Test Report Issued Under the Responsibility of:

ITC ENGINEERING SERVICES, INC.

FCC CFR Title 47 Part 15 Subpart C 15.247, 15.209, 15.205 FCC KDB 558074 D01 DTS Meas Guidance v03r05	
Report Reference No. ..... :	20160316-01R- GA1001 _FCC
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Testing Laboratory..... :	ITC Engineering Services, Inc.
Address .....:	9959 Calaveras Road, Box 543, Sunol CA 94586
Applicant's Name ..... :	Taiwan Aulisa Medical Devices Technologies , Inc
Address .....:	Room 1052 , 10 F, No. 3-2, Yuan Qu St., Nangang Dist., Taipei, Taiwan.
Contact.....:	Mr. Don Mizota
Phone .....:	925-858-1140
Fax .....:	925-858-1140
Test Specification Standard ..... :	FCC CFR Title 47 Part 15 Subpart C 15.247, 15.205, 15.209
Test Procedure .....:	FCC KDB 558074 D01 DTS Meas Guidance v03r05 & ANSI C63.4:2009, ANSI C63.10:2013 (Test Procedures)
Judgment .....:	Complies as tested
Test Item Description ..... :	Bluetooth 4.0 LE Sensor
Manufacturer Logo .....:	AULISA
Manufacturer .....:	Taiwan Aulisa Medical Devices Technologies , Inc
Model/Type Reference .....:	GA1001 Sensor Module
RF Operating Frequency Bands .....:	2402 - 2480 MHz

ISO/IEC 17025: 2005 Accredited Laboratory

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1.1 Testing Location

☒ ITC Testing Laboratory:	:	ITC Engineering Services, Inc.
Testing Location/Address	:	9959 Calaveras Road, PO Box 543, Sunol, CA 94586, USA
Tested By (Name + Signature)	:	Benjamin Jing
Reviewed By (Name + Signature)	:	Amir Ashtiani
Approved By (Name + Signature)	:	Michael Gbadebo, PE
☐ Manufacturer Facility	:	
Testing Location/Address	:	
Tested By (Name + Signature)	:	
Approved By (+ Signature)	:	
☐ 3rd Party Test Facility	:	
Testing Location/Address	:	
Tested By (Name + Signature)	:	
Approved By (+ Signature)	:	

1.2 Declaration/Disclaimer

It is the manufacturer's responsibility to assure that additional production units of these models are manufactured with identical electrical and mechanical characteristics. This report is the confidential property of the applicant. As a mutual protection to our applicants, the public, and ourselves, extracts from the test report shall not be reproduced except in full without ITC Engineering Service's written approval. The applicant/manufacturer shall not use this report to claim product endorsement by any US Government agency.

1.3 Revision History

#	Revision Date	Revision
1	8/3/2016	01

1.4 Condition of EUT

Equipment Under Test (EUT) was tested as it was received. The radiated mode tests utilize the EUT internal antenna. For the RF conducted tests, a suitable patch cable is used for the connection from the RF output port to the spectrum analyzer . The EUT BTLE radios are software controllable by means of a laptop and a USB connection.

1.5 Description of EUT

This EUT is a patient sensor of the Digital Vital Sign Monitoring System (Patient sensor and Display monitor), utilizes pulse oximetry technology to monitor a patient's heart rate and blood oxygen level, and communicates that data via Bluetooth LE to a display monitor. An alert is generated for the observer if these parameters go outside of the normal range.
This test report is only for the GA1001 patient sensor . It is not for the system (Patient sensor and Display monitor).

EUT Technical Specification and Description

Manufacturer	Aulisa Medical Devices Technologies , Inc.
EUT Name	Digital Vital Sign Patient Sensor
Model No.	GA1001
FCC ID	2AI5QGA1001
Serial Number of EUT	GA1001-0002
Internal Power	3.5 V Lithium Battery
AC/DC Power Adaptor	AC 100 – 240 V , 47 / 63 Hz ;
EUT Rated Voltage	3. 5 Vdc
Cables	Power cable 3 ft , unshielded .
I/O Ports	Mini USB
Operation Freg. Range	2402 – 2480 MHz
Dimensions	3.7" x 1.3" x 0.7"
Bluetooth LE 4.0	
Modulation Type	GFSK (1 Mbps)
Modulation Technology	FHSS, AFH
Transfer Rate	1 Mbps
Number of Channels	40
Maximum Output Power	0 dBm typ.
Antenna	
Antenna Type	Chip antenna
Antenna Gain, Maximum	2.5 dBi
Radiation Pattern	Omni-directional

1.6 List of Applicant Peripherals/ Supporting Equipments Used During Test

Description	Manufacturer	Model Name	Serial Number
Laptop	Toshiba	A665-S6098	YA022957K
AC Adapter	Toshiba	N/A*	N/A*

*N/A- Not Applicable

1.7 General Test Remarks

The EUT was operated under the following conditions during the testing:

☐	Standby	☐	Test Program (H – Pattern)
☐	Test Program (Color Bar)	☐	Test Program (Applicant Specific)
☐	TV/VCR Signal Input	☐	Signal Generator Input
☐	Continuous Audio Tone (1kHz)	☐	Cycled Audio Tone (1kHz)
☐	Printer/Parallel Function	☐	Modem/Serial Function
☐	Serpentine Program with I/O	☐	Serpentine Program without I/O
☐	Practice Operation	☐	Normal Operating Mode
☐	Essential Operation (Functional Safety)	☐	Continuous Unmonitored Operation
☒	Continuous Monitored Operation	☐	Non-Continuous Operation

The requirements according to the technical regulations are:

☒	Met	☐	Not Met

The Equipment Under Test does:

☒	Fulfill the general approval requirements	☐	Not fulfill the general approval requirements

1.8 Summary of Tests

ITC Engineering Services, Inc. as an independent testing laboratory, declares that the equipment specified above was tested to the requirements of:

Section of FCC Title 47 CFR	Test Description	Result
15.247(d); 15.209	Radiated Emissions	Passed
15.207	Power Port Conducted Emissions	Passed
15.247 (a)(2)	6 dB Bandwidth	Passed
15.247 (b)(3)	Conducted RF Output Power	Passed
15.247 (e)	Power Spectral Density	Passed
15.247 (d)	Band-Edge Measurement by 100KHz BW	Passed
2.1049 (h)	Occupied Bandwidth	Passed
15.247 (d)	Conducted RF Emissions	Passed
15.247 (b)(4)	Gain of Transmission Antenna	Passed
15.203	Antenna Requirement	Passed
15.247(i) ; 2.1091	Maximum Permissible Exposure (MPE)	Passed

1.9 Measurement Uncertainty

The measurement of uncertainty levels were estimated based on calculation in accordance with TR 100-028-1. Using the value k = 2 for expanded uncertainty, this provides a 95% level of confidence.

	Measurement Method	Calculated Uncertainty (dB)
1	RF Power, Conducted	± 1.3
2	Radiated emission of transmitter (30MHz - 1 GHz) @ 3m	± 3.2
3	Radiated emission of transmitter (1 - 25 GHz) @ 3m	± 2.5

