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Report On

Application for Grant of Equipment Authorization of the
Escort, Inc.
BT2 Bluetooth Smart Module

FCC Part 15 Subpart C §15.247
IC RSS-247 Issue 1 May 2015

Report No. SD72111293-1115

May 2016

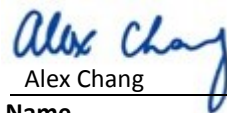
REPORT ON Radio Testing of the
Escort, Inc.
Bluetooth Smart Module

TEST REPORT NUMBER SD72111293-1115

PREPARED FOR Escort, Inc.
5440 West Chester Road
West Chester, OH
45069

CONTACT PERSON John Kuhn
VP of Engineering
(513) 870-8542
jkuhn@escortinc.com

PREPARED BY

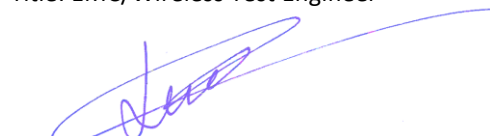

Alex Chang

Name

Authorized Signatory

Title: EMC/Wireless Test Engineer

APPROVED BY


Juan Manuel Gonzalez

Name

Authorized Signatory

Title: Commercial Wireless EMC Lab Manager

DATED

May 19, 2016



Revision History

SD72111293-1115 Escort, Inc. BT2 Bluetooth Smart Module					
DATE	OLD REVISION	NEW REVISION	REASON	PAGES AFFECTED	APPROVED BY
05/19/2016	Initial Release				Juan M. Gonzalez

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SECTION 1

REPORT SUMMARY

Radio Testing of the
Escort, Inc.
Bluetooth Smart Module

1.1 INTRODUCTION

The information contained in this report is intended to show verification of the Escort, Inc. BT2 Bluetooth Smart Module to the requirements of FCC Part 15 Subpart C §15.247 and IC RSS-247 Issue 1 May 2015.

Objective	To perform Radio Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Escort, Inc.
Model Number(s)	BT2
FCC ID Number	QKLBT2
IC Number	N/A
Serial Number(s)	001
Number of Samples Tested	1
Test Specification/Issue/Date	• FCC Part 15 Subpart C §15.247 (October 1, 2015). • IC RSS-247 Issue 1 May 2015. Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices. • IC RSS-Gen Issue 4, November 2014 - General Requirements for Compliance of Radio Apparatus. • 558074 D01 DTS Meas Guidance v03r03, (June 09, 2015) Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
Start of Test	December 07, 2015
Finish of Test	May 19, 2016
Name of Engineer(s)	Alex Chang Ferdinand Custodio
Related Document(s)	None. Supporting documents for EUT certification are separate exhibits.

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC Part 15 Subpart C §15.247 with cross-reference to the corresponding IC RSS standard is shown below.

Section	§15.247 Spec Clause	RSS	Test Description	Result	Comments/ Base Standard
2.1	§15.247(b)(3)	RSS-247 5.4(4)	Peak Output Power	Compliant	
2.2	§15.207(a)	RSS-Gen 8.8	Conducted Emissions	N/A	
2.3		RSS-Gen 6.6	99% Emission Bandwidth	Compliant	
2.4	§15.247(a)(2)	RSS-247 5.2(1)	Minimum 6 dB RF Bandwidth	Compliant	
2.5	§15.247(d)	RSS-247 5.5	Out-of-Band Emissions - Conducted	Compliant	
2.6	§15.247(d)	RSS-247 5.5	Band-edge Compliance of RF Conducted Emissions	Compliant	
2.7	§15.247(d)	RSS-Gen 8.9 and 8.10	Spurious Radiated Emissions	Compliant	
2.7		RSS-Gen 7.1	Receiver Spurious Emissions	Compliant	
2.8	§15.247(d)	RSS-Gen 8.9 and 8.10	Radiated Band Edge Measurements	Compliant	
2.9	§15.247(e)	RSS-247 5.2(2)	Power Spectral Density for Digitally Modulated Device	Compliant	

N/A Not performed. EUT is an RF Module.



1.3 PRODUCT INFORMATION

1.3.1 Technical Description

The Equipment Under Test (EUT) was an Escort, Inc. BT2 Bluetooth Smart Module. The EUT is used to add Bluetooth to ESCORT and Beltronics brand radar detectors. It uses Bluetooth Low Energy to communicate between the radar detector and a Bluetooth LE equipped smartphone. The Equipment Under Test was mounted and tested on the provided BLE Module Development Board or host as detailed in this filing.

1.3.2 EUT General Description

EUT Description	Bluetooth Smart Module
Model Name	BT2
Model Number(s)	BT2
Rated Voltage	3.3 to 5VDC
Mode Verified	BT LE
Capability	Bluetooth LE (Single Mode)
Primary Unit (EUT)	☐ Production ☒ Pre-Production ☐ Engineering
Antenna Manufacturer	Yageo
Antenna Part Number	CAN4311115002451K
Antenna Type	Linear Omni-Directional surface-mount ceramic multilayer
Antenna Gain	4.1 dBi (Peak Gain)
Host Brand	ESCORT
Host Model Name	iX
Host Model Number	EIX100 (FCC ID QKLM4IX)

1.3.3 Maximum Conducted Output Power (Peak)

Mode	Frequency Range (MHz)	Output Power (dBm)	Output Power (mW)
Bluetooth LE	2402-2480	0.74	1.19

1.4 EUT TEST CONFIGURATION

1.4.1 Test Configuration Description

Test Configuration	Description
A	Antenna conducted port test configuration. Direct connection of the antenna port to a Spectrum analyzer.
B	Radiated emissions test configuration. EUT transmitting through the integral antenna (mounted on the development board).
C	Radiated emissions test configuration. EUT installed inside a host.

1.4.2 EUT Exercise Software

The manufacturer provided an application (BLE_Testmode.exe) to configure EUT RF settings.

1.4.3 Support Equipment and I/O cables

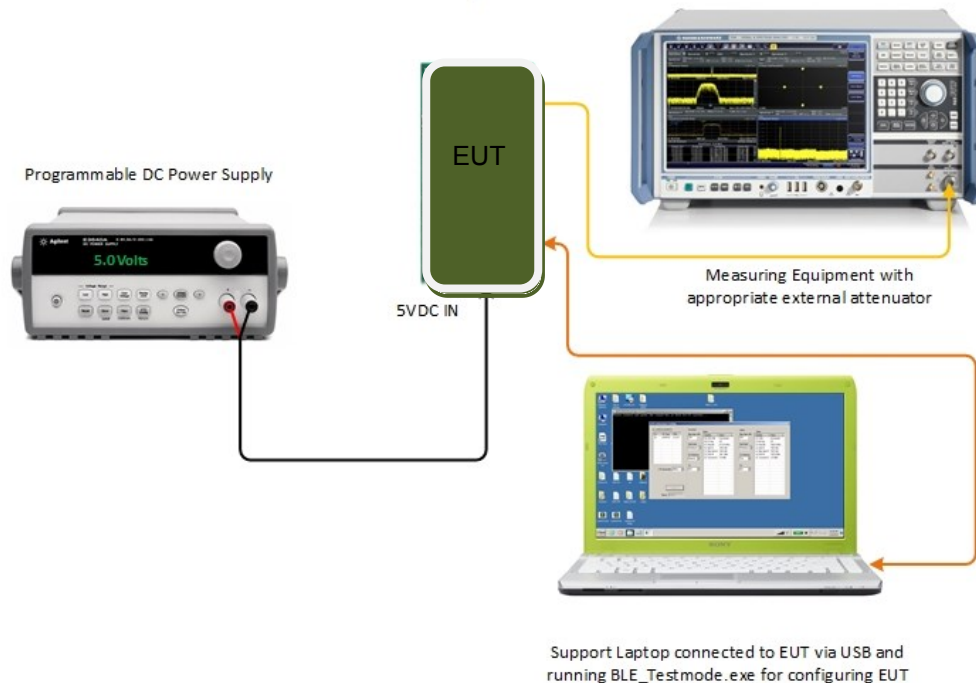
Manufacturer	Equipment/Cable	Description
Escort, Inc.	BTLE Development Board	BLE Module Development Board Rev B with FT4232H Mini Module
Lenovo	Support Laptop for programming EUT	M/N X100e Type 3508-2AU S/N LR-EVAME 10/07
-	RF Cable Assembly (EUT antenna port to Spectrum Analyzer)	0.2 meter, SMA Female (Bulkhead) to U.FL
Escort, Inc.	Radar Detector (Host)	Model iX, Model Number EIX100 S/N 83999100 (Normal Mode) and a Test Unit (S/N not available, used for Test Mode)
Escort, Inc	Cigarette Lighter adapter for Radar Detector	Smart Cord Model (N/A), S/N (N/A)

1.4.4 Worst Case Configuration

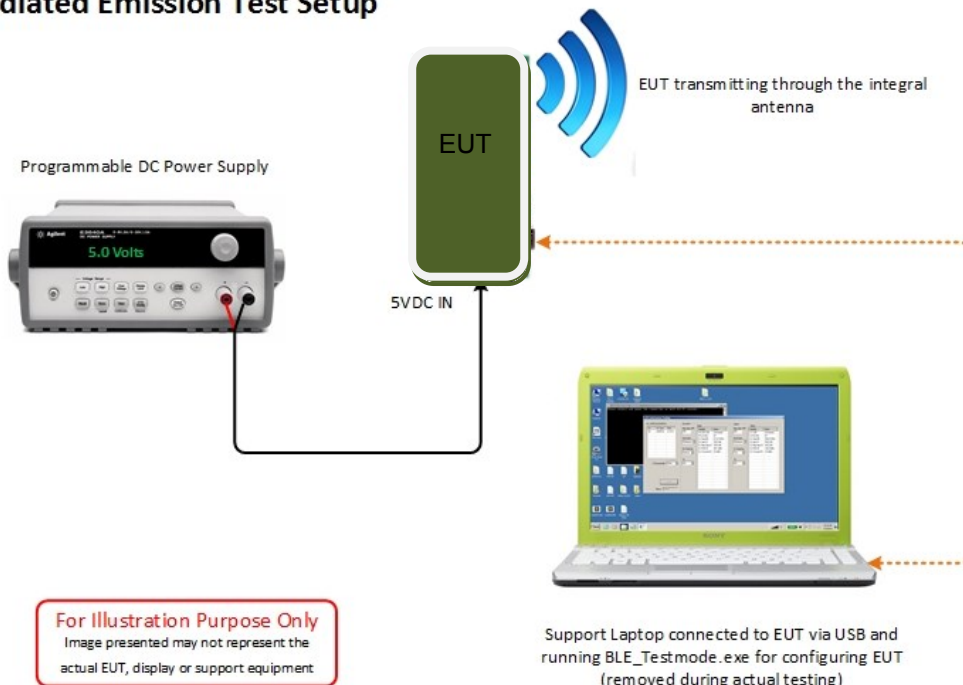
EUT verified on all three (3) orthogonal axes (see X Y Z photos Exhibit). Only worst case axis presented (X). Worst case packet type used was Pseudo-Random Bit Sequence 9 with Packet Length of 37.

1.4.5 Simplified Test Configuration Diagram

Antenna Conducted Port Test Setup



Radiated Emission Test Setup



Configuration not presented is when the EUT is installed inside a representative host. Radiated emissions were performed on the host while the EUT is in Rx and TX mode (worst case).

1.5 DEVIATIONS FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.6 MODIFICATION RECORD

Description of Modification	Modification Fitted By	Date Modification Fitted
Serial Number 001		
N/A		

The table above details modifications made to the EUT during the test programme. The modifications incorporated during each test (if relevant) are recorded on the appropriate test pages.

1.7 TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

For conducted and radiated emissions the equipment under test (EUT) was configured to measure its highest possible emission level. This level was based on the maximized cable configuration from exploratory testing per ANSI C63.4-2014. The test modes were adapted according to the Operating Instructions provided by the manufacturer/client.

1.8 TEST FACILITY LOCATION

1.8.1 TÜV SÜD America Inc. (Mira Mesa)

10040 Mesa Rim Road, San Diego, CA 92121-2912 (32.901268,-117.177681). Phone: 858 678 1400 FAX: 858-546 0364

1.8.2 TÜV SÜD America Inc. (Rancho Bernardo)

16530 Via Esprillo, San Diego, CA 92127-1708 (33.018644,-117.092409). Phone: 858 942 5542 FAX: 858-546 0364

1.9 TEST FACILITY REGISTRATION

1.9.1 FCC – Registration No.: US1146

TUV SUD America Inc. (San Diego), is an accredited test facility with the site description report on file and has met all the requirements specified in §2.948 of the FCC rules. The acceptance letter from the FCC is maintained in our files and the Registration is US1146.



1.9.2 Innovation, Science and Economic Development Canada Registration No.: 3067A

The 10m Semi-anechoic chamber of TÜV SÜD America Inc. (San Diego) has been registered by Certification and Engineering Bureau of Innovation, Science and Economic Development Canada for radio equipment testing with Registration No. 3067A.

SECTION 2

TEST DETAILS

Radio Testing of the
Escort, Inc.
Bluetooth Smart Module

2.1 PEAK OUTPUT POWER

2.1.1 Specification Reference

Part 15 Subpart C §15.247(b)(3)

2.1.2 Standard Applicable

(3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

2.1.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.1.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.1.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.3 °C
Relative Humidity	23.6 %
ATM Pressure	99.3 kPa

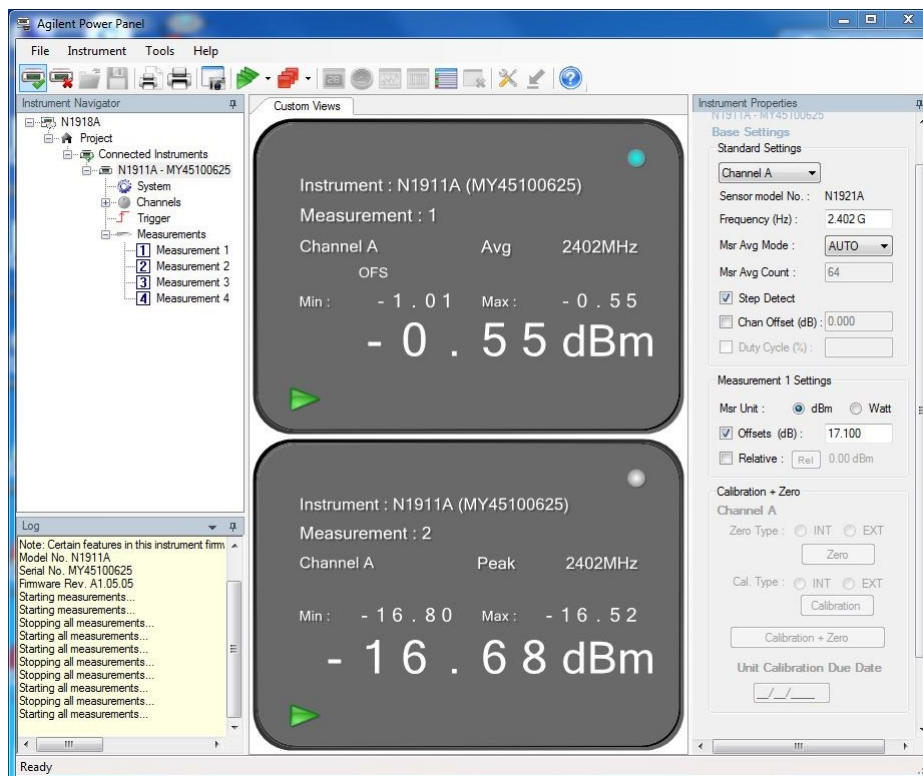
2.1.7 Additional Observations

- This is a conducted test (Maximum Peak Conducted Output Power) using direct connection to a peak RF power meter.
- An offset of 17.1dB was added to compensate for the external attenuator, splitter and cable used from the antenna port to the spectrum analyzer and power meter (Average). Peak measurement requires manual addition of this offset.
- Test methodology is per Clause 9.1.2 of KDB 558074 D01 (DTS Meas Guidance v03r03, June 09, 2015). All conditions under this Clause were satisfied.

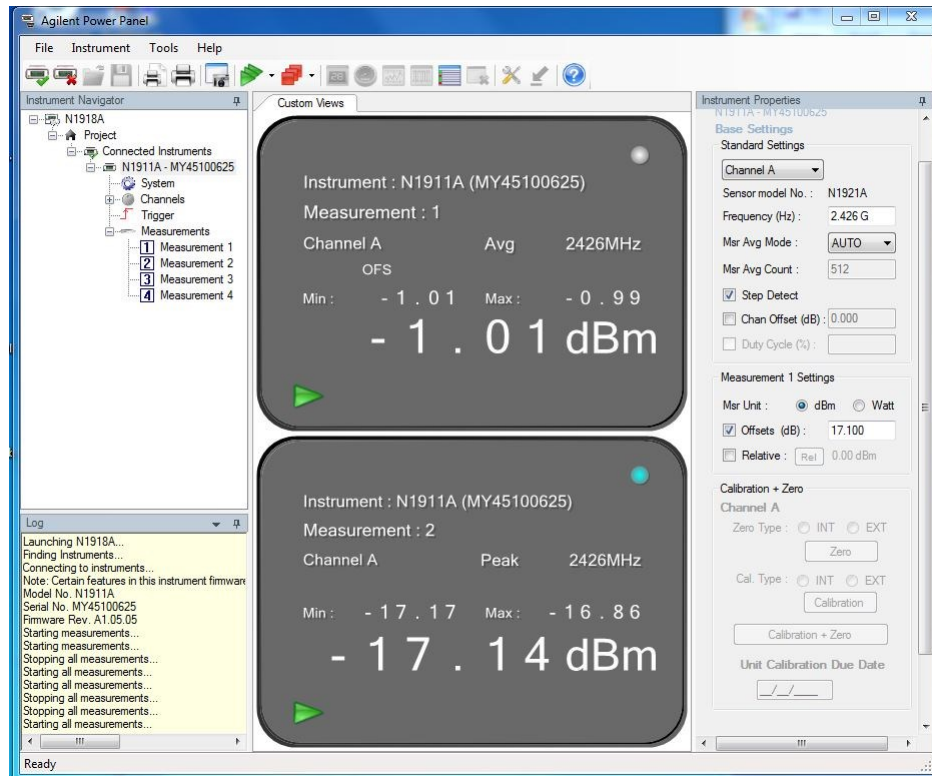
2.1.8 Test Results

Bluetooth Low Energy (LE)	Channel	Modulation	Measured Average Power (dBm)	Measured Peak Power (dBm)	Measured Peak Power (mW)
	2402 MHz	GFSK @ 1Mbps	-0.55	0.58	1.14
	2426 MHz		-0.99	0.24	1.06
	2480 MHz		-0.45	0.74	1.19

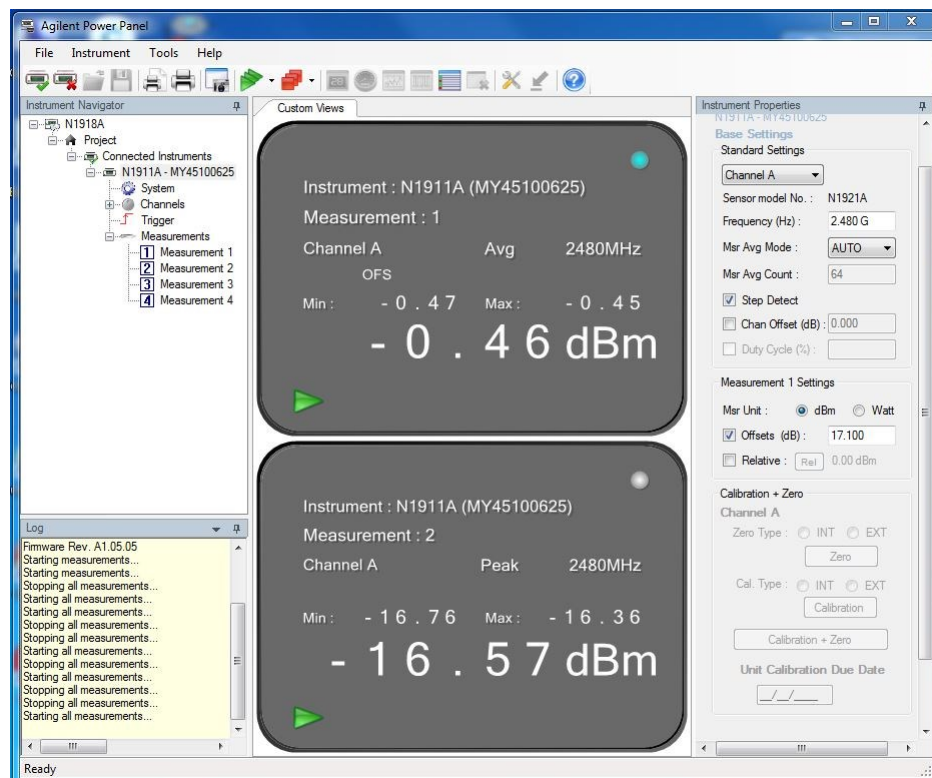
2.1.9 Test Plots



Bluetooth LE. Low Channel



Bluetooth LE. Mid Channel



Bluetooth LE. High Channel

2.2 99% EMISSION BANDWIDTH

2.2.1 Specification Reference

RSS-Gen Clause 6.6

2.2.2 Standard Applicable

The emission bandwidth (x dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated x dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth.

When the occupied bandwidth limit is not stated in the applicable RSS or reference measurement method, the transmitted signal bandwidth shall be reported as the 99% emission bandwidth, as calculated or measured.

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- • The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- • The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

Note: Video averaging is not permitted.

A peak, or peak hold, may be used in place of the sampling detector as this may produce a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold may be necessary to determine the occupied bandwidth if the device is not transmitting continuously.

The trace data points are recovered and are directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded.

The difference between the two recorded frequencies is the 99% occupied bandwidth.

2.2.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.2.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.2.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature 25.3 °C
 Relative Humidity 13.6 %
 ATM Pressure 99.3 kPa

2.2.7 Additional Observations

- This is a conducted test. EUT on normal advertising mode (test mode not available).
- A correction factor of 11.1 dB was used to compensate for the external attenuator and cable used.
- Span is wide enough to capture the channel transmission.
- RBW is 1% to 5% of the span.
- VBW is 3X RBW.
- Sweep is auto.
- Detector is peak.
- The % Power Bandwidth setting in the spectrum analyzer was set to 99% (default).
- The Channel Bandwidth measurement function of the spectrum analyzer was used for this test.

2.2.8 Test Results (For reporting purposes only)

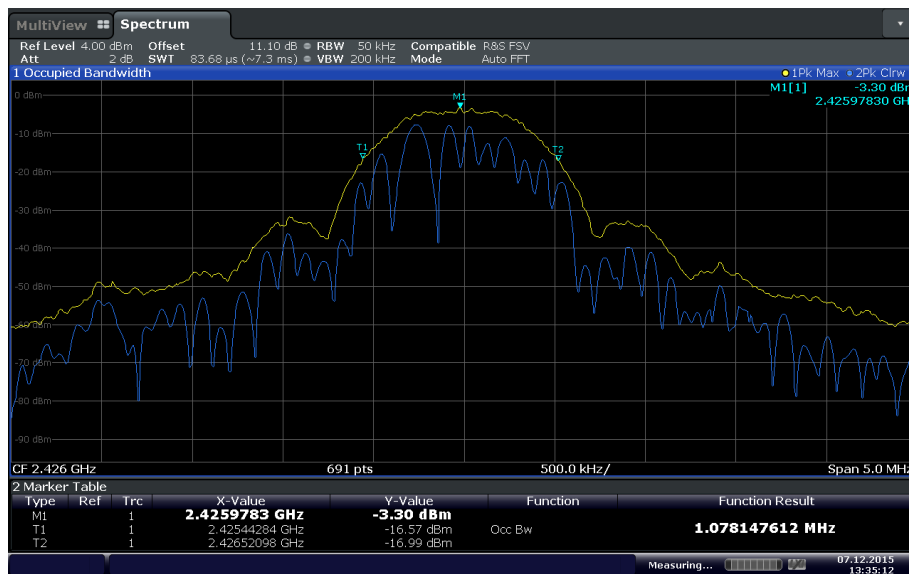
Mode	Channel	Measured 99% Bandwidth (MHz)
Bluetooth LE	2402 MHz	1.071
	2426 MHz	1.078
	2480 MHz	1.078

2.2.9 Test Plots



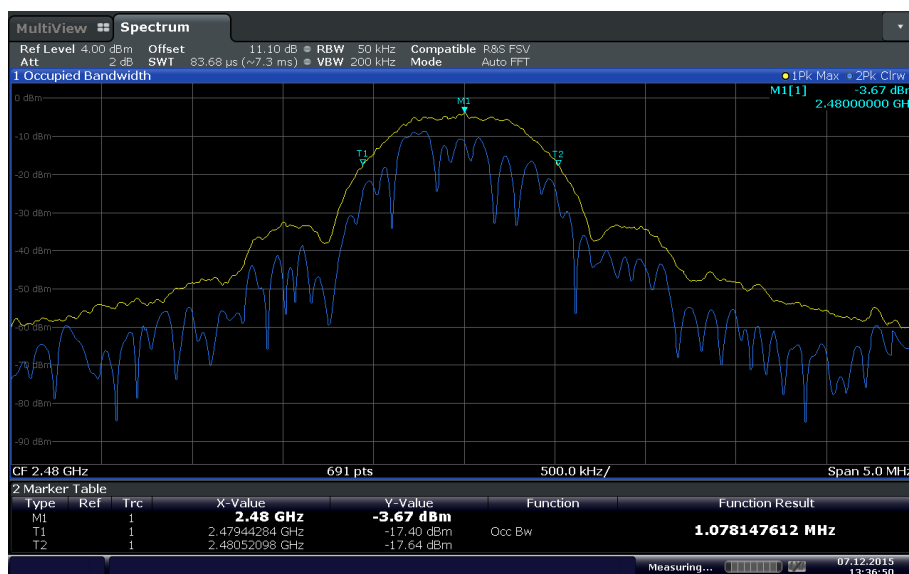
Date: 7 DEC 2015 13:32:30

Bluetooth LE. Low Channel



Date: 7 DEC 2015 13:35:12

Bluetooth LE. Mid Channel



Date: 7 DEC 2015 13:36:50

Bluetooth LE. High Channel

2.3 MINIMUM 6 dB RF BANDWIDTH

2.3.1 Specification Reference

Part 15 Subpart C §15.247(a)(2)

2.3.2 Standard Applicable

(2) 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.

2.3.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.3.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.3.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.3 °C
Relative Humidity	23.6 %
ATM Pressure	99.3 kPa

2.3.7 Additional Observations

- This is a conducted test.
- A correction factor of 11.1 dB was used to compensate for the external attenuator and cable used.
- Span is wide enough to capture the channel transmission.
- RBW is set to 100 kHz.
- VBW is $\geq 3X$ RBW.
- Sweep is auto.
- Detector is peak.
- The “n” dB down marker function of the spectrum analyzer was used for this test.

2.3.8 Test Results

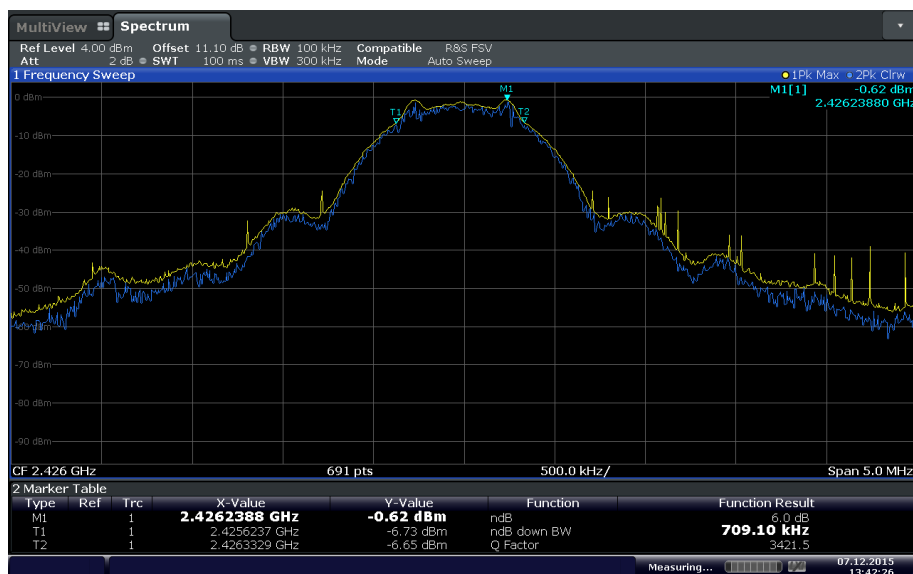
Mode	Channel	Measured Bandwidth (MHz)	Minimum Bandwidth (MHz)	Compliance
Bluetooth LE	2402 MHz	0.709	0.500	Complies
	2426 MHz	0.709	0.500	Complies
	2480 MHz	0.738	0.500	Complies

2.3.9 Test Results Plots



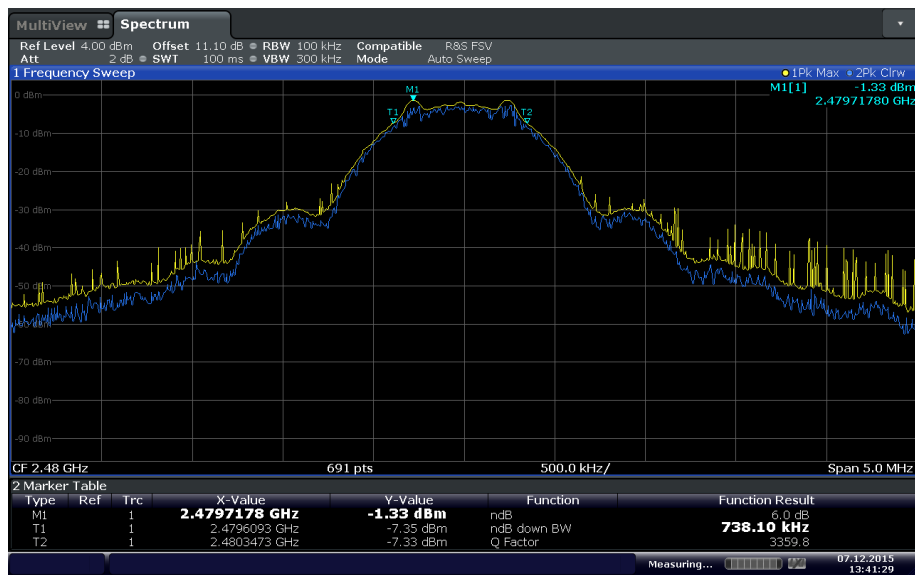
Date: 7 DEC 2015 13:43:16

Bluetooth LE Low Channel



Date: 7 DEC 2015 13:42:26

Bluetooth LE Mid Channel



Date: 7 DEC 2015 13:41:29

Bluetooth LE High Channel

2.4 OUT-OF-BAND EMISSIONS - CONDUCTED

2.4.1 Specification Reference

Part 15 Subpart C §15.247(d)

2.4.2 Standard Applicable

(d) 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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, 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) (see §15.205(c)).

2.4.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.4.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.4.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.6 Environmental Conditions

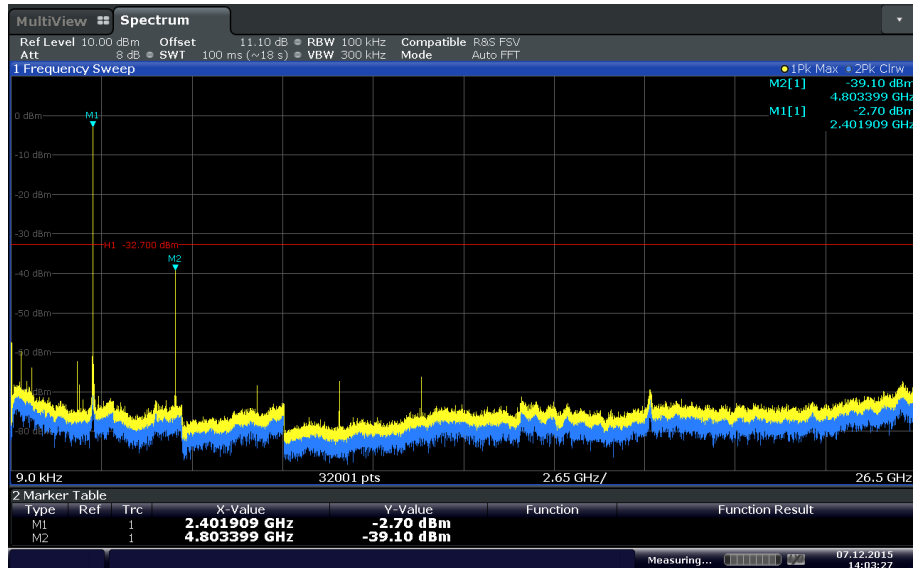
Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.3 °C
Relative Humidity	23.6 %
ATM Pressure	99.3 kPa

2.4.7 Additional Observations

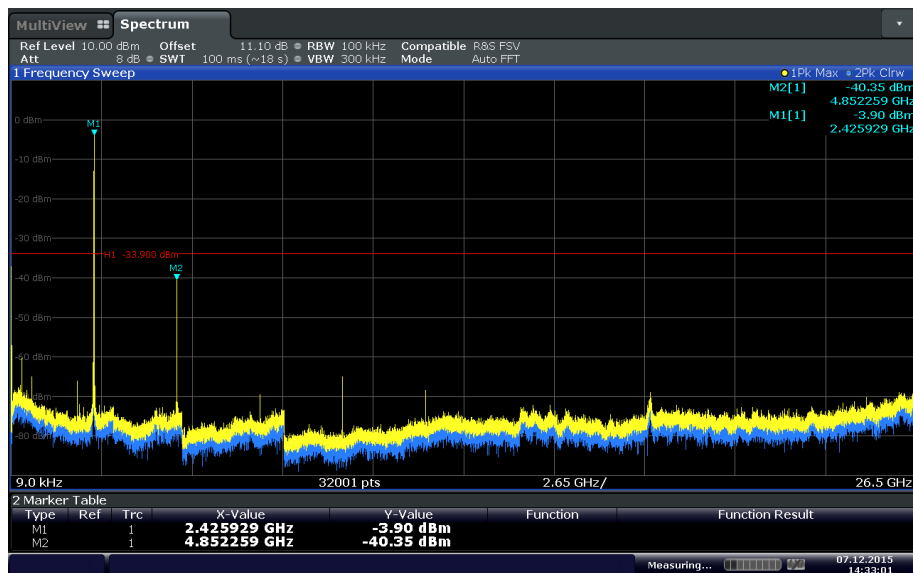
- This is a conducted test.
- TDF (Transducer Factor) was used to compensate for the external attenuator and cable used.
- RBW is 100kHz.VBW is 3X RBW.
- Sweep is auto. Detector is peak. Trace is max hold. Sweep points set to maximum.
- Initial scan was performed to determine the highest level of the desired power within the band. Limit (display line) was drawn 30dB below this level.
- Spectrum was searched from 9 kHz up to 26.5GHz.

2.4.8 Test Results Plots



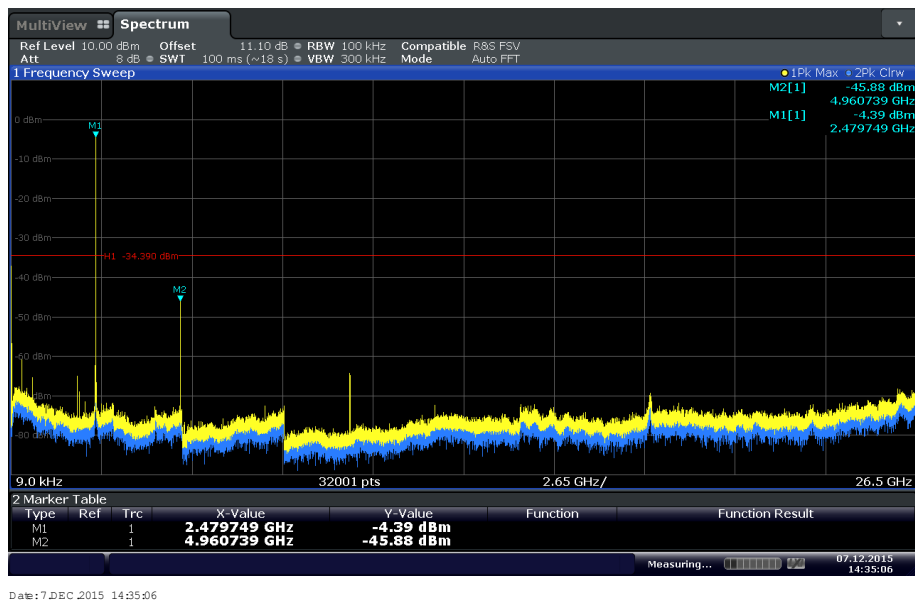
Date: 7 DEC 2015 14:03:27

Bluetooth LE Low Channel



Date: 7 DEC 2015 14:33:01

Bluetooth LE Mid Channel



Bluetooth LE High Channel

2.5 BAND-EDGE COMPLIANCE OF RF CONDUCTED EMISSIONS

2.5.1 Specification Reference

Part 15 Subpart C §15.247(d)

2.5.2 Standard Applicable

See previous test.

2.5.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.5.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.5.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.5.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

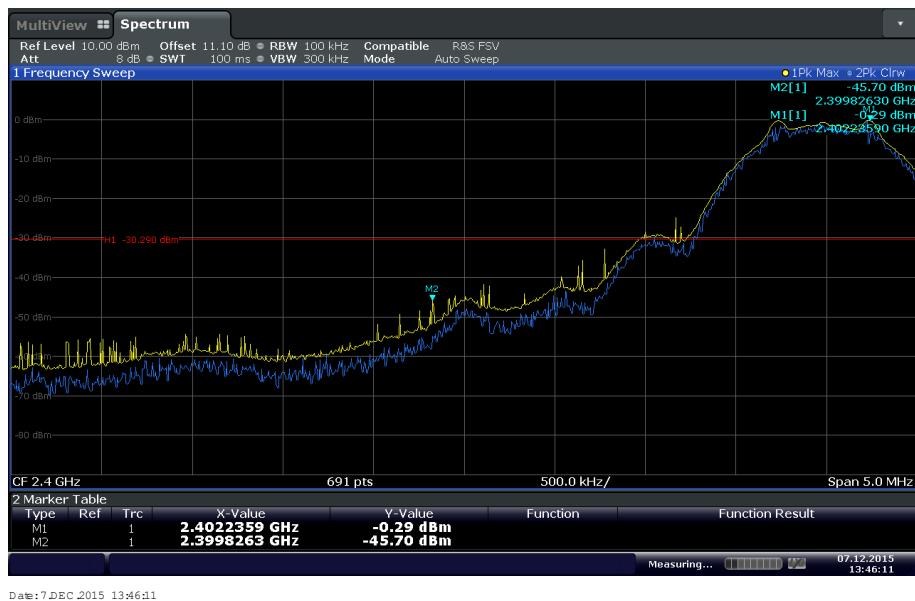
Ambient Temperature	25.3 °C
Relative Humidity	23.6 %
ATM Pressure	99.3 kPa

2.5.7 Additional Observations

- This is a conducted test.
- A correction factor of 11.1 dB was used to compensate for the external attenuator and cable used.
- RBW is 100kHz.VBW is 3X RBW.
- Sweep is auto. Detector is peak. Trace is max hold.
- Trace was centred on the band-edge frequency.
- Span was set to encompass the band-edge frequency and the peak of the emission.
- Using Marker function, peak of the emission was determined and the delta to the band-edge frequency measured.
- Band-edges were verified ≤ 30 dBc.

2.5.8 Test Results

Complies. See attached plots.



Date: 7 DEC 2015 13:46:11

Bluetooth LE Low Channel (2402 MHz)



Date: 7 DEC 2015 13:48:38

Bluetooth LE High Channel (2480 MHz)

2.6 SPURIOUS RADIATED EMISSIONS

2.6.1 Specification Reference

Part 15 Subpart C §15.247(d)

2.6.2 Standard Applicable

(d) 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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, 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) (see §15.205(c)).

2.6.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration B and C

2.6.4 Date of Test/Initial of test personnel who performed the test

December 08, 2015 and May 19, 2016/FSC

2.6.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.6.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	24.1 24.4°C
Relative Humidity	25.6 – 53.0 %
ATM Pressure	99.3 – 99.9 kPa

2.6.7 Additional Observations

- This is a radiated test. The spectrum was searched from 30MHz to the 10th harmonic.
- There are no emissions found that do not comply to the restricted bands defined in FCC Part 15 Subpart C, 15.205 or Part 15.247(d).
- Only noise floor measurements observed above 18GHz.
- Verification of the EUT while inside a representative host were also performed.
- Measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only. See Section 2.6.8 for sample computation.

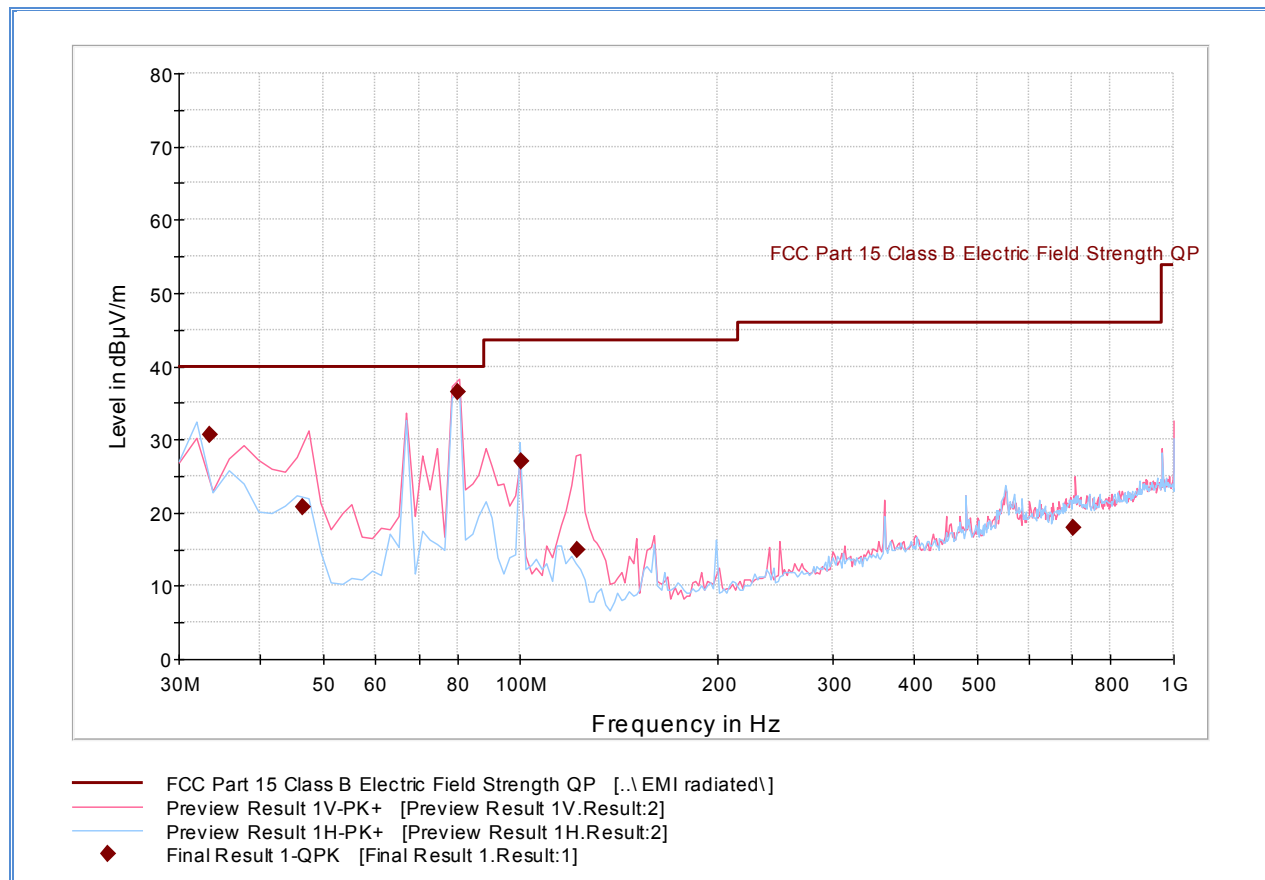
2.6.8 Sample Computation (Radiated Emission)

Measuring equipment raw measurement (db μ V) @ 30 MHz			24.4
Correction Factor (dB)	Asset# 1066 (cable)	0.3	-12.6
	Asset# 1172 (cable)	0.3	
	Asset# 1016 (preamplifier)	-30.7	
	Asset# 1175(cable)	0.3	
	Asset# 1002 (antenna)	17.2	
Reported QuasiPeak Final Measurement (db μ V/m) @ 30MHz			11.8

2.6.9 Test Results

See attached plots.

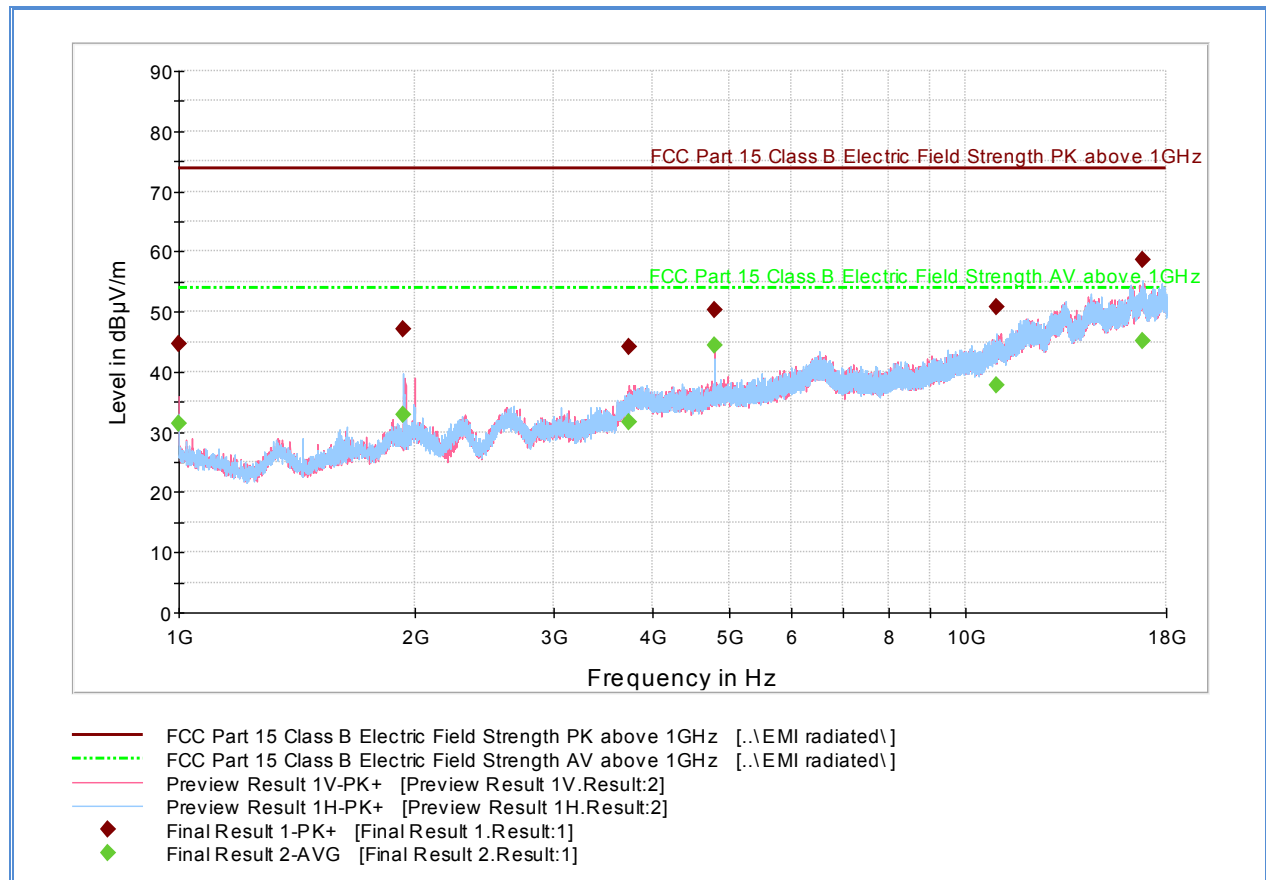
2.6.10 Test Results Below 1GHz (Receive Mode)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
33.400000	30.7	1000.0	120.000	128.0	H	106.0	-13.3	9.3	40.0
46.534990	20.8	1000.0	120.000	102.0	V	283.0	-19.1	19.2	40.0
80.021082	36.5	1000.0	120.000	105.0	V	282.0	-22.0	3.5	40.0
100.219960	27.1	1000.0	120.000	168.0	H	42.0	-19.8	16.4	43.5
122.066613	15.0	1000.0	120.000	102.0	V	-8.0	-20.6	28.5	43.5
703.792946	17.8	1000.0	120.000	188.0	V	-8.0	-1.5	28.2	46.0

2.6.11 Test Results Above 1GHz (Receive Mode)



Peak Data

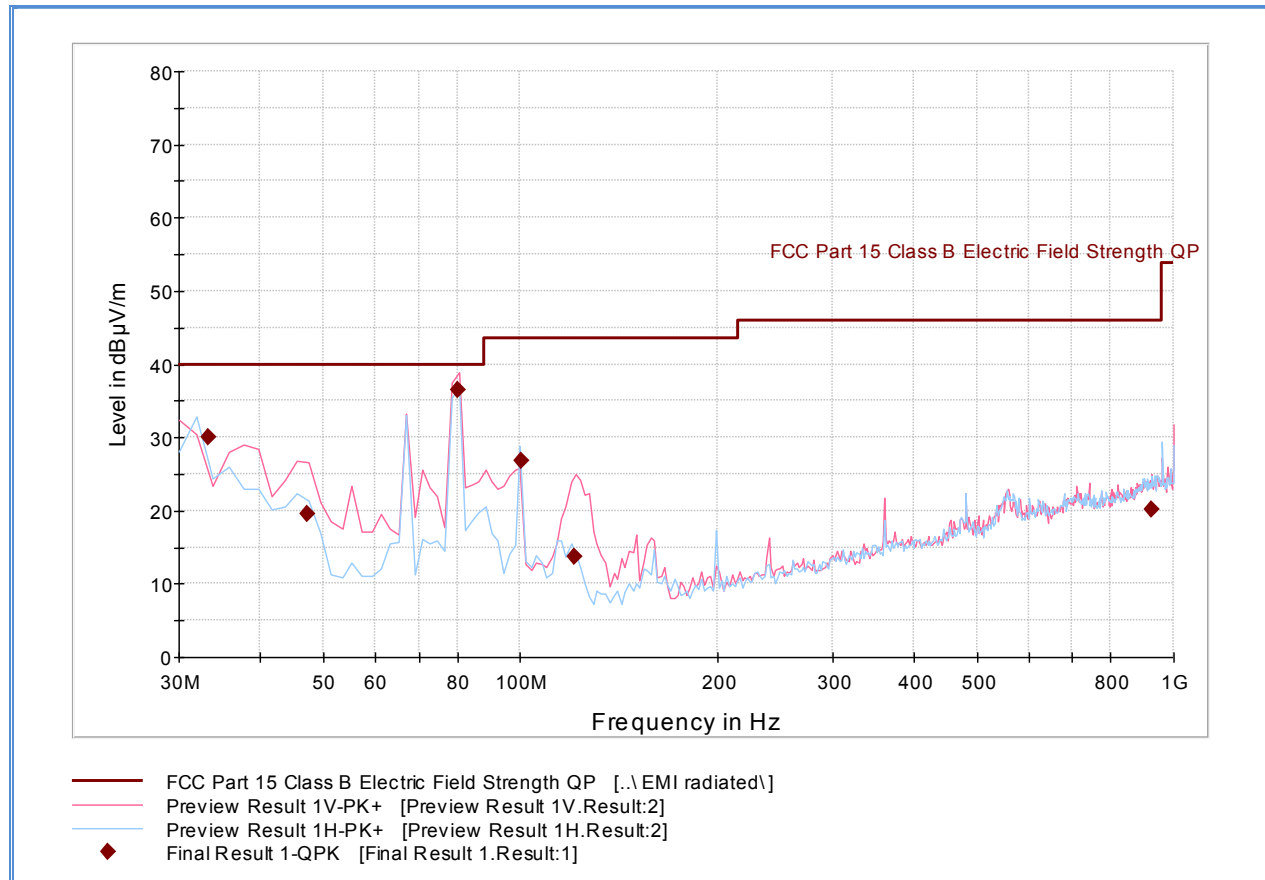
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1000.000000	44.6	1000.0	1000.000	145.7	V	57.0	-7.2	29.3	73.9
1932.000000	47.1	1000.0	1000.000	173.6	H	283.0	-2.3	26.8	73.9
3740.066667	44.2	1000.0	1000.000	148.7	V	39.0	4.4	29.7	73.9
4801.966667	50.3	1000.0	1000.000	202.3	V	182.0	5.7	23.6	73.9
10964.13333	50.7	1000.0	1000.000	284.3	H	79.0	15.5	23.2	73.9
16776.93333	58.6	1000.0	1000.000	125.7	H	351.0	24.6	15.3	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1000.000000	31.5	1000.0	1000.000	145.7	V	57.0	-7.2	22.4	53.9
1932.000000	32.9	1000.0	1000.000	173.6	H	283.0	-2.3	21.0	53.9
3740.066667	31.7	1000.0	1000.000	148.7	V	39.0	4.4	22.2	53.9
4801.966667	44.5	1000.0	1000.000	202.3	V	182.0	5.7	9.4	53.9
10964.13333	37.7	1000.0	1000.000	284.3	H	79.0	15.5	16.2	53.9
16776.93333	45.2	1000.0	1000.000	125.7	H	351.0	24.6	8.7	53.9

Test Notes: No significant emissions observed above 6GHz.

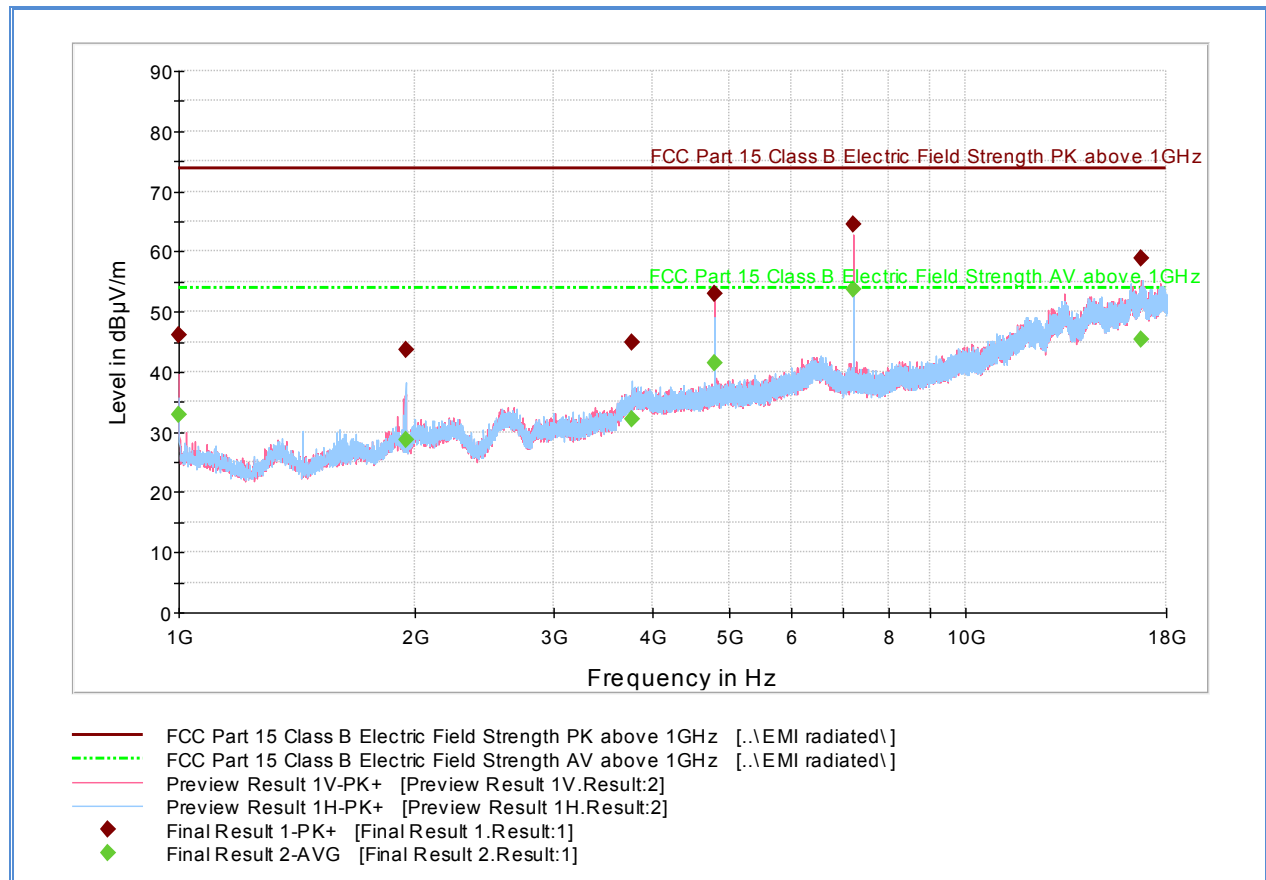
2.6.12 Test Results Below 1GHz (Bluetooth LE Worst Case Channel)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
33.280000	30.0	1000.0	120.000	150.0	H	83.0	-13.2	10.0	40.0
47.231102	19.6	1000.0	120.000	102.0	V	316.0	-19.3	20.4	40.0
80.021082	36.5	1000.0	120.000	102.0	V	287.0	-22.0	3.5	40.0
100.219960	26.8	1000.0	120.000	150.0	H	59.0	-19.8	16.7	43.5
120.826613	13.8	1000.0	120.000	100.0	V	23.0	-20.4	29.7	43.5
925.332265	20.1	1000.0	120.000	150.0	V	276.0	1.4	25.9	46.0

2.6.13 Test Results Above 1GHz (Bluetooth LE Low Channel)



Peak Data

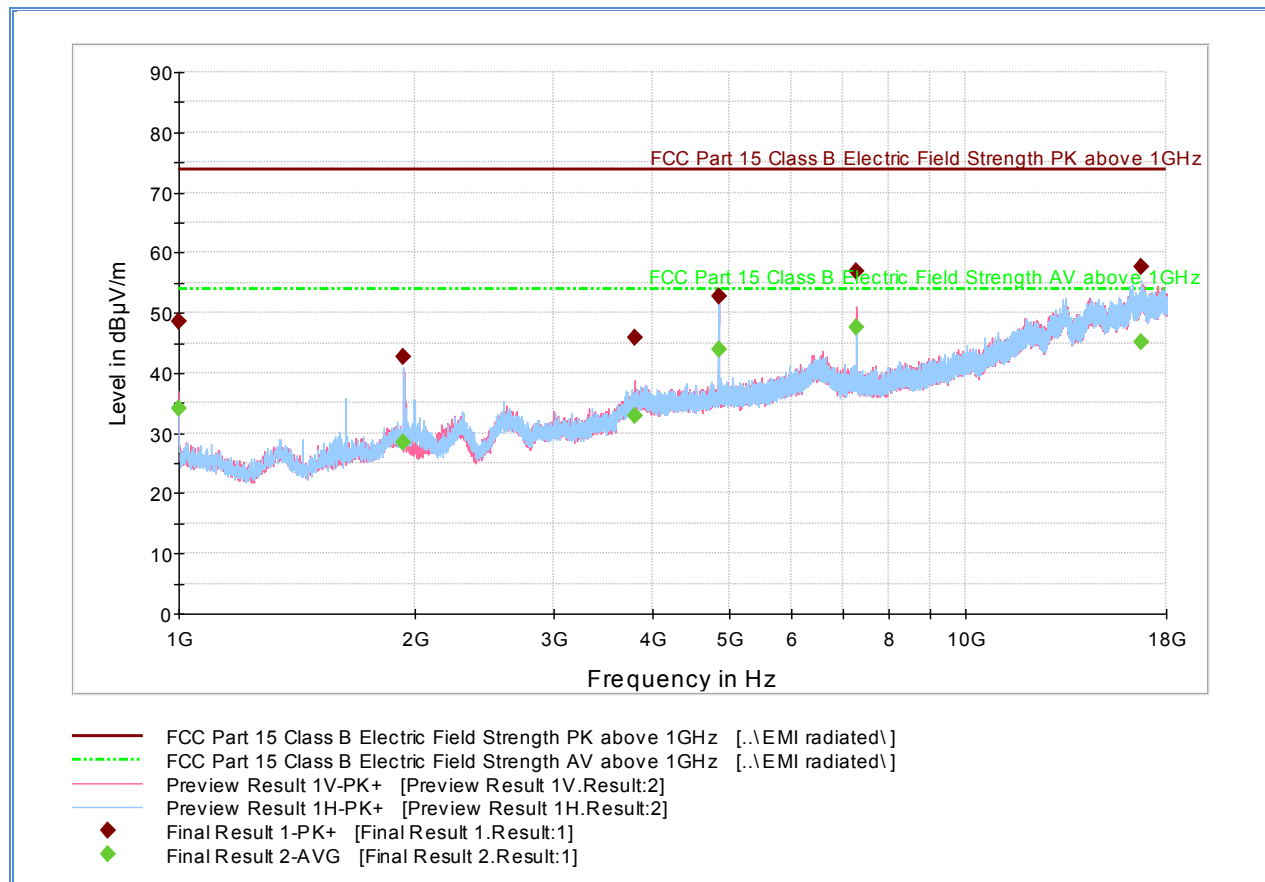
Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.000000	46.0	1000.0	1000.000	171.6	V	-3.0	-7.2	27.9	73.9
1941.033333	43.6	1000.0	1000.000	171.6	H	265.0	-2.3	30.3	73.9
3764.433333	45.0	1000.0	1000.000	171.6	H	-4.0	4.7	28.9	73.9
4804.466667	52.9	1000.0	1000.000	147.7	V	204.0	5.8	21.0	73.9
7206.533333	64.4	1000.0	1000.000	172.6	V	157.0	10.0	9.5	73.9
16746.900000	58.8	1000.0	1000.000	216.5	V	161.0	24.4	15.1	73.9

Average Data

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.000000	33.0	1000.0	1000.000	171.6	V	-3.0	-7.2	20.9	53.9
1941.033333	28.7	1000.0	1000.000	171.6	H	265.0	-2.3	25.2	53.9
3764.433333	32.1	1000.0	1000.000	171.6	H	-4.0	4.7	21.8	53.9
4804.466667	41.4	1000.0	1000.000	147.7	V	204.0	5.8	12.5	53.9
7206.533333	53.7	1000.0	1000.000	172.6	V	157.0	10.0	0.2	53.9
16746.900000	45.4	1000.0	1000.000	216.5	V	161.0	24.4	8.5	53.9

Test Notes: A 2.4GHz notch filter was used during verification. No significant emissions observed above 18GHz. Measurements above 18GHz were noise floor figures.

2.6.14 Test Results Above 1GHz (Bluetooth LE Mid Channel)



Peak Data

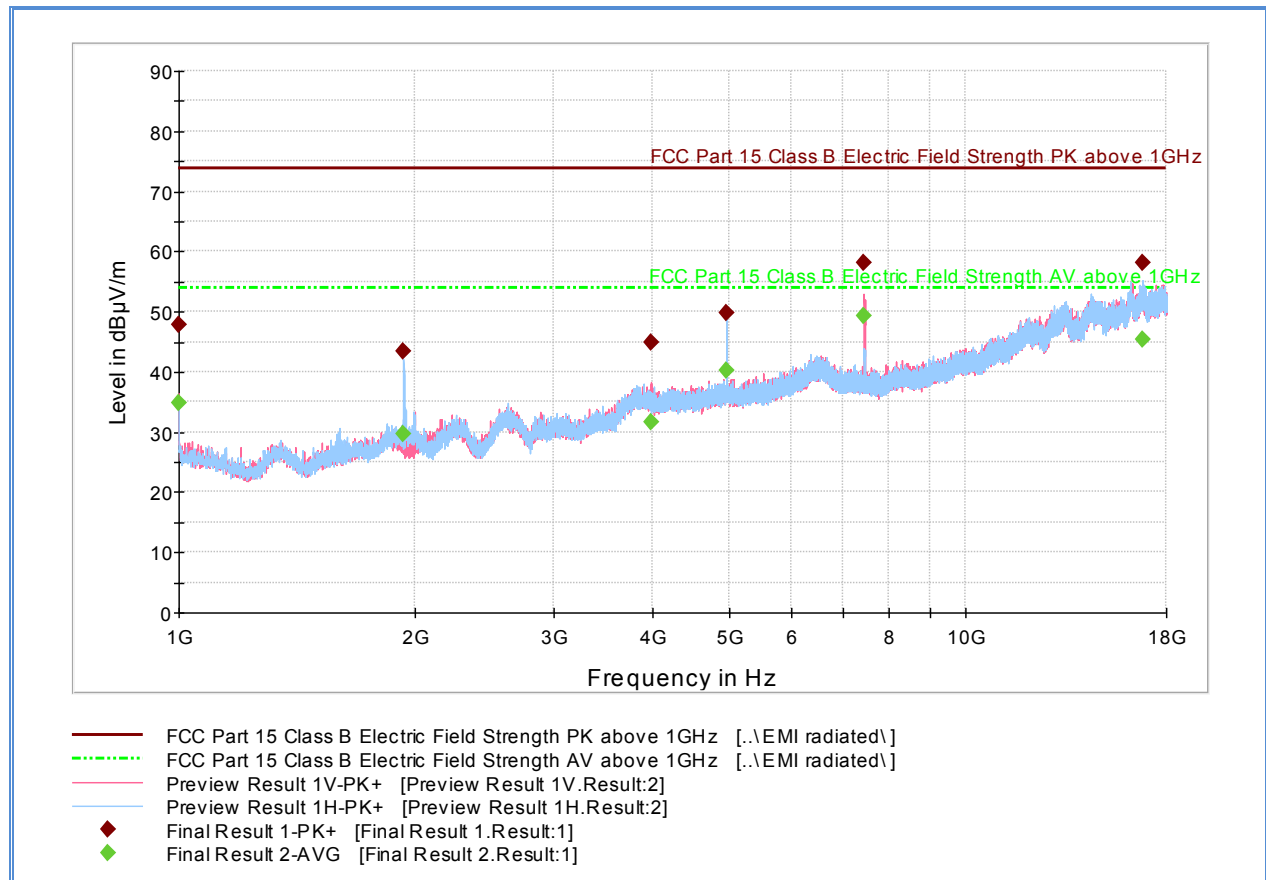
Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1000.400000	48.6	1000.0	1000.000	252.4	V	315.0	-7.2	25.3	73.9
1932.366667	42.6	1000.0	1000.000	131.7	H	141.0	-2.3	31.3	73.9
3803.833333	45.9	1000.0	1000.000	171.6	V	3.0	5.1	28.0	73.9
4852.400000	52.8	1000.0	1000.000	130.7	V	207.0	5.9	21.1	73.9
7278.866667	57.0	1000.0	1000.000	285.3	V	262.0	9.9	16.9	73.9
16739.733333	57.7	1000.0	1000.000	201.3	H	125.0	24.4	16.2	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1000.400000	34.2	1000.0	1000.000	252.4	V	315.0	-7.2	19.7	53.9
1932.366667	28.6	1000.0	1000.000	131.7	H	141.0	-2.3	25.3	53.9
3803.833333	32.8	1000.0	1000.000	171.6	V	3.0	5.1	21.1	53.9
4852.400000	43.8	1000.0	1000.000	130.7	V	207.0	5.9	10.1	53.9
7278.866667	47.7	1000.0	1000.000	285.3	V	262.0	9.9	6.2	53.9
16739.733333	45.1	1000.0	1000.000	201.3	H	125.0	24.4	8.8	53.9

Test Notes: A 2.4GHz notch filter was used during verification. No significant emissions observed above 18GHz. Measurements above 18GHz were noise floor figures.

2.6.15 Test Results Above 1GHz (Bluetooth LE High Channel)



Peak Data

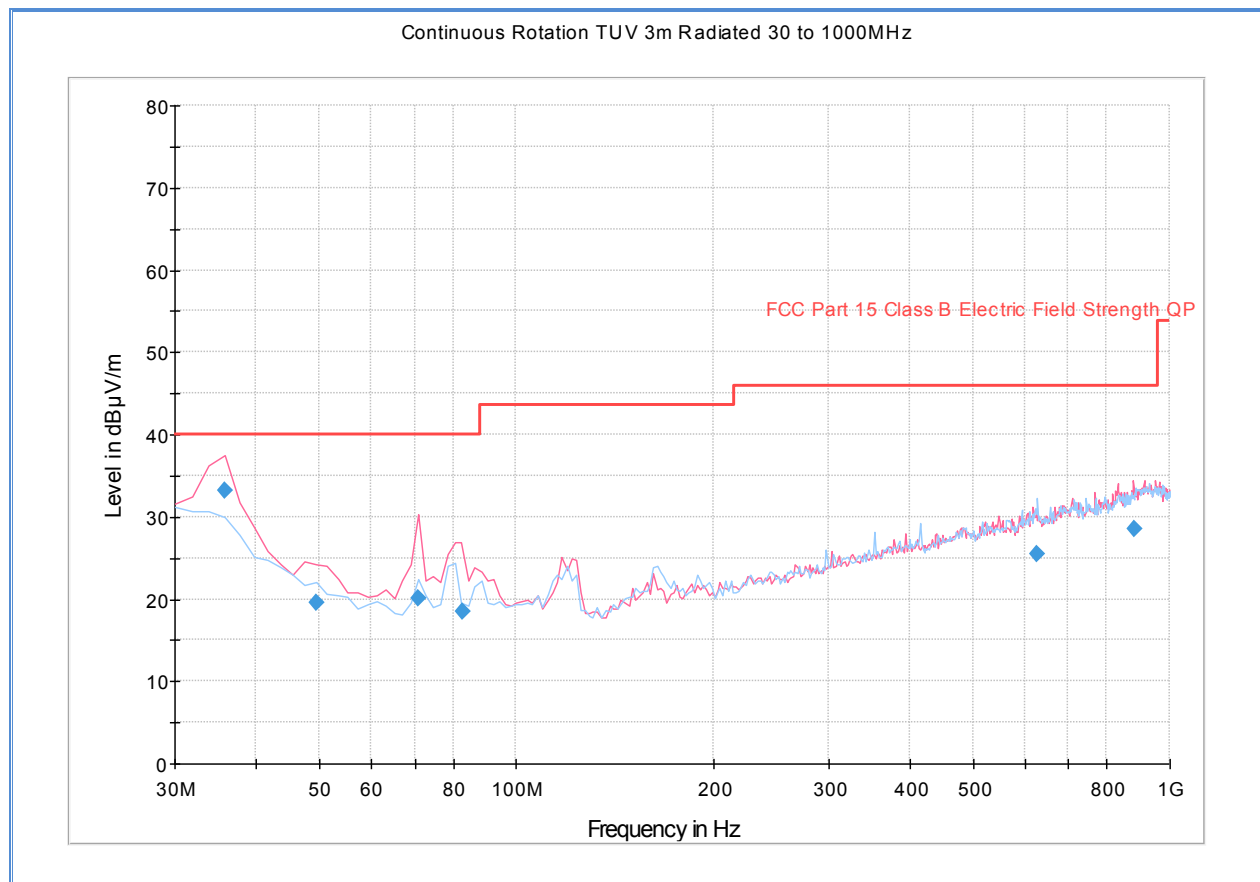
Frequency (MHz)	MaxPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
1000.000000	47.8	1000.0	1000.000	129.7	V	189.0	-7.2	26.1	73.9
1932.366667	43.4	1000.0	1000.000	201.3	H	4.0	-2.3	30.5	73.9
3978.233333	44.8	1000.0	1000.000	300.5	V	145.0	5.1	29.1	73.9
4960.233333	49.8	1000.0	1000.000	125.7	V	257.0	6.5	24.1	73.9
7439.000000	58.1	1000.0	1000.000	200.5	V	228.0	9.6	15.8	73.9
16799.033333	58.0	1000.0	1000.000	147.7	H	89.0	24.8	15.9	73.9

Average Data

Frequency (MHz)	Average (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
1000.000000	34.7	1000.0	1000.000	129.7	V	189.0	-7.2	19.2	53.9
1932.366667	29.6	1000.0	1000.000	201.3	H	4.0	-2.3	24.3	53.9
3978.233333	31.7	1000.0	1000.000	300.5	V	145.0	5.1	22.2	53.9
4960.233333	40.2	1000.0	1000.000	125.7	V	257.0	6.5	13.7	53.9
7439.000000	49.4	1000.0	1000.000	200.5	V	228.0	9.6	4.5	53.9
16799.033333	45.3	1000.0	1000.000	147.7	H	89.0	24.8	8.6	53.9

Test Notes: A 2.4GHz notch filter was used during verification. No significant emissions observed above 18GHz. Measurements above 18GHz were noise floor figures.

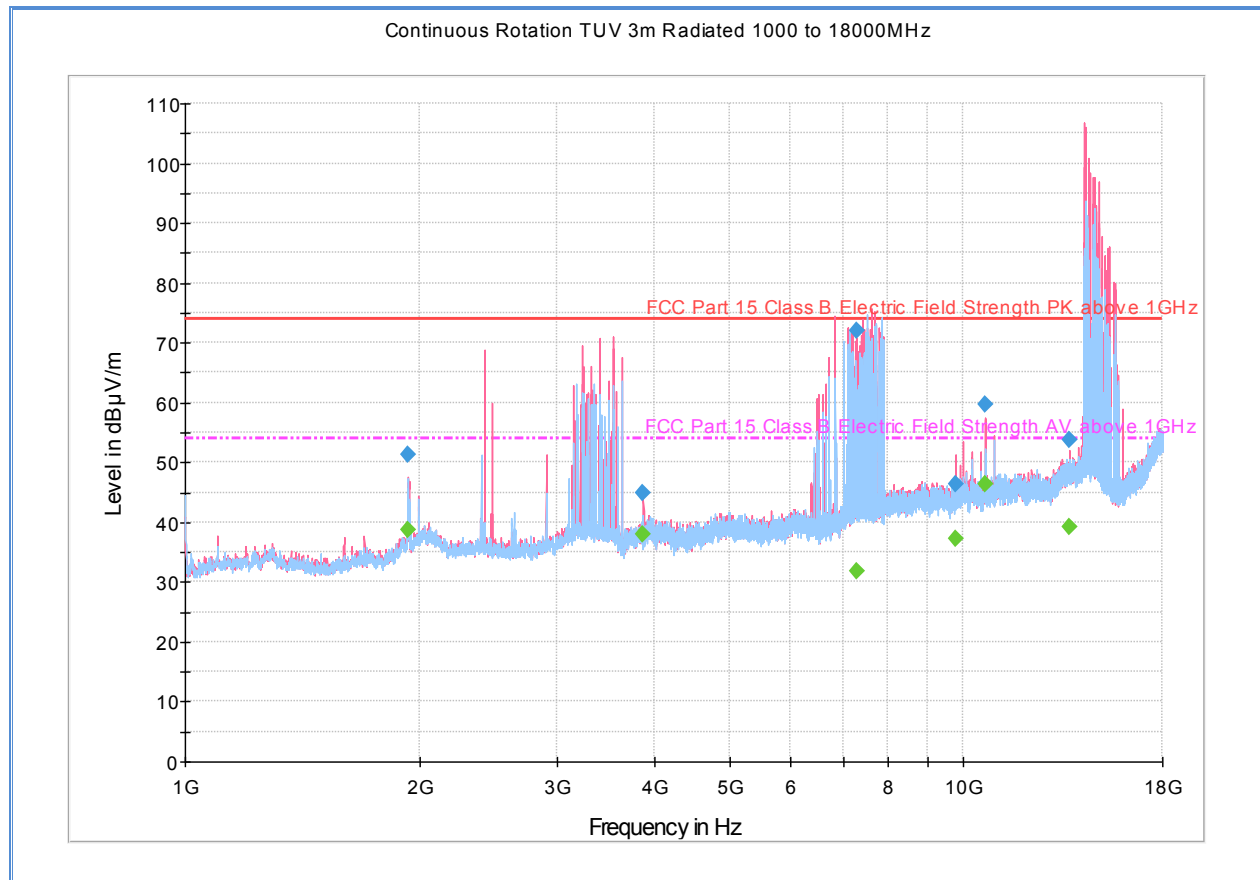
2.6.16 Test Results Below 1GHz (EUT installed inside a host in Normal Mode)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
35.751663	33.1	1000.0	120.000	100.0	V	343.0	-8.9	6.9	40.0
49.334990	19.5	1000.0	120.000	128.0	V	194.0	-14.2	20.5	40.0
70.781643	20.2	1000.0	120.000	100.0	V	94.0	-16.8	19.8	40.0
82.852745	18.6	1000.0	120.000	105.0	V	273.0	-16.3	21.4	40.0
627.733547	25.6	1000.0	120.000	400.0	H	166.0	1.4	20.4	46.0
881.798958	28.5	1000.0	120.000	350.0	V	261.0	5.5	17.5	46.0

2.6.17 Test Results Above 1GHz (EUT installed inside a host in Normal Mode)



Peak Data

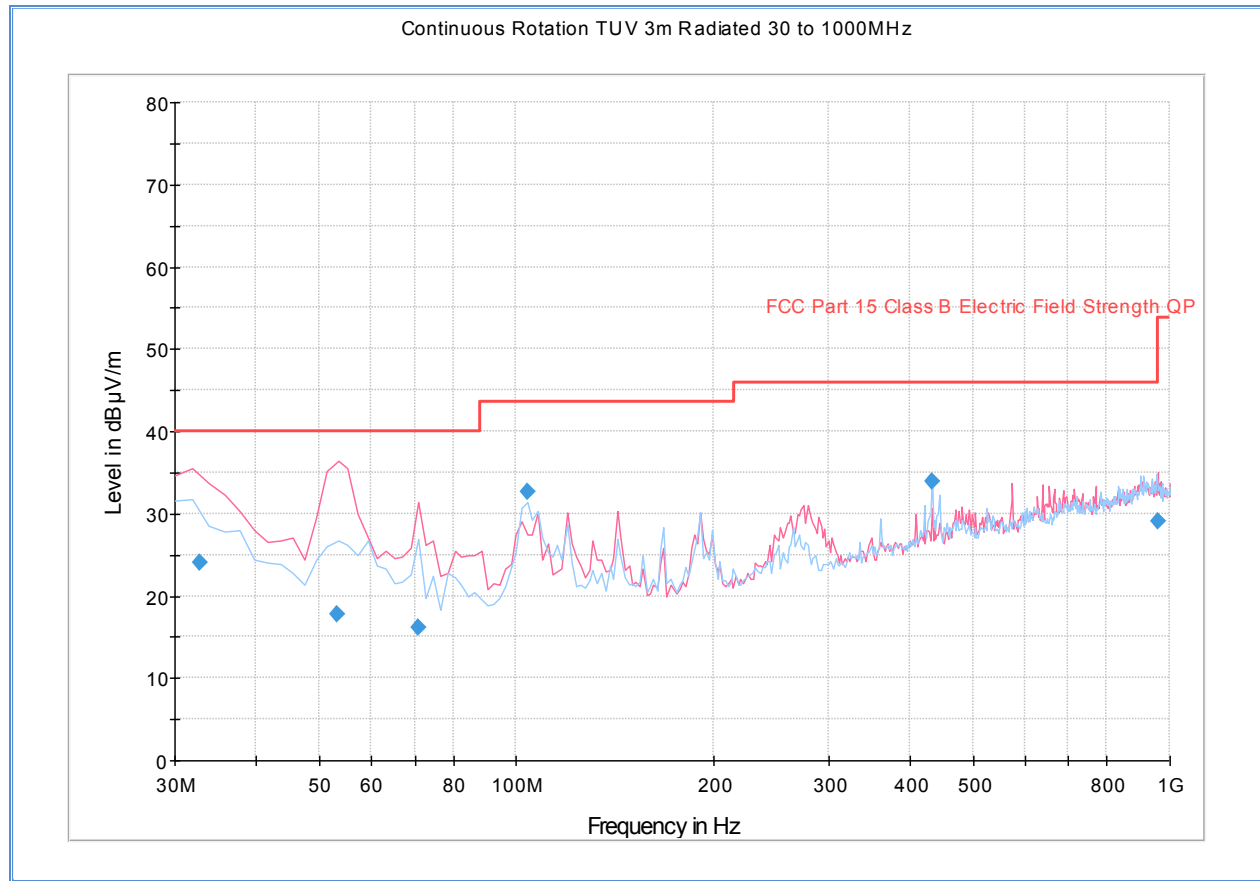
Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1932.533333	51.2	1000.0	1000.000	384.0	H	287.0	-4.6	22.7	73.9
3879.266667	44.9	1000.0	1000.000	103.7	V	61.0	1.0	29.0	73.9
7277.166667	72.1	1000.0	1000.000	173.5	V	241.0	7.8	1.8	73.9
9766.166667	46.4	1000.0	1000.000	237.4	V	20.0	11.0	27.5	73.9
10659.966667	59.7	1000.0	1000.000	149.6	V	5.0	12.3	14.2	73.9
13656.866667	53.7	1000.0	1000.000	178.6	V	-1.0	17.3	20.2	73.9

Average Data

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1932.533333	38.7	1000.0	1000.000	384.0	H	287.0	-4.6	15.2	53.9
3879.266667	38.1	1000.0	1000.000	103.7	V	61.0	1.0	15.8	53.9
7277.166667	31.9	1000.0	1000.000	173.5	V	241.0	7.8	22.0	53.9
9766.166667	37.1	1000.0	1000.000	237.4	V	20.0	11.0	16.8	53.9
10659.966667	46.3	1000.0	1000.000	149.6	V	5.0	12.3	7.6	53.9
13656.866667	39.2	1000.0	1000.000	178.6	V	-1.0	17.3	14.7	53.9

Test Notes: Emissions within the 2.4GHz band (BT) and all emissions linked to the radar portion of the EUT will be ignored (Host FCC ID: QKLM4IX addressing radar detector requirements). Verification performed to verify spurious emissions of the EUT (Bluetooth LE RF module) only while installed inside a representative host.

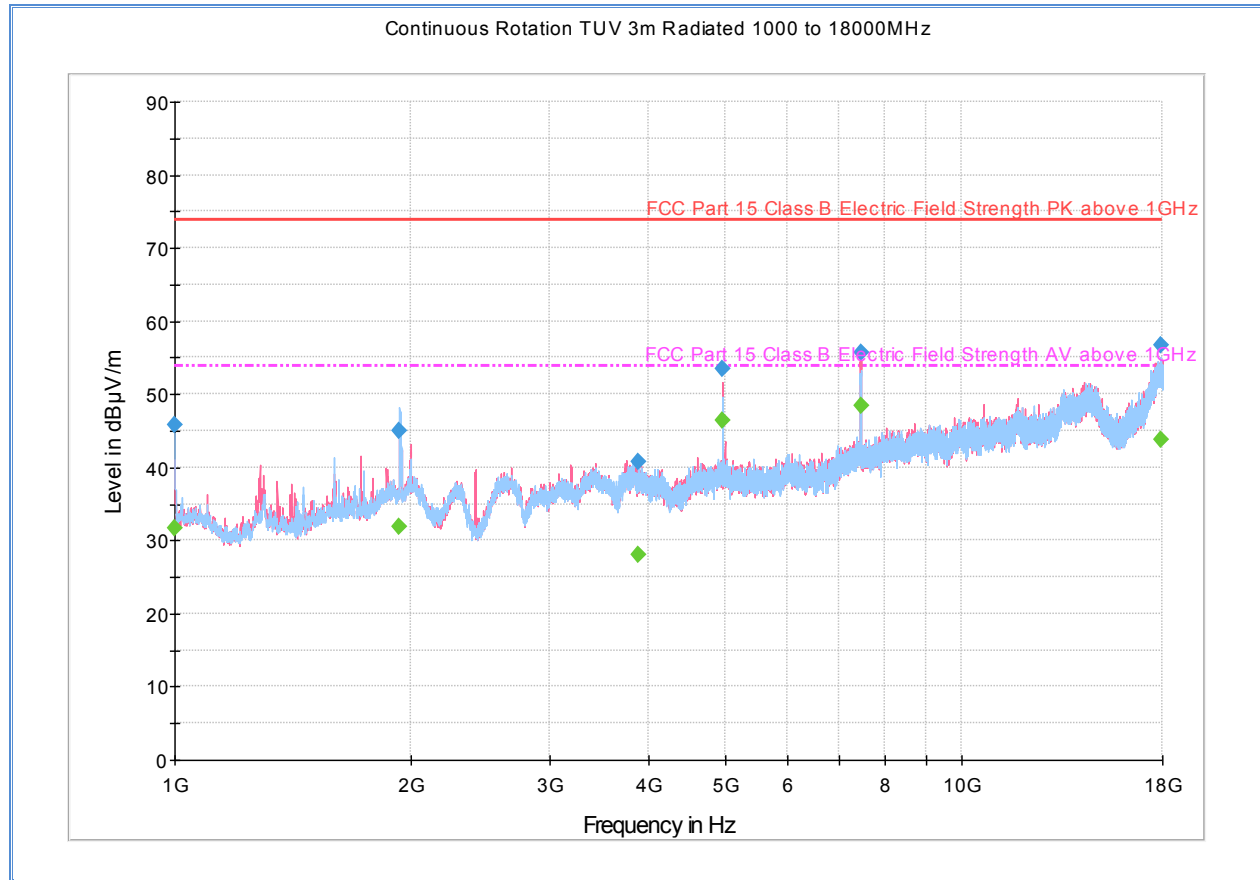
2.6.18 Test Results Below 1GHz (EUT installed inside a host in Transmit Test Mode – Worst Case Configuration)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
32.720000	24.0	1000.0	120.000	133.0	V	316.0	-7.4	16.0	40.0
53.206653	17.8	1000.0	120.000	100.0	V	56.0	-15.0	22.2	40.0
70.741643	16.1	1000.0	120.000	100.0	V	42.0	-16.8	23.9	40.0
104.147735	32.6	1000.0	120.000	209.0	H	5.0	-14.4	10.9	43.5
431.984770	33.8	1000.0	120.000	100.0	H	-8.0	-3.7	12.2	46.0
958.818357	29.0	1000.0	120.000	150.0	V	225.0	6.2	17.0	46.0

2.6.19 Test Results Above 1GHz (EUT installed inside a host in Transmit Test Mode – Worst Case Configuration)



Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.400000	45.8	1000.0	1000.000	131.7	H	109.0	-11.2	28.1	73.9
1932.566667	45.1	1000.0	1000.000	330.1	H	182.0	-4.6	28.8	73.9
3879.033333	40.8	1000.0	1000.000	161.6	H	90.0	1.0	33.1	73.9
4959.500000	53.5	1000.0	1000.000	112.7	V	331.0	2.3	20.4	73.9
7440.533333	55.8	1000.0	1000.000	111.7	V	312.0	8.1	18.1	73.9
17932.966667	56.7	1000.0	1000.000	101.7	V	243.0	24.1	17.2	73.9

Average Data

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1000.400000	31.6	1000.0	1000.000	131.7	H	109.0	-11.2	22.3	53.9
1932.566667	32.0	1000.0	1000.000	330.1	H	182.0	-4.6	21.9	53.9
3879.033333	28.1	1000.0	1000.000	161.6	H	90.0	1.0	25.8	53.9
4959.500000	46.5	1000.0	1000.000	112.7	V	331.0	2.3	7.4	53.9
7440.533333	48.4	1000.0	1000.000	111.7	V	312.0	8.1	5.5	53.9
17932.966667	43.8	1000.0	1000.000	101.7	V	243.0	24.1	10.1	53.9

Test Notes: A 2.4GHz notch filter was used during verification. No significant emissions observed above 18GHz. Measurements above 18GHz were noise floor figures.

2.7 RADIATED BAND EDGE MEASUREMENTS AND IMMEDIATE RESTRICTED BANDS

2.7.1 Specification Reference

Part 15 Subpart C §15.247(d)

2.7.2 Standard Applicable

(d) 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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, 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) (see §15.205(c)).

2.7.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration B

2.7.4 Date of Test/Initial of test personnel who performed the test

December 08, 2015/FSC

2.7.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.7.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	24.4°C
Relative Humidity	25.6 %
ATM Pressure	99.3 kPa

2.7.7 Additional Observations

- This is a radiated test. The spectrum was searched from 2310MHz to 2390MHz for lower immediate restricted band and 2483.5MHz to 2500MHz for the upper immediate restricted band.
- There are no emissions found that do not comply with the restricted bands defined in FCC Part 15 Subpart C, 15.205.

- Measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only. See Section 2.7.8 for sample computation.

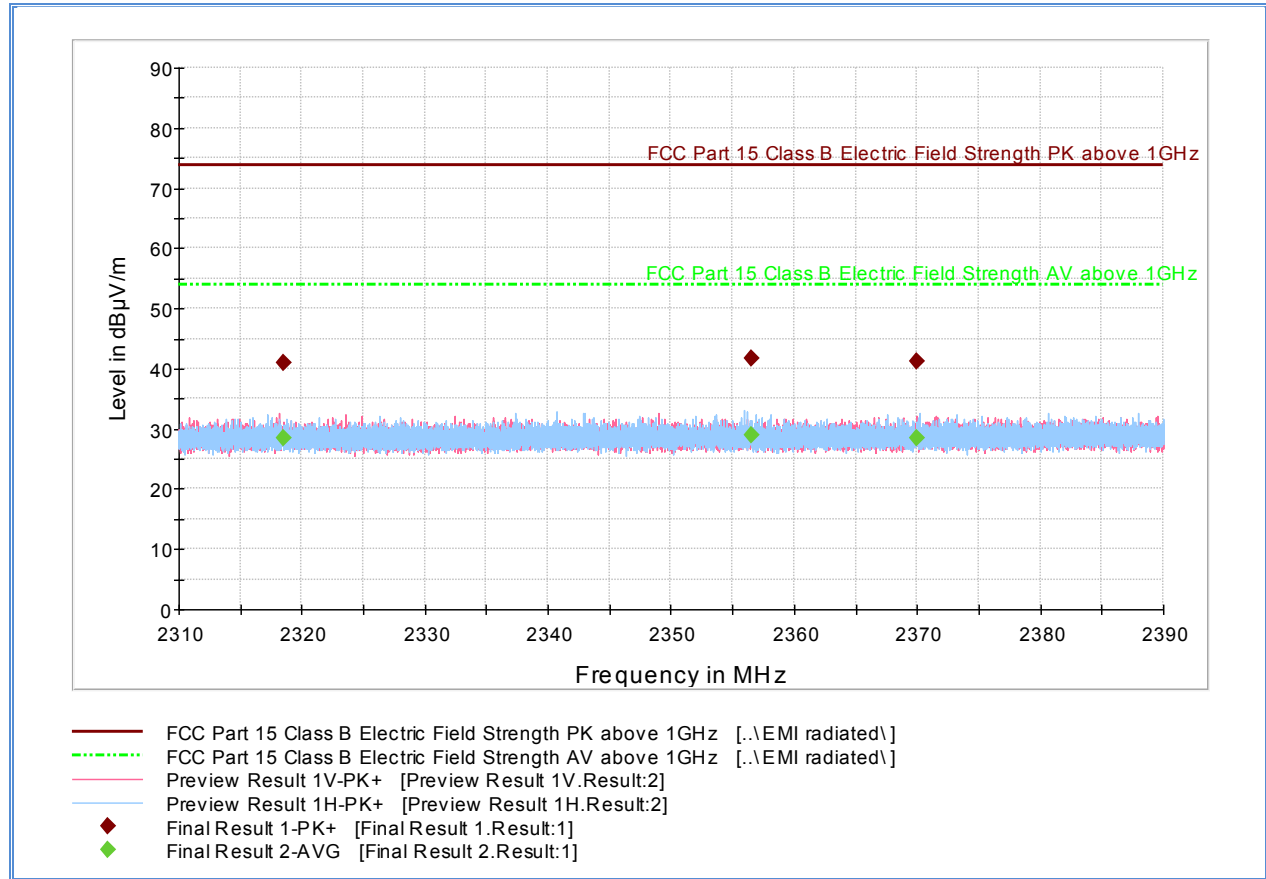
2.7.8 Sample Computation (Radiated Emission)

Measuring equipment raw measurement (db μ V) @ 2400 MHz			53.9
Correction Factor (dB)	Asset# 1153 (cable)	3.4	-0.4
	Asset# 8628(preamplifier)	-36.5	
	Asset#7575 (antenna)	32.7	
Reported Max Peak Final Measurement (db μ V/m) @ 2400 MHz			53.5

2.7.9 Test Results

See attached plots.

2.7.10 Test Results Restricted Band 2310MHz to 2390MHz (Bluetooth Low Channel)



Peak Data

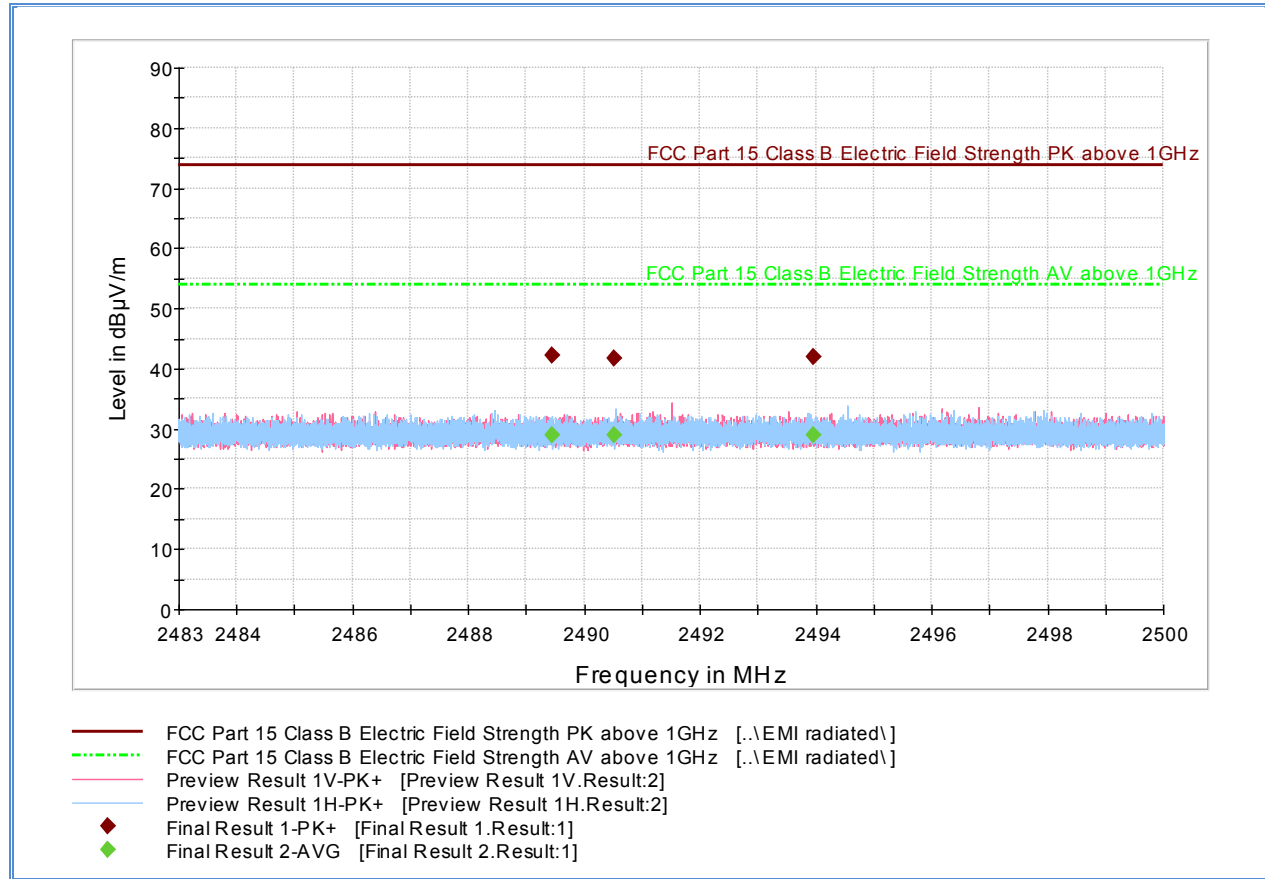
Frequency (MHz)	MaxPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
2318.562667	41.0	1000.0	1000.000	164.6	V	15.0	-0.7	32.9	73.9
2356.541333	41.7	1000.0	1000.000	115.8	H	179.0	-0.7	32.2	73.9
2370.000000	41.3	1000.0	1000.000	116.7	H	-3.0	-0.7	32.6	73.9

Average Data

Frequency (MHz)	Average (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
2318.562667	28.3	1000.0	1000.000	164.6	V	15.0	-0.7	25.6	53.9
2356.541333	28.9	1000.0	1000.000	115.8	H	179.0	-0.7	25.0	53.9
2370.000000	28.5	1000.0	1000.000	116.7	H	-3.0	-0.7	25.4	53.9

Test Notes: The 2.4GHz notch filter used during the previous test was removed for this test.

2.7.11 Test Results Restricted Band 2483.5MHz to 2500MHz (Bluetooth LE High Channel)



Peak Data

Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
2489.460400	42.2	1000.0	1000.000	284.3	H	155.0	0.0	31.7	73.9
2490.509633	41.7	1000.0	1000.000	146.7	V	75.0	0.0	32.2	73.9
2493.957733	42.0	1000.0	1000.000	282.3	H	-16.0	0.0	31.9	73.9

Average Data

Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
2489.460400	28.9	1000.0	1000.000	284.3	H	155.0	0.0	25.0	53.9
2490.509633	28.9	1000.0	1000.000	146.7	V	75.0	0.0	25.0	53.9
2493.957733	28.9	1000.0	1000.000	282.3	H	-16.0	0.0	25.0	53.9

Test Notes: The 2.4GHz notch filter used during the previous test was removed for this test.

2.8 POWER SPECTRAL DENSITY

2.8.1 Specification Reference

Part 15 Subpart C §15.247(e)

2.8.2 Standard Applicable

(e) 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 3 kHz 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.

2.8.3 Equipment Under Test and Modification State

Serial No: 001 / Test Configuration A

2.8.4 Date of Test/Initial of test personnel who performed the test

December 07, 2015 / AC

2.8.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.8.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.3 °C
Relative Humidity	23.6 %
ATM Pressure	99.3 kPa

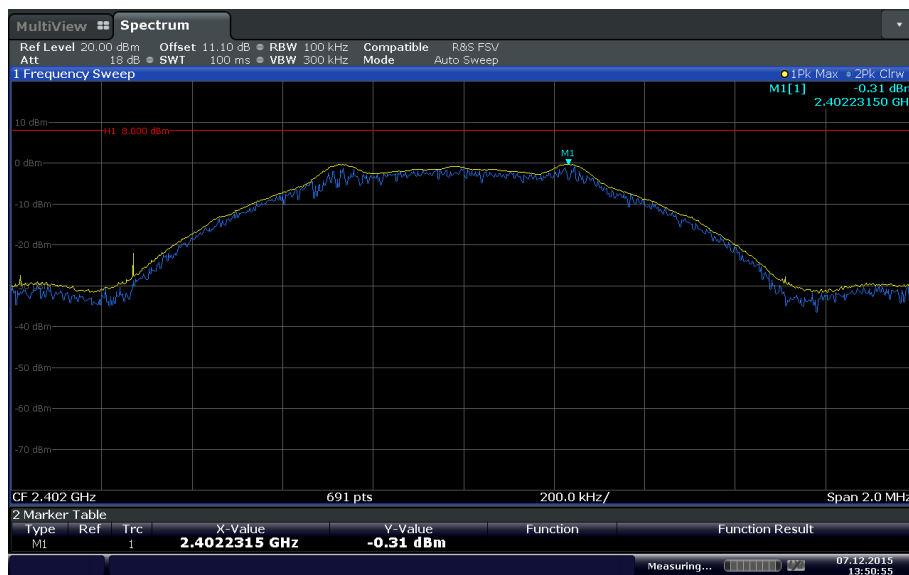
2.8.7 Additional Observations

- This is a conducted test.
- Test procedure is per Section 10.2 of KDB 558074 v03r03, (June 09, 2015).
- A correction factor of 11.1 dB was used to compensate for the external attenuator and cable used.
- Detector is Peak.
- Trace Mode is Max hold.
- Sweep time is Auto Couple.
- EUT complies with 100 kHz RBW.

2.8.8 Test Results Summary (PKPSD Method)

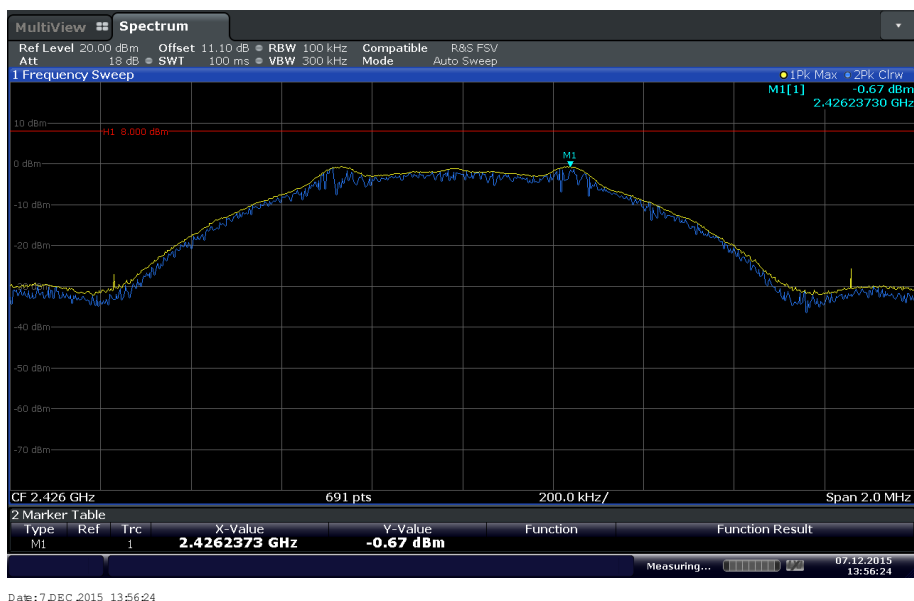
Mode	Channel	Marker Reading using 100 kHz RBW (dBm)	PSD Limit (dBm)	Compliance
Bluetooth LE	2402 MHz	-0.31	8	Complies
	2426 MHz	-0.67	8	Complies
	2480 MHz	-1.20	8	Complies

2.8.9 Test Results Plots

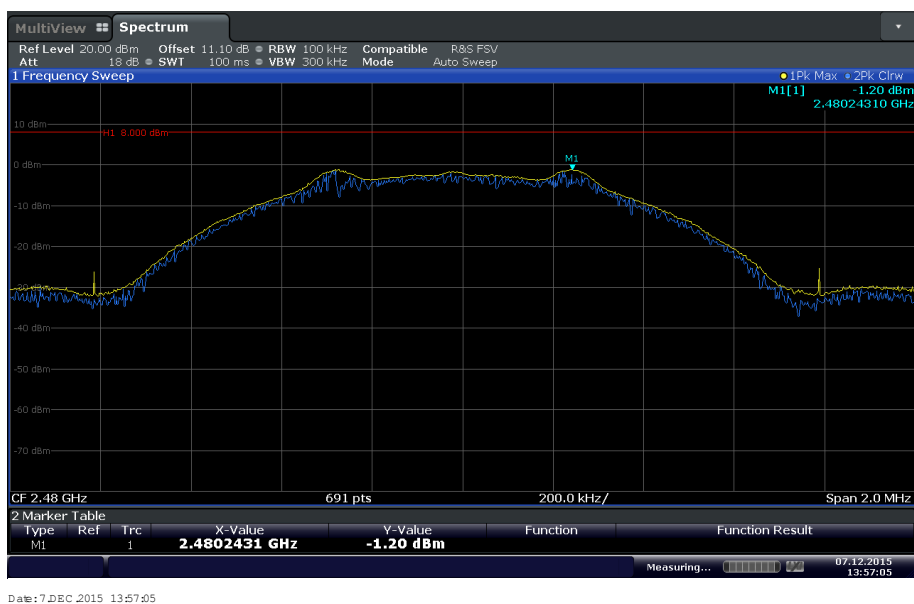


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Bluetooth LE Low Channel



Bluetooth LE Mid Channel



Bluetooth LE High Channel

SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Antenna Conducted Port Setup						
7611	Signal/Spectrum Analyzer	FSW26	102017	Rhode & Schwarz	02/01/16	02/01/17
1003	Signal Generator	SMR-40	1104.0002.40	Rhode & Schwarz	05/16/16	05/16/17
8825	20dB Attenuator	46-20-34	BK5773	Weinschel Corp.	Verified by 1003 and 7611	
8773	10dB Attenuator	606-10-1F4/DR	N/A	Meca	Verified by 1003 and 7611	
Radiated Test Setup						
1002	Bilog Antenna	3142C	00058717	ETS-Lindgren	11/06/15	11/06/17
1040	EMI Test Receiver	ESIB40	100292	Rhode & Schwarz	09/29/15	09/29/16
1051	Double-ridged waveguide horn antenna	3115	9408-4329	EMCO	03/21/16	03/21/17
1049	EMI Test Receiver	ESU	100133	Rhode & Schwarz	03/17/16	03/17/17
8628	Pre-amplifier	QLJ 01182835-JO	8986002	QuinStar Technologies Inc.	01/11/16	01/11/17
1150	Horn antenna	3160-09	012054-004	ETS	07/16/15	07/16/17
1151	Pre-amplifier	TS-PR26	100026	Rhode & Schwarz	05/08/15	05/08/16
1153	High-frequency cable	SucoFlex 100 SX	N/A	Suhner	Verified by 1003 and 7611	
8543	High-frequency cable	Micropore 19057793	N/A	United Microwave Products	Verified by 1003 and 7611	
6815	2.4GHz Band Notch Filter	BRM50702	008	Micro-Tronics	Verified by 1003 and 7611	
Miscellaneous						
6792	Multimeter	3478A	2911A70964	Hewlett Packard	08/14/15	08/14/16
7560	Barometer/Temperature/Hu midity Transmitter	iBTHX-W	1240476	Omega	10/19/15	10/19/16
	Test Software	EMC32	V8.53	Rhode & Schwarz	N/A	

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

3.2.1 Radiated Emission Measurements (Below 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.45	0.26	0.07
2	Cables	Rectangular	0.50	0.29	0.08
3	Preamplifier	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.75	0.43	0.19
5	Site	Rectangular	3.89	2.25	5.04
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					2.41
Coverage Factor (k):					2
Expanded Uncertainty:					4.82

3.2.2 Radiated Emission Measurements (Above 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.70	0.40	0.16
3	Preamplifier	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.37	0.21	0.05
5	Site	Rectangular	3.89	2.25	5.04
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					2.40
Coverage Factor (k):					2
Expanded Uncertainty:					4.81

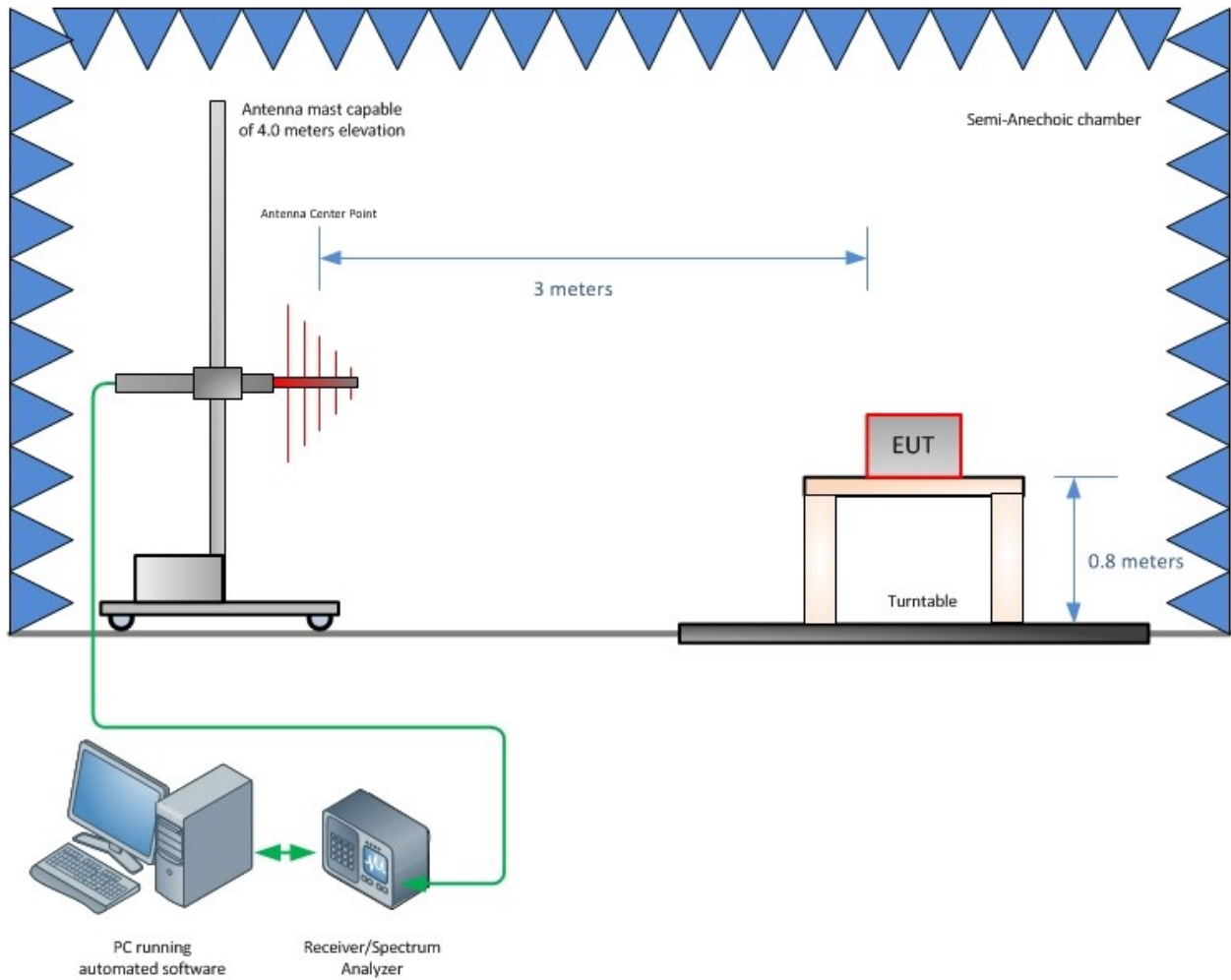
3.2.3 Conducted Antenna Port Measurement

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.50	0.29	0.08
3	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					0.72
Coverage Factor (k):					2
Expanded Uncertainty:					1.45

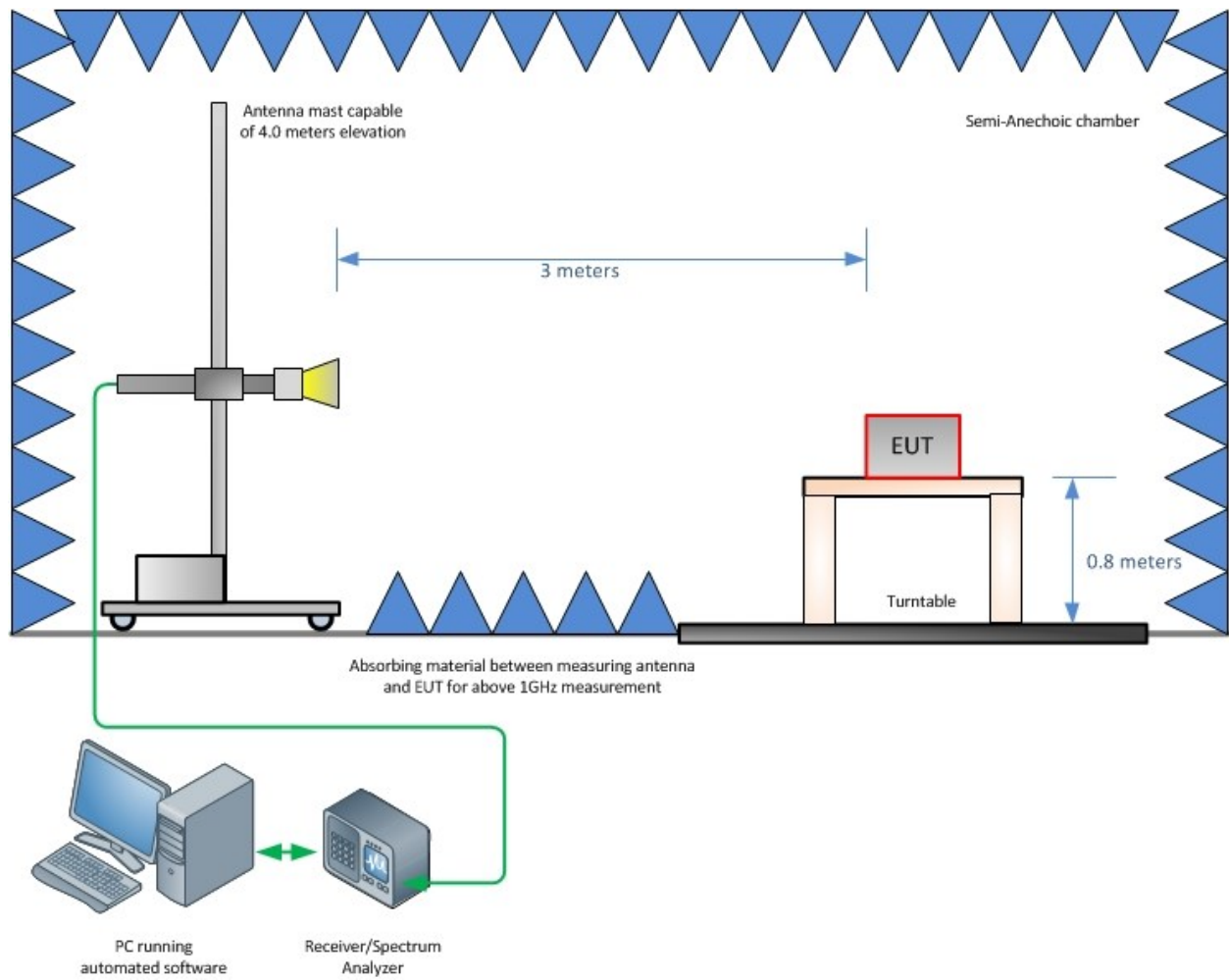
SECTION 4

DIAGRAM OF TEST SETUP

4.1 TEST SETUP DIAGRAM



Radiated Emission Test Setup (Below 1GHz)



Radiated Emission Test Setup (Above 1GHz)



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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