Test Report

Product Name ： Mophie powerblu

Model No. ： Powerblu

FCC ID. ： OIC-POWERBLU12

Applicant ： mophie, LLC

Address ： 2850 Red Hill Ave Suite 128 Santa Ana, California United States, CA92750

Date of Receipt ： 2012/07/25

Issued Date ： 2012/08/23

Report No. ： 127473R-RFUSP43V01

Report Version ： V1.0

Test Report Certification

Issued Date : 2012/08/23
Report No. : 127473R-RFUSP43V01

QuieTek

Product Name	:	Mophie powerblu
Applicant	:	mophie, LLC
Address	:	2850 Red Hill Ave Suite 128 Santa Ana, California United States, CA92750
Manufacturer	:	Merry Electronics Co., LTD.
Model No.	:	Powerblu
FCC ID.	:	OIC-POWERBLU12
EUT Voltage	:	DC 5V (Power by Battery)
Trade Name	:	mophie
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2011
Test Result	:	Complied

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By : Demi Chang

(Demi Chang / Engineering Adm. Specialist)

Reviewed By : Ben Huang

(Ben Huang / Engineer)

Approved By : Roy Wang

(Roy Wang / Manager)

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	Mophie powerblu
Trade Name	mophie
Model No.	Powerblu
Frequency Range	2402~2480MHz
Channel Number	79
Type of Modulation	GFSK, π/4 DQPSK, 8DPSK
Channel Control	FHSS
Antenna Type	Chip antenna
Antenna Gain	-0.17dBi

Component	
USB Cable	Shielded, 0.5m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 20	2422 MHz	Channel 40	2442 MHz	Channel 60	2462 MHz
Channel 01	2403 MHz	Channel 21	2423 MHz	Channel 41	2443 MHz	Channel 61	2463 MHz
Channel 02	2404 MHz	Channel 22	2424 MHz	Channel 42	2444 MHz	Channel 62	2464 MHz
Channel 03	2405 MHz	Channel 23	2425 MHz	Channel 43	2445 MHz	Channel 63	2465 MHz
Channel 04	2406 MHz	Channel 24	2426 MHz	Channel 44	2446 MHz	Channel 64	2466 MHz
Channel 05	2407 MHz	Channel 25	2427 MHz	Channel 45	2447 MHz	Channel 65	2467 MHz
Channel 06	2408 MHz	Channel 26	2428 MHz	Channel 46	2448 MHz	Channel 66	2468 MHz
Channel 07	2409 MHz	Channel 27	2429 MHz	Channel 47	2449 MHz	Channel 67	2469 MHz
Channel 08	2410 MHz	Channel 28	2430 MHz	Channel 48	2450 MHz	Channel 68	2470 MHz
Channel 09	2411 MHz	Channel 29	2431 MHz	Channel 49	2451 MHz	Channel 69	2471 MHz
Channel 10	2412 MHz	Channel 30	2432 MHz	Channel 50	2452 MHz	Channel 70	2472 MHz
Channel 11	2413 MHz	Channel 31	2433 MHz	Channel 51	2453 MHz	Channel 71	2473 MHz
Channel 12	2414 MHz	Channel 32	2434 MHz	Channel 52	2454 MHz	Channel 72	2474 MHz
Channel 13	2415 MHz	Channel 33	2435 MHz	Channel 53	2455 MHz	Channel 73	2475 MHz
Channel 14	2416 MHz	Channel 34	2436 MHz	Channel 54	2456 MHz	Channel 74	2476 MHz
Channel 15	2417 MHz	Channel 35	2437 MHz	Channel 55	2457 MHz	Channel 75	2477 MHz
Channel 16	2418 MHz	Channel 36	2438 MHz	Channel 56	2458 MHz	Channel 76	2478 MHz
Channel 17	2419 MHz	Channel 37	2439 MHz	Channel 57	2459 MHz	Channel 77	2479 MHz
Channel 18	2420 MHz	Channel 38	2440 MHz	Channel 58	2460 MHz	Channel 78	2480 MHz
Channel 19	2421 MHz	Channel 39	2441 MHz	Channel 59	2461 MHz		

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. The transmitter is presented with a continuous data stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its 79 channels and over the minimum number of hopping channels (75 channels).

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hop sets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Note:

1. This device is a Mophie powerblu including a 2.4GHz receiving function, and transmitting function.
2. This device has three modulation types (GFSK, π/4-DQPSK, 8DPSK). We measured and found the worst case of these three modulation types. Only the worst case measured all test items.
3. These test results on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
4. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
6. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 127473R-RFUSP37V02 under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-Test Mode	
EMI	Mode 1: Transmit (GFSK) Mode 2: Transmit (π/4-DQPSK) Mode 3: Transmit (8DPSK)
Final Test Mode	
EMI	Mode 1: Transmit (GFSK) Mode 2: Transmit (π/4-DQPSK) Mode 3: Transmit (8DPSK)

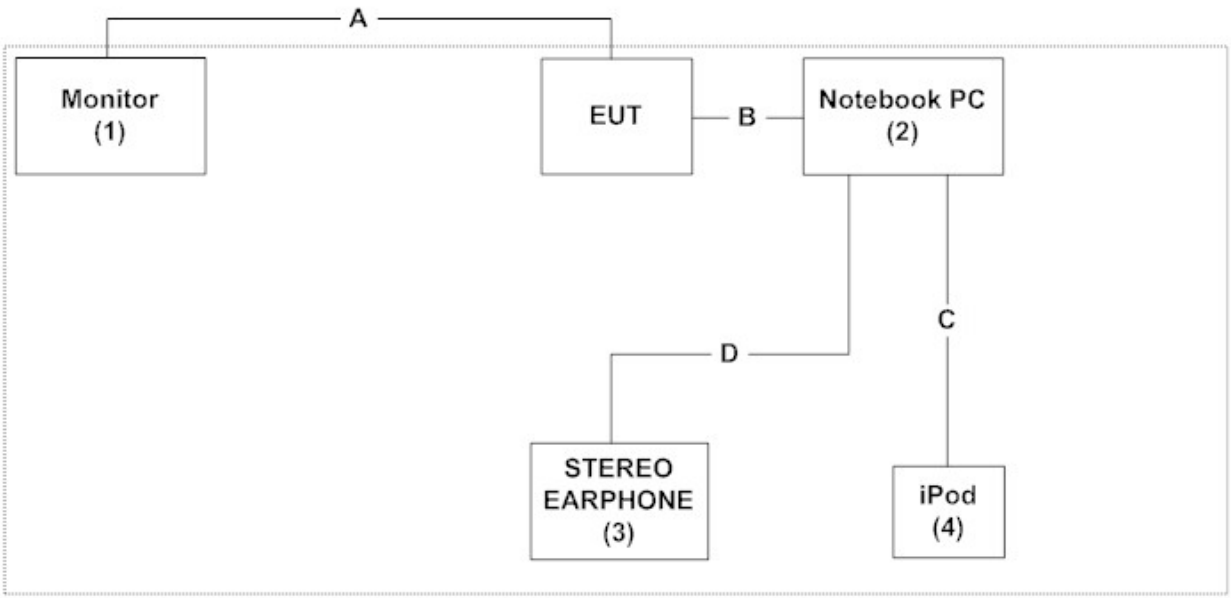
Emission	Mode 1	Mode 2	Mode 3
Conducted Emission	Yes	No	No
Peak Power Output	Yes	Yes	Yes
Radiated Emission	Yes	No	No
RF antenna conducted test	Yes	No	No
Band Edge	Yes	Yes	Yes
Number of hopping frequency	Yes	No	No
Carrier Frequency Separation	Yes	Yes	Yes
Occupied Bandwidth	Yes	Yes	Yes
Dwell Time	Yes	Yes	Yes

1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Monitor	CHI MEI	A170E1-09	3UC120955SA1227	DoC	Non-Shielded, 1.8m
2	Notebook PC	HP	HSTNN-146C	CNU8253S1X	DoC	Non-Shielded, 1.8m
3	STEREO EARPHONE	Song Qi	QP-005	N/A	DoC	--
4	iPod	Apple	MC306TA/A	5C937OKNA1S	DoC	--

1.5. Configuration of tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	VGA Cable	Shielded, 1m
B	USB Cable	Shielded, 0.5m
C	USB Cable	Shielded, 0.5m
D	STEREO EARPHONE Cable	Non-Shielded, 1m

1.6. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5
2	Execute the “Blue test V3.0” which is installed on the Notebook.
3	Configure the test mode, the test channel.
4	Press “TXDATA1” to start the continuous Transmitter.
5	Verify that the EUT works properly.

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.247 Conducted Emission (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	54
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Number of hopping frequency (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Carrier Frequency Separation (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (FHSS)	15 - 35	24
Humidity (%RH)		25 - 75	48
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Dwell Time (FHSS)	15 - 35	23
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description: September 27, 2010 File on
Federal Communications Commission
Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 365520

Accredited by TAF
Accreditation Number: 1313
Effective through: December 27, 2013

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2012

Site Name: Quietek Corporation

Site Address: No.75-2, 3rd Lin, Wang Ye keng, Yonghxing Tsuen,
Qionglin Shiang, Hsinchu County 307, Taiwan
TEL : 886-3-592-8858 / FAX : 886-3-592-8859
E-Mail : service@quietek.com

2. Conducted Emission

2.1. Test Equipment

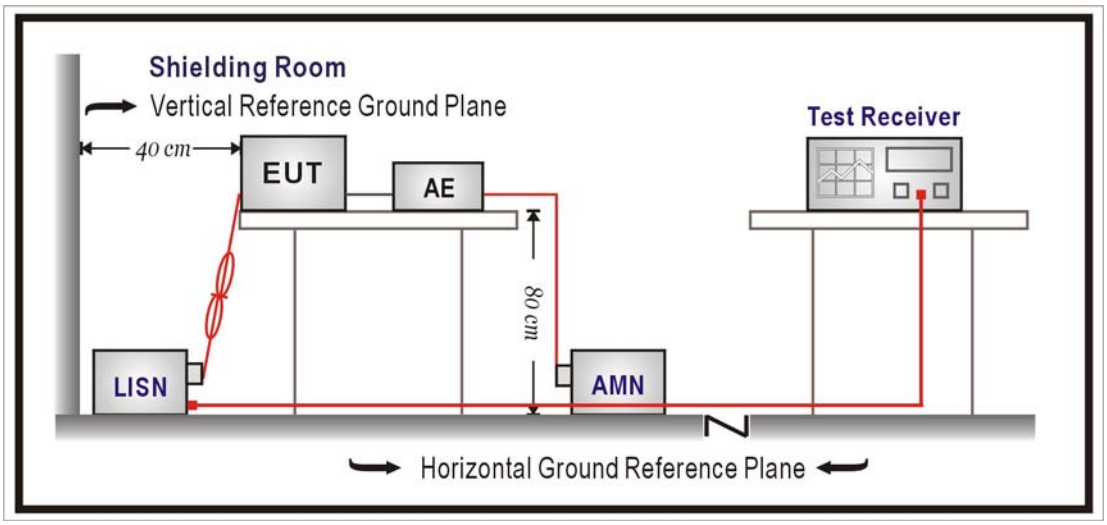
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Artificial Mains Network	R&S	ENV4200	848411/010	2013/02/13
LISN	R&S	ENV216	100092	2012/08/30
Test Receiver	R&S	ESCS 30	825442/014	2013/08/07

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. 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: 2009 on conducted measurement.

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

2.5. Test Specification

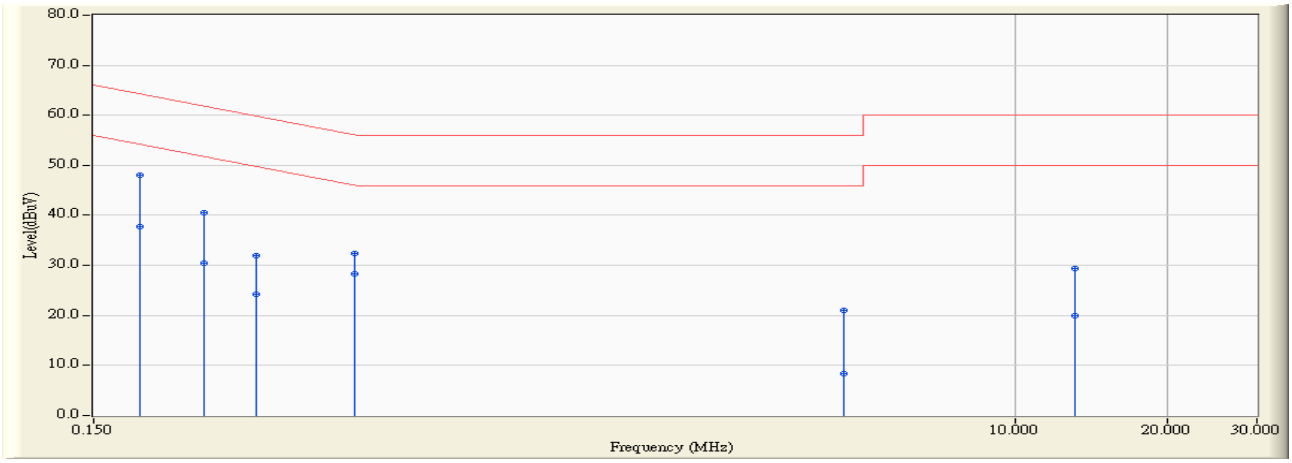
According to FCC Part 15 Subpart C Paragraph 15.207: 2011

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	**Time : 2012/08/14 - 18:58**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-1_0831 - Line1	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)**

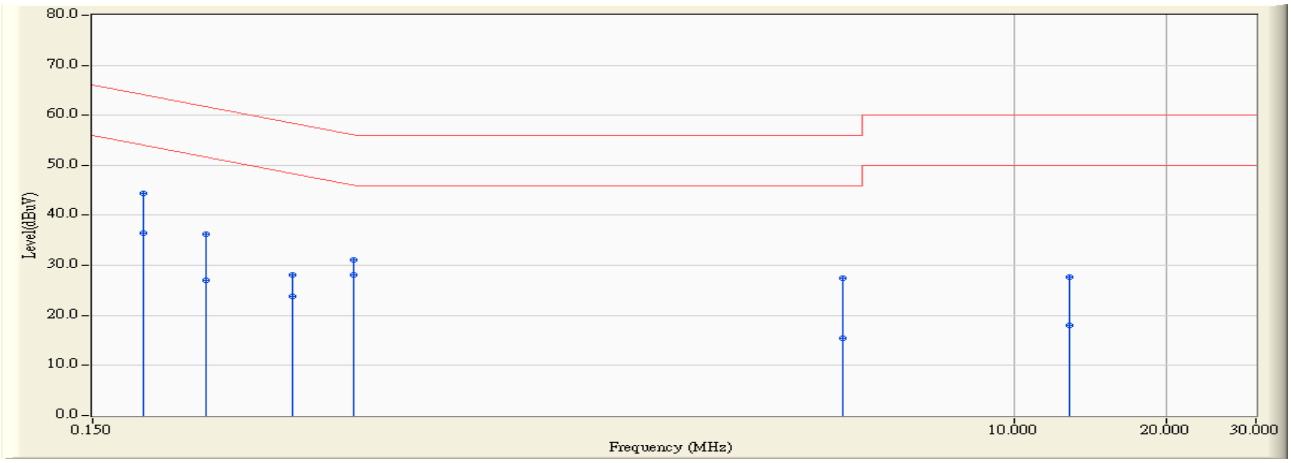


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.185	9.632	38.460	48.092	-16.159	64.251	QUASIPEAK
2		0.185	9.632	28.160	37.792	-16.459	54.251	AVERAGE
3		0.248	9.636	30.800	40.436	-21.400	61.835	QUASIPEAK
4		0.248	9.636	20.860	30.496	-21.340	51.835	AVERAGE
5		0.314	9.639	22.260	31.899	-27.963	59.862	QUASIPEAK
6		0.314	9.639	14.560	24.199	-25.663	49.862	AVERAGE
7		0.494	9.652	22.700	32.351	-23.753	56.104	QUASIPEAK
8		0.494	9.652	18.600	28.251	-17.853	46.104	AVERAGE
9		4.560	9.839	11.160	20.999	-35.001	56.000	QUASIPEAK
10		4.560	9.839	-1.560	8.279	-37.721	46.000	AVERAGE
11		13.076	10.013	19.280	29.293	-30.707	60.000	QUASIPEAK
12		13.076	10.013	9.900	19.913	-30.087	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR2	**Time : 2012/08/14 - 19:01**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-1_0831 - Line2	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.189	9.642	34.840	44.482	-19.596	64.078	QUASIPEAK
2	*	0.189	9.642	26.880	36.522	-17.556	54.078	AVERAGE
3		0.252	9.646	26.700	36.346	-25.360	61.705	QUASIPEAK
4		0.252	9.646	17.280	26.926	-24.780	51.705	AVERAGE
5		0.373	9.653	18.400	28.053	-30.389	58.442	QUASIPEAK
6		0.373	9.653	14.260	23.913	-24.529	48.442	AVERAGE
7		0.494	9.660	21.440	31.100	-25.005	56.104	QUASIPEAK
8		0.494	9.660	18.460	28.120	-17.985	46.104	AVERAGE
9		4.584	9.843	17.620	27.463	-28.537	56.000	QUASIPEAK
10		4.584	9.843	5.520	15.363	-30.637	46.000	AVERAGE
11		12.849	10.073	17.540	27.612	-32.388	60.000	QUASIPEAK
12		12.849	10.073	7.940	18.012	-31.988	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Peak Power Output

3.1. Test Equipment

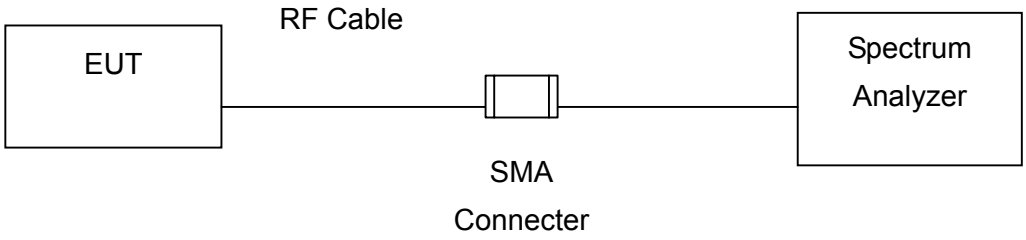
The following test equipment is used during the test:

Peak Power Output / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Power Meter	Agilent	N1911A	MY45101353	2012/12/18
Power Sensor	Agilent	N1921A	MY45241670	2012/12/15

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

3.4. Limits

For frequency hopping systems operating in the 902-928 MHz band: 1 Watt for systems employing at least 50 hopping channels; and, 0.25 Watts for systems employing less than 50 hopping channels.

For frequency hopping systems in the 2400-2483.5 MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1Watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

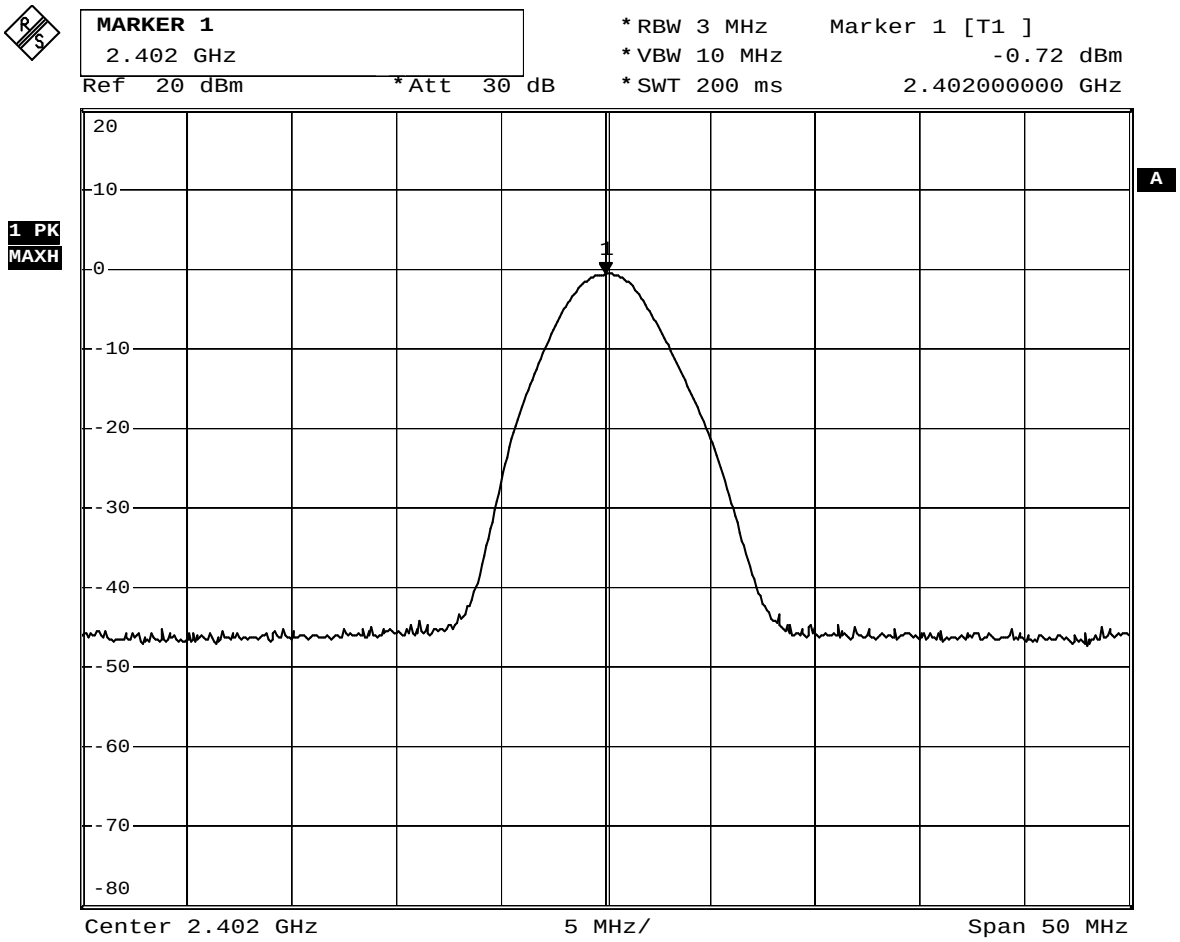
3.6. Test Result

Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	-0.72	1Watt= 30 dBm	Pass

Channel 00



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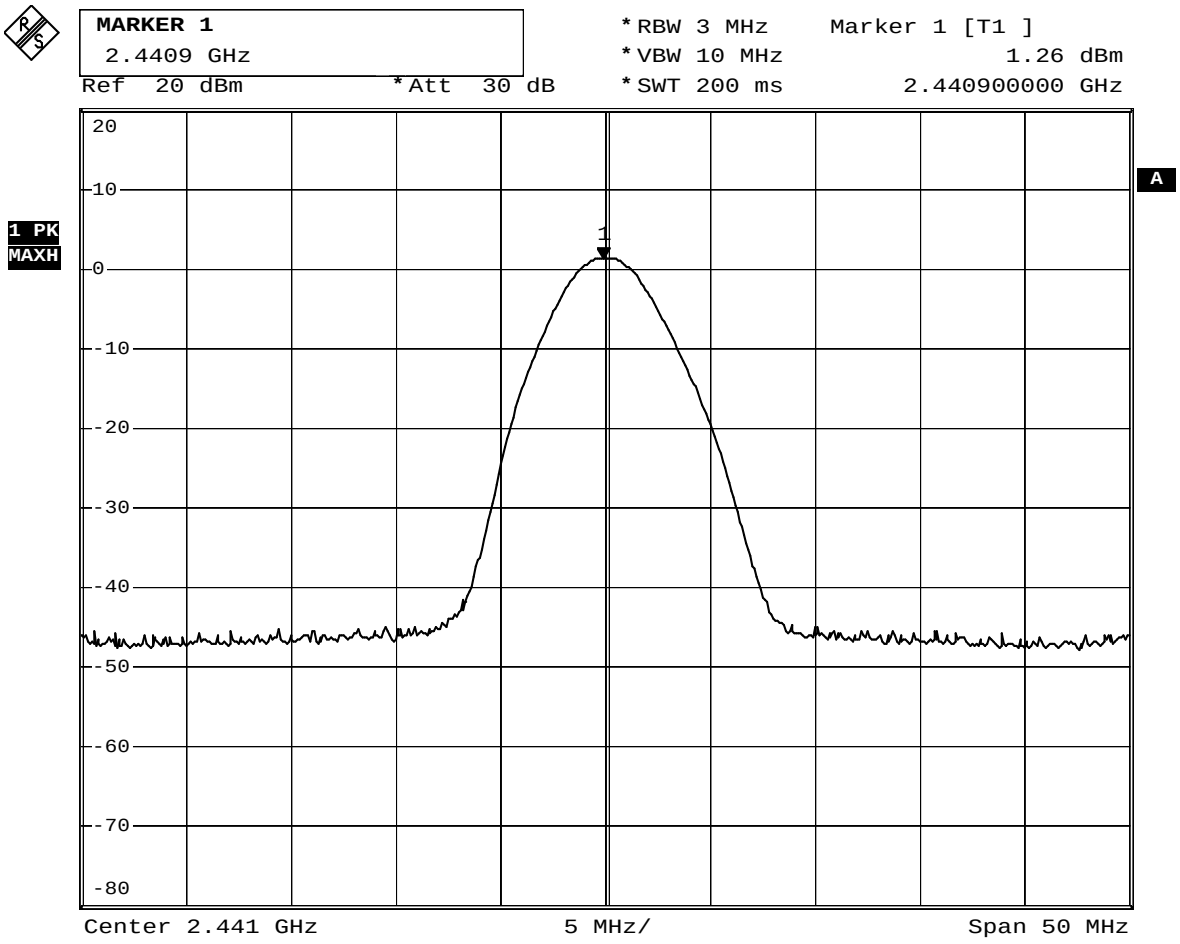
Date: 31.JUL.2012 13:29:08

Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2441	1.26	1Watt= 30 dBm	Pass

Channel 39



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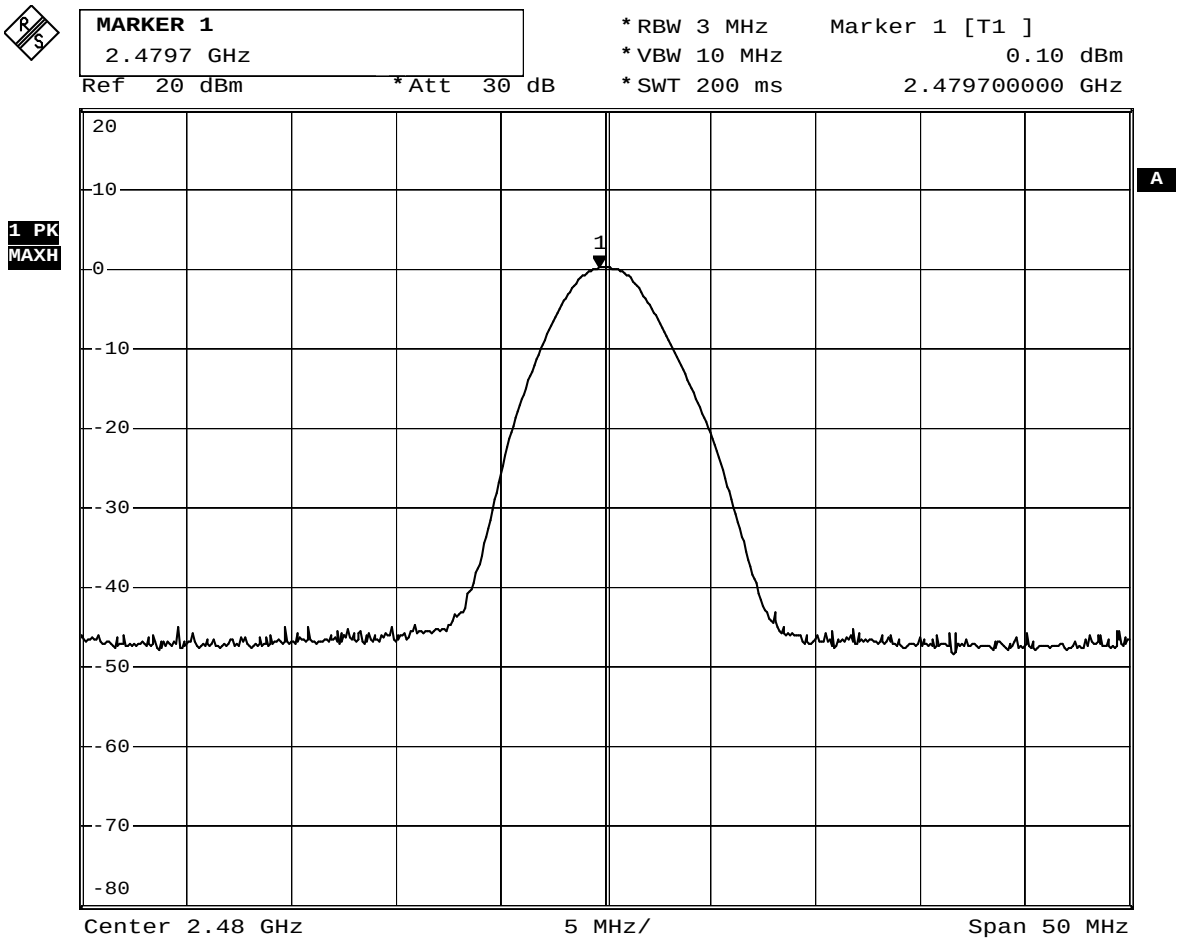
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
78	2480	0.10	1Watt= 30 dBm	Pass

Channel 78



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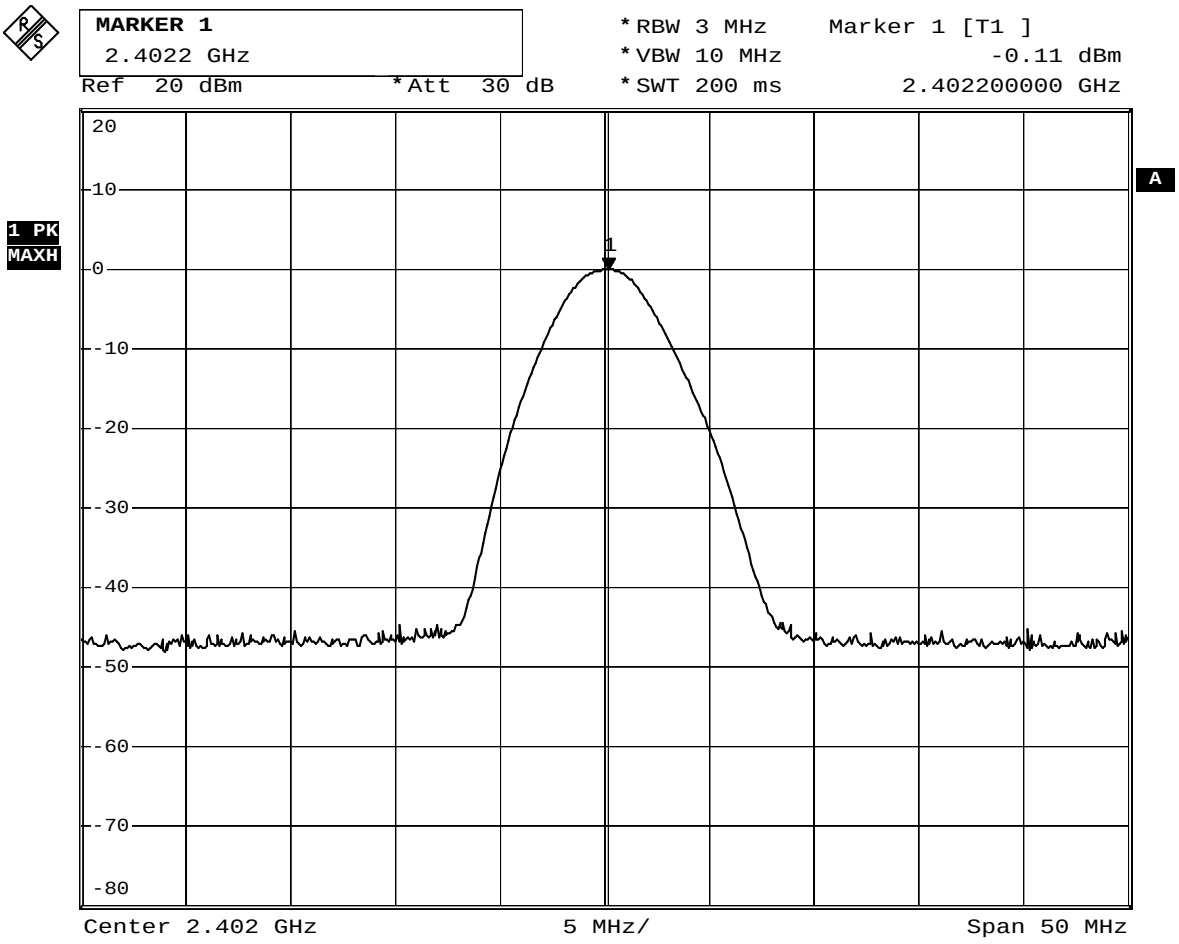
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	-0.11	1Watt= 30 dBm	Pass

Channel 00

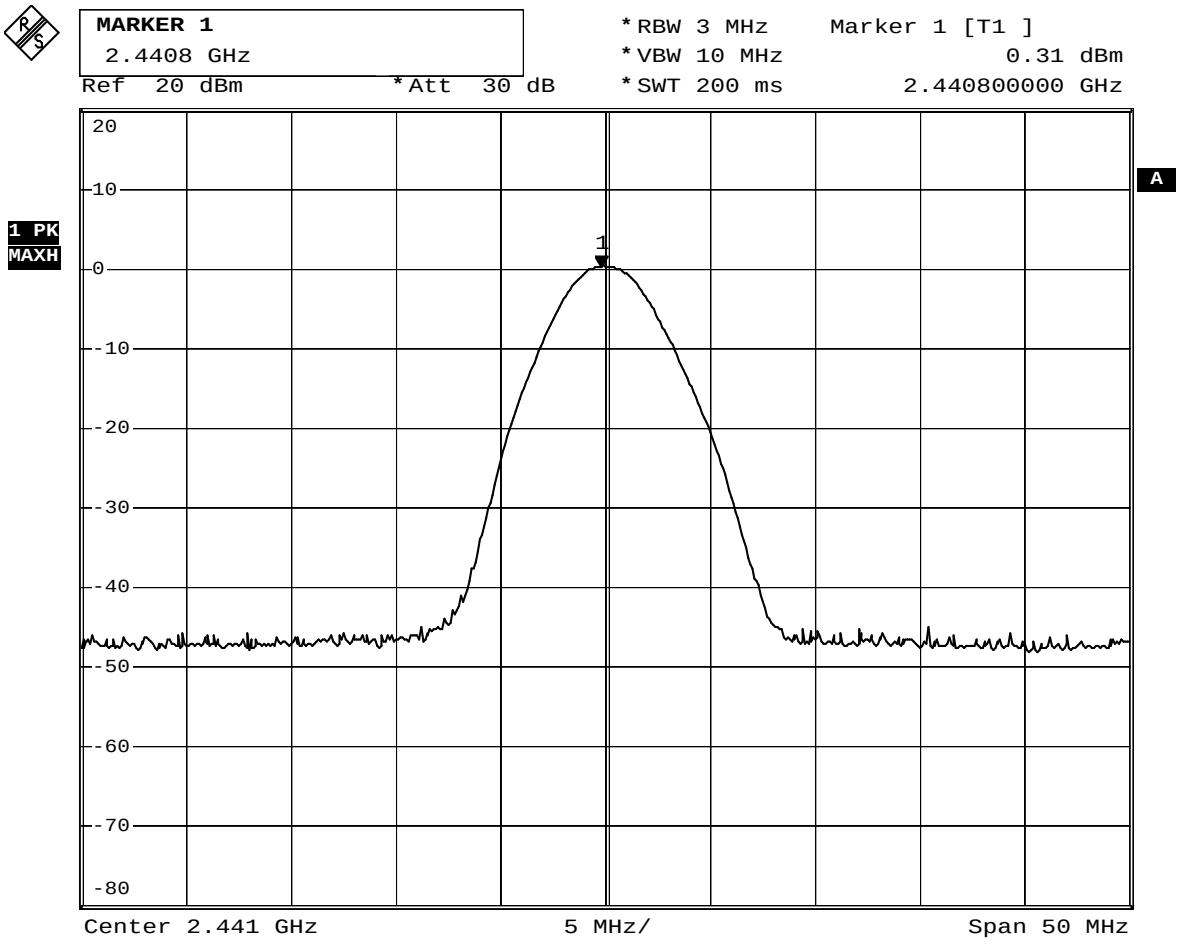


Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2441	0.31	1Watt= 30 dBm	Pass

Channel 39



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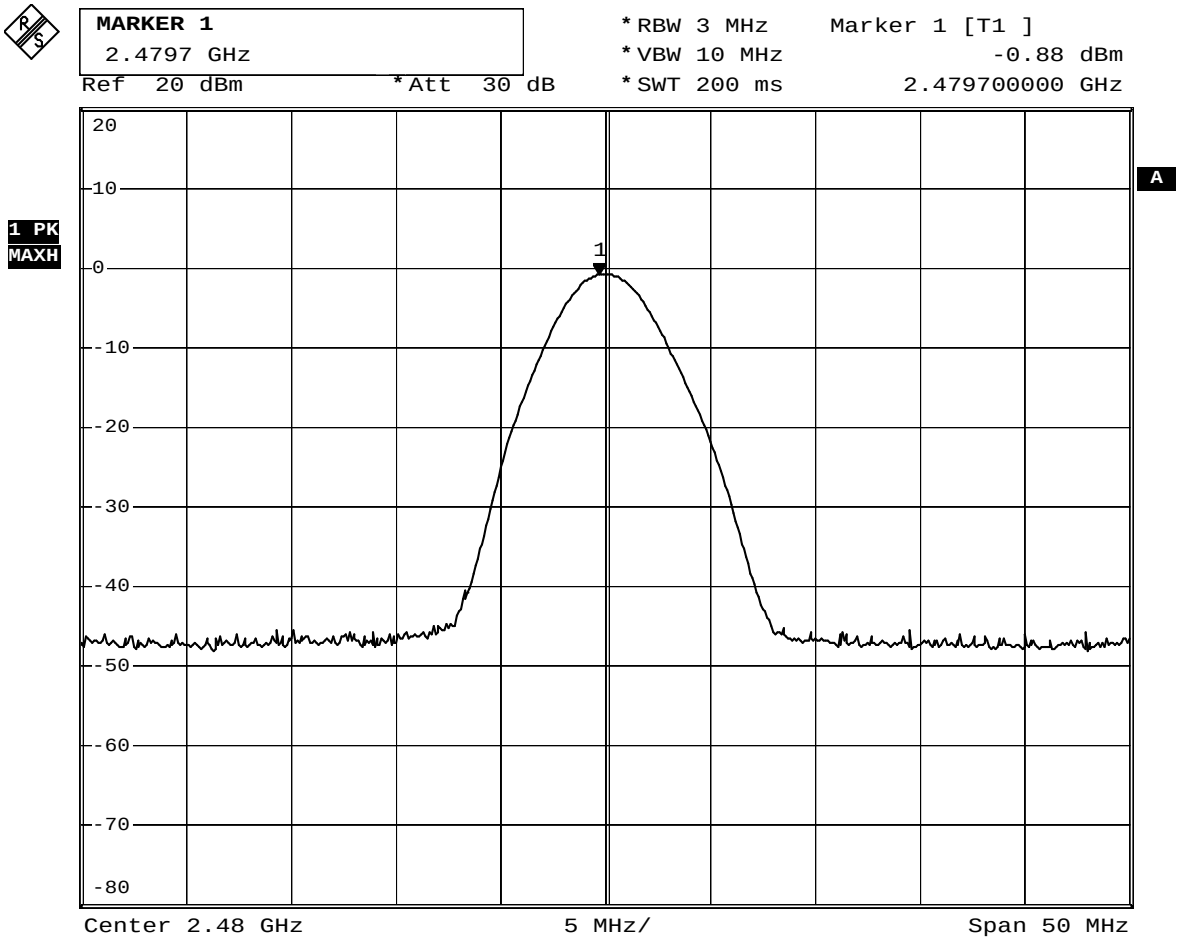
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
78	2480	-0.88	1Watt= 30 dBm	Pass

Channel 78



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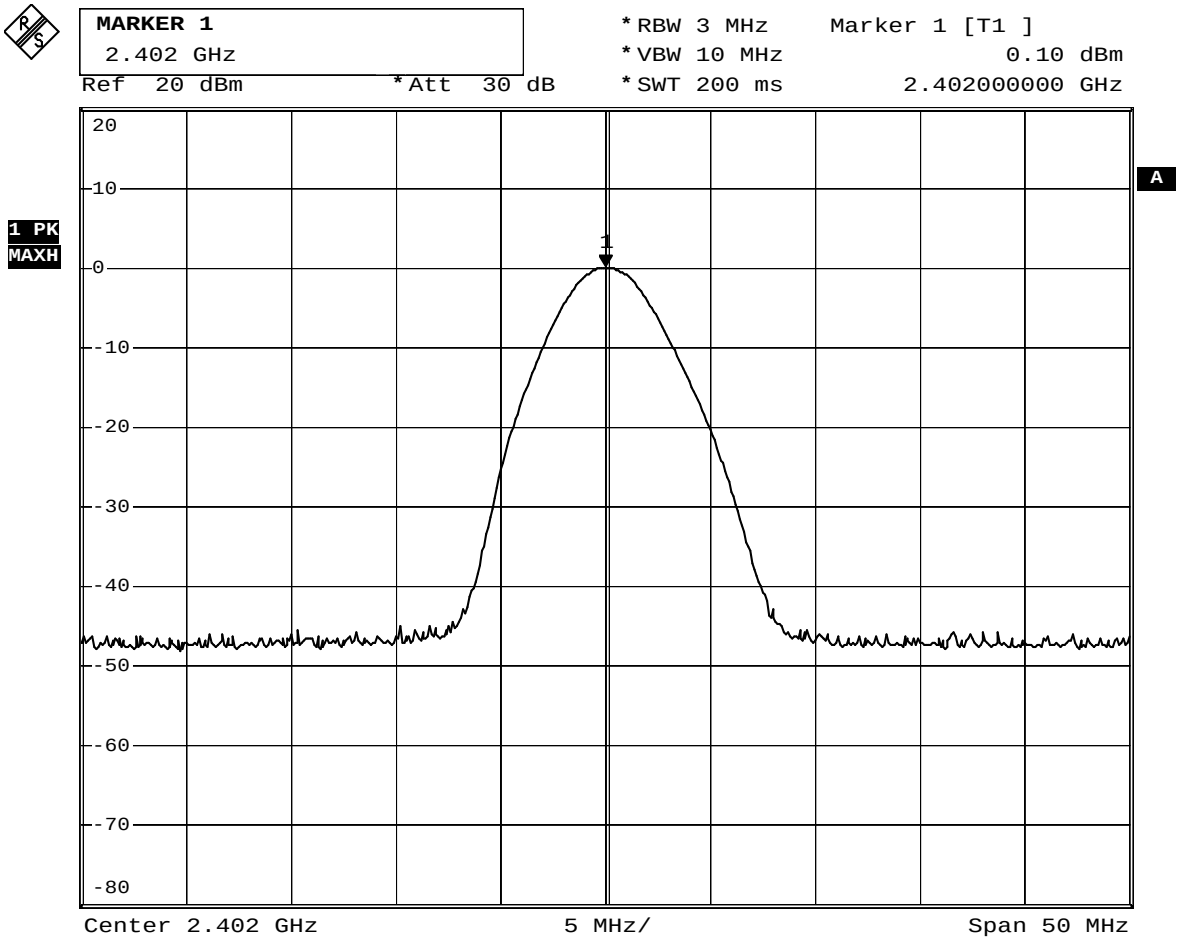
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	0.10	1Watt= 30 dBm	Pass

Channel 00



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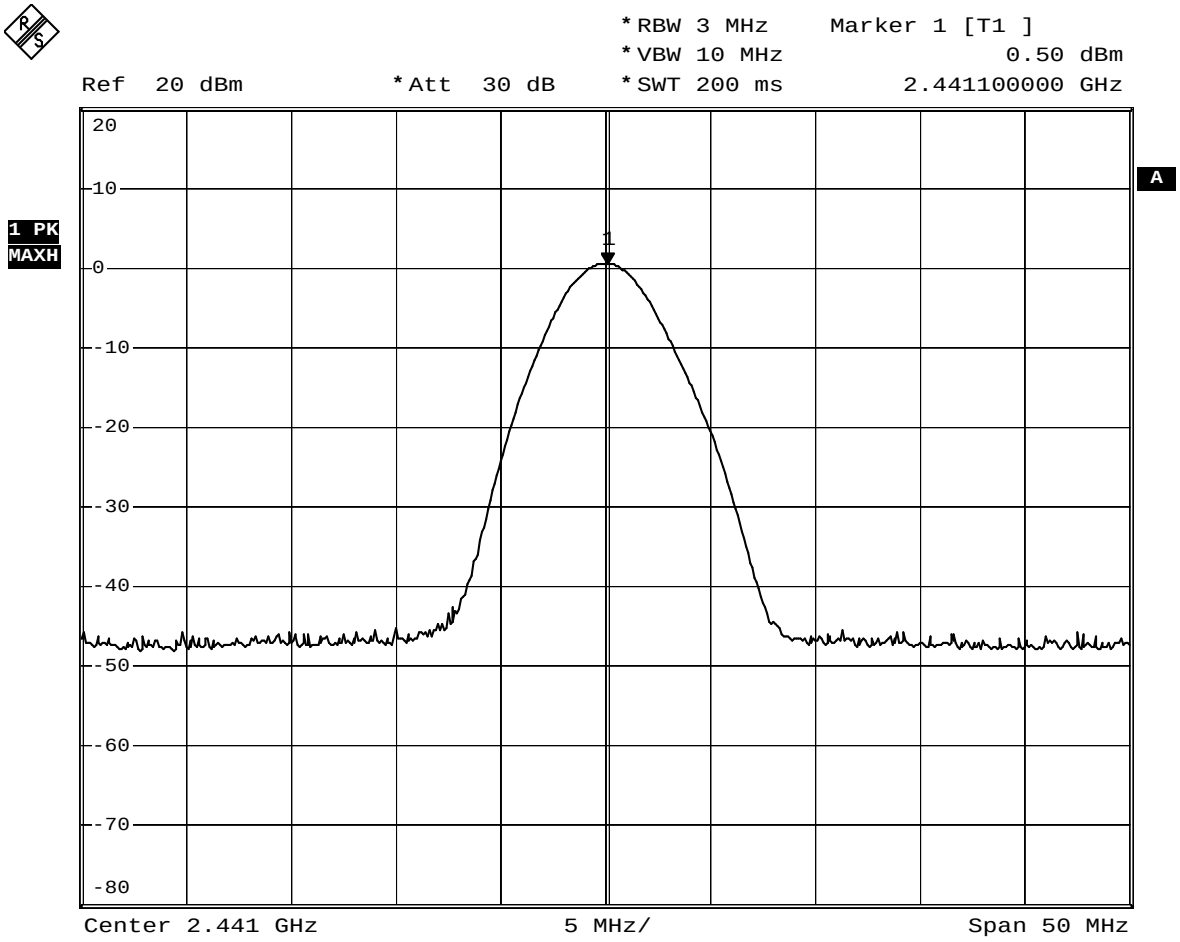
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
39	2441	0.50	1Watt= 30 dBm	Pass

