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Report On

FCC Testing of the Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS
In accordance with FCC 47 CFR Part 15C (Bluetooth)

COMMERCIAL-IN-CONFIDENCE

FCC ID: APYHRO00238

Document 75934711 Report 17 Issue 1 **June 2016**

Product Service

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REPORT ON

FCC Testing of the Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS
In accordance with FCC 47 CFR Part 15C (Bluetooth)

Document 75934711 Report 17 Issue 1

June 2016

PREPARED FOR

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DATED 24 June 2016

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15C. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

G Lawler M Choudhury

UKAS TESTING 0141

Product Service

CONTENTS

Product Service

SECTION 1

REPORT SUMMARY

FCC Testing of the
Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS
In accordance with FCC 47 CFR Part 15C (Bluetooth)

Product Service

1.1 INTRODUCTION

The information contained in this report is intended to show the verification of FCC Testing of the Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS to the requirements of FCC 47 CFR Part 15C.

Objective	To perform FCC Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Sharp Corporation
Serial Number(s)	IMEI 004401115813590 IMEI 004401115813376
Number of Samples Tested	2
Test Specification/Issue/Date	FCC 47 CFR Part 15C (2015)
Disposal Reference Number Date	Held Pending Disposal Not Applicable Not Applicable
Order Number Date	10829 31 May 2016
Start of Test	8 June 2016
Finish of Test	14 June 2016
Name of Engineer(s)	G Lawler M Choudhury
Related Document(s)	ANSI C63.10: 2013

Product Service

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15C is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Bluetooth				
2.1	15.207	AC Line Conducted Emissions	Pass	
2.2	15.247 (a)(1)(iii)	Frequency Hopping Systems - Number of Hopping Channels	Pass	
2.3	15.247 (a)(1)	Frequency Hopping Systems - 20 dB Bandwidth	Pass	
2.4	15.247 (a)(1)	Frequency Hopping Systems - Channel Separation	Pass	
2.5	15.247 (a)(1)(iii)	Frequency Hopping Systems - Average Time of Occupancy	Pass	
2.6	15.247 (b)(3)	Maximum Conducted Output Power	Pass	
2.7	15.247 (d), 15.205 and 15.209	Spurious Radiated Emissions	Pass	
2.8	15.205	Restricted Band Edges	Pass	
2.9	15.247 (d)	Authorised Band Edges	Pass	

Product Service

1.3 PRODUCT TECHNICAL DESCRIPTION

Refer to Model Description APYHRO00238 Rev 4.0 document.

1.4 PRODUCT INFORMATION

1.4.1 Technical Description

The Equipment Under Test (EUT) was a Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS. A full technical description can be found in the manufacturer's documentation.

1.5 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated in a shielded enclosure.

The EUT was powered from a 4.0 V DC supply.

FCC Measurement Facility Registration Number
90987 Octagon House, Fareham Test Laboratory

1.6 DEVIATIONS FROM THE STANDARD

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

1.7 MODIFICATION RECORD

Modification 0 - No modifications were made to the test sample during testing.

Product Service

SECTION 2

TEST DETAILS

FCC Testing of the
Sharp Quad-band LTE (B1/B3/B17/B26), Dual-band WCDMA (FDD I / V), Quad-band GSM (850/900/1800/1900) & WiMAX2+ (TDD41) multi mode Smart phone with Bluetooth, WLAN, and GPS
In accordance with FCC 47 CFR Part 15C (Bluetooth)

2.1 AC LINE CONDUCTED EMISSIONS

2.1.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.207

2.1.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813590 - Modification State 0

2.1.3 Date of Test

14 June 2016

2.1.4 Test Equipment Used

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

2.1.5 Test Procedure

The test was performed in accordance with ANSI C63.10, Clause 6.2.

Remarks

A mains supply cable of 1 m length was used to supply mains power to the EUT from the LISN.

All final measurements were assessed against the Class B emission limits in FCC 47 CFR Part 15, Clause 15.109.

2.1.6 Environmental Conditions

Ambient Temperature	18.9°C
Relative Humidity	64.0%

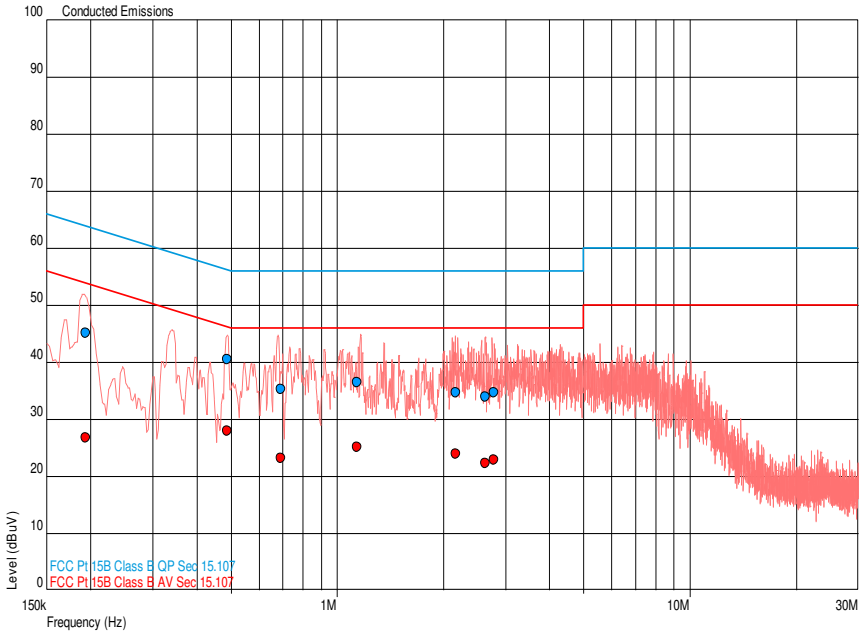
Product Service

2.1.7 Test Results

Bluetooth, Live Line, AC Line Conducted Emissions Result

Frequency (MHz)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dBµV)	AV Level (dBµV)	AV Limit (dBµV)	AV Margin (dBµV)
0.193	45.1	63.9	-18.8	26.8	53.9	-27.1
0.488	40.6	56.2	-15.6	28.0	46.2	-18.2
0.693	35.3	56.0	-20.7	23.2	46.0	-22.8
1.137	36.6	56.0	-19.4	25.1	46.0	-20.9
2.171	34.7	56.0	-21.3	23.9	46.0	-22.1
2.626	34.0	56.0	-22.0	22.4	46.0	-23.6
2.787	34.7	56.0	-21.3	23.0	46.0	-23.0

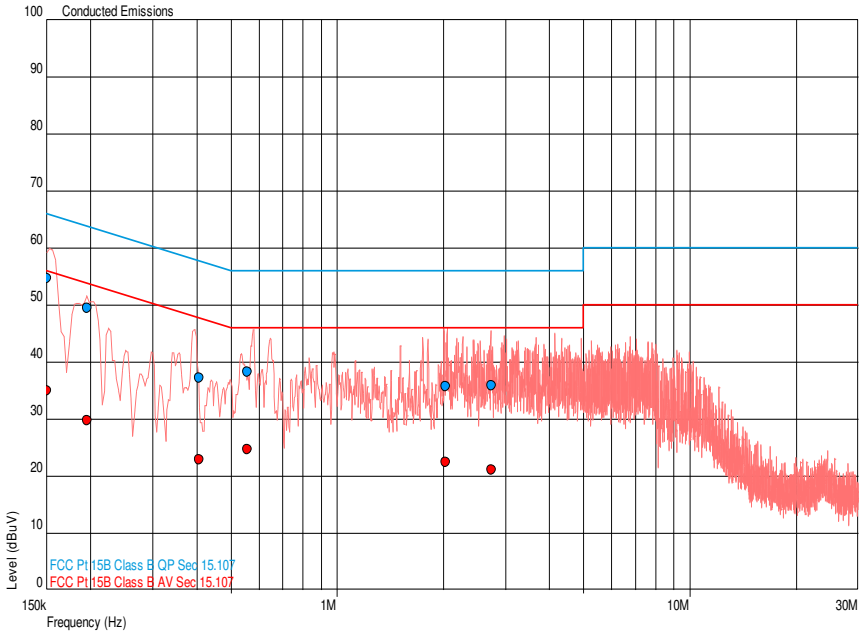
Bluetooth, Live Line, AC Line Conducted Emissions Plot



Bluetooth, Neutral Line, AC Line Conducted Emissions Result

Frequency (MHz)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dBµV)	AV Level (dBµV)	AV Limit (dBµV)	AV Margin (dBµV)
0.150	54.8	66.0	-11.2	35.0	56.0	-21.0
0.195	49.5	63.8	-14.4	29.8	53.8	-24.0
0.406	37.2	57.7	-20.5	23.0	47.7	-24.7
0.558	38.3	56.0	-17.7	24.7	46.0	-21.3
2.034	35.7	56.0	-20.3	22.5	46.0	-23.5
2.735	36.0	56.0	-20.0	21.1	46.0	-24.9

Bluetooth, Neutral Line, AC Line Conducted Emissions Plot



FCC 47 CFR Part 15, Limit Clause 15.207

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-Peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

*Decreases with the logarithm of the frequency.

2.2 FREQUENCY HOPPING SYSTEMS - NUMBER OF HOPPING CHANNELS

2.2.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)(iii)

2.2.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813376 - Modification State 0

2.2.3 Date of Test

9 June 2016

2.2.4 Test Equipment Used

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

2.2.5 Test Procedure

The test was performed in accordance with ANSI C63.10, clause 7.8.3.

