

FCC Test Report

Product Name : MOOV NOW

Trade Name MOOV NOW

Model No. : M1508

FCC ID. : 2ACIE-M1508

Applicant : MOOV Inc.

Address : 1200 Howard Ave, 205#, Burlingame, CA USA 94010

Date of Receipt : Aug. 07, 2015

Issued Date : Aug. 28, 2015

Report No. : 1580300R-RFUSP01V00

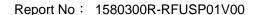
Report Version : V1.0





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.





Test Report Certification

Issued Date: Aug. 28, 2015

Report No.: 1580300R-RFUSP01V00



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Applicant : MOOV Inc.

Address : 1200 Howard Ave, 205#, Burlingame, CA USA 94010

Trade Name : MOOV NOW

Model No. : M1508

FCC ID. : 2ACIE-M1508

EUT Voltage : DC 3V

Testing Voltage : DC 3V

Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247:2014

ANSI C63.10: 2013

Test Lab : QuieTek HsinChu Testing Lab

Test Result : Complied

The test results relate only to the samples tested.

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Documented By :

(Demi Chang / Senior Engineering Adm. Specialist)

Tested By :

(Bruno Tsai / Engineer)

Approved By :

(Roy Wang / Director)



Revision History

Report No.	Version	Description	Issued Date
1580300R-RFUSP01V00	Rev.0.1	Initial issue of report	Aug. 28, 2015



Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C. : TAF, Accreditation Number: 3024

USA : FCC, Registration Number: 365520

Canada : IC, Submission No.: 181665

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:

http://www.quietek.com/english/about/certificates.aspx?bval=5

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site:

http://www.quietek.com/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C. TEL:+886-3-592-8859 E-Mail: service@quietek.com

LinKou Testing Laboratory:

No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.



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1. General Information

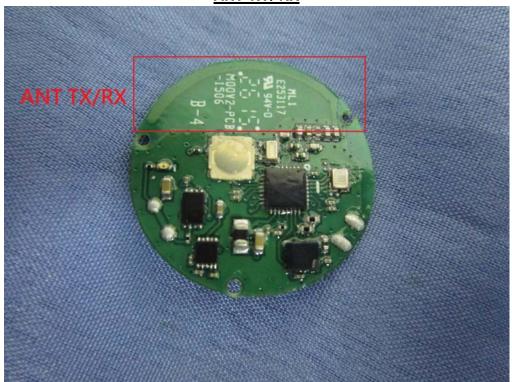
1.1. EUT Description

Product Name	MOOV NOW
Trade Name	MOOV NOW
Model Name	M1508
Frequency Range/Channel Number	2402~2480MHz / 40 Channels
Type of Modulation	BLE 4.0 (1TX/1RX)
Antenna Type	Printed Antenna
Antenna Gain	Peak 3dBi

Antenna Information		
Antenna Type PCB Antenna		
Antenna Gain 2.4GHz		
	Ant 0: Peak 3dBi	









Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 10	2422 MHz	Channel 20	2442 MHz	Channel 30	2462 MHz
Channel 01	2404 MHz	Channel 11	2424 MHz	Channel 21	2444 MHz	Channel 31	2464 MHz
Channel 02	2406 MHz	Channel 12	2426 MHz	Channel 22	2446 MHz	Channel 32	2466 MHz
Channel 03	2408 MHz	Channel 13	2428 MHz	Channel 23	2448 MHz	Channel 33	2468 MHz
Channel 04	2410 MHz	Channel 14	2430 MHz	Channel 24	2450 MHz	Channel 34	2470 MHz
Channel 05	2412 MHz	Channel 15	2432 MHz	Channel 25	2452 MHz	Channel 35	2472 MHz
Channel 06	2414 MHz	Channel 16	2434 MHz	Channel 26	2454 MHz	Channel 36	2474 MHz
Channel 07	2416MHz	Channel 17	2436 MHz	Channel 27	2456 MHz	Channel 37	2476 MHz
Channel 08	2418 MHz	Channel 18	2438 MHz	Channel 28	2458 MHz	Channel 38	2478 MHz
Channel 09	2420 MHz	Channel 19	2440 MHz	Channel 29	2460 MHz	Channel 39	2480 MHz

- 1. This device is a MOOV NOW including BT 4.0 transmitting and receiving function.
- 2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
- 3. 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.
- 4. This device is a composite device in accordance with Part 15 regulations. The function of the receiving was tested and its test report number is 1580300R-ITUSP01V00.



1.2. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX Mode 1: Transmit	

Test Items	Modulation	Channel	Antenna	Result
Peak Power Output	BLE 4.0 (1TX/1RX)	00/19/39	0	Complies
Radiated Emission	BLE 4.0 (1TX/1RX) 00/19/39		0	Complies
RF antenna conducted test	BLE 4.0 (1TX/1RX)	00/19/39	0	Complies
Radiated Emission Band Edge	BLE 4.0 (1TX/1RX)	00/19/39	0	Complies
Occupied Bandwidth	BLE 4.0 (1TX/1RX)	00/19/39	0	Complies
Power Density	BLE 4.0 (1TX/1RX)	00/19/39	0	Complies



1.3. Tested System Details

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

N/A

1.4. Configuration of tested System

Connection Diagram
EUT

1.5. EUT Exercise Software

1	Test system is in accord with EUT user manual (refer to 1.4 configuration of tested system).
2	Turn on the power of EUT
3	Configure the test mode, the test channel, and the data rate.
4	Verify the model operation.



1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FOC DADT 45 C 45 247	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247 Peak Power Output	25 - 75	50 %RH
Barometric pressure (mbar)	reak rower Output	860 - 1060	950-1000
Temperature (°C)	FCC DADT 45 C 45 247	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247 Radiated Emission	25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC DADT 45 C 45 247	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50 %RH
Barometric pressure (mbar)	RF antenna conducted test	860 - 1060	950-1000
Temperature (°C)	500 BART 45 0 45 047	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50 %RH
Barometric pressure (mbar)	Band Edge	860 - 1060	950-1000
Temperature (°C)	FOO DADT 45 O 45 047	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50 %RH
Barometric pressure (mbar)	Occupied Bandwidth	860 - 1060	950-1000
Temperature (°C)	500 BART 45 0 45 047	15 - 35	23 °C
Humidity (%RH)	FCC PART 15 C 15.247	25 - 75	50 %RH
Barometric pressure (mbar)	Power Density	860 - 1060	950-1000



2. Peak Power Output

2.1. Test Equipment

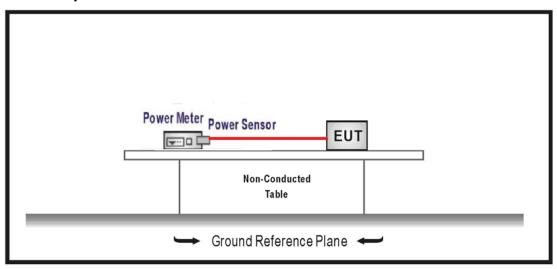
The following test equipments are used during the test:

Peak Power Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Power Meter	Agilent	N1911A	MY45101353	2015/10/31

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

2.2. Test Setup



2.3. Test procedures

The EUT was tested according to DTS test procedure section 9.1.2 of KDB558074 v03r02 measurement to FCC 47CFR 15.247 requirements.

2.4. Limits

The maximum peak power shall be less 1 Watt.

2.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

2.6. Uncertainty

The measurement uncertainty is defined as \pm 1.27 dB.



2.7. Test Result

Product	MOOV NOW			
Test Item	Peak Power Output			
Test Mode	Mode 1: Transmit			
Date of Test	2015/08/18	Test Site	SR7	

BLE 4.0 (1TX/1RX)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	-0.14	30	Pass
19	2440	-0.21	30	Pass
39	2480	-0.51	30	Pass



3. Radiated Emission

3.1. Test Equipment

The following test equipments are used during the test:

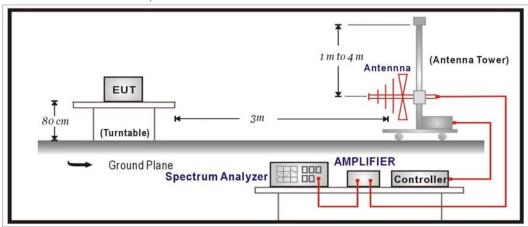
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2016/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2016/01/26
Pre-Amplifier	EMCI	EMC0031835	980233	2016/01/18
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2016/01/18
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber+Suhner	SF 102	25623/2	2016/01/26
Horn Antenna	Schwarzbeck	BBHA 9170	203	2015/09/25
Signal & Spectrum Analyzer	R&S	FSV40	101049	2015/10/30

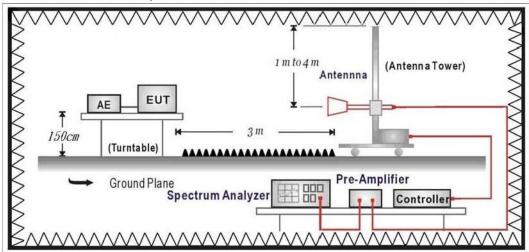
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



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3.3. 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	dBuV/m	dBuV/m	
30-88	100	40	
88-216	150	43.5	
216-960	200	46	
Above 960	500	54	

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

3.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 and 1.5 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 C63.10: 213 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.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

3.6. Uncertainty

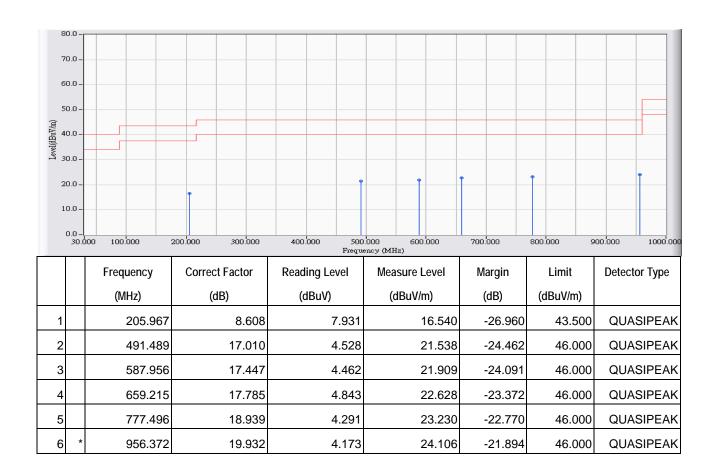
The measurement uncertainty 30MHz~1GHz as ±3.43dB 1GHz~26.5Ghz as ±3.65dB



3.7. Test Result

30MHz-1GHz Spurious

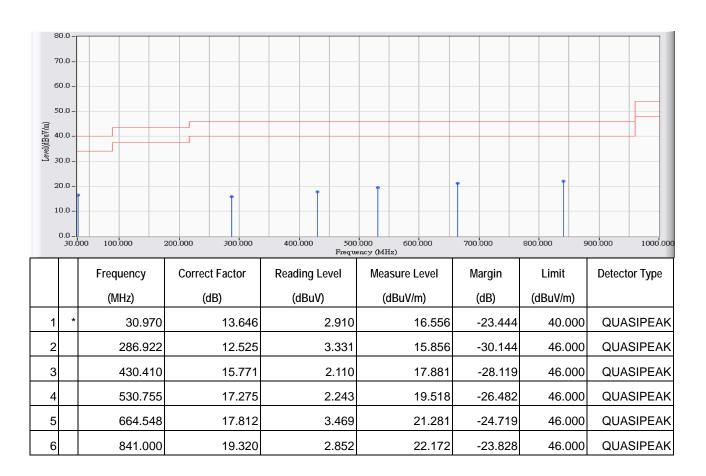
Site : CB1	Time : 2015/08/20 - 14:00
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2440MHz



- 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 : 2015/08/20 - 14:05
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2440MHz



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



Above 1GHz Spurious

Site : CB1	Time : 2015/08/27 - 11:21
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2402MHz



- 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.



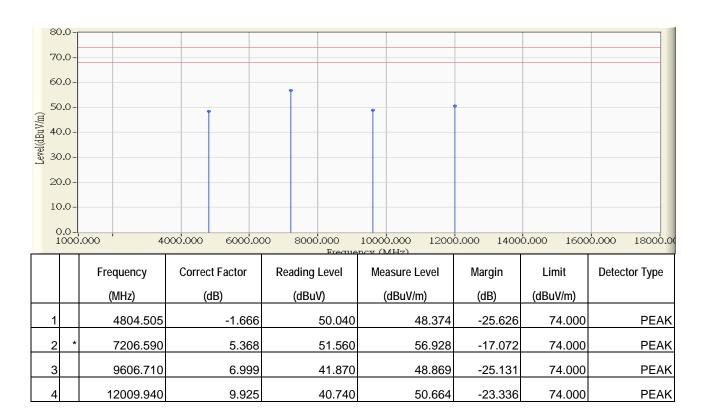
Site : CB1	Time : 2015/08/27 - 11:21
Limit : FCC_SpartC_15.247_H_03M_AV	Margin: 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note : 2402MHz



- 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.
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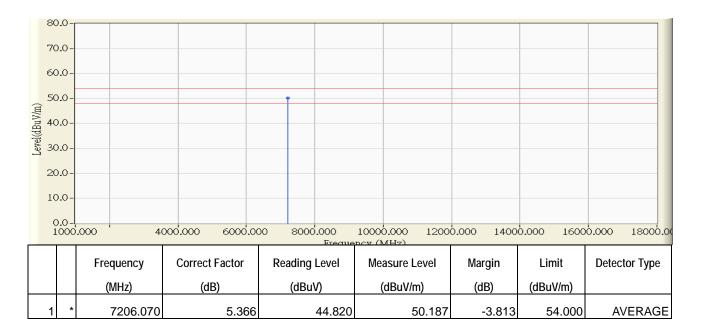
Site : CB1	Time : 2015/08/27 - 11:30
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note : 2402MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
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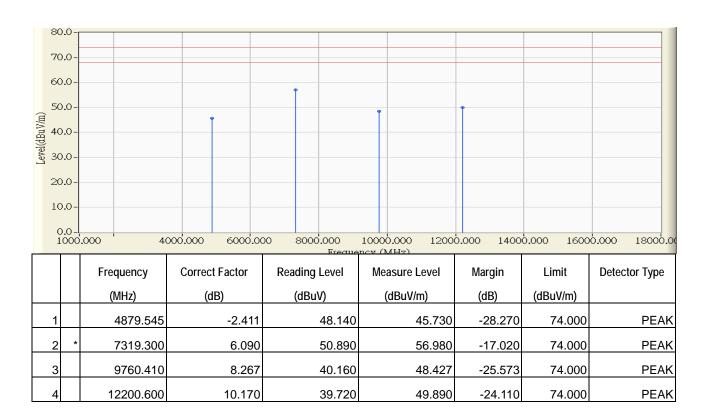
Site : CB1	Time : 2015/08/27 - 11:30
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2402MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
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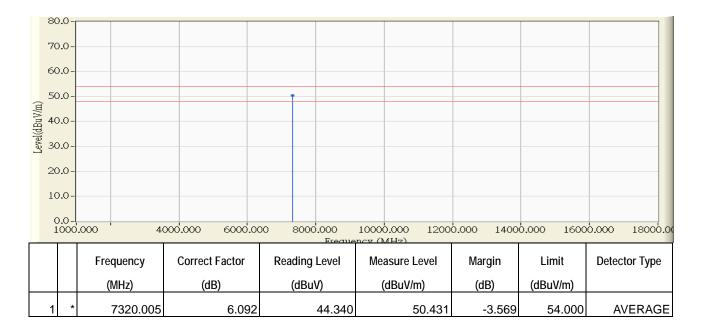
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Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note : 2440MHz



- 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.
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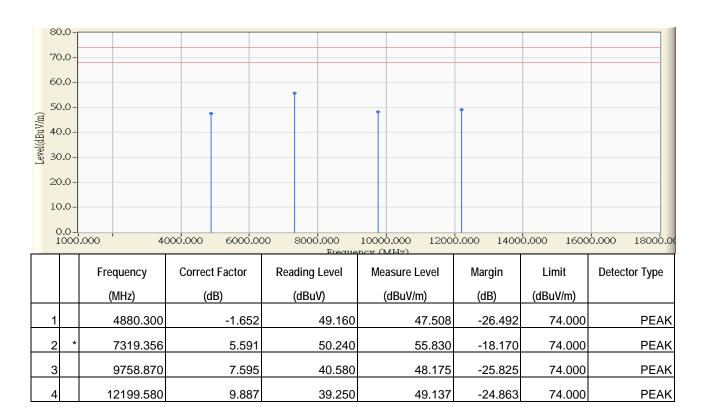
Site : CB1	Time : 2015/08/27 - 11:44
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2440MHz



- 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.
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- 7. The Emission above 13GHz were not included is because their levels are too low.



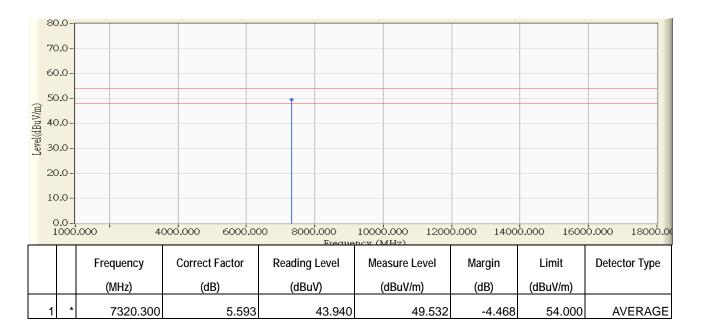
Site : CB1	Time : 2015/08/27 - 11:46
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2440MHz



- 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.
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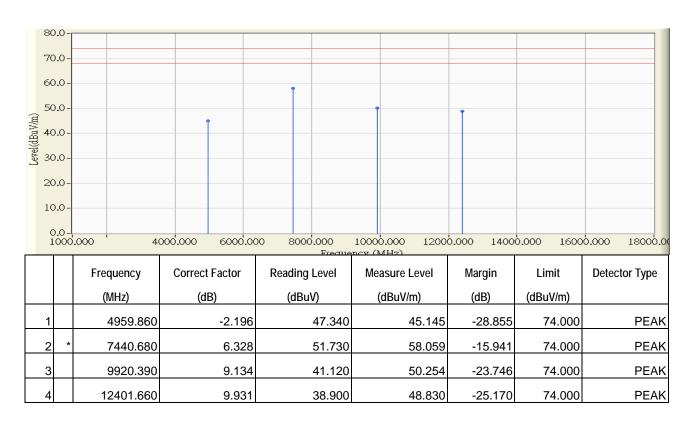
Site : CB1	Time : 2015/08/27 - 11:47
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2440MHz



- 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.



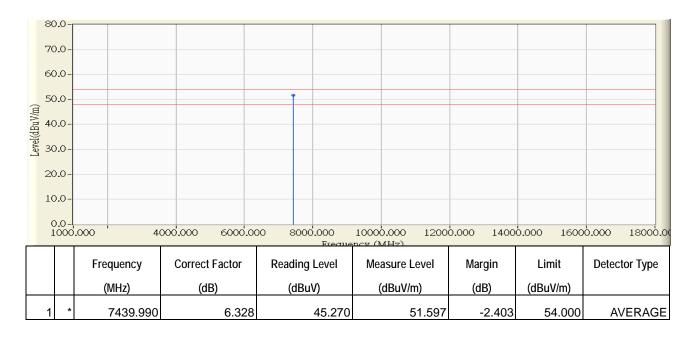
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Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note : 2480MHz



- 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.



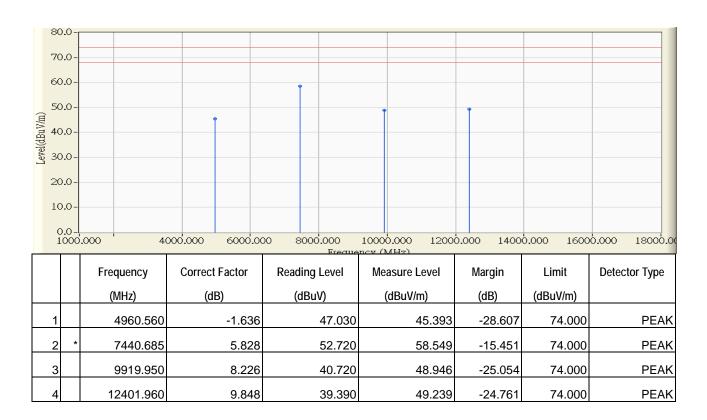
Site : CB1	Time : 2015/08/27 - 11:54
Limit : FCC_SpartC_15.247_H_03M_AV	Margin: 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note : 2480MHz



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
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- 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.



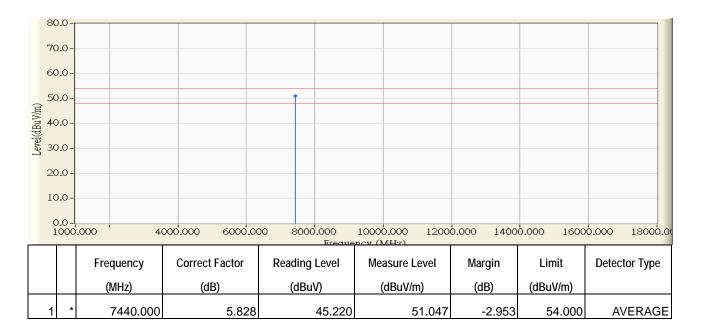
Site : CB1	Time : 2015/08/27 - 11:58
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2480MHz



- 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 : 2015/08/27 - 11:58
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note : 2480MHz



- 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.



4. RF antenna conducted test

4.1. Test Equipment

The following test equipments are used during the test:

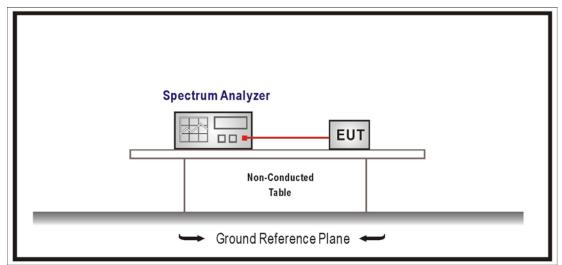
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

4.2. Test Setup

RF Antenna Conducted Measurement:





4.3. 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)).

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure section 11.2 of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

4.6. Uncertainty

Conducted is defined as ± 1.27dB

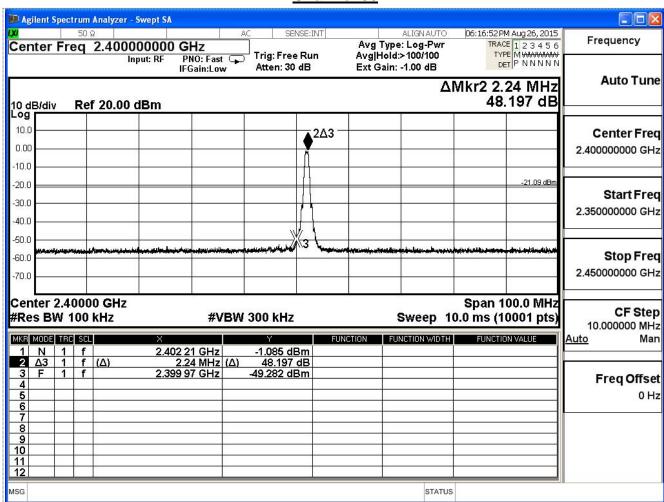


4.7. Test Result

Product	MOOV NOW			
Test Item	RF antenna conducted test			
Test Mode	Mode 1: Transmit			
Date of Test	2015/08/26	Test Site	SR7	

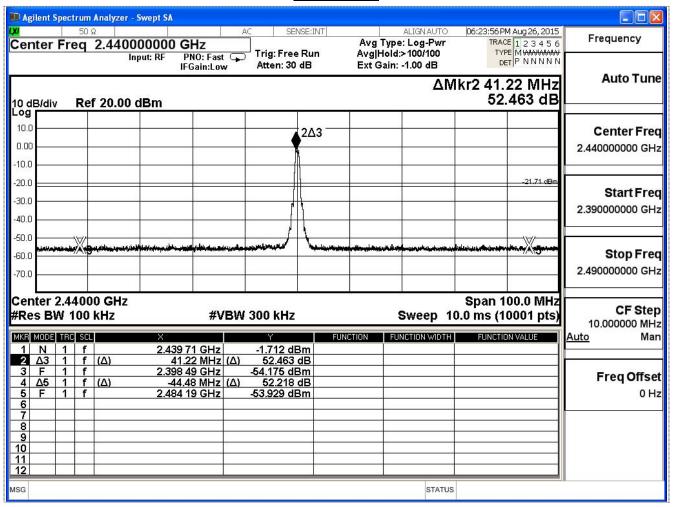
BLE 4.0 (1TX/1RX)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	48.197	≧20	Pass
19	2440	52.218	≧20	Pass
39	2480	50.057	≥20	Pass

Channel 00



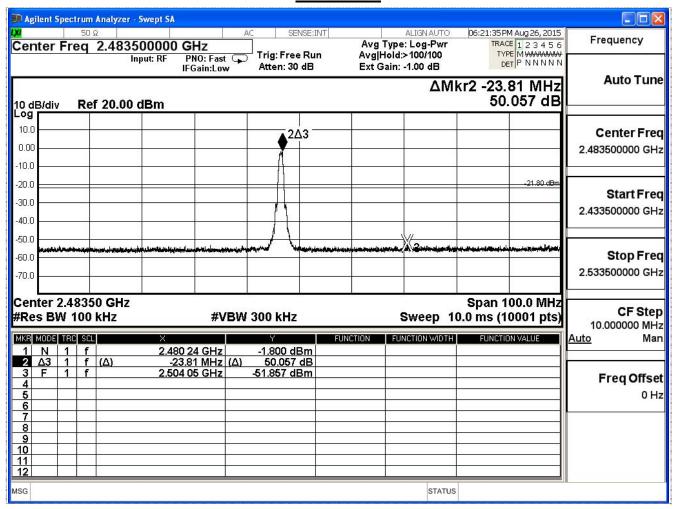


Channel 19





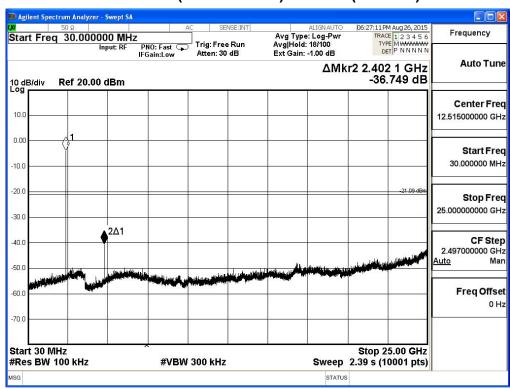
Channel 39



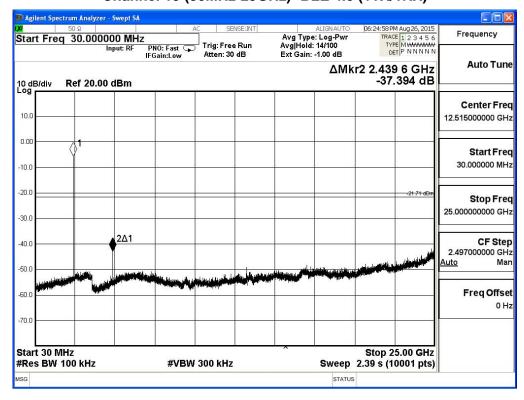


Product	MOOV NOW			
Test Item	RF antenna conducted test			
Test Mode	Mode 1: Transmit			
Date of Test	2015/08/26	Test Site	SR7	

Channel 00 (30MHz-25GHz)- BLE 4.0 (1TX/1RX)

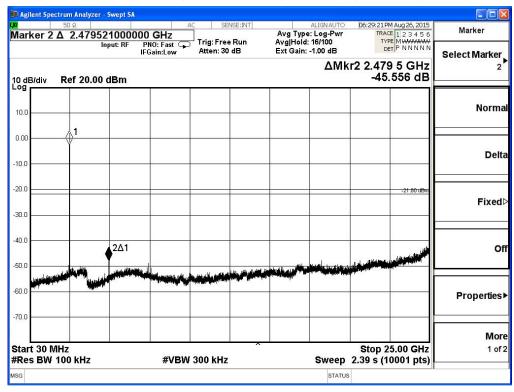


Channel 19 (30MHz-25GHz)- BLE 4.0 (1TX/1RX)





Channel 39 (30MHz-25GHz)- BLE 4.0 (1TX/1RX)





5. Radiated Emission Band Edge

5.1. Test Equipment

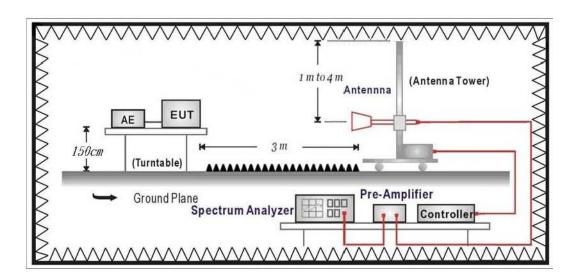
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn				
Antenna	Schwarzbeck	BBHA 9120	D743	2016/01/26
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber+Suhner	SF 102	25623/2	2016/01/26
Signal & Spectrum Analyzer	R&S	FSV40	101049	2015/10/30

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

5.2. Test Setup





5.3. 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.

5.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements. The EUT and its simulators are placed on a turn table which is 1.5 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 C63.10: 213 on radiated measurement.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

5.6. Uncertainty

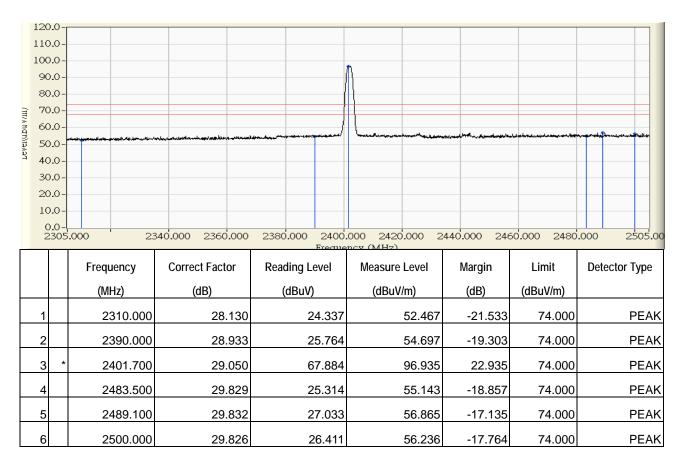
The measurement uncertainty ± 3.9 dB above 1GHz



5.7. Test Result

Radiated is defined as

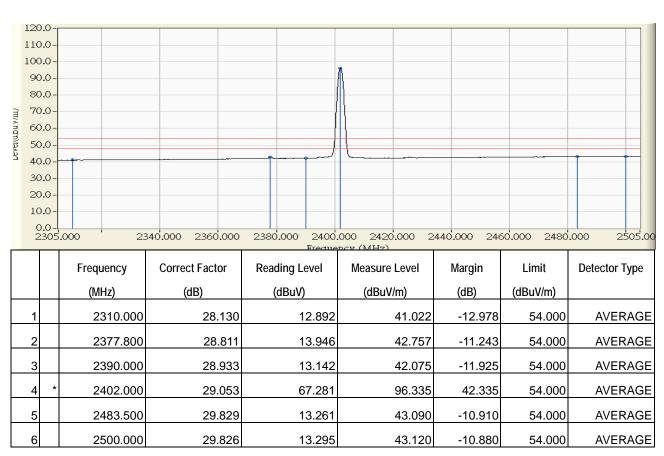
Site : CB1	Time : 2015/08/27 - 10:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note : 2402MHz



- 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.
- 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.



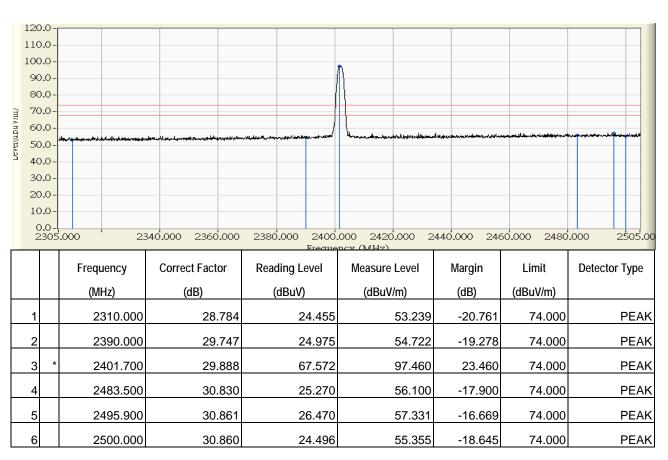
Site : CB1	Time : 2015/08/27 - 10:36
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2402MHz



- 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.



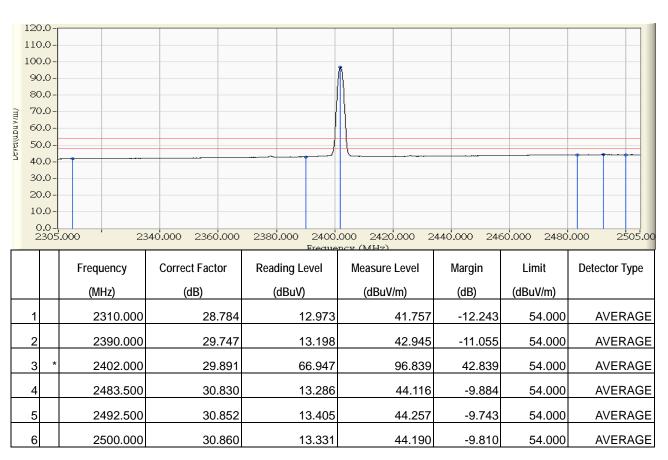
Site : CB1	Time : 2015/08/27 - 10:40
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2402MHz



- 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.



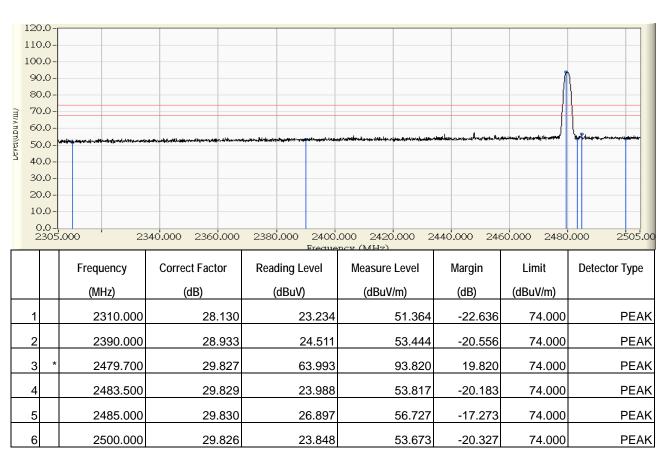
Site : CB1	Time : 2015/08/27 - 10:40
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note : 2402MHz



- 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.



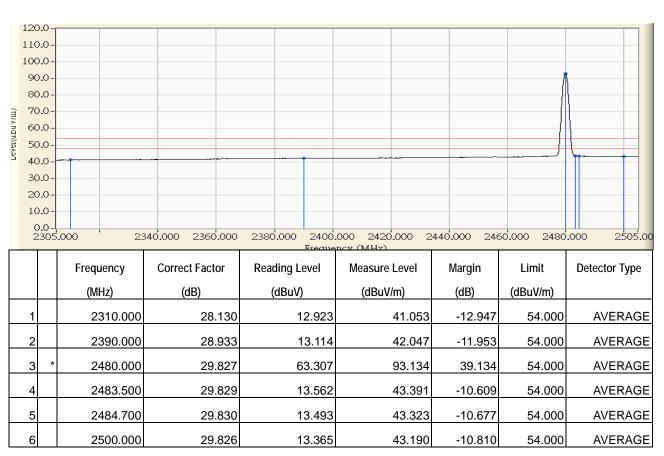
Site : CB1	Time : 2015/08/27 - 10:48
Limit: FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2480MHz



- 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.



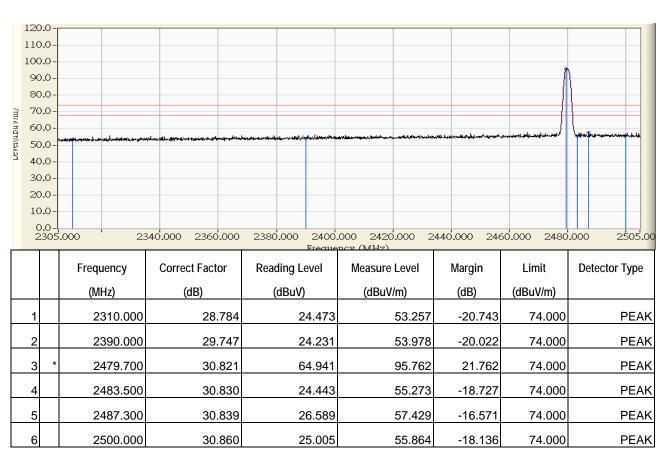
Site : CB1	Time : 2015/08/27 - 10:49
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3V
EUT : MOOV NOW	Note: 2480MHz



- 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.



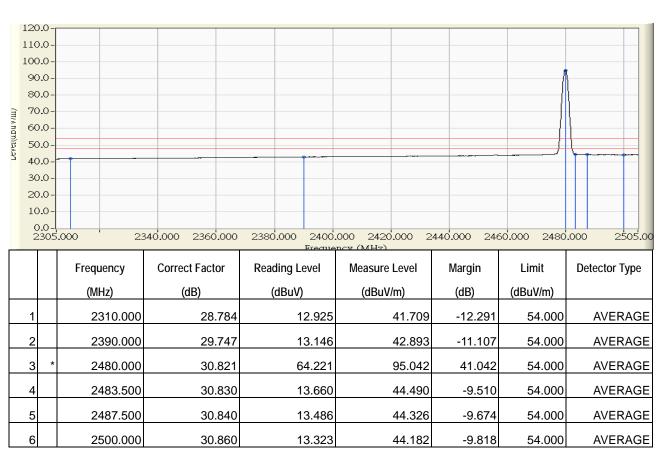
Site : CB1	Time : 2015/08/27 - 10:58
Limit: FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2480MHz



- 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 : 2015/08/27 - 10:58
Limit: FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 3V
EUT : MOOV NOW	Note: 2480MHz



- 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.



6. Occupied Bandwidth

6.1. Test Equipment

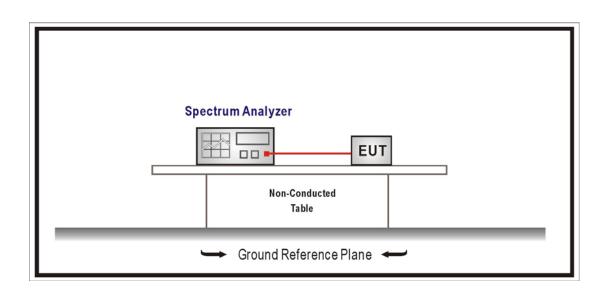
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

6.2. Test Setup



6.3. Test Procedures

The EUT was setup according to ANSI C63.10; tested according to DTS test procedure of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the OBW, Set the VBW ≥ 3xRBW, Sweep Time=Auto.

6.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

6.6. Uncertainty

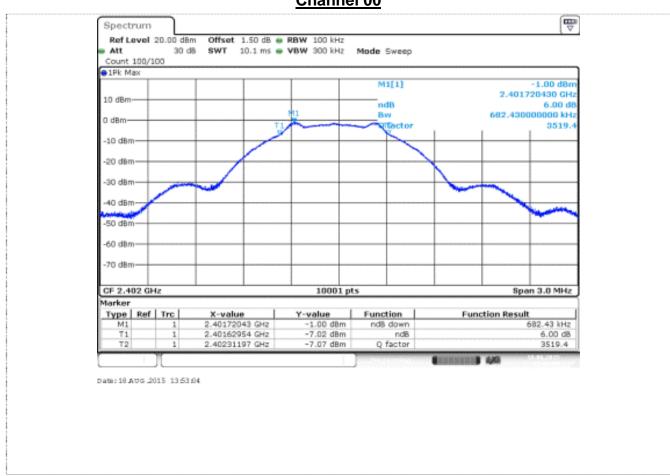
The measurement uncertainty is defined as ±150Hz



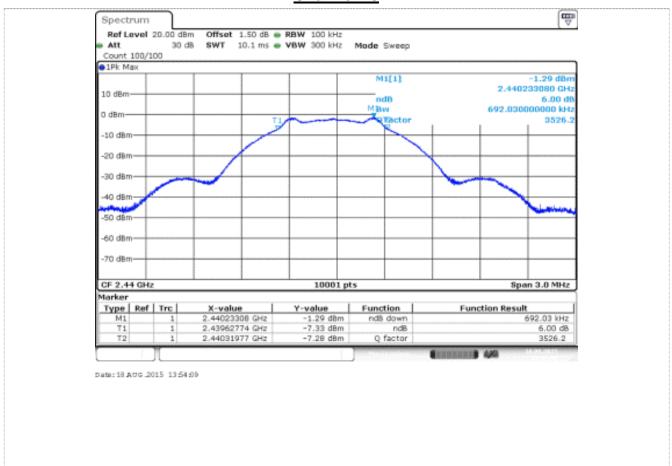
6.7. Test Result

Product	MOOV NOW		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/08/18	Test Site	SR7

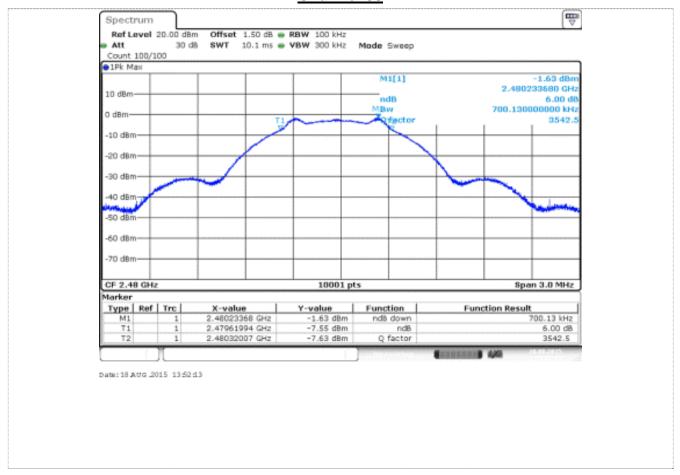
BLE 4.0 (1TX/1RX)					
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result	
00	2402	0.682	≧0.5	Pass	
19	2440	0.692	≧0.5	Pass	
39	2480	0.700	≧0.5	Pass	













7. Power Density

7.1. Test Equipment

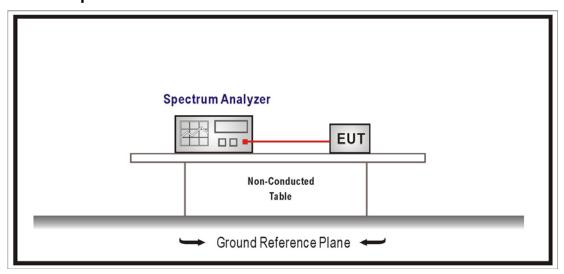
The following test equipment is used during the test:

Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

7.2. Test Setup



7.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

7.4. Test Procedures

The EUT was setup according to ANSI C63.10: 213; tested according to DTS test procedure section 10.2 of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements. Set $3KHz \le RBW \le 100 \text{ kHz}$, Set $VBW \ge 3xRBW$, Sweep time=Auto, Set Peak detector; The tested according to section E)c) of KDB662911 v02v01.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

7.6. Uncertainty

The measurement uncertainty is defined as ±1.27dB.



Test Result 7.7.

Product	MOOV NOW		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/08/18	Test Site	SR7

BLE 4.0 (1TX/1RX)						
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result		
00	2402	-5.76	≦8	Pass		
19	2440	-5.28	≦8	Pass		
39	2480	-6.11	≦8	Pass		