Channel 39



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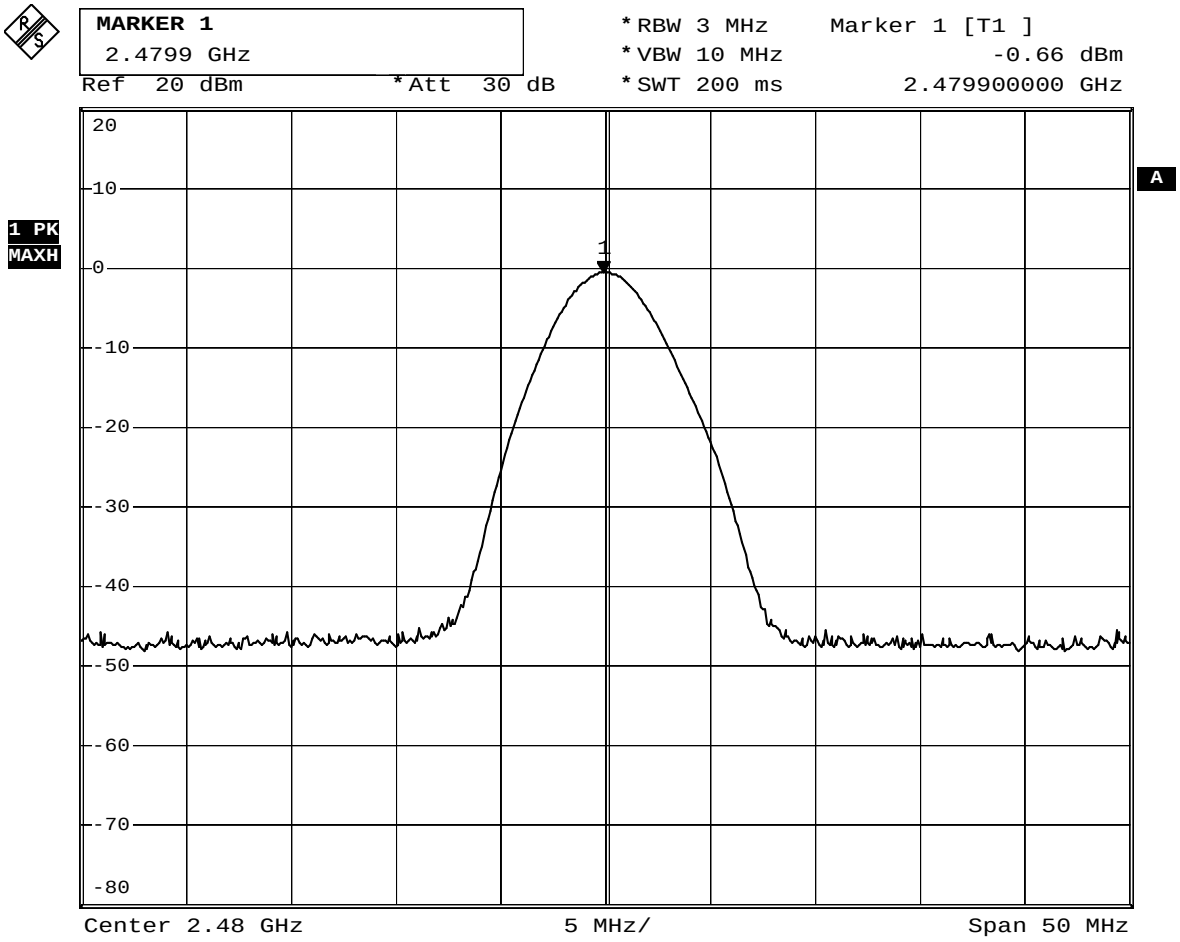
Product	Mophie powerblu		
Test Item	Peak Power Output		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
78	2480	-0.66	1Watt= 30 dBm	Pass

Channel 78



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4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

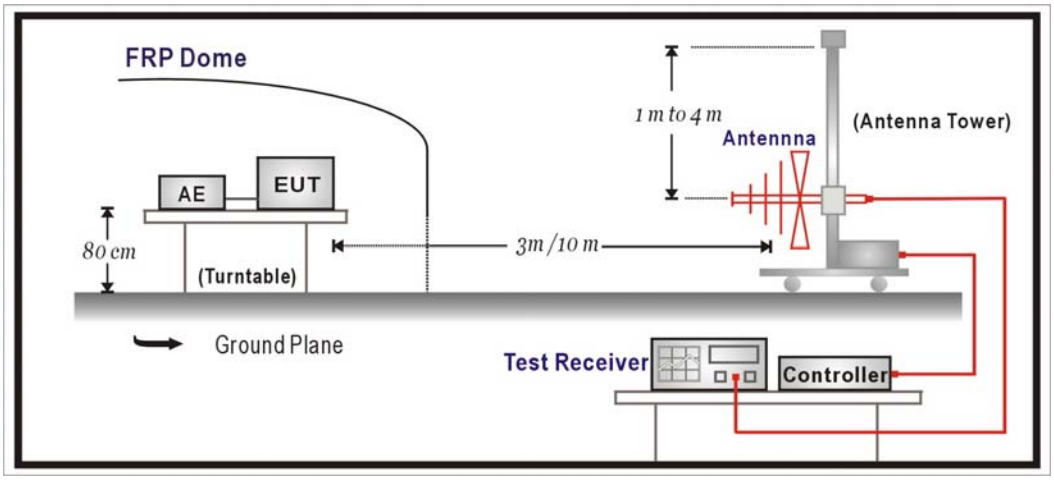
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2013/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2012/12/05
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2013/03/01
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

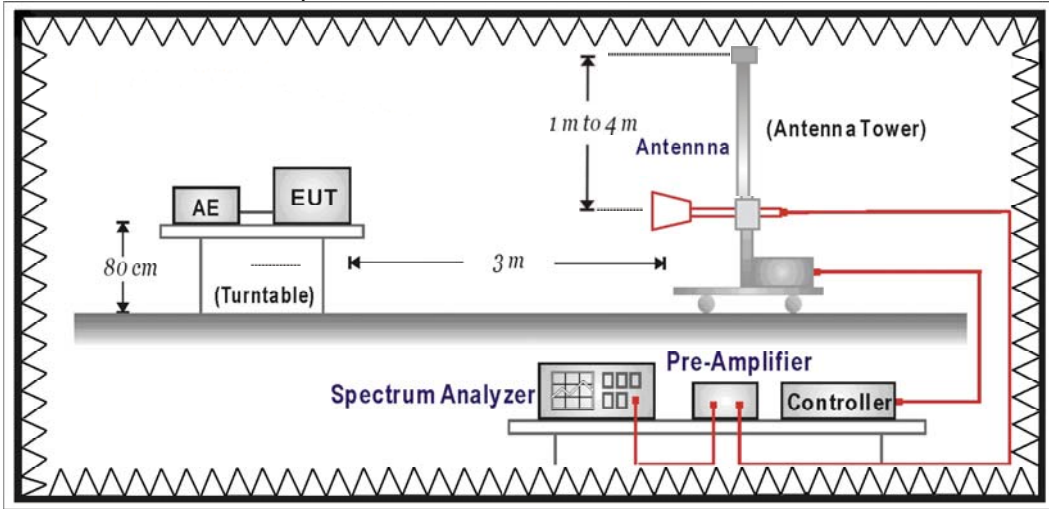
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

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 polarization 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 C63.4:2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

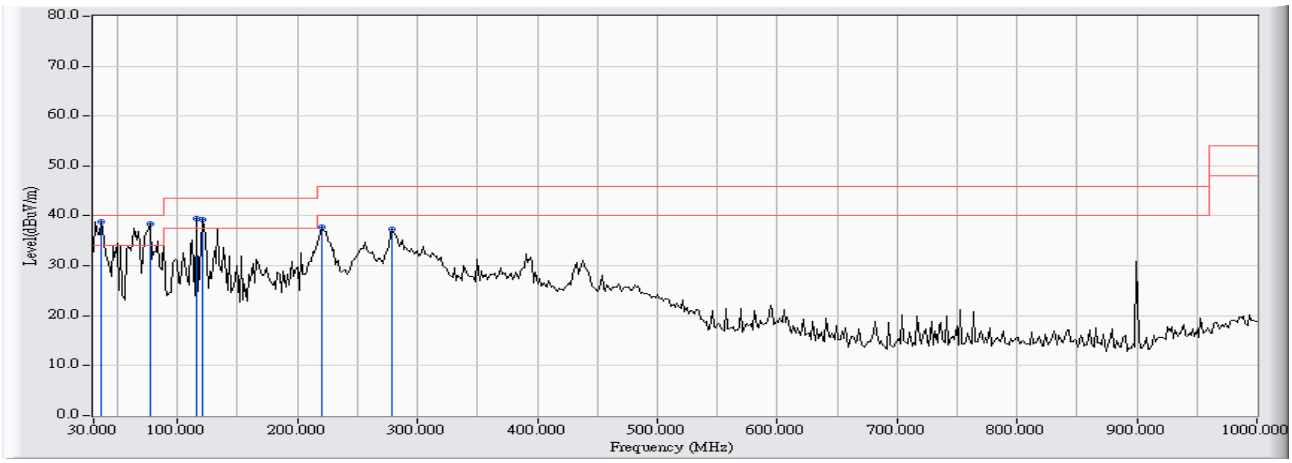
4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

4.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2012/08/09 - 17:48**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) _2441MHz**

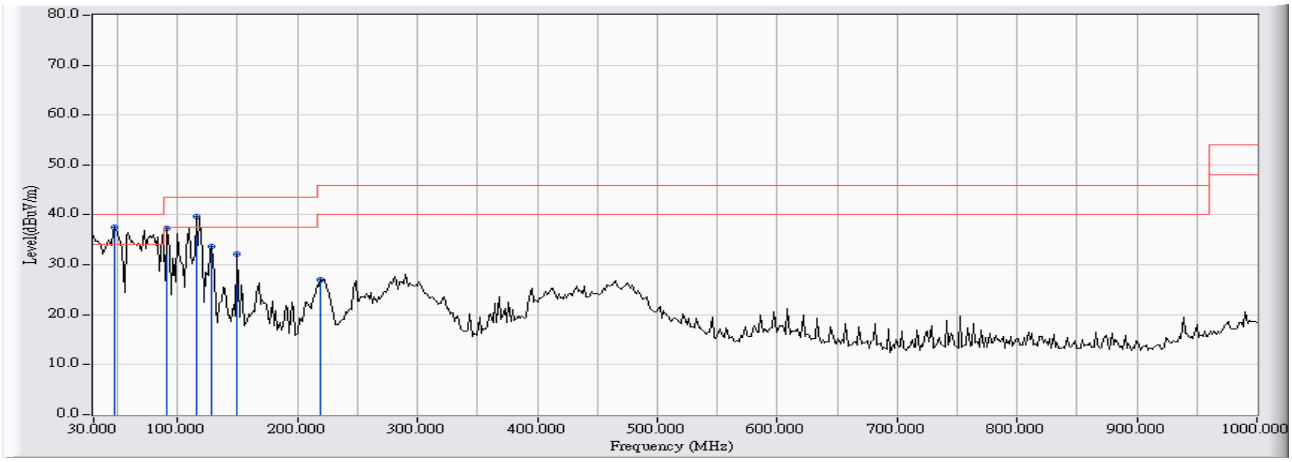


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	36.467	10.716	28.168	38.883	-1.117	40.000	PEAK
2		76.883	-10.690	48.984	38.293	-1.707	40.000	PEAK
3		115.683	-8.660	48.112	39.452	-4.048	43.500	PEAK
4		120.533	-8.631	47.779	39.148	-4.352	43.500	PEAK
5		220.767	-14.687	52.499	37.811	-8.189	46.000	PEAK
6		278.967	-13.762	51.049	37.287	-8.713	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2012/08/09 - 17:54**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) _2441MHz**

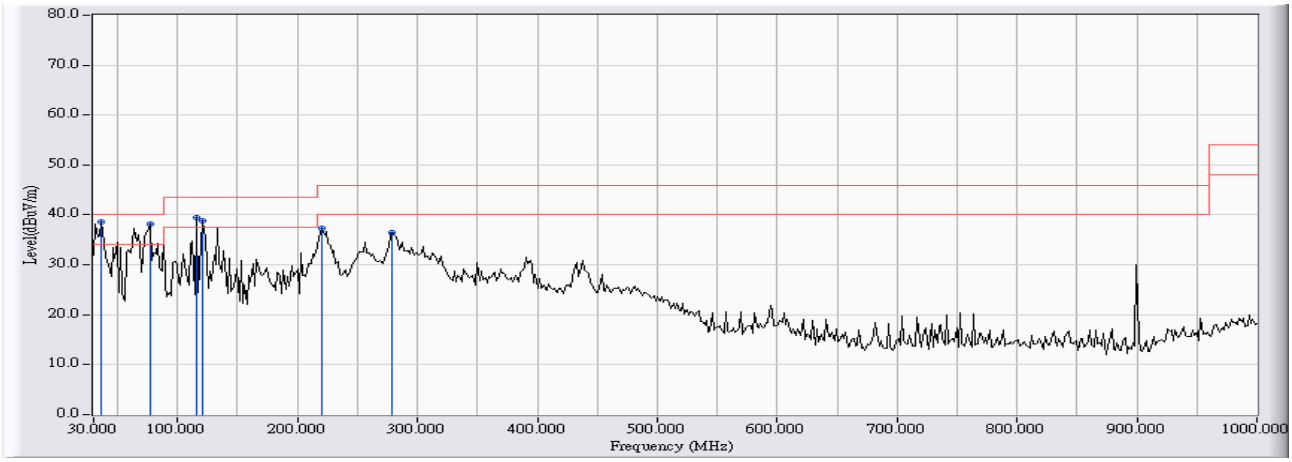


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	47.783	-0.246	37.733	37.487	-2.513	40.000	PEAK
2		91.433	-10.074	47.324	37.251	-6.249	43.500	PEAK
3		115.683	-8.660	48.323	39.663	-3.837	43.500	PEAK
4		128.617	-9.611	43.319	33.708	-9.792	43.500	PEAK
5		149.633	-11.580	43.802	32.222	-11.278	43.500	PEAK
6		219.150	-14.766	41.757	26.990	-19.010	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2012/08/09 - 18:02**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

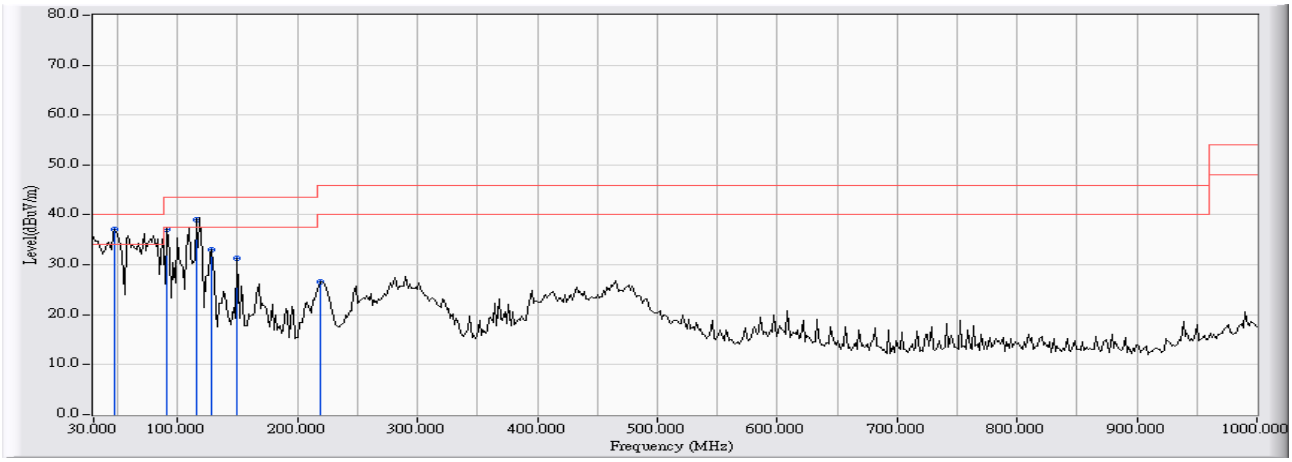


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	36.458	10.716	27.890	38.605	-1.394	40.000	PEAK
2		76.877	-10.690	48.783	38.093	-1.907	40.000	PEAK
3		115.687	-8.660	48.073	39.413	-4.087	43.500	PEAK
4		120.524	-8.631	47.401	38.770	-4.730	43.500	PEAK
5		220.759	-14.687	51.984	37.297	-8.703	46.000	PEAK
6		278.970	-13.762	50.279	36.517	-9.483	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2012/08/09 - 18:10**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

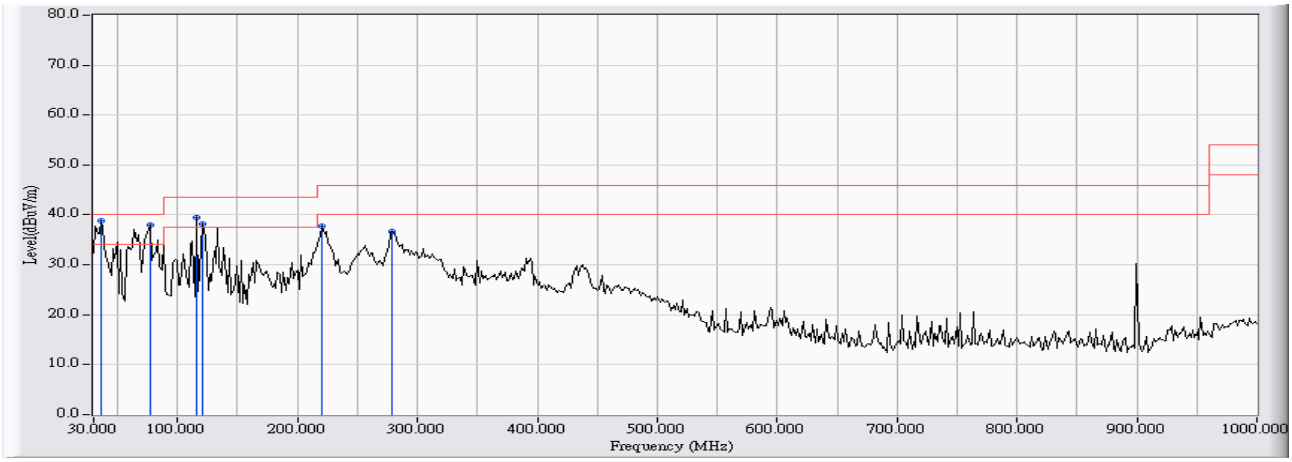


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	47.778	-0.246	37.350	37.104	-2.896	40.000	PEAK
2		91.428	-10.074	47.259	37.185	-6.315	43.500	PEAK
3		115.675	-8.660	47.785	39.125	-4.375	43.500	PEAK
4		128.621	-9.611	42.608	32.997	-10.503	43.500	PEAK
5		149.634	-11.580	42.947	31.367	-12.133	43.500	PEAK
6		219.153	-14.766	41.323	26.557	-19.443	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2012/08/09 - 18:16**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**

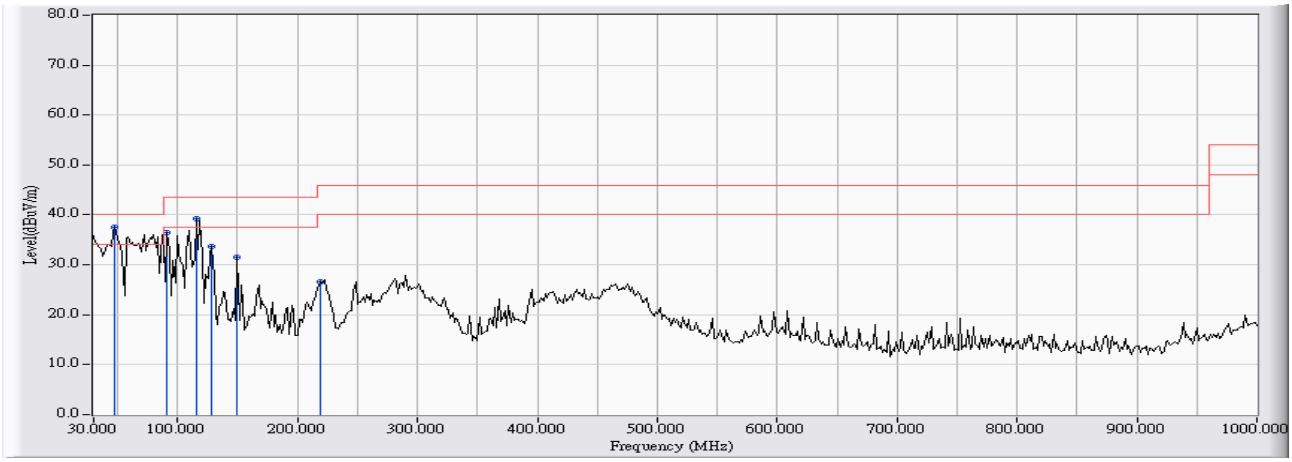


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	36.467	10.716	28.008	38.724	-1.276	40.000	PEAK
2		76.886	-10.690	48.584	37.894	-2.106	40.000	PEAK
3		115.686	-8.660	48.072	39.412	-4.088	43.500	PEAK
4		120.526	-8.631	46.827	38.196	-5.304	43.500	PEAK
5		220.770	-14.687	52.418	37.731	-8.269	46.000	PEAK
6		278.968	-13.762	50.487	36.725	-9.275	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	**Time : 2012/08/09 - 18:22**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**



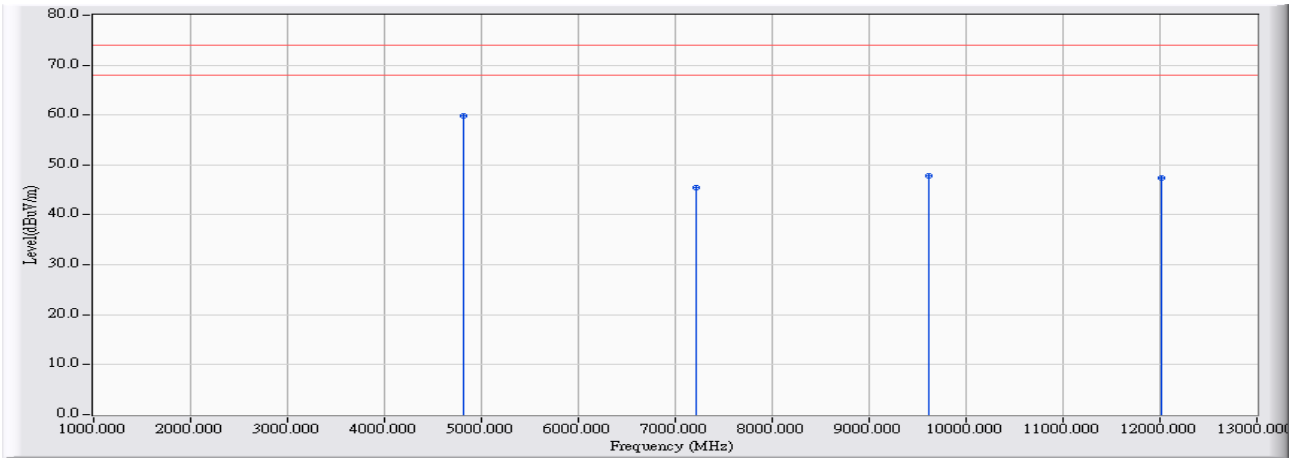
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	47.776	-0.246	37.716	37.470	-2.530	40.000	PEAK
2		91.437	-10.074	46.454	36.380	-7.120	43.500	PEAK
3		115.685	-8.660	47.973	39.313	-4.187	43.500	PEAK
4		128.617	-9.611	43.196	33.585	-9.915	43.500	PEAK
5		149.624	-11.580	43.145	31.565	-11.935	43.500	PEAK
6		219.153	-14.766	41.283	26.517	-19.483	46.000	PEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Harmonic & Spurious:

Site : CB1	**Time : 2012/08/09 - 15:47**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2402MHz**

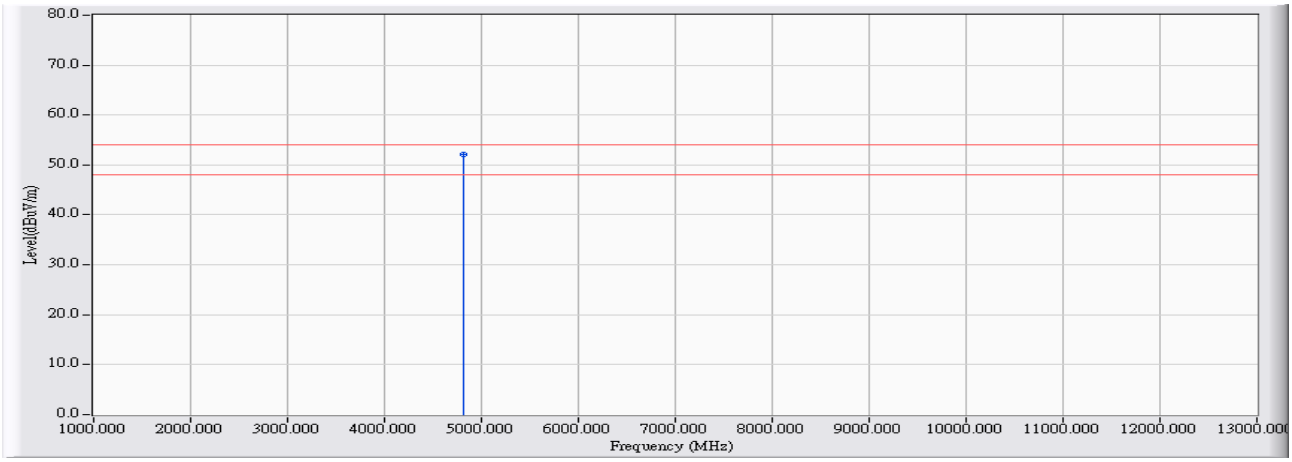


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.010	1.784	57.950	59.734	-14.266	74.000	PEAK
2		7210.980	8.410	37.160	45.570	-28.430	74.000	PEAK
3		9617.230	10.251	37.500	47.751	-26.249	74.000	PEAK
4		12018.300	10.088	37.270	47.358	-26.642	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 15:47**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2402MHz**

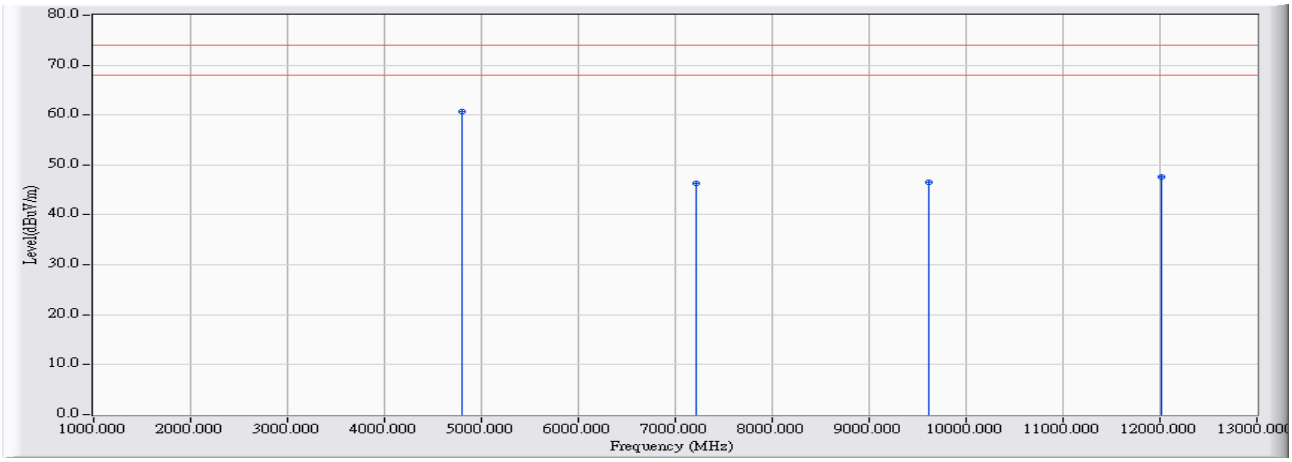


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.080	1.784	50.272	52.057	-1.943	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 15:51**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2402MHz**

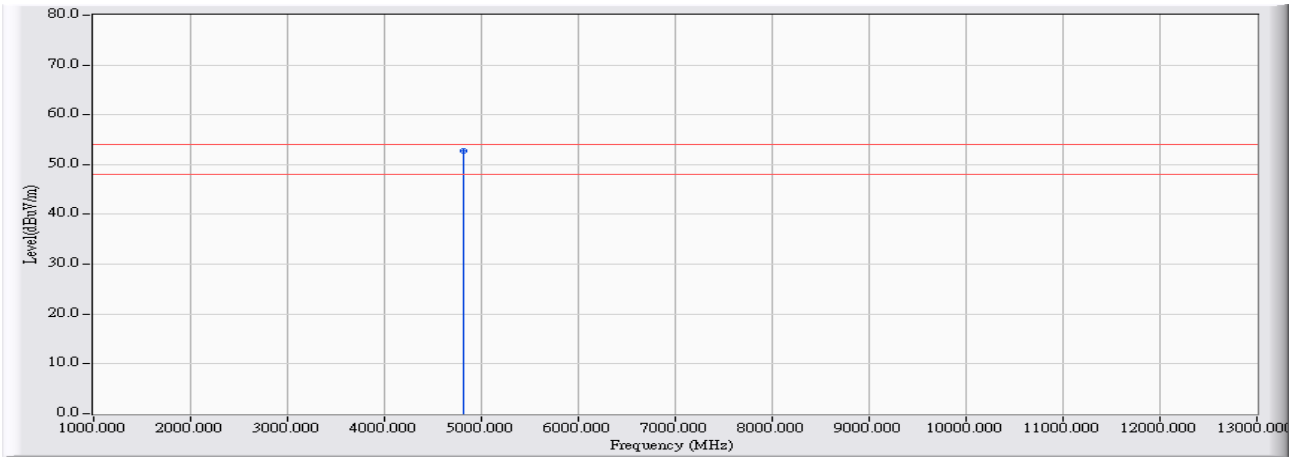


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4807.660	1.782	58.970	60.752	-13.248	74.000	PEAK
2		7210.430	8.408	37.940	46.348	-27.652	74.000	PEAK
3		9614.417	10.244	36.210	46.454	-27.546	74.000	PEAK
4		12022.117	10.120	37.590	47.709	-26.291	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 15:51**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2402MHz**

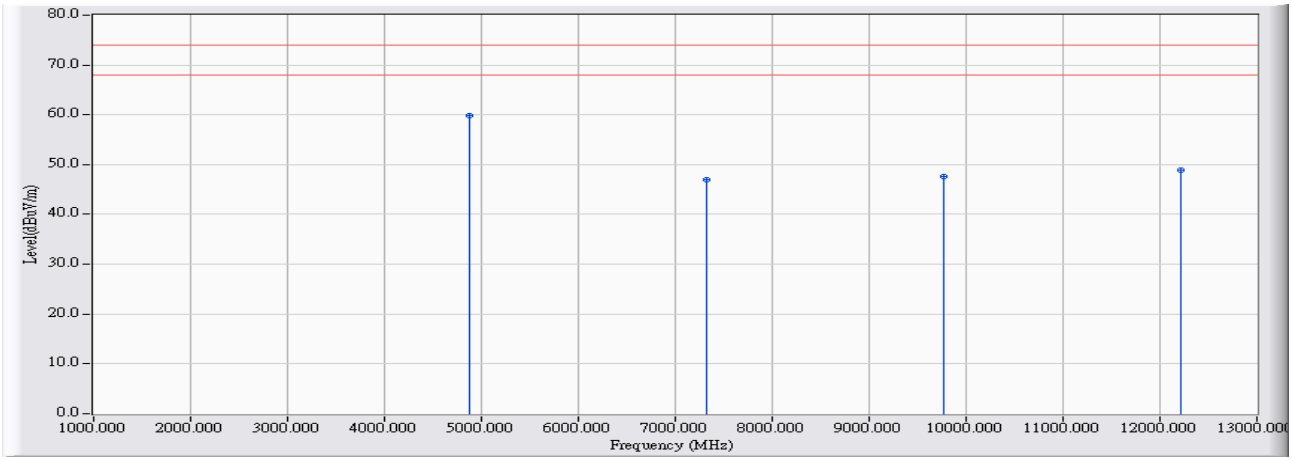


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.080	1.784	50.880	52.665	-1.335	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 15:57**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2441MHz**

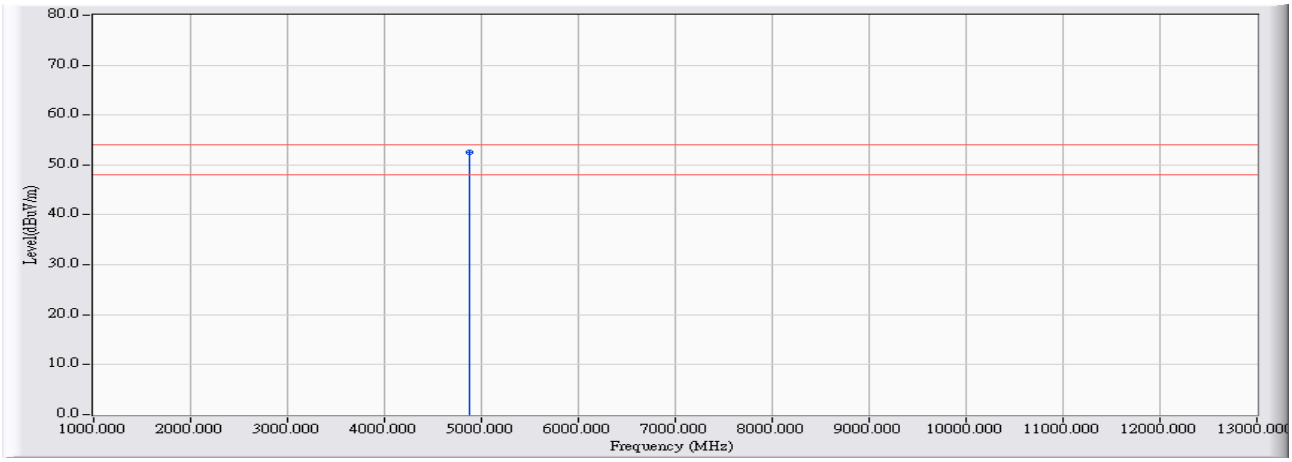


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.000	2.240	57.520	59.759	-14.241	74.000	PEAK
2		7326.000	8.719	38.190	46.909	-27.091	74.000	PEAK
3		9768.000	10.593	36.950	47.543	-26.457	74.000	PEAK
4		12210.000	11.640	37.270	48.910	-25.090	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 15:57**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2441MHz**

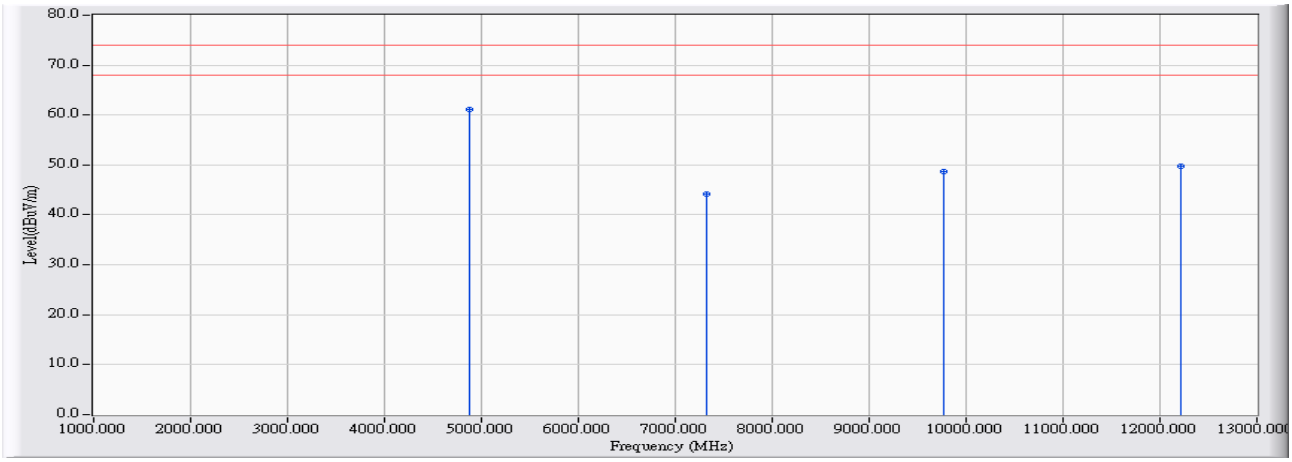


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.000	2.240	50.350	52.589	-1.411	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:02**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2441MHz**

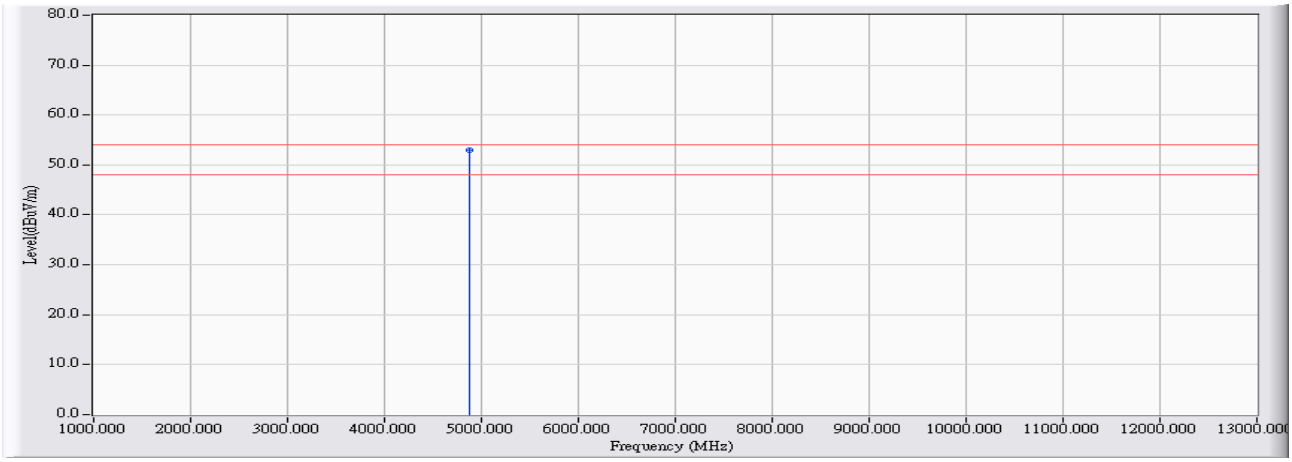


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.000	2.240	58.810	61.049	-12.951	74.000	PEAK
2		7326.000	8.719	35.470	44.189	-29.811	74.000	PEAK
3		9768.000	10.593	38.050	48.643	-25.357	74.000	PEAK
4		12210.000	11.640	38.150	49.790	-24.210	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:02**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2441MHz**

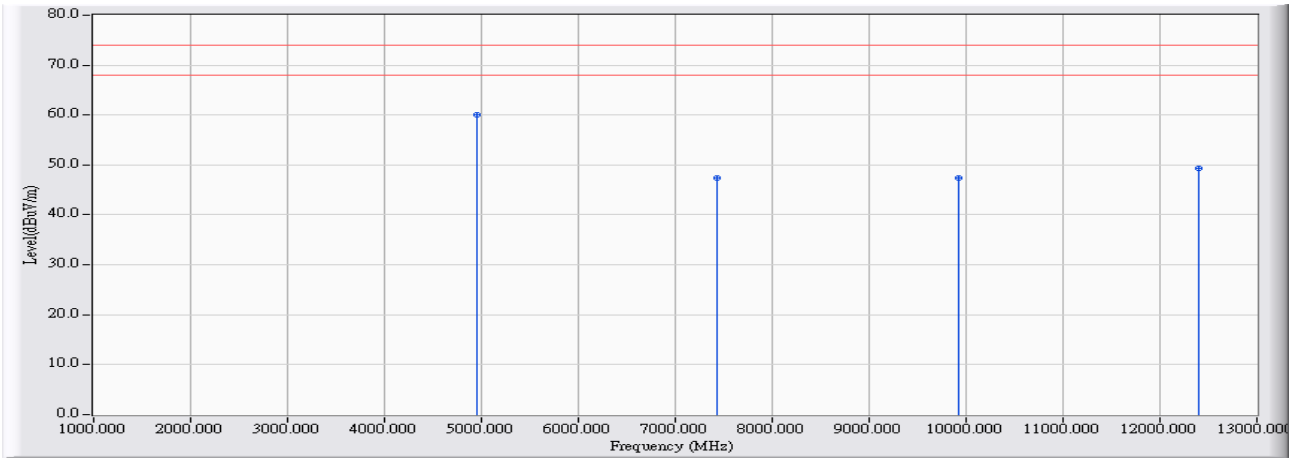


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.000	2.240	50.820	53.059	-0.941	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:14**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2480MHz**

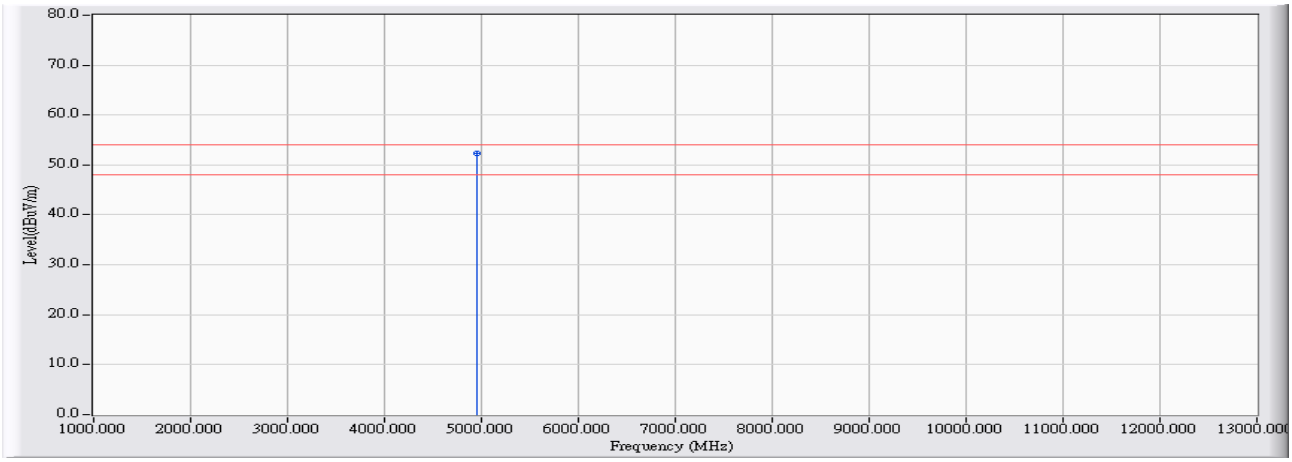


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.710	2.614	57.510	60.124	-13.876	74.000	PEAK
2		7435.850	9.178	38.180	47.358	-26.642	74.000	PEAK
3		9924.710	10.978	36.340	47.318	-26.682	74.000	PEAK
4		12396.060	12.914	36.390	49.305	-24.695	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:15**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2480MHz**

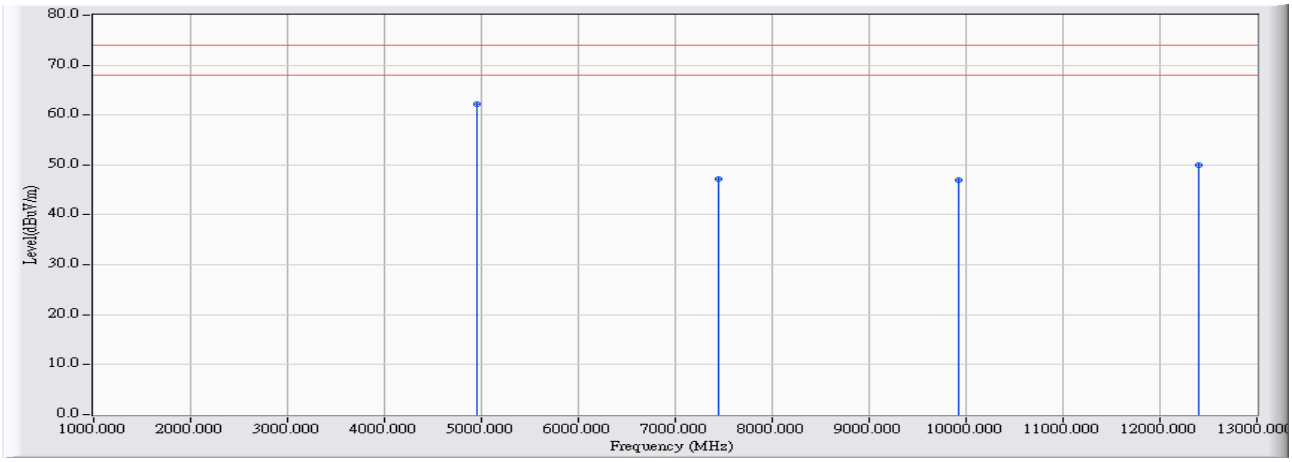


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.050	2.615	49.670	52.285	-1.715	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:19**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2480MHz**

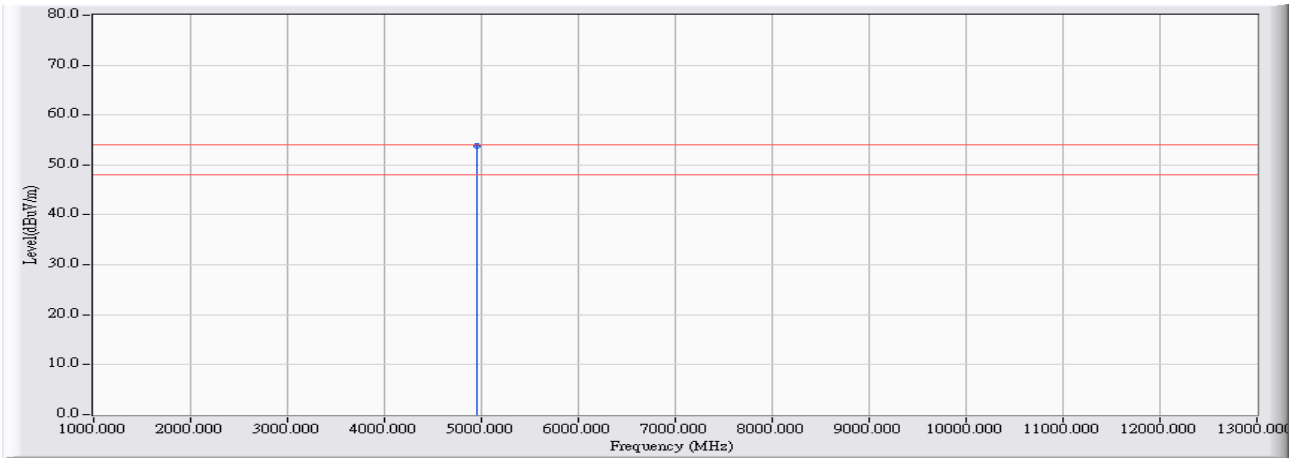


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4959.667	2.614	59.500	62.113	-11.887	74.000	PEAK
2		7440.530	9.200	38.000	47.200	-26.800	74.000	PEAK
3		9920.000	10.965	36.020	46.986	-27.014	74.000	PEAK
4		12399.600	12.935	37.120	50.055	-23.945	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:19**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK)_2480MHz**