2.2.6 Environmental Conditions

Ambient Temperature	22.2°C
Relative Humidity	39.2%

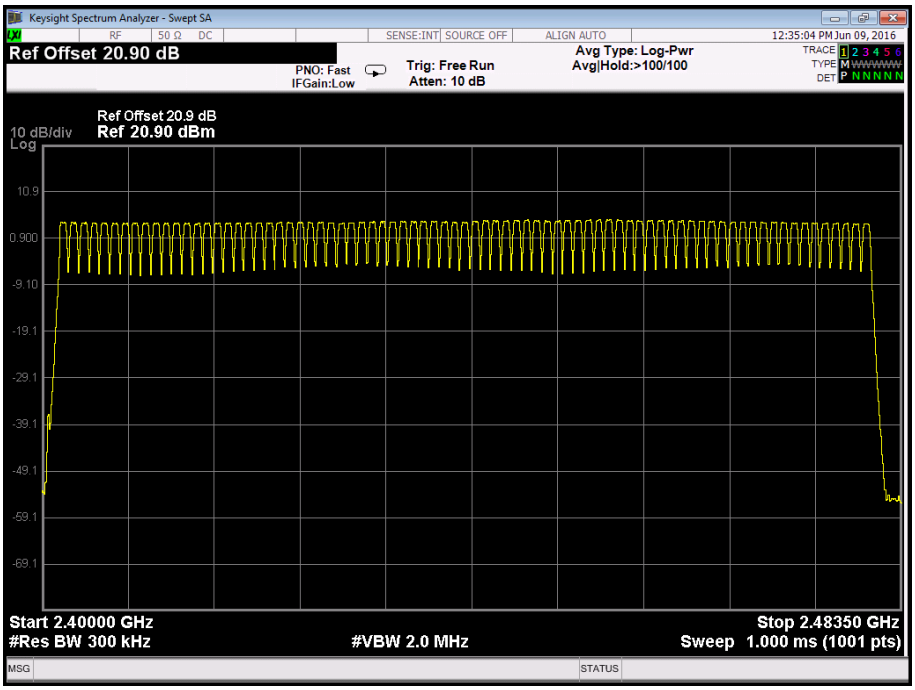
Product Service

2.2.7 Test Results

Bluetooth, Number of Hopping Channels Results

Number of Hopping Channels: 79

Bluetooth, Number of Hopping Channels Plot



FCC 47 CFR Part 15, Limit Clause 15.247 (a)(1)(iii)

≥ 15 channels

2.3 FREQUENCY HOPPING SYSTEMS - 20 dB BANDWIDTH

2.3.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.3.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813376 - Modification State 0

2.3.3 Date of Test

8 June 2016

2.3.4 Test Equipment Used

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

2.3.5 Test Procedure

The test was performed in accordance with ANSI C63.10, clause 6.9.2

2.3.6 Environmental Conditions

Ambient Temperature	23.2°C
Relative Humidity	60.7%

Product Service

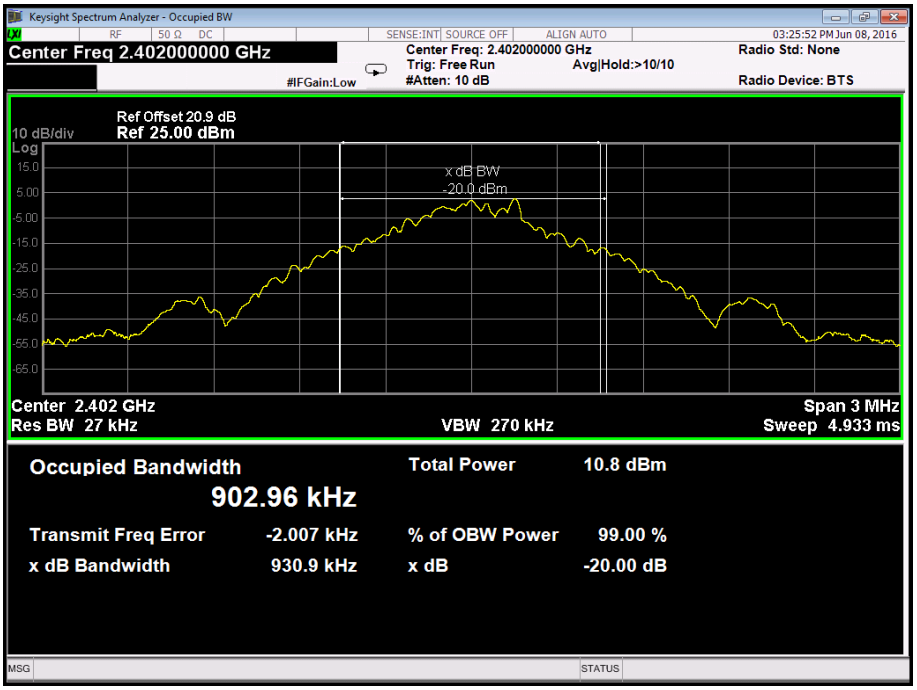
2.3.7 Test Results

4.0 V DC Supply

Bluetooth, 20 dB Bandwidth Results

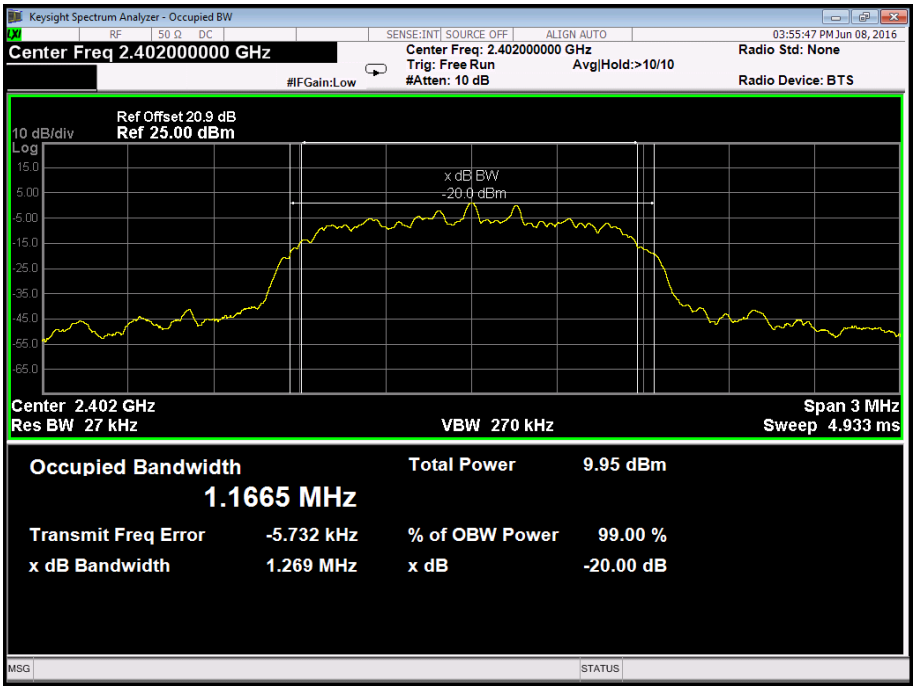
Modulation	2402 MHz	2441 MHz	2480 MHz
	kHz	kHz	kHz
GFSK	930.90	931.60	930.00
pi/4 DQPSK	1269.00	1261.00	1270.00
8-DPSK	1250.00	1251.00	1251.00