1.10 TEST SET UP PHOTOS

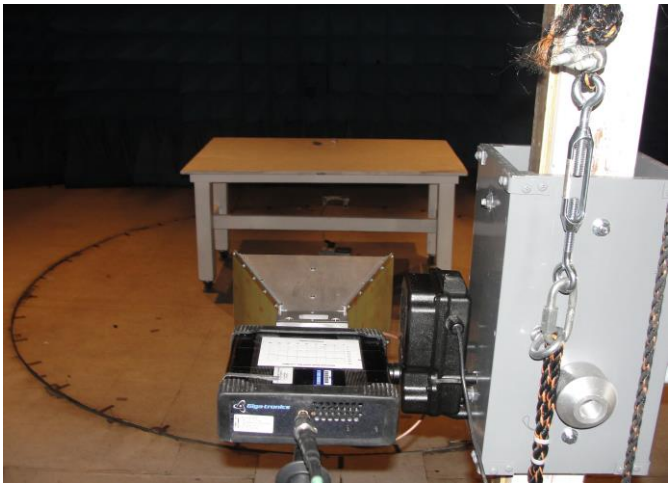


Figure 1: Radiated RF Emissions Test Set-up

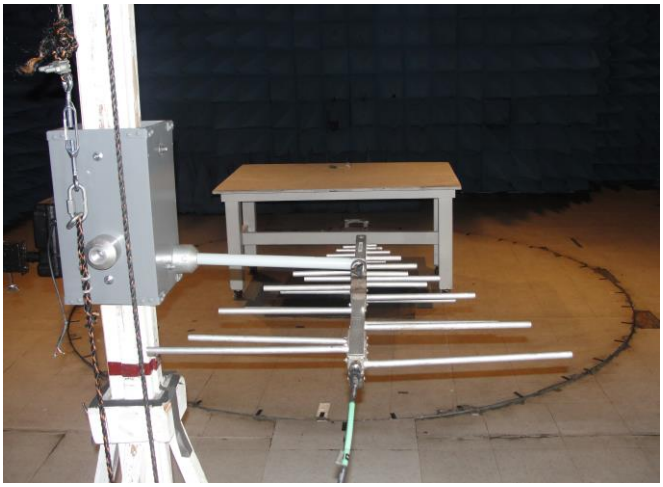


Figure 2: Radiated RF Emissions Test Set-up

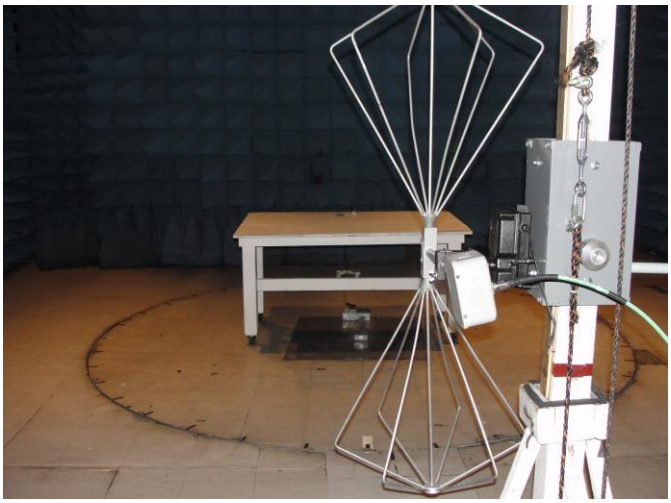


Figure 3: Radiated RF Emissions Test Set-up

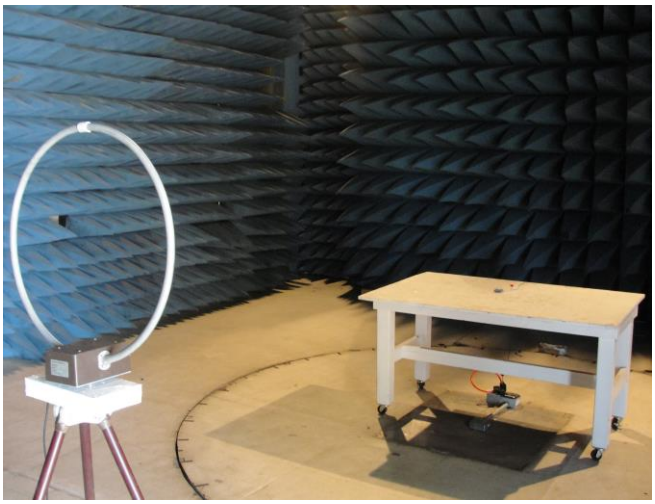


Figure 4: Radiated RF Emissions Test Set-up

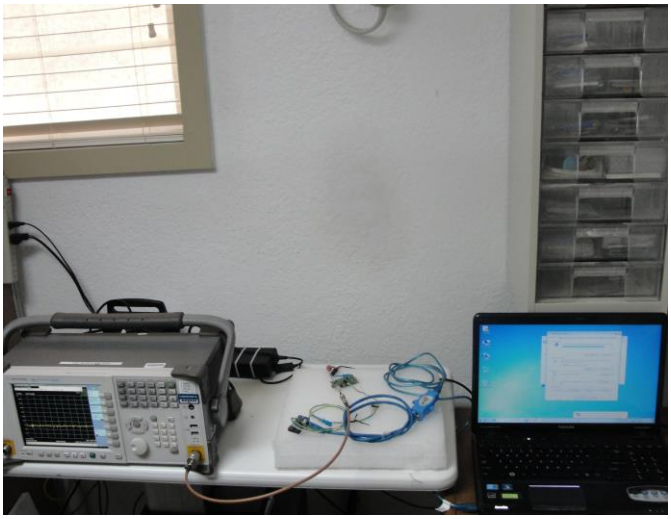


Figure 5: Conducted RF Test Set-up

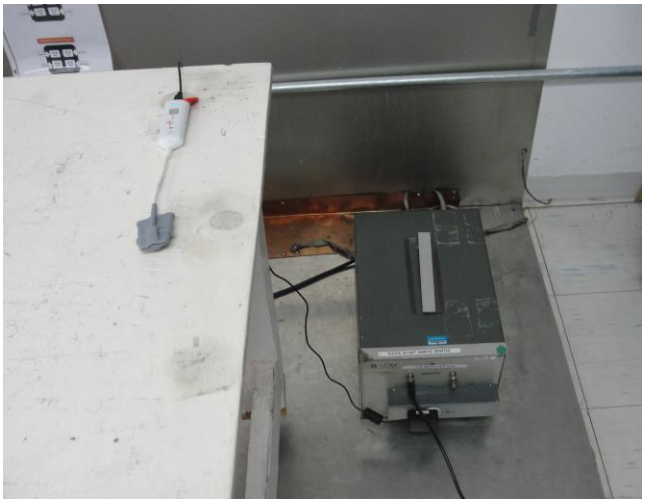


Figure 6: Conducted AC Port Emissions Test Setup

2 Minimum 6 dB Bandwidth Per FCC Part 15.247 (a)(2) – Bluetooth 4.0 LE

2.1 Administrative and Environmental Details

Site Used:	EMC Lab 2B
Test Date:	6/23/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

2.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

2.3 TEST SET UP PHOTO(S) REFER TO FIGURE 5.

2.4 Limits/Requirements

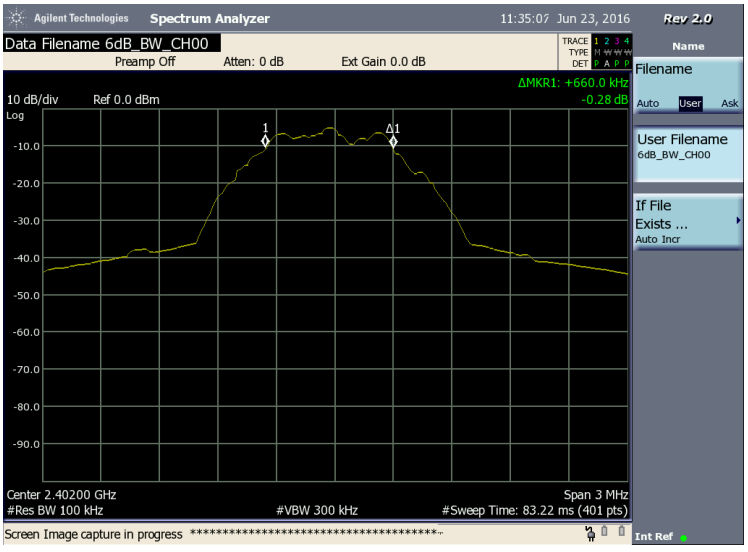
Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

2.5 Test Description and Procedure

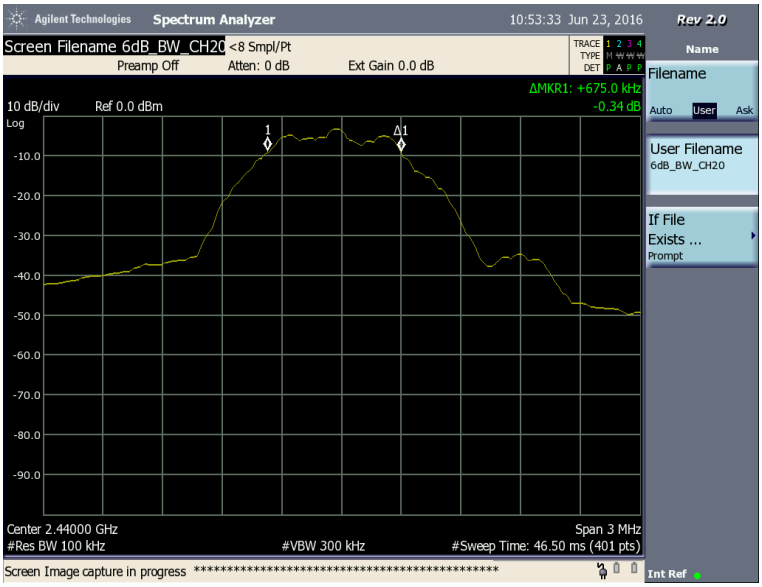
The EUT is connected to the spectrum analyzer by attaching a suitable patch cable from the RF port of the EUT. The minimum 6dB bandwidth is determined by measuring the width of the carrier signal between the lowest frequency and the highest frequency of the carrier signal where the level is 6dB below the maximum signal power. The EUT is set to transmit single channel, modulated and maximum controlled power output. The test is performed at or near the low, mid and high channel of the operating band.

2.6 6dB Bandwidth Measurement Test Data

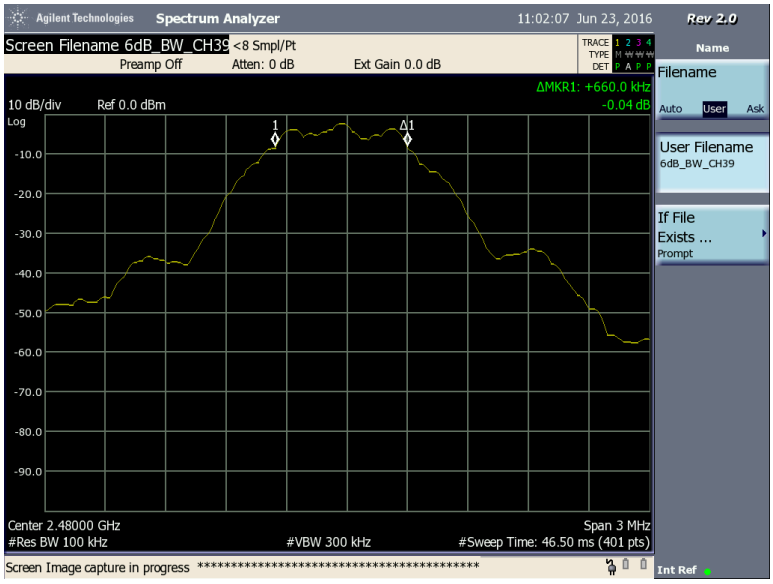
Channel	Frequency	6 dB Bandwidth	Limit	Results
00	2402 MHz	660 KHz	> 500 KHz	Pass
20	2440 MHz	675 KHz	> 500 KHz	Pass
39	2480 MHz	660 KHz	> 500 KHz	Pass



6 dB bandwidth (Ch00)



6 dB bandwidth (Ch20)



6 dB bandwidth (Ch39)

3 Conducted RF Output Peak Power Per FCC Part 15.247 (b)(3) – Bluetooth 4.0 LE

3.1 Administrative and Environmental Details

Site Used:	EMC Lab 2B
Test Date:	6/23/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

3.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

3.3 TEST SET UP PHOTO(S) REFER TO FIGURE 5

3.4 Limits/Requirements

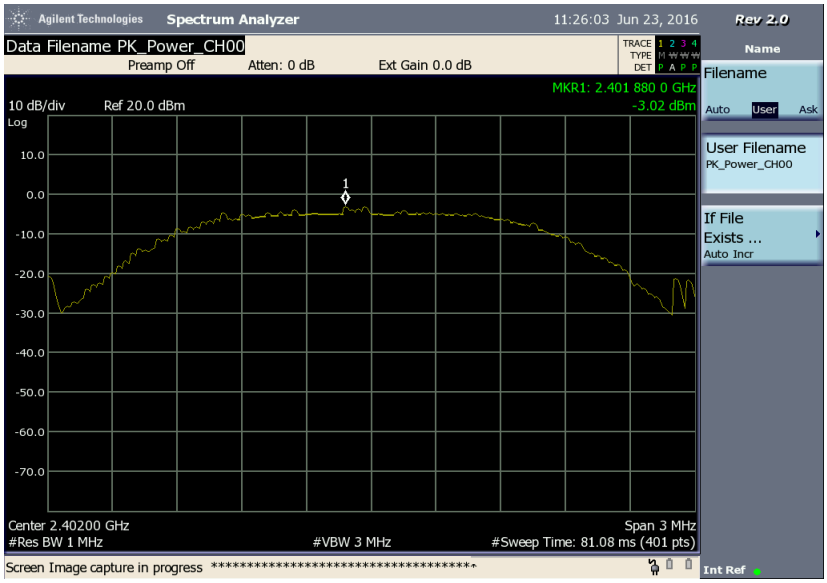
(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following:
(3) Maximim peak power transmitted is 1 Watt or 30 dBm.

3.5 Test Description and Procedure

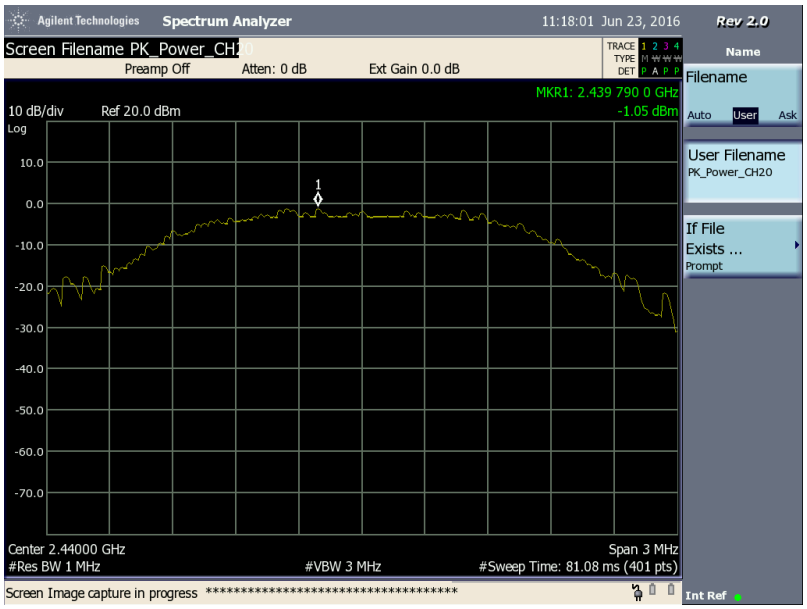
The EUT antenna port is connected to the spectrum analyzer. The maximum peak conducted output power was measured at the center peak of the selected channel.

3.6 Test Data

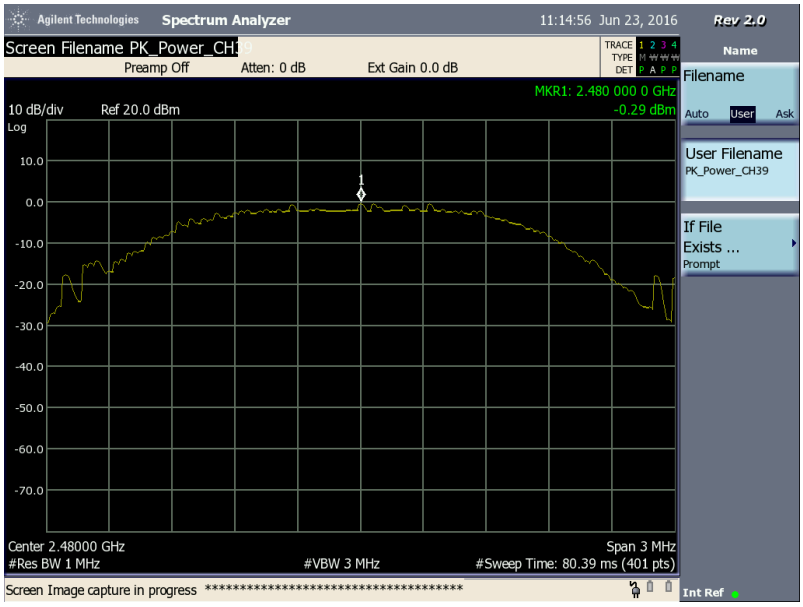
Channel	Freq.(MHz)	RF Peak Power dBm	Limit	Result
00	2402	-3.02	< 30 dBm (1W)	Passed
20	2440	-1.05	< 30 dBm (1W)	Passed
39	2480	-0.29	< 30 dBm (1W)	Passed



RF Peak Power at CH00



RF Peak Power at CH20



RF Peak Power at CH39

4 Power Spectral Density Per FCC Part 15.247 (e) – Bluetooth 4.0 LE

4.1 Administrative and Environmental Details

Site Used:	EMC Lab 2B
Test Date:	6/23/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

4.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

4.3 Test Set up Photo(s) REFER TO FIGURE 5.

4.4 Limits/Requirements

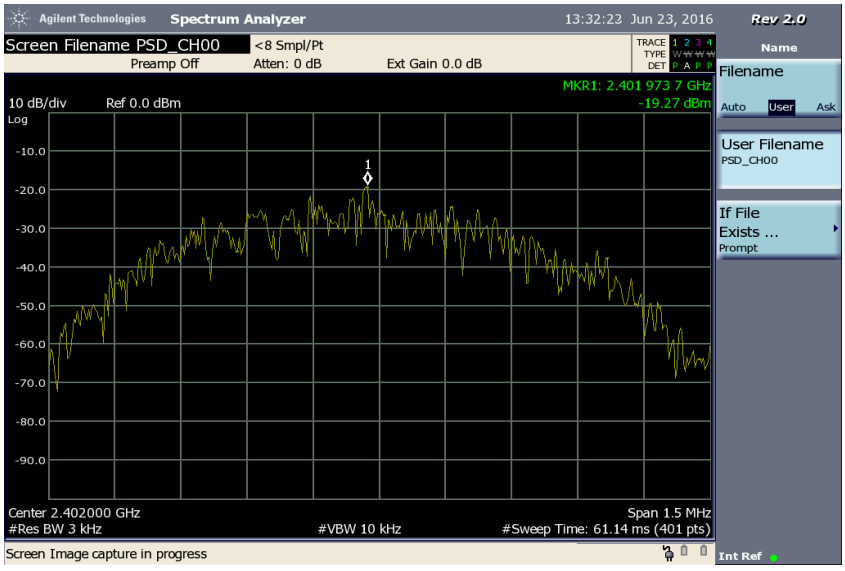
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

4.5 Test Description and Procedure

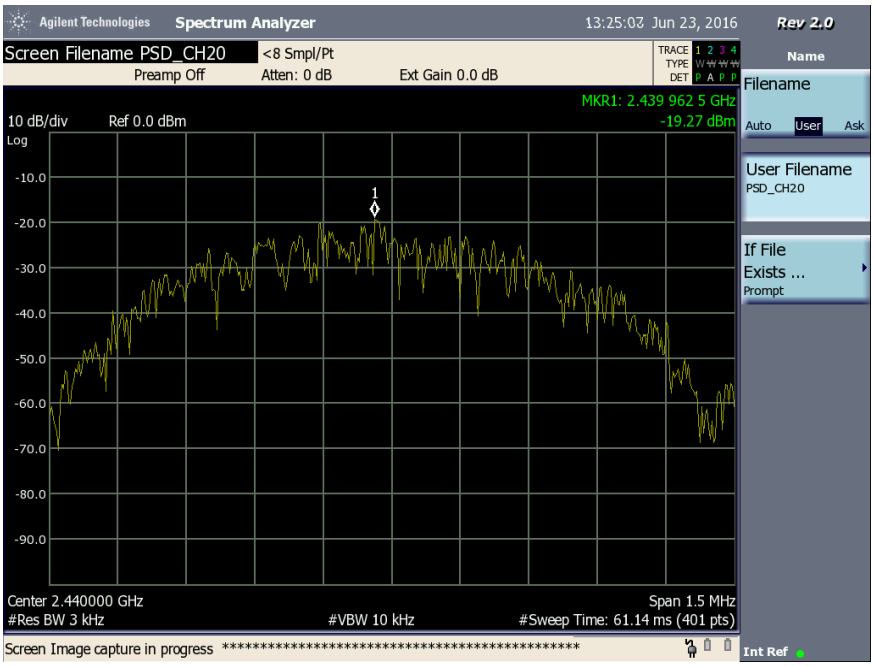
The EUT antenna port is connected to the spectrum analyzer. The power spectral density is measured at the center peak of the channel. Measurements are performed at each of the low, mid and high frequencies in the band.

4.6 Test Data

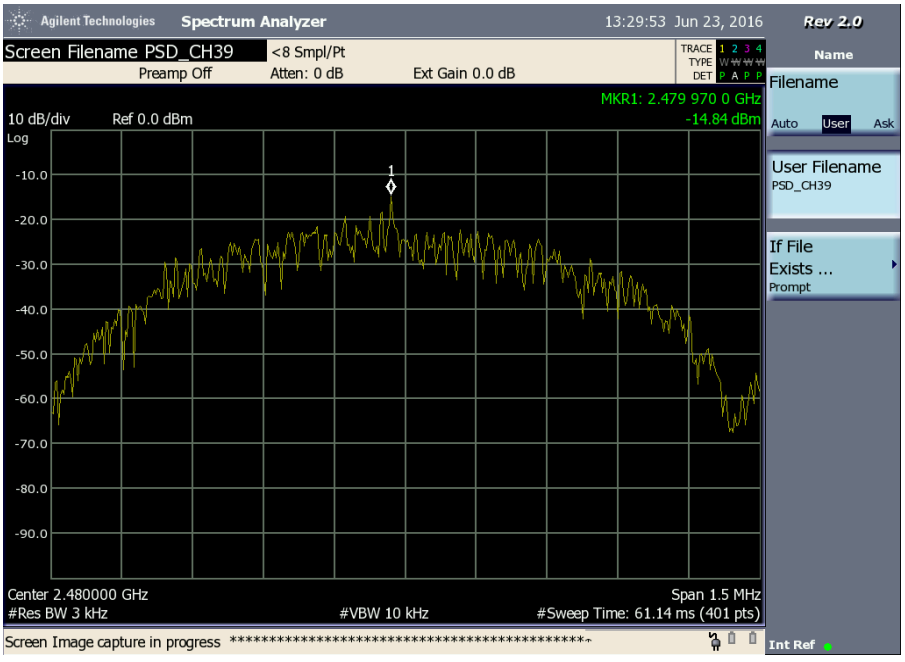
Channel	Freq.(MHz)	PSD (dBm)	Limit	Result
00	2402	-19.27	< 8 dBm/3KHz	Passed
20	2440	-19.27	< 8 dBm/3KHz	Passed
39	2480	-14.84	< 8 dBm/3KHz	Passed



Power Spectral Density at CH00



Power Spectral Density at CH20



Power Spectral Density at CH39

5 Lower/Upper Band Edge Per FCC Part 15 Section 15.247 (d) – Bluetooth 4.0 LE

5.1 Administrative and environmental details

Site Used:	EMC Lab 2B
Test Date:	6/23/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

5.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

5.3 Test Set up Photo(s) REFER TO FIGURE 5.

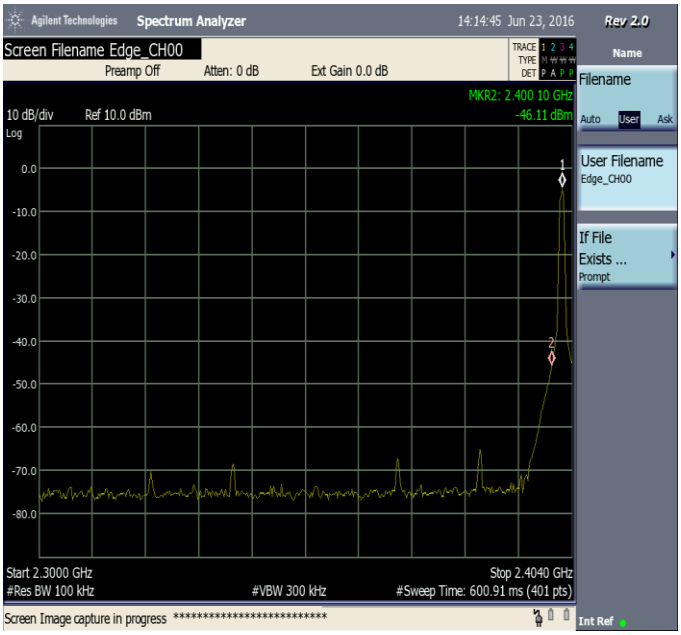
5.4 Limits/Requirements

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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 either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

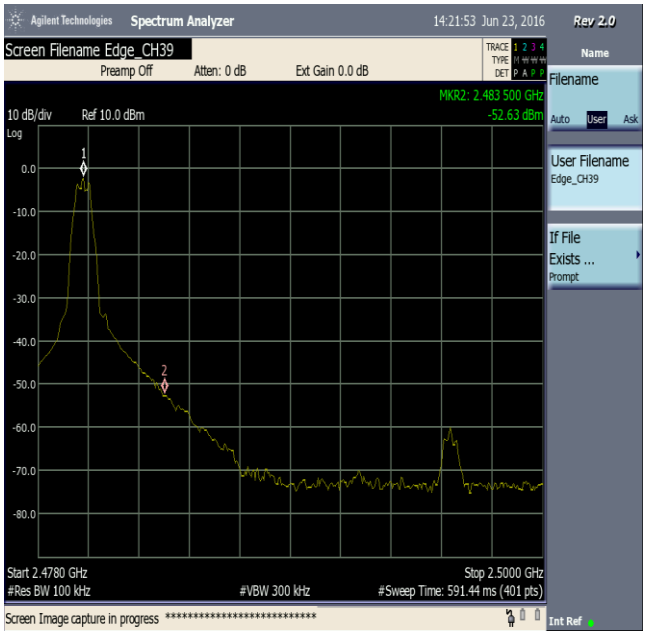
5.5 Test Description and Procedure

The band edge measurement was made at the peak level of the emission at the band edge (outside of the operating band) relative to the center peak of the operating frequency by using marker delta function. The span was set to be wide enough to capture the highest peak level of the operating channel to the band edge.

5.6 Test Plots



Lower Band Edge at CH00



Upper Band Edge at CH39

5.7 Test Result PASS

6 Conducted RF Emissions at Antenna Port Per FCC Part 15.247 (d) – Bluetooth 4.0 LE

6.1 Administrative and Environmental Details

Site Used:	EMC Lab 2B
Test Date:	6/24/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

6.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

6.3 TEST SET UP PHOTO(S) REFER TO FIGURE 5

6.4 Limits/Requirements

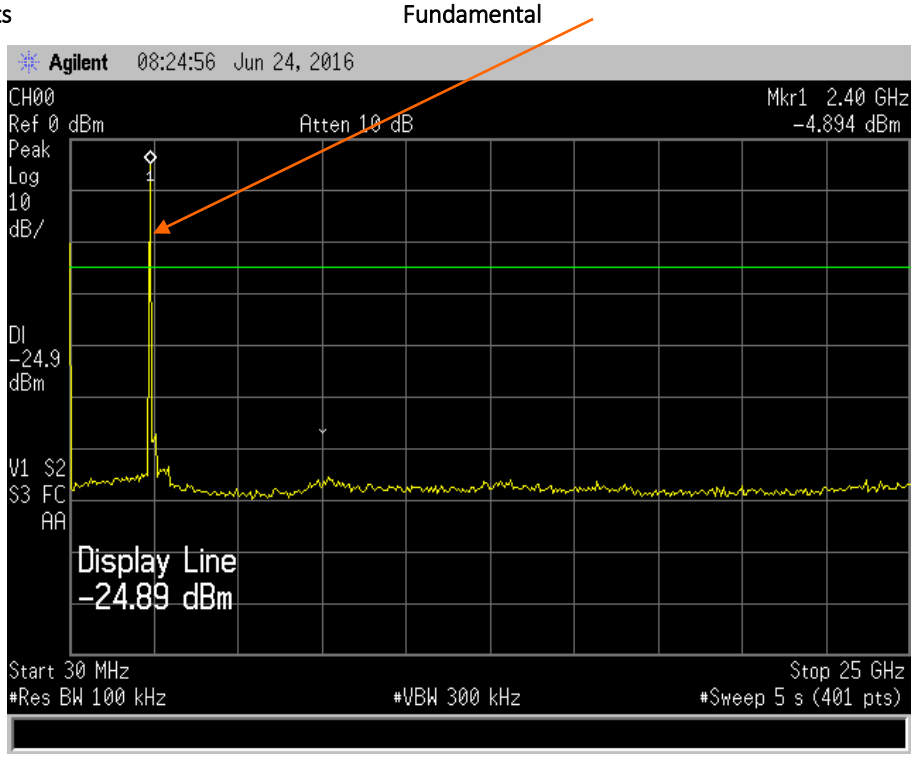
In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

6.5 Test Description and Procedure

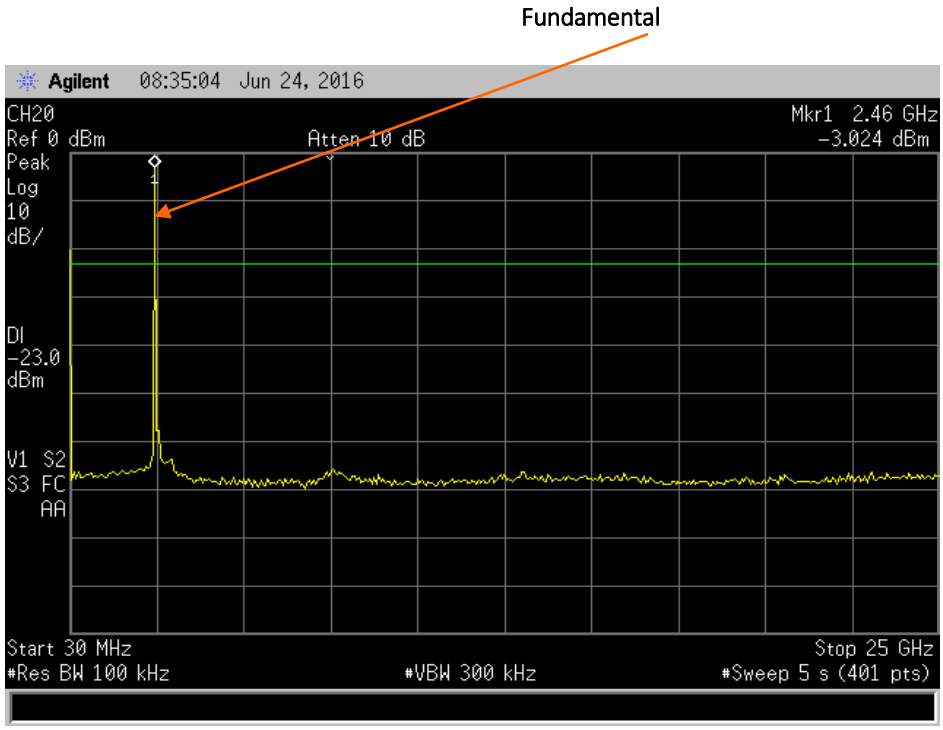
The EUT antenna port is connected to the spectrum analyzer. The maximum peak conducted output power was measured at the center peak of the selected channel. Measurements are performed at each of the low, mid and high frequencies in the band.

6.6 Test Resuls PASS

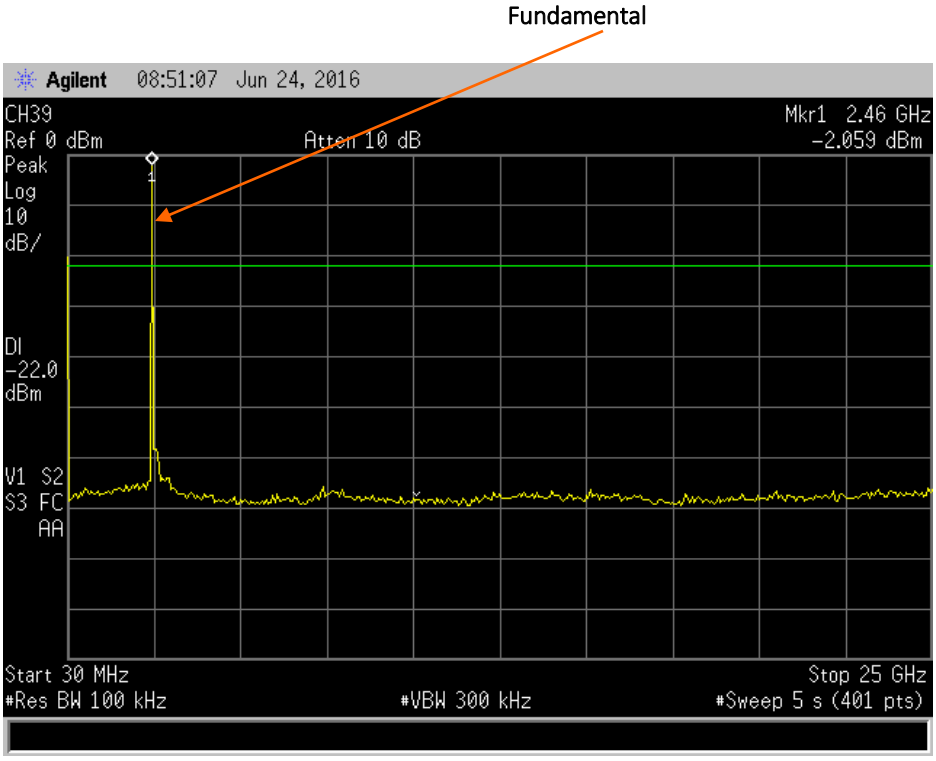
6.7 Test Plots



Conducted RF Emissions at CH00



Conducted RF Emissions at CH20



Conducted RF Emissions at CH39

7 Occupied Bandwidth Per FCC Part 2 Section 2.1049 (h) – Bluetooth 4.0 LE

7.1 Administrative and Environmental Details

Site Used:	EMC Lab 2A
Test Date:	6/23/2016
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

7.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
CSA Spectrum Analyzer	Agilent	N1996A	MY45371881	1/05/18	2 yr

7.3 Test Set up Photo(s)

Refer to Figure 5.

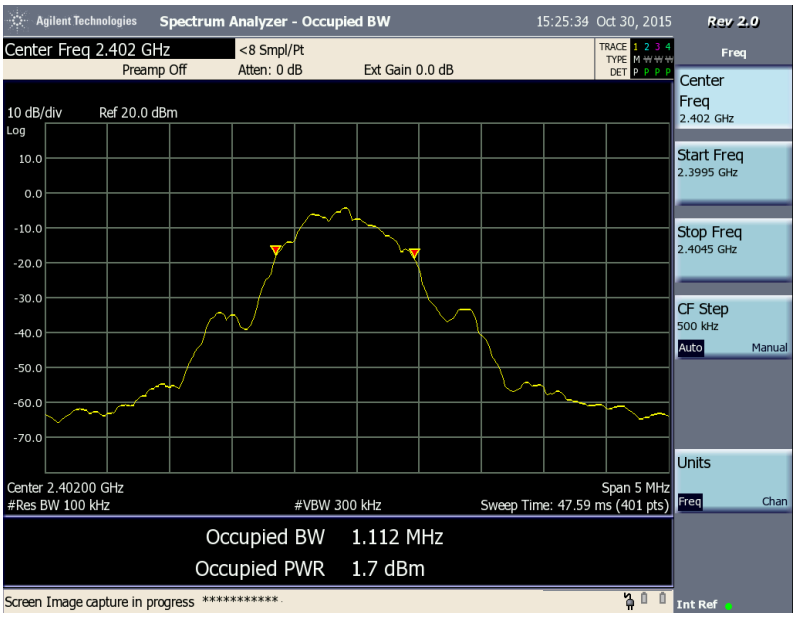
7.4 Limits/Requirements

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Transmitters employing digital modulation techniques—when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

7.5 Test Description and Procedure

Using the conducted test method, the occupied bandwidth measurement was made utilizing the CSA Analyzer's OBW function. The span was set to be wide enough to capture the entire operating channel.

7.6 Test Plots



Occupied Bandwidth

8 Radiated Emissions Per FCC Part 15.247(d)

8.1 Administrative and Environmental Details

Site Used:	Semi Anechoic Chamber
Test Date:	2/16/2017
Test Engineer:	Benjamin Jing
Temperature	23°C avg
Humidity:	48% avg

8.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
EMC Analyzer	Agilent	E7405A	US40240257	7/16/17	2 yr
Active Loop Antenna	EMCO	6502	1071/1001	10/12/18	2 yr
Bi-Conical Antenna	EMCO	3104	8901-3885	3/22/18	2 yr
Log Periodic Antenna	EMCO	3146	1596-1001	10/13/18	2 yr
Pre-Amplifier	Agilent	83051A	0000009025	Verified	N/A
Amplifier	Giga-tronics	GT-1040A	1112003	Verified	N/A
Horn Antenna	A.H. Systems	SAS-571	887	2/03/19	2 yr
Horn Antenna	Schwarzbeck	15633	BBHA9170267	2/06/19	2yr

8.3 Test Set up Photo(s) REFER TO FIGURES 1 , 2, 3, AND 4.

8.4 Limits/Requirements

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

FCC Part 15 section 15.205 Restricted Bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	**4.5-5.15**
0.495-0.505	16.69475-16.69525	608-614	**5.35-5.46**
2.1735-2.1905	16.80425-16.80475	960-1240	**7.25-7.75**
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	

FCC 15C Limits OF Radiated Emission

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009-0.49	267 – 4.9 **	48.5 - 13.8	300*
0.49-1.705	49 – 14.1 ***	33.8 - 23	30*
1.705-30	30	29.5	30*
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

FCC 15C Limits OF Radiated Emission Above 1000 MHz

Frequency (MHz)	Field strength Average	Field strength Peak	Measurement distance
> 1000 MHz	54 dBuV/m	74 dBuV/m	3 m

Note : 1) Limits for radiated emissions are according to FCC part 15C
2) Measurement performed at 3m per FCC part 15 Section 15.31 (f)(2) distance scaling factor.
3) QP detector is used for measurement frequency below 1 GHz.

8.5 Test Description and Procedure

The EUT was placed on a non-conducting table whose surface is 80 cm above the ground plane. The table may be rotated in order to maximize the signal received by the measurement system. RF emissions from 9 kHz to 25 GHz are received by a series of antennas. The antennas are located 3m away from the EUT. The elevation of the antennas above the ground plane is adjusted (1-4 m) for maximum signal, except for the active loop which is fixed at 1m. Both horizontally and vertically polarized signals are detected and recorded. All the radiated emissions tests were performed in three orthogonal planes. Data plots included below are the worst case data.

Sample Calculation of Radiated Emissions :

Field Strength (dBuV/m) = Raw Data (dBuV/m) + ANT Factor (dB) + Cable Loss (dB) – AMP Gain (dB)

8.6 Test Data :

9 KHz - 30 MHz Radiated Emissions Data :

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. The amplitude of spurious emissions which are attenuated less than 20dB below the limits is not found from 9 KHz to 30 MHz.

30 MHz – 25 GHz Radiated Emissions Data :

TX CH00 @ 2402 MHz

Frequency (MHz)	Polarization H/V	Detector QP / AVG / PK	Level (dBuV/m)	Limt (dBuV/m)	Margin dB	Note
37.8	V	QP	26.6	40	-13.4	
77.2	V	QP	31.3	40	-8.7	
692	H	QP	34.5	46	-11.5	
2402	V	Peak	53.04	-	-	Fundamental
2402	H	Peak	63.16	-	-	Fundamental

TX CH20 @ 2440 MHz

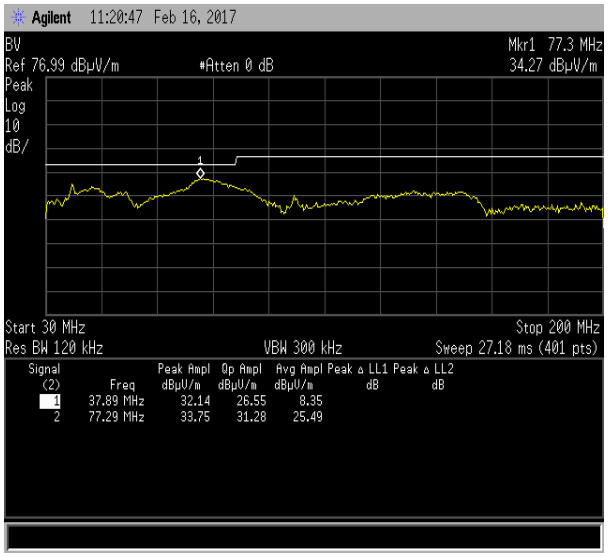
Frequency (MHz)	Polarization H/V	Detector QP / AVG / PK	Level (dBuV/m)	Limt (dBuV/m)	Margin dB	Note
37.8	V	QP	26.6	40	-13.4	
77.2	V	QP	31.3	40	-8.7	
692	H	QP	34.5	46	-11.5	
2440	V	Peak	45.12	-	-	Fundamental
2440	H	Peak	42.4	-	-	Fundamental

TX CH39 @ 2480 MHz

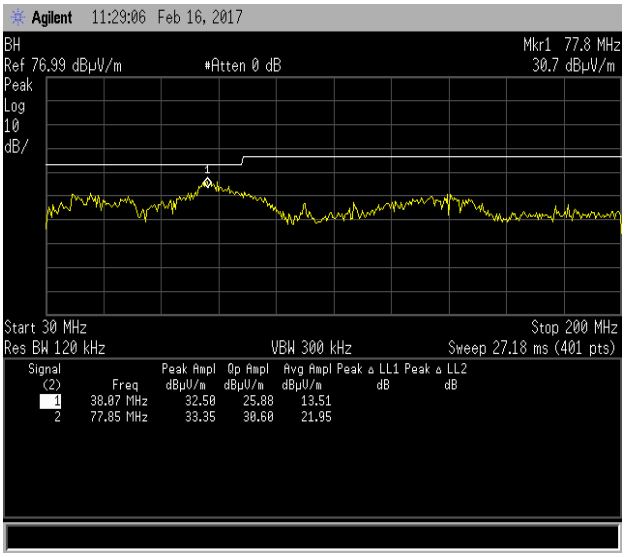
Frequency (MHz)	Polarization H/V	Detector QP / AVG / PK	Level (dBuV/m)	Limt (dBuV/m)	Margin dB	Note
37.8	V	QP	26.6	40	-13.4	
77.2	V	QP	31.3	40	-8.7	
692	H	QP	34.5	46	-11.5	
2480	V	Peak	43.71	-	-	Fundamental
2480	H	Peak	63.55	-	-	Fundamental

Note : Radiated spurious emissions within 1 – 25 GHz are too low to be found .

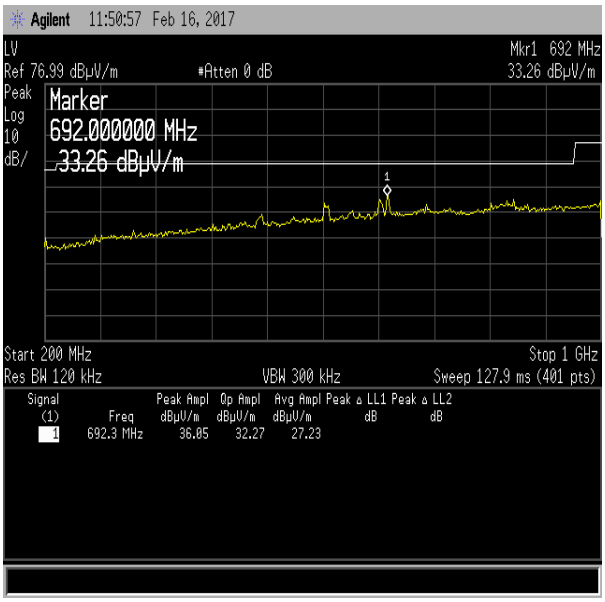
Test Plots



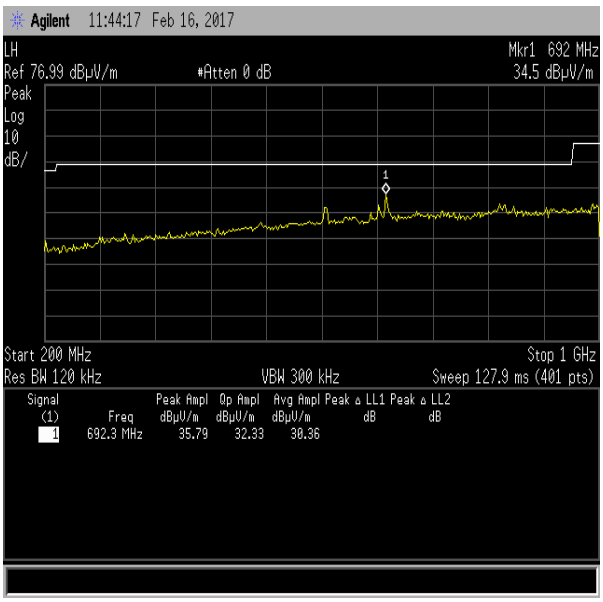
Vertical 30 – 200 MHz TX



Horizontal 30 – 200 MHz TX

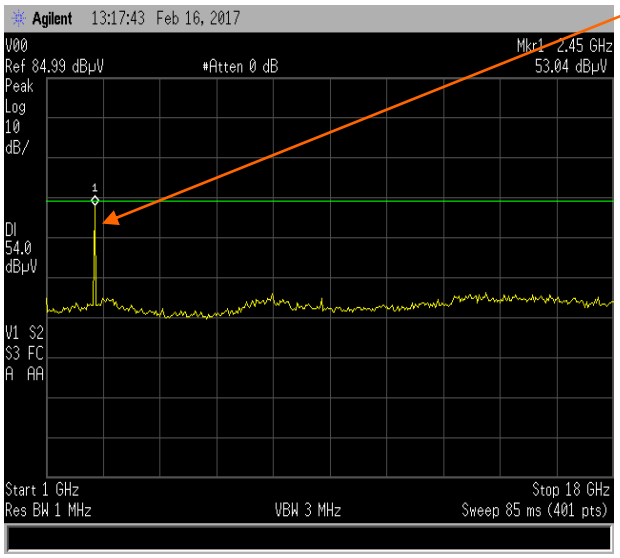


Vertical 200 – 1000 MHz TX

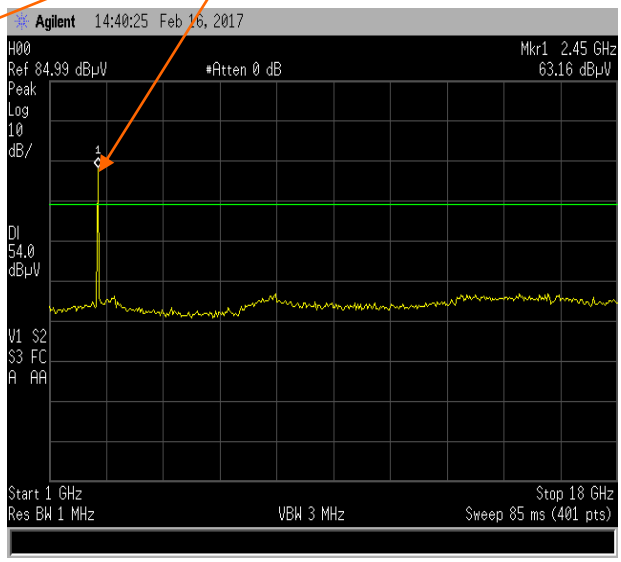


Horizontal 200 – 1000 MHz TX

Fundamental

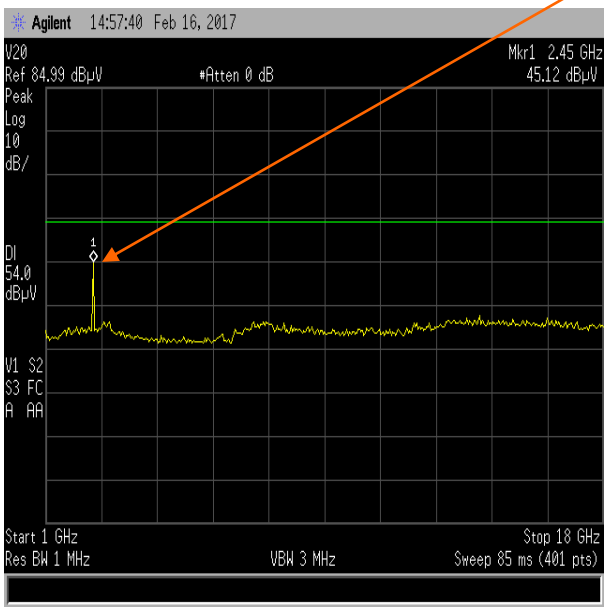


Vertical 1 – 18 GHz TX @ CH00

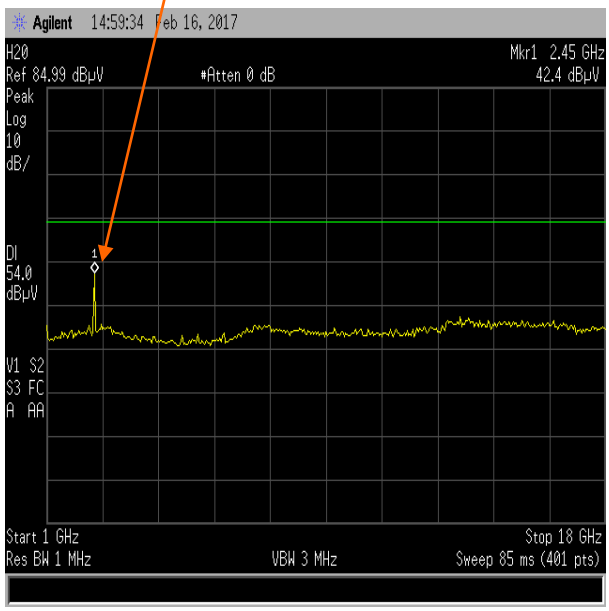


Horizontal 1 – 18 GHz TX @ CH00

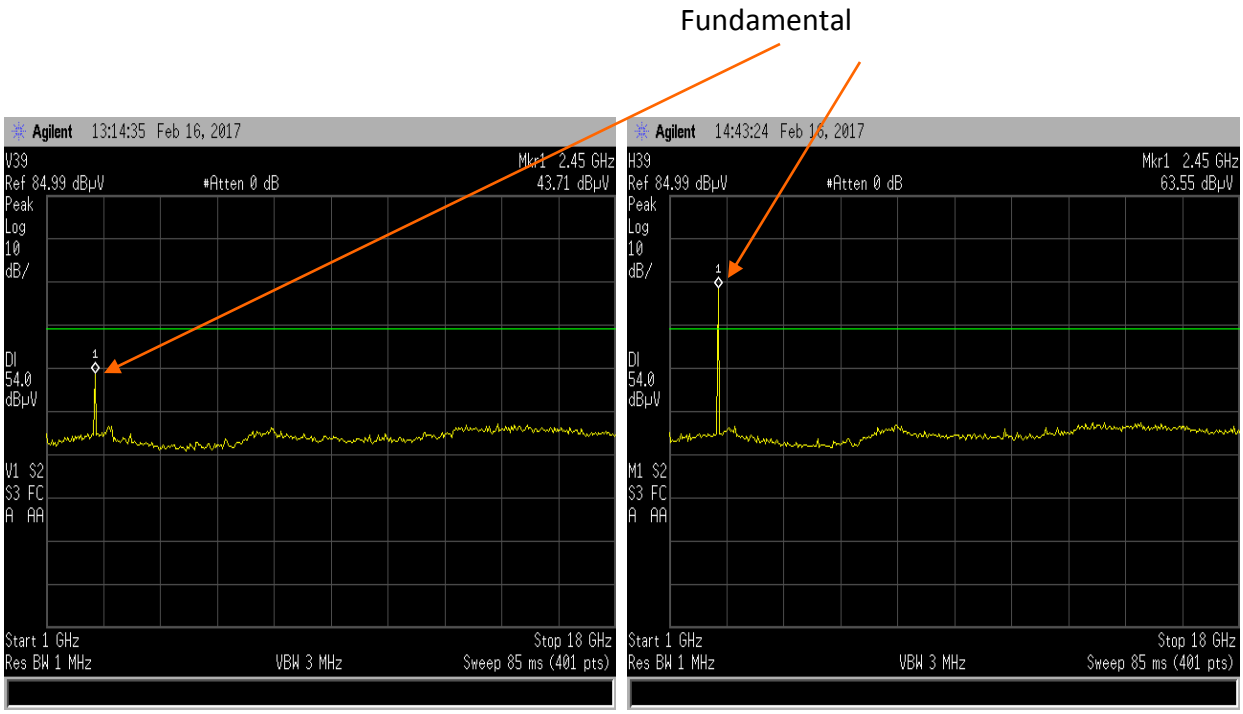
Fundamental



Vertical 1 – 18 GHz TX @ CH20



Horizontal 1 – 18 GHz TX @ CH20



Vertical 1 – 18 GHz TX @ CH39 Horizontal 1 – 18 GHz TX @ CH39

9 Conducted Power Line Emissions Per FCC Part 15.207

9.1 Administrative and Environmental Details

Site Used:	EMC Lab 2A
Test Date:	2/16/2017
Test Engineer:	Benjamin Jing
Temperature	23°C
Humidity:	33%

9.2 Test Equipment

Equipment Description	Manufacturer	Model Name	Serial Number	Calibration Due Date	Calibration Interval
EMC Analyzer	Agilent	E7405A	US40240257	7/16/17	2 yr
LISN	EMCO	3825/2	8901-1229	2/01/19	2 yr

9.3 TEST SET UP PHOTO(S) REFER TO FIGURES 6.

9.4 Limits/Requirements

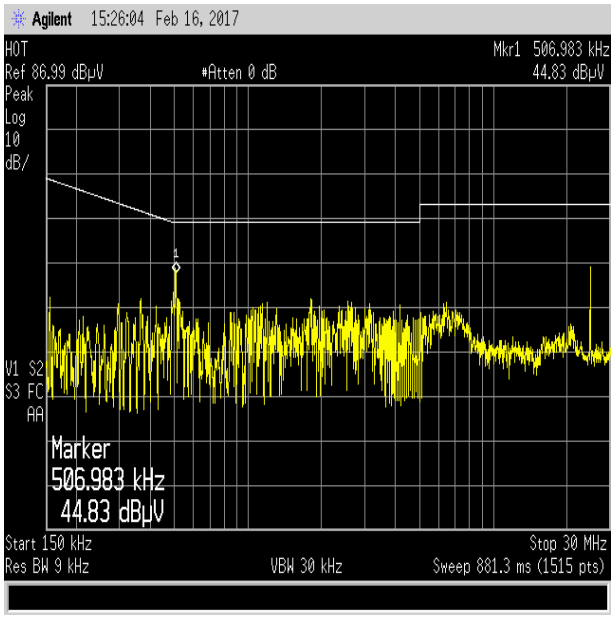
Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

9.5 Test Procedure

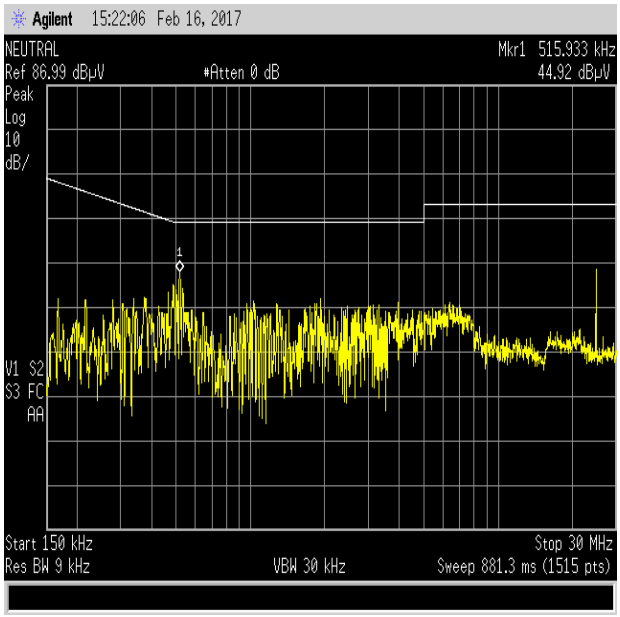
The EUT was placed in a shielded room 80 cm above the horizontal ground reference plane and 40 cm away from the vertical ground reference plane. 120V /60Hz AC mains input to the AC/DC adapter was supplied through a LISN and the excess power cord was looped into figure “8” above the LISN.

9.6 Test Data

There were no emissions of significant level observed between 150KHz and 30MHz. The EUT meets the Power Line Conducted Emissions requirements forCISPR11: 2009/A1:2010 Class



Hot Line at 120 V 60Hz



Neutral Line at 120 V 60 Hz

10 Gain of transmission antenna Per FCC Part 15.247 (b)(4)

10.1 Limits/Requirements

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.

10.2 Antenna Specification

The EUT has a chip antenna with maximum gain 2.5 dBi within the 2.4 - 2.5 GHz Band.

Electrical	
Antenna chip number	140-00092_REVXX__ANTENNA, WI-FI
Operation Center frequency	2442 MHz
Band width	+ / - 42 MHz
Antenna maximum gain	2.5 dBi
Radiation pattern	Omni
VSWR	3
Polarization	Linear
Impedance	50 ohm
Mechanical	
Antenna element size (mm)	50 x 10 X1 mm

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