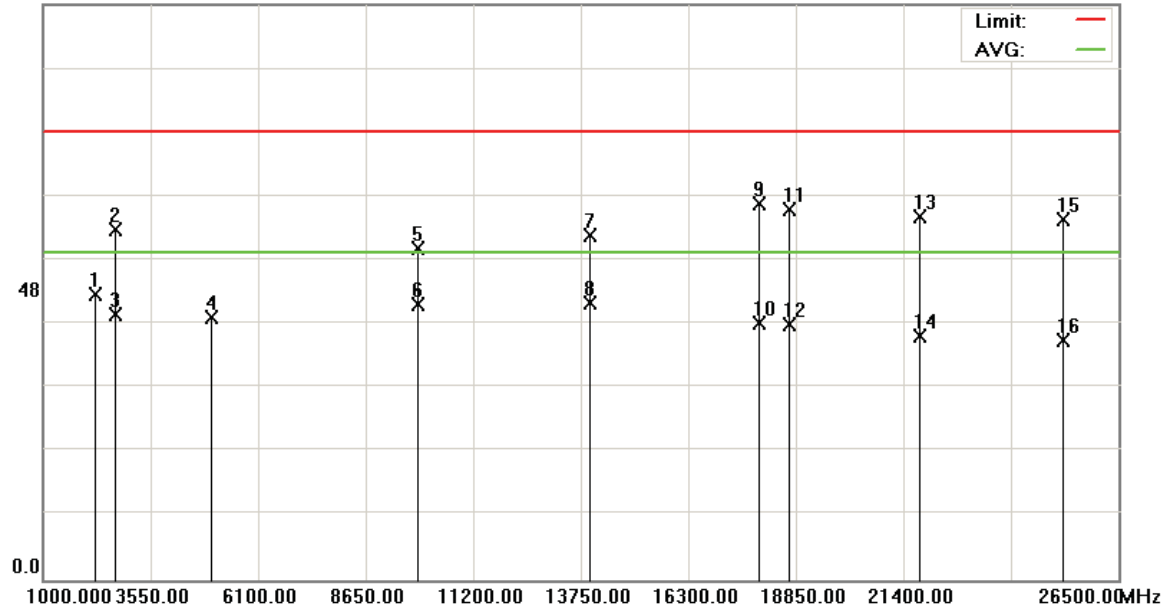
File :EM-200(2480MHz)

Data :#18

Date: 2009/8/18

Time: 上午 02:50:06

95.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2480MHz

Polarization: Horizontal

Power:

Distance: 3m

Temperature: 22 °C

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	cm	degree	Comment
1		2207.000	46.74	0.45	47.19	74.00	-26.81	peak		
2		2700.000	35.32	22.58	57.90	74.00	-16.10	peak		
3		2700.000	21.34	22.58	43.92	54.00	-10.08	AVG		
4		4960.000	35.63	7.80	43.43	74.00	-30.57	peak		
5		9890.500	36.88	17.80	54.68	74.00	-19.32	peak		
6		9890.500	27.68	17.80	45.48	54.00	-8.52	AVG		
7		13960.000	38.35	18.57	56.92	74.00	-17.08	peak		
8	*	13960.000	27.26	18.57	45.83	54.00	-8.17	AVG		
9		17980.000	36.99	25.21	62.20	74.00	-11.80	peak		
10		17980.000	17.25	25.21	42.46	54.00	-11.54	AVG		
11		18680.000	38.18	23.09	61.27	74.00	-12.73	peak		
12		18680.000	19.18	23.09	42.27	54.00	-11.73	AVG		
13		21761.250	38.80	21.23	60.03	74.00	-13.97	peak		
14		21761.250	18.94	21.23	40.17	54.00	-13.83	AVG		
15		25182.500	40.27	19.20	59.47	74.00	-14.53	peak		
16		25182.500	20.28	19.20	39.48	54.00	-14.52	AVG		

*:Maximum data x:Over limit !:over margin

4. Maximum Conducted Output Power Requirements

4.1 Test Procedure

The tests below are run with the EUT's transmitter set at high power in TX mode. 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.

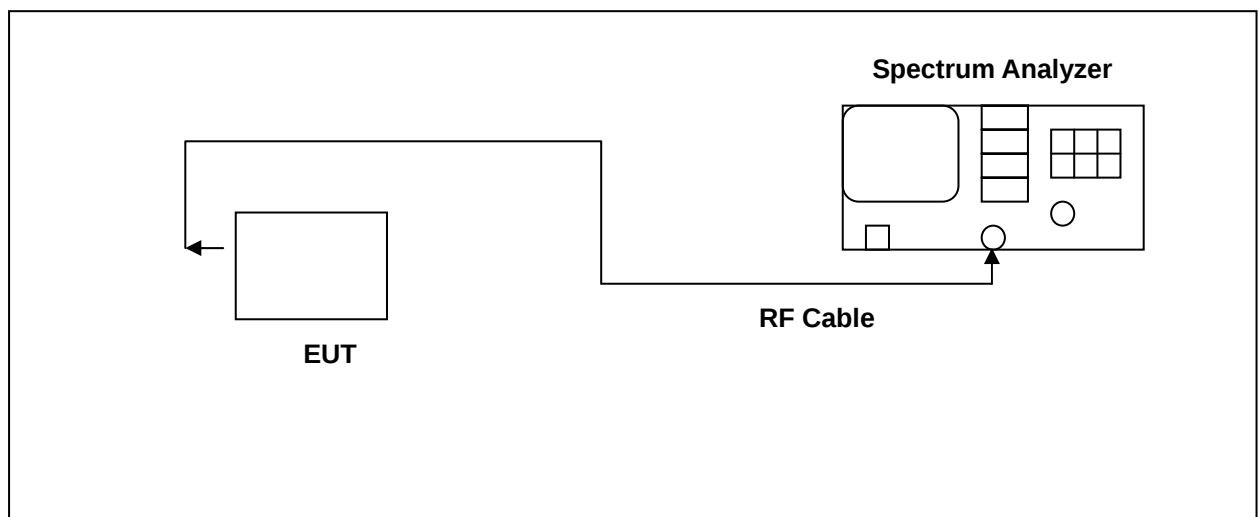
4.2 Limits

For frequency hopping systems in the 2400–2483.5 MHz band < 0.125 watts.

4.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010

4.4 Test Instruments Configuration





4.5 Test Result

EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth 2.1 Link Mode

Test Date : 08/19/2009

Frequency (MHz)	RF Output Power		Required Limit
	Average (dBm)	Peak (dBm)	
2402	-7.836	-2.665	< 20.97 dBm
2441	-6.748	-1.577	< 20.97 dBm
2480	-10.481	-5.310	< 20.97 dBm

EUT : E-Menu

Model No. : EM-200

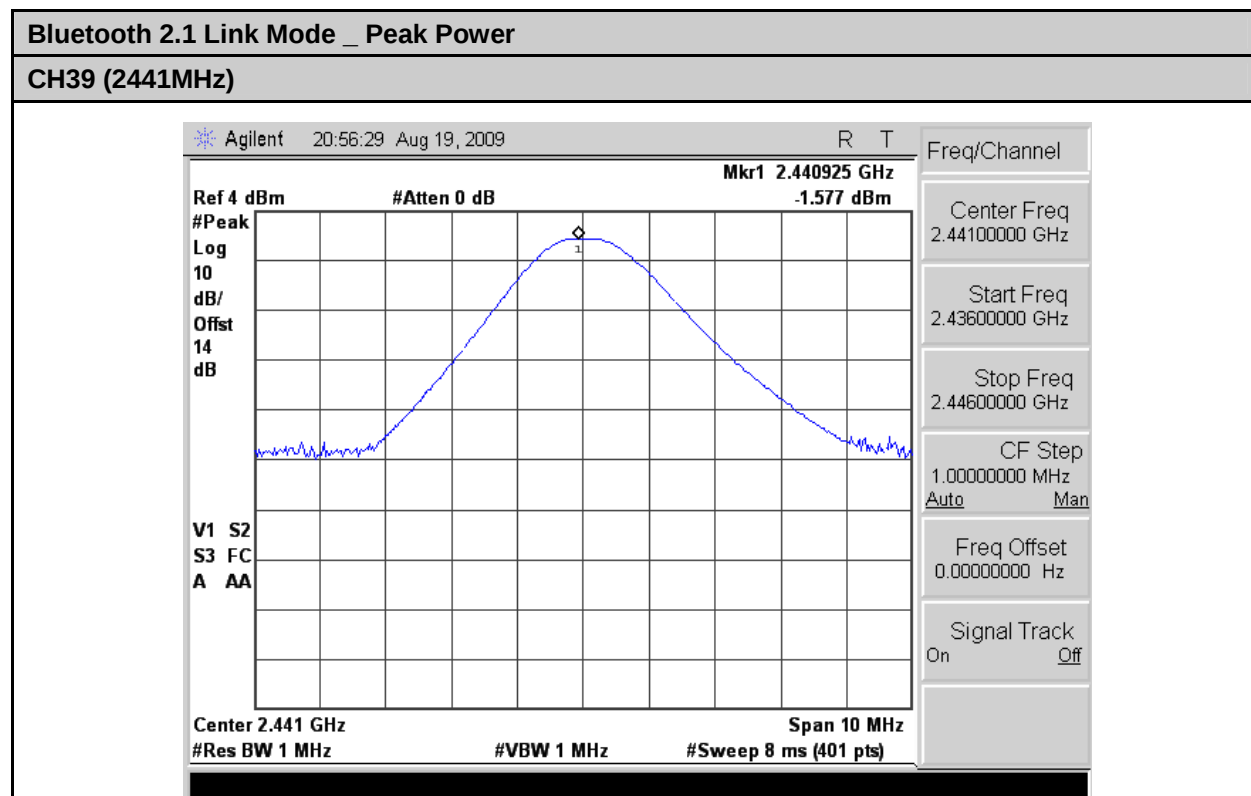
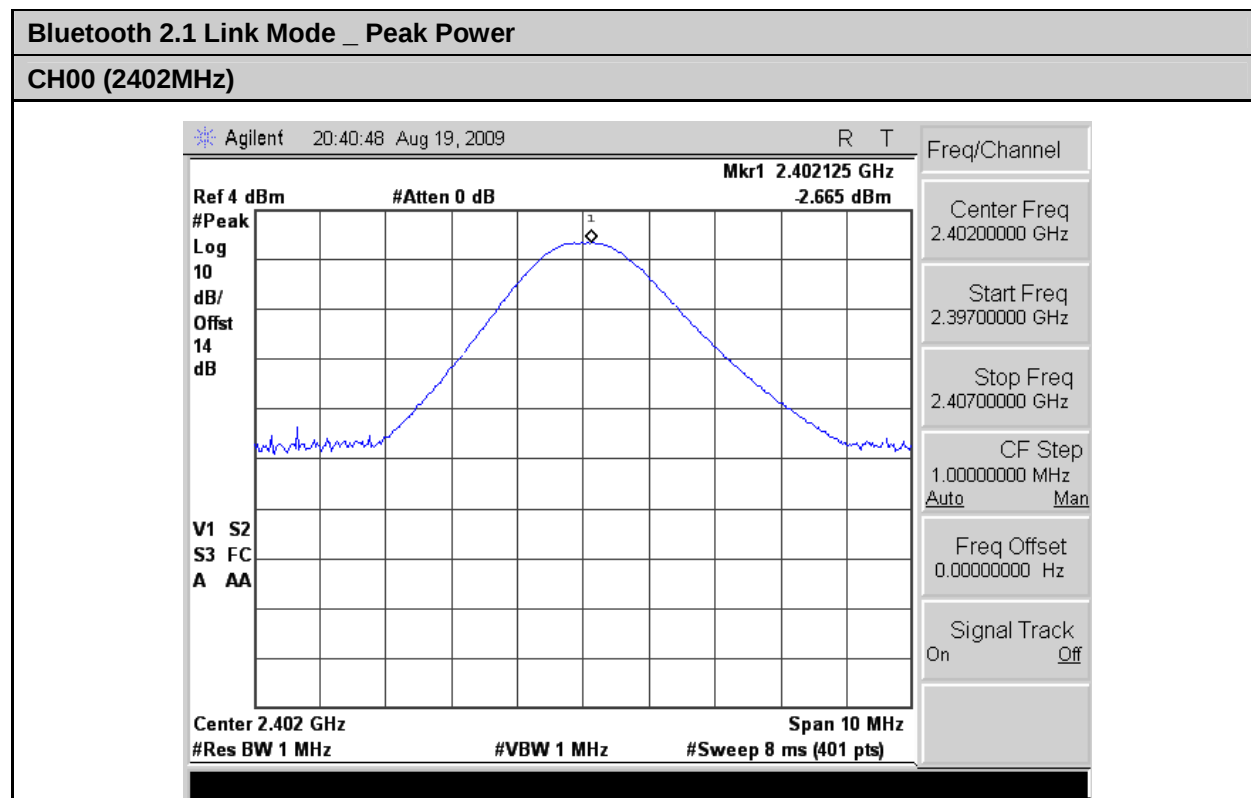
Test Mode : Bluetooth EDR Link Mode

Test Date : 08/19/2009

Frequency (MHz)	RF Output Power		Required Limit
	Average (dBm)	Peak (dBm)	
2402	-6.880	-1.709	< 20.97 dBm
2441	-6.132	-0.961	< 20.97 dBm
2480	-9.832	-4.661	< 20.97 dBm

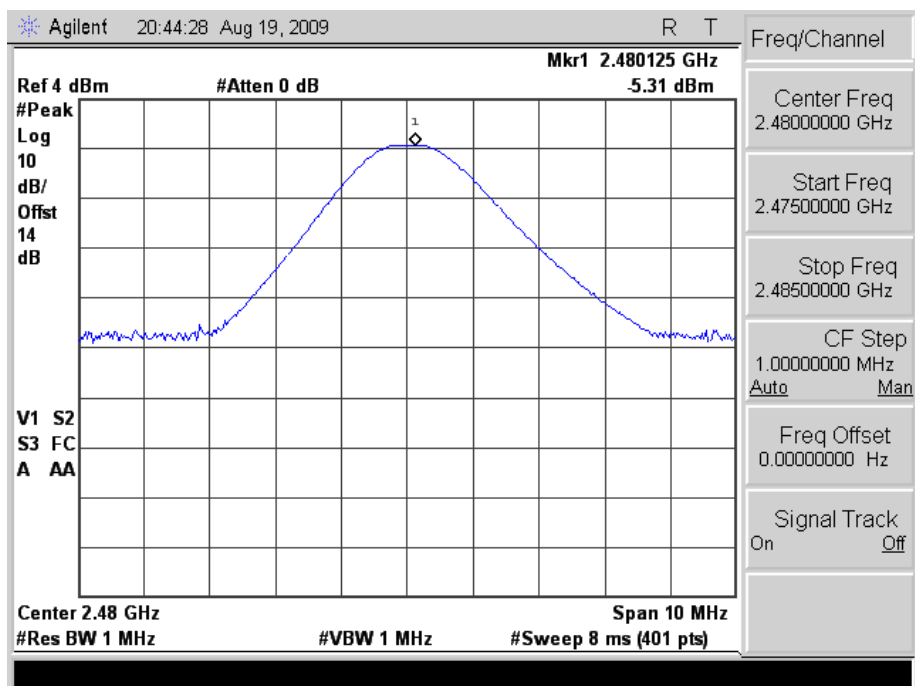


4.6 Test Graphs



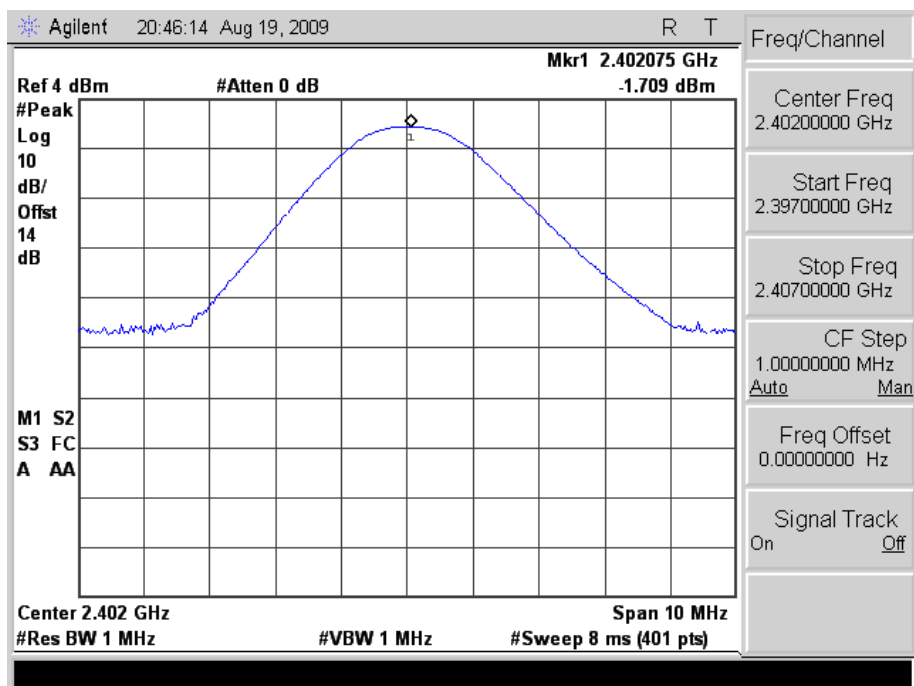
Bluetooth 2.1 Link Mode _ Peak Power

CH78 (2480MHz)



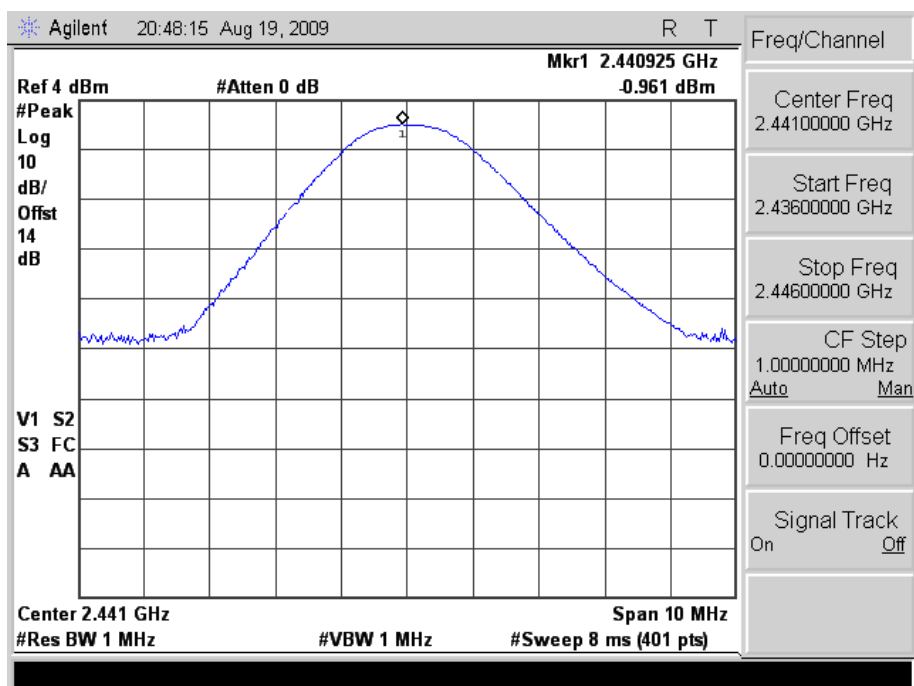
Bluetooth EDR Link Mode _ Peak Power

CH00 (2402MHz)



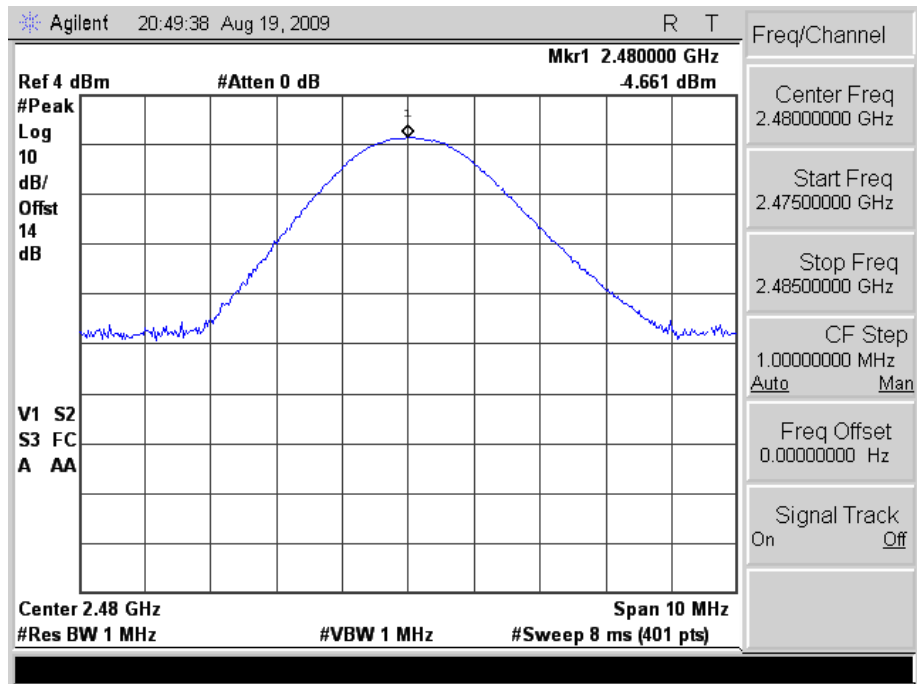
Bluetooth EDR Link Mode _ Peak Power

CH39 (2441MHz)



Bluetooth EDR Link Mode _ Peak Power

CH78 (2480MHz)





5. Minimum 20dB RF Bandwidth Requirements

5.1 Test Procedure

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

1. Span = approx. 2 to 3 times the 20dB bandwidth, centered on a hopping frequency
2. RBW $\geq$ 1% of the 20dB span
3. VBW $\geq$ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The EUT was transmitting at its maximum data rate. The marker-to-peak function was used to set the marker to the peak of the emission. The marker-delta function was used to measure 20dB down one side of the emission. The marker-delta function and marker was moved to the other side of the emission until it was even with the reference marker. The marker-delta reading at this point was the 20dB bandwidth of the emission.

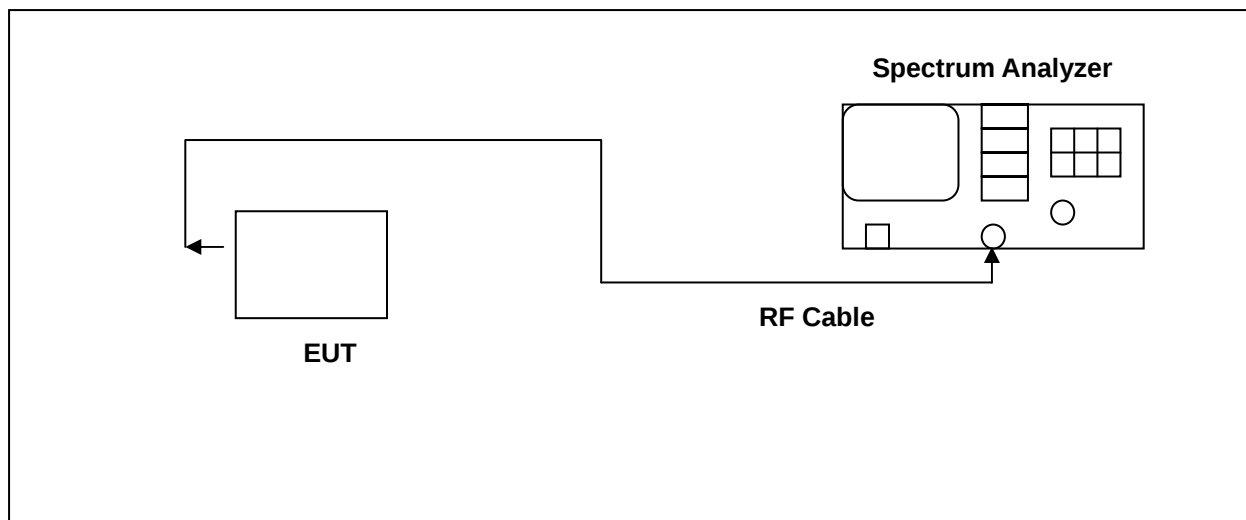
5.2 Limits

N/A

5.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010

5.4 Test Instruments Configuration



5.5 Test Result

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth 2.1 Link Mode
 Test Date : 08/19/2009

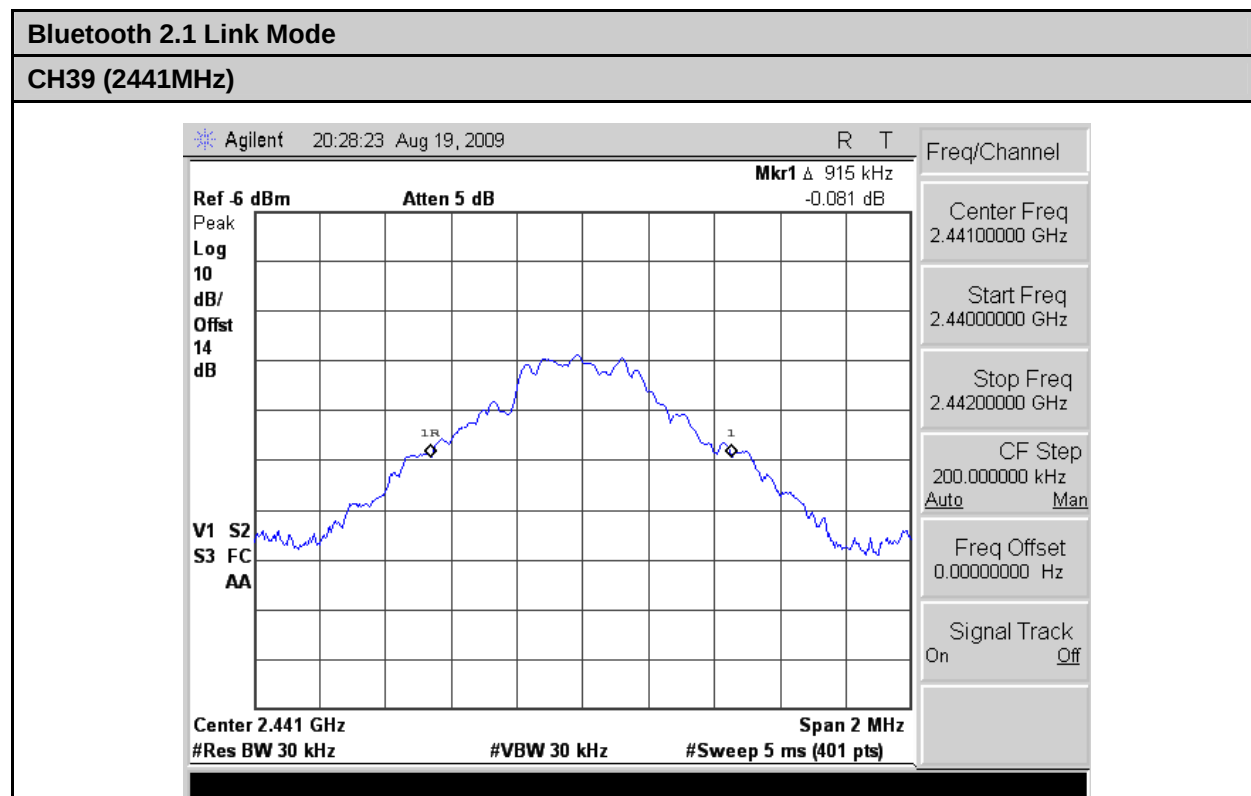
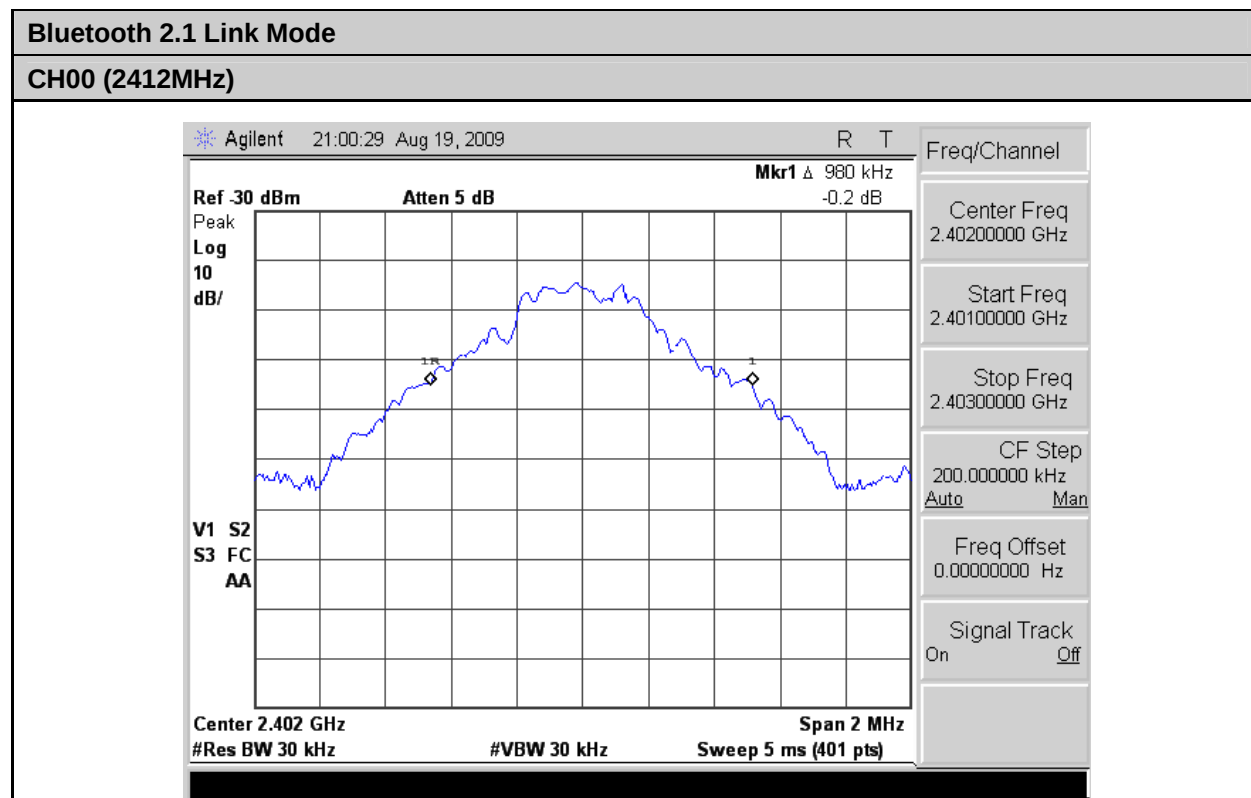
Frequency (MHz)	Max 20dB Bandwidth (MHz)
2402	980
2441	915
2480	910

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth EDR Link Mode
 Test Date : 08/19/2009

Frequency (MHz)	Max 20dB Bandwidth (MHz)
2402	1.265
2441	1.300
2480	1.285

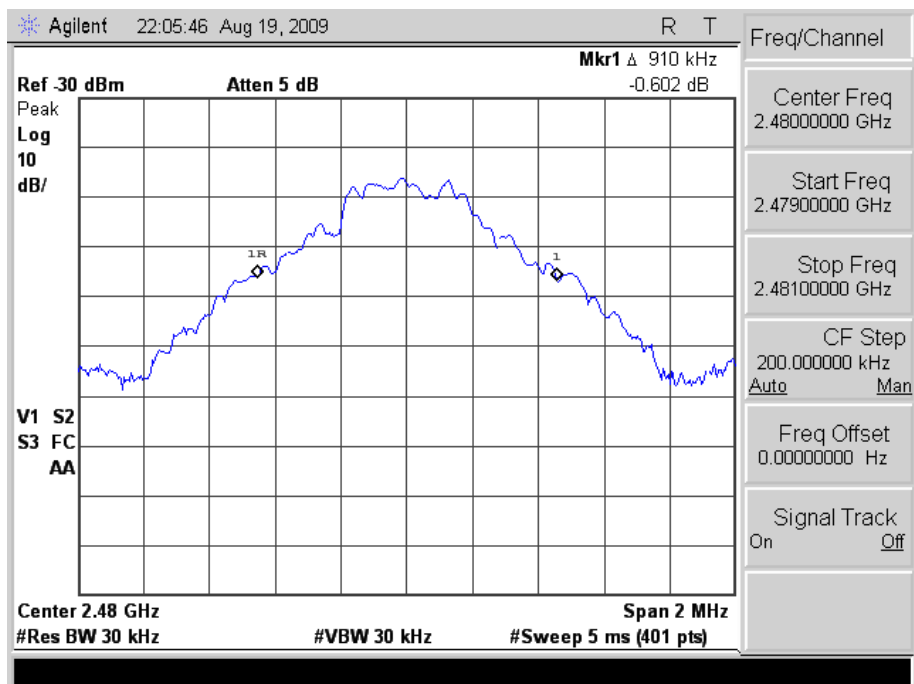


5.6 Test Graphs



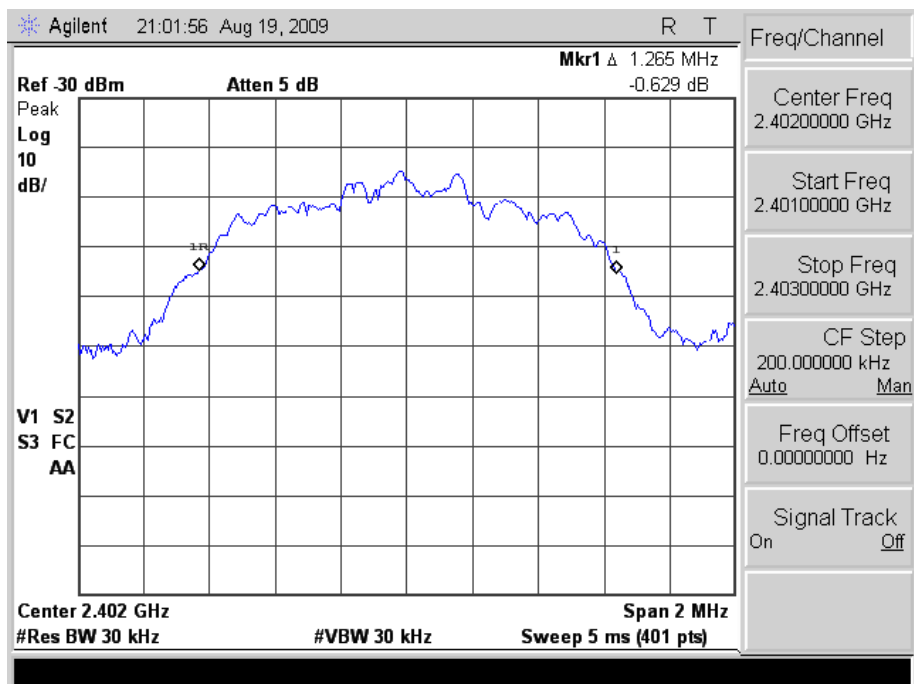
Bluetooth 2.1 Link Mode

CH78 (2480MHz)



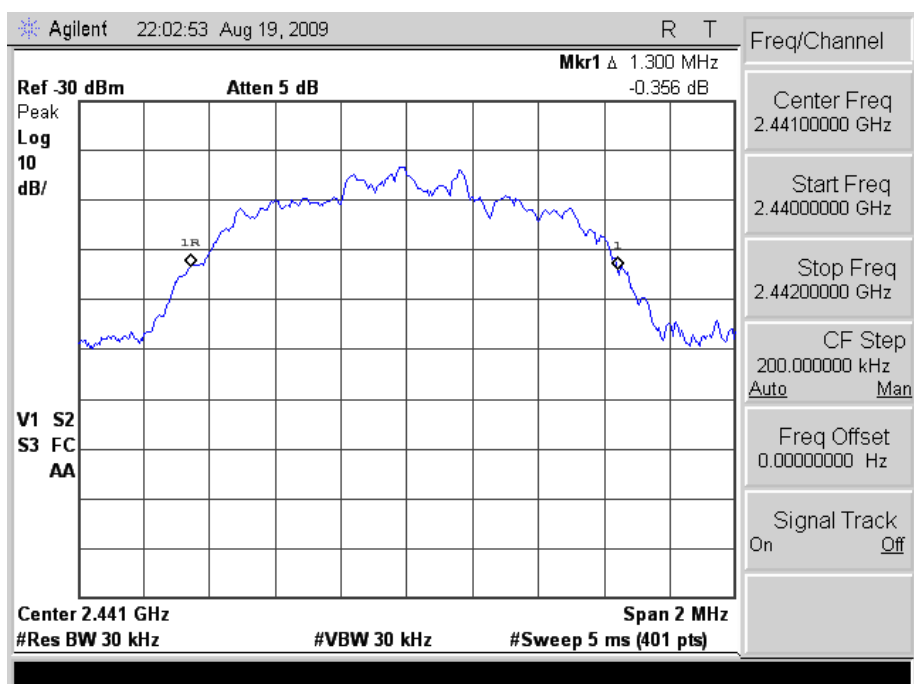
Bluetooth EDR Link Mode

CH00 (2412MHz)



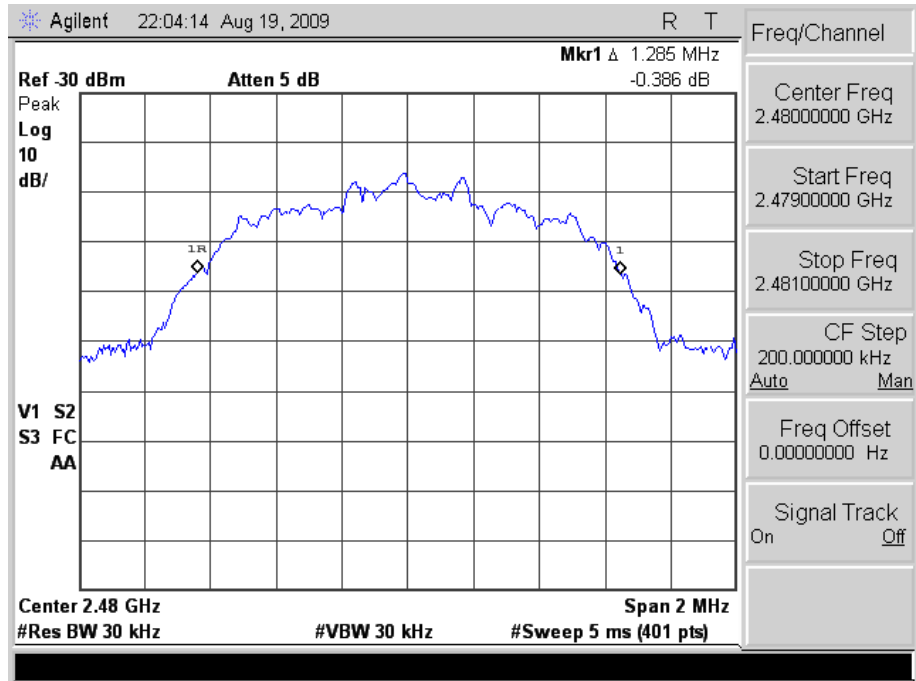
Bluetooth EDR Link Mode

CH39 (2441MHz)



Bluetooth EDR Link Mode

CH78 (2480MHz)





6. Carrier Frequency Separation Requirements

6.1 Test Procedure

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth transmitter of the V6 had its hopping function enabled. The following spectrum analyzer settings were used:

1. Span = wide enough to capture the peaks of two adjacent channels
2. Resolution (or IF) Bandwidth (RBW) $\geq$ 1% of the span
3. Video (or Average) Bandwidth (VBW) $\geq$ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The marker-delta function was used to determine the separation between the peaks of the adjacent channels.

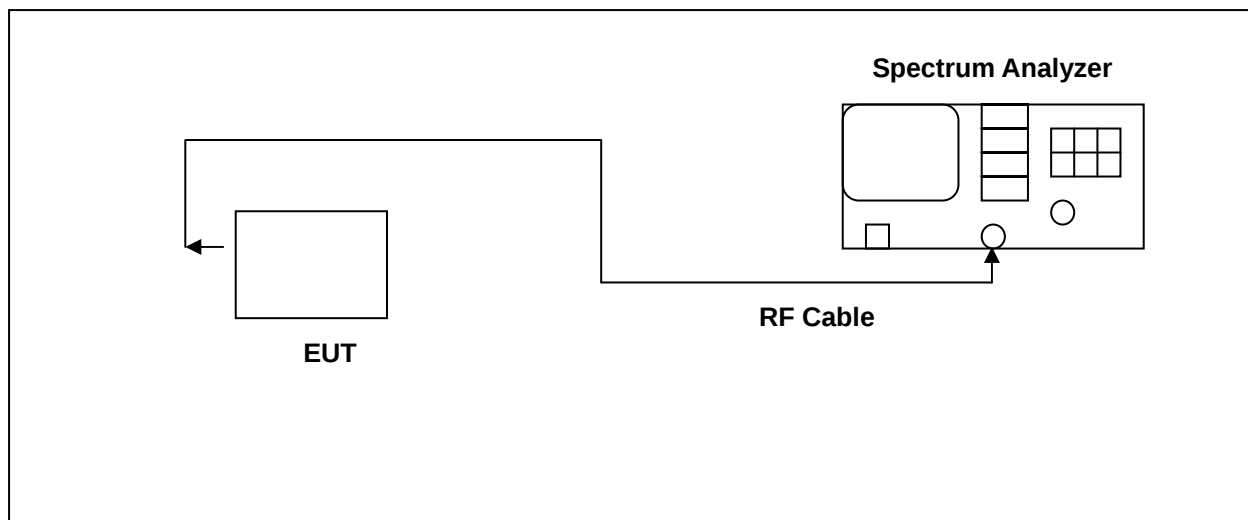
6.2 Limits

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

6.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010
Attenuator	RADIALL	R41572000	0603033073	NA	NA

6.4 Test Instruments Configuration



6.5 Test Result

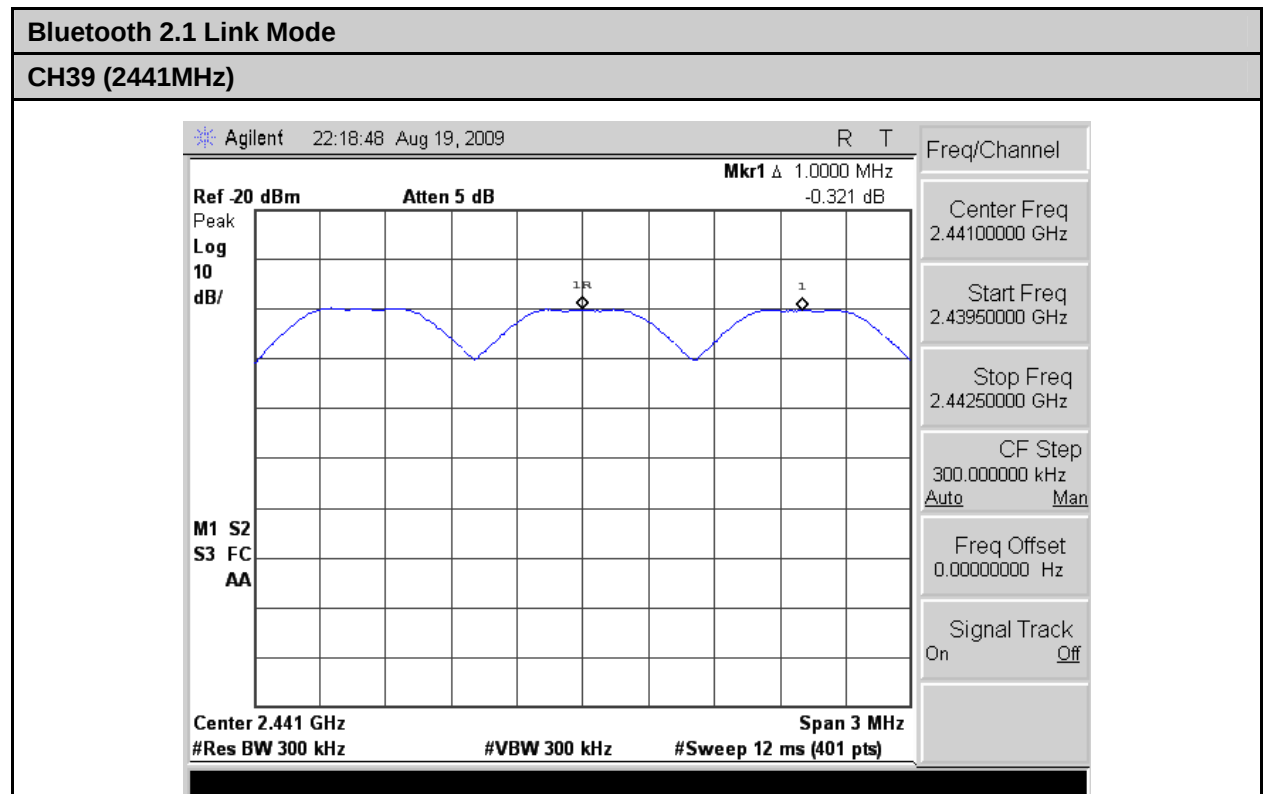
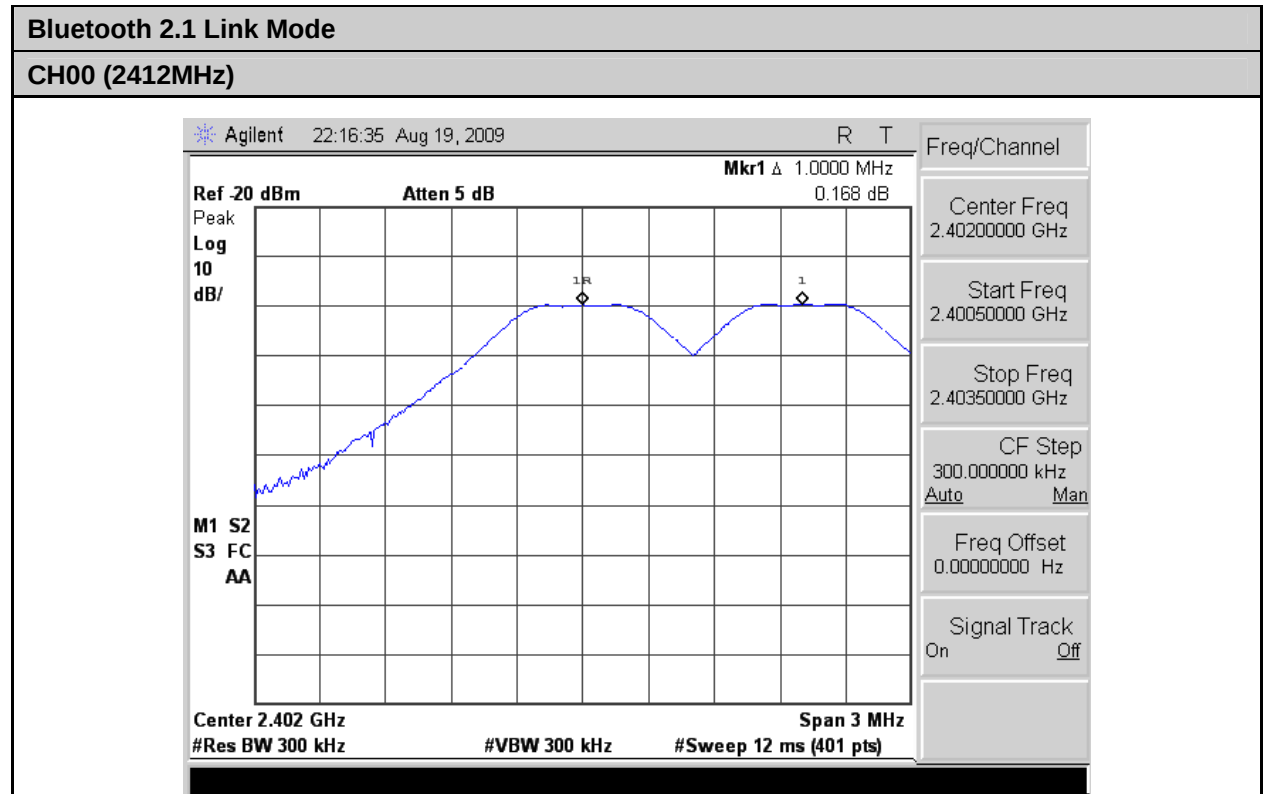
EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth 2.1 Link Mode
 Test Date : 08/19/2009

Frequency (MHz)	Frequency Separation (MHz)
2402	1
2441	1
2480	1

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth EDR Link Mode
 Test Date : 08/03/2009

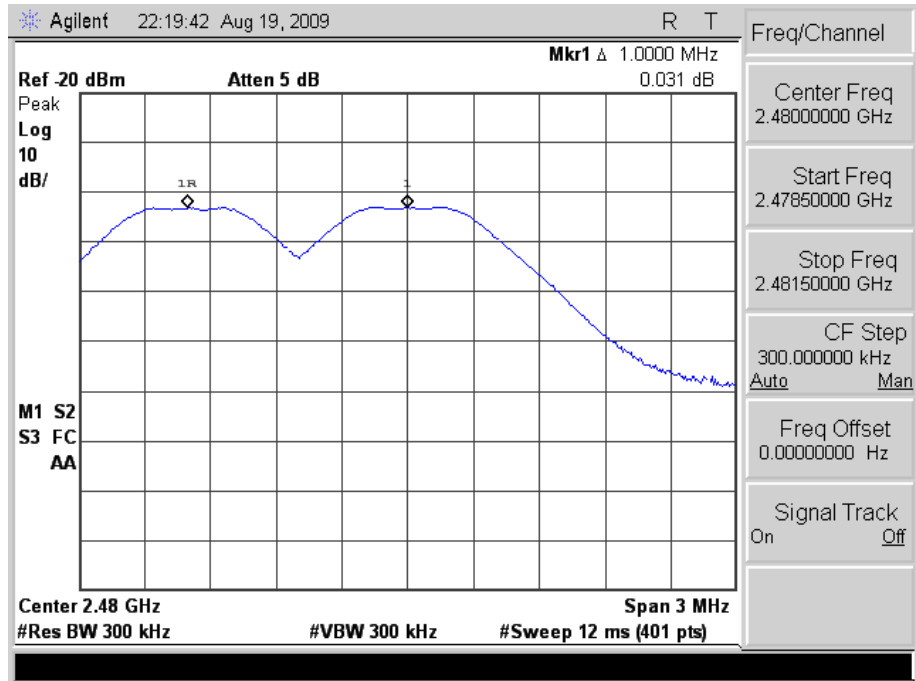
Frequency (MHz)	Frequency Separation (MHz)
2402	1
2441	1
2480	1

6.6 Test Graphs



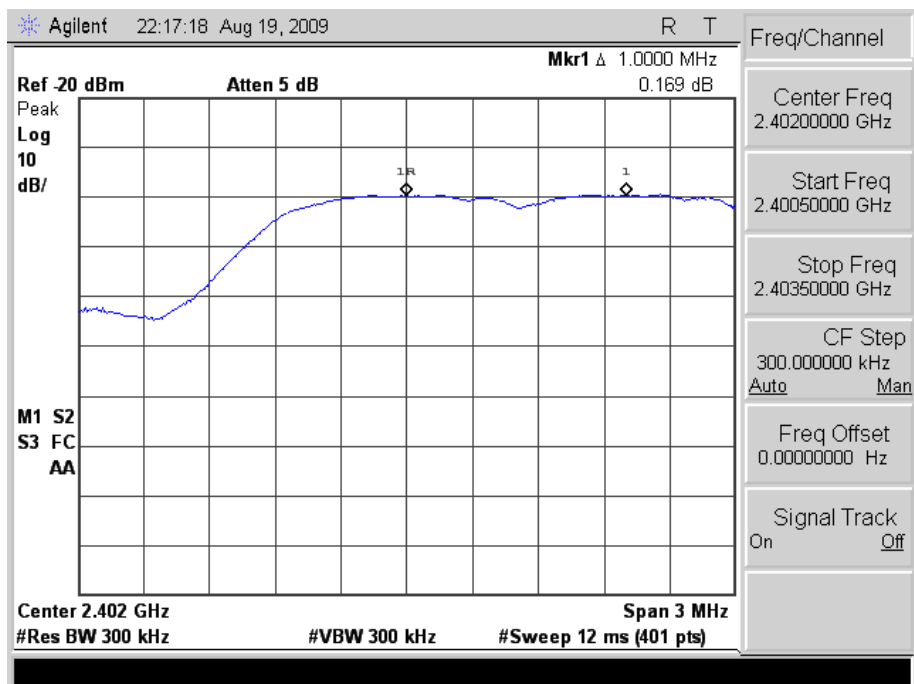
Bluetooth 2.1 Link Mode

CH78 (2480MHz)



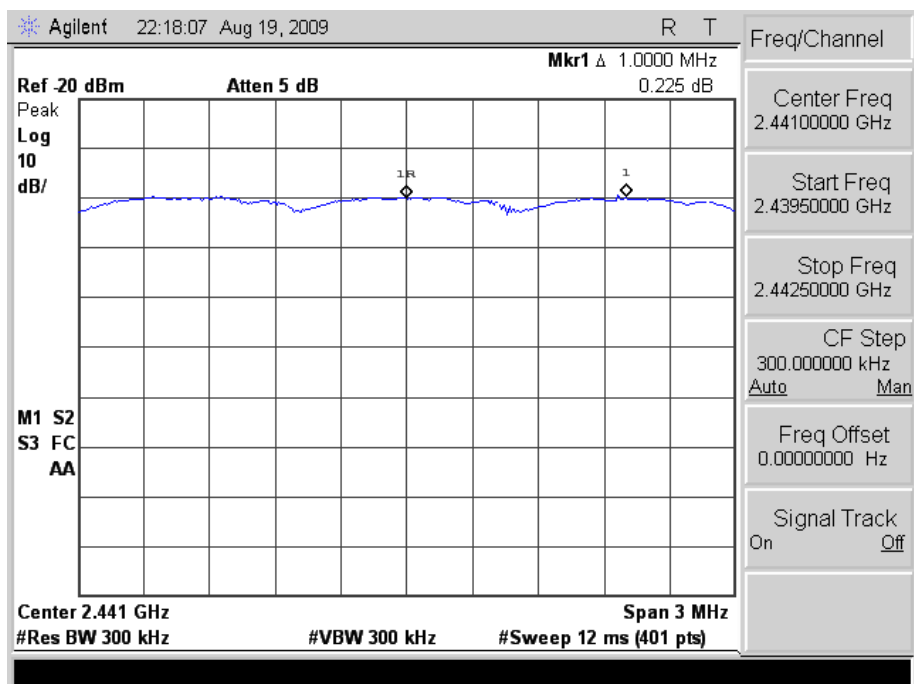
Bluetooth EDR Link Mode

CH00 (2412MHz)



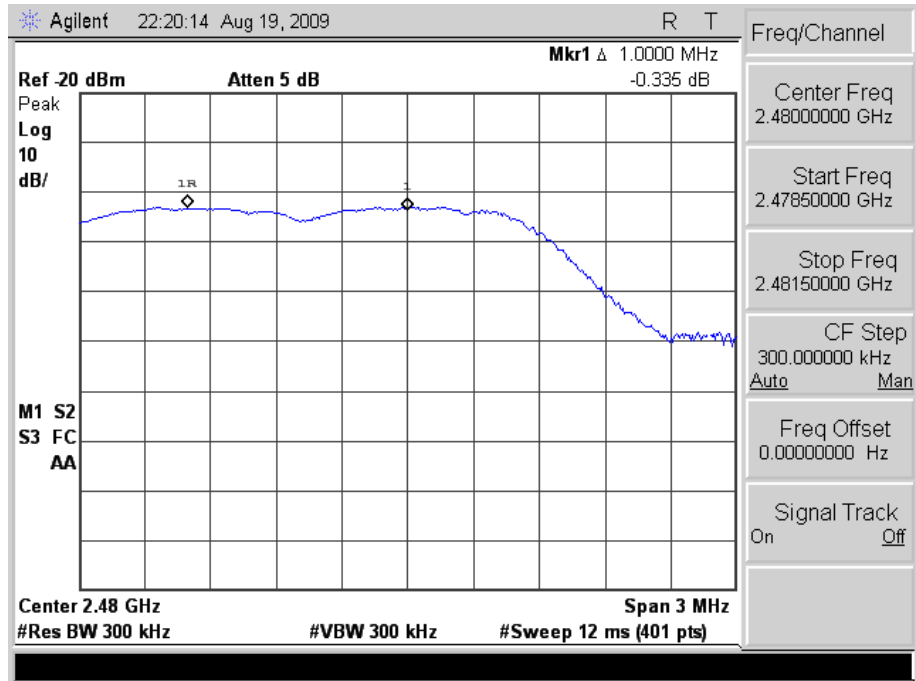
Bluetooth EDR Link Mode

CH39 (2441MHz)



Bluetooth EDR Link Mode

CH78 (2480MHz)





7. Number of Hopping Requirements

7.1 Test Procedure

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

1. Span = the frequency band of operation
2. RBW $\geq$ 1% of the span
3. VBW $\geq$ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize.

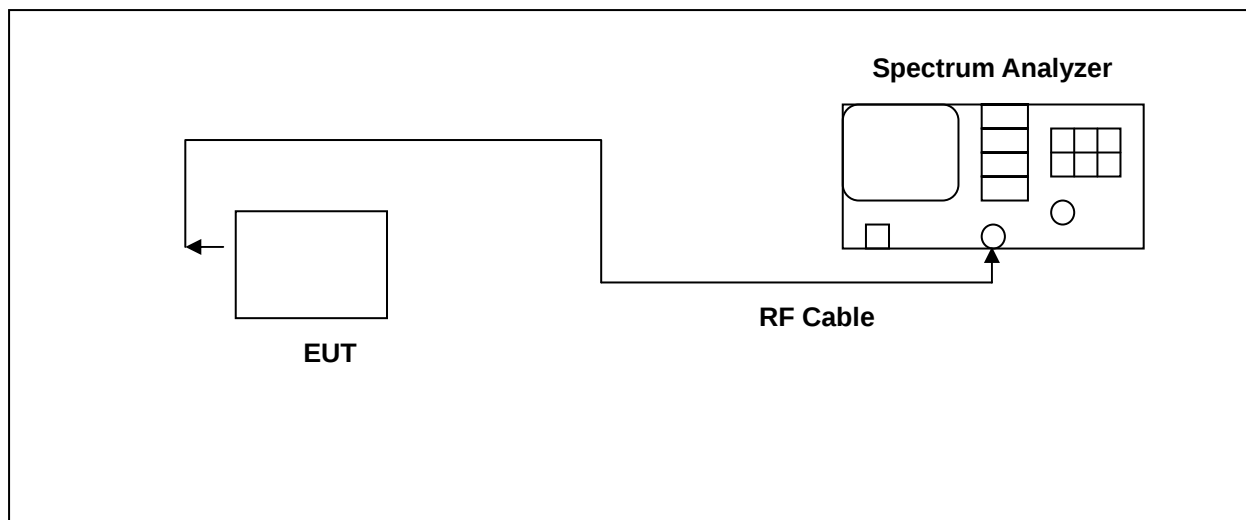
7.2 Limits

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010
Attenuator	RADIAL	R41572000	0603033073	NA	NA

7.4 Test Instruments Configuration



7.5 Test Result

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth 2.1 Link Mode
 Test Date : 08/19/2009

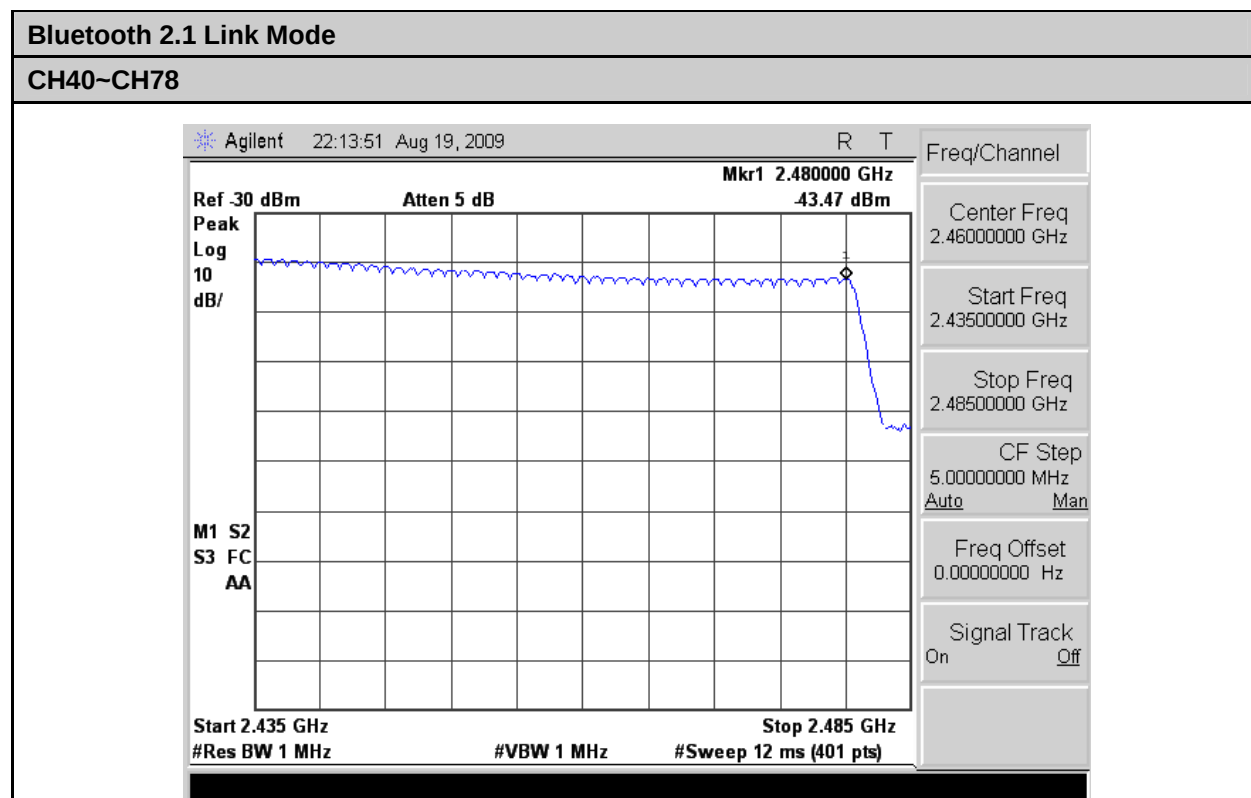
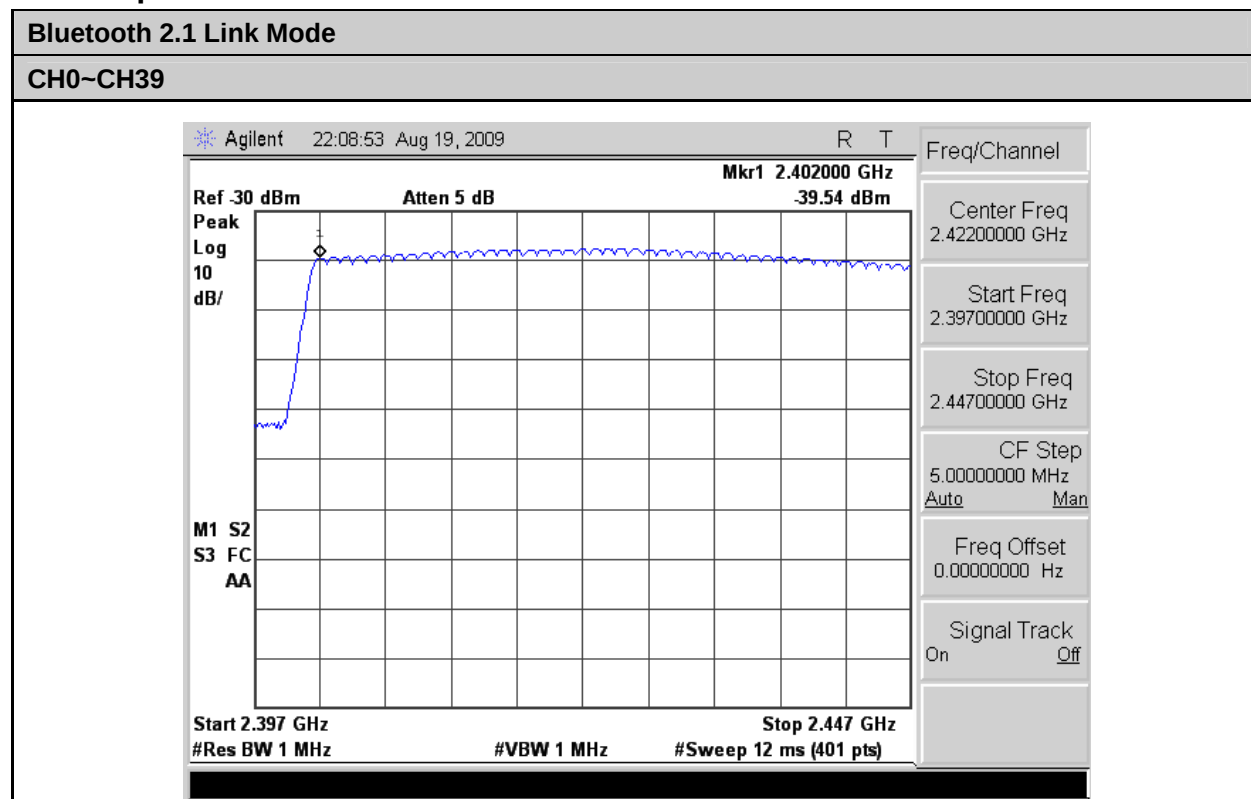
Number of Hopping Channels	Limits
79	> 15

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth EDR Link Mode
 Test Date : 08/19/2009

Number of Hopping Channels	Limits
79	> 15

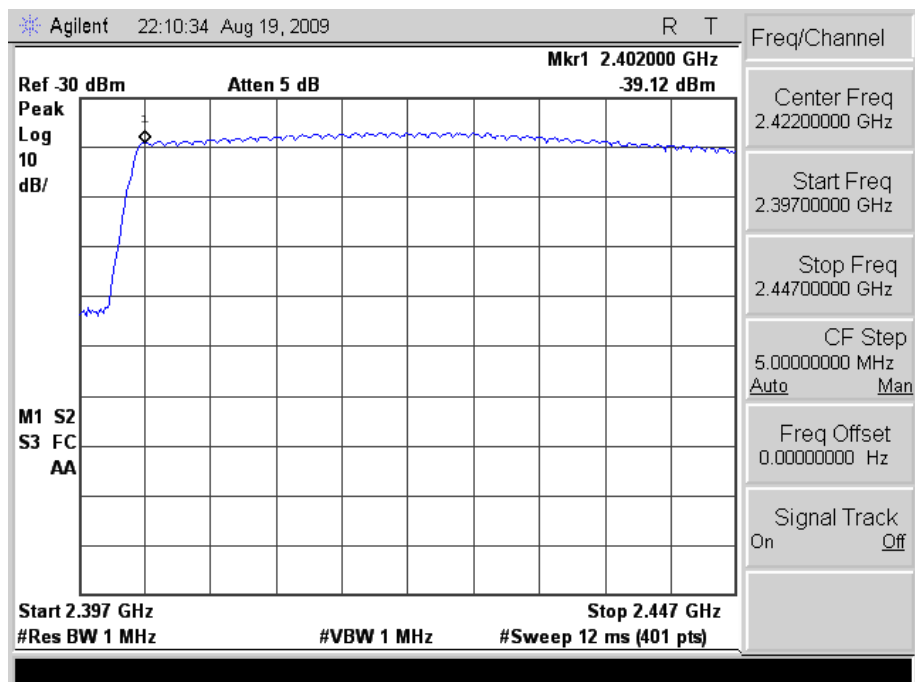


7.6 Test Graphs



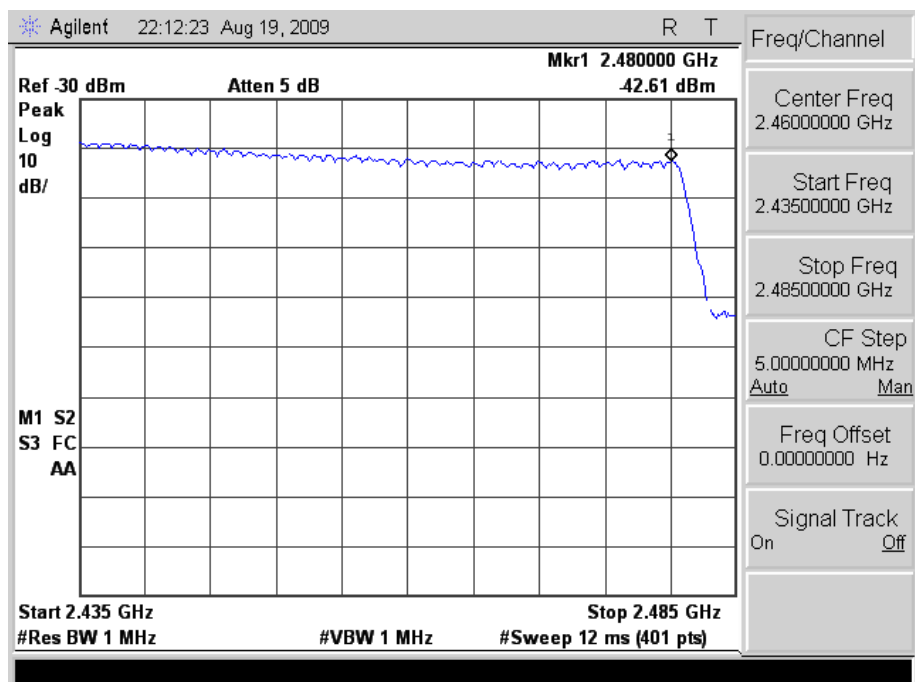
Bluetooth EDR Link Mode

CH0~CH39



Bluetooth EDR Link Mode

CH40~CH78



8. Time of Occupancy (Dwell Time) Requirements

8.1 Test Procedure

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth hopping function of the EUT was enabled. The following spectrum analyzer settings were used:

1. Span = zero span, centered on a hopping channel
2. RBW = 1 MHz
3. VBW $\geq$ RBW
4. Sweep = as necessary to capture the entire dwell time per hopping channel
5. Detector function = peak
6. Trace = max hold

The marker-delta function was used to determine the dwell time.

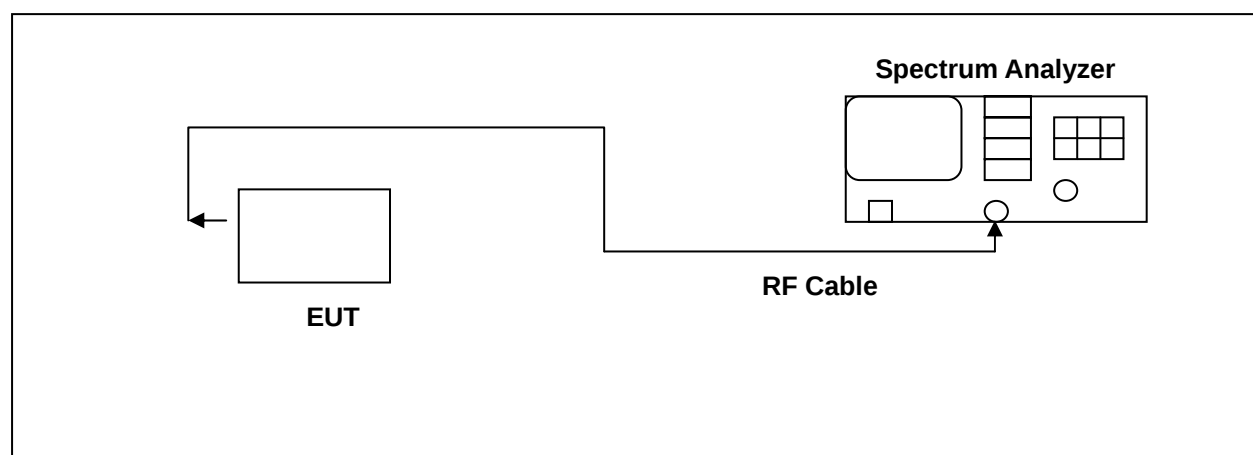
8.2 Limits

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

8.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010
Attenuator	RADIALL	R41572000	0603033073	NA	NA

8.4 Test Instruments Configuration





8.5 Test Result

EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth 2.1 Link Mode
 Test Date : 08/19/2009

DH1 Mode	
Cycle Calculate	$79\text{CH} * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$800/79\text{CH} = 10.13(\text{times/sec})$
Each Channel Dwell Times (1)	0.38 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6 * 10.13 = 320.108(\text{times})$
Dwell Times on Cycle (1) * (2)	121.64104 ms (sec)
LIMIT(msec)	≤ 400

DH3 Mode	
Cycle Calculate	$79\text{CH} * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$400/79\text{CH}=5.1(\text{times/sec})$
Each Channel Dwell Times (1)	1.64 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6*5.1=161.16(\text{times})$
Dwell Times on Cycle (1) * (2)	264.3024 ms (sec)
LIMIT(msec)	≤ 400

DH5 Mode	
Cycle Calculate	$79\text{CH} * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$266.7/79\text{CH}=3.37 \text{ (times/sec)}$
Each Channel Dwell Times (1)	2.88 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6*3.37=106.492 \text{ (times)}$
Dwell Times on Cycle (1) * (2)	306.69696 ms (sec)
LIMIT(msec)	≤ 400

Note: RB=1MHz; VB=1MHz; SPAN=0MHz; Sweep Time=20msec



EUT : E-Menu
 Model No. : EM-200
 Test Mode : Bluetooth EDR Link Mode
 Test Date : 08/19/2009

DH1 Mode	
Cycle Calculate	$79CH * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$800/79CH = 10.13 \text{ (times/sec)}$
Each Channel Dwell Times (1)	0.38 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6 * 10.13 = 320.108 \text{ (times)}$
Dwell Times on Cycle (1) * (2)	121.64104 ms (sec)
LIMIT(msec)	≤ 400

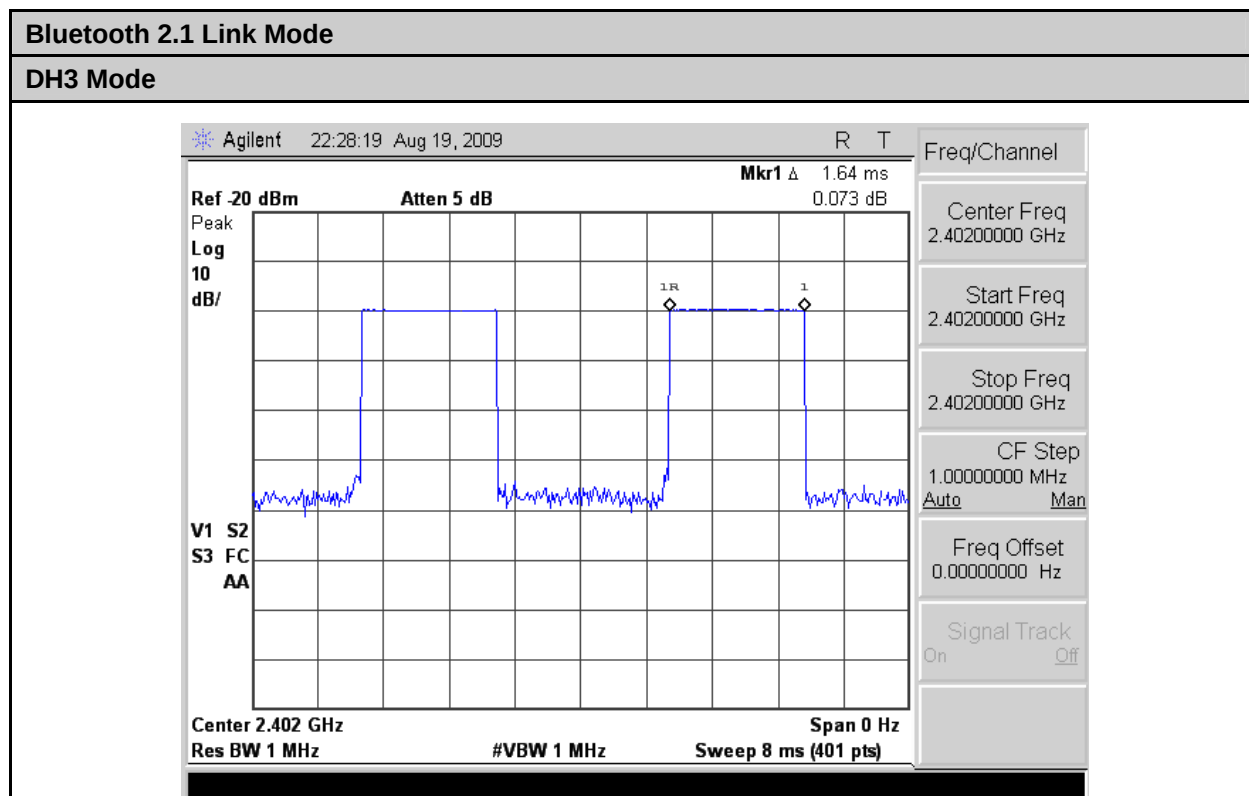
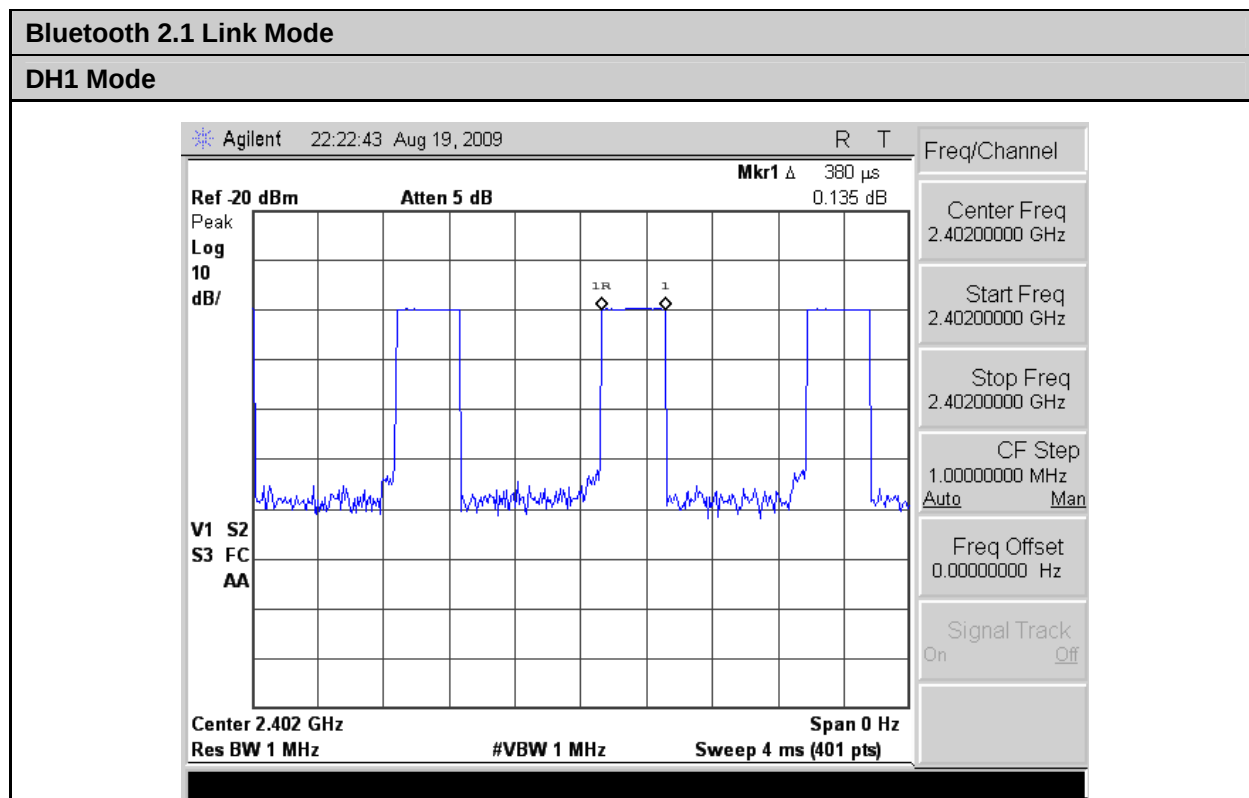
DH3 Mode	
Cycle Calculate	$79CH * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$400/79CH = 5.1 \text{ (times/sec)}$
Each Channel Dwell Times (1)	1.64 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6 * 5.1 = 161.16 \text{ (times)}$
Dwell Times on Cycle (1) * (2)	264.3024 ms (sec)
LIMIT(msec)	≤ 400

DH5 Mode	
Cycle Calculate	$79CH * 0.4 = 31.6 \text{ (sec)}$
The EUT Hopping Number per Sec	1600 times/sec
Each Channel Dwell Times per Sec	$266.7/79CH = 3.37 \text{ (times/sec)}$
Each Channel Dwell Times (1)	2.91 ms (sec)
Each Channel Dwell Times on Cycle(2)	$31.6 * 3.37 = 106.492 \text{ (times)}$
Dwell Times on Cycle (1) * (2)	309.89172 ms (sec)
LIMIT(msec)	≤ 400

Note: RB=1MHz; VB=1MHz; SPAN=0MHz; Sweep Time=20msec

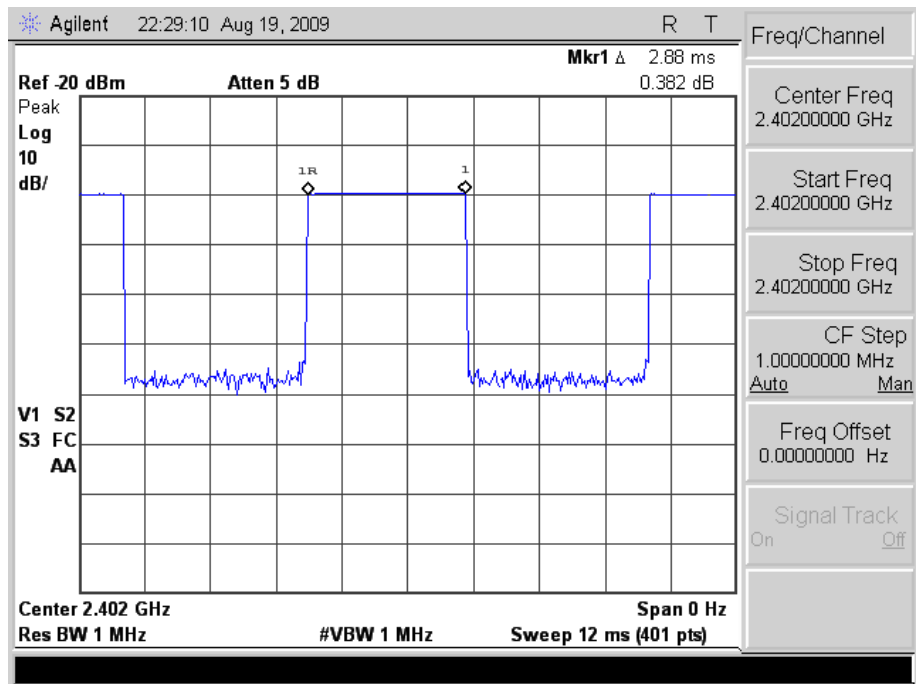


8.6 Test Graphs



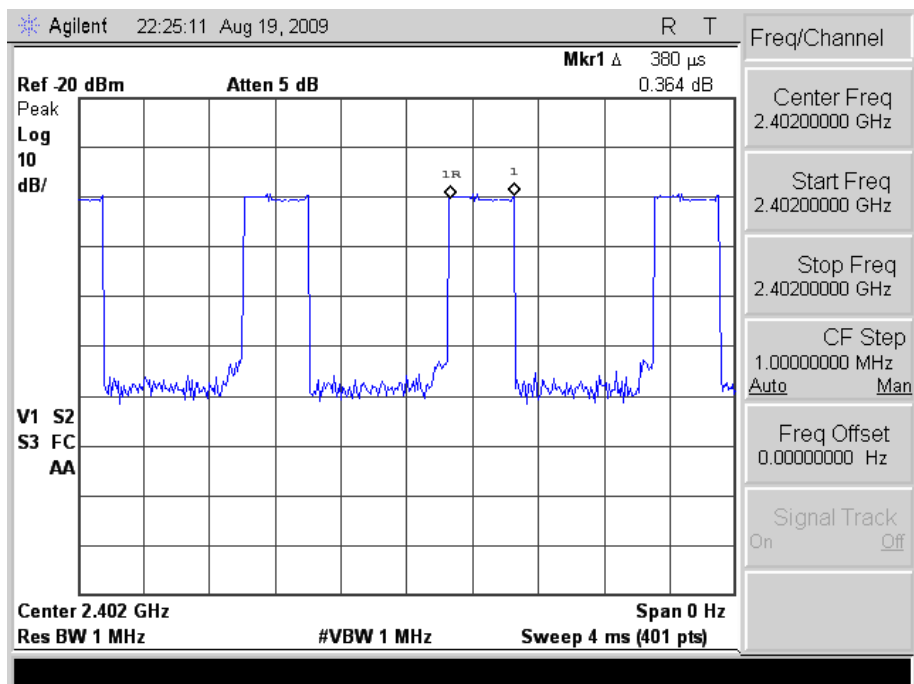
Bluetooth 2.1 Link Mode

DH5 Mode



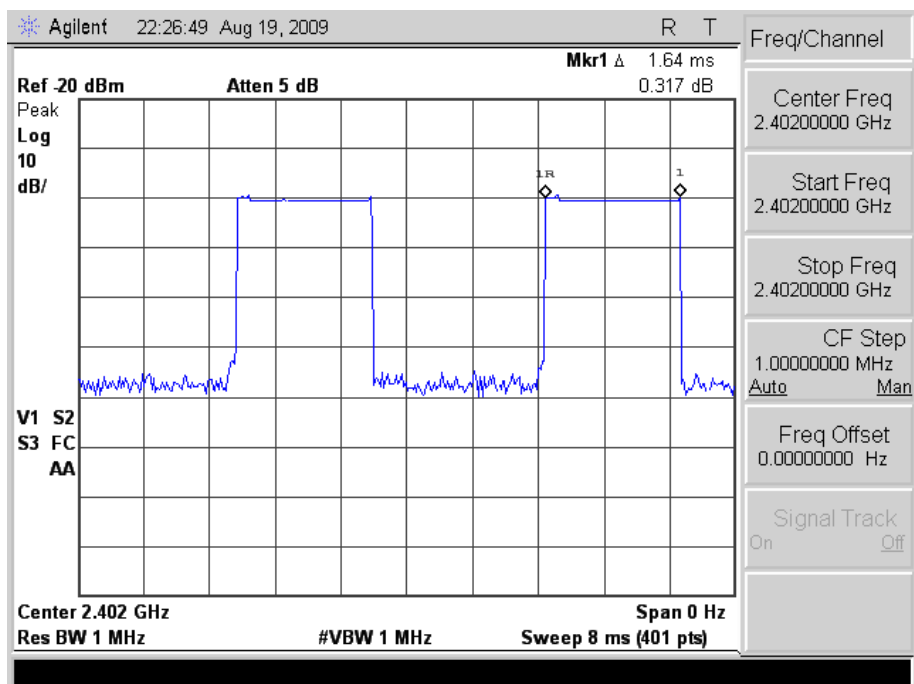
Bluetooth EDR Link Mode

3DH1 Mode



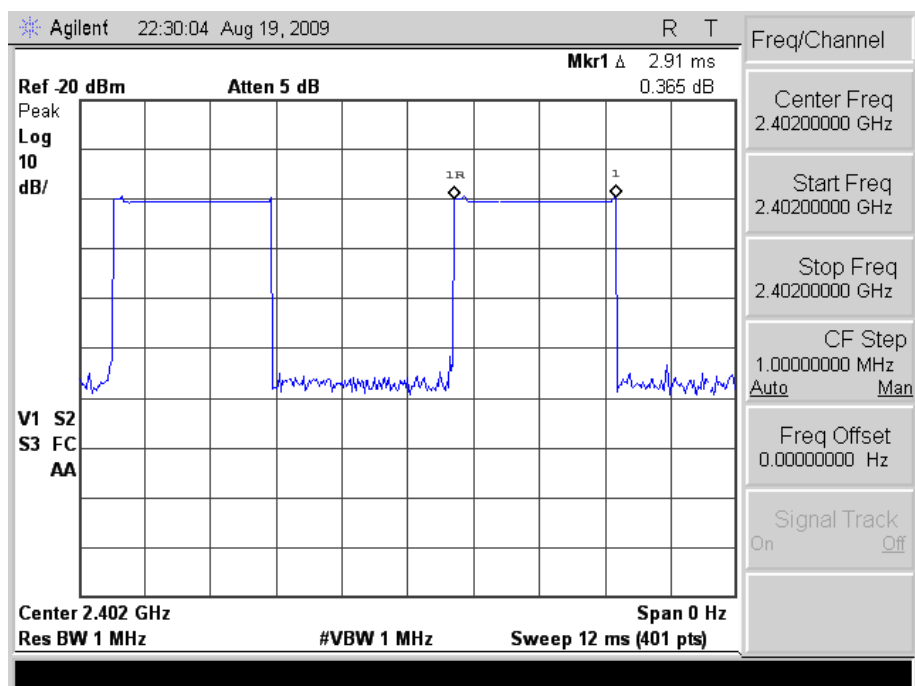
Bluetooth EDR Link Mode

3DH3 Mode



Bluetooth EDR Link Mode

3DH5 Mode



9. Out of Band Conducted Emissions Requirements

9.1 Test Procedure

In any 100 kHz bandwidth outside the EUT pass band, 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 pass band. The test was performed at 3 channels (Channel 0, 39, 79)

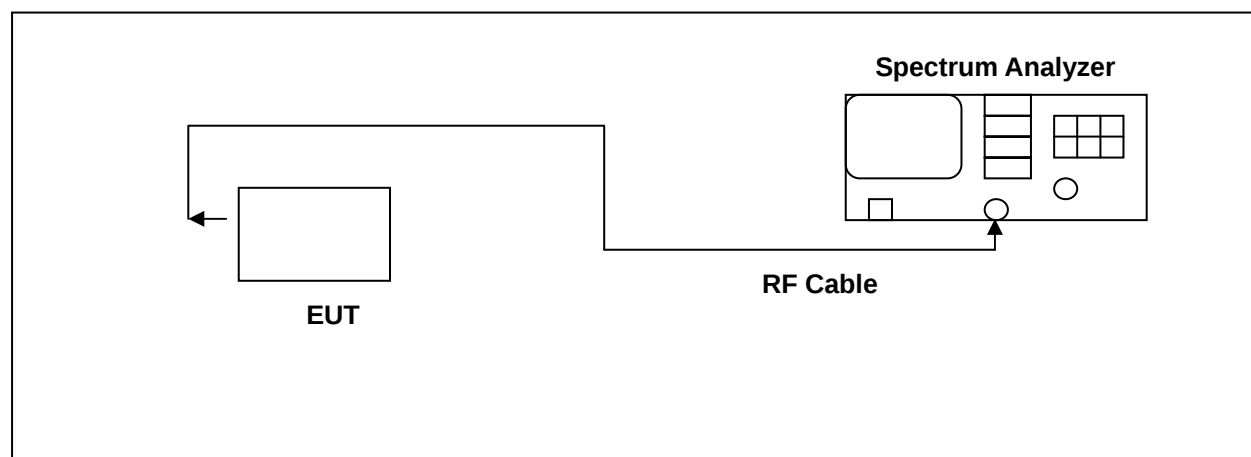
9.2 Limits

Data shows out of band emissions are suppressed well below the -20 dBc minimum required by the Rules

9.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY46181986	May 15, 2009	May 15, 2010

9.4 Test Instruments Configuration





9.5 Test Result

EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth 2.1 Link Mode

Test Date : 08/17/2009

Please refer to next page of detail testing data.



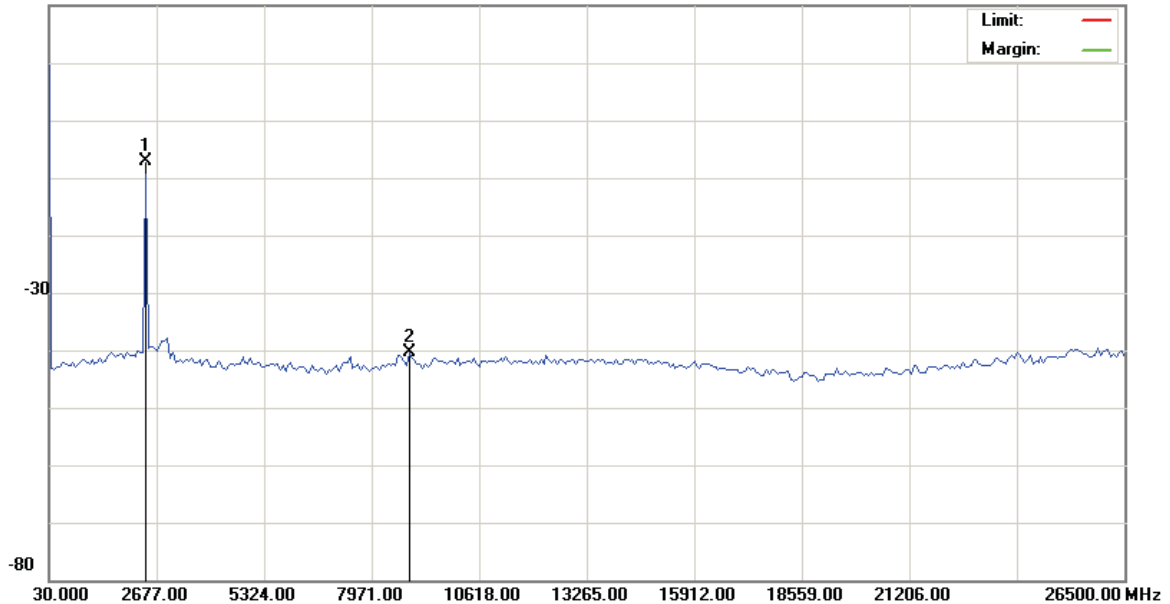
File :09-0206-SEO(BT)

Data :#1

Date:2009/08/17

Time: 下午 01:50:59

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2402MHZ

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2402.300	-13.21	6.09	-7.12		peak			TX
2		8897.450	-46.64	6.33	-40.31		peak			

*:Maximum data x:Over limit !:over margin

●Reference Only



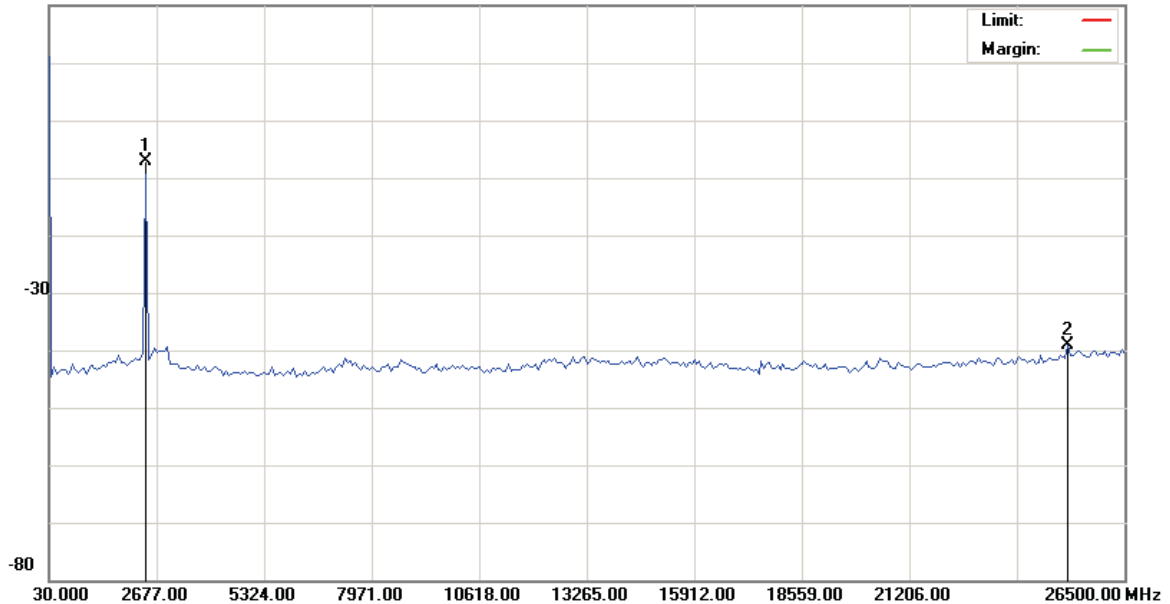
File :09-0206-SEO(BT)

Data :#2

Date:2009/08/17

Time: 下午 01:55:48

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1Link Mode

Note: 2441MHZ

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2441.300	-13.22	6.09	-7.13		peak			TX
2		25110.32	-46.05	6.95	-39.10		peak			

*:Maximum data x:Over limit !:over margin

●Reference Only



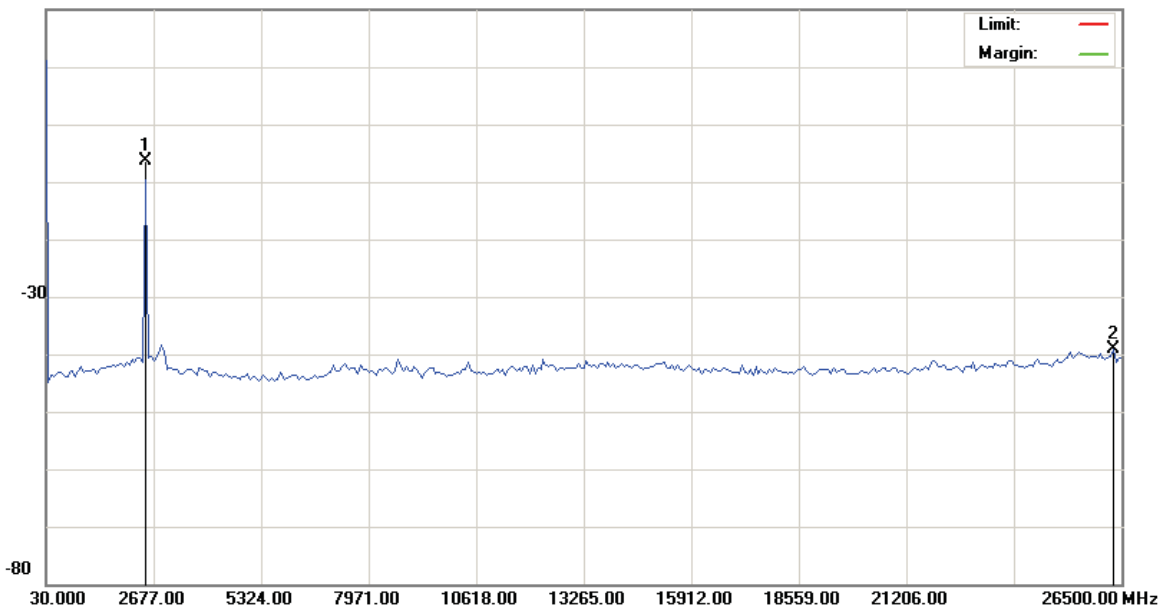
File :09-0206-SEO(BT)

Data :#3

Date:2009/08/17

Time: 午 01:57:11

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode

Note: 2480MHZ

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2480.475	-12.44	6.09	-6.35		peak			TX
2		26301.47	-46.08	6.99	-39.09		peak			

*:Maximum data x:Over limit !:over margin

●Reference Only



EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth EDR Link Mode

Test Date : 08/17/2009

Please refer to next page of detail testing data.



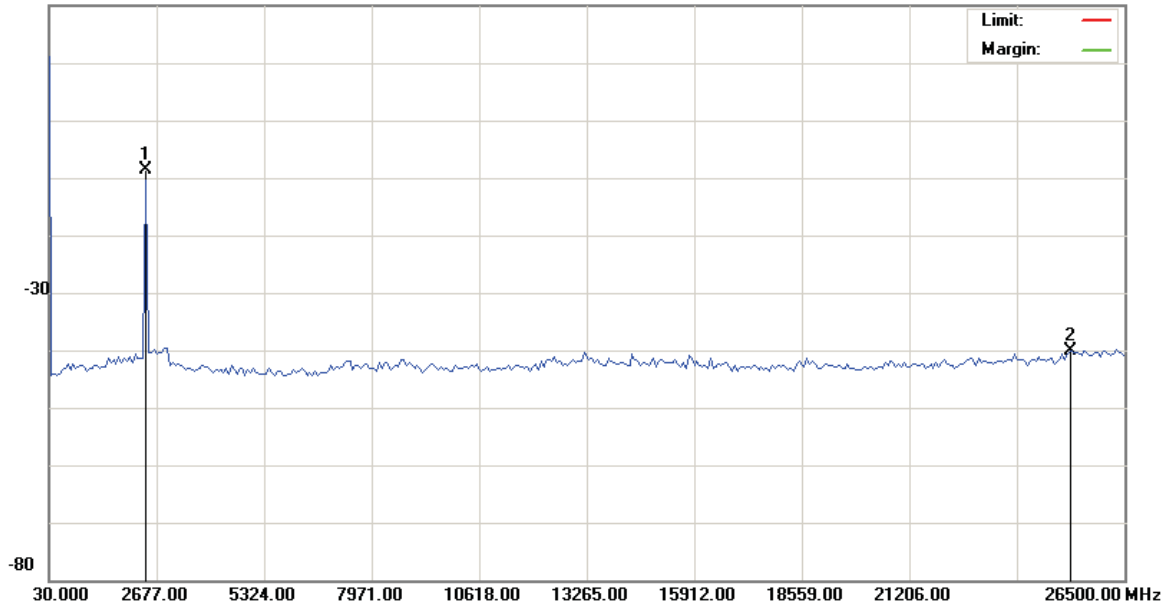
File :09-0206-SEO(BT)

Data :#4

Date:2009/08/17

Time: 下午 01:59:05

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2402MHZ

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2402.300	-14.81	6.09	-8.72			peak		TX
2		25176.50	-47.06	6.95	-40.11			peak		

*:Maximum data x:Over limit !:over margin

●Reference Only



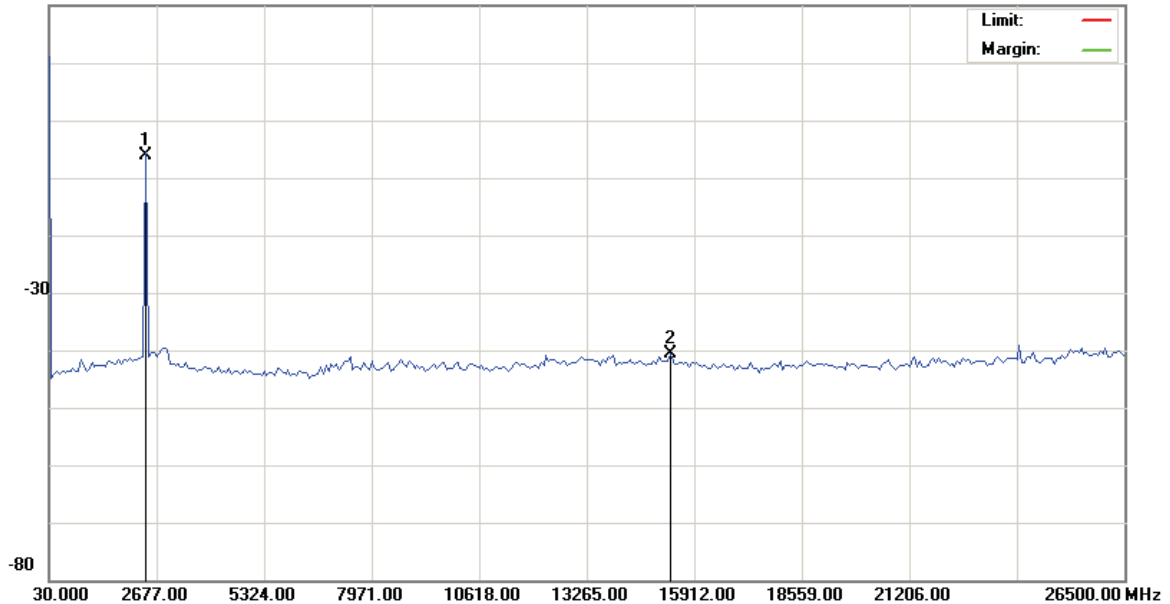
File :09-0206-SEO(BT)

Data :#5

Date:2009/08/17

Time: 下午 02:00:22

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2441MHZ

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	cm	degree	Comment
1	*	2441.300	-12.27	6.09	-6.18			peak		TX
2		15316.42	-47.31	6.58	-40.73			peak		

*:Maximum data x:Over limit !:over margin

●Reference Only



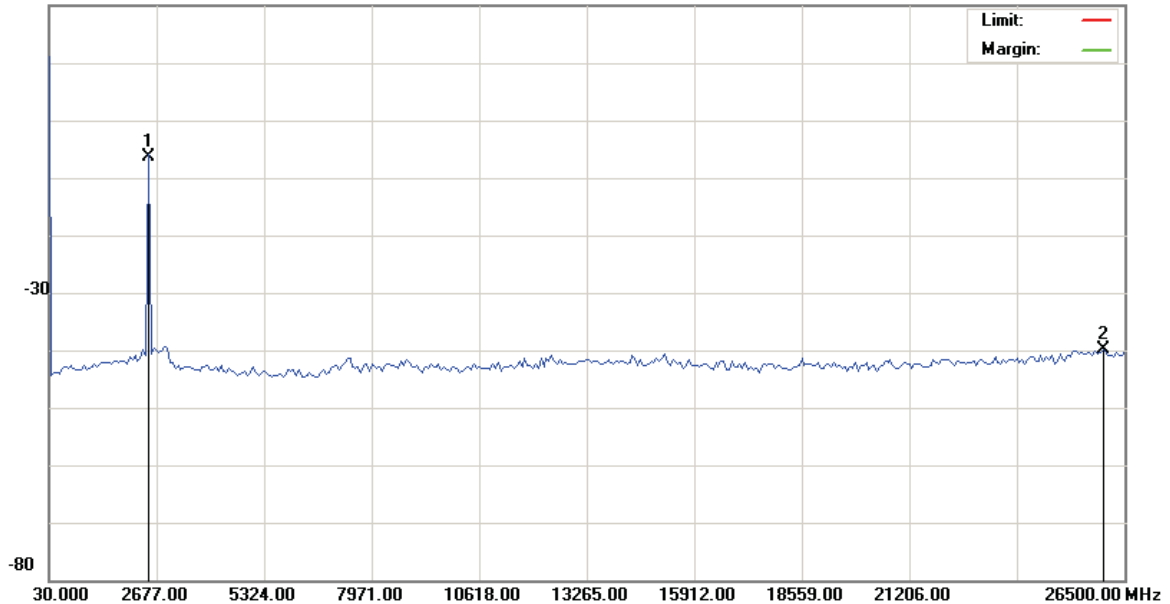
File :09-0206-SEO(BT)

Data :#6

Date:2009/08/17

Time: 下午 02:01:17

20.0 dBm



Site site #1

Polarization:

Temperature: 22 °C

Limit:

Power:

Humidity: 60 %

EUT:

Distance:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode

Note: 2480MHZ

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2480.475	-12.40	6.09	-6.31			peak		TX
2		25970.60	-46.74	6.98	-39.76			peak		

*:Maximum data x:Over limit !:over margin

●Reference Only



10. Band Edges Requirements

10.1 Test Procedure

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.

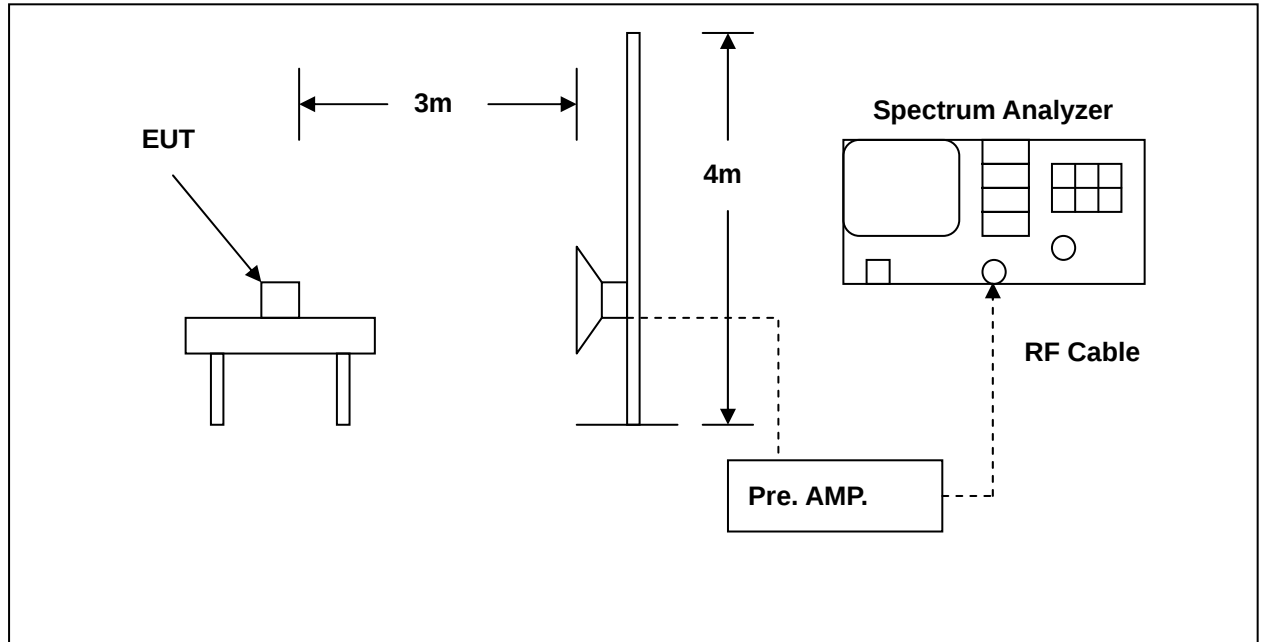
10.2 Limits

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.

10.3 Test Equipment List

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY45107753	Jun. 08, 2009	Jun. 08, 2010
Pre Amplifier	Agilent	8449B	3008A02456	Feb. 19, 2009	Feb. 19, 2010
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jul. 01, 2009	Jul. 01, 2010

10.4 Test Instruments Configuration



10.5 Test Result

EUT : E-Menu

Model No. : EM-200

Test Mode : Bluetooth 2.1 Link Mode _ Low CH & High CH

Test Date : 08/17/2009

Please refer to next page of detail testing data.

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)
7. Actual Amp= Amplitude – Duty – Dis.



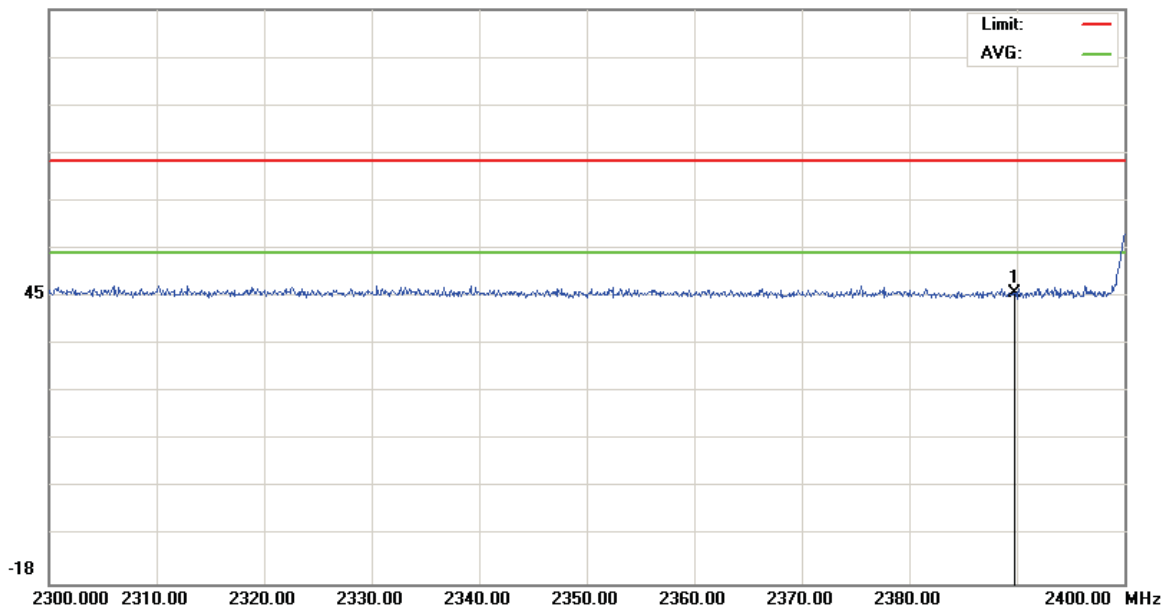
File:EM-200(2402MHz)

Data :#1

Date:2009/8/17

Time: 下午 09:39:06

107.0 dBuV



Site: site #1

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT:

Distance: 3m

RBW: 1000KHz VBW: 1000KHz

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode BAND EDGE

Note: 2402MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2389.800	45.03	0.19	45.22	74.00	-28.78	peak		

*:Maximum data x:Over limit !:over margin



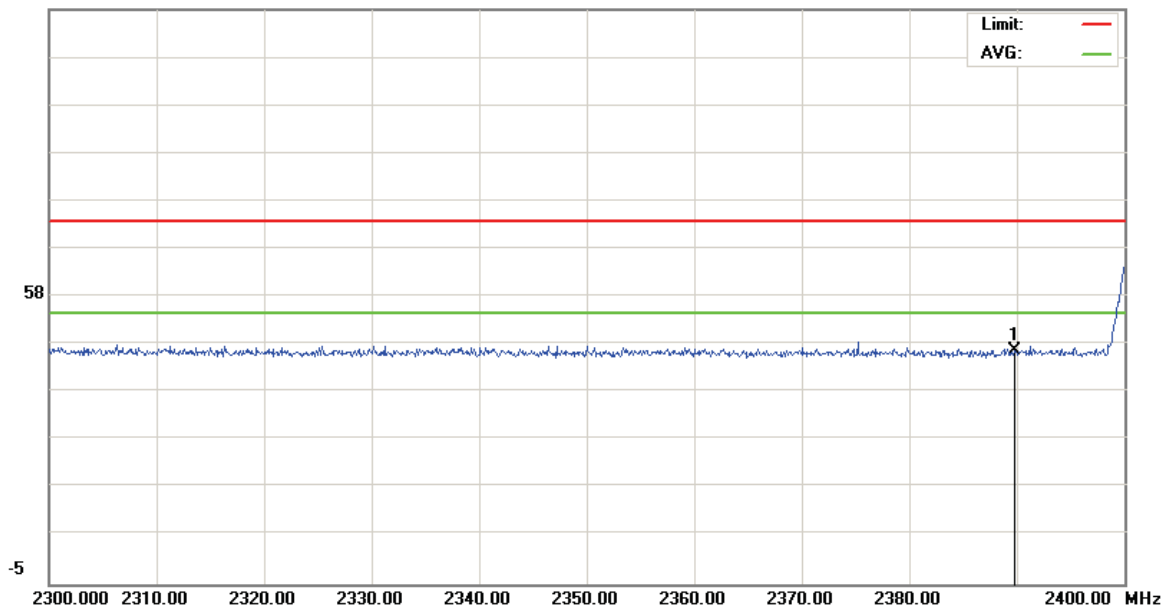
File:EM-200(2402MHz)

Data :#5

Date:2009/8/17

Time: 下午 10:15:18

120.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22 °C

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT:

Distance: 3m

RBW: 1000KHz VBW: 1000KHz

M/N: 09-0206-SEO

Mode: Bluetooth 2.1 Link Mode BAND EDGE

Note: 2402MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2389.800	45.46	0.19	45.65	74.00	-28.35	peak		

*:Maximum data x:Over limit !:over margin

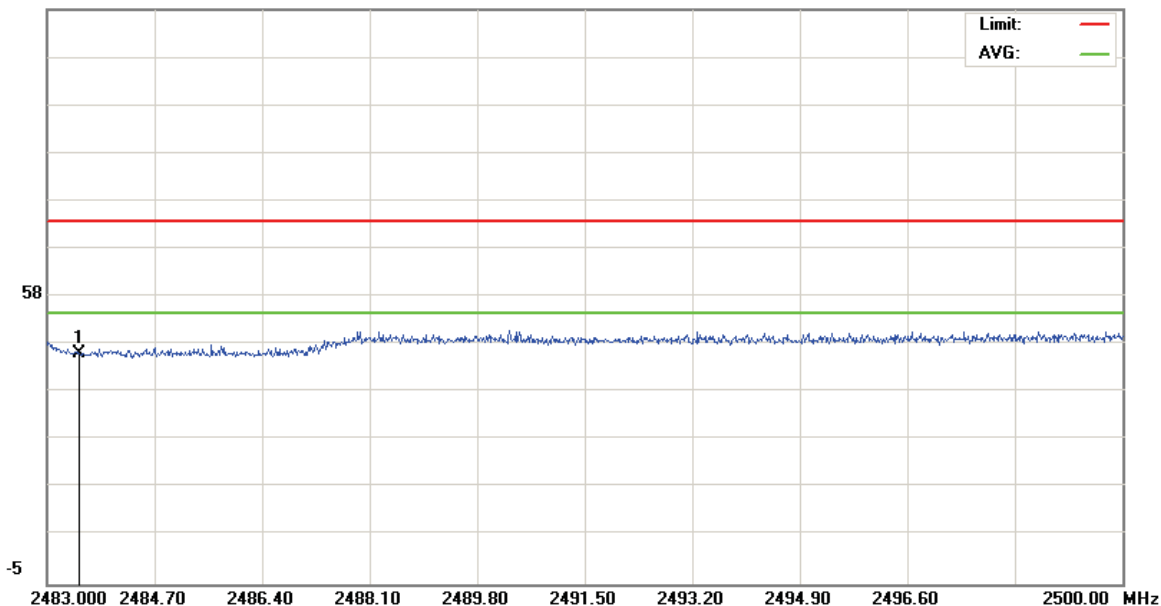


File:EM-200(2402MHz)
120.0 dBuV

Data :#3

Date:2009/8/17

Time: 下午 09:59:18



Site: site #1	Polarization: <i>Vertical</i>	Temperature: 22 °C
Limit: FCC part 15 (PK)	Power:	Humidity: 60 %
EUT:	Distance: 3m	RBW: 1000KHz VBW: 1000KHz
M/N: 09-0206-SEO		
Mode: Bluetooth 2.1 Link Mode BAND EDGE		
Note: 2480MHz		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2483.510	44.84	0.25	45.09	74.00	-28.91	peak		

*:Maximum data x:Over limit !:over margin

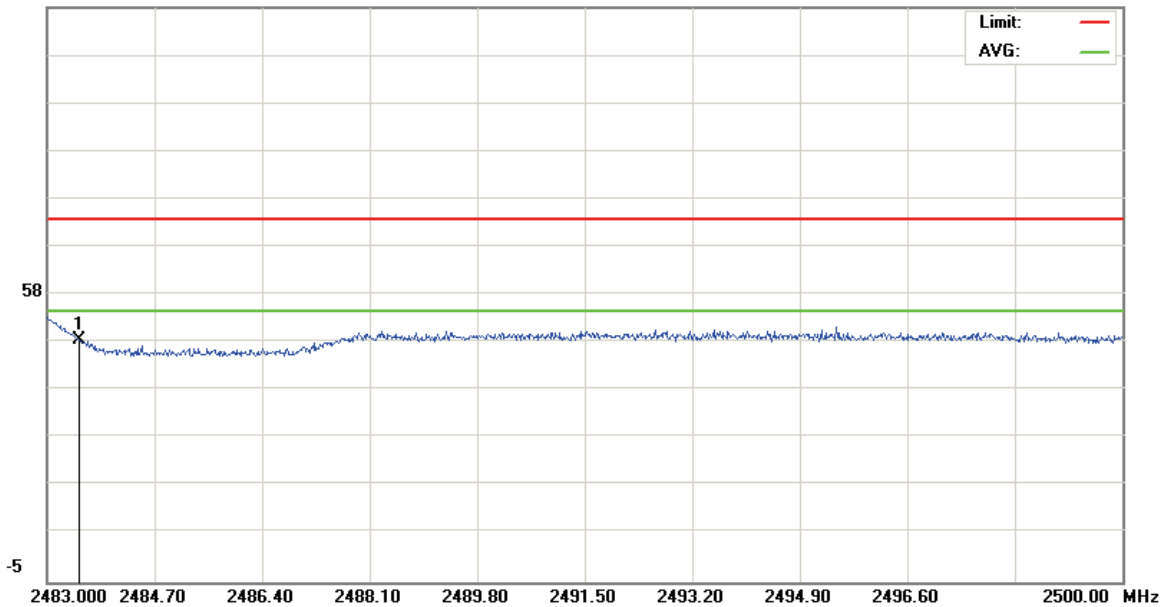


File:EM-200(2402MHz)
120.0 dBuV

Data :#7

Date:2009/8/17

Time: 下午 10:26:02



Site: site #1	Polarization: <i>Horizontal</i>	Temperature: 22 °C
Limit: FCC part 15 (PK)	Power:	Humidity: 60 %
EUT:	Distance: 3m	RBW: 1000KHz VBW: 1000KHz
M/N: 09-0206-SEO		
Mode: Bluetooth 2.1 Link Mode BAND EDGE		
Note: 2480MHz		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2483.510	47.48	0.25	47.73	74.00	-26.27	peak		

*:Maximum data x:Over limit !:over margin



EUT : E-Menu
Model No. : EM-200
Test Mode : Bluetooth EDR _ Low CH & High CH
Test Date : 08/17/2009

Please refer to next page of detail testing data.

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)
7. Actual Amp= Amplitude – Duty – Dis.



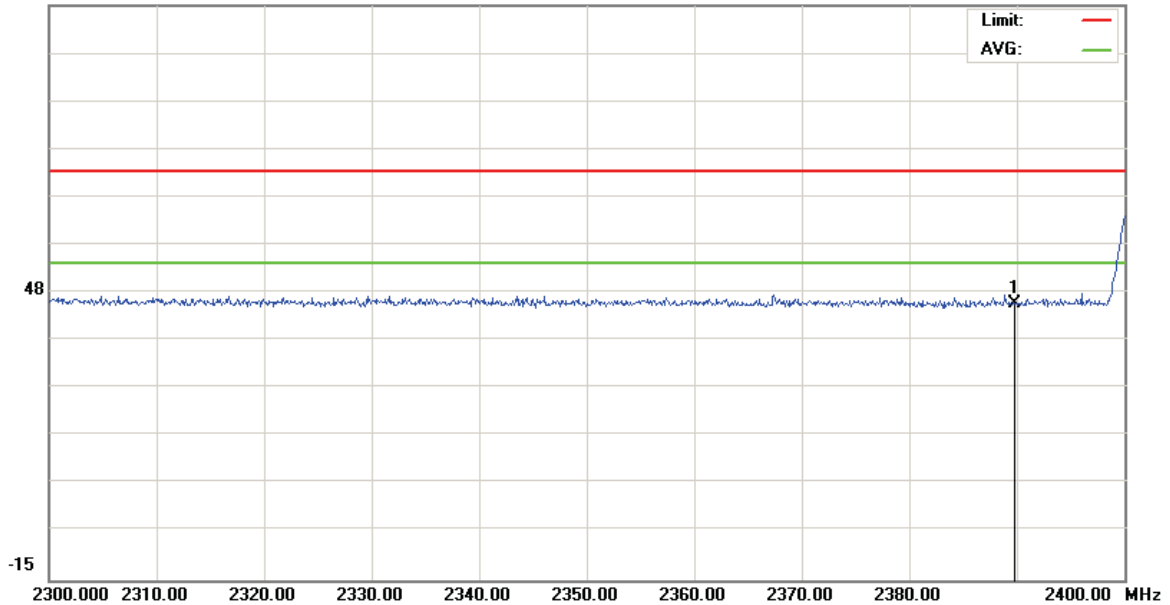
File:EM-200(2402MHz)

Data :#1

Date:2009/8/17

Time: 下午 10:04:11

110.0 dBuV



Site: site #1

Limit: FCC part 15 (PK)

EUT:

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode BAND EDGE

Note: 2402MHz

Polarization: *Vertical*

Power:

Distance: 3m

Temperature: 22

Humidity: 60 %

RBW: 1000KHz VBW: 1000KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2389.800	44.86	0.19	45.05	74.00	-28.95	peak		

*:Maximum data x:Over limit !:over margin



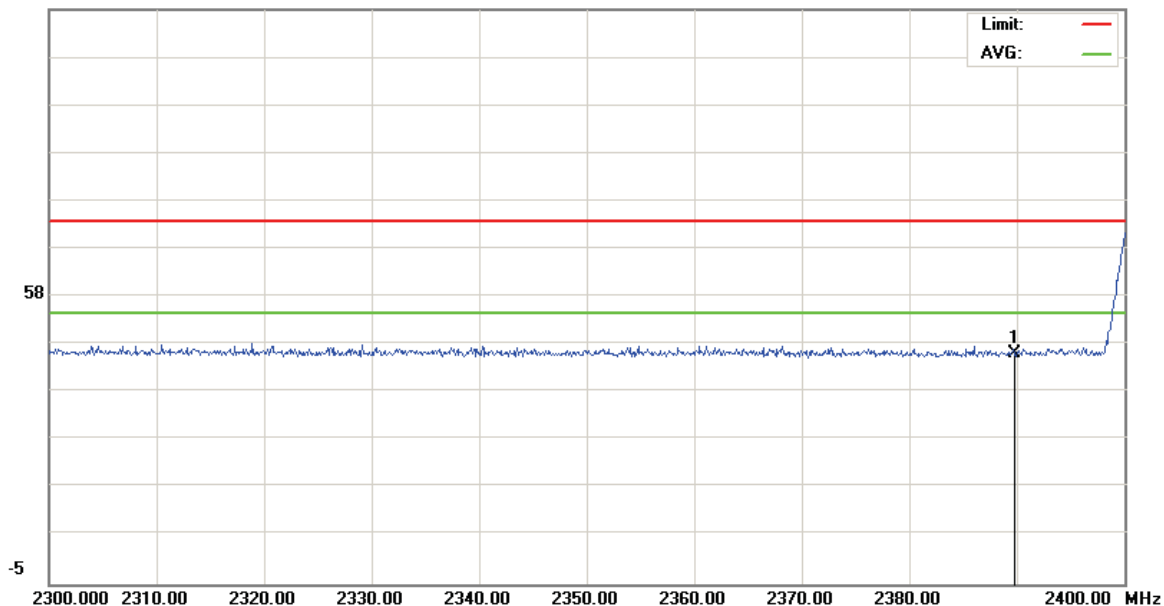
File:EM-200(2402MHz)

Data :#5

Date:2009/8/17

Time: 下午 10:11:39

120.0 dBuV



Site: site #1

Polarization: *Horizontal*

Temperature: 22

Limit: FCC part 15 (PK)

Power:

Humidity: 60 %

EUT:

Distance: 3m

RBW: 1000KHz VBW: 1000KHz

M/N: 09-0206-SEO

Mode: Bluetooth EDR Link Mode BAND EDGE

Note: 2402MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2389.800	44.96	0.19	45.15	74.00	-28.85	peak		

*:Maximum data x:Over limit !:over margin

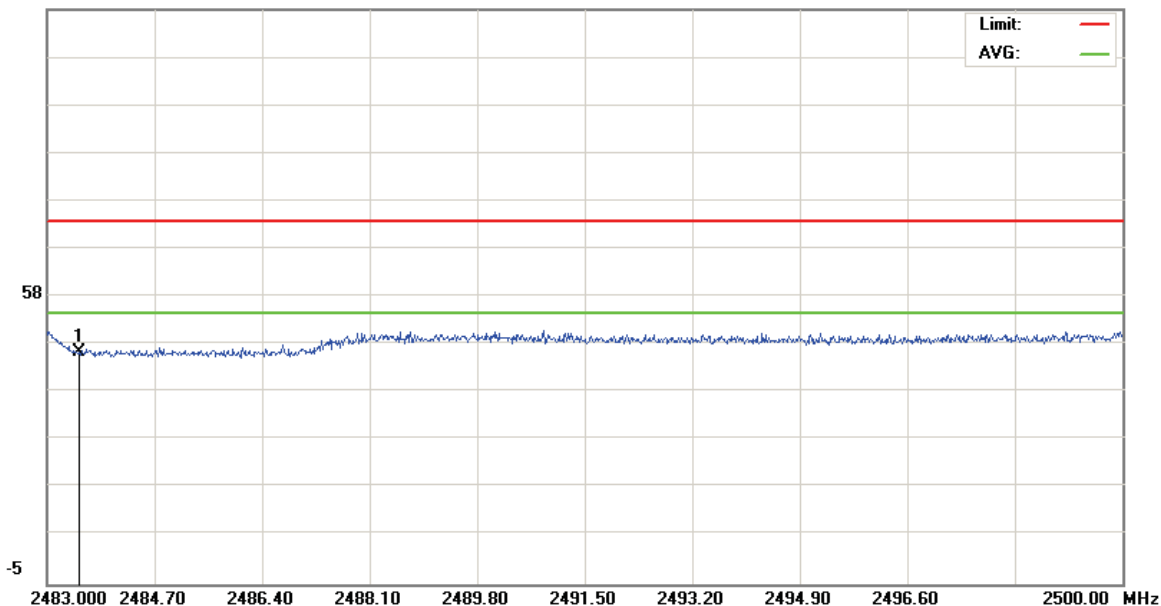


File:EM-200(2402MHz)
120.0 dBuV

Data :#3

Date:2009/8/17

Time: 下午 10:07:28



Site: site #1	Polarization: <i>Vertical</i>	Temperature: 22
Limit: FCC part 15 (PK)	Power:	Humidity: 60 %
EUT:	Distance: 3m	RBW: 1000KHz VBW: 1000KHz
M/N: 09-0206-SEO		
Mode: Bluetooth EDR Link Mode BAND EDGE		
Note: 2480MHz		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2483.510	45.26	0.25	45.51	74.00	-28.49	peak		

*:Maximum data x:Over limit !:over margin

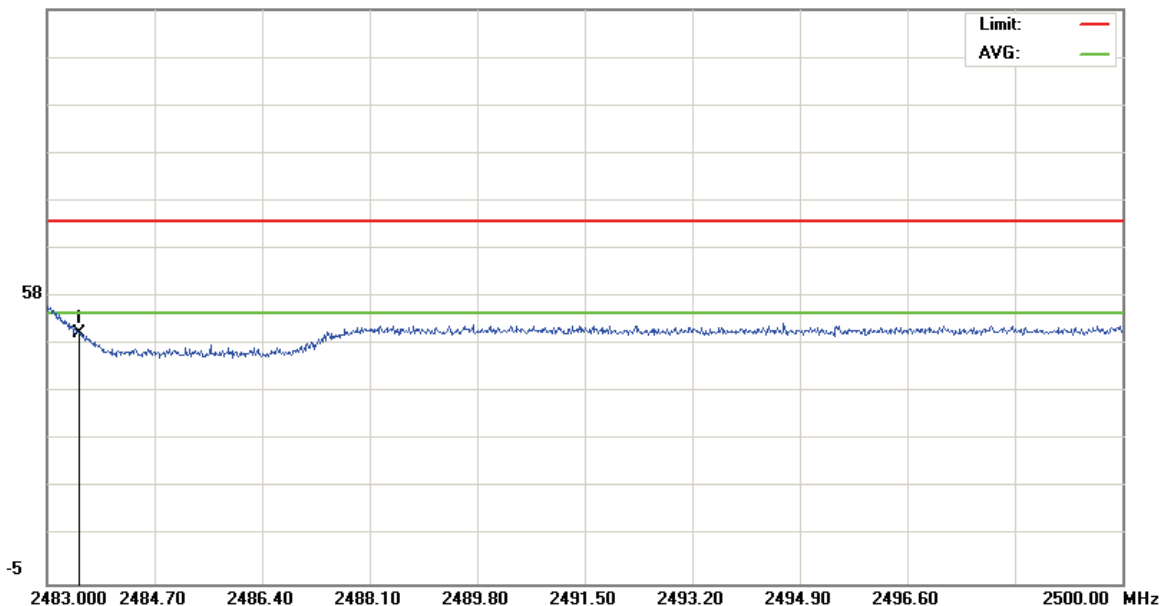


File:EM-200(2402MHz)
120.0 dBuV

Data :#7

Date:2009/8/17

Time: 下午 10:30:36



Site: site #1	Polarization: <i>Horizontal</i>	Temperature: 22
Limit: FCC part 15 (PK)	Power:	Humidity: 60 %
EUT:	Distance: 3m	RBW: 1000KHz VBW: 1000KHz
M/N: 09-0206-SEO		
Mode: Bluetooth EDR Link Mode BAND EDGE		
Note: 2480MHz		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2483.510	49.14	0.25	49.39	74.00	-24.61	peak		

*:Maximum data x:Over limit !:over margin



11. Antenna Requirements

11.1 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.

11.2 Antenna Connector Construction

The antenna used in this product is **Internal Antenna**. And the maximum Gain of this antenna is only **-1.31dBi**.