Bluetooth, 2402 MHz, GFSK, 20 dB Bandwidth Plot

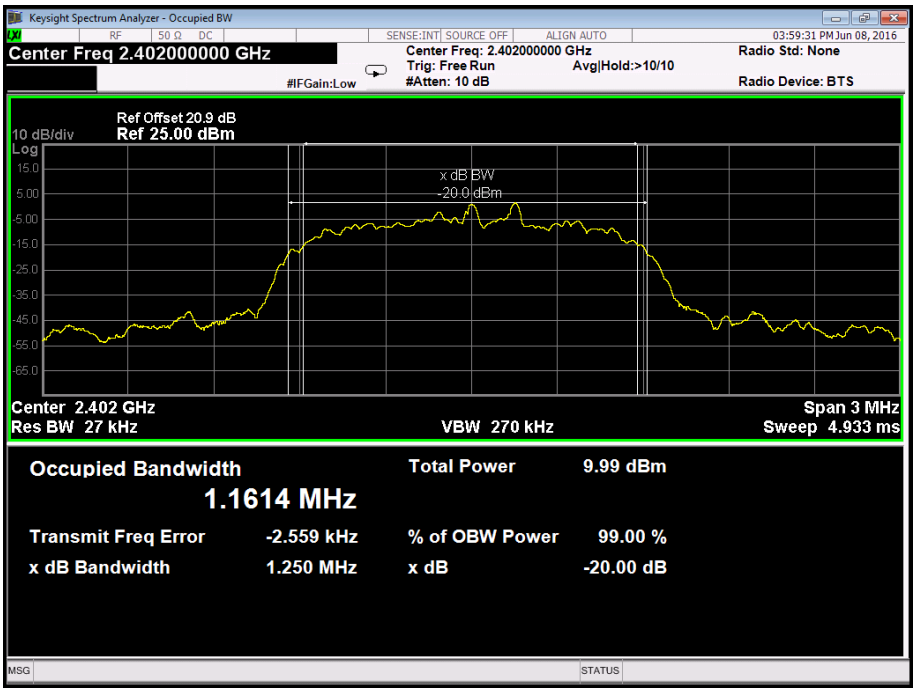


Product Service

Bluetooth,2402 MHz, pi/4 DQPSK, 20 dB Bandwidth Plot

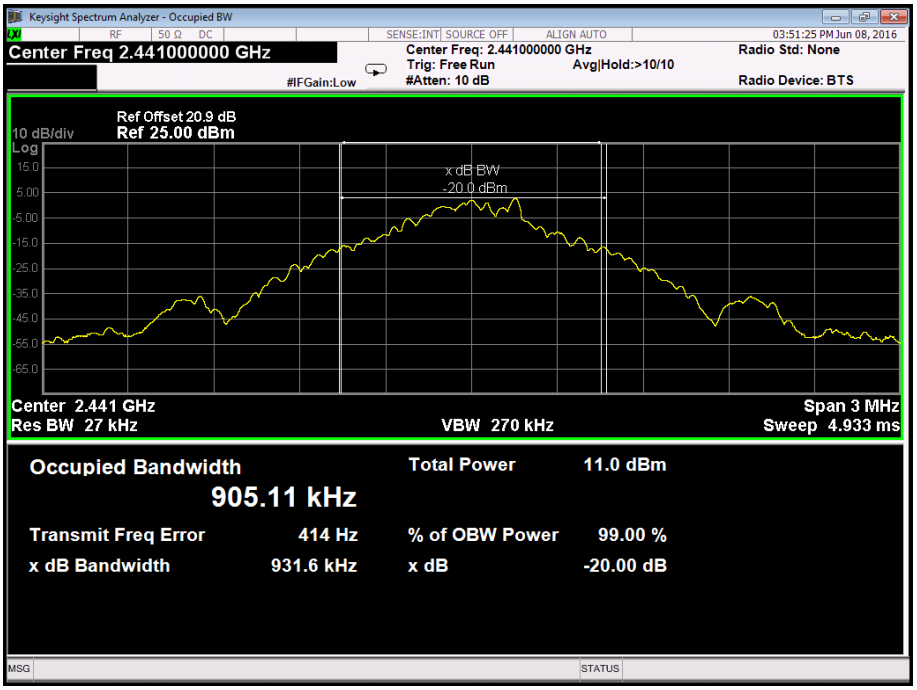


Bluetooth, 2402 MHz, 8-DPSK, 20 dB Bandwidth Plot

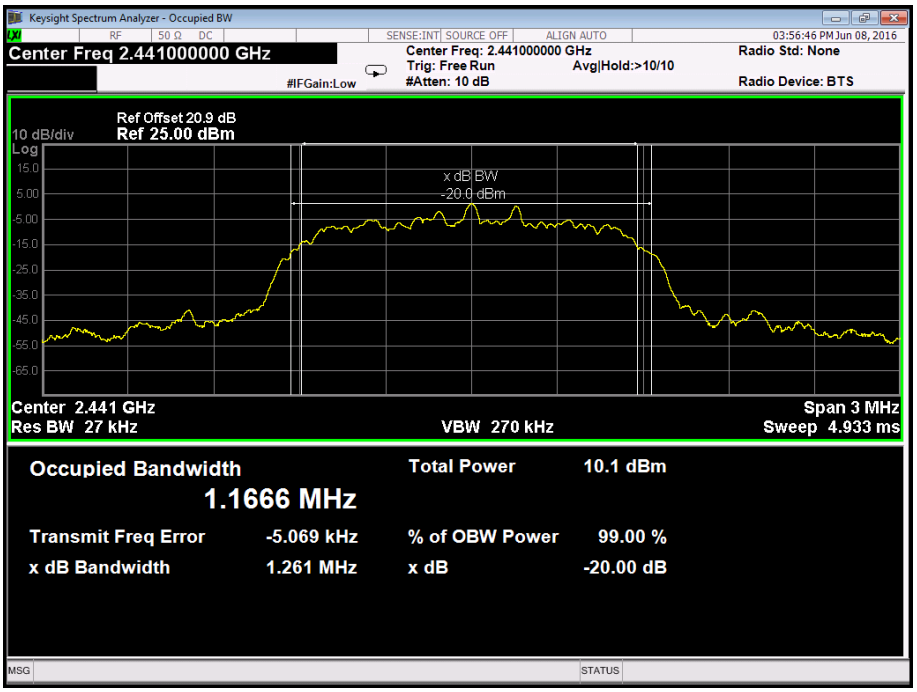


Product Service

Bluetooth, 2441 MHz, GFSK, 20 dB Bandwidth Plot

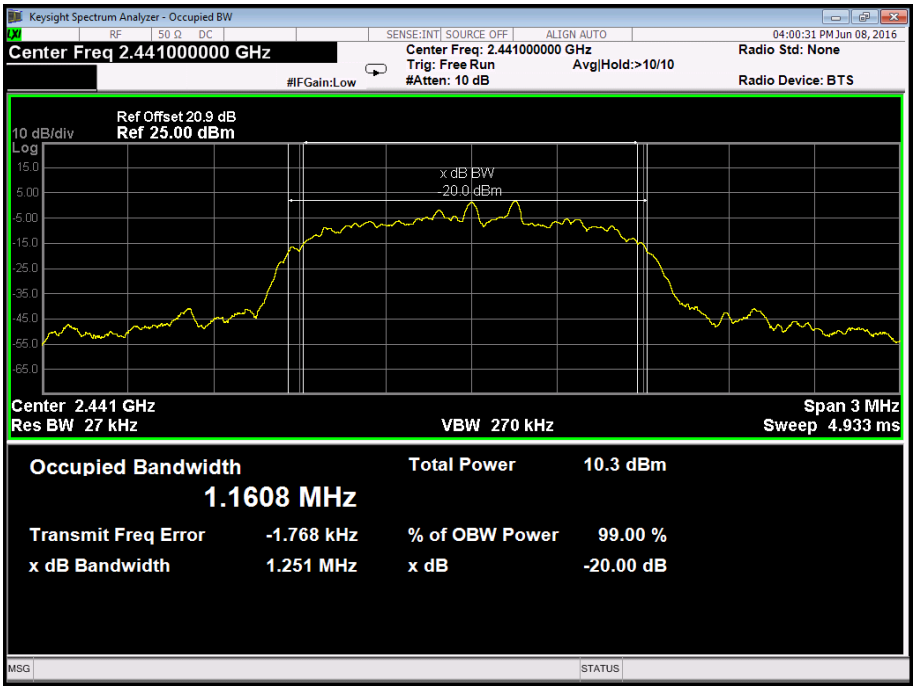


Bluetooth, 2441 MHz, pi/4 DQPSK, 20 dB Bandwidth Plot

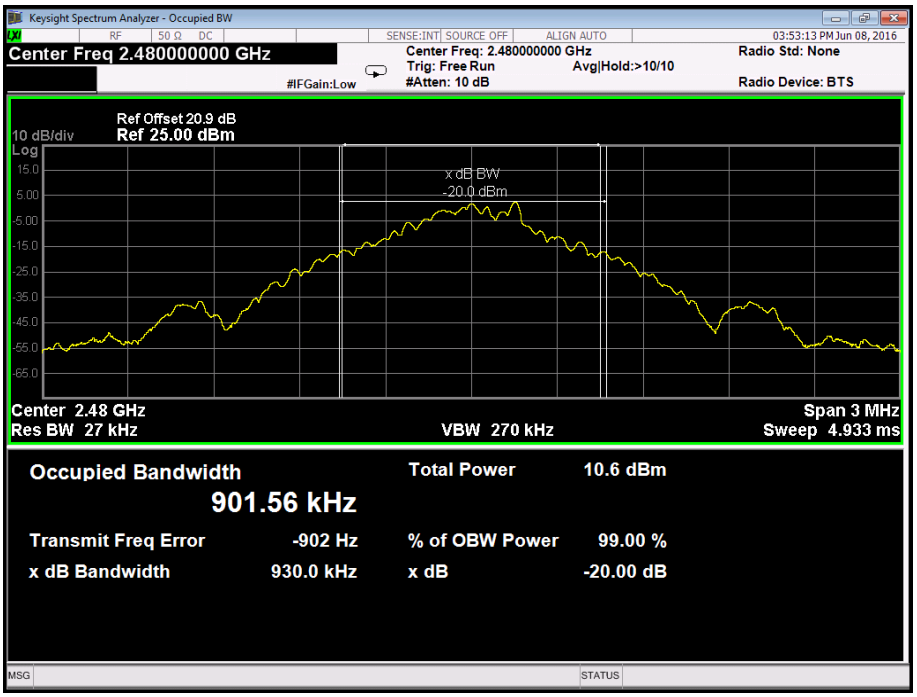


Product Service

Bluetooth, 2441 MHz, 8-DPSK, 20 dB Bandwidth Plot

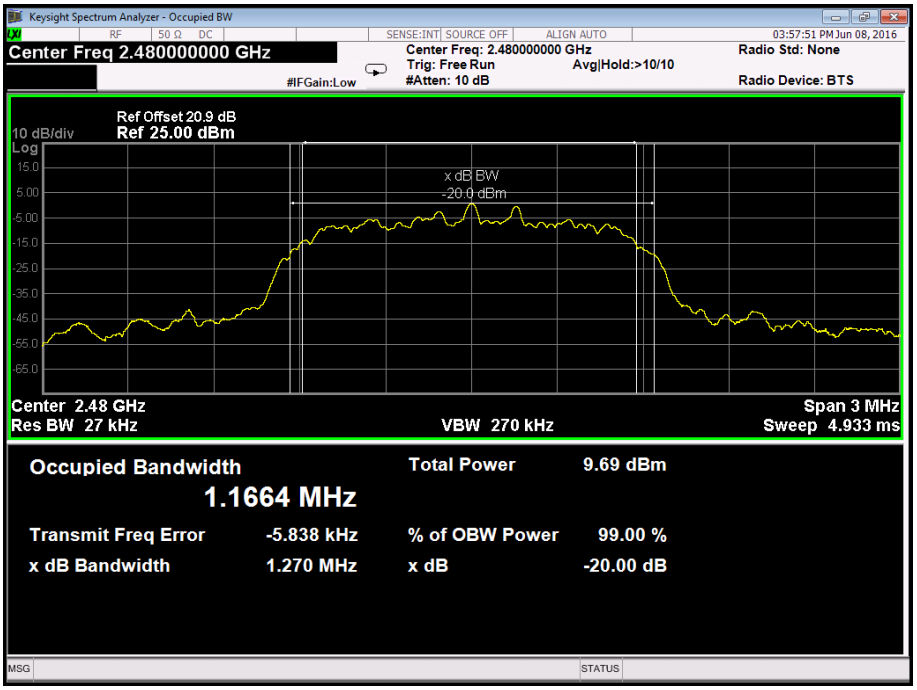


Bluetooth, 2480 MHz, GFSK, 20 dB Bandwidth Plot

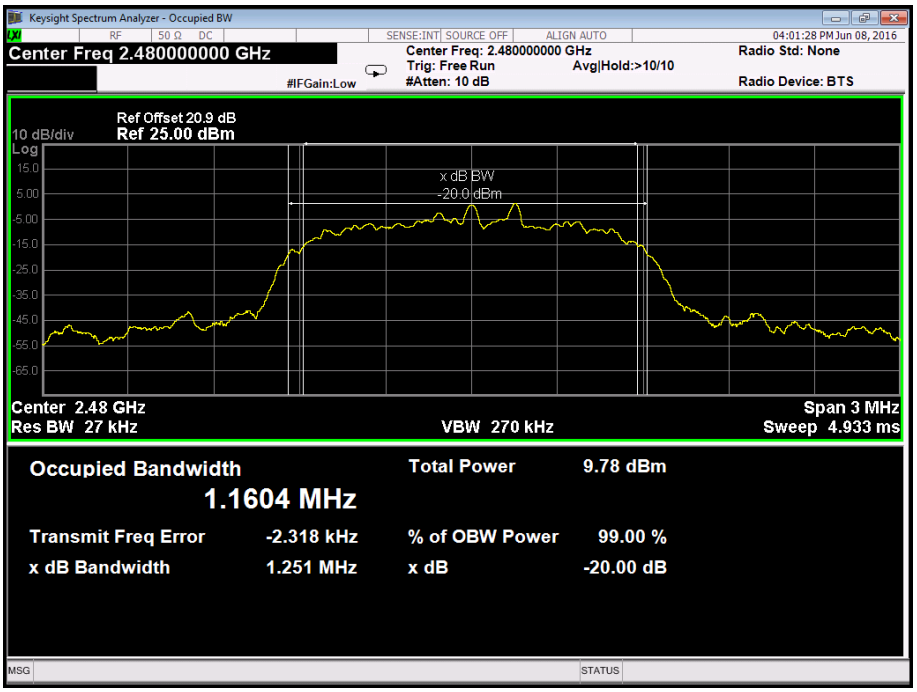


Product Service

Bluetooth, 2480 MHz, pi/4 DQPSK, 20 dB Bandwidth Plot



Bluetooth, 2480 MHz, 8-DPSK, 20 dB Bandwidth Plot



FCC 47 CFR Part 15, Limit Clause

None specified.

Product Service

2.4 FREQUENCY HOPPING SYSTEMS - CHANNEL SEPARATION

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)

2.4.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813376 - Modification State 0

2.4.3 Date of Test

9 June 2016

2.4.4 Test Equipment Used

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

2.4.5 Test Procedure

The test was performed in accordance with ANSI C63.10, clause 7.8.2

2.4.6 Environmental Conditions

Ambient Temperature	22.2°C
Relative Humidity	39.2%

Product Service

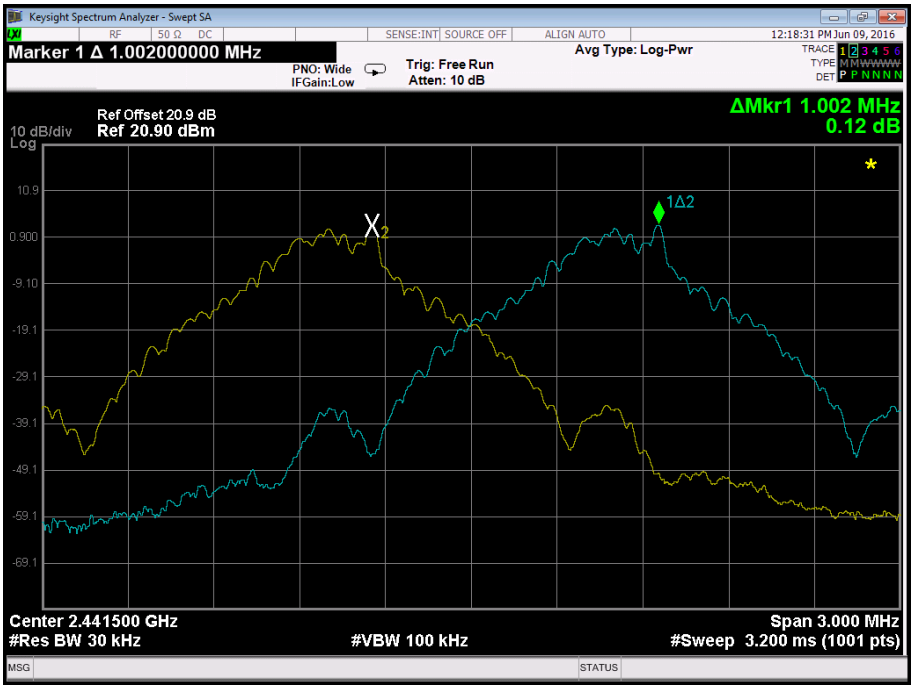
2.4.7 Test Results

4.0 V DC Supply

Bluetooth, Channel Separation Results

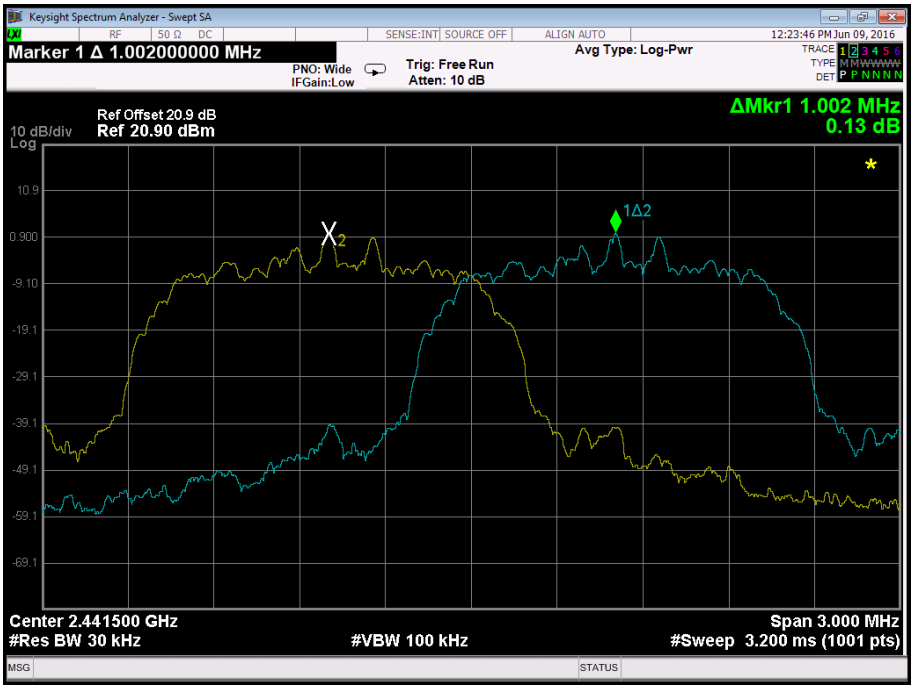
Modulation	Frequency Hopping
	MHz
GFSK	1.002
pi/4 DQPSK	1.002
8-DPSK	0.996

Bluetooth, GFSK, Channel Separation Plot

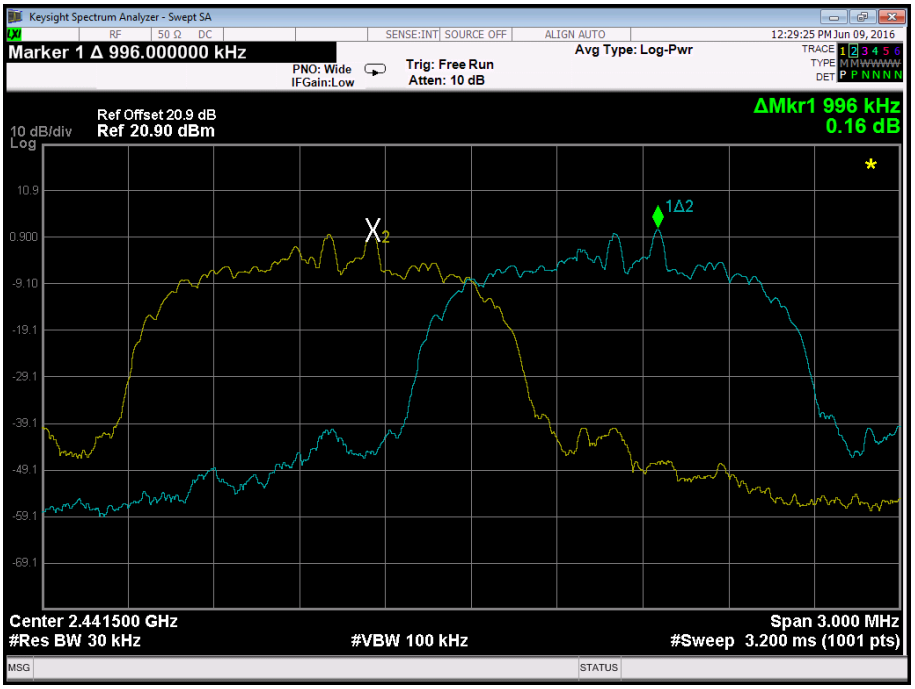


Product Service

Bluetooth, pi/4 DQPSK, Channel Separation Plot



Bluetooth, 8-DPSK, Channel Separation Plot



Product Service

FCC 47 CFR Part 15, Limit Clause 15.247 (a)(1)

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

Alternatively, frequency hopping systems operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 0.125 W.

2.5 FREQUENCY HOPPING SYSTEMS - AVERAGE TIME OF OCCUPANCY

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(1)(iii)

2.5.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813376 - Modification State 0

2.5.3 Date of Test

9 June 2016

2.5.4 Test Equipment Used

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

2.5.5 Test Procedure

The test was performed in accordance with ANSI C63.10, clause 7.8.4.

2.5.6 Environmental Conditions

Ambient Temperature	22.2°C
Relative Humidity	39.2%

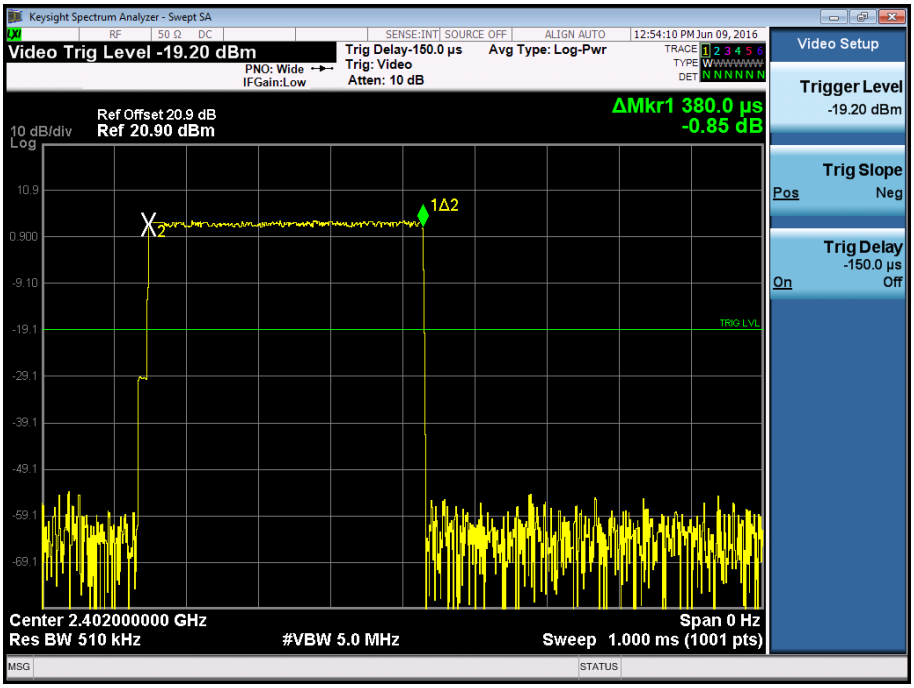
Product Service

2.5.7 Test Results

Bluetooth, Average Time of Occupancy Results

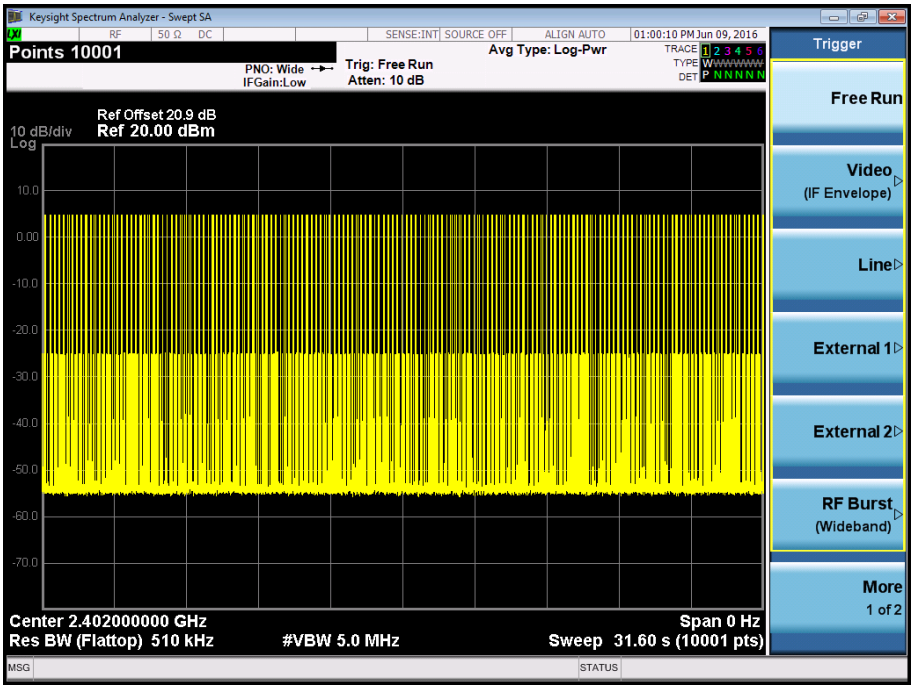
Packet Type	Dwell Time (ms)	Number of Transmissions	Average Occupancy Time (ms)
DH1	0.380	320	121.600
DH3	1.637	161	263.557
DH5	2.882	107	308.374