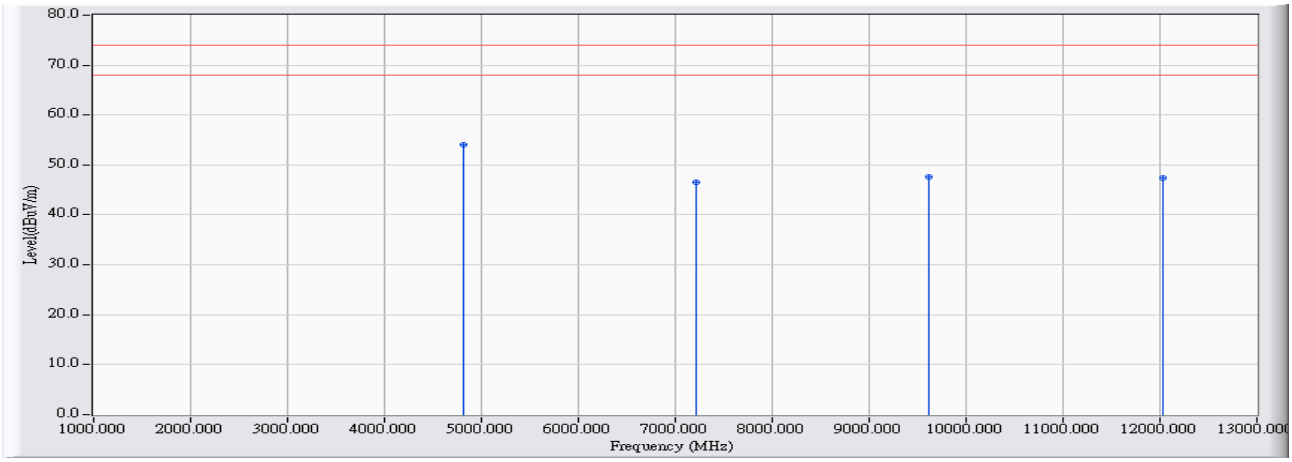


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.000	2.615	51.250	53.865	-0.135	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:24**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2402MHz**

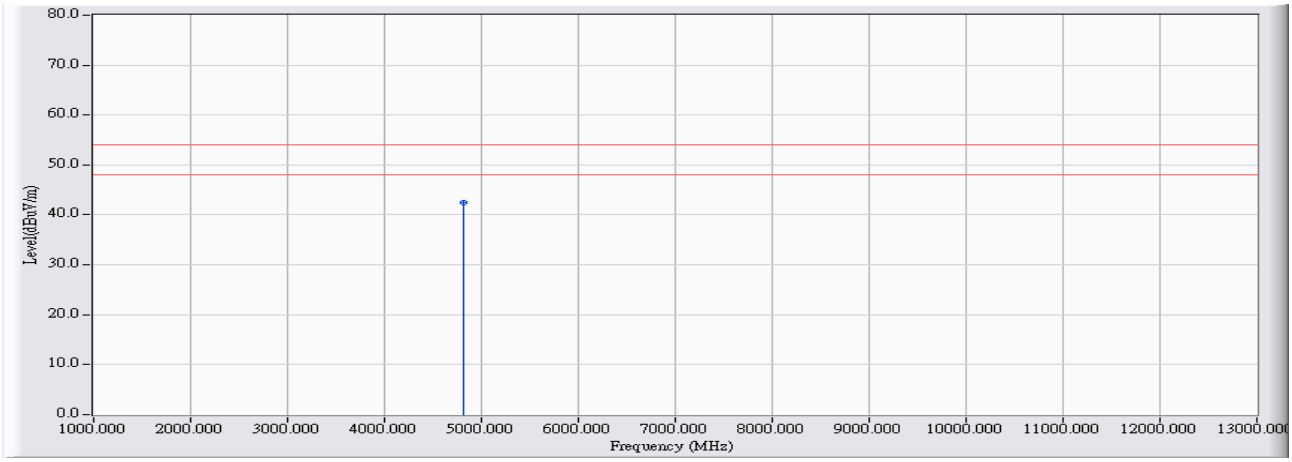


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.000	1.784	52.360	54.144	-19.856	74.000	PEAK
2		7211.000	8.410	38.150	46.560	-27.440	74.000	PEAK
3		9614.667	10.245	37.330	47.575	-26.425	74.000	PEAK
4		12024.550	10.139	37.300	47.439	-26.561	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:25**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2402MHz**

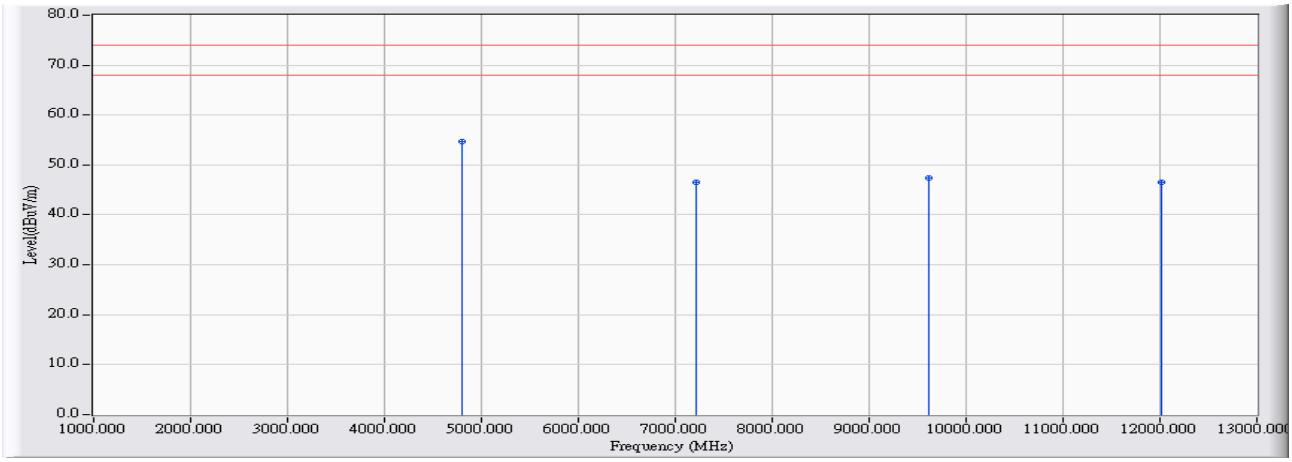


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.080	1.784	40.781	42.566	-11.434	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:28**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2402MHz**

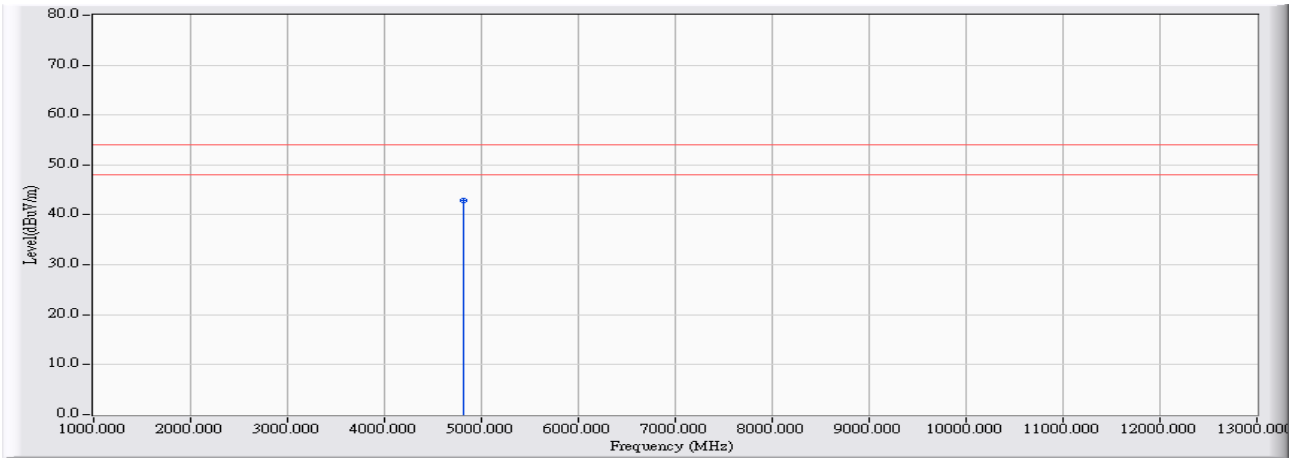


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4807.650	1.782	52.830	54.612	-19.388	74.000	PEAK
2		7209.000	8.404	38.030	46.435	-27.565	74.000	PEAK
3		9619.600	10.256	37.090	47.346	-26.654	74.000	PEAK
4		12018.960	10.094	36.410	46.504	-27.496	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:29**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2402MHz**

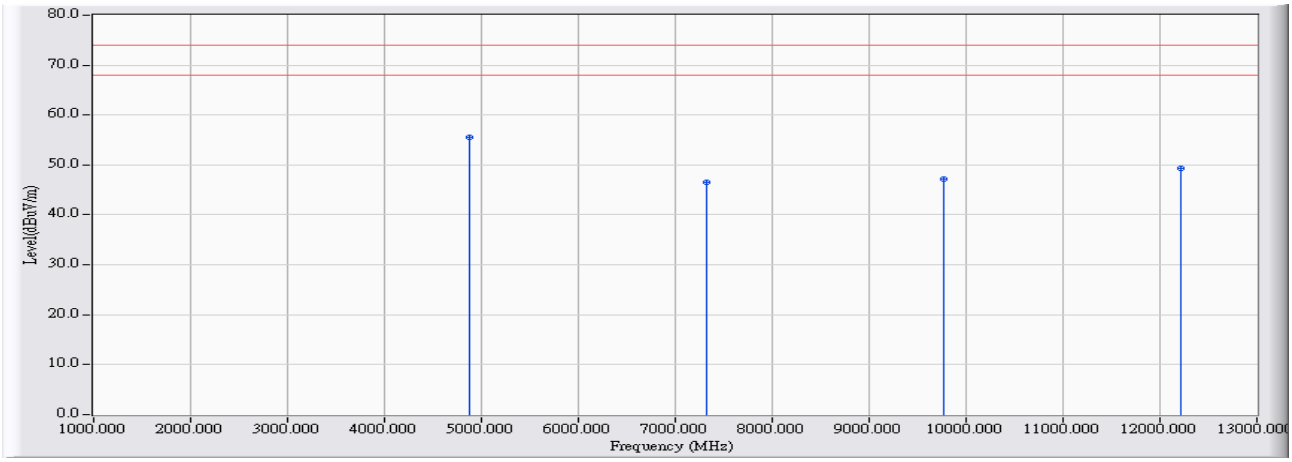


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.000	1.784	41.200	42.984	-11.016	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:32**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

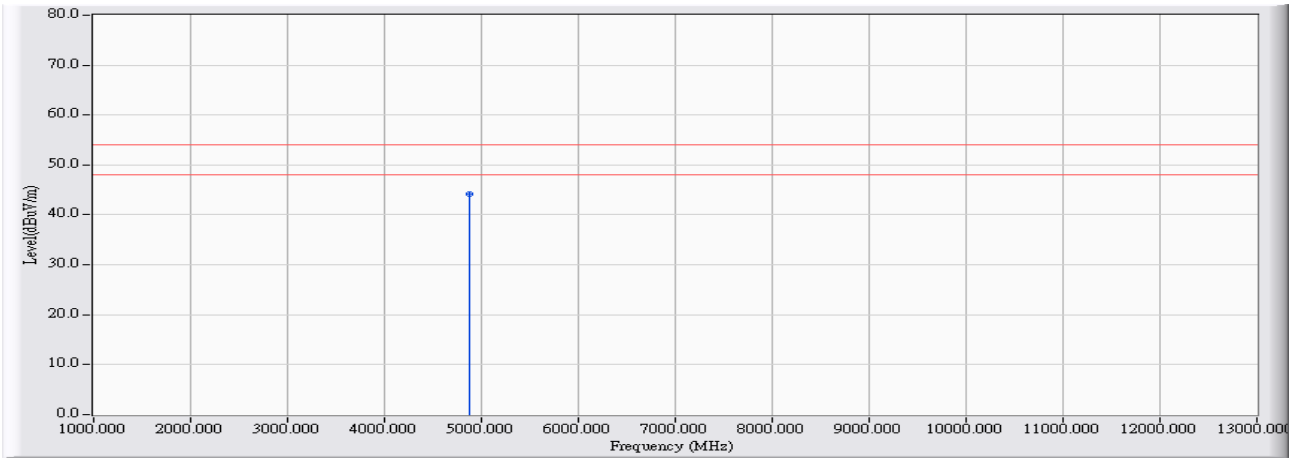


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4883.810	2.238	53.360	55.598	-18.402	74.000	PEAK
2		7322.800	8.710	37.760	46.470	-27.530	74.000	PEAK
3		9771.500	10.601	36.590	47.191	-26.809	74.000	PEAK
4		12213.730	11.670	37.640	49.310	-24.690	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:33**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

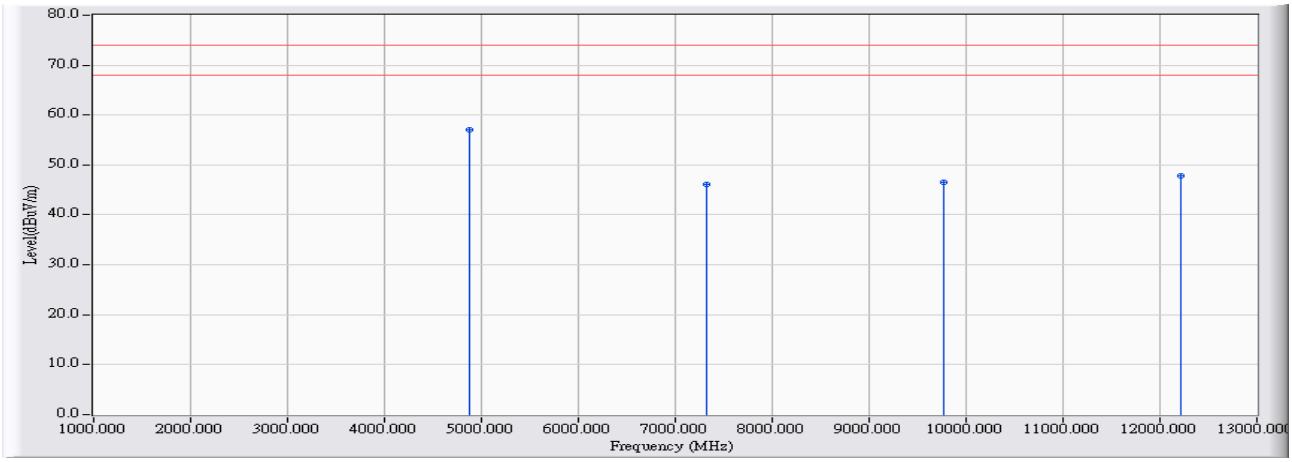


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.000	2.240	41.910	44.149	-9.851	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:36**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

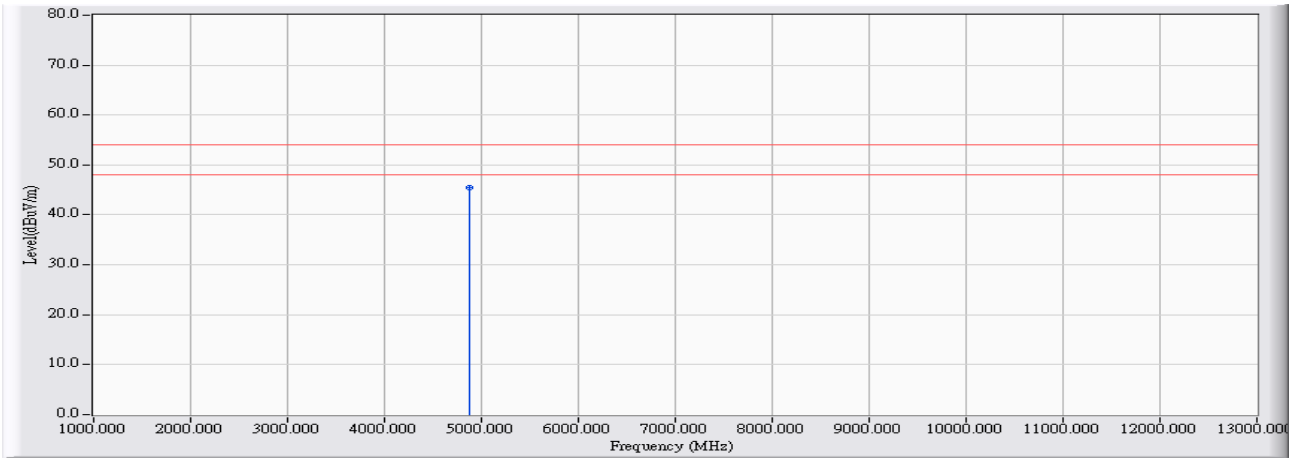


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.300	2.241	54.910	57.151	-16.849	74.000	PEAK
2		7321.200	8.705	37.500	46.206	-27.794	74.000	PEAK
3		9768.760	10.596	36.030	46.625	-27.375	74.000	PEAK
4		12211.050	11.648	36.140	47.788	-26.212	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:37**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2441MHz**

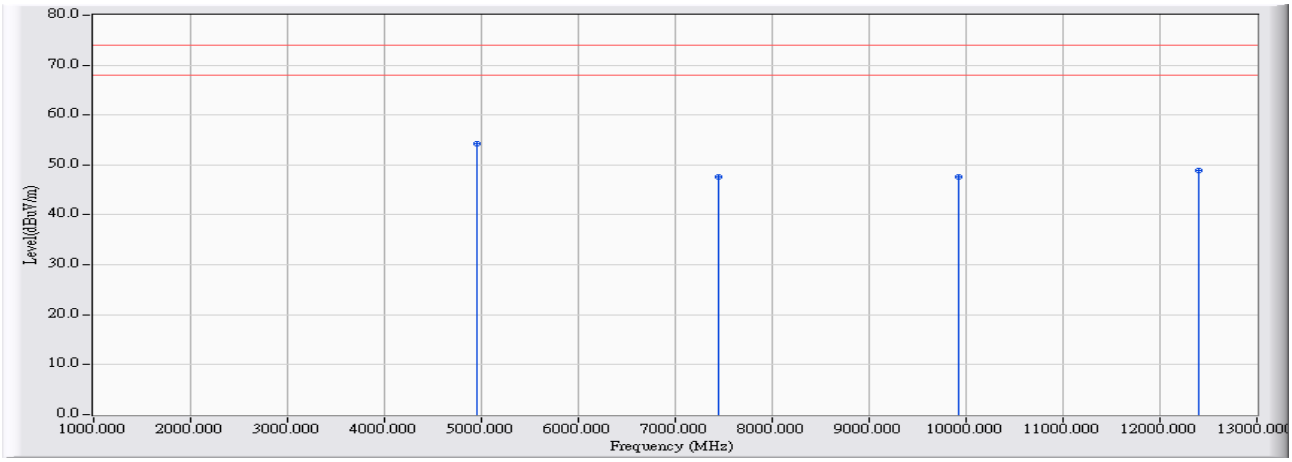


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.050	2.240	43.185	45.425	-8.575	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:41**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2480MHz**

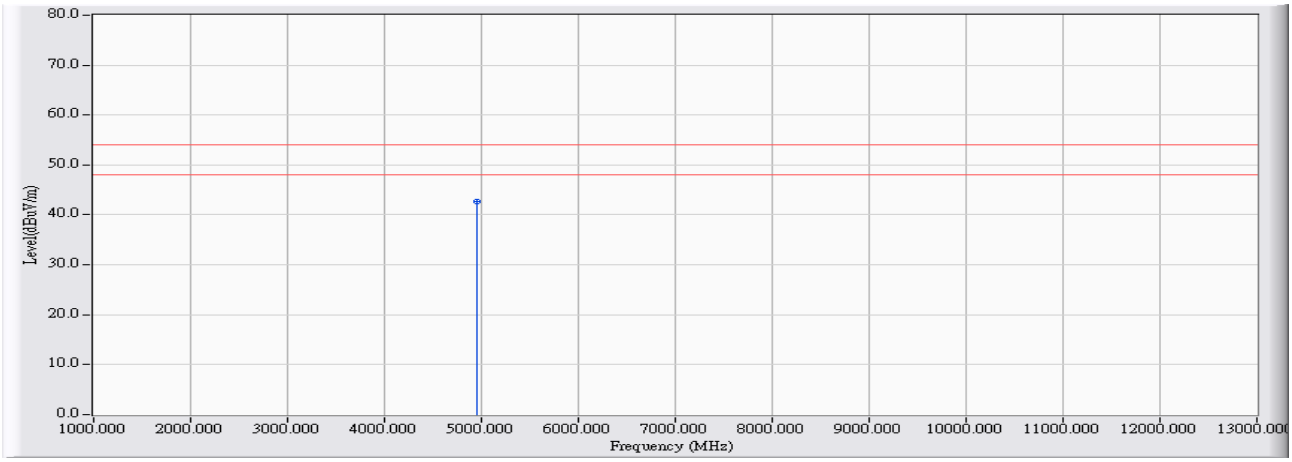


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.030	2.615	51.580	54.195	-19.805	74.000	PEAK
2		7440.483	9.200	38.370	47.570	-26.430	74.000	PEAK
3		9924.000	10.976	36.580	47.556	-26.444	74.000	PEAK
4		12404.717	12.966	35.880	48.845	-25.155	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:42**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2480MHz**

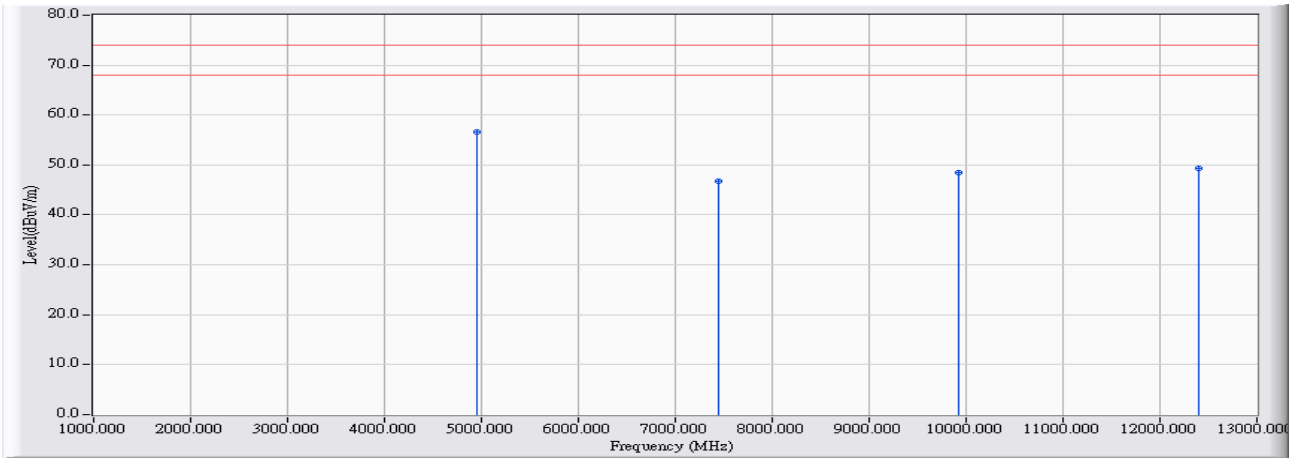


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.060	2.615	40.060	42.675	-11.325	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:48**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2480MHz**

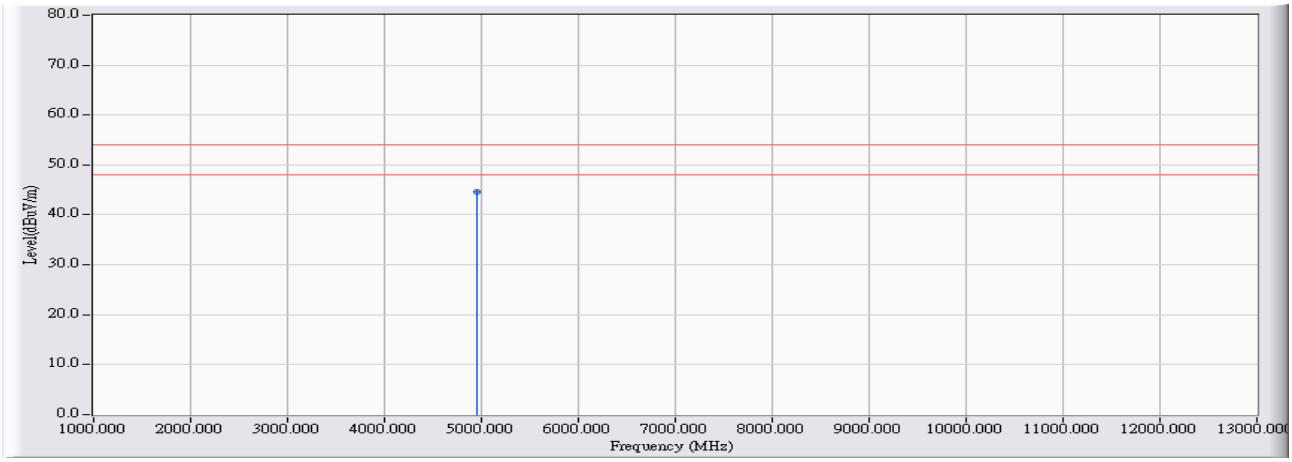


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.117	2.615	53.980	56.596	-17.404	74.000	PEAK
2		7440.000	9.198	37.560	46.758	-27.242	74.000	PEAK
3		9920.000	10.965	37.450	48.416	-25.584	74.000	PEAK
4		12400.000	12.938	36.480	49.418	-24.582	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:49**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK)_2480MHz**

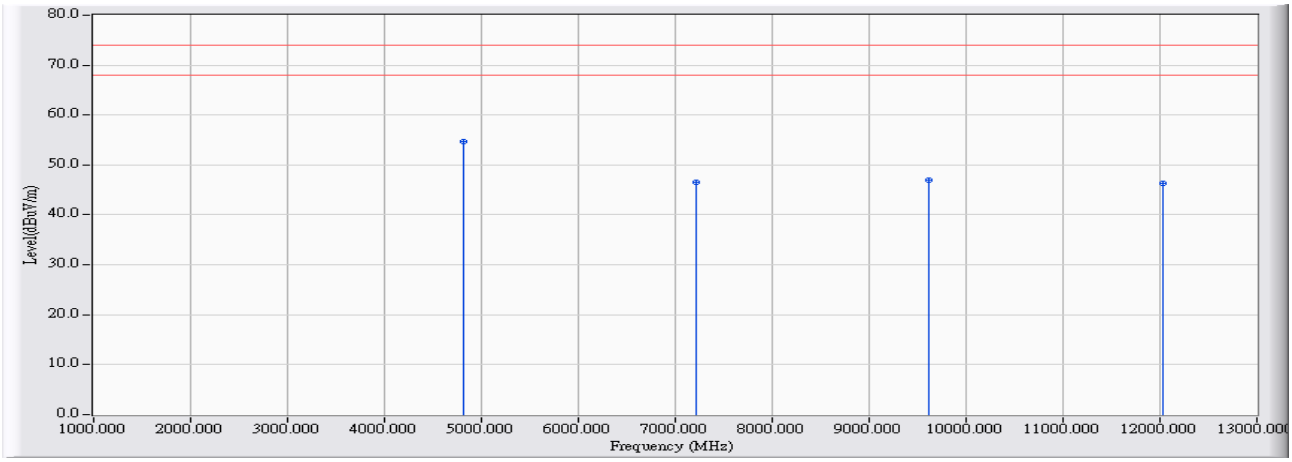


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.050	2.615	41.921	44.536	-9.464	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:55**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2402MHz**

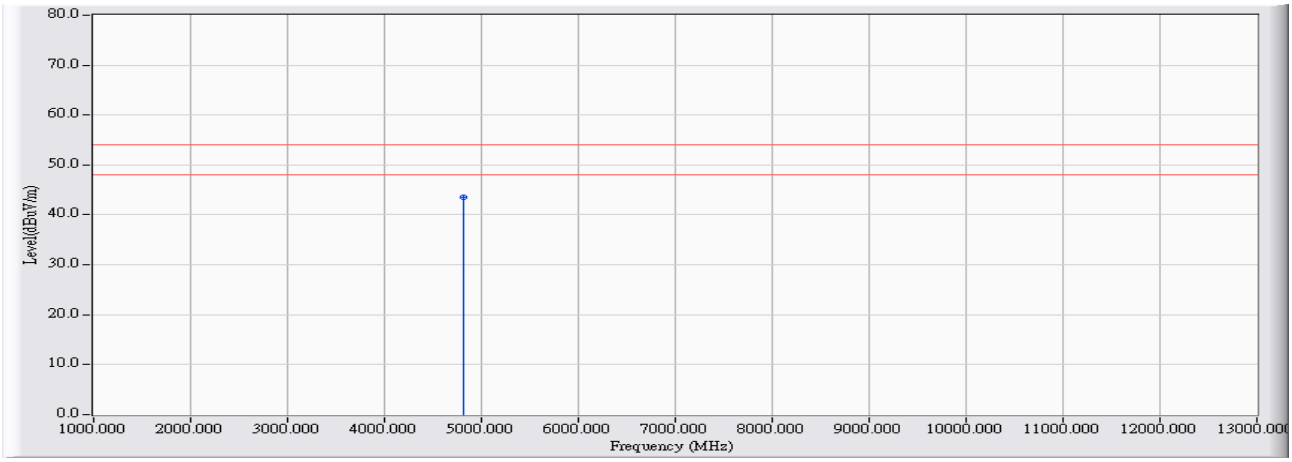


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.100	1.784	52.940	54.725	-19.275	74.000	PEAK
2		7212.000	8.413	38.030	46.443	-27.557	74.000	PEAK
3		9618.110	10.253	36.630	46.883	-27.117	74.000	PEAK
4		12024.130	10.136	36.260	46.395	-27.605	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 16:57**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2402MHz**

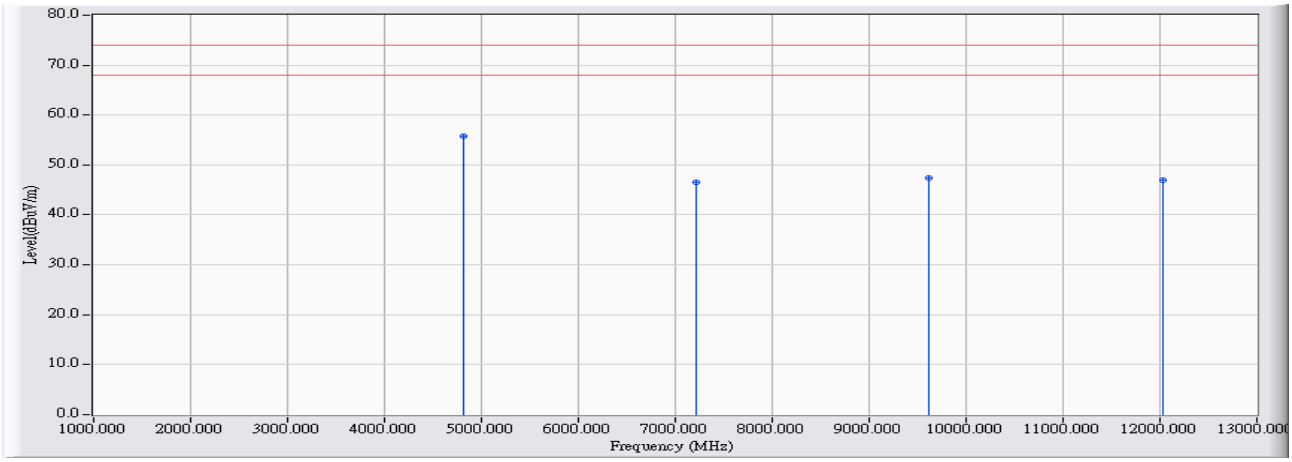


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4807.983	1.784	41.680	43.464	-10.536	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:03**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2402MHz**

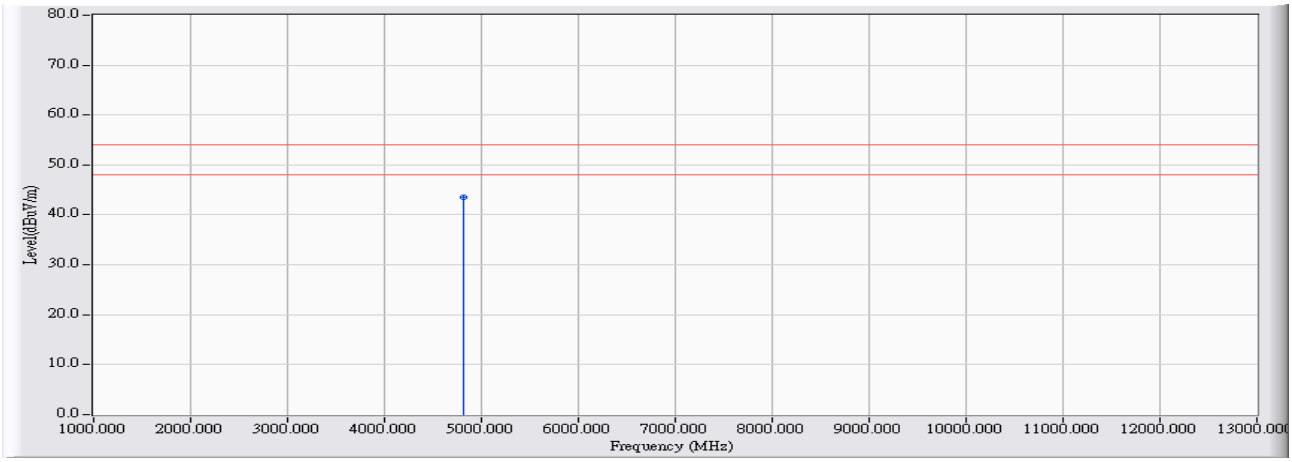


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.000	1.784	53.900	55.684	-18.316	74.000	PEAK
2		7212.860	8.415	38.070	46.485	-27.515	74.000	PEAK
3		9619.000	10.255	37.190	47.445	-26.555	74.000	PEAK
4		12023.660	10.132	36.940	47.072	-26.928	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:03**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2402MHz**

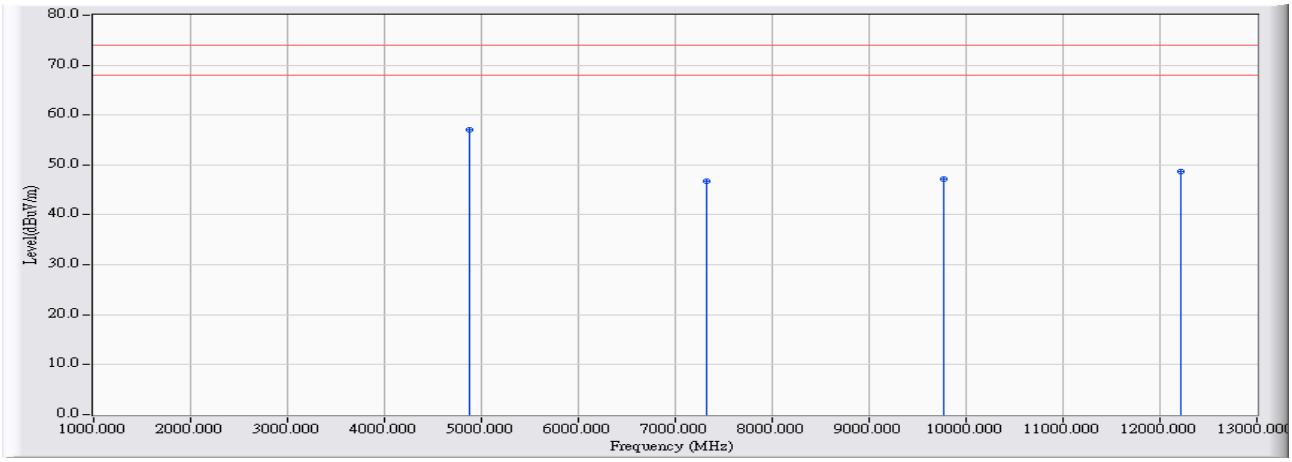


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4808.050	1.784	41.840	43.625	-10.375	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:08**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**

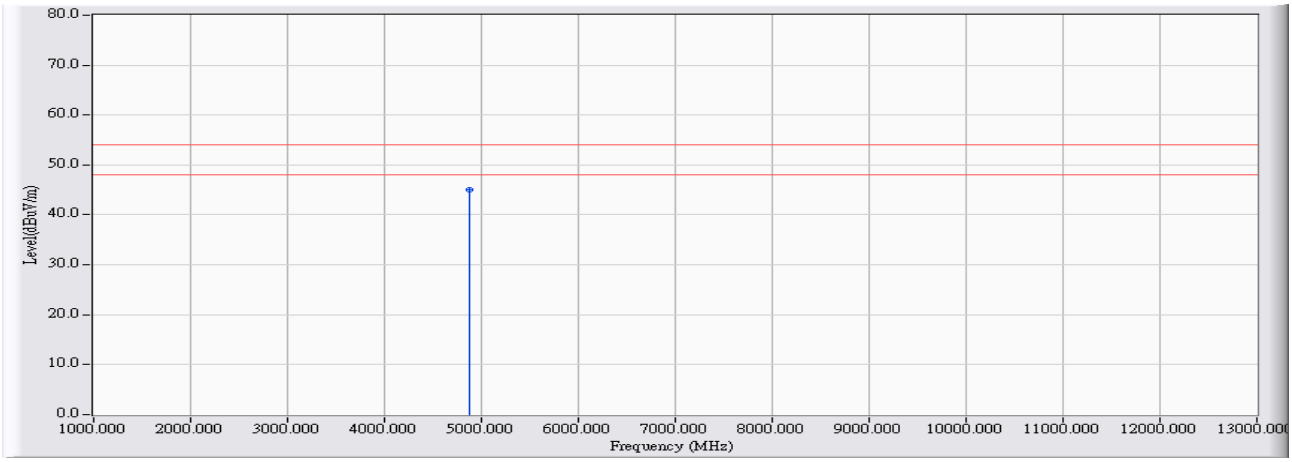


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4883.950	2.239	54.860	57.099	-16.901	74.000	PEAK
2		7322.217	8.709	37.980	46.689	-27.311	74.000	PEAK
3		9765.430	10.587	36.520	47.107	-26.893	74.000	PEAK
4		12209.530	11.636	36.990	48.626	-25.374	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:09**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**

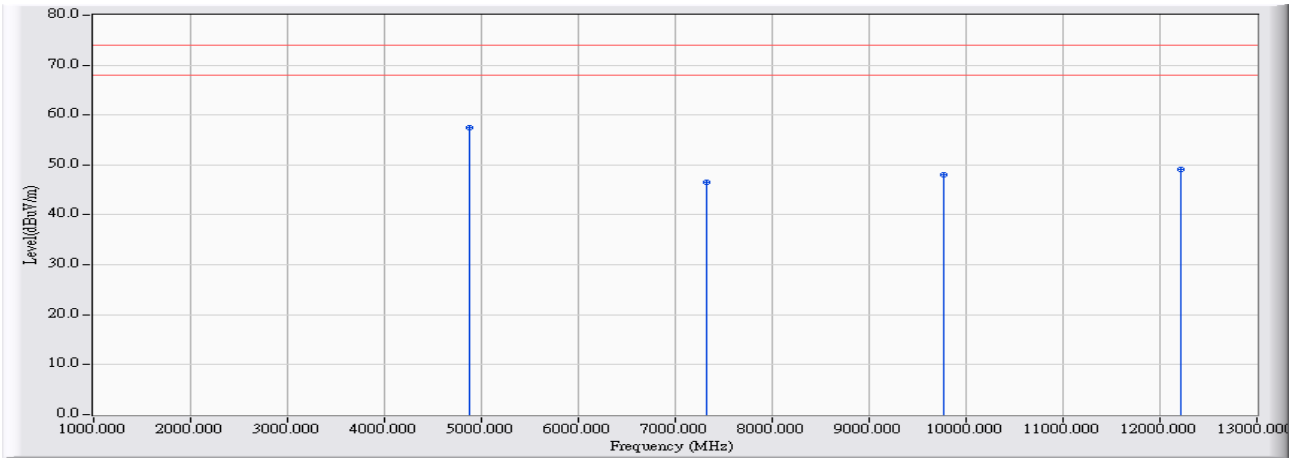


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.080	2.240	42.810	45.050	-8.950	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:13**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**

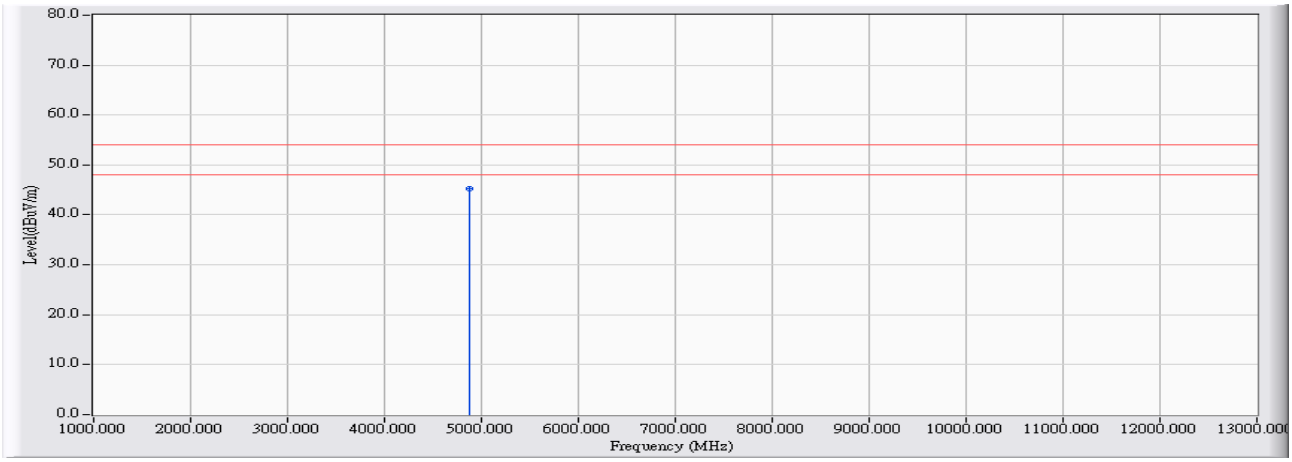


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.083	2.240	55.140	57.380	-16.620	74.000	PEAK
2		7327.667	8.724	37.750	46.473	-27.527	74.000	PEAK
3		9771.239	10.600	37.360	47.961	-26.039	74.000	PEAK
4		12211.710	11.653	37.390	49.044	-24.956	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:14**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2441MHz**

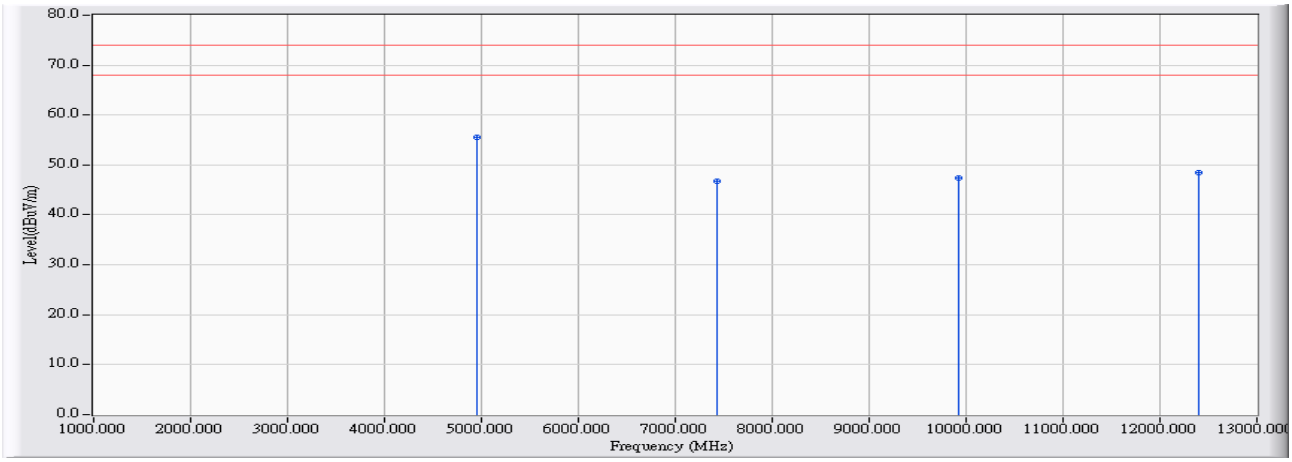


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4884.050	2.240	42.950	45.190	-8.810	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:20**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2480MHz**

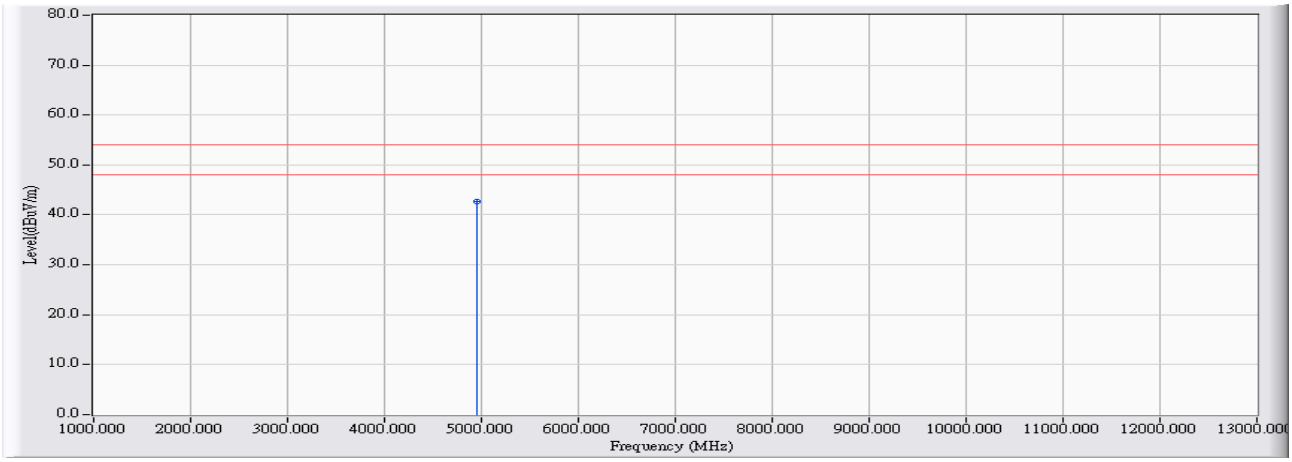


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.100	2.615	53.000	55.616	-18.384	74.000	PEAK
2		7437.010	9.184	37.490	46.674	-27.326	74.000	PEAK
3		9923.950	10.976	36.520	47.496	-26.504	74.000	PEAK
4		12401.080	12.944	35.480	48.424	-25.576	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:21**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2480MHz**

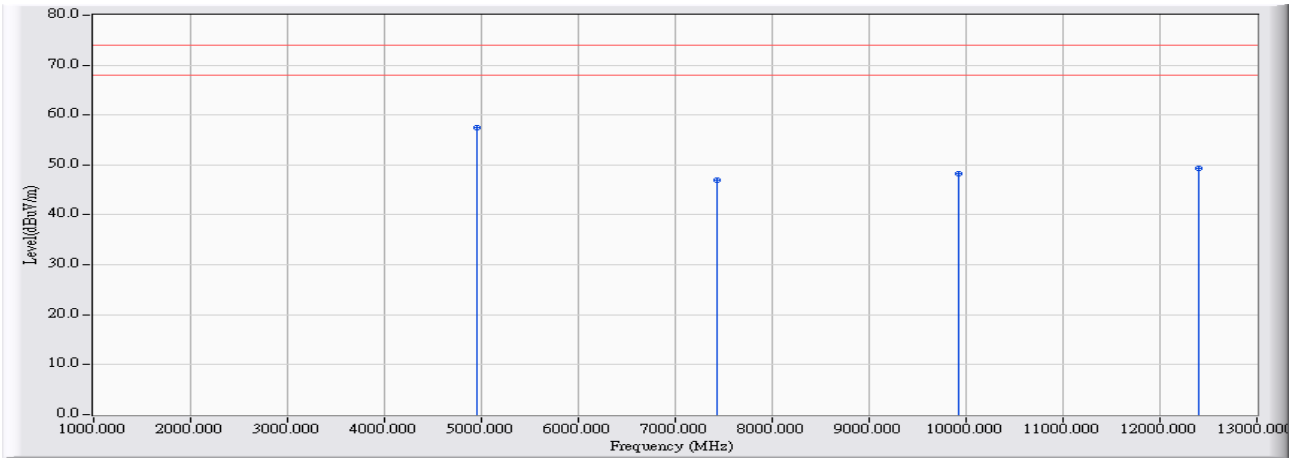


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.050	2.615	40.080	42.695	-11.305	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:24**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2480MHz**

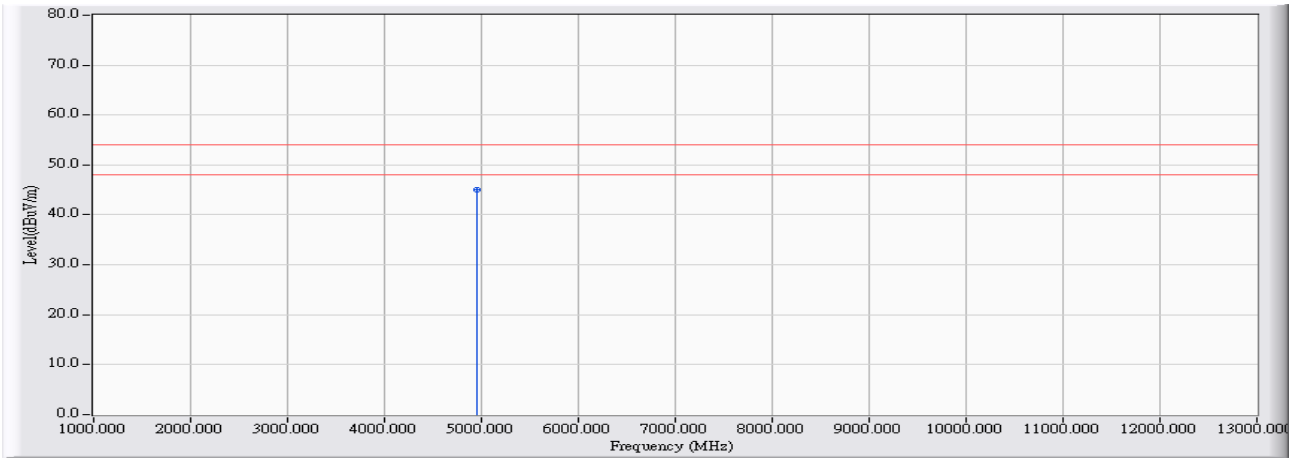


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.060	2.615	54.770	57.385	-16.615	74.000	PEAK
2		7437.183	9.185	37.880	47.064	-26.936	74.000	PEAK
3		9923.510	10.975	37.330	48.305	-25.695	74.000	PEAK
4		12398.160	12.927	36.480	49.407	-24.593	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	**Time : 2012/08/09 - 17:25**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery 5V**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK)_2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4960.050	2.615	42.380	44.995	-9.005	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipment is used during the test:

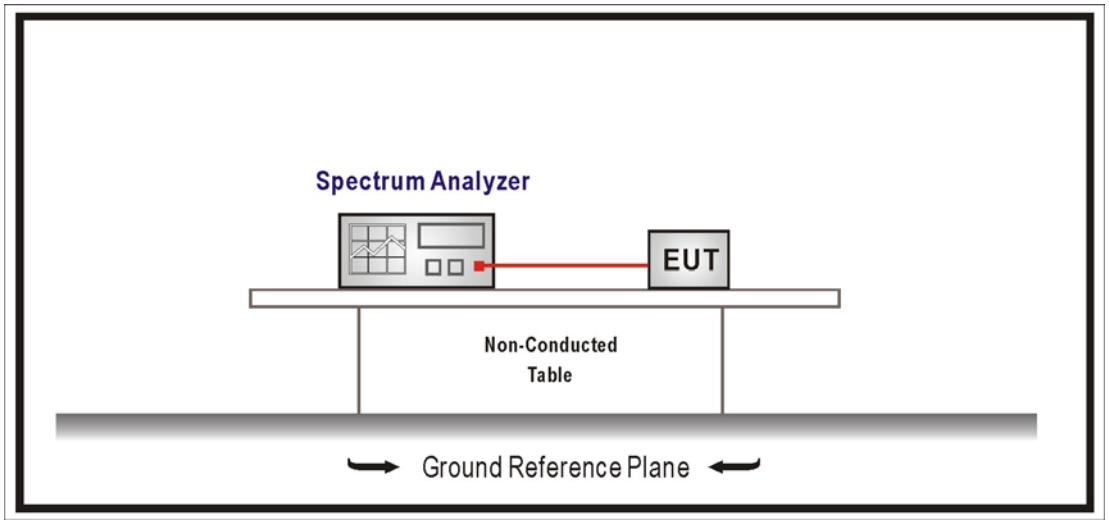
RF antenna conducted test / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Test Specification

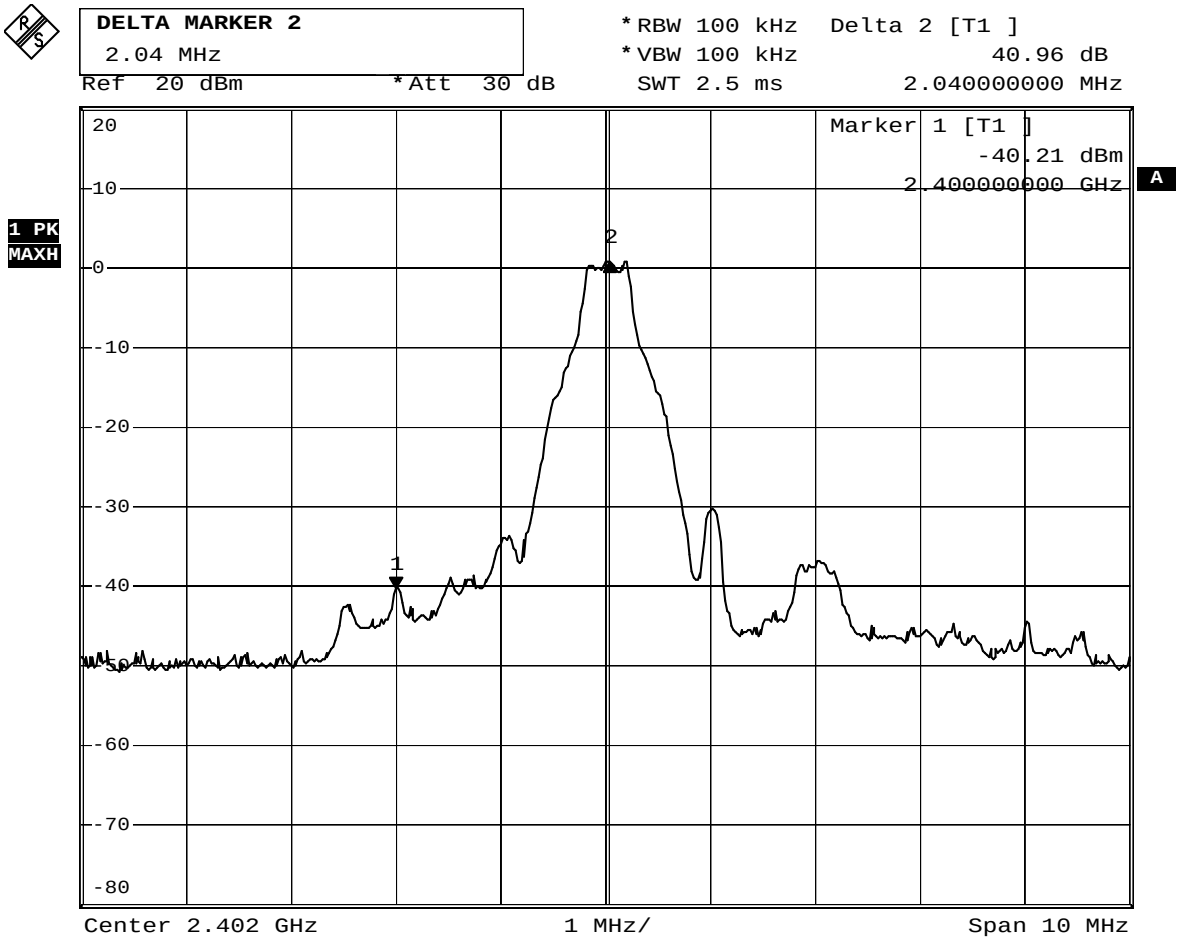
According to FCC Part 15 Subpart C Paragraph 15.247: 2011

5.6. Test Result

Product	Mophie powerblu		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

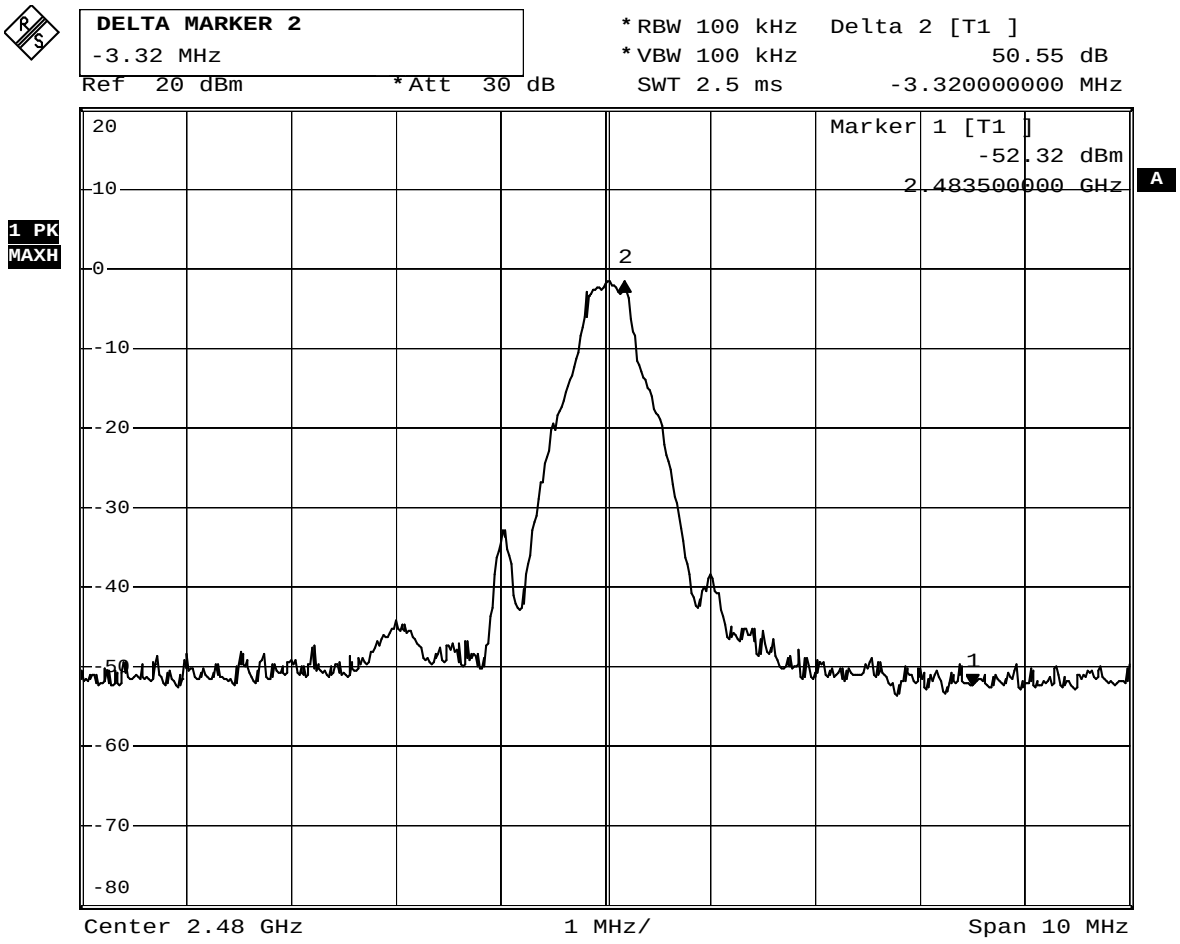
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dBc)	Result
00	2402	40.96	≧20	Pass
78	2480	50.55	≧20	Pass

Channel 00



Comment: A:\2
Date: 31.JUL.2012 11:53:06

Channel 78

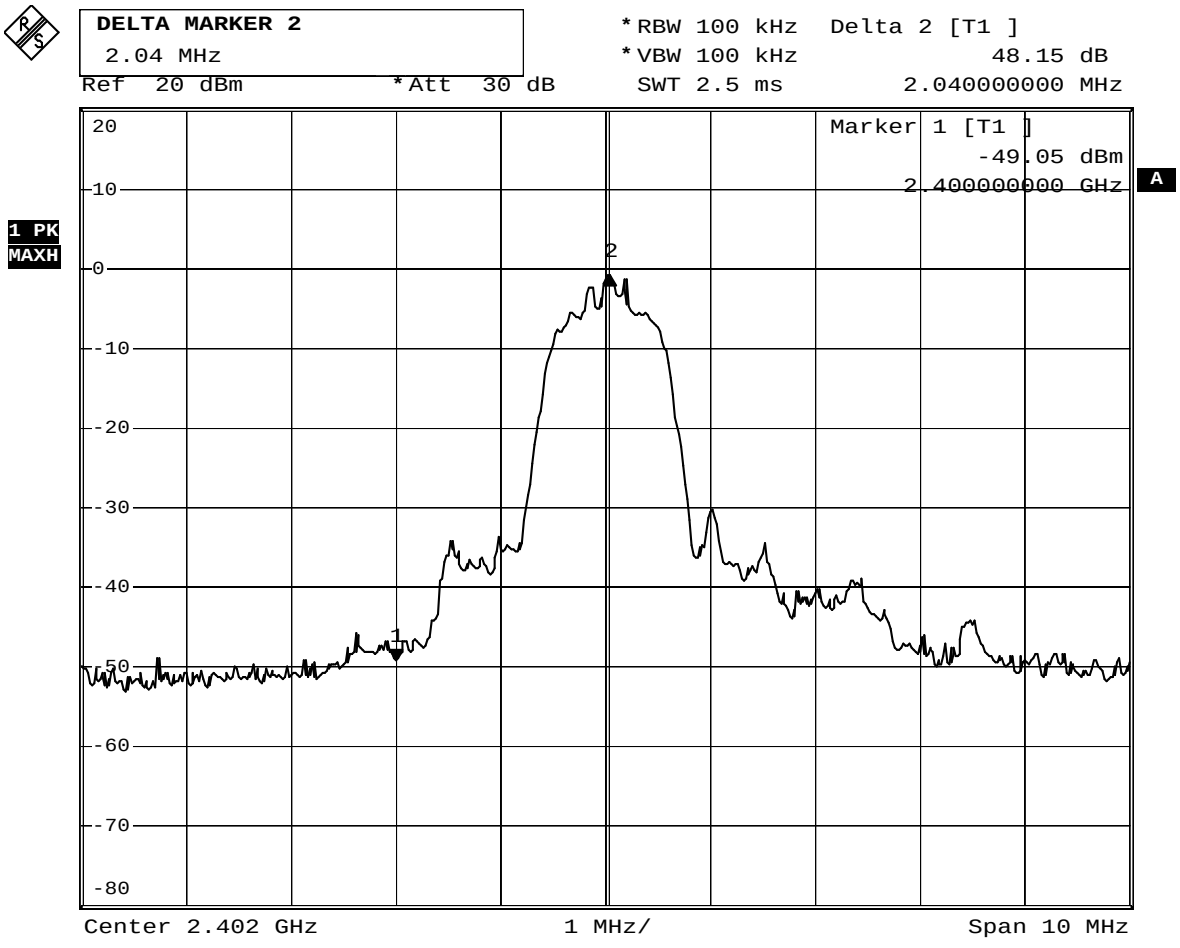


Comment: A:\2
Date: 31.JUL.2012 11:57:52

Product	Mophie powerblu		
Test Item	RF antenna conducted test		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

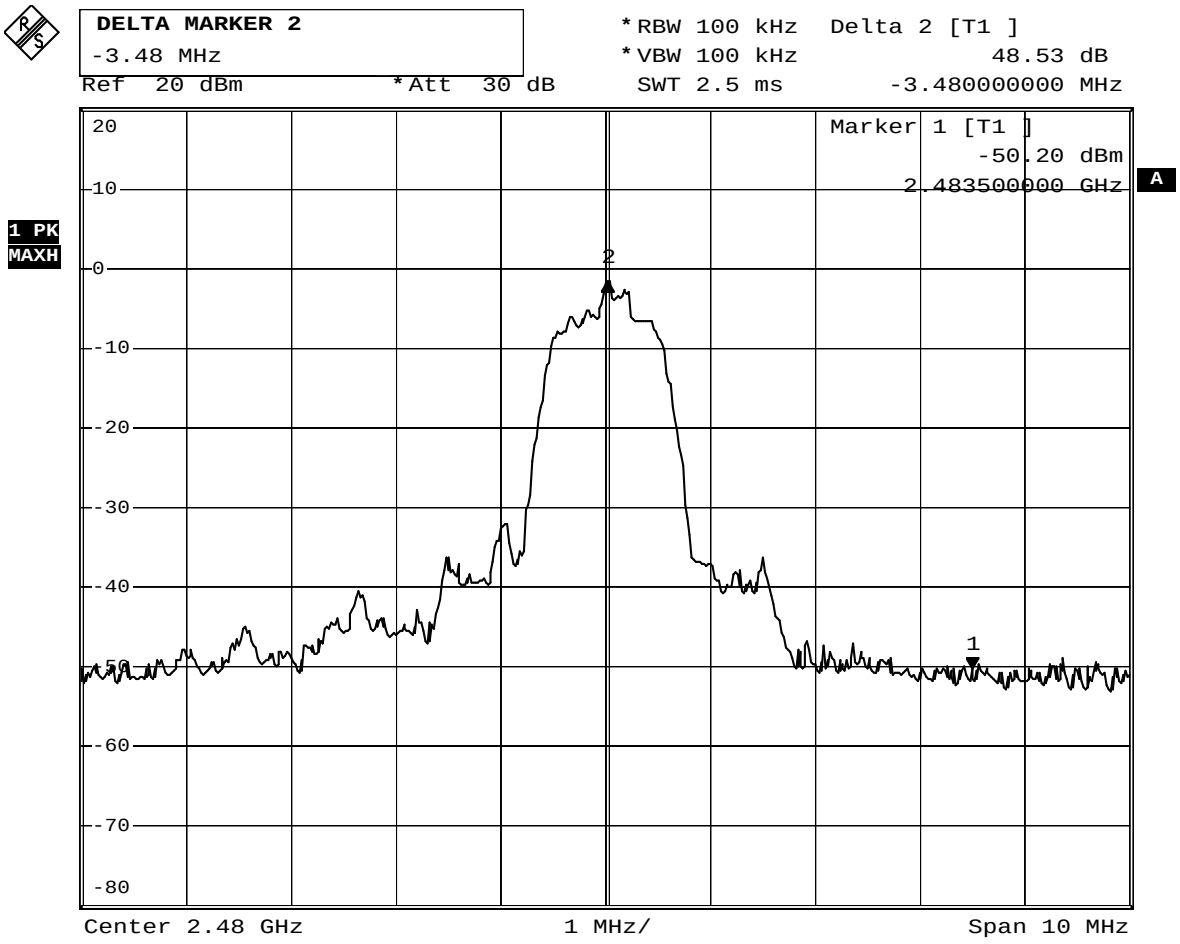
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dBc)	Result
00	2402	48.15	≧20	Pass
78	2480	48.53	≧20	Pass

Channel 00



Comment: A:\2
Date: 31.JUL.2012 11:54:55

Channel 78

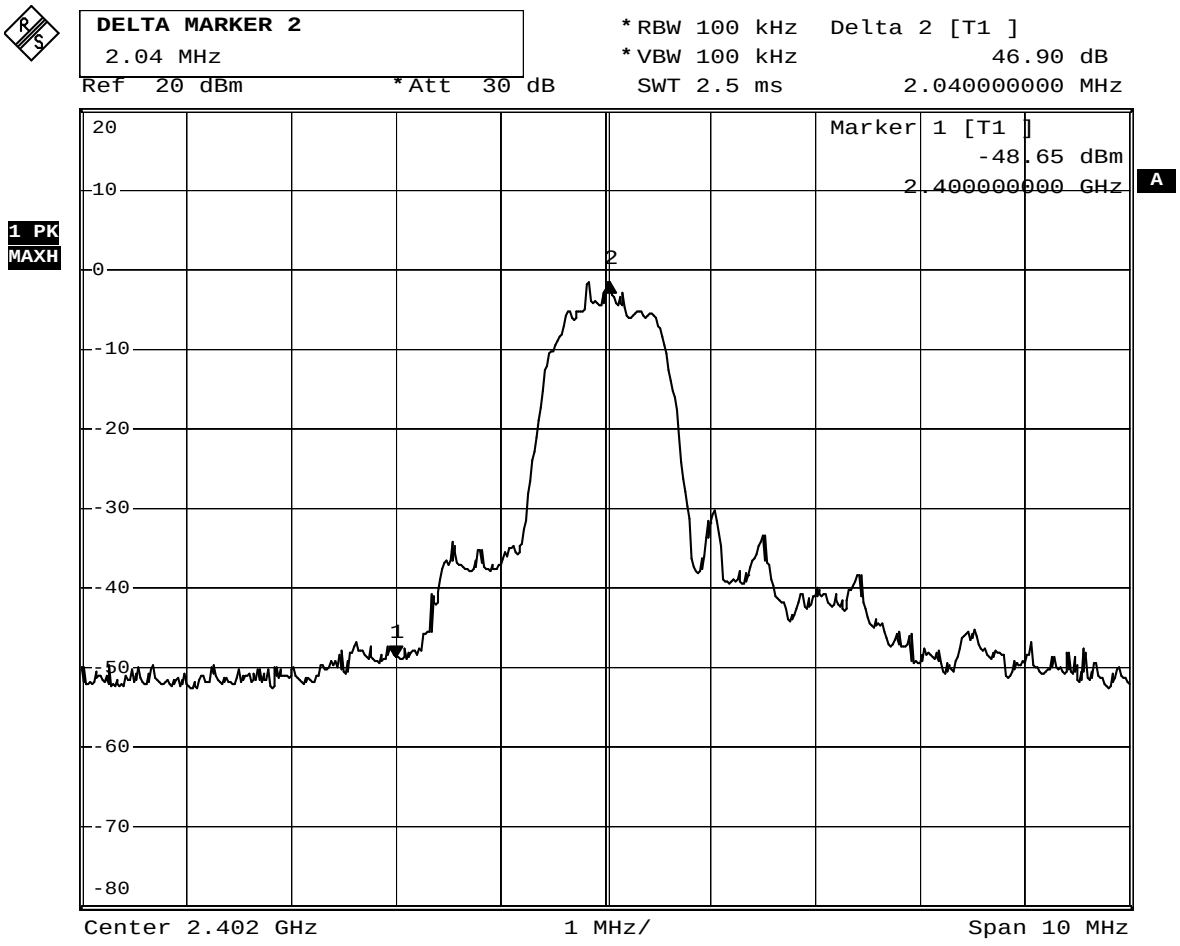


Comment: A:\2
Date: 31.JUL.2012 11:57:18

Product	Mophie powerblu		
Test Item	RF antenna conducted test		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

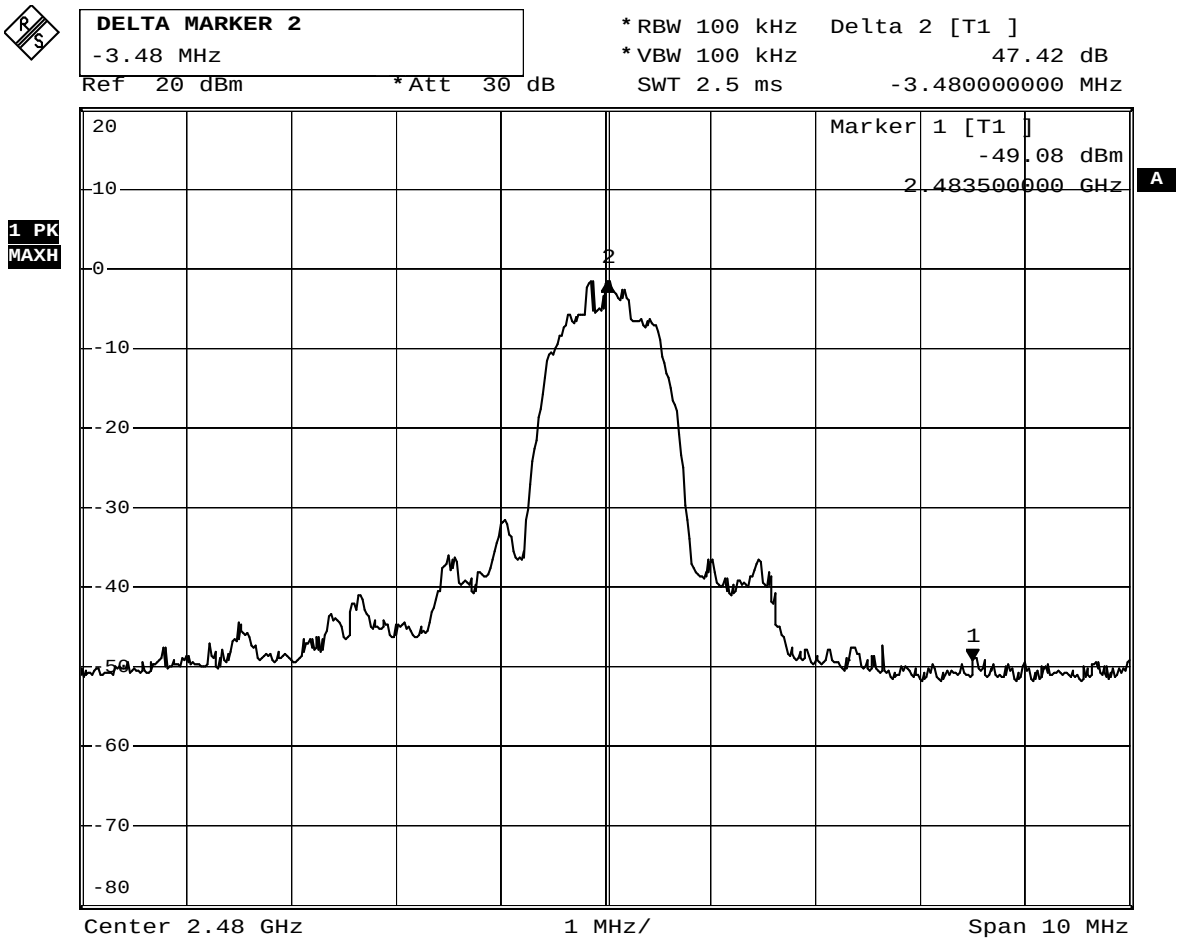
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dBc)	Result
00	2402	46.90	≧20	Pass
78	2480	47.42	≧20	Pass

Channel 00



Comment: A:\2
Date: 31.JUL.2012 11:55:26

Channel 78



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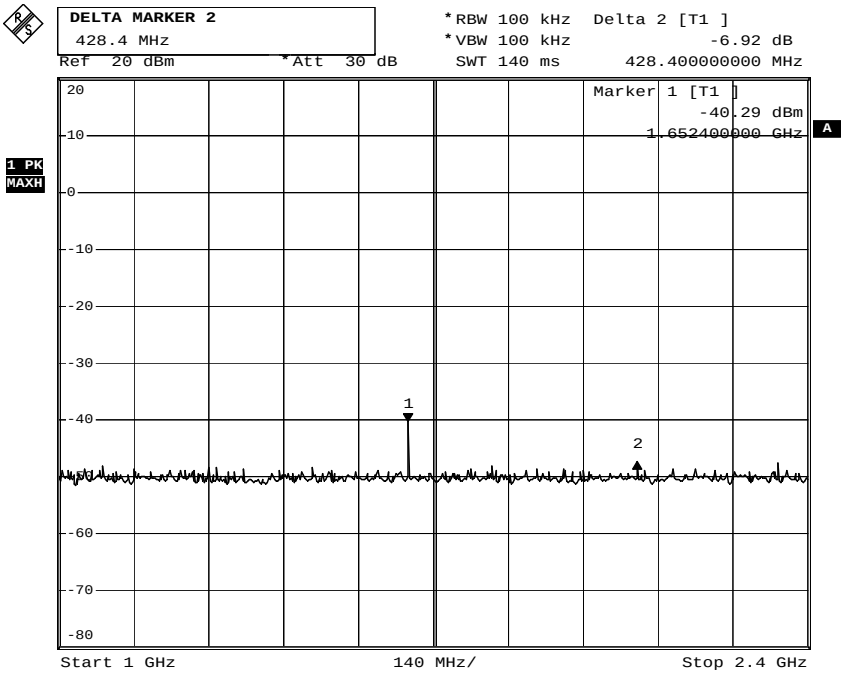
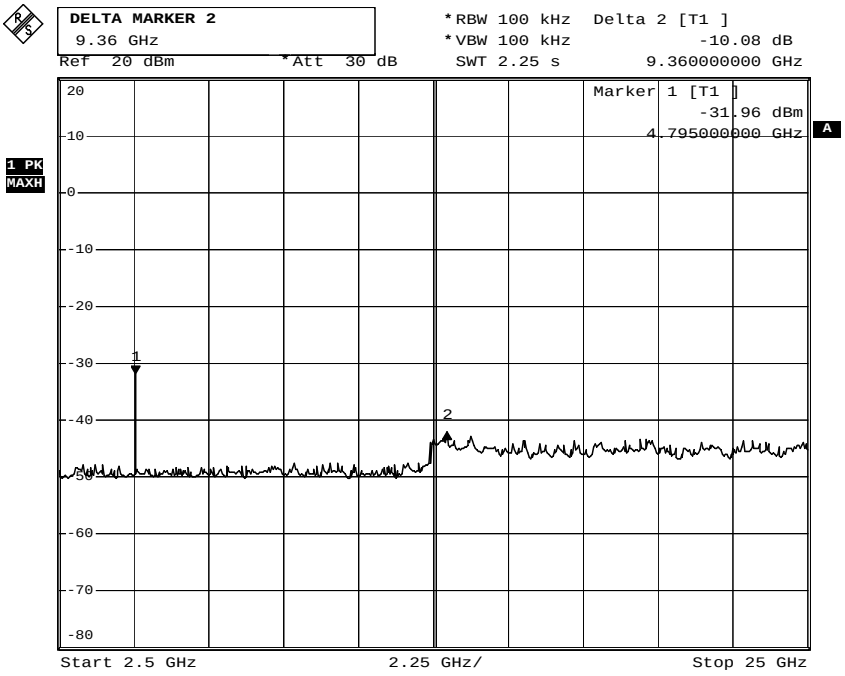
Date: 31.JUL.2012 11:56:21

DH5-Channel 00 (1GHz-2.4GHz)



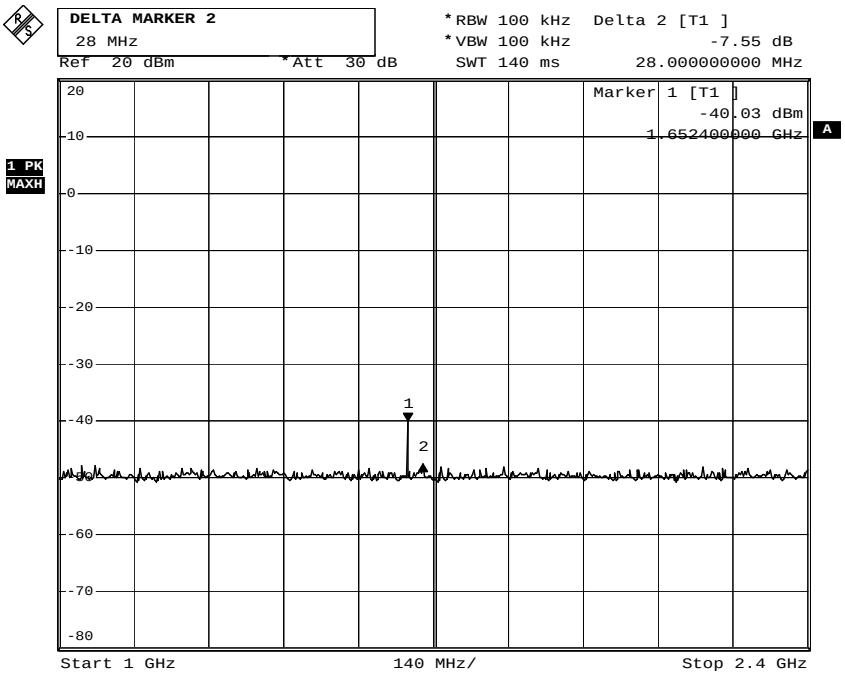
Comment: A:\2
Date: 31.JUL.2012 13:12:15

DH5-Channel 00 (2.5GHz-25GHz)



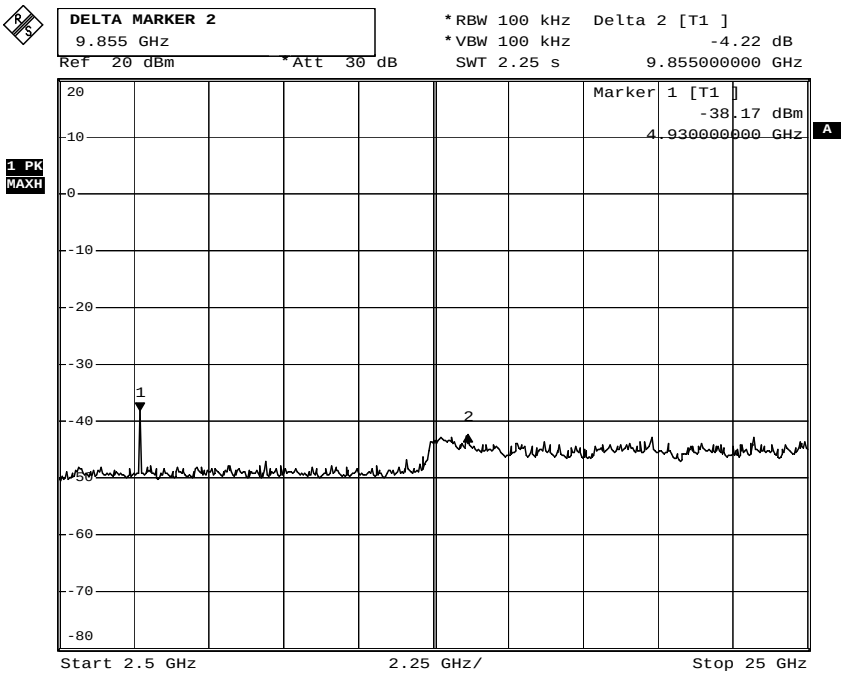
Comment: A:\2
Date: 31.JUL.2012 13:14:45

DH5-Channel 78 (1GHz-2.4GHz)



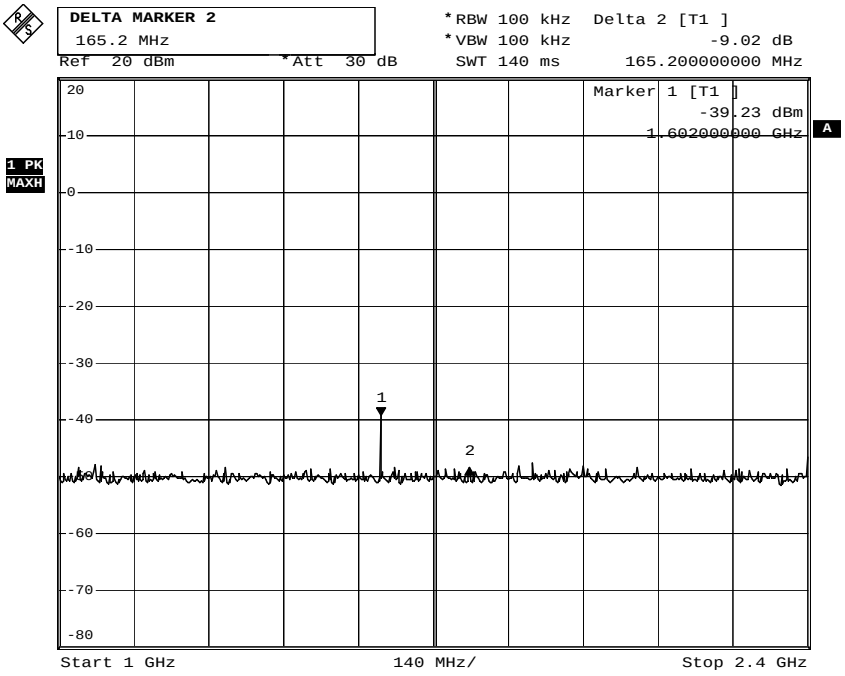
Comment: A:\2
Date: 31.JUL.2012 11:59:08

DH5-Channel 78 (2.5GHz-25GHz)



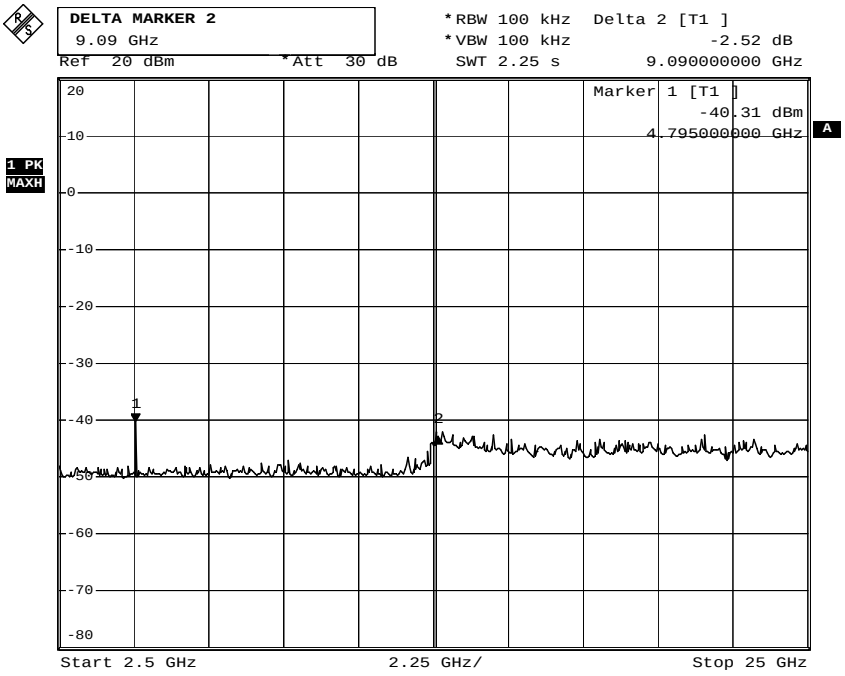
Comment: A:\2
Date: 31.JUL.2012 13:10:06

2DH5-Channel 00 (1GHz-2.4GHz)



Comment: A:\2
Date: 31.JUL.2012 12:02:05

2DH5-Channel 00 (2.5GHz-25GHz)



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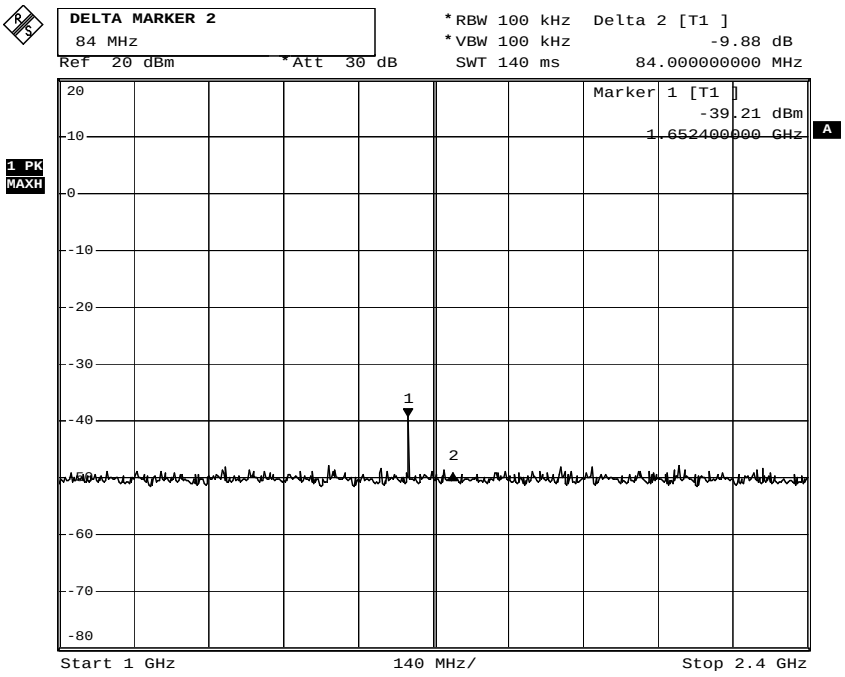
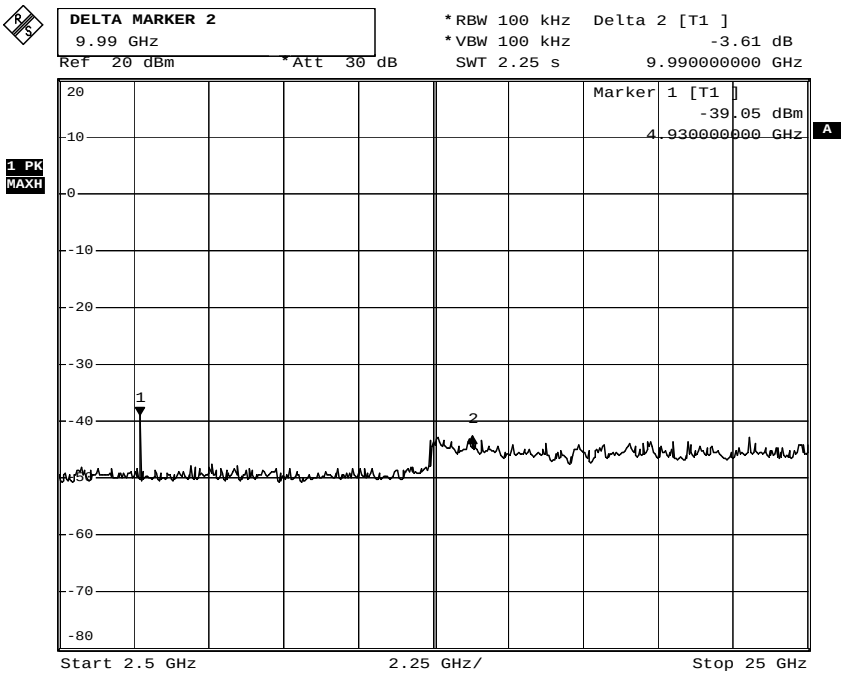
Date: 31.JUL.2012 13:17:41

2DH5-Channel 78 (1GHz-2.4GHz)



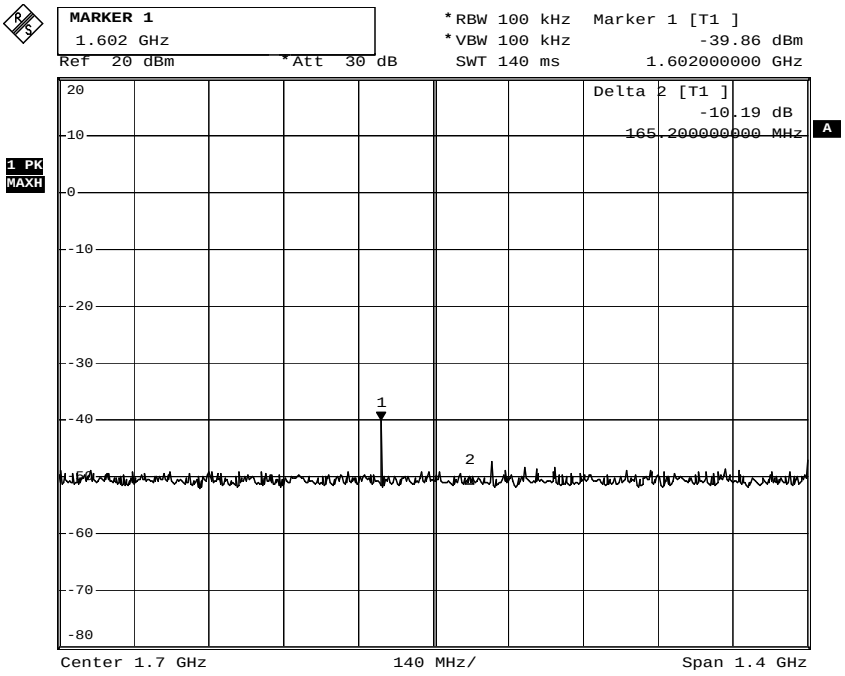
Comment: A:\2
Date: 31.JUL.2012 12:03:06

2DH5-Channel 78 (2.5GHz-25GHz)



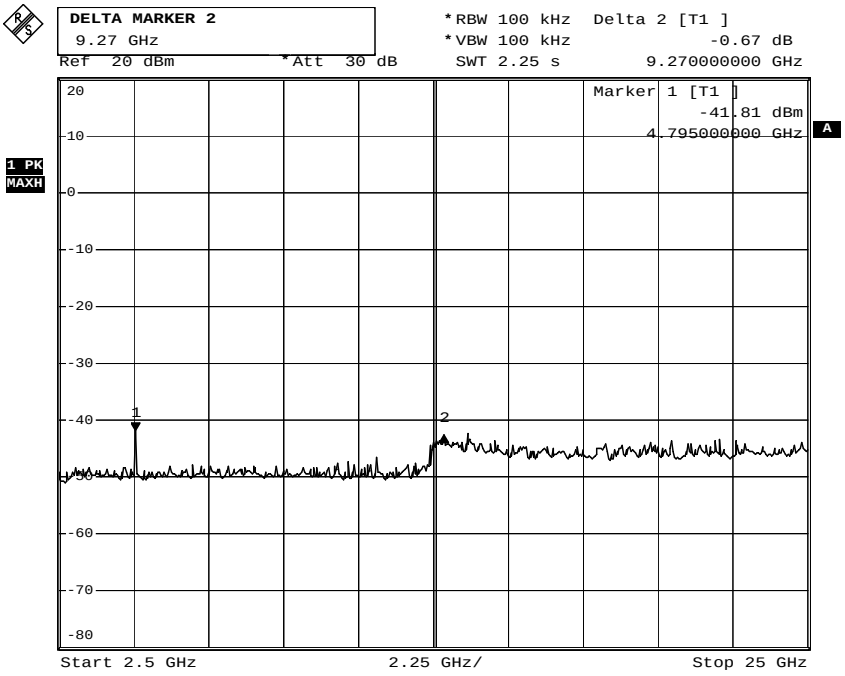
Comment: A:\2
Date: 31.JUL.2012 13:18:26

3DH5-Channel 00 (1GHz-2.4GHz)



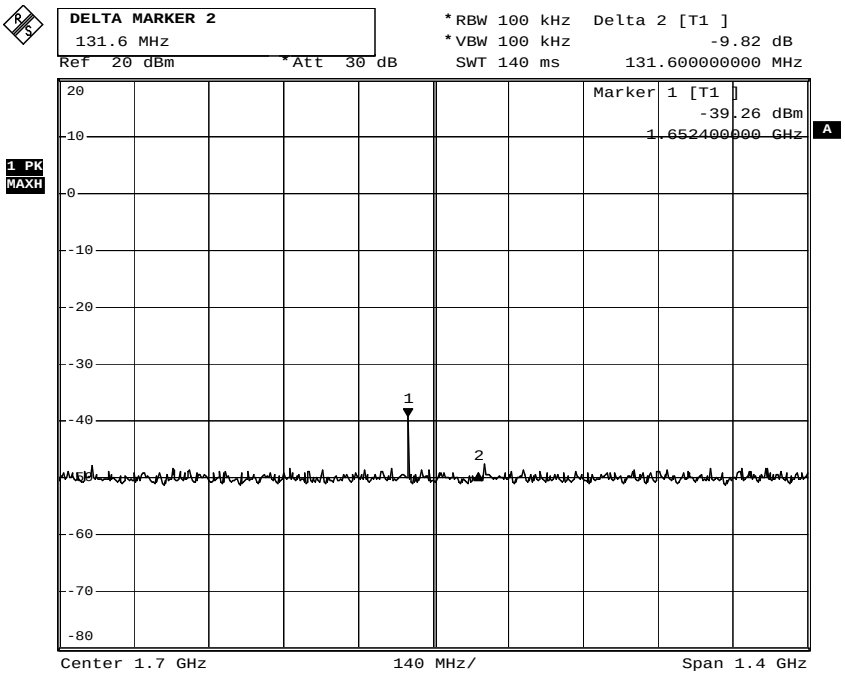
Comment: A:\2
Date: 31.JUL.2012 12:05:50

3DH5-Channel 00 (2.5GHz-25GHz)



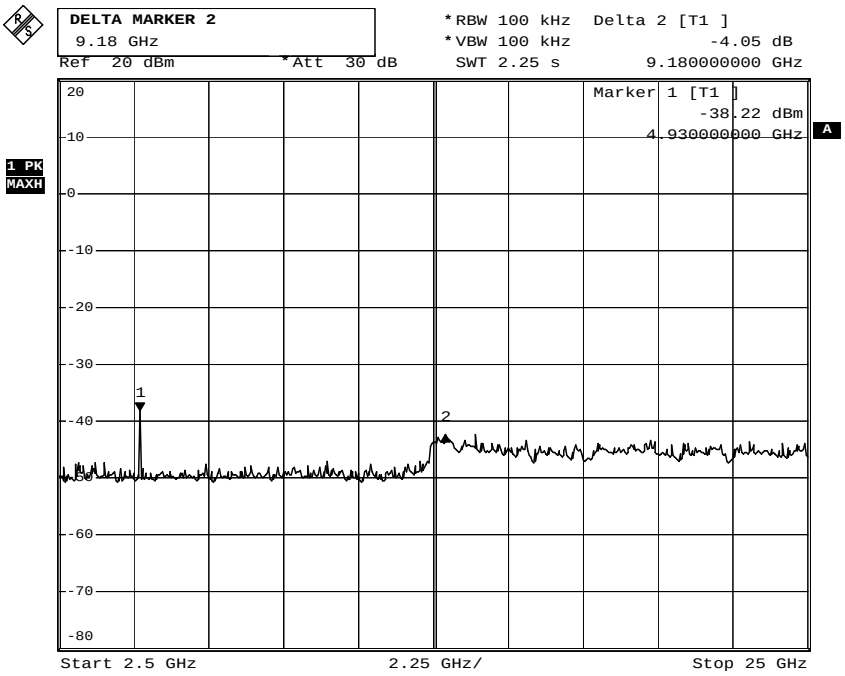
Comment: A:\2
Date: 31.JUL.2012 13:20:37

3DH5-Channel 78 ((1GHz-2.4GHz)



Comment: A:\2
Date: 31.JUL.2012 12:06:39

3DH5-Channel 78 (2.5GHz-25GHz)



Comment: A:\2
Date: 31.JUL.2012 13:19:30

6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

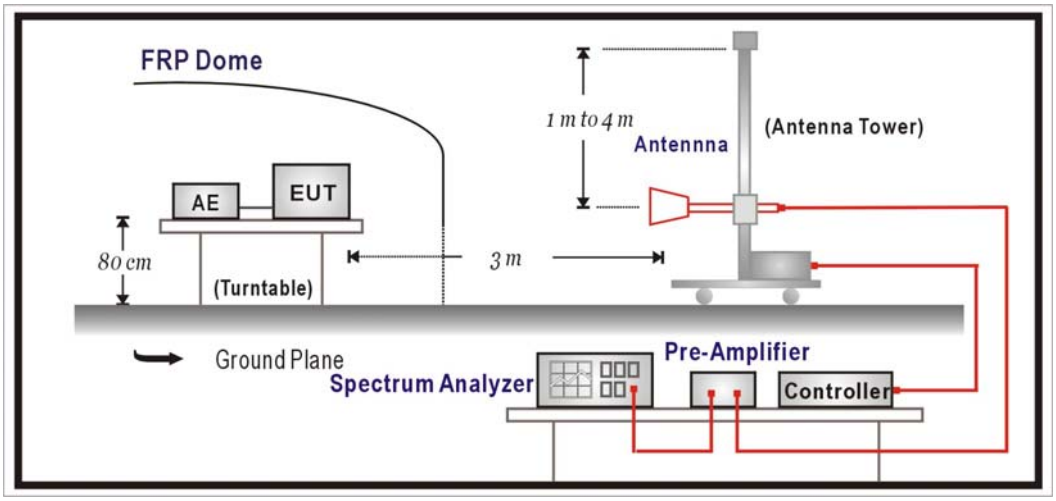
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

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 EUT was positioned such that the distance from antenna to the EUT was 3 meters.

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

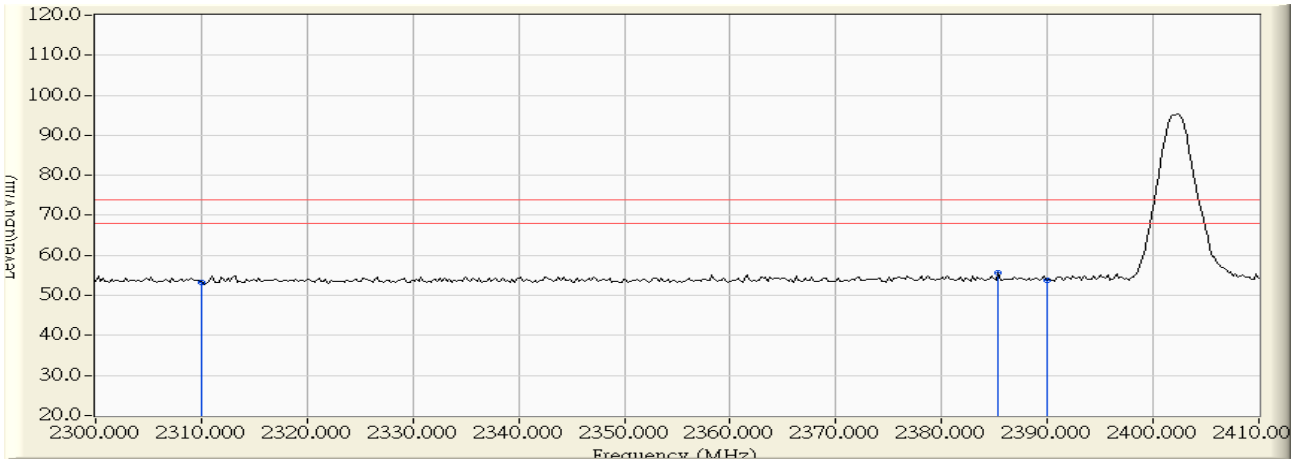
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2009 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

6.6. Test Result

Site : CB1	**Time : 2012/08/14 - 11:22**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2402MHz**

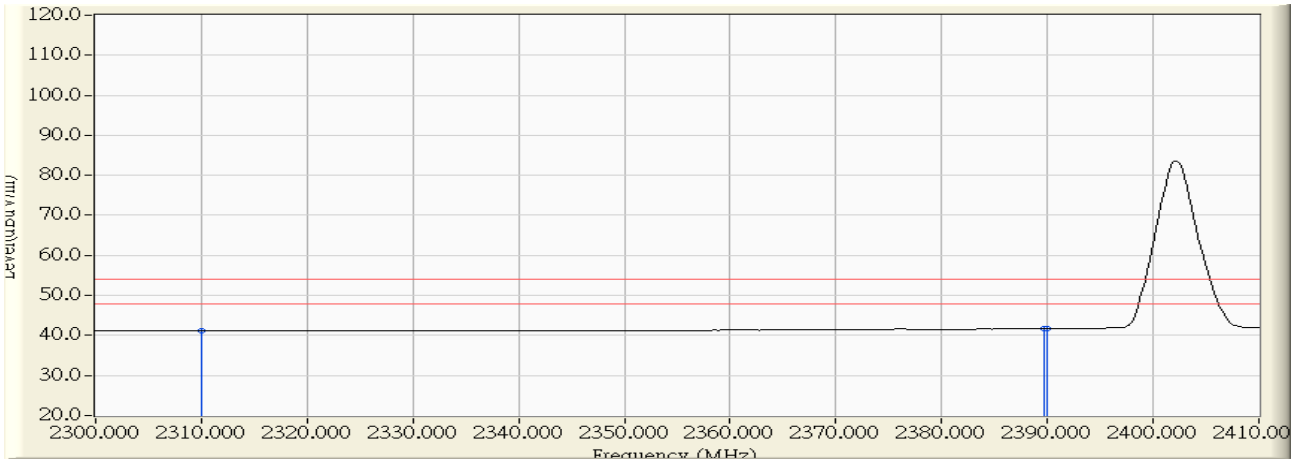


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.595	53.374	-20.626	74.000	PEAK
2	*	2385.360	30.531	25.218	55.750	-18.250	74.000	PEAK
3		2390.000	30.578	23.263	53.841	-20.159	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2402MHz**

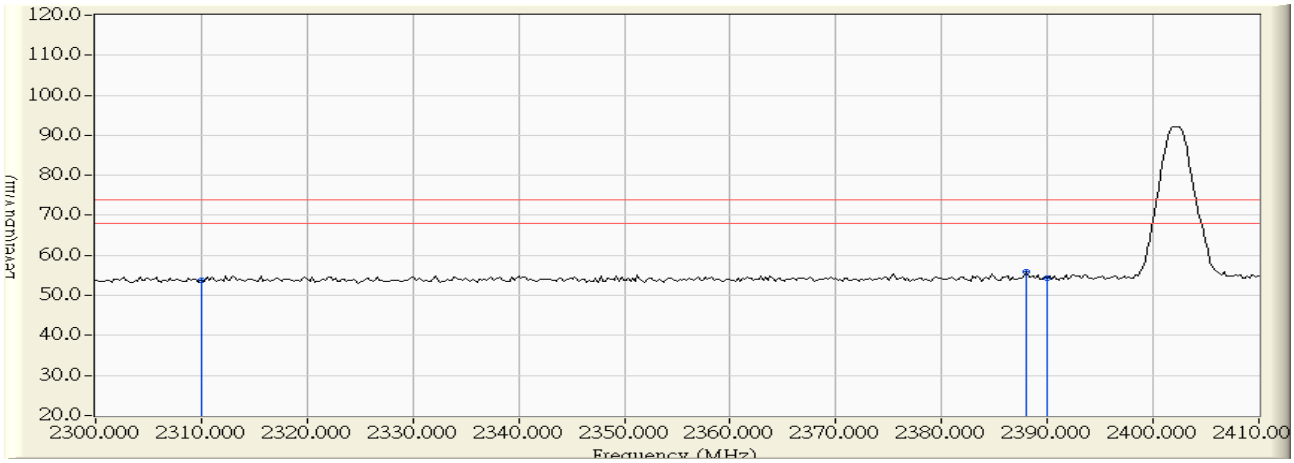


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.282	41.061	-12.939	54.000	AVERAGE
2	*	2389.760	30.576	11.152	41.728	-12.272	54.000	AVERAGE
3		2390.000	30.578	11.144	41.722	-12.278	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:26**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2402MHz**

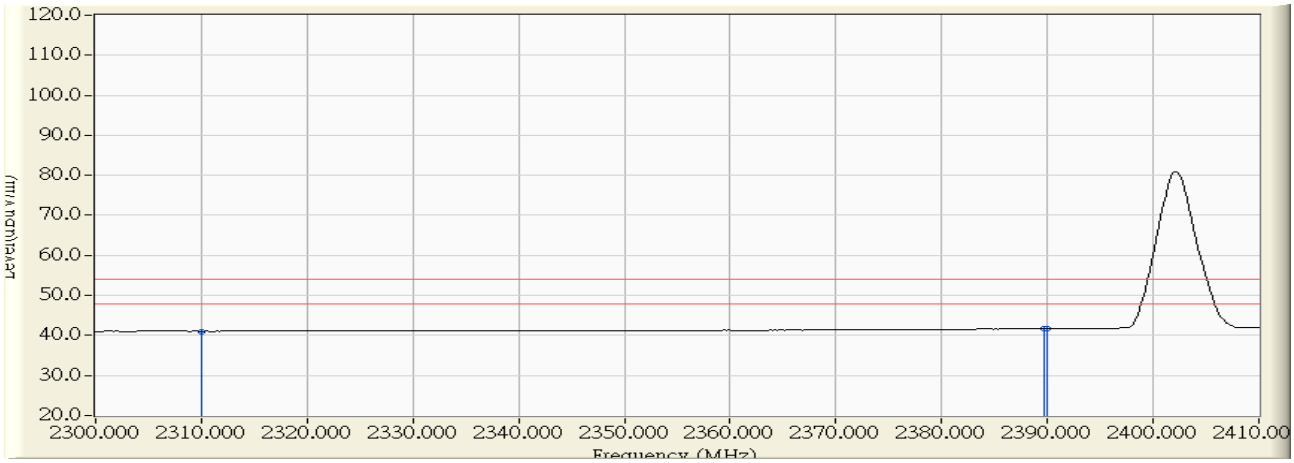


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.907	53.686	-20.314	74.000	PEAK
2	*	2388.000	30.558	25.430	55.988	-18.012	74.000	PEAK
3		2390.000	30.578	23.685	54.263	-19.737	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:27**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2402MHz**

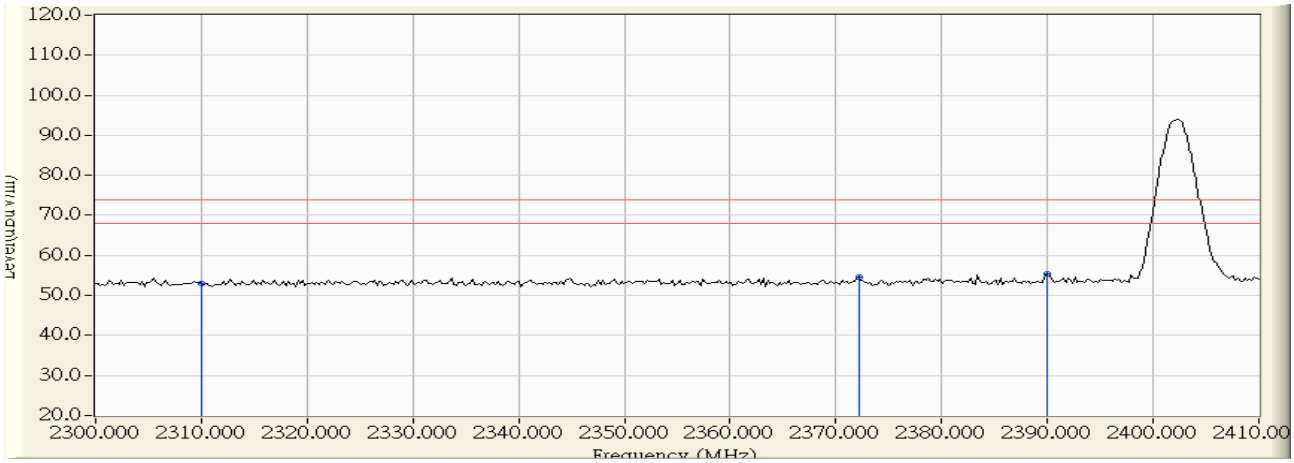


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.233	41.012	-12.988	54.000	AVERAGE
2	*	2389.760	30.576	11.127	41.703	-12.297	54.000	AVERAGE
3		2390.000	30.578	11.119	41.697	-12.303	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:29**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2402MHz**

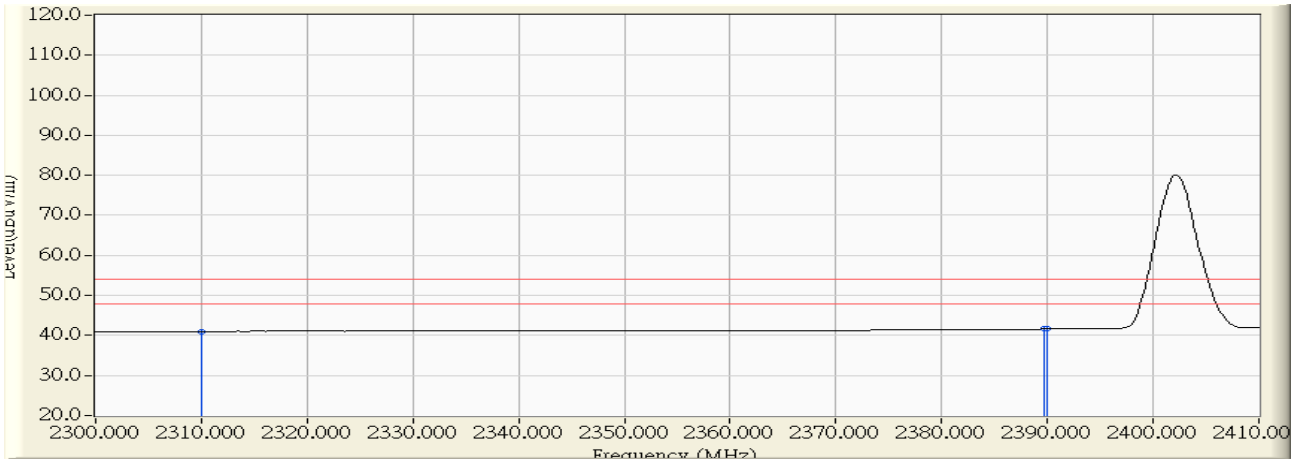


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.298	53.077	-20.923	74.000	PEAK
2		2372.160	30.400	24.161	54.561	-19.439	74.000	PEAK
3	*	2390.000	30.578	24.852	55.430	-18.570	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2402MHz**

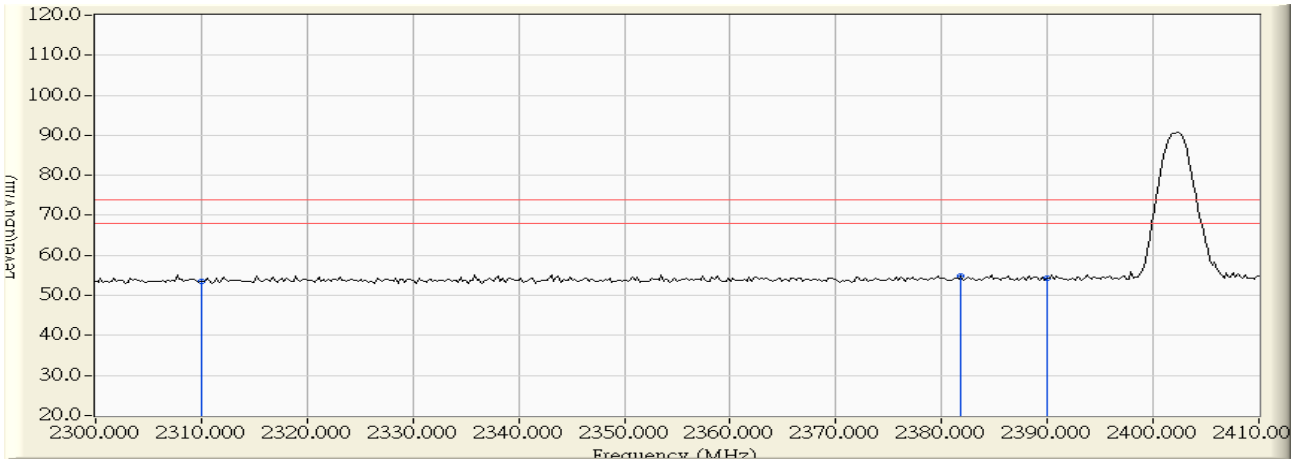


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.204	40.983	-13.017	54.000	AVERAGE
2	*	2389.760	30.576	11.069	41.645	-12.355	54.000	AVERAGE
3		2390.000	30.578	11.038	41.616	-12.384	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:32**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2402MHz**

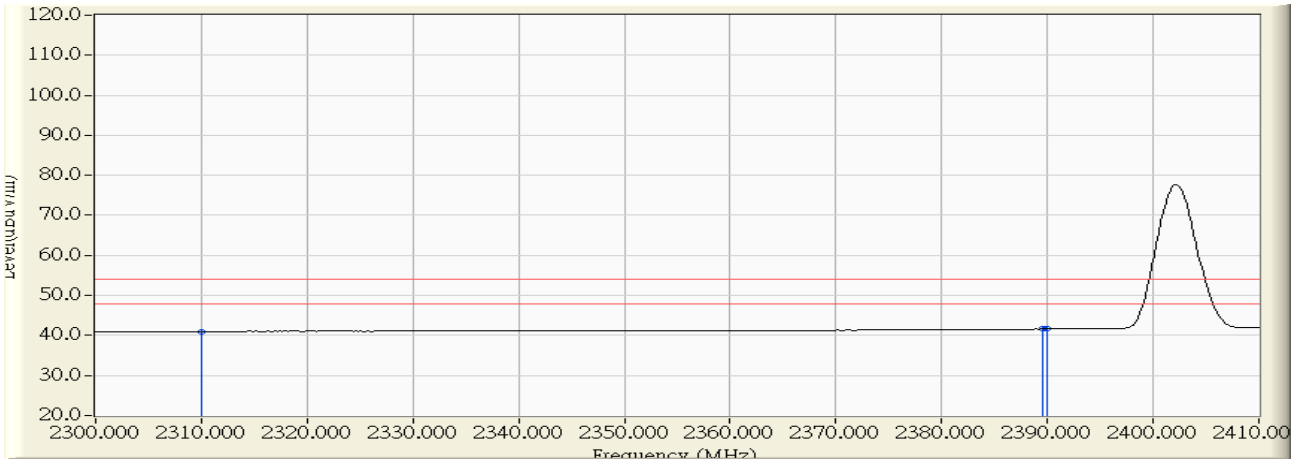


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.725	53.504	-20.496	74.000	PEAK
2	*	2381.840	30.497	24.338	54.834	-19.166	74.000	PEAK
3		2390.000	30.578	23.721	54.299	-19.701	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:33**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2402MHz**

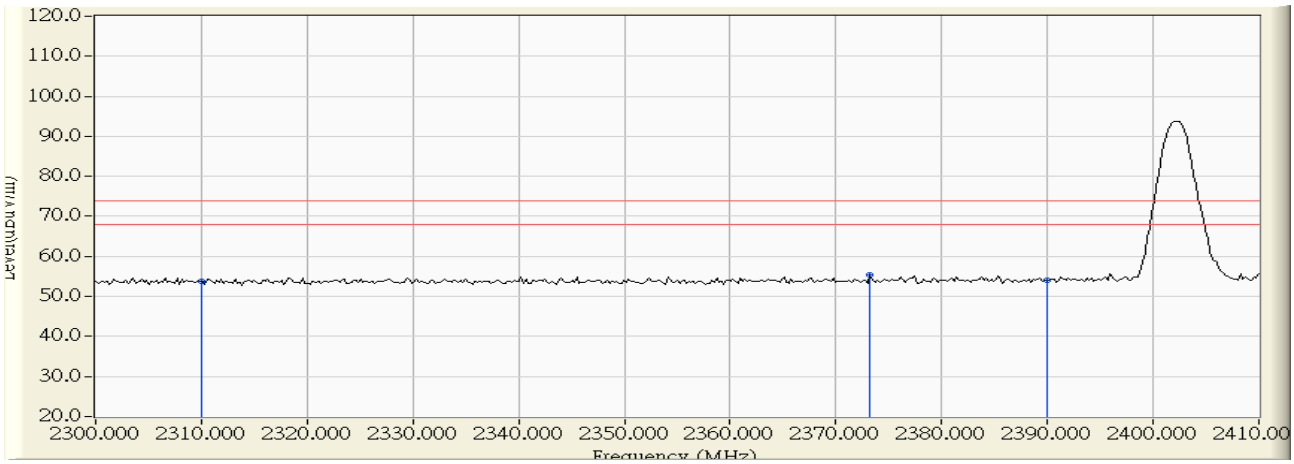


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.169	40.948	-13.052	54.000	AVERAGE
2		2389.540	30.574	11.027	41.600	-12.400	54.000	AVERAGE
3	*	2390.000	30.578	11.056	41.634	-12.366	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2402MHz**

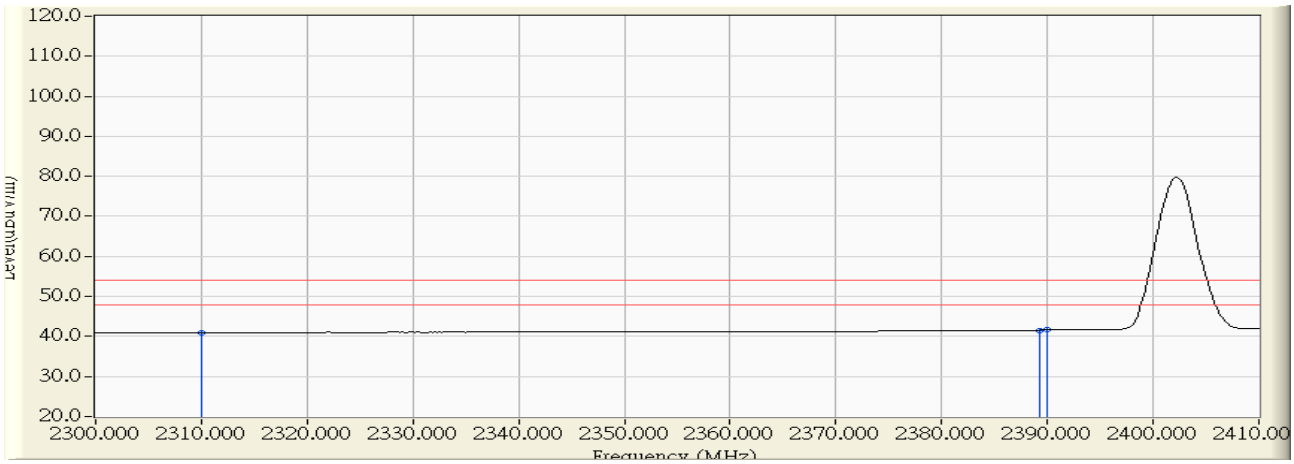


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.986	53.765	-20.235	74.000	PEAK
2	*	2373.260	30.411	25.040	55.451	-18.549	74.000	PEAK
3		2390.000	30.578	23.340	53.918	-20.082	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:36**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2402MHz**

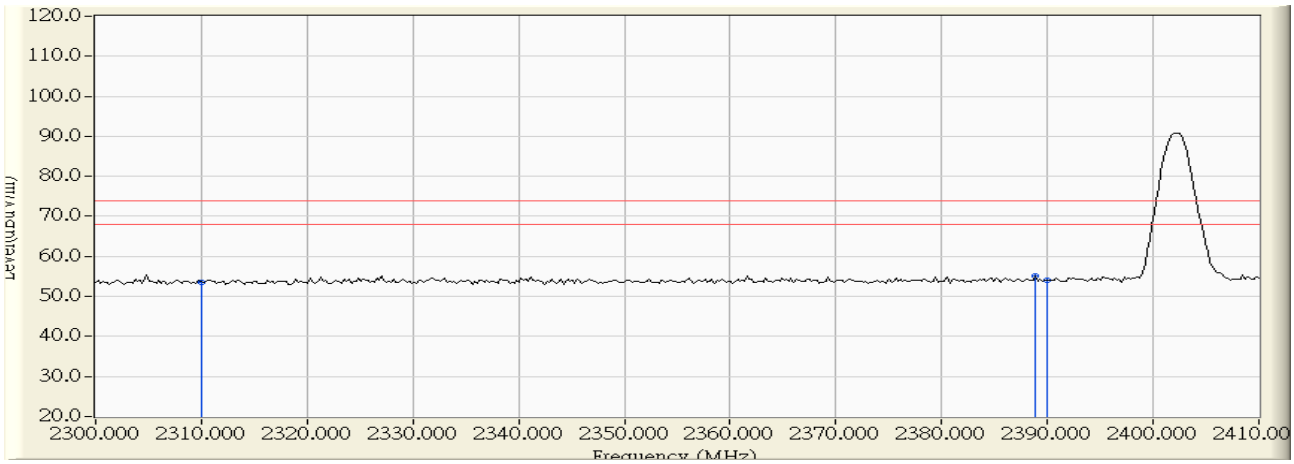


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.158	40.937	-13.063	54.000	AVERAGE
2		2389.320	30.571	10.972	41.543	-12.457	54.000	AVERAGE
3	*	2390.000	30.578	11.036	41.614	-12.386	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:38**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2402MHz**

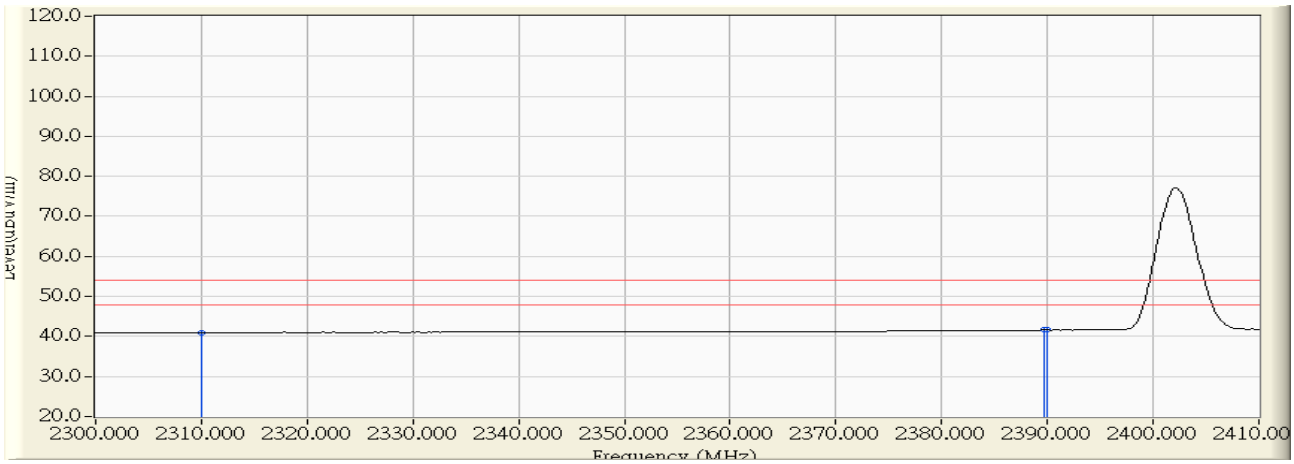


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	23.816	53.595	-20.405	74.000	PEAK
2	*	2388.880	30.567	24.646	55.213	-18.787	74.000	PEAK
3		2390.000	30.578	23.423	54.001	-19.999	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:39**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2402MHz**

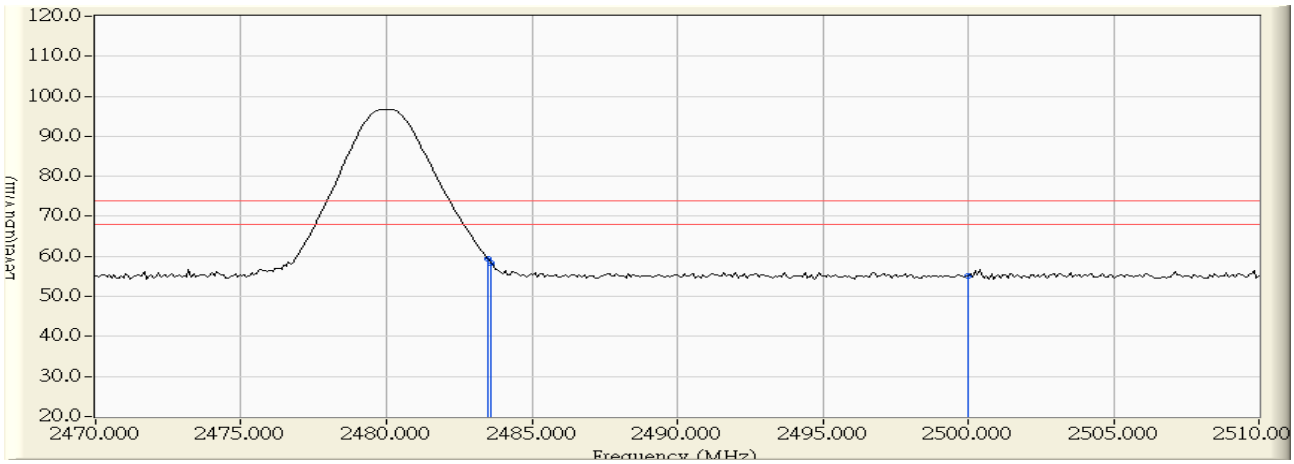


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	11.154	40.933	-13.067	54.000	AVERAGE
2		2389.760	30.576	11.020	41.596	-12.404	54.000	AVERAGE
3	*	2390.000	30.578	11.025	41.603	-12.397	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:43**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2480MHz**

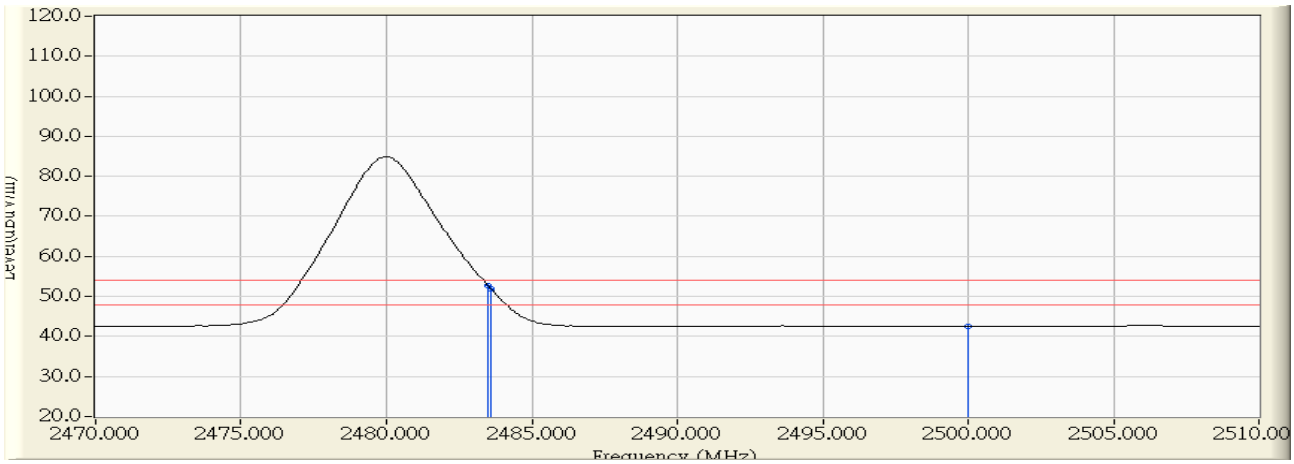


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	27.788	59.300	-14.700	74.000	PEAK
2		2483.600	31.513	26.815	58.328	-15.672	74.000	PEAK
3		2500.000	31.638	23.462	55.101	-18.899	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:43**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2480MHz**

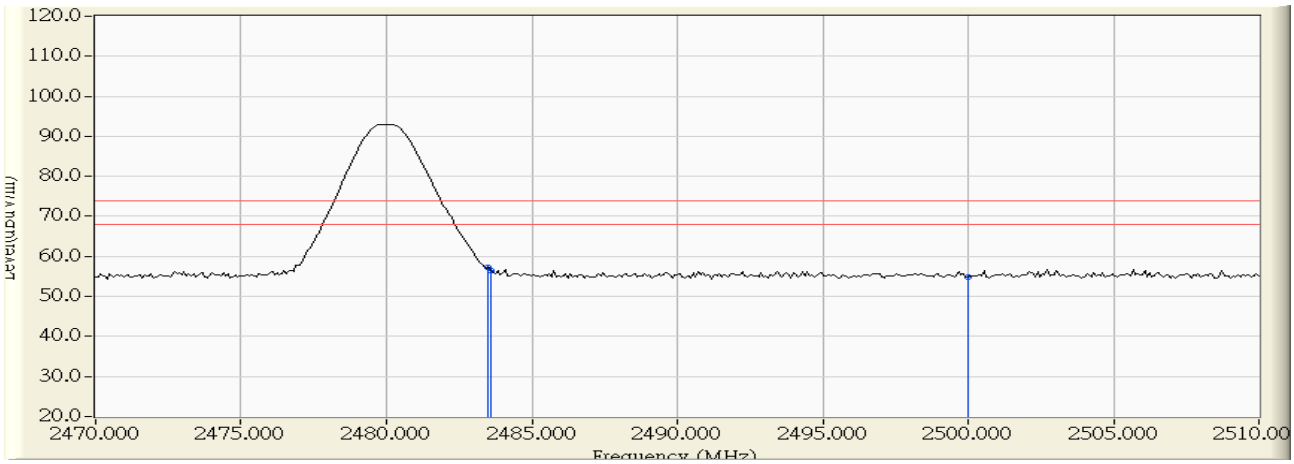


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	21.123	52.635	-1.365	54.000	AVERAGE
2		2483.600	31.513	20.292	51.805	-2.195	54.000	AVERAGE
3		2500.000	31.638	10.875	42.514	-11.486	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2480MHz**

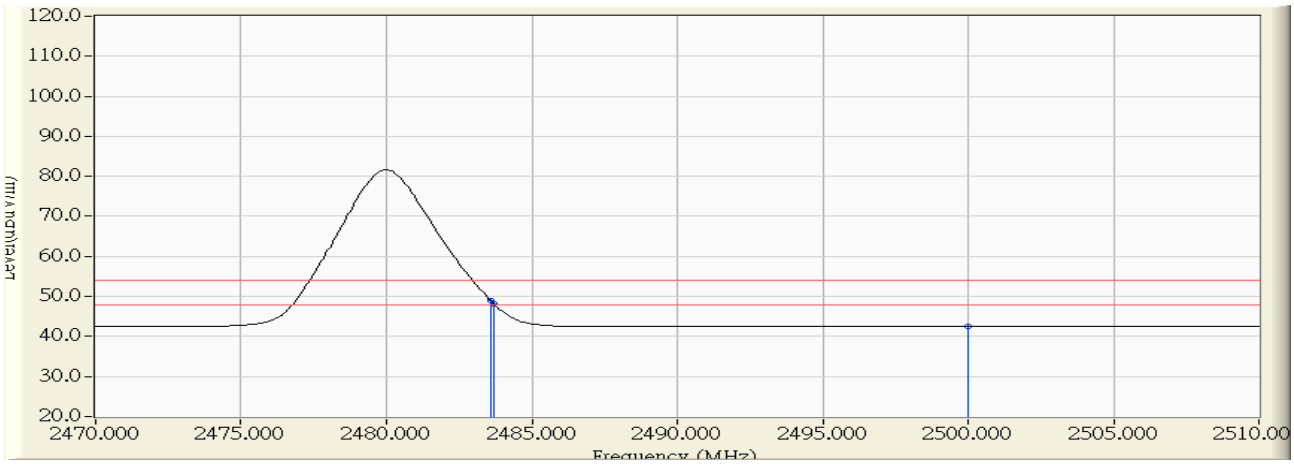


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	25.792	57.304	-16.696	74.000	PEAK
2		2483.600	31.513	24.928	56.441	-17.559	74.000	PEAK
3		2500.000	31.638	23.322	54.961	-19.039	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:46**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 1: Transmit (GFSK) DH5_ 2480MHz**

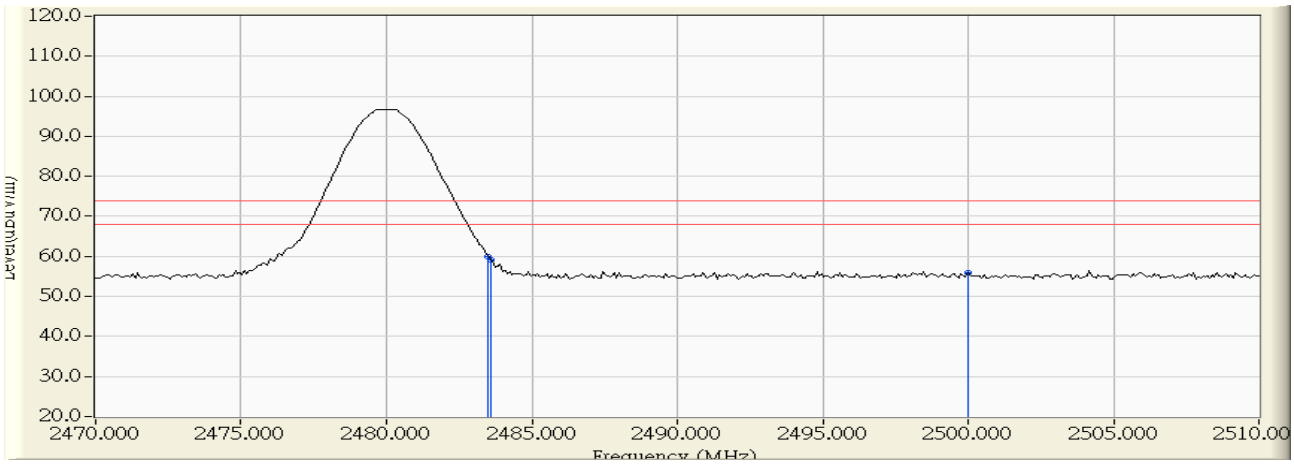


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.600	31.513	17.341	48.854	-5.146	54.000	AVERAGE
2		2483.680	31.514	16.679	48.193	-5.807	54.000	AVERAGE
3		2500.000	31.638	10.867	42.506	-11.494	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2480MHz**

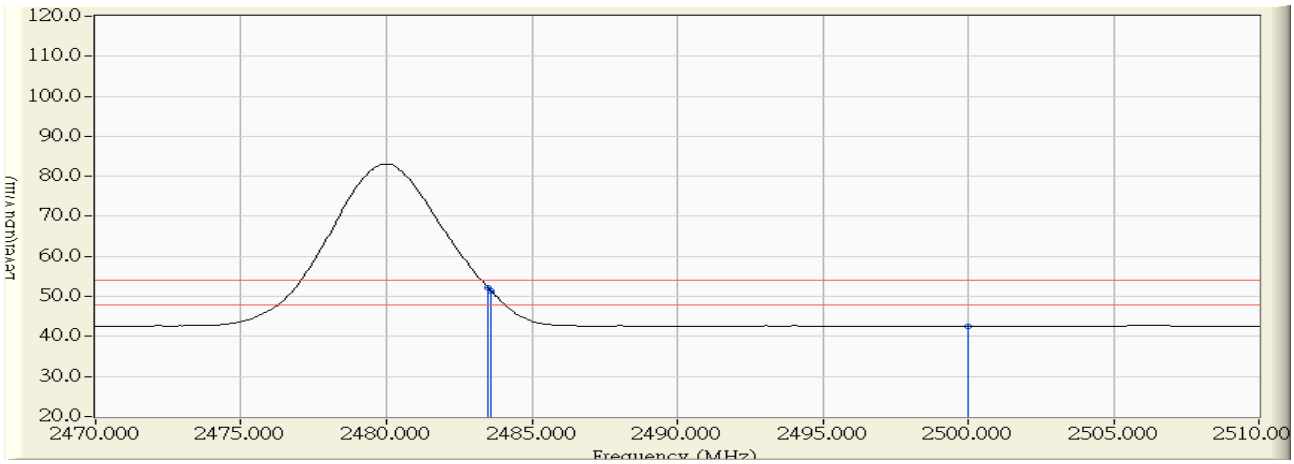


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	28.528	60.040	-13.960	74.000	PEAK
2		2483.600	31.513	27.672	59.185	-14.815	74.000	PEAK
3		2500.000	31.638	24.246	55.885	-18.115	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:48**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2480MHz**

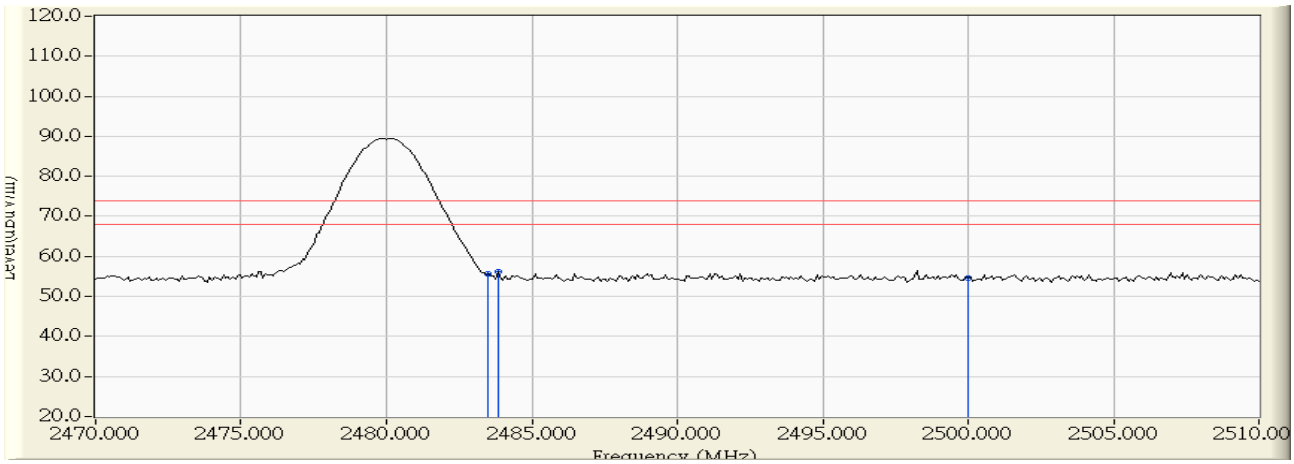


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	20.631	52.143	-1.857	54.000	AVERAGE
2		2483.600	31.513	19.741	51.254	-2.746	54.000	AVERAGE
3		2500.000	31.638	10.910	42.549	-11.451	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:50**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2480MHz**

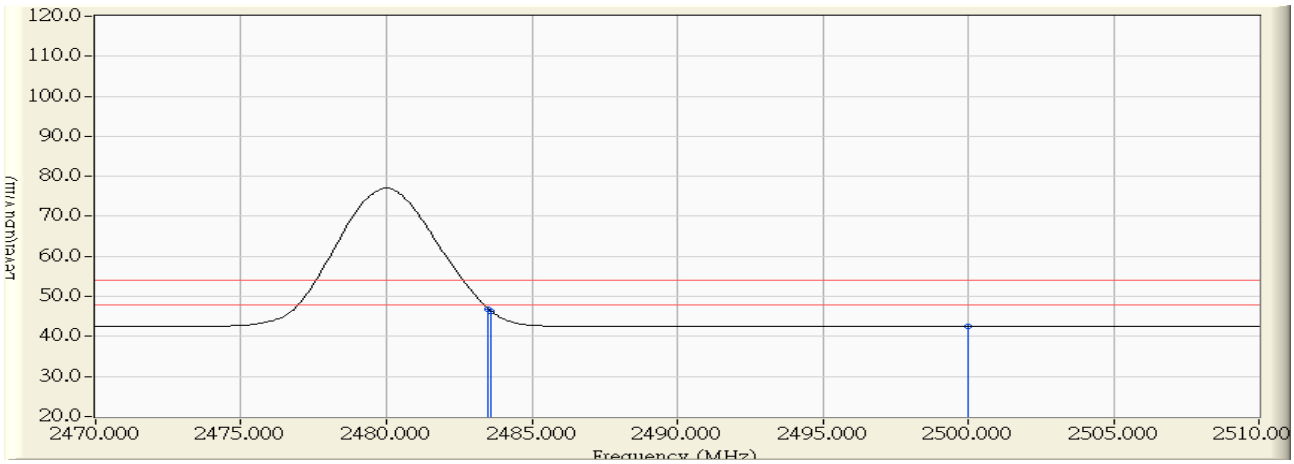


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	24.044	55.556	-18.444	74.000	PEAK
2	*	2483.840	31.515	24.659	56.174	-17.826	74.000	PEAK
3		2500.000	31.638	23.050	54.689	-19.311	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:51**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 2: Transmit (π/4-DQPSK) 2DH5_ 2480MHz**

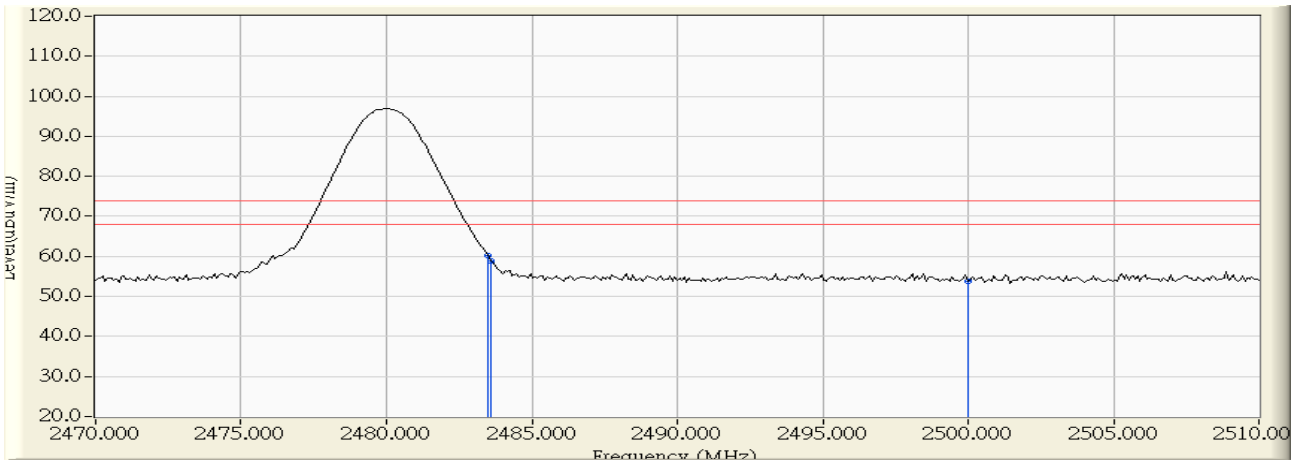


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	15.423	46.935	-7.065	54.000	AVERAGE
2		2483.600	31.513	14.777	46.290	-7.710	54.000	AVERAGE
3		2500.000	31.638	10.889	42.528	-11.472	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:54**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2480MHz**

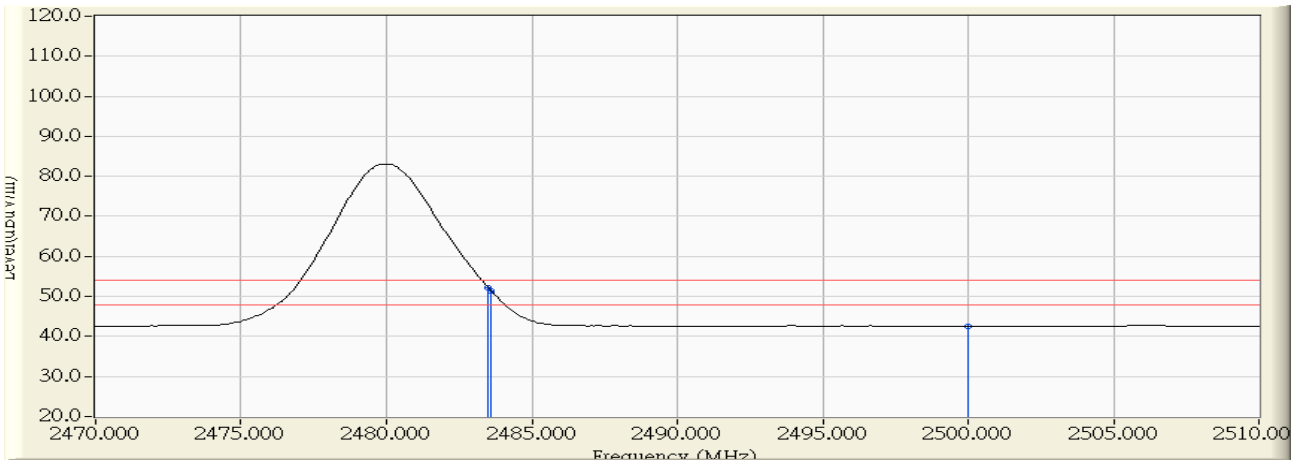


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	28.654	60.166	-13.834	74.000	PEAK
2		2483.600	31.513	27.493	59.006	-14.994	74.000	PEAK
3		2500.000	31.638	22.158	53.797	-20.203	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:55**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2480MHz**

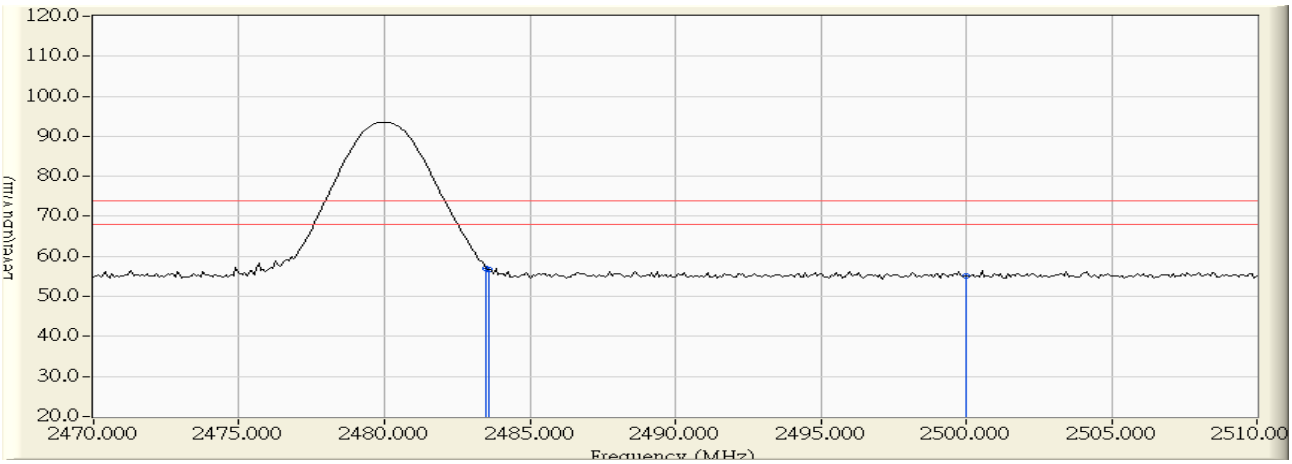


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	20.774	52.286	-1.714	54.000	AVERAGE
2		2483.600	31.513	19.976	51.489	-2.511	54.000	AVERAGE
3		2500.000	31.638	10.916	42.555	-11.445	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:58**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2480MHz**

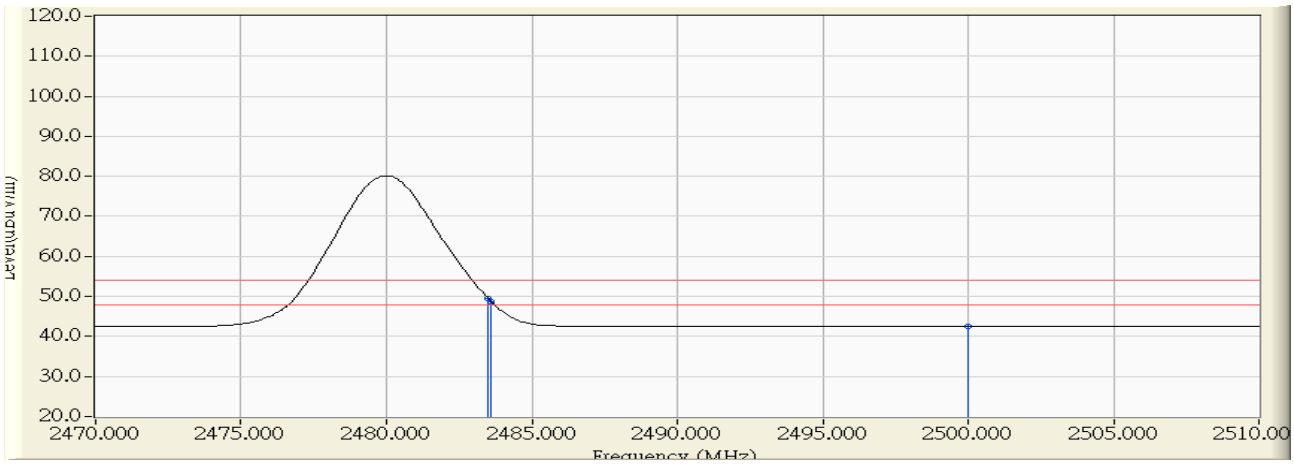


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	25.522	57.034	-16.966	74.000	PEAK
2		2483.600	31.513	25.084	56.597	-17.403	74.000	PEAK
3		2500.000	31.638	23.600	55.239	-18.761	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	**Time : 2012/08/14 - 11:59**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : Battery**
EUT : Mophie powerblu	**Note : Mode 3: Transmit (8DPSK) 3DH5_ 2480MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	18.050	49.562	-4.438	54.000	AVERAGE
2		2483.600	31.513	17.214	48.727	-5.273	54.000	AVERAGE
3		2500.000	31.638	10.896	42.535	-11.465	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

7. Number of hopping frequency

7.1. Test Equipment

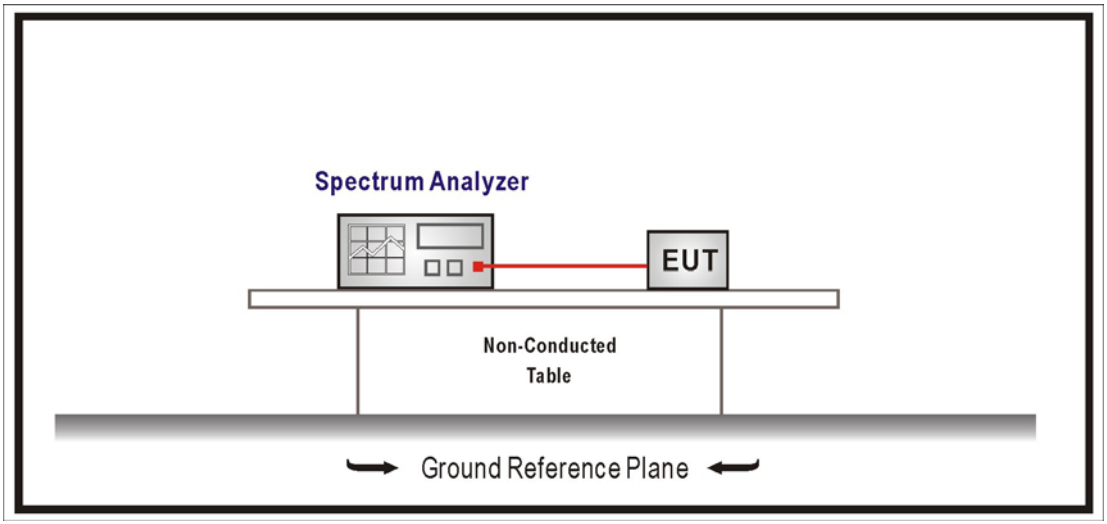
The following test equipment is used during the test:

Number of hopping frequency / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

For frequency hopping systems operating in the 2400-2483.5 MHz bands, which use fewer than 75 hopping frequencies, may employ intelligent hopping techniques to avoid interference to other transmissions. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 non-overlapping channels are used.

For frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.

7.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

Span = the frequency band of operation

RBW ≥ 1% of the span ， VBW ≥ RBW

Sweep = auto, Detector function = peak, Trace = max hold

7.5. Test Specification

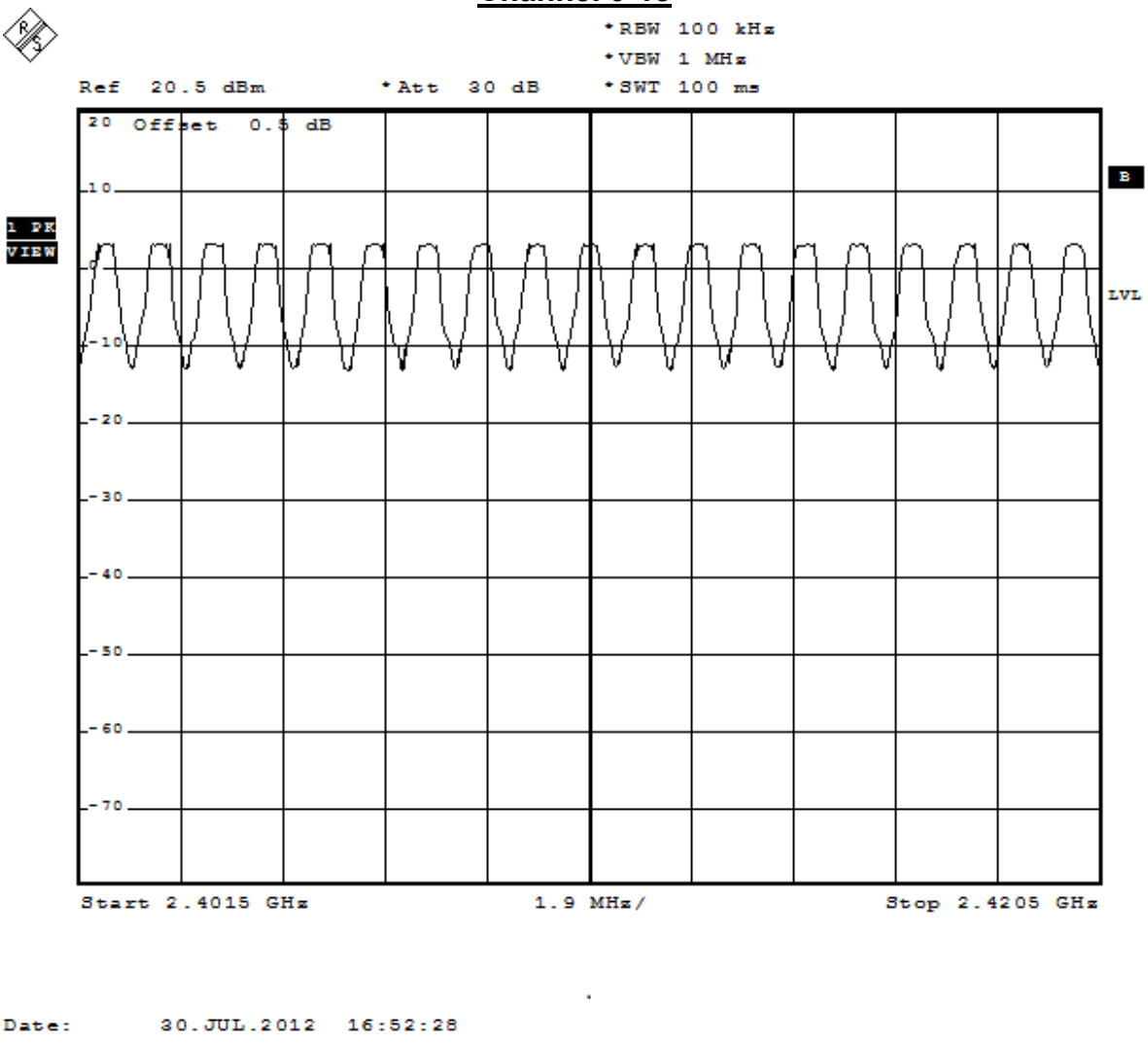
According to FCC Part 15 Subpart C Paragraph 15.247: 2011

7.6. Test Result

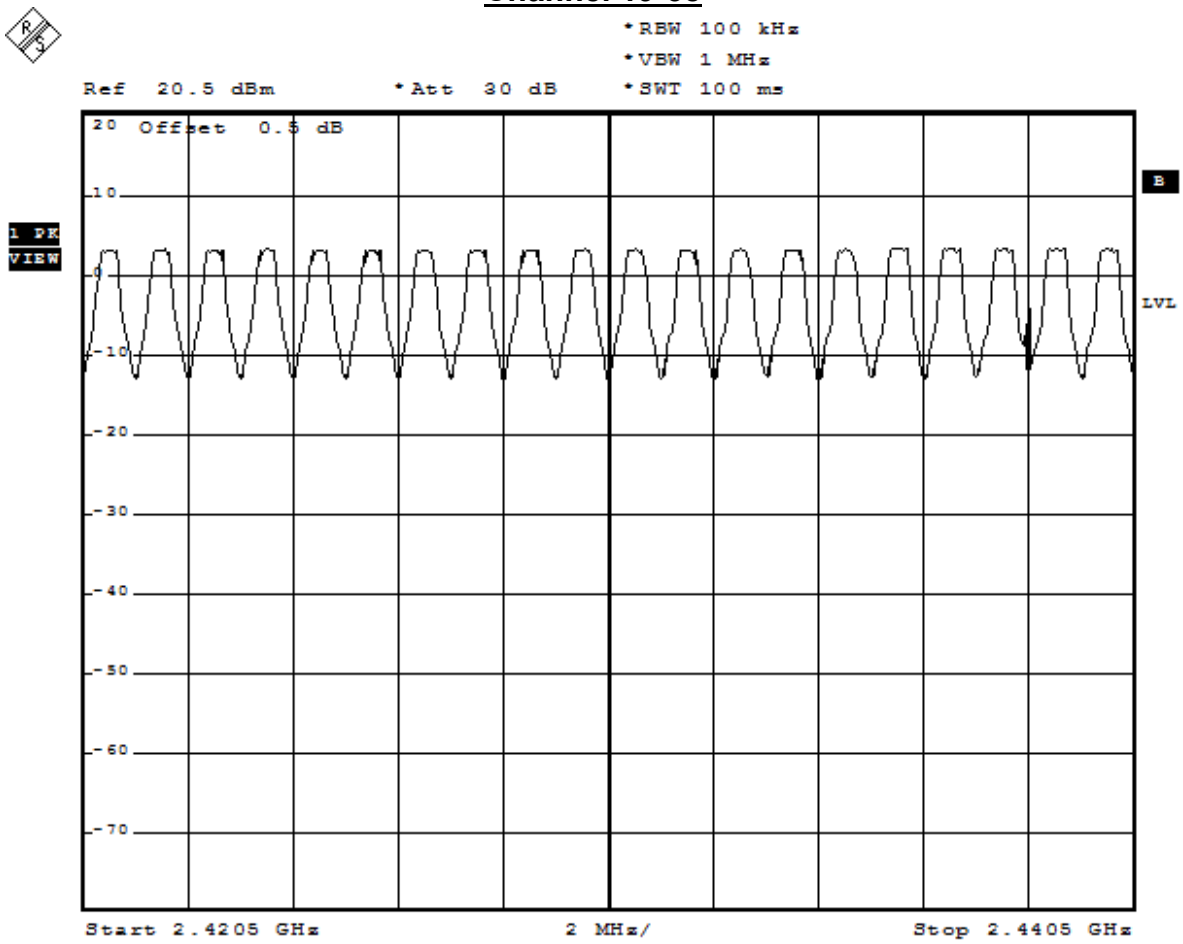
Product	Mophie powerblu		
Test Item	Number of hopping frequency		
Test Mode	Mode 1: Transmit		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

Frequency Range (MHz)	Measure Level (Channels)	Limit (Channels)	Result
2402 ~ 2480	79	>75	Pass

Channel 0-18

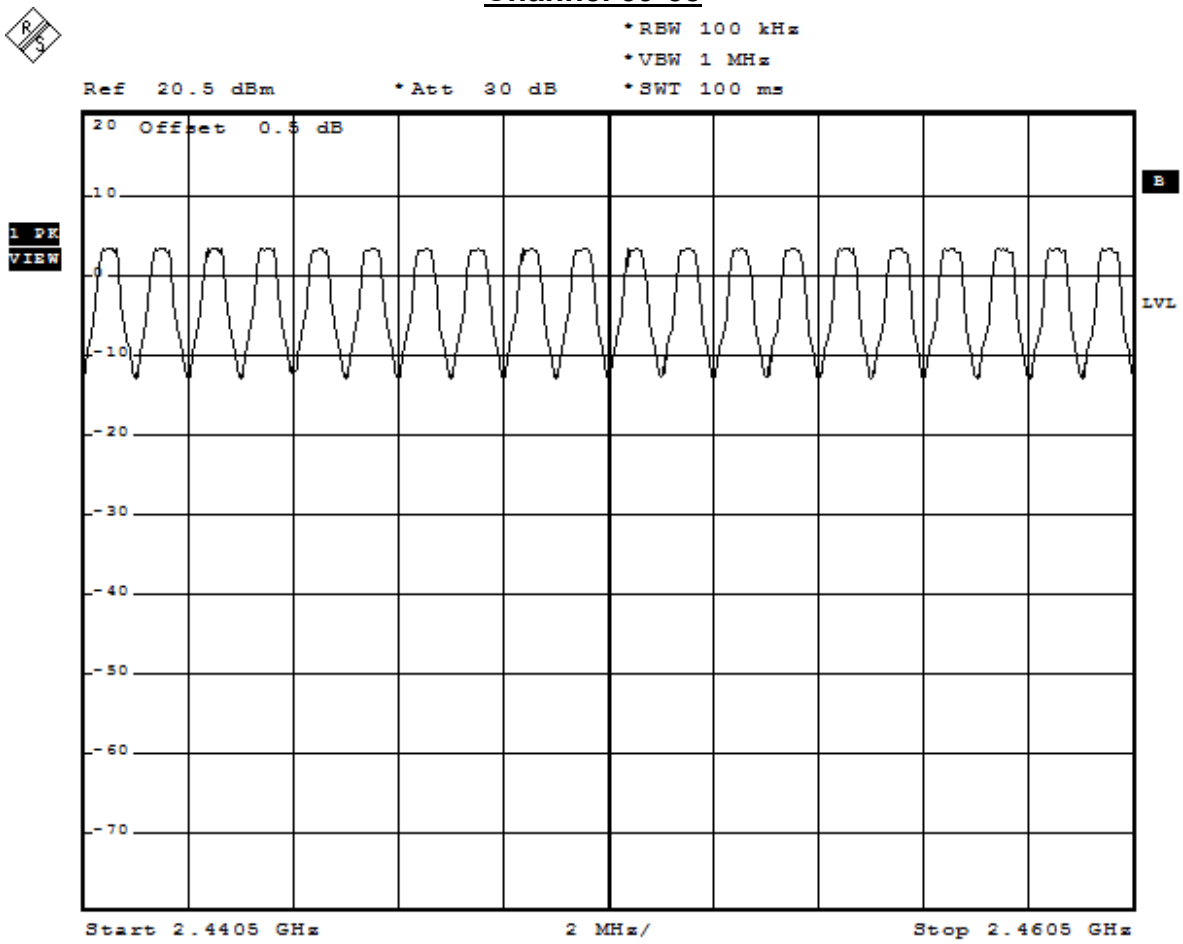


Channel 19-38

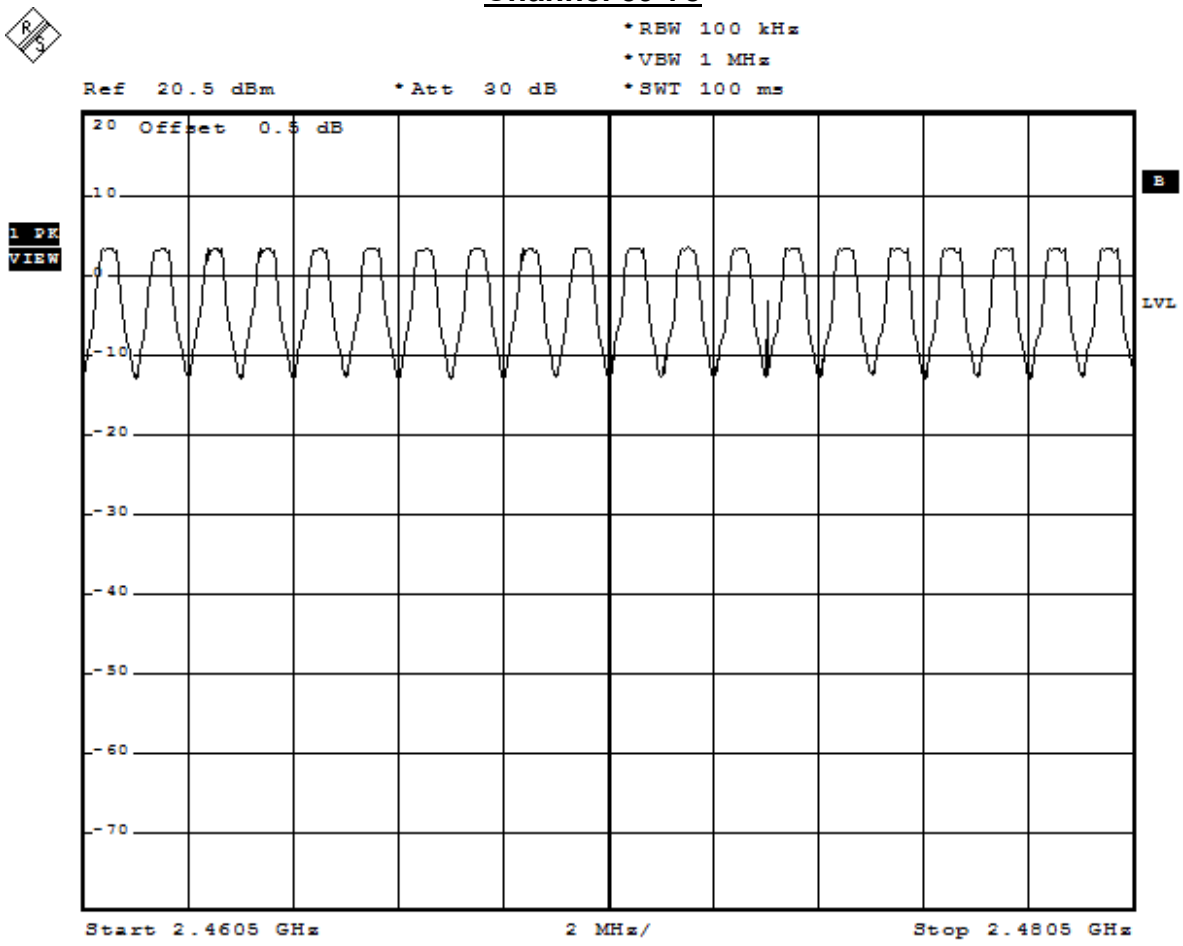


Date: 30.JUL.2012 17:00:32

Channel 39-58



Channel 59-78



8. Carrier Frequency Separation

8.1. Test Equipment

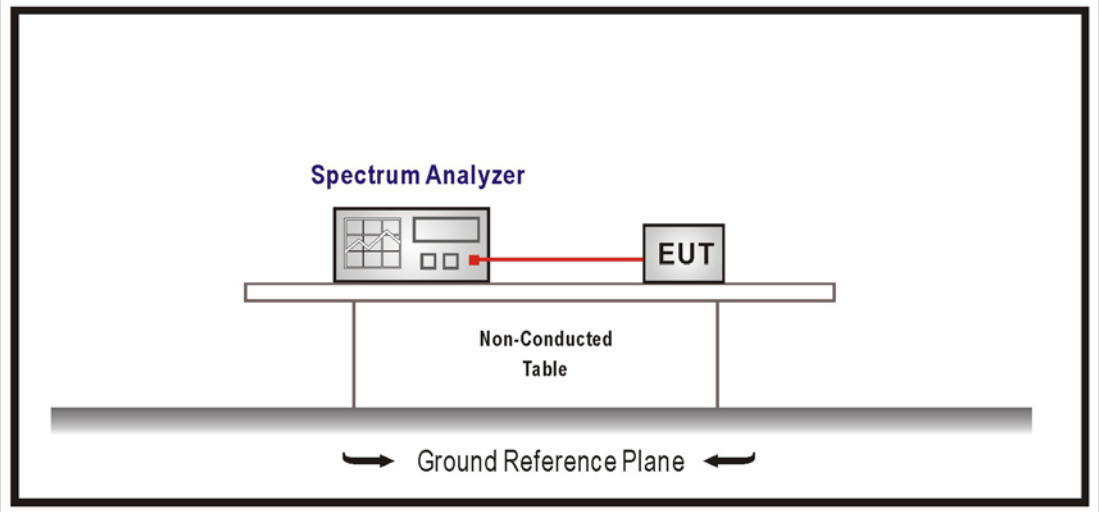
The following test equipment is used during the test:

Carrier Frequency Separation / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup



8.3. Limits

For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements

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

Resolution Bandwidth (RBW) ≥ 1% of the span, VBW ≥ RBW

Sweep = auto, Detector function = peak, Trace = max hold

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

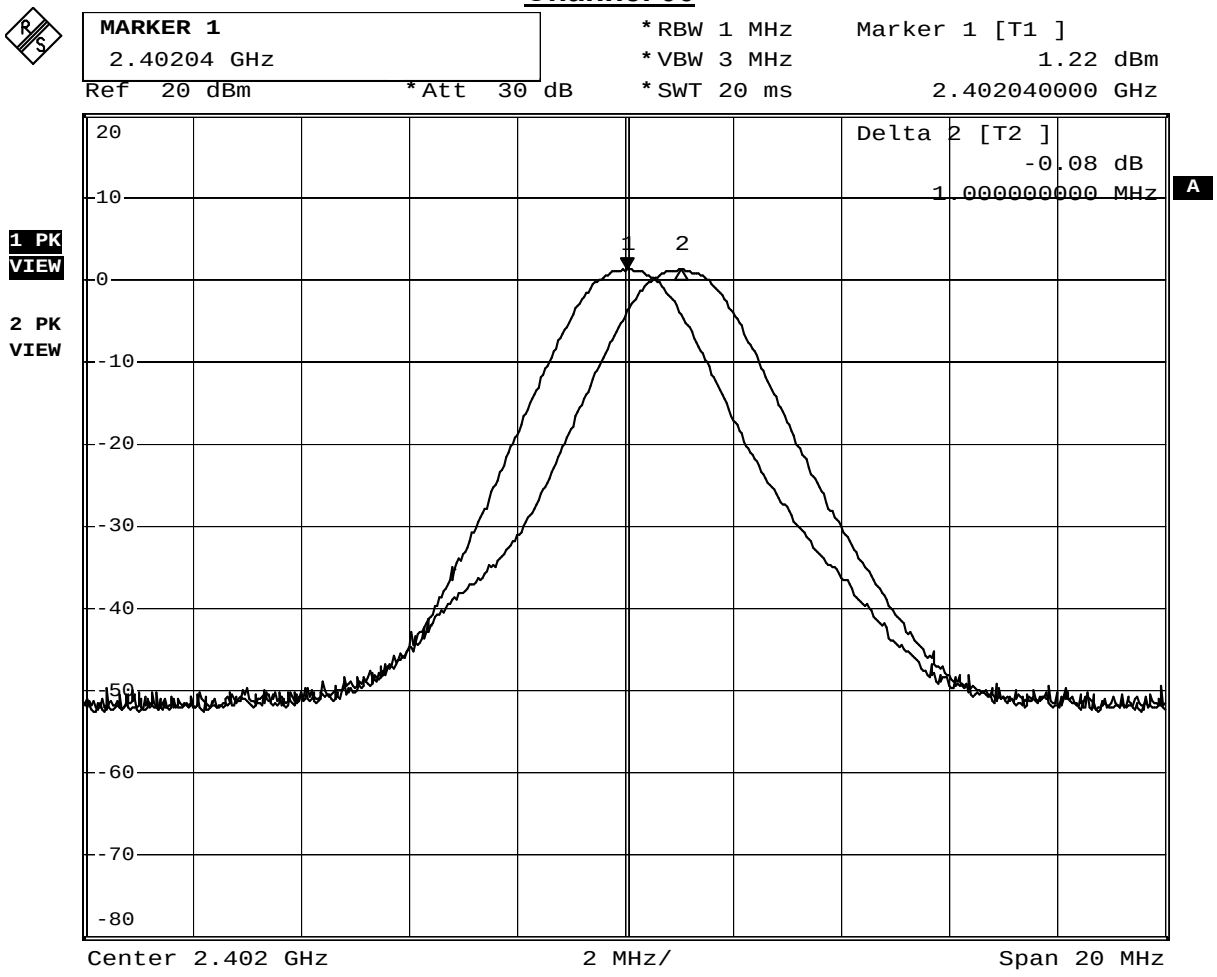
8.6. Test Result

Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.00	≧0.62	Pass

Channel 00



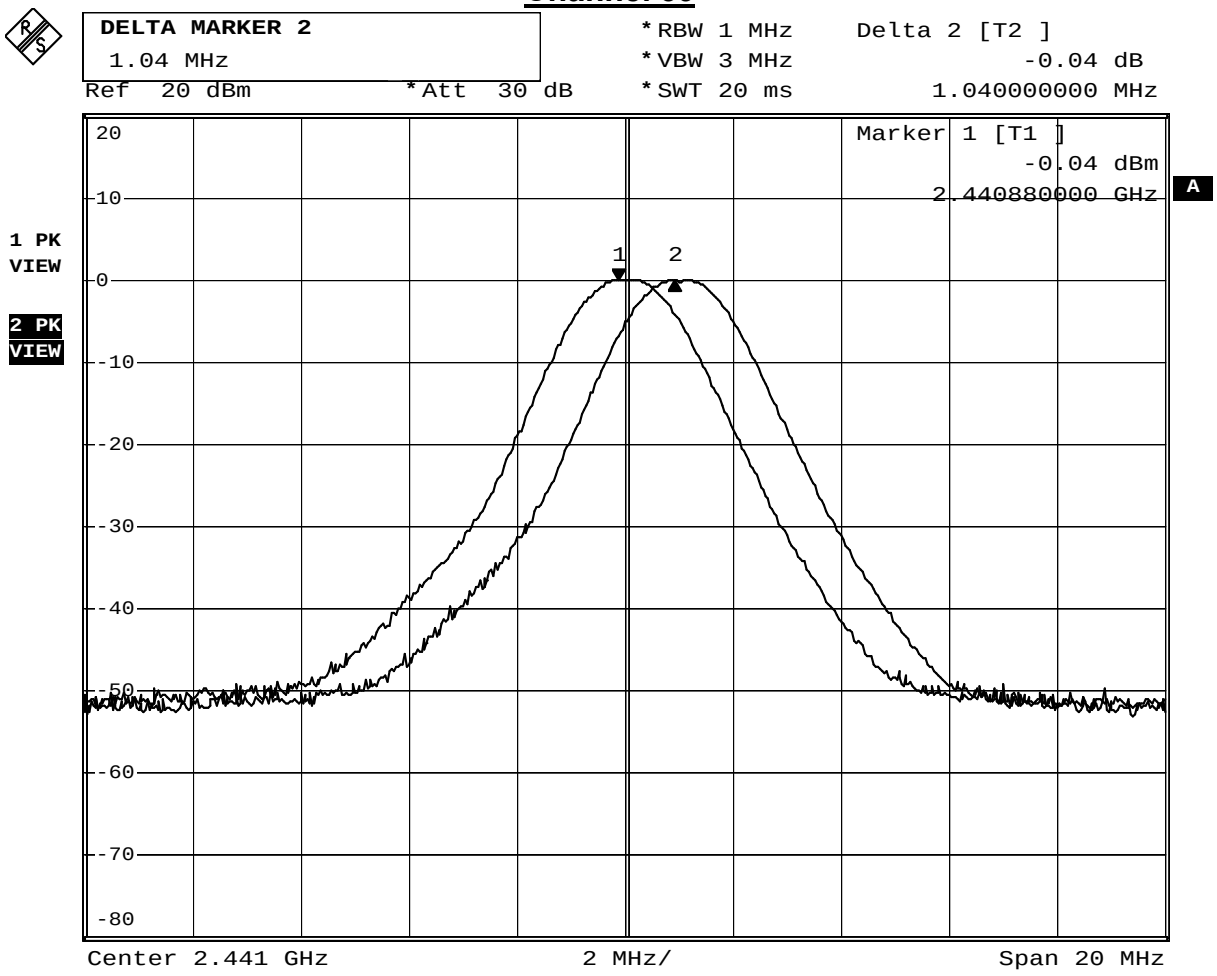
Date: 30.JUL.2012 16:18:06

Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	1.04	≧0.63	Pass

Channel 39

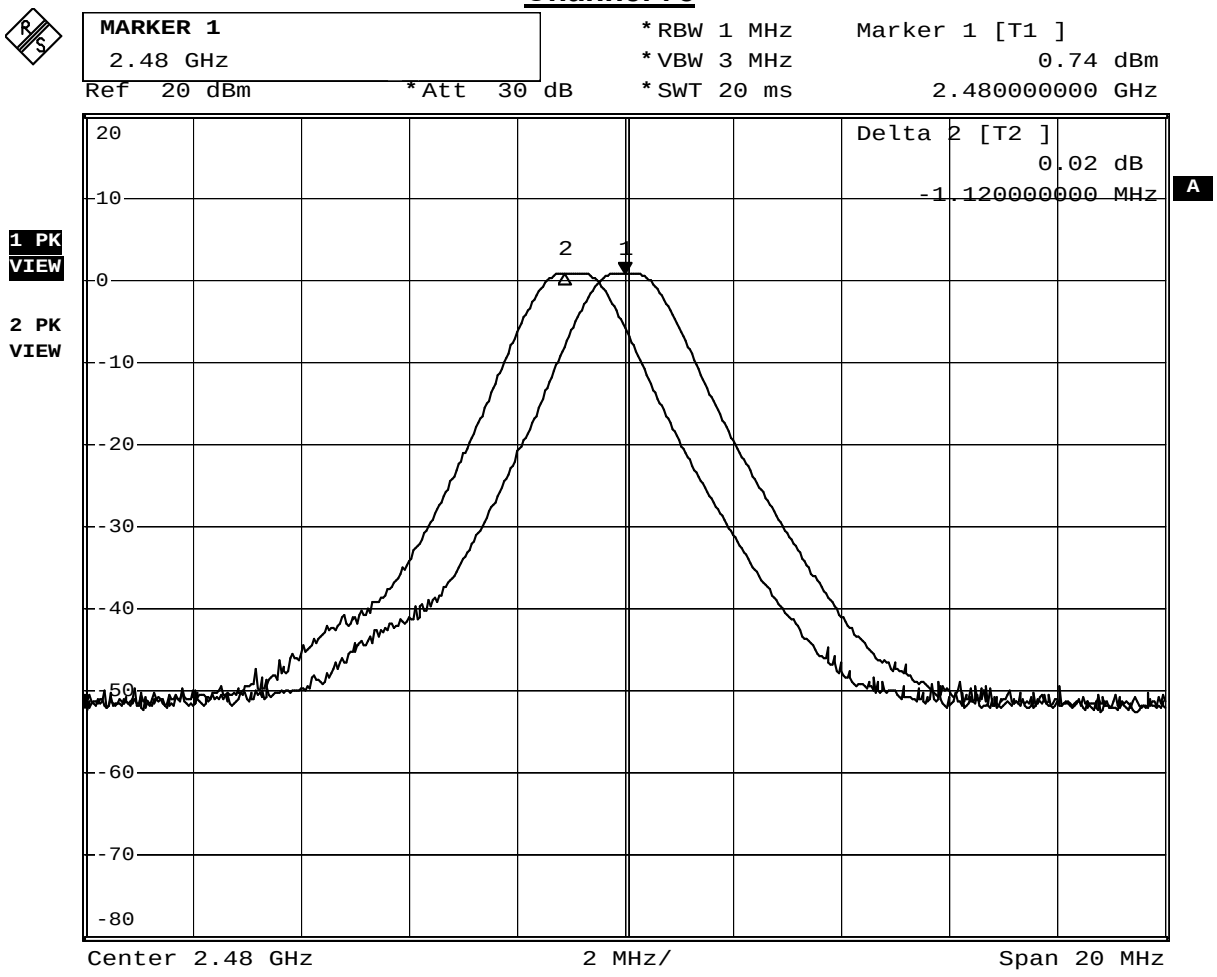


Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	1.12	≥0.62	Pass

Channel 78

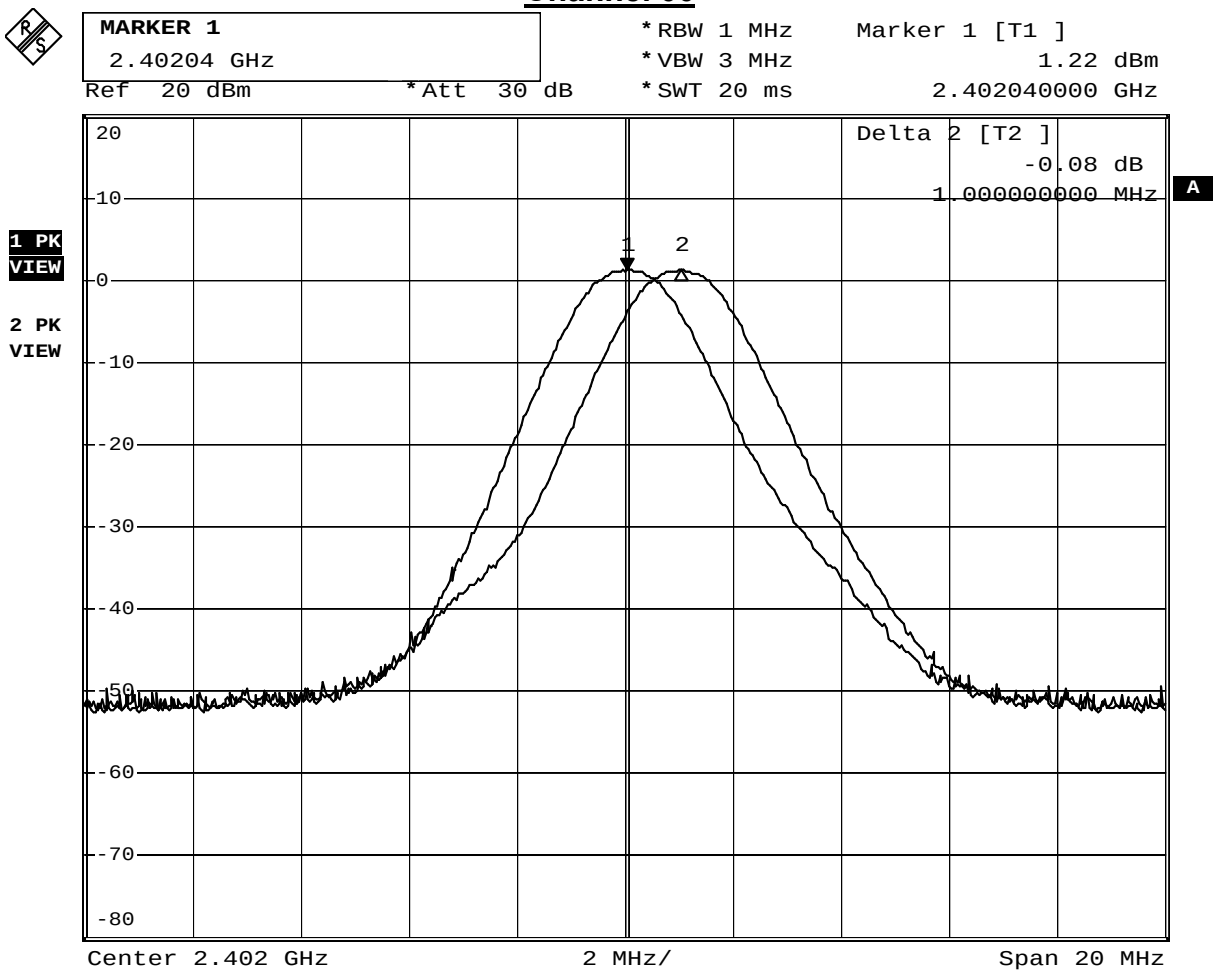


Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.00	≥0.88	Pass

Channel 00

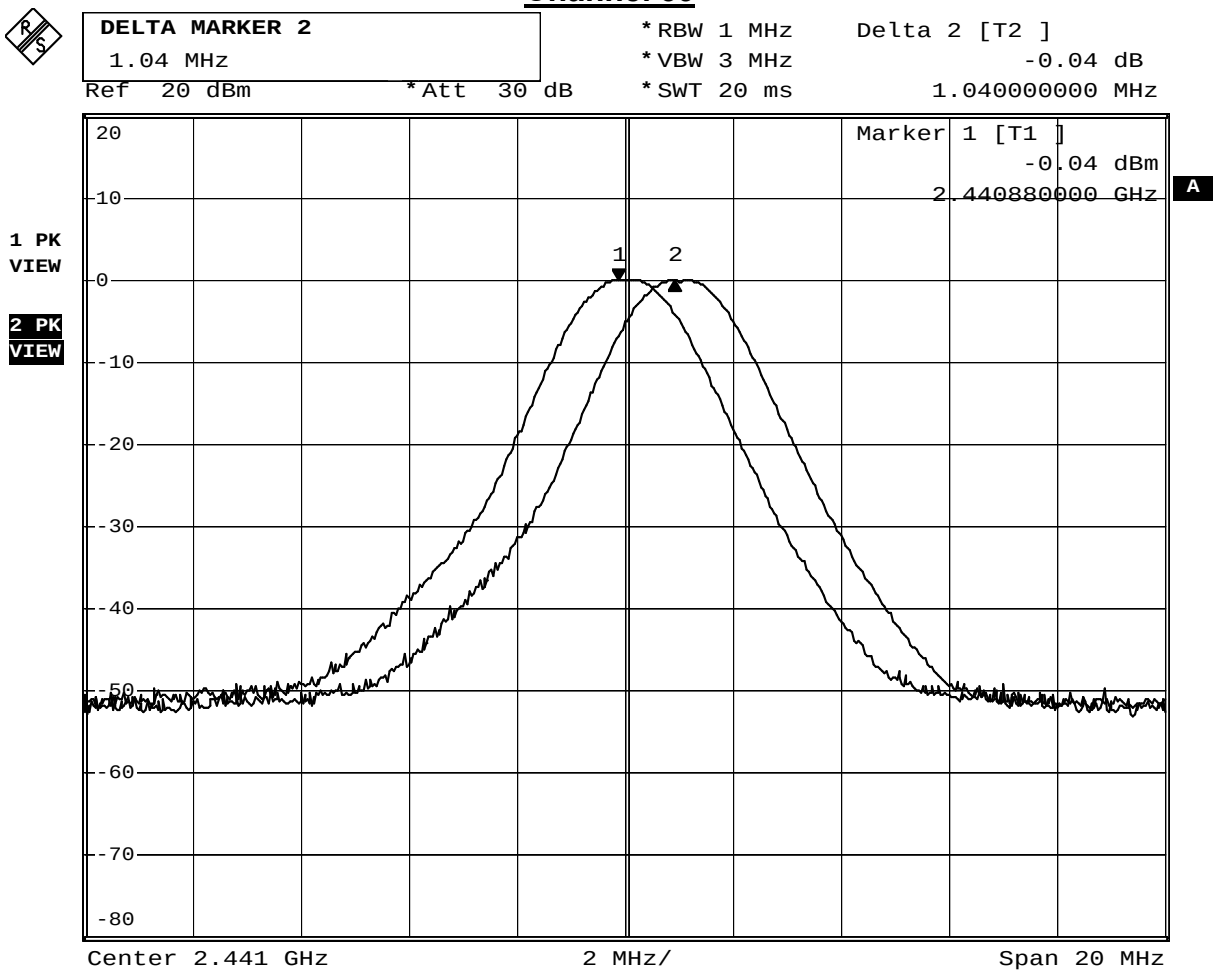


Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	1.04	≥0.85	Pass

Channel 39



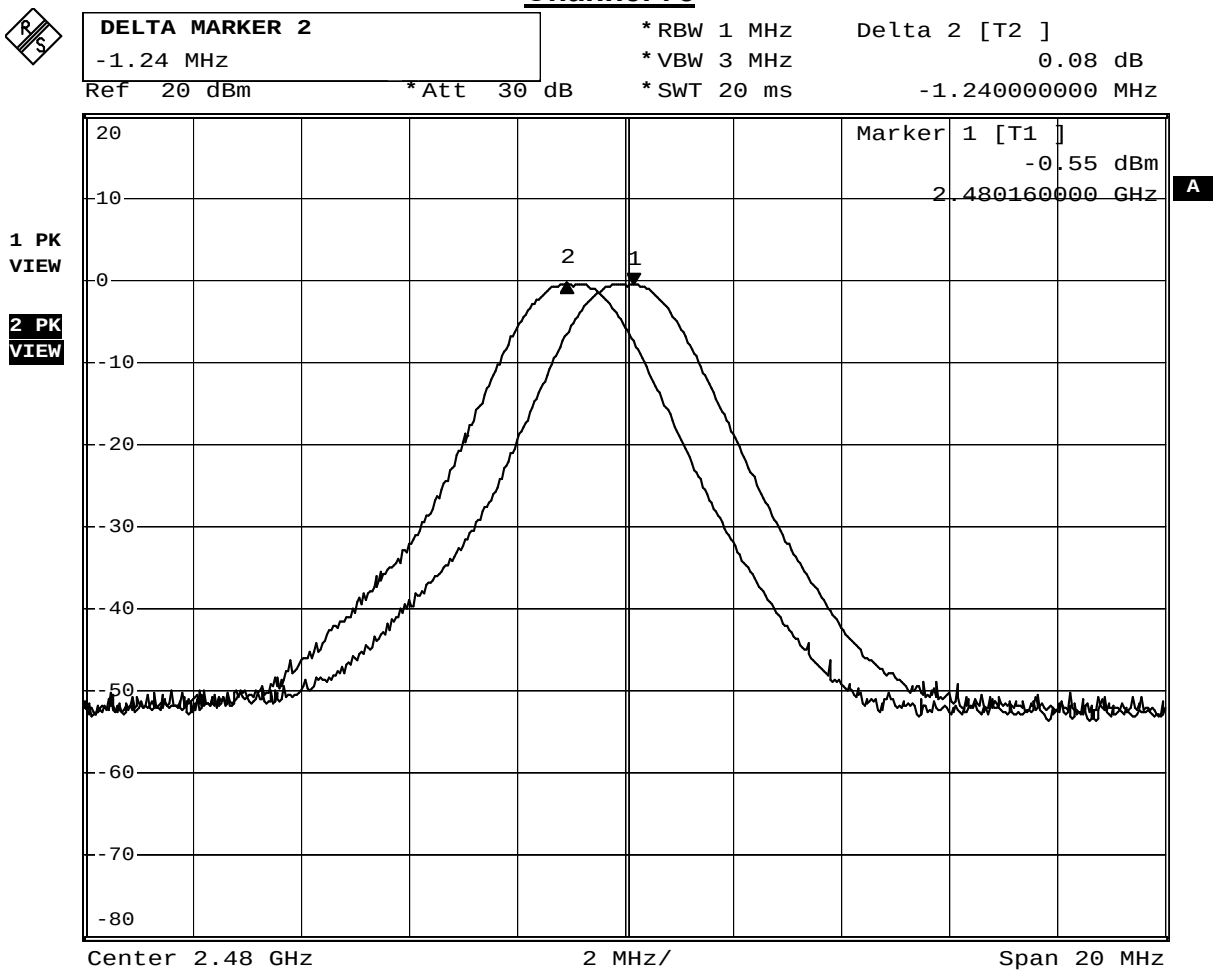
Date: 30.JUL.2012 16:24:30

Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	1.24	≥0.85	Pass

Channel 78

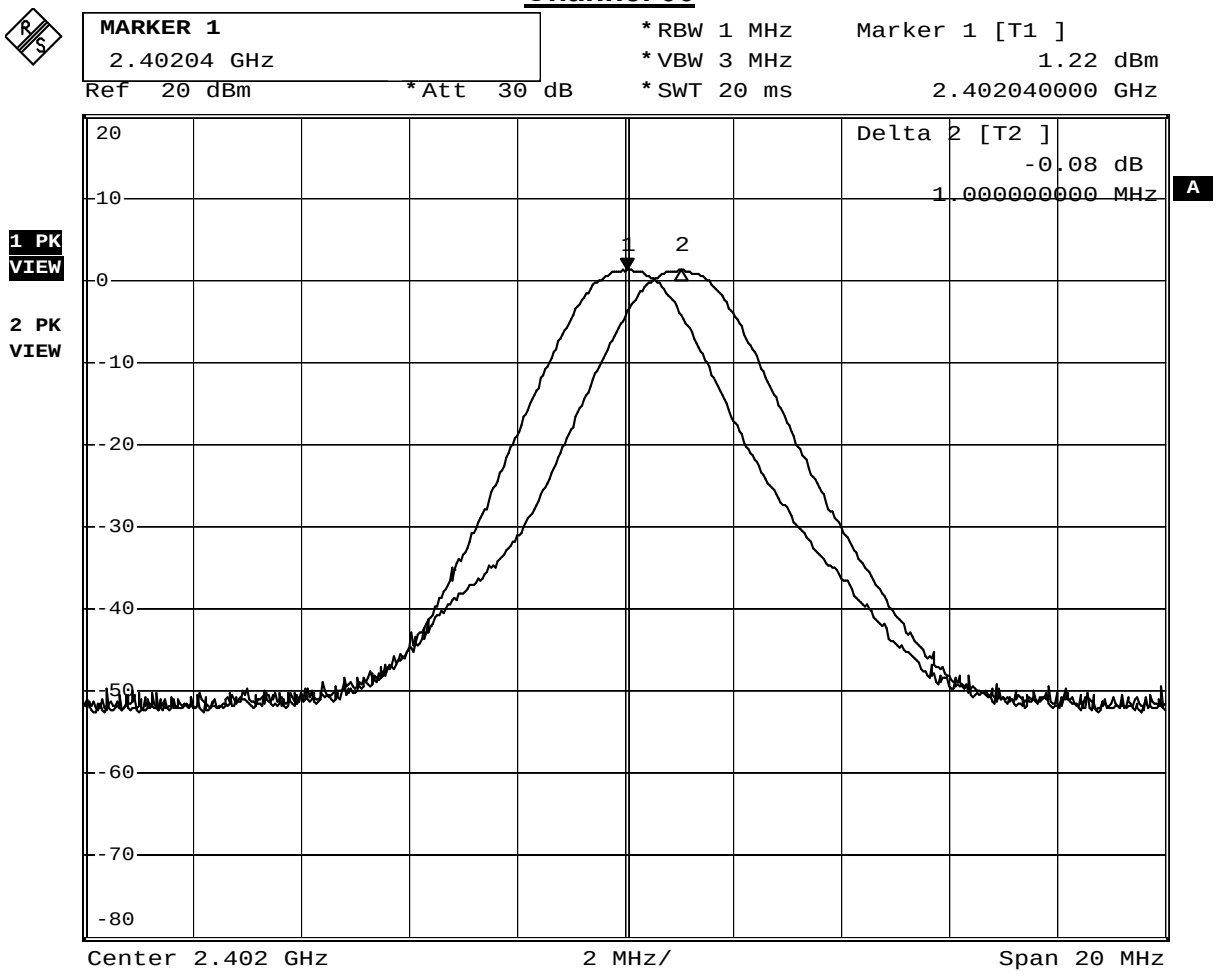


Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.00	≥0.85	Pass

Channel 00

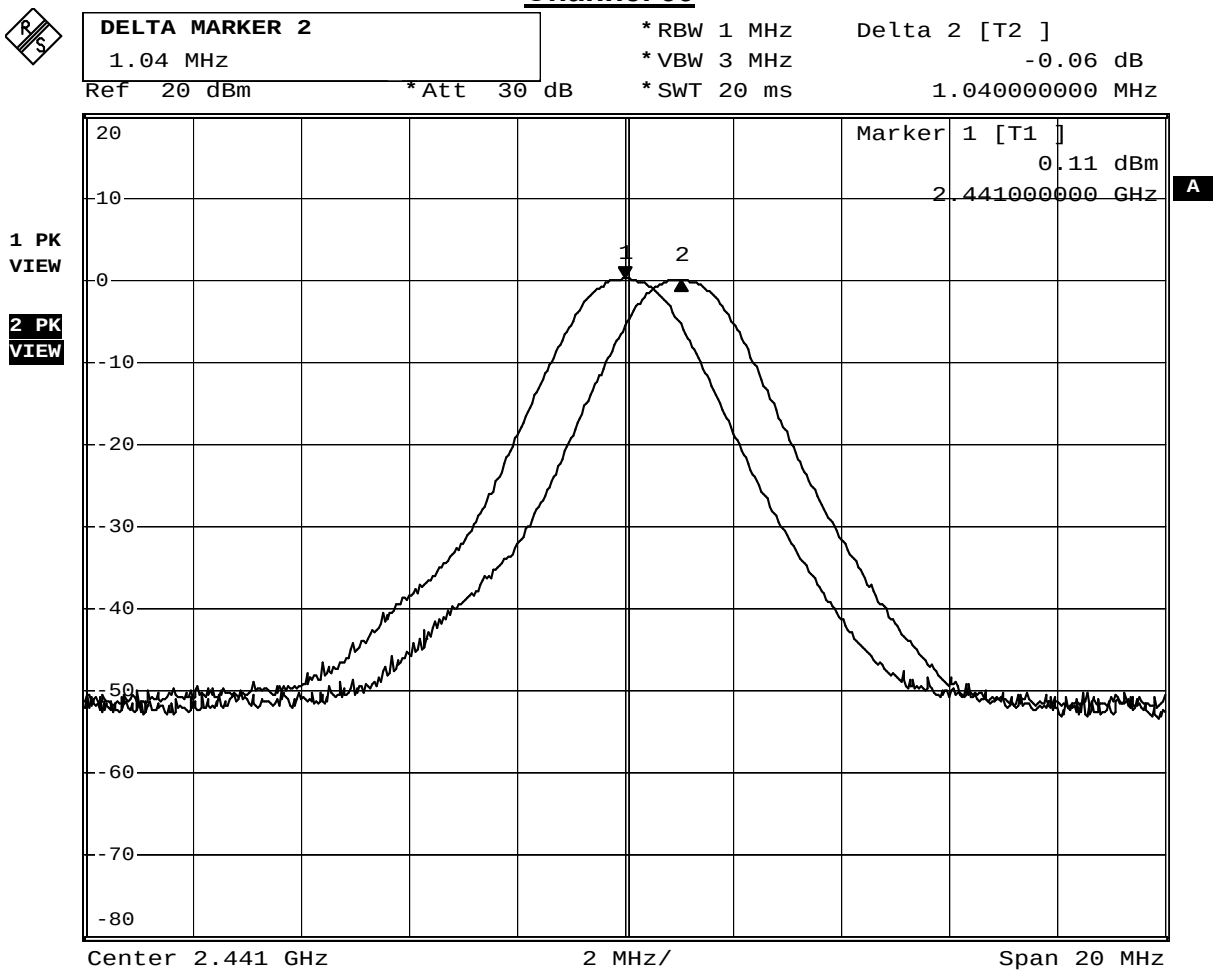


Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	1.04	≥0.87	Pass

Channel 39



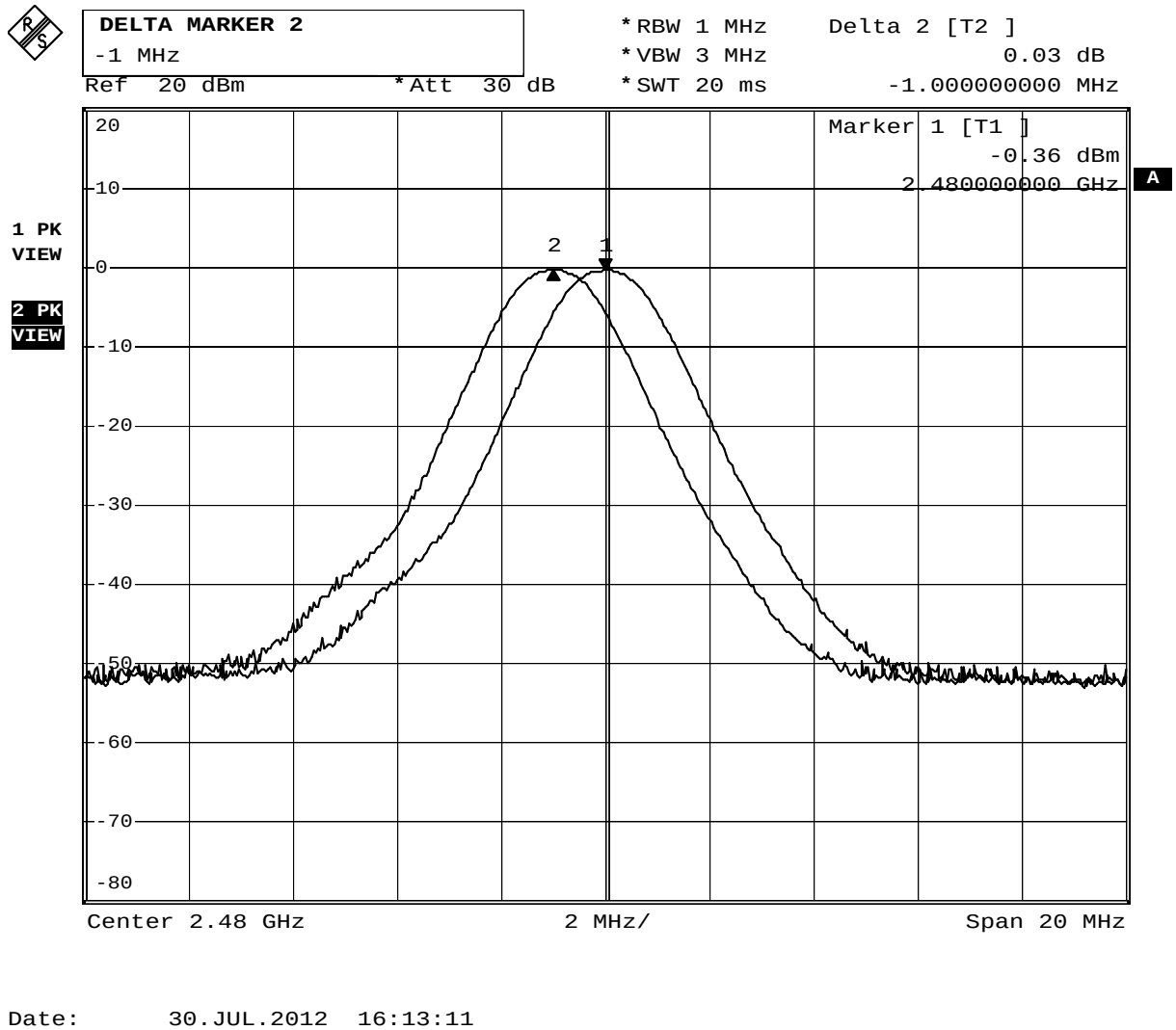
Date: 30.JUL.2012 16:16:04

Product	Mophie powerblu		
Test Item	Carrier Frequency Separation		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/07/31	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	1.00	≥0.86	Pass

Channel 78



9. Occupied Bandwidth

9.1. Test Equipment

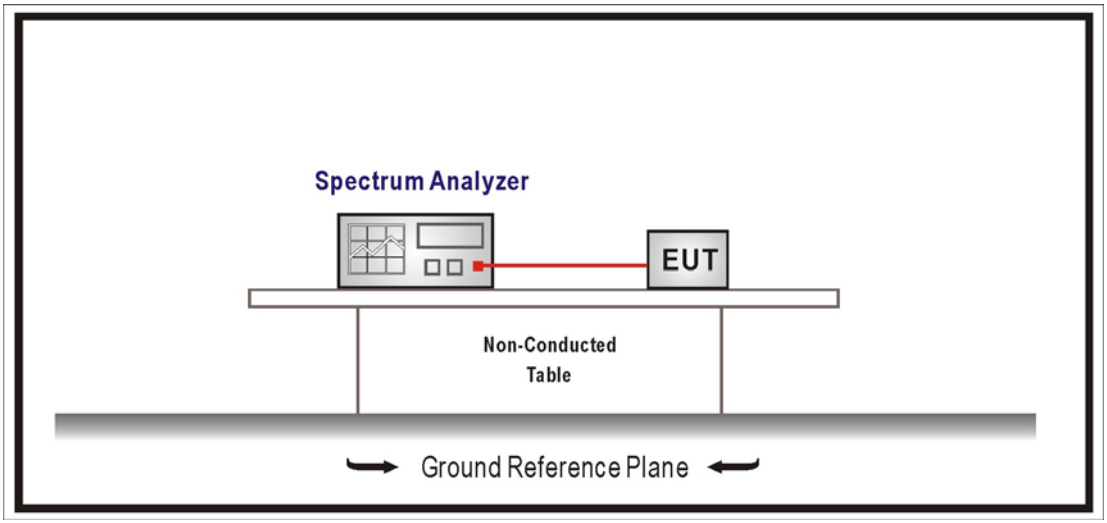
The following test equipment is used during the test:

Occupied Bandwidth / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

9.2. Test Setup



9.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.
For frequency hopping systems operating in the 5725-5850 MHz bands. The maximum 20 dB bandwidth of the hopping channel is 1 MHz.
For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

9.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW
Sweep = auto, Detector function = peak, Trace = max hold
The EUT should be transmitting at its maximum data rate.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

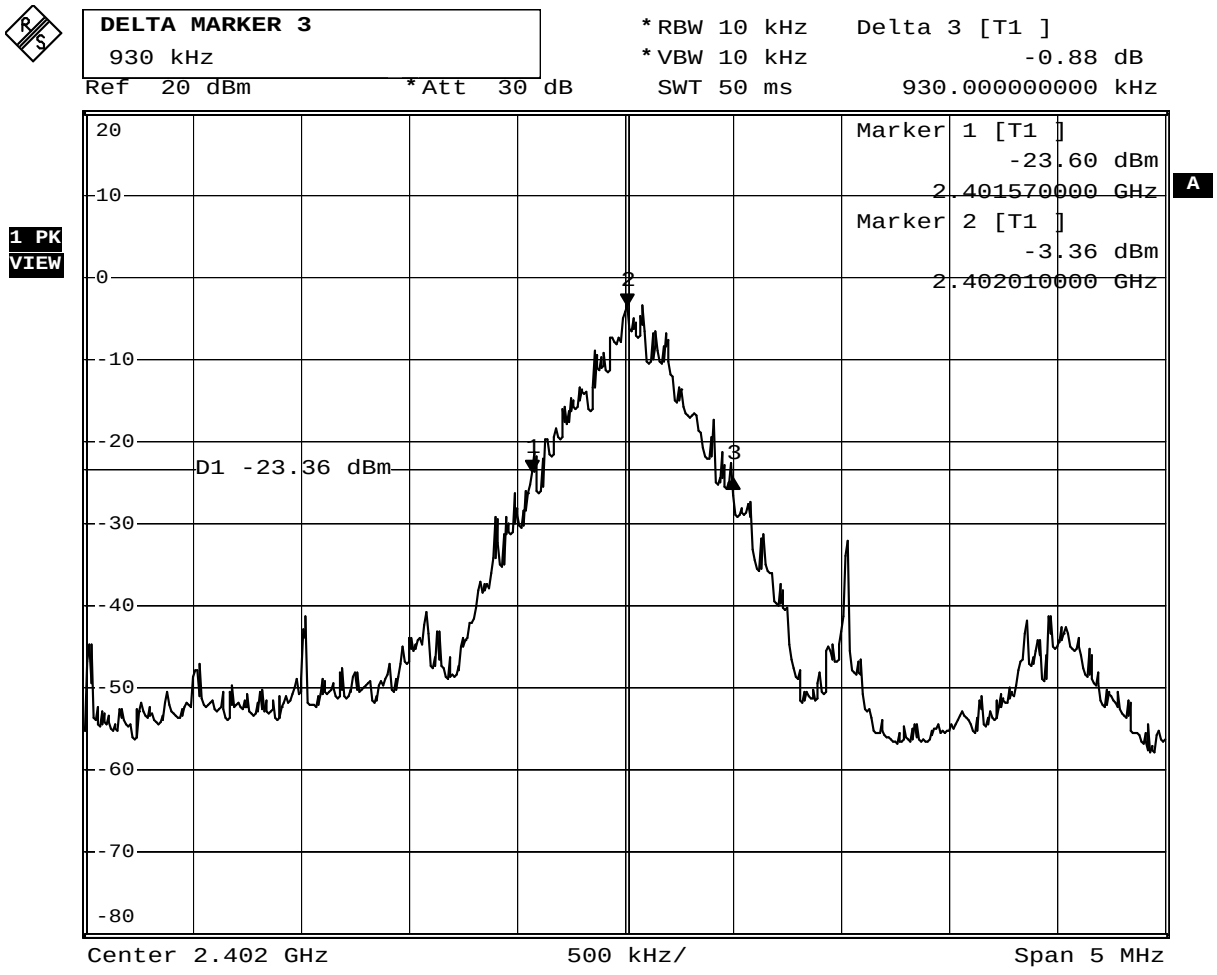
9.6. Test Result

Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	0.93	--	Pass

Channel 00



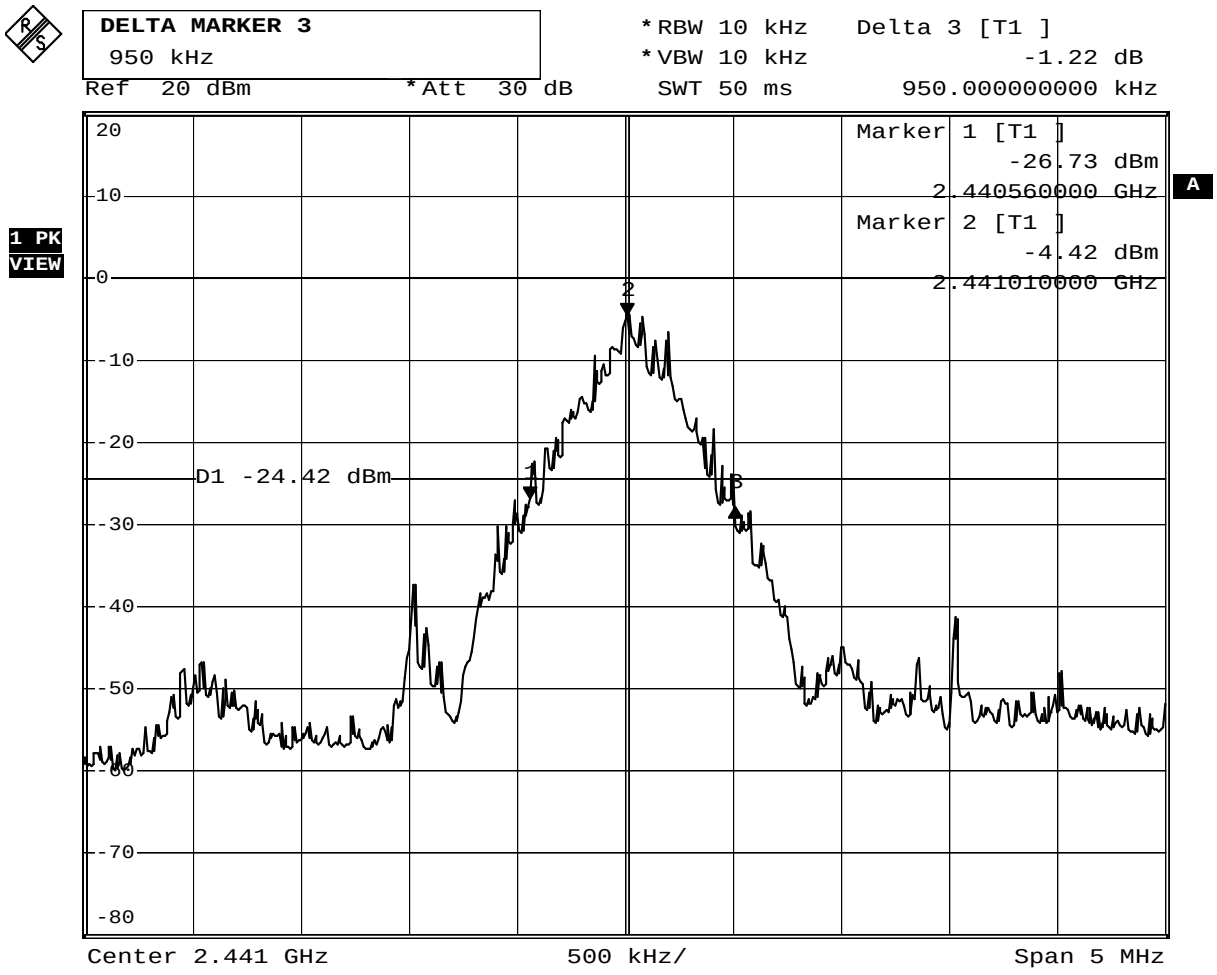
Date: 30.JUL.2012 18:01:45

Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	0.95	--	Pass

Channel 39



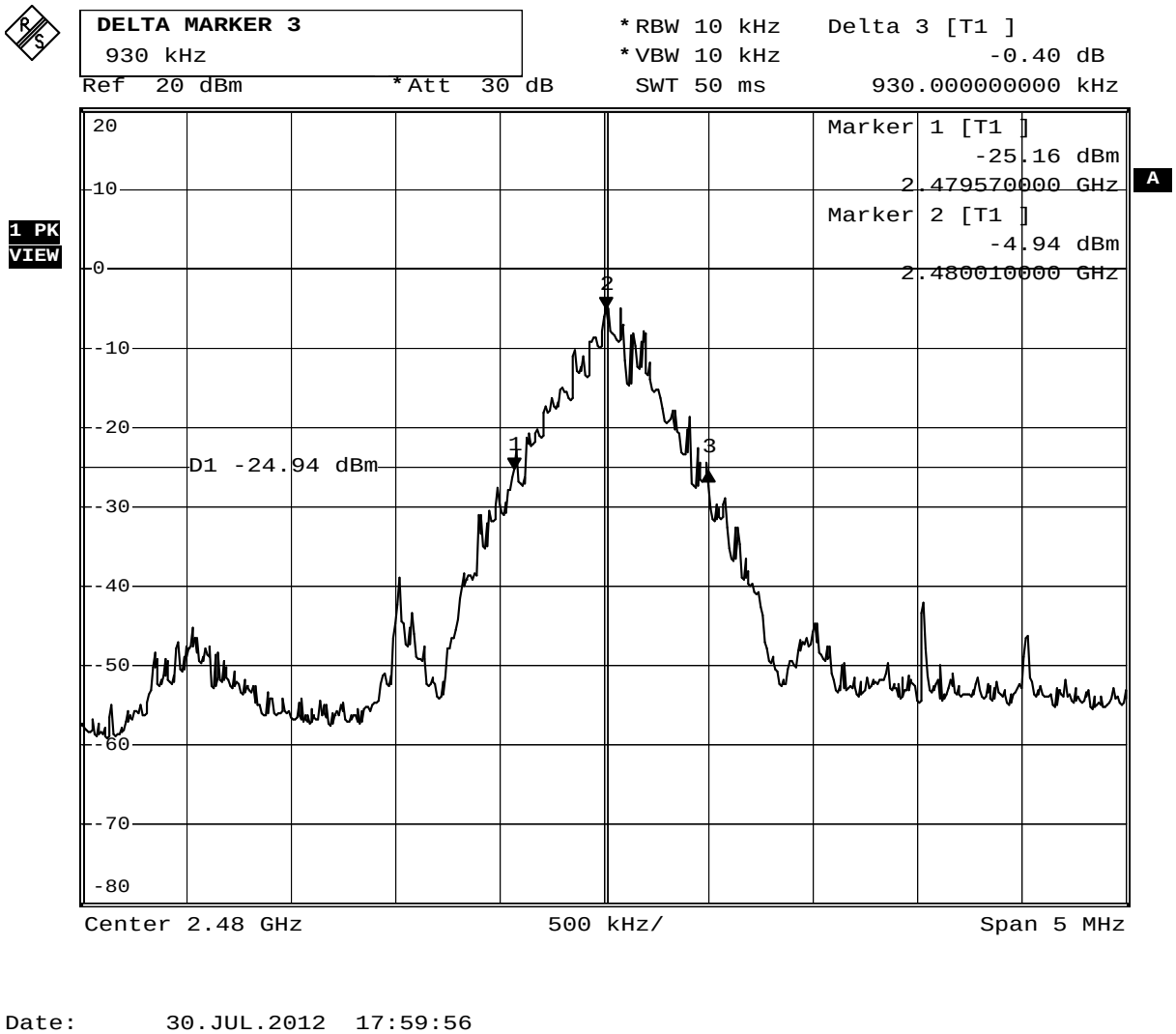
Date: 30.JUL.2012 17:58:28

Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

GFSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	0.93	--	Pass

Channel 78

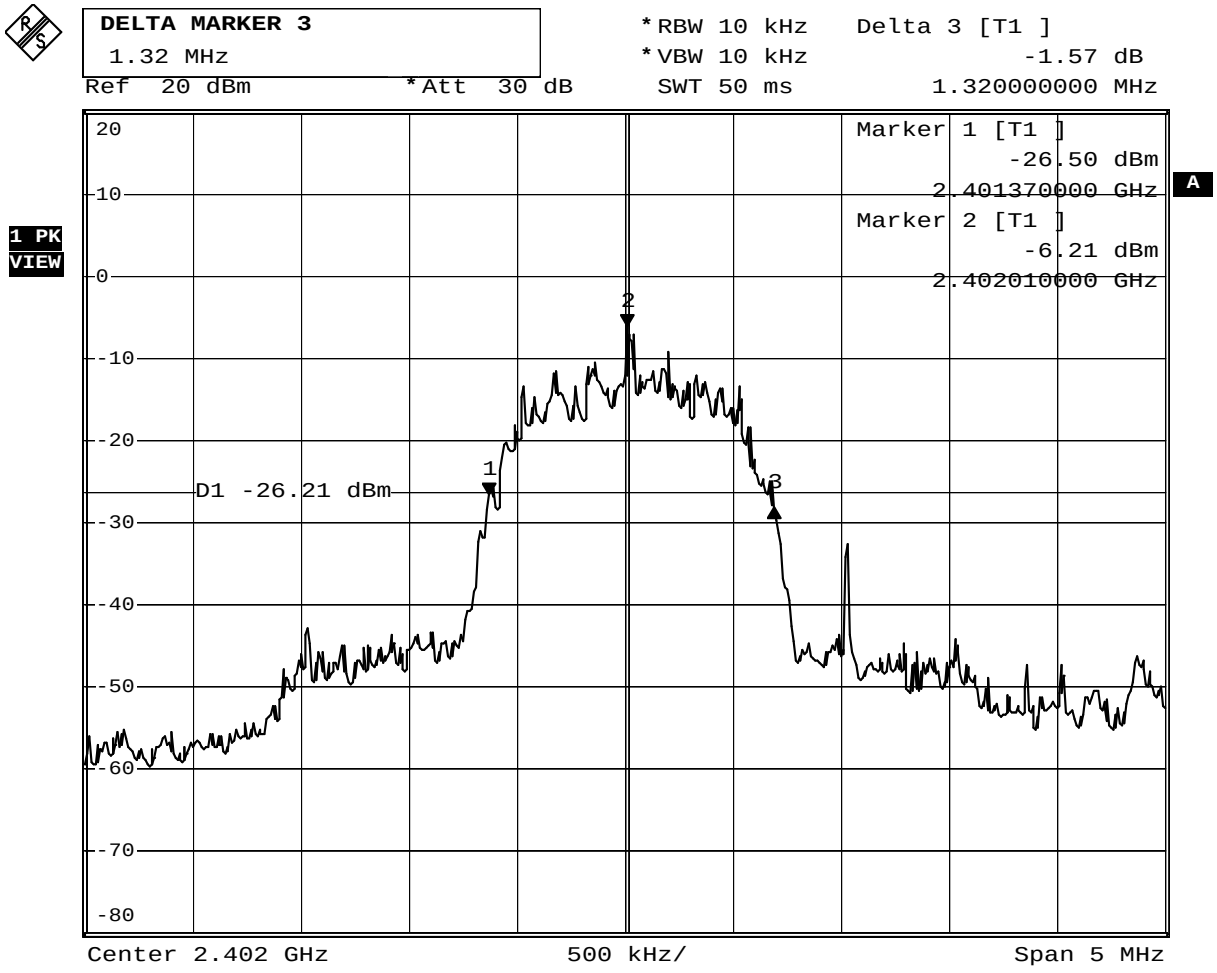


Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.32	--	Pass

Channel 00

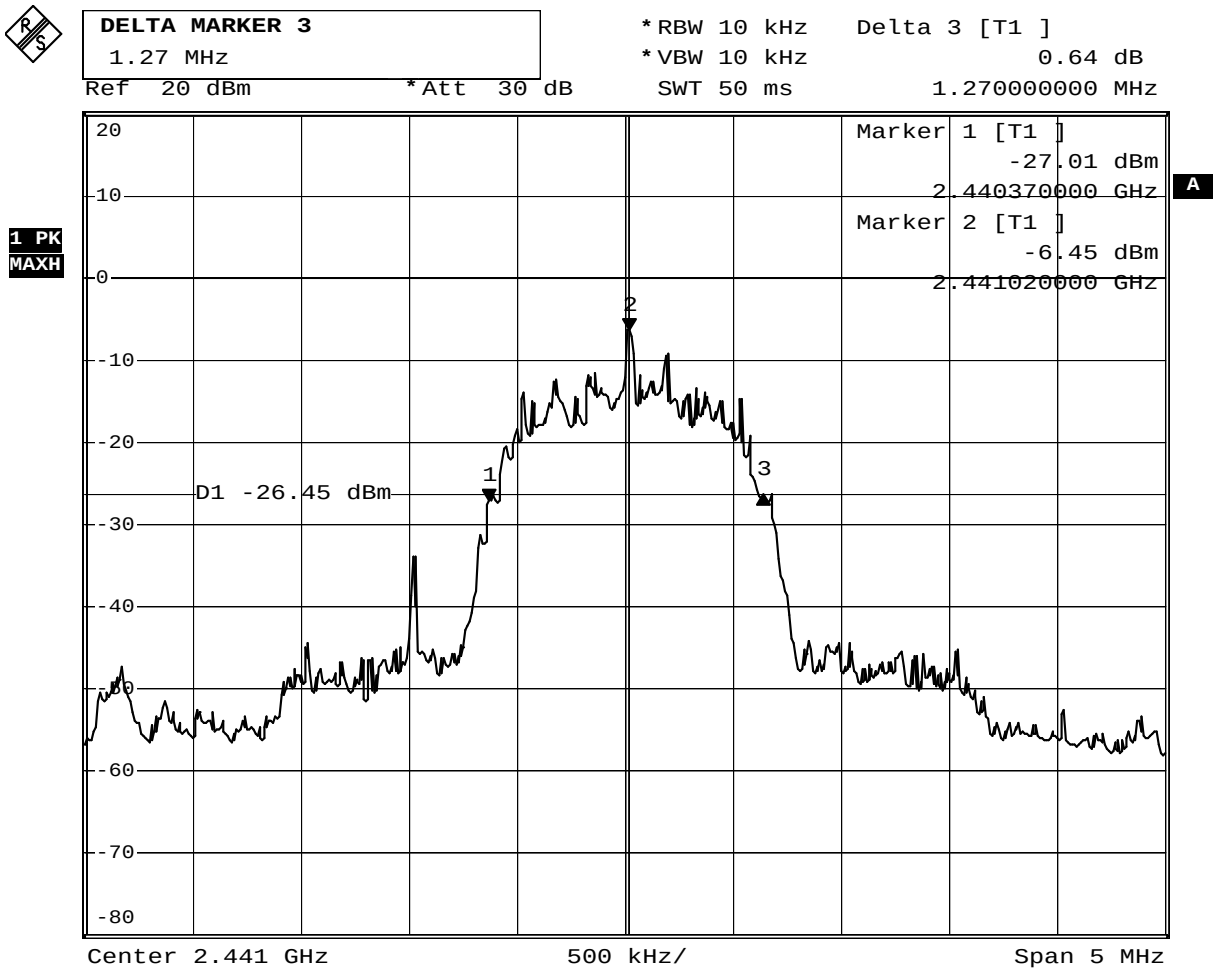


Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	1.27	--	Pass

Channel 39

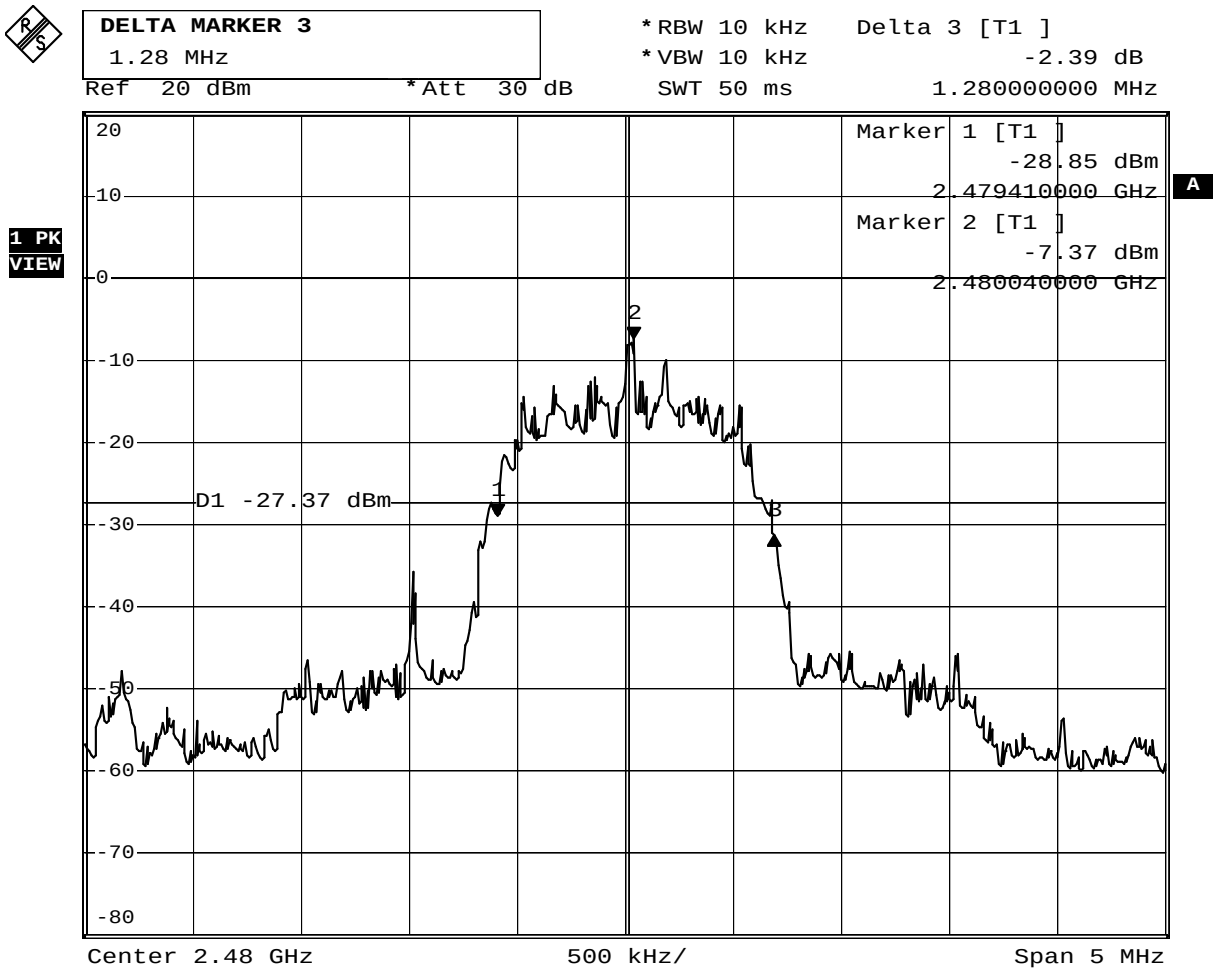


Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

π/4-DQPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	1.28	--	Pass

Channel 78



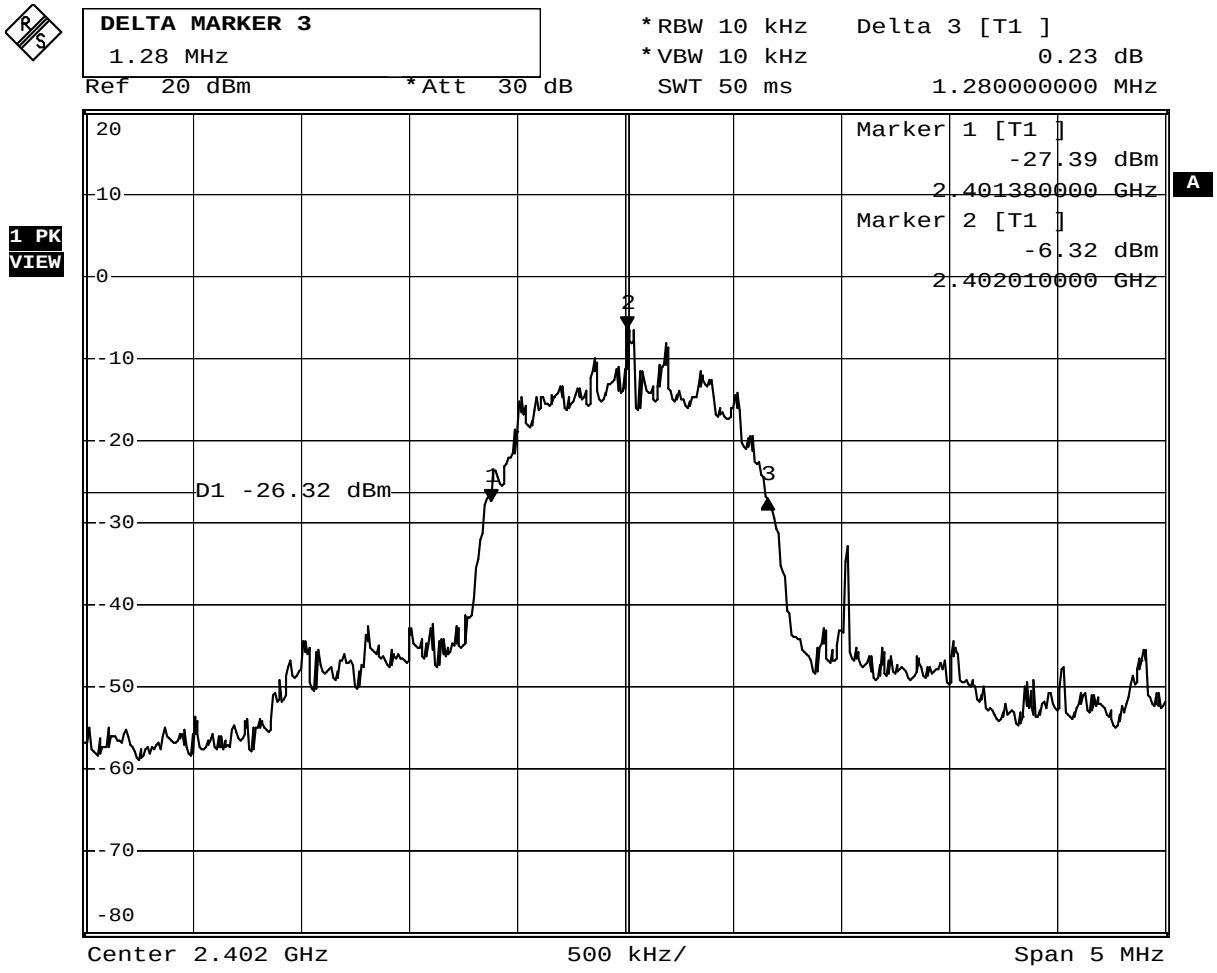
Date: 30.JUL.2012 18:06:33

Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
00	2402	1.28	--	Pass

Channel 00



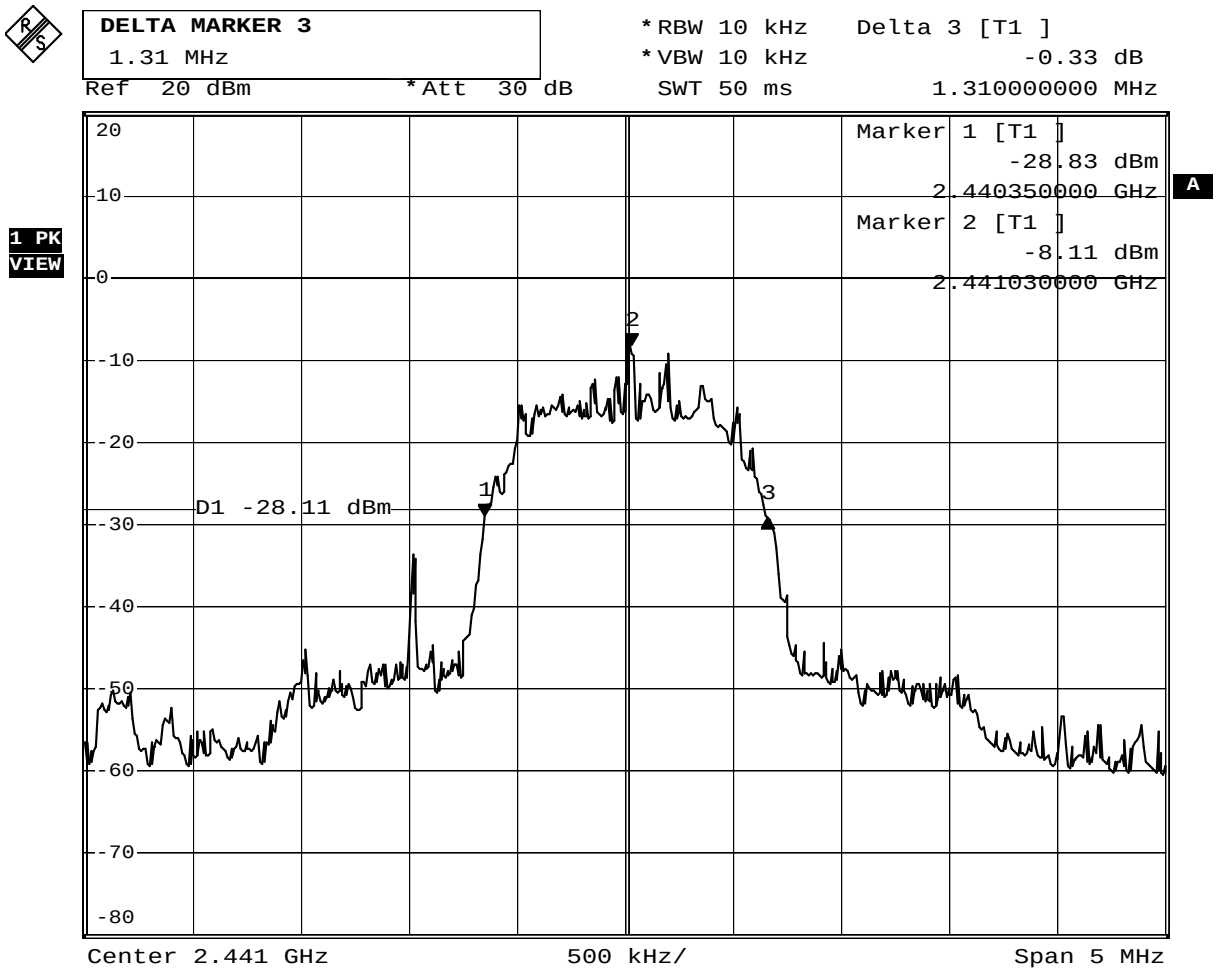
Date: 30.JUL.2012 18:14:14

Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
39	2441	1.31	--	Pass

Channel 39

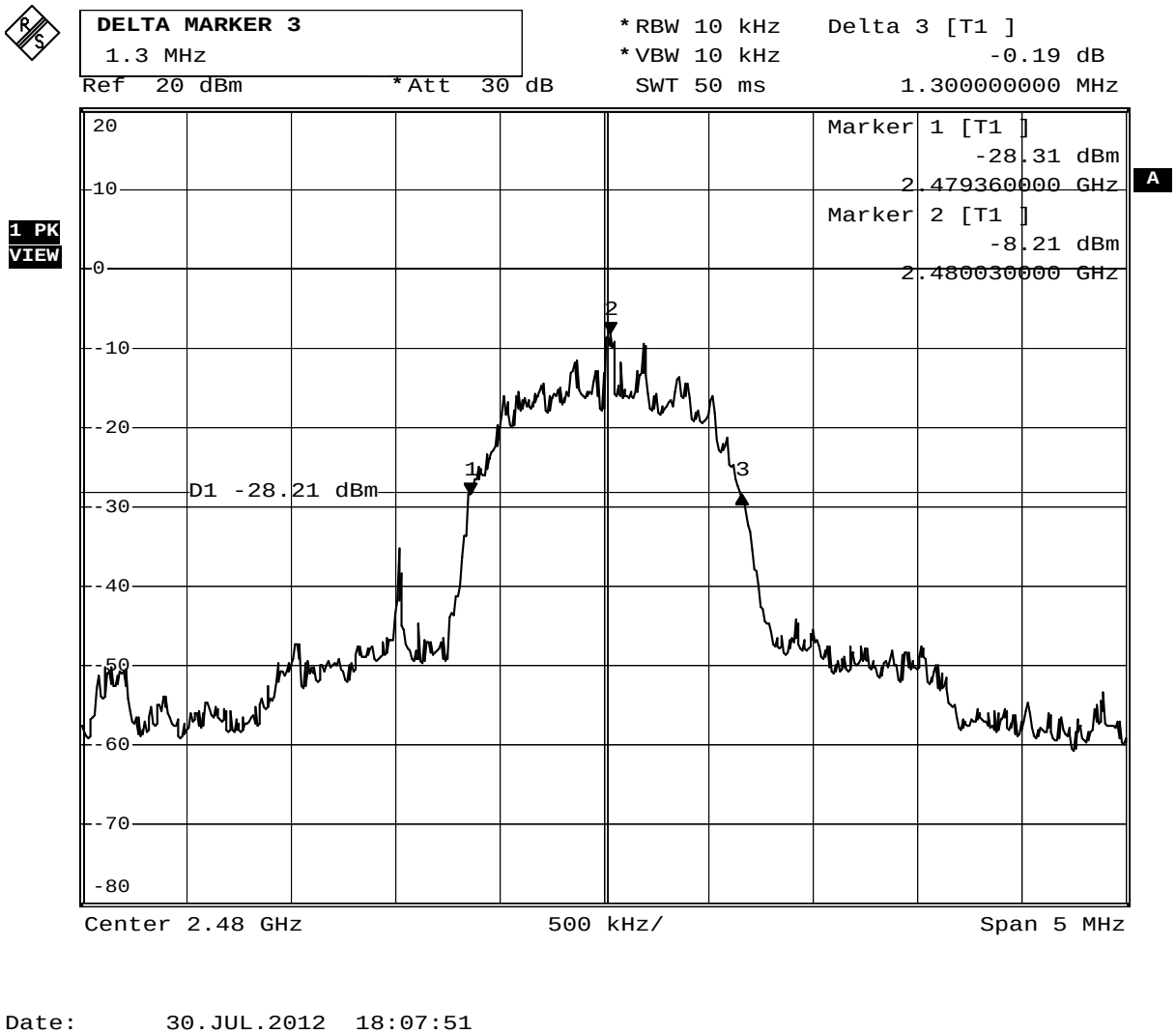


Product	Mophie powerblu		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

8DPSK

Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
78	2480	1.30	--	Pass

Channel 78



10. Dwell Time

10.1. Test Equipment

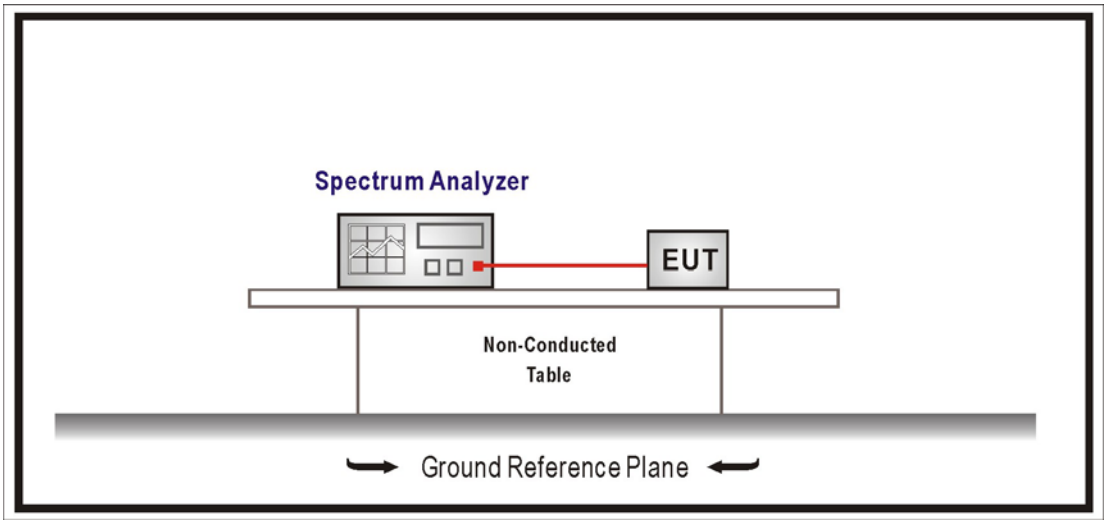
The following test equipment is used during the test:

Dwell Time / No.7 Shielding Room

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

10.2. Test Setup



10.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.
For frequency hopping systems operating in the 2400-2483.5 MHz bands. 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.
For frequency hopping systems operating in the 5725-5850 MHz bands. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

10.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements
Span = zero span, centered on a hopping channel
RBW = 1 MHz, VBW ≥ RBW
Sweep = as necessary to capture the entire dwell time per hopping channel
Detector function = peak, Trace = max hold

10.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2011

10.6. Test Result

Product	Mophie powerblu		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit (GFSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

Occupancy Time of Frequency Hopping System

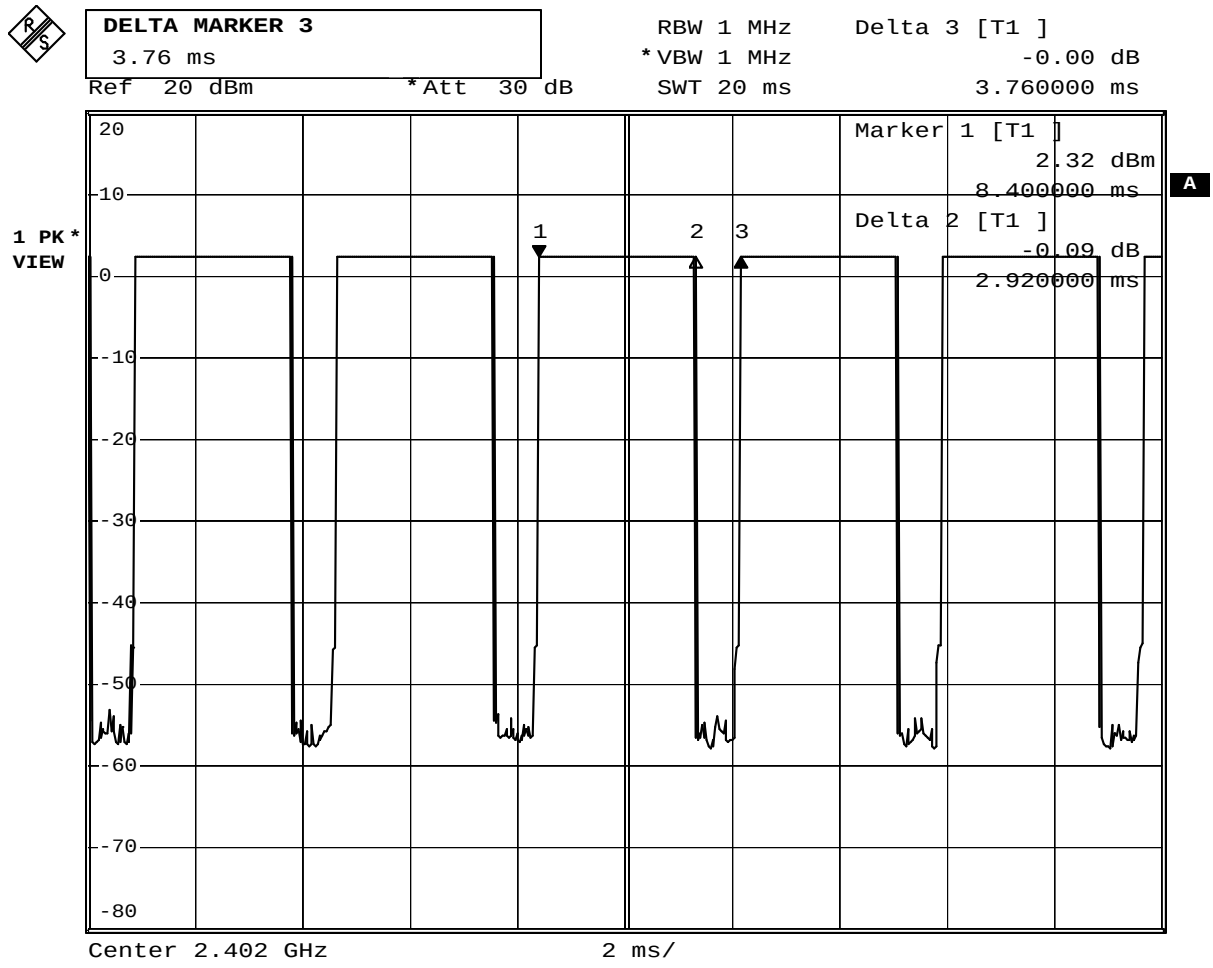
A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

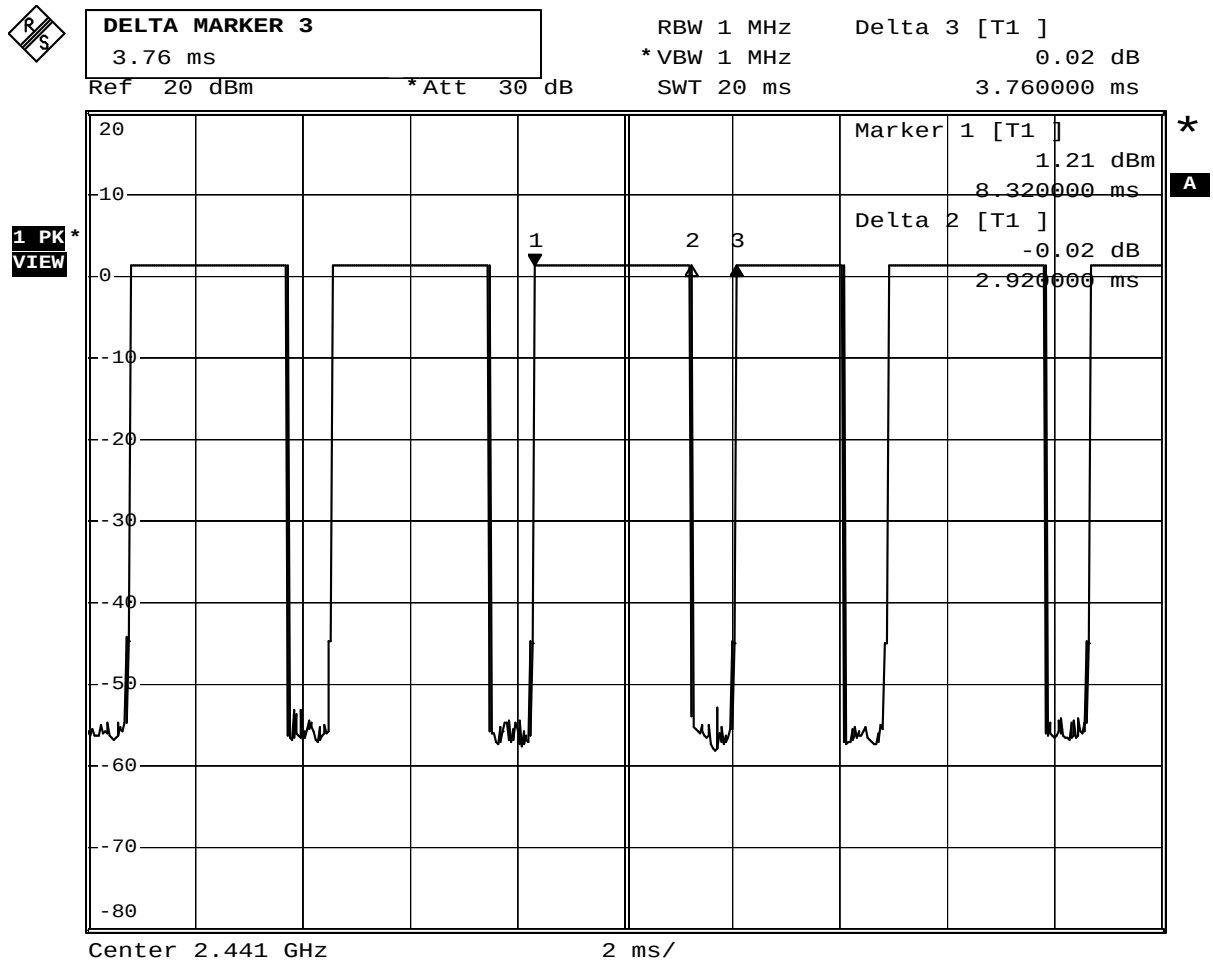
Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

Hop rate-2402MHz



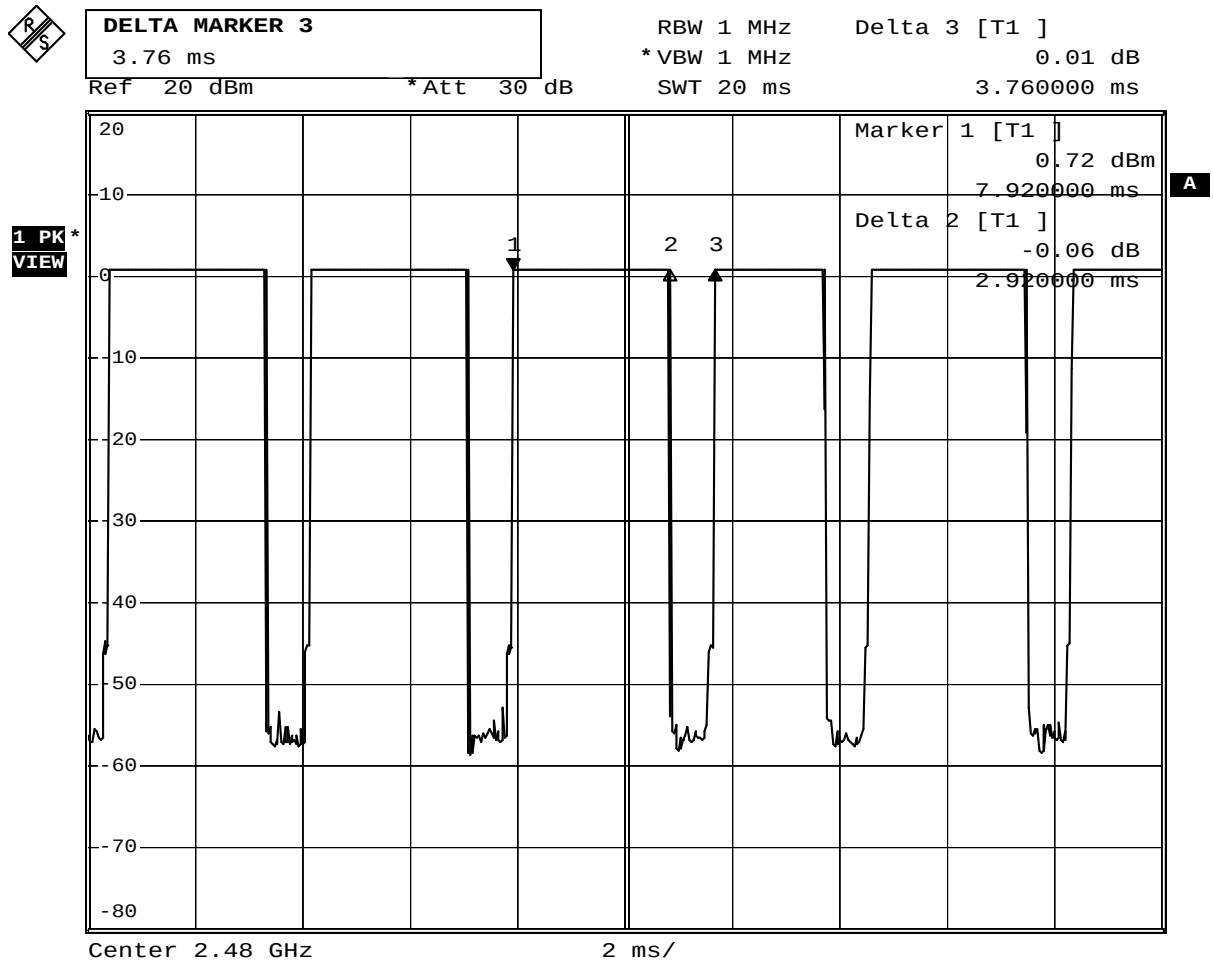
Date: 30.JUL.2012 15:57:10

Hop rate-2441MHz



Date: 30.JUL.2012 15:59:15

Hop rate-2480MHz



Date: 30.JUL.2012 16:00:03

Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Product	Mophie powerblu		
Test Item	Dwell Time		
Test Mode	Mode 2: Transmit (π/4-DQPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

Occupancy Time of Frequency Hopping System

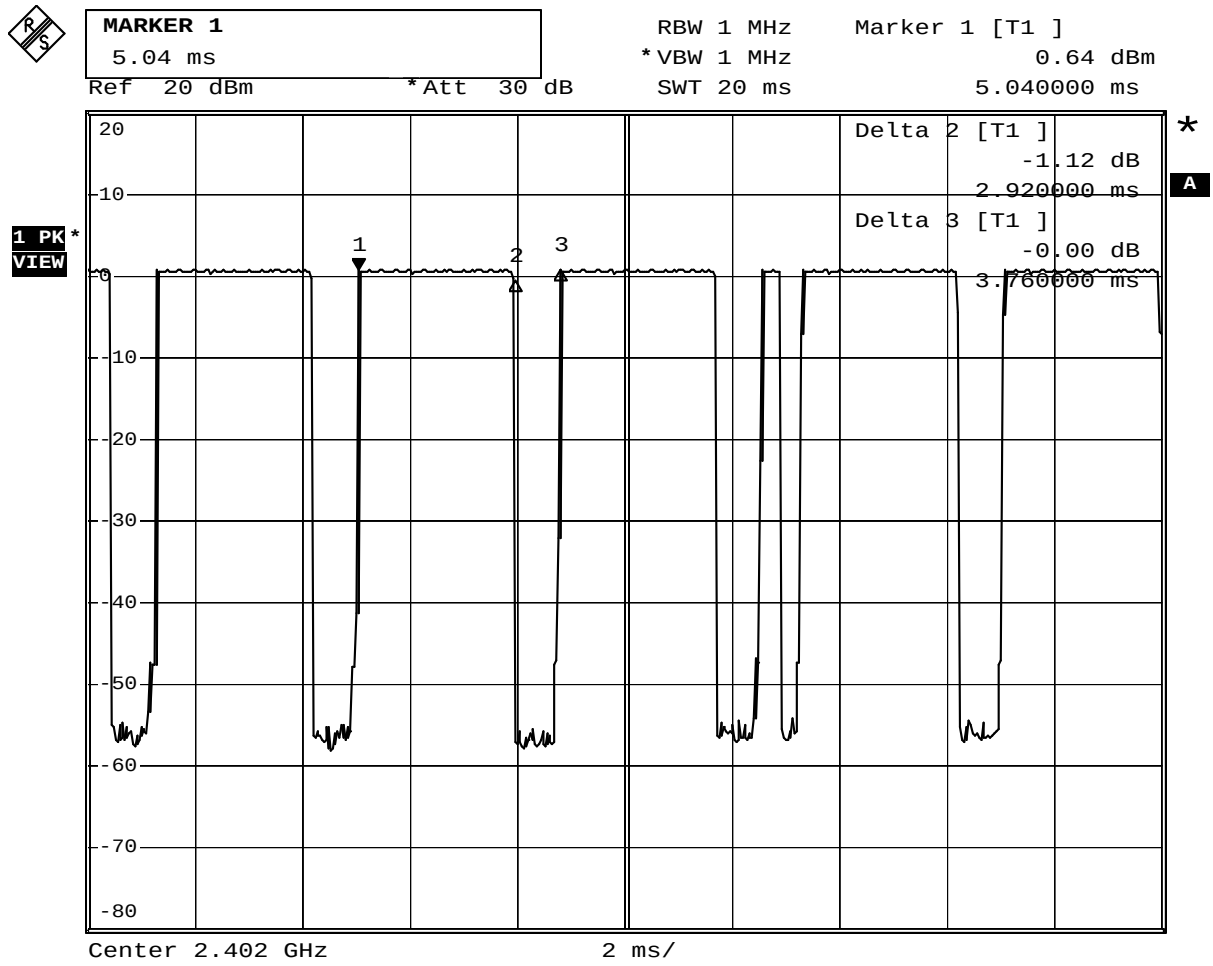
A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00288*(250/79)*31.6=0.288 sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

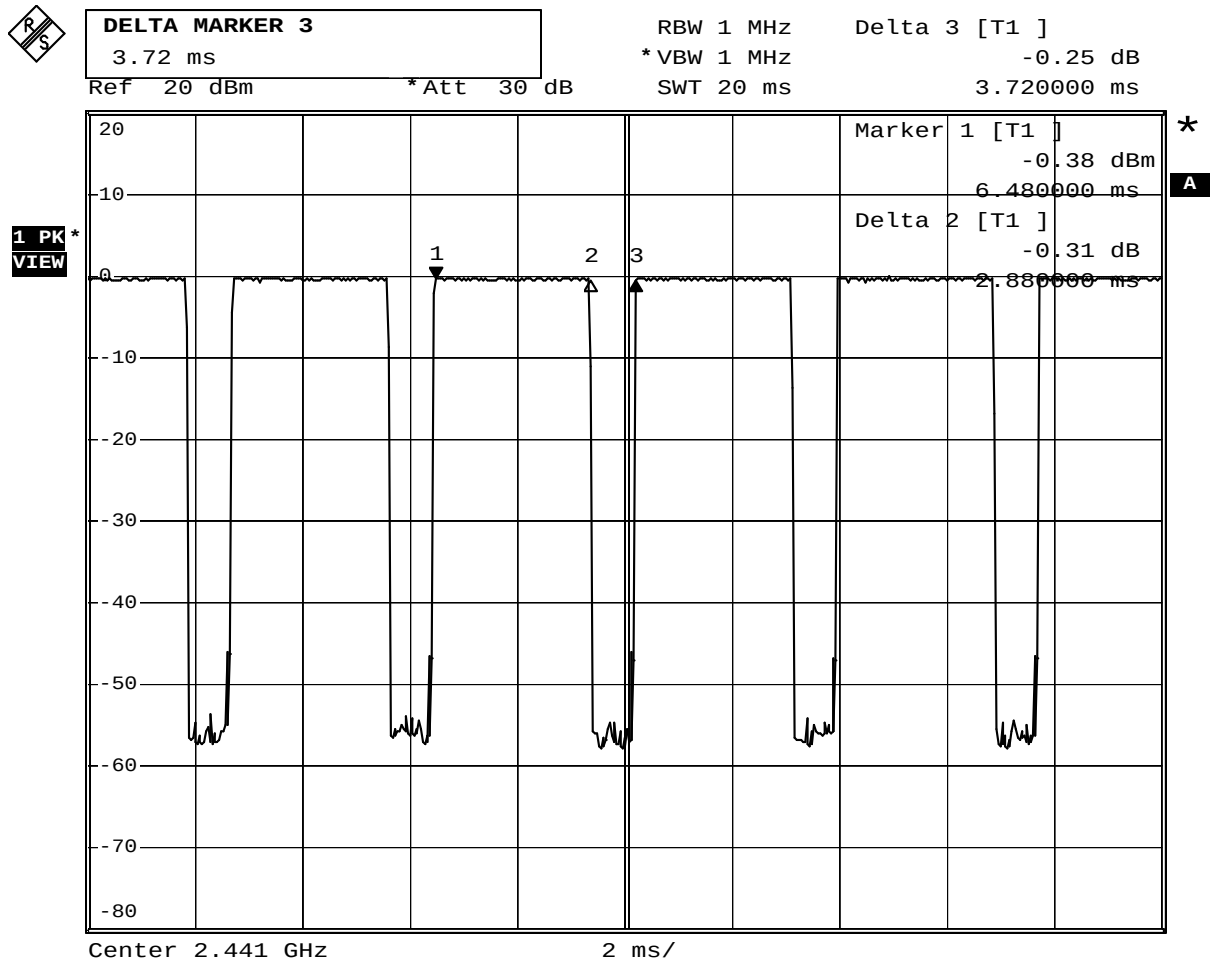
Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

Hop rate-2402MHz



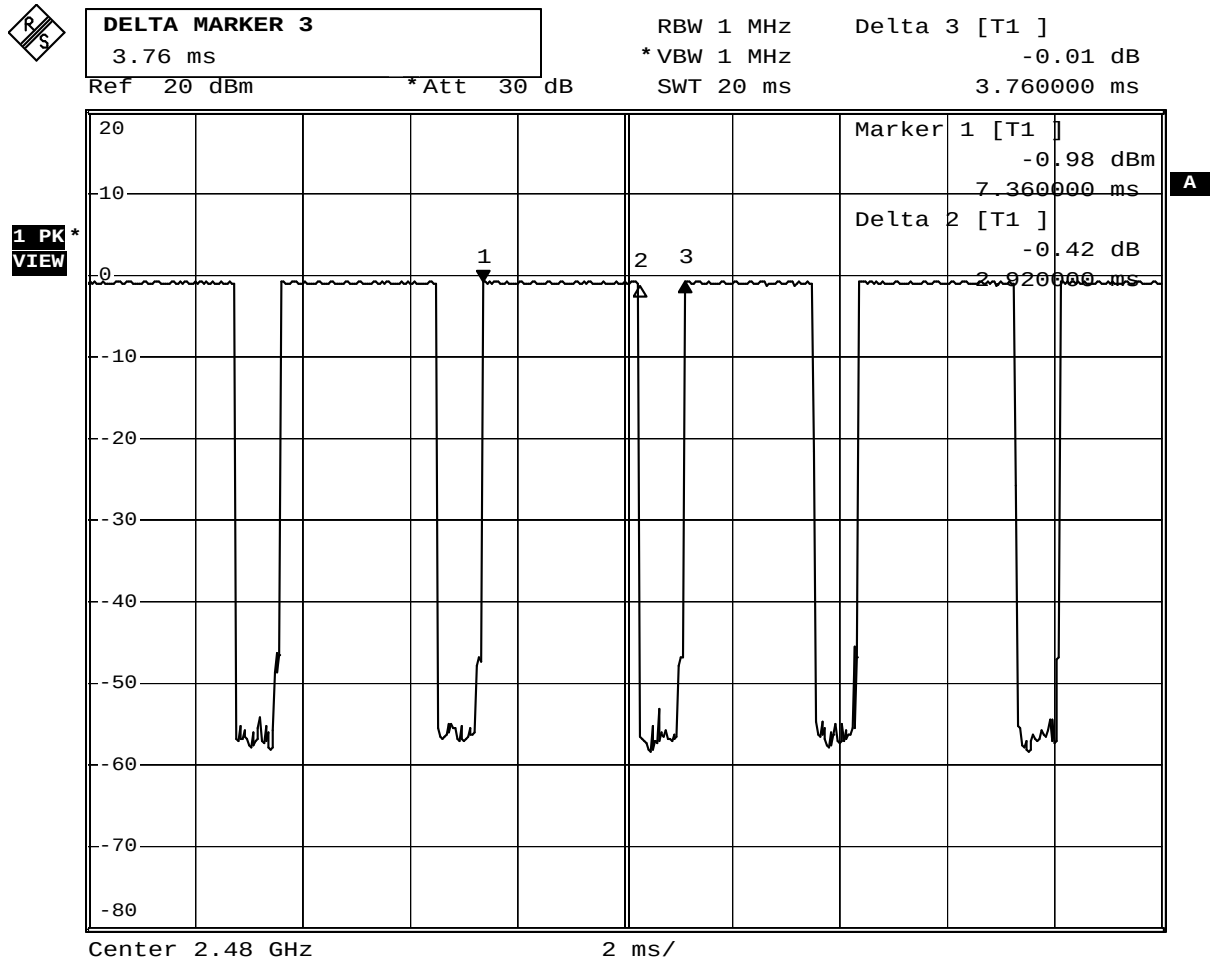
Date: 30.JUL.2012 16:05:07

Hop rate-2441MHz



Date: 30.JUL.2012 16:04:12

Hop rate-2480MHz



Date: 30.JUL.2012 16:02:54

Note: Dwell time＝time slot length * hop rate / number of hopping channels * period

Product	Mophie powerblu		
Test Item	Dwell Time		
Test Mode	Mode 3: Transmit (8DPSK)		
Date of Test	2012/08/01	Test Site	No.7 Shielding Room

Occupancy Time of Frequency Hopping System

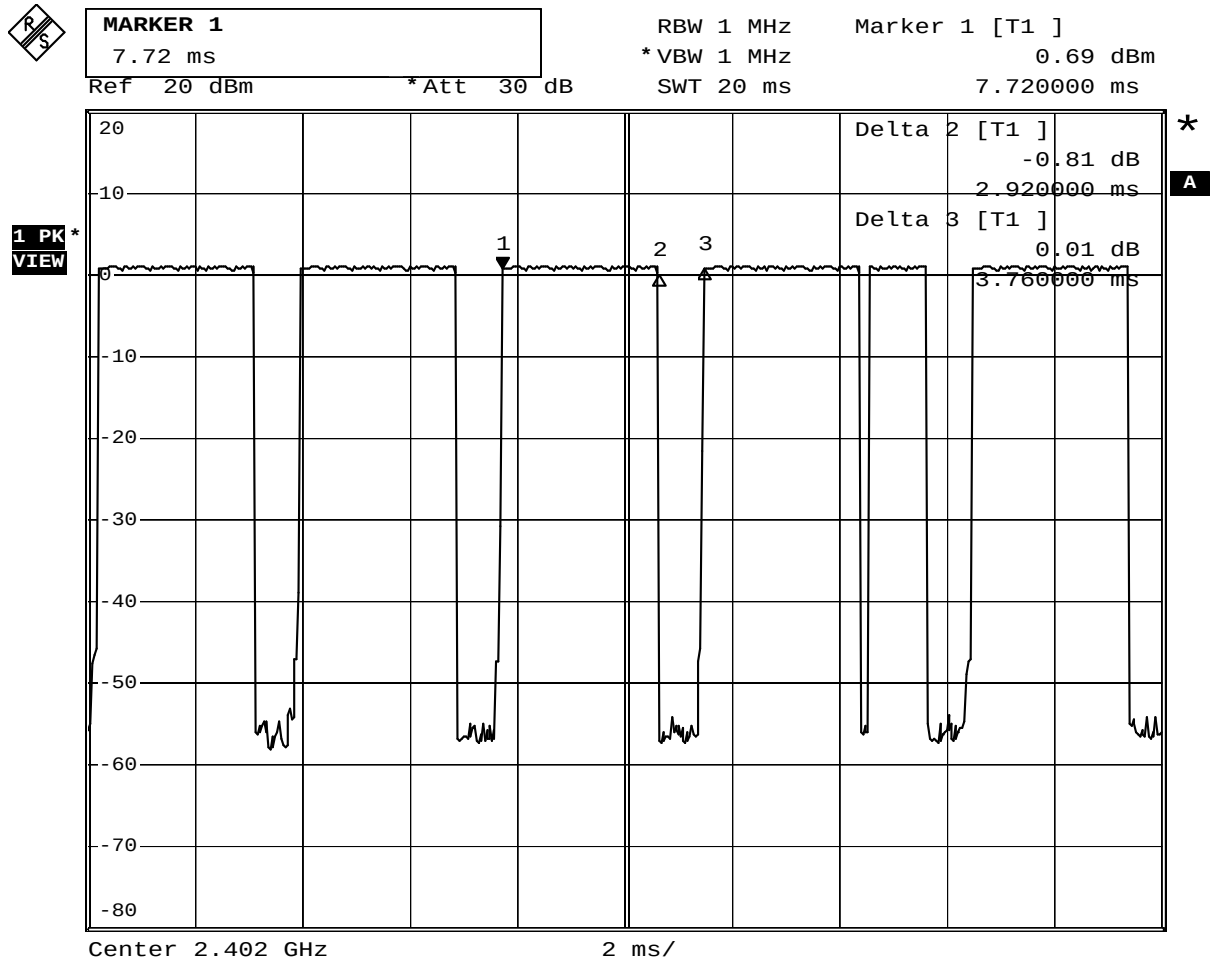
A) 2402MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

B) 2441MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00292*(250/79)*31.6=0.292 sec。

C) 2480MHz Test Time Period: 0.4*79=31.6sec，Hopping Times Within 1sec: 5/20msec=250 /sec
The Maximum Occupancy Time Within 10sec: 0.00288*(250/79)*31.6=0.288 sec。

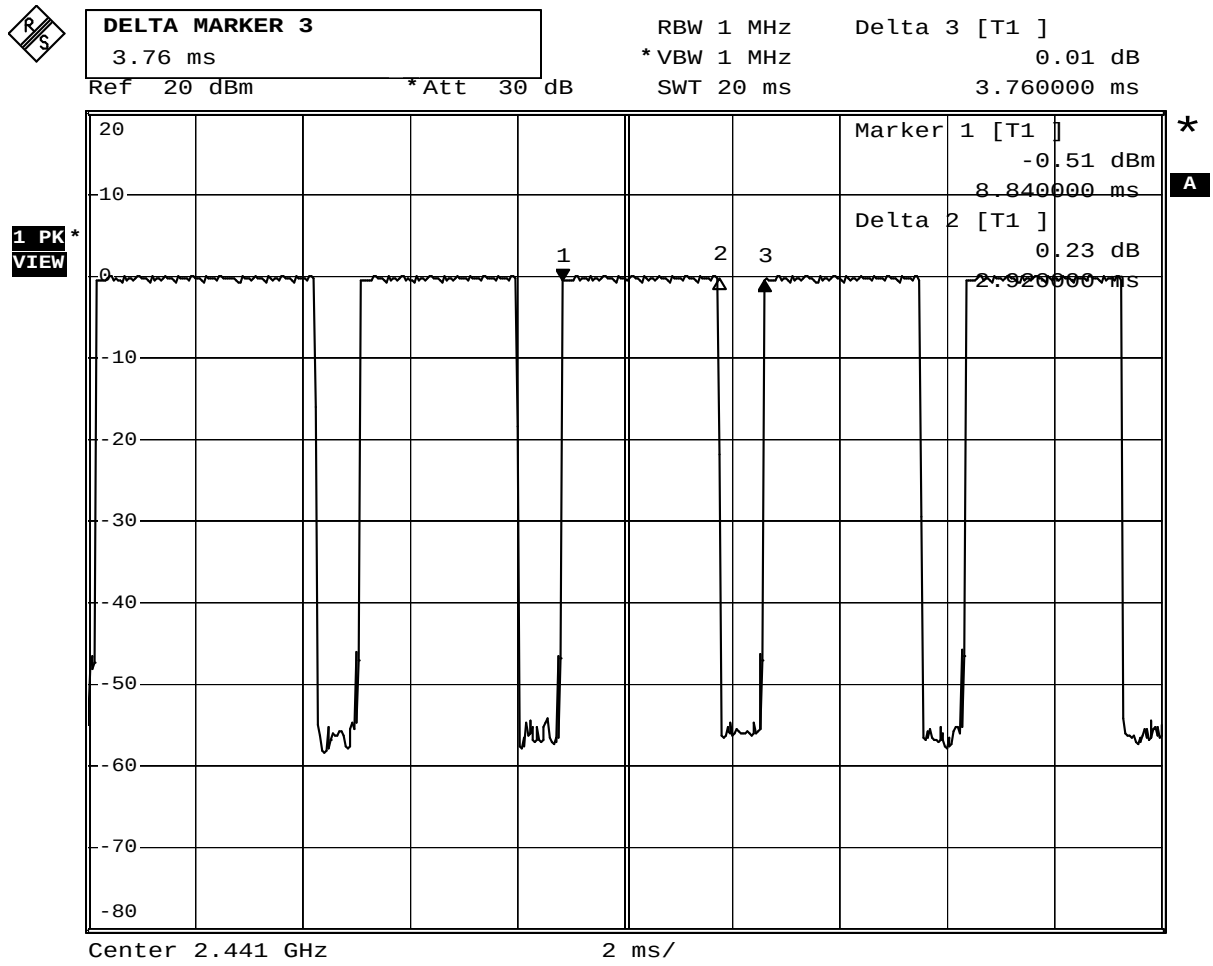
Test Result: The Average Occupancy Time of Each Highest，Middle and Lowest Channel Is Less Than 0.4sec，And Corresponds to The Standard。

Hop rate-2402MHz



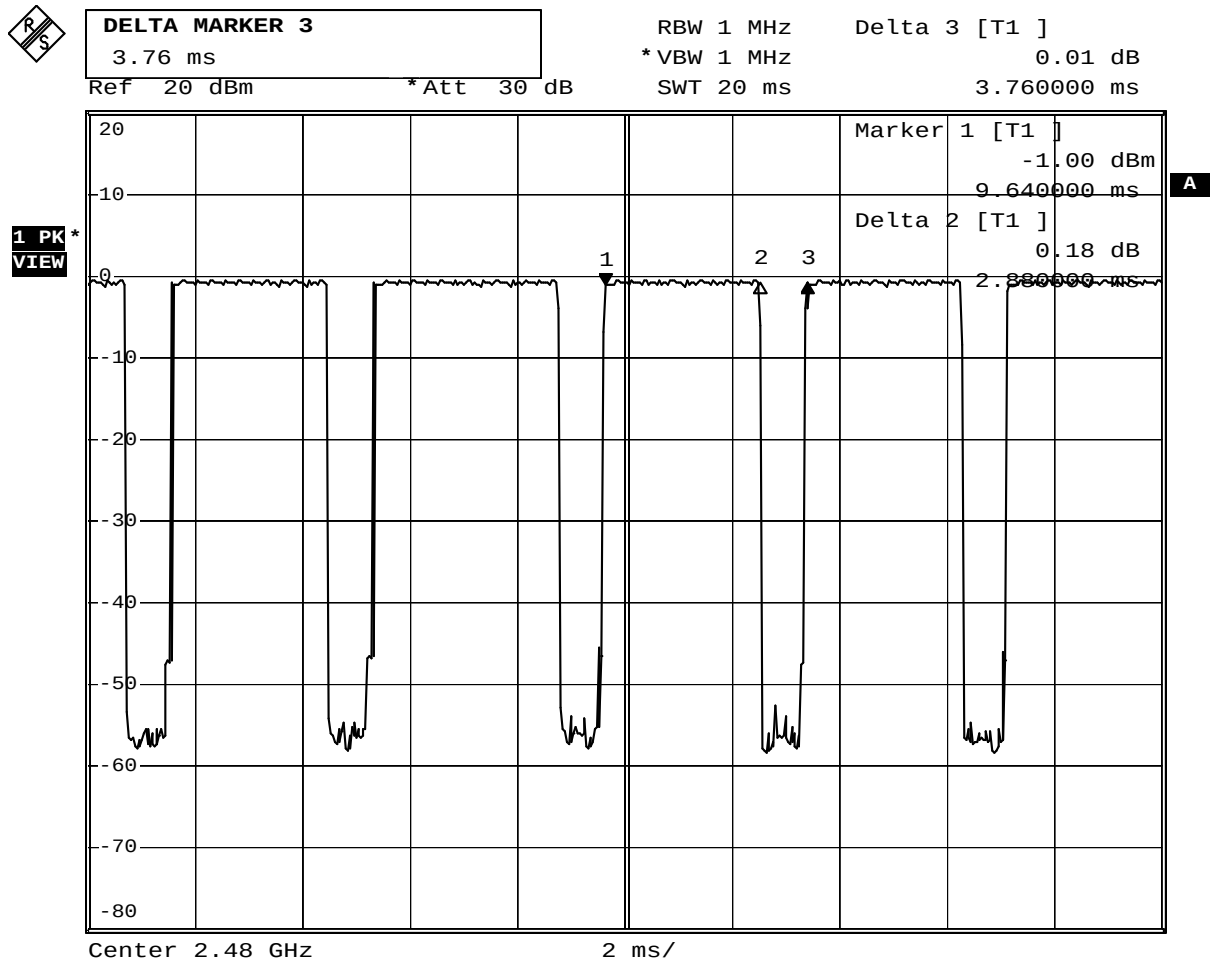
Date: 30.JUL.2012 16:07:31

Hop rate-2441MHz



Date: 30.JUL.2012 16:08:17

Hop rate-2480MHz



Date: 30.JUL.2012 16:09:12

Note: Dwell time＝time slot length * hop rate / number of hopping channels * period