Bluetooth, DH1, Average Time of Occupancy Plot

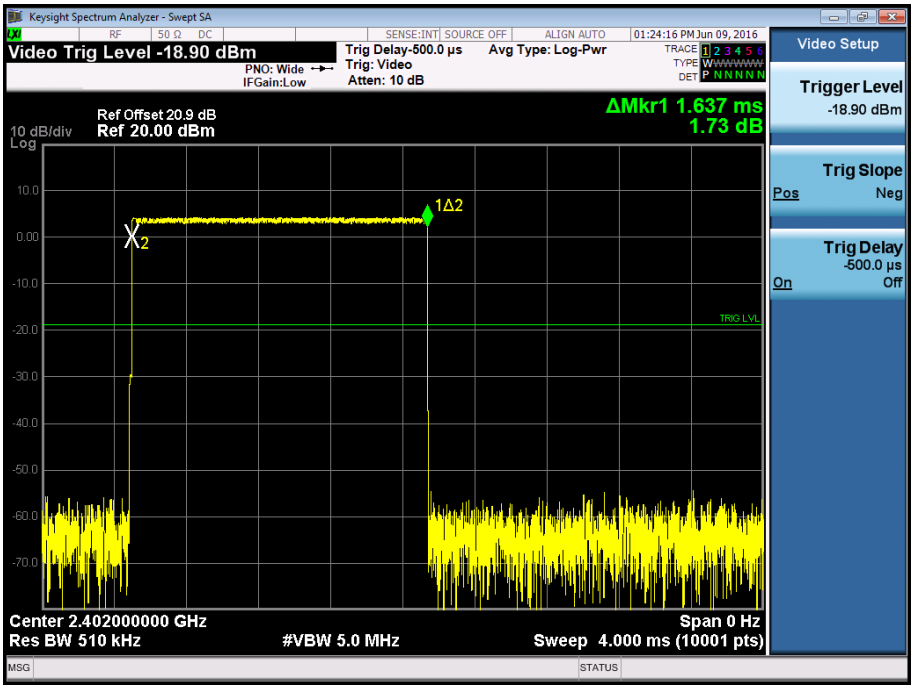


Product Service

Bluetooth, DH1, Total Average Time of Occupancy Plot

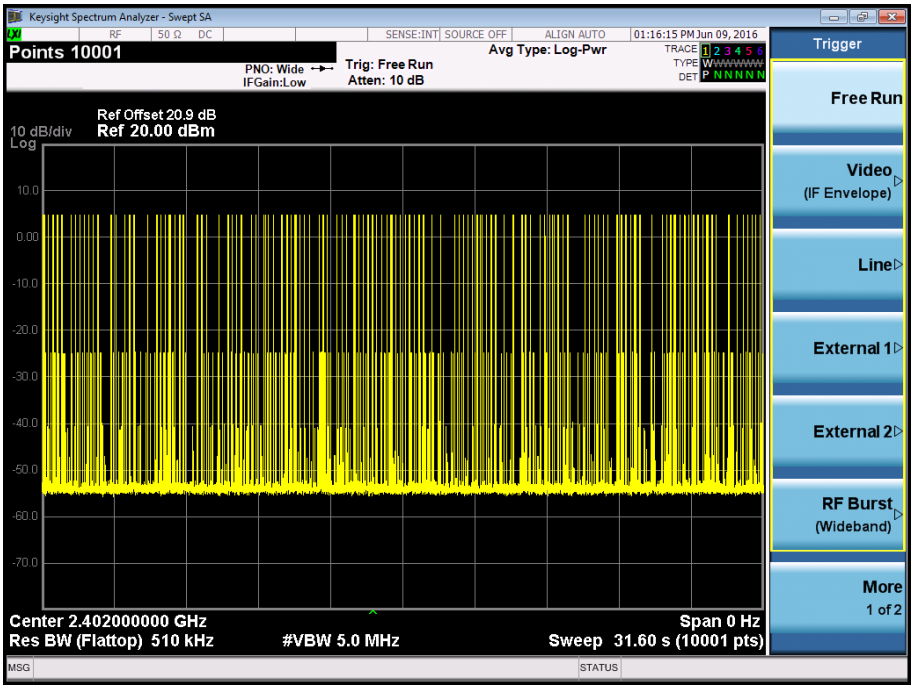


Bluetooth, DH3, Average Time of Occupancy Plot

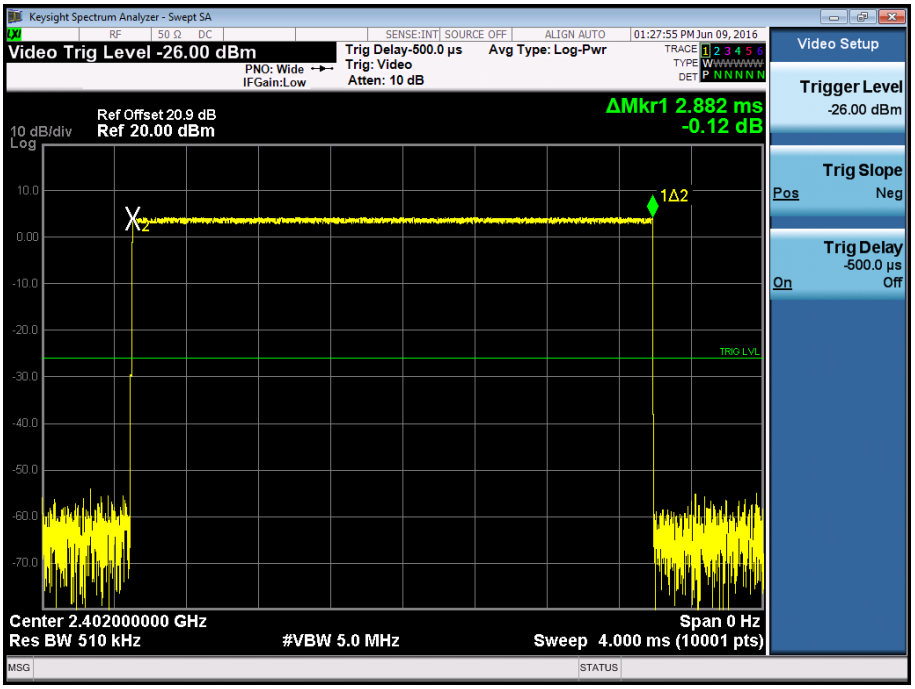


Product Service

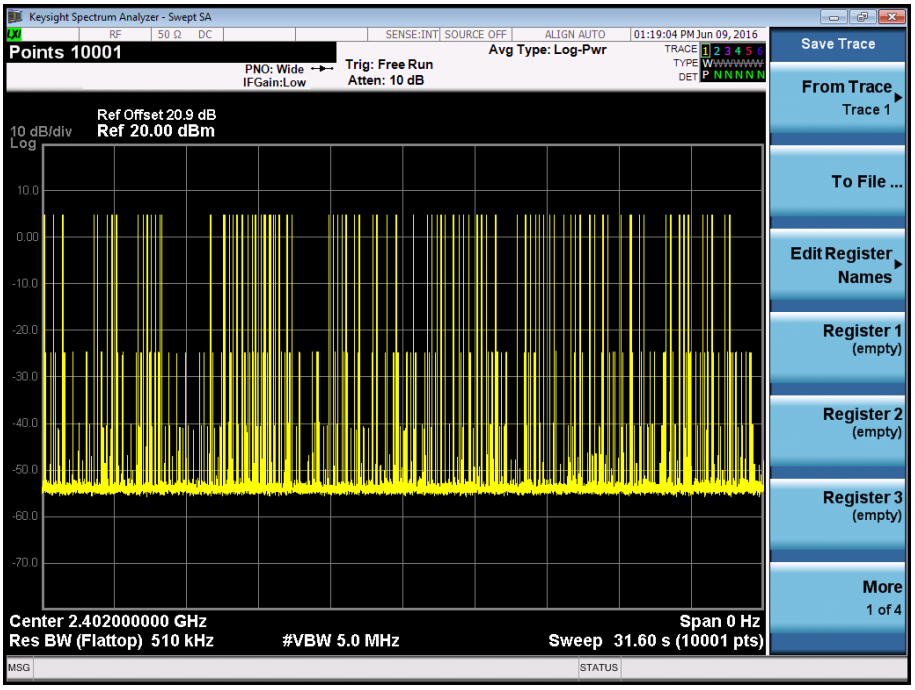
Bluetooth, DH3, Total Average Time of Occupancy Plot



Bluetooth, DH5, Average Time of Occupancy Plot



Bluetooth, DH5, Total Average Time of Occupancy Plot



FCC 47 CFR Part 15, Limit Clause 15.247 (a)(1)(iii)

Frequency hopping systems operating in the band 2400-2483.5 MHz shall use at least 15 hopping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that a minimum of 15 hopping channels are used.

2.6 MAXIMUM CONDUCTED OUTPUT POWER

2.6.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b)(3)

2.6.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813376 - Modification State 0

2.6.3 Date of Test

8 June 2016

2.6.4 Test Equipment Used

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

2.6.5 Test Procedure

The test was performed in accordance with KDB 558074 D01 v03r02, clause 9.1.1.

2.6.6 Environmental Conditions

Ambient Temperature	23.2°C
Relative Humidity	60.7%

Product Service

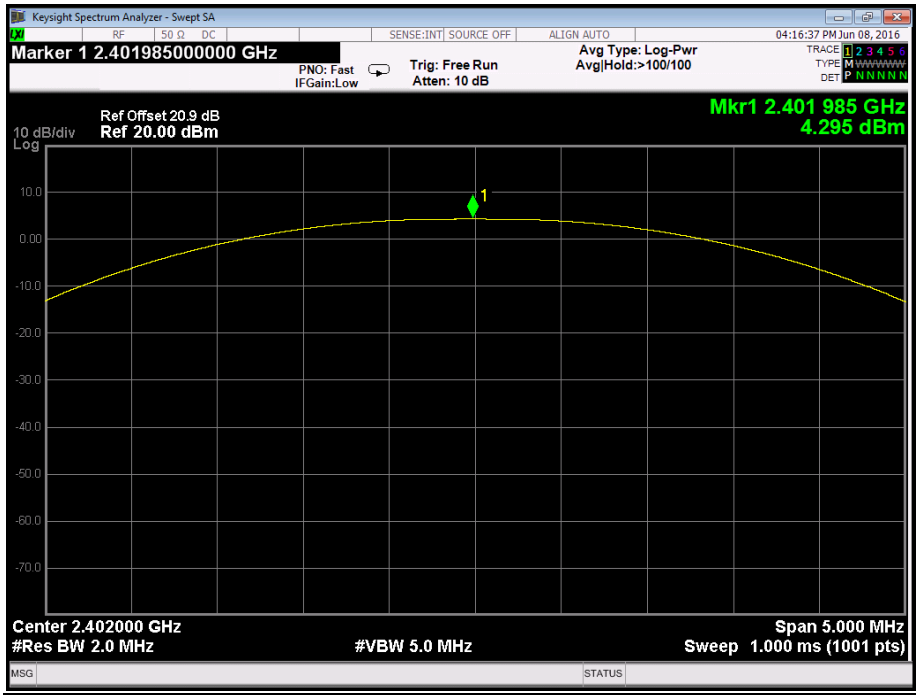
2.6.7 Test Results

4.0 V DC Supply

Bluetooth, DH5, Maximum Conducted Output Power Results

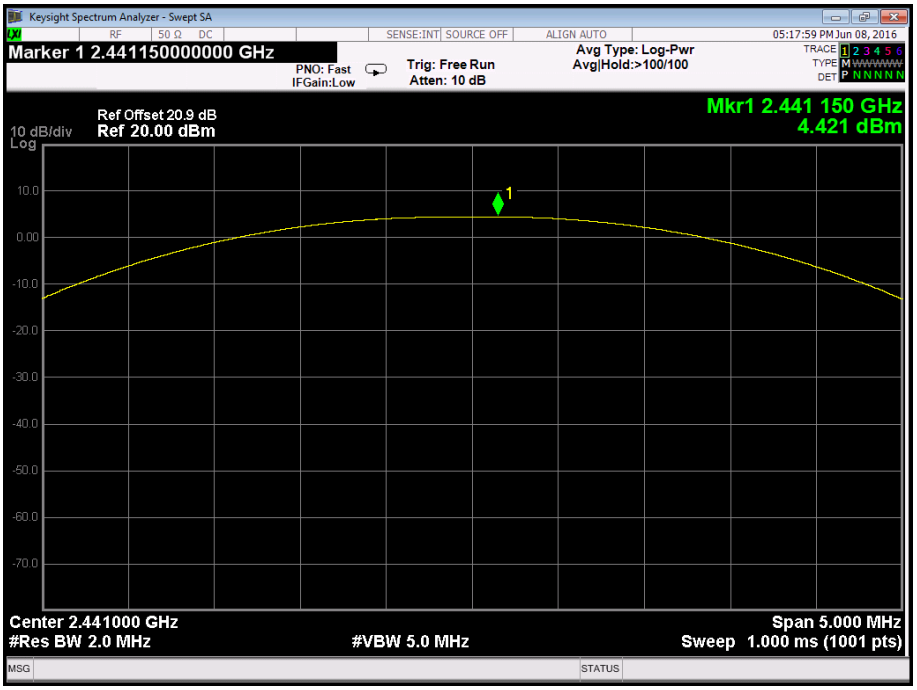
2402 MHz		2441 MHz		2480 MHz	
dBm	mW	dBm	mW	dBm	mW
4.295	2.688	4.421	2.768	4.012	2.519

Bluetooth, 2402 MHz, DH5, Maximum Conducted Output Power Plot

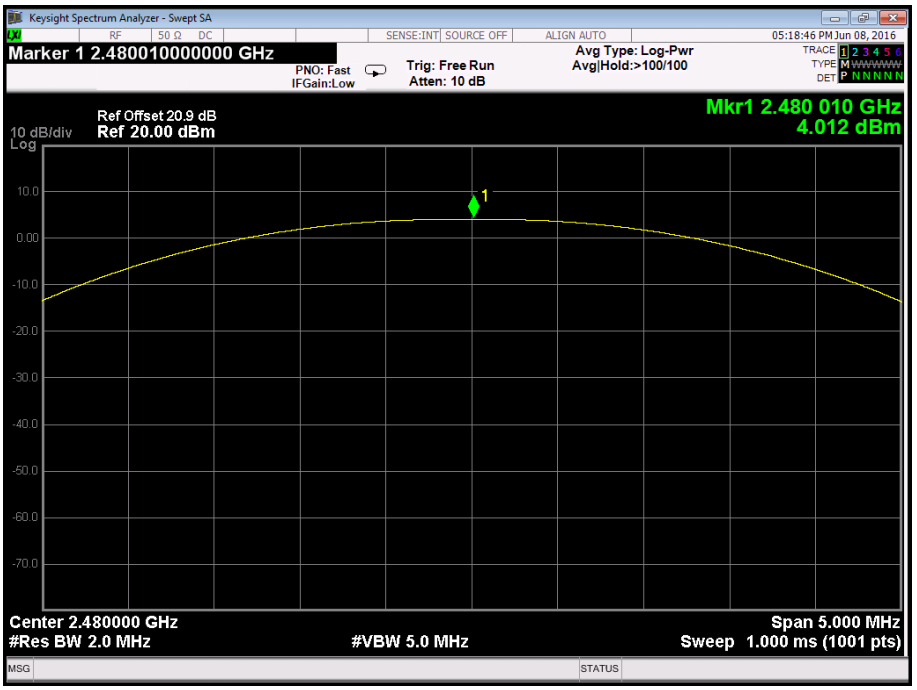


Product Service

Bluetooth, 2441 MHz, DH5, Maximum Conducted Output Power Plot



Bluetooth, 2480 MHz, DH5, Maximum Conducted Output Power Plot



FCC 47 CFR Part 15, Limit Clause 15.247 (b)

The maximum peak conducted output power of the intentional radiator shall not exceed the following:

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

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

2.7 SPURIOUS RADIATED EMISSIONS

2.7.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d), 15.205 and 15.209

2.7.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813590 - Modification State 0

2.7.3 Date of Test

12 June 2016, 13 June 2016 & 14 June 2016

2.7.4 Test Equipment Used

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

2.7.5 Test Procedure

Testing was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

Remarks

Plots for average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.3
Final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2.

Only the more stringent limit lines as per 15.209 have been shown on the plots. The peak power measured in a 100 kHz bandwidth is shown in section 2.9.

2.7.6 Environmental Conditions

Ambient Temperature	18.9 - 19.6°C
Relative Humidity	62.0 - 65.0%

Product Service

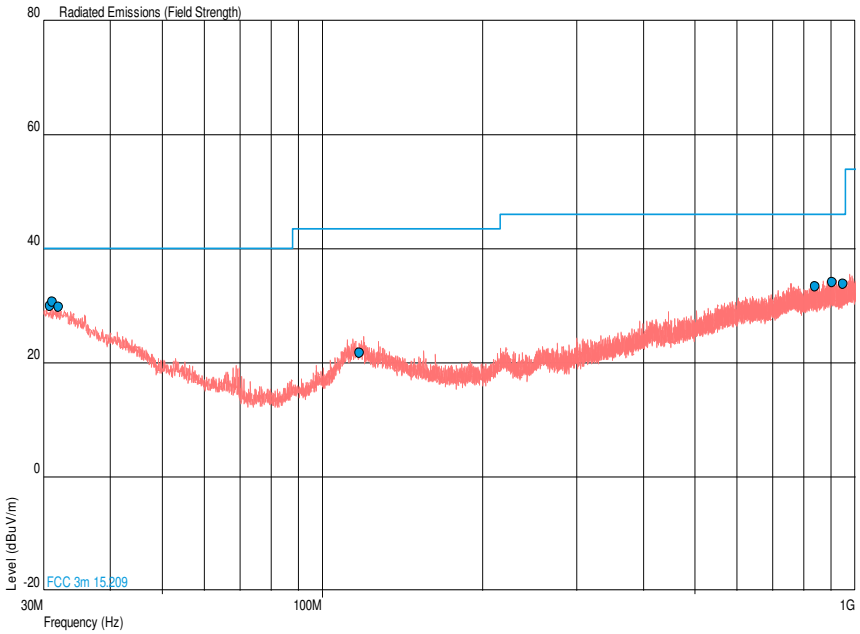
2.7.7 Test Results

4.0 V DC Supply

Bluetooth, 2402 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	QP Level (dBµV/m)	QP Margin (dBµV/m)	QP Level (µV/m)	QP Margin (µV/m)	Angle (°)	Height (m)	Polarisation
30.873	30.0	-10.0	31.6	-68.4	180	1.00	Vertical
31.213	30.6	-9.4	33.9	-66.1	180	1.00	Vertical
31.989	29.8	-10.2	30.9	-69.1	0	1.00	Horizontal
117.398	21.8	-21.7	12.3	-137.7	0	1.00	Horizontal
841.861	33.3	-12.7	46.2	-153.8	0	1.00	Horizontal
907.123	34.1	-11.9	50.7	-149.3	180	1.00	Horizontal
950.274	33.8	-12.2	49.0	-151.0	180	1.00	Horizontal

Bluetooth, 2402 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Plot



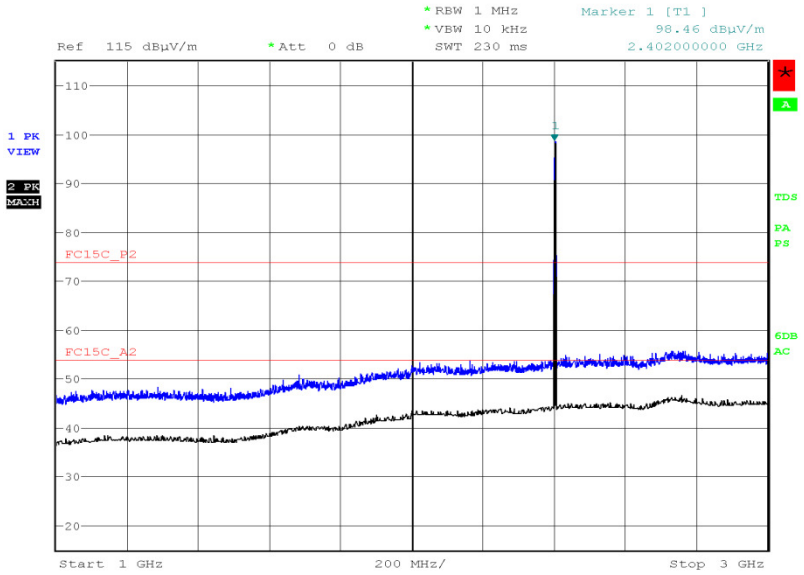
Product Service

Bluetooth, 2402 MHz, DH5, 1 GHz to 25 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	Final Peak (dBµV/m)	Final Average (dBµV/m)	Final Peak (µV/m)	Final Average (µV/m)	Angle (°)	Height (m)	Polarisation
*							

*No emissions were detected within 6 dB of the limit.

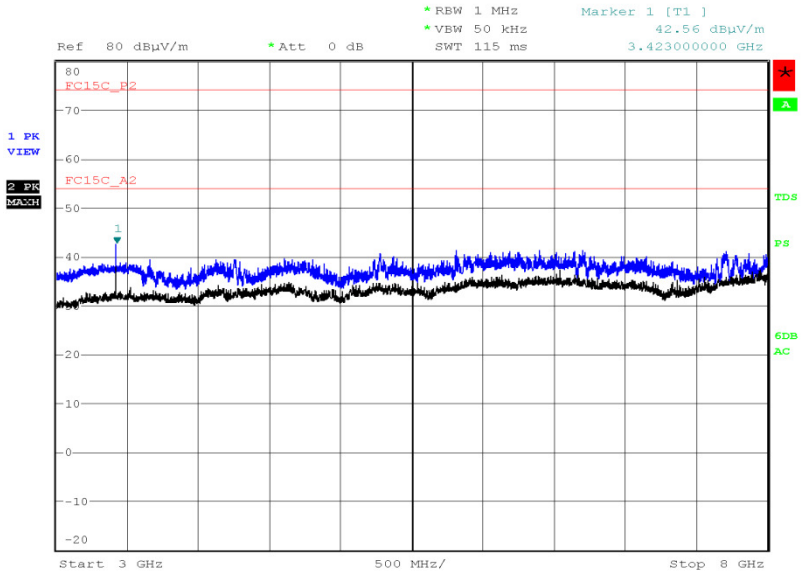
Bluetooth, 2402 MHz, DH5, 1 GHz to 3 GHz, Spurious Radiated Emissions Plot



Date: 12.JUN.2016 10:49:03

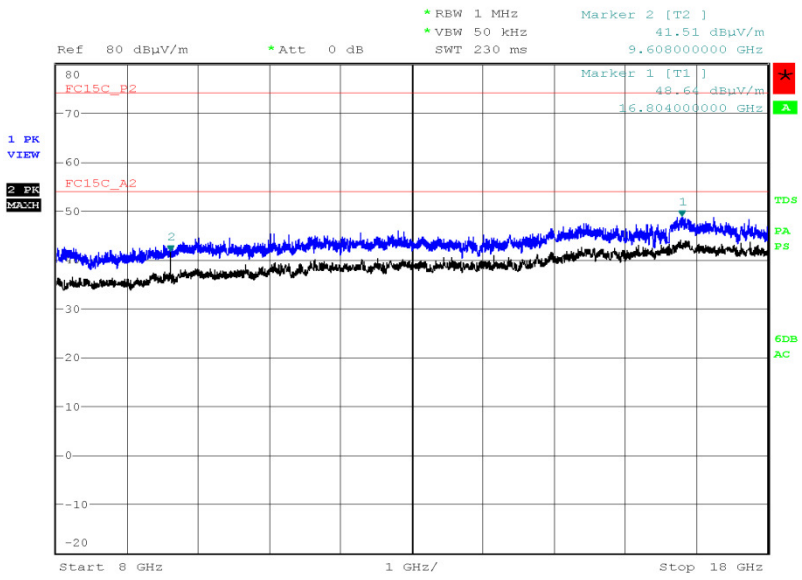
Product Service

Bluetooth, 2402 MHz, DH5, 3 GHz to 8 GHz, Spurious Radiated Emissions Plot



Date: 13.JUN.2016 17:51:23

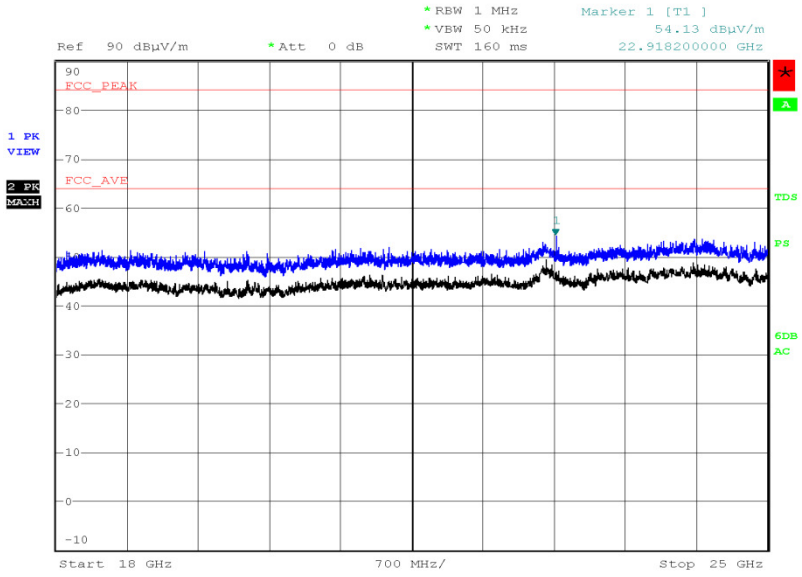
Bluetooth, 2402 MHz, DH5, 8 GHz to 18 GHz , Spurious Radiated Emissions Plot



Date: 13.JUN.2016 21:39:09

Product Service

Bluetooth, 2402 MHz, DH5, 18 GHz to 25 GHz, Spurious Radiated Emissions Plot



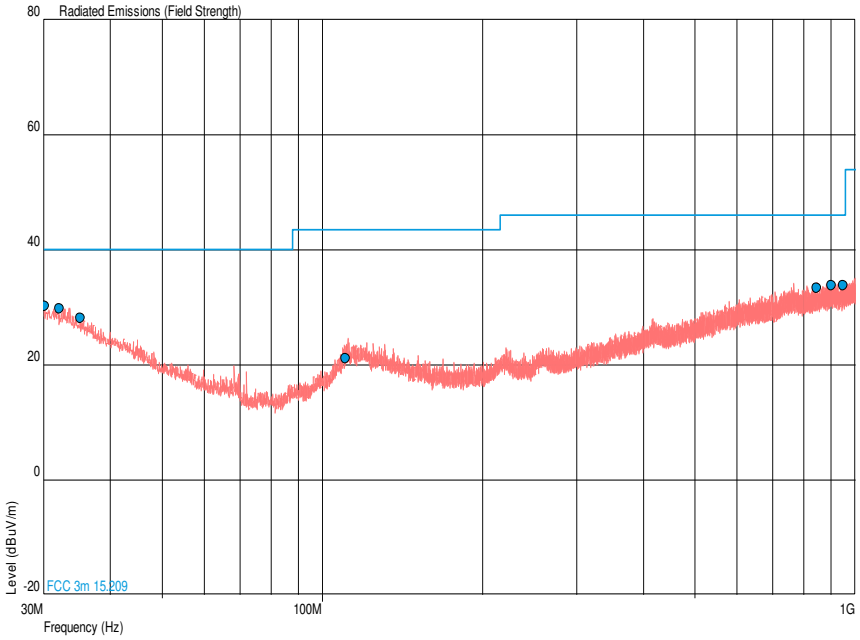
Date: 13.JUN.2016 23:23:50

Product Service

Bluetooth, 2441 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	QP Level (dBµV/m)	QP Margin (dBµV/m)	QP Level (µV/m)	QP Margin (µV/m)	Angle (°)	Height (m)	Polarisation
30.194	30.2	-9.8	32.4	-67.6	180	1.00	Horizontal
32.183	29.8	-10.2	30.9	-69.1	0	1.00	Horizontal
35.190	28.2	-11.8	25.7	-74.3	180	1.00	Horizontal
110.510	21.2	-22.3	11.5	-138.5	180	1.00	Horizontal
847.371	33.3	-12.7	46.2	-153.8	180	1.00	Horizontal
903.021	33.8	-12.2	49.0	-151.0	180	1.00	Horizontal
950.274	33.9	-12.1	49.5	-150.5	180	1.00	Horizontal

Bluetooth, 2441 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Plot

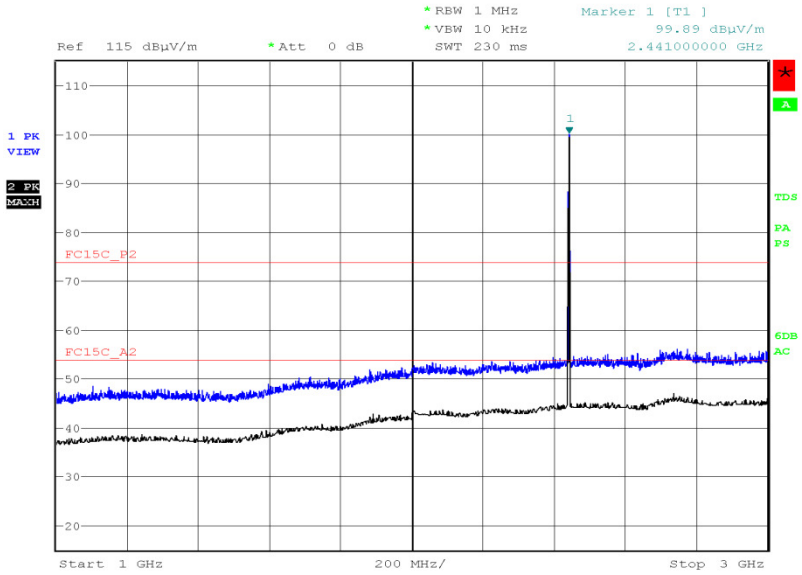


Bluetooth, 2441 MHz, DH5, 1 GHz to 25 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	Final Peak (dBµV/m)	Final Average (dBµV/m)	Final Peak (µV/m)	Final Average (µV/m)	Angle (°)	Height (m)	Polarisation
*							

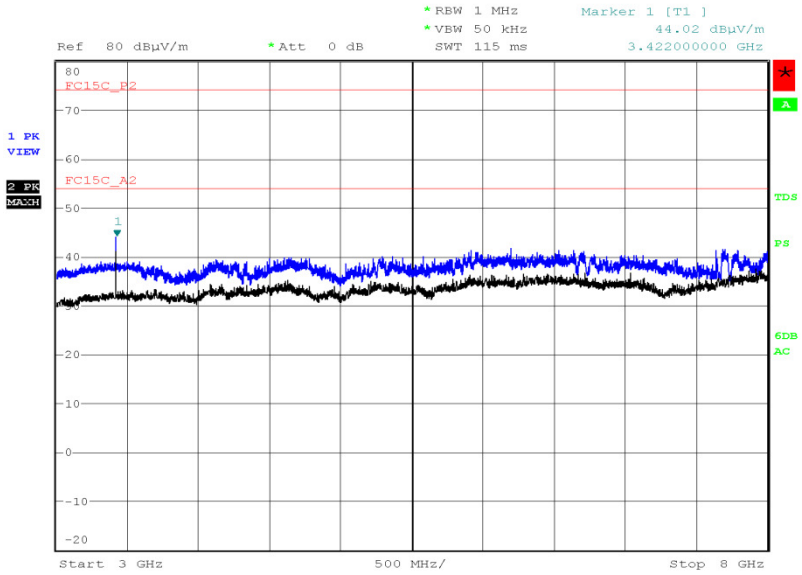
*No emissions were detected within 6 dBof the limit.

Bluetooth, 2441 MHz, DH5, 1 GHz to 3 GHz, Spurious Radiated Emissions Plot



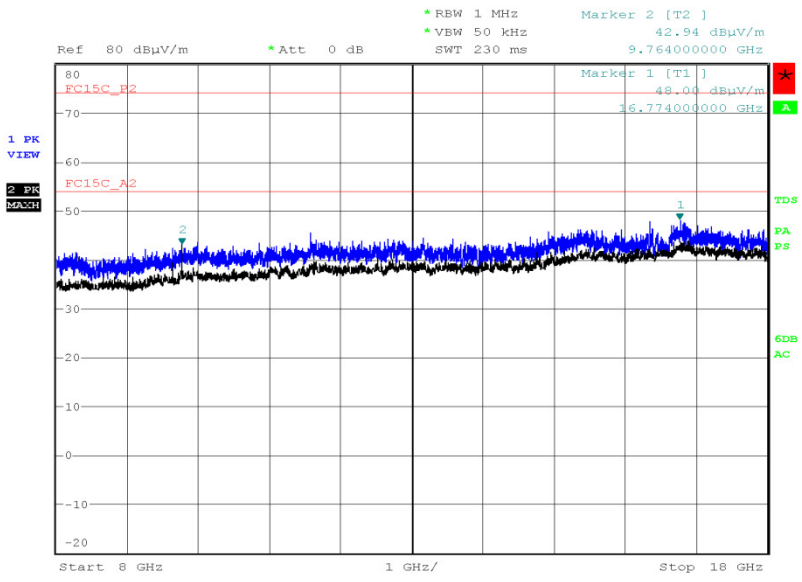
Product Service

Bluetooth, 2441 MHz, DH5, 3 GHz to 8 GHz, Spurious Radiated Emissions Plot



Date: 13.JUN.2016 17:56:16

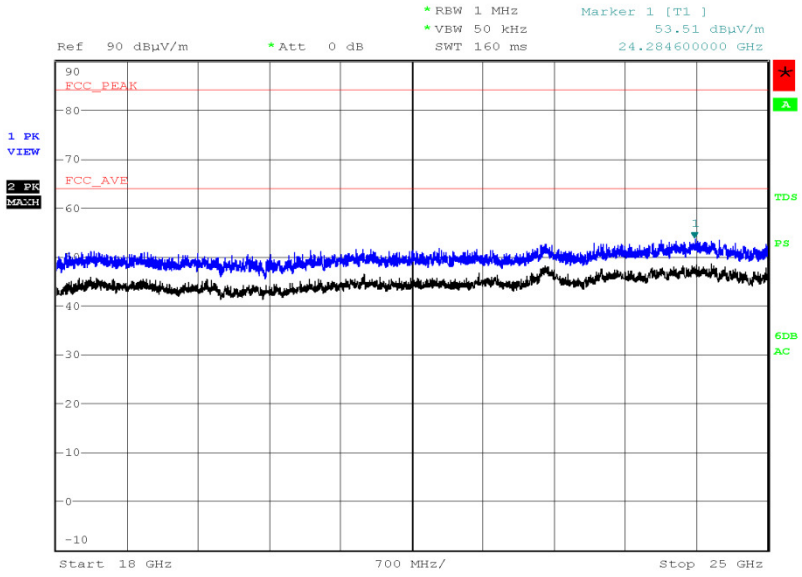
Bluetooth, 2441 MHz, DH5, 8 GHz to 18 GHz , Spurious Radiated Emissions Plot



Date: 13.JUN.2016 21:55:06

Product Service

Bluetooth, 2441 MHz, DH5, 18 GHz to 25 GHz, Spurious Radiated Emissions Plot



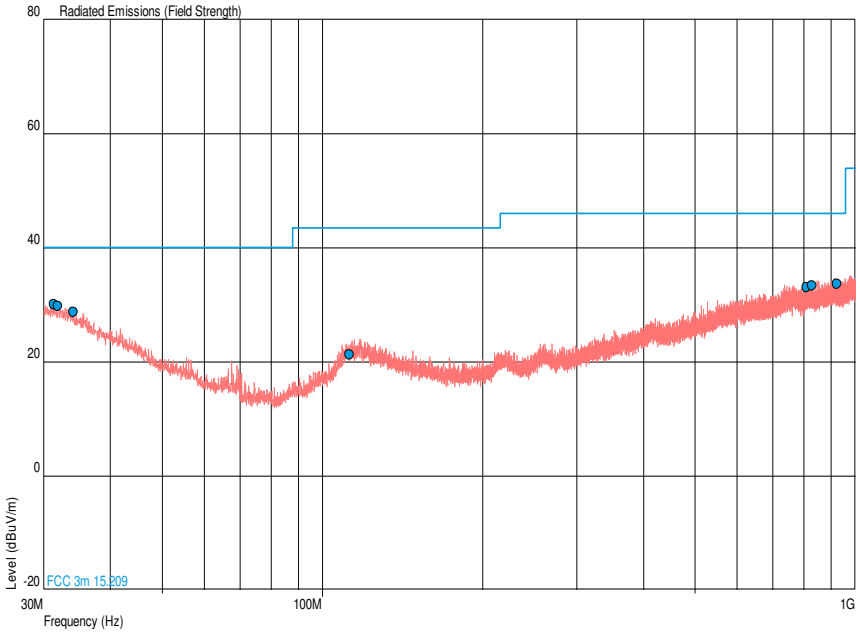
Date: 13.JUN.2016 23:25:55

Product Service

Bluetooth, 2480 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	QP Level (dBµV/m)	QP Margin (dBµV/m)	QP Level (µV/m)	QP Margin (µV/m)	Angle (°)	Height (m)	Polarisation
31.358	30.0	-10.0	31.6	-68.4	0	1.00	Horizontal
31.940	29.8	-10.2	30.9	-69.1	0	1.00	Vertical
34.123	28.8	-11.2	27.5	-72.5	180	1.00	Horizontal
112.353	21.2	-22.3	11.5	-138.5	180	1.00	Horizontal
810.899	33.1	-12.9	45.2	-154.8	0	1.00	Horizontal
831.123	33.4	-12.6	46.8	-153.2	0	1.00	Horizontal
924.680	33.7	-12.3	48.4	-151.6	180	1.00	Horizontal

Bluetooth, 2480 MHz, DH5, 30 MHz to 1 GHz, Spurious Radiated Emissions Plot

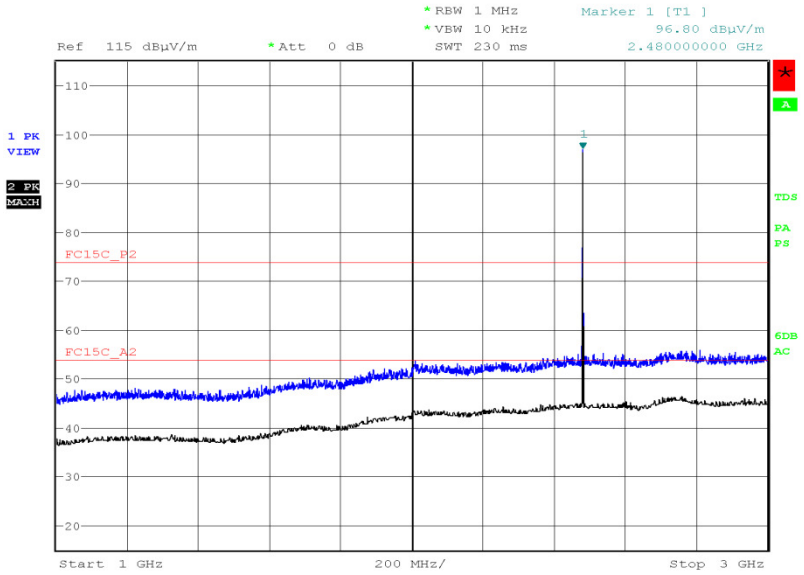


Bluetooth, 2480 MHz, DH5, 1 GHz to 25 GHz, Spurious Radiated Emissions Results

Frequency (MHz)	Final Peak (dBµV/m)	Final Average (dBµV/m)	Final Peak (µV/m)	Final Average (µV/m)	Angle (°)	Height (m)	Polarisation
*							

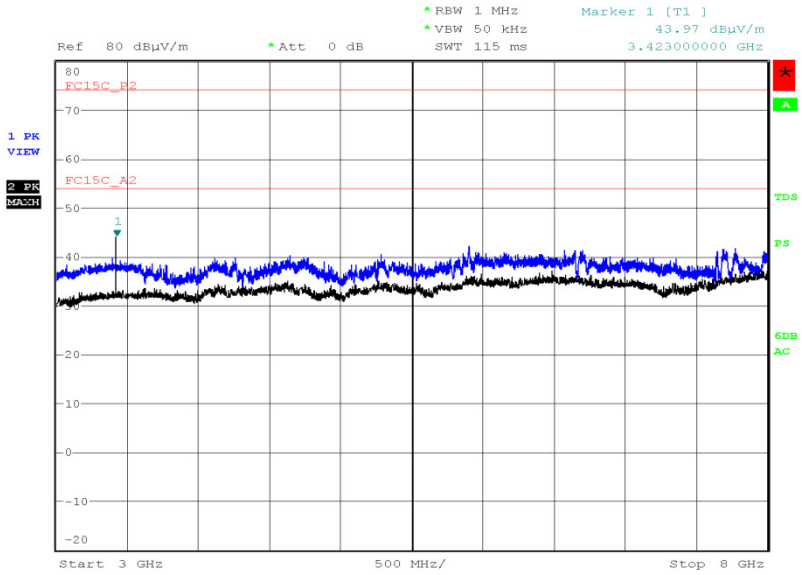
*No emissions were detected within 6 dB of the limit.

Bluetooth, 2480 MHz, DH5, 1 GHz to 3 GHz, Spurious Radiated Emissions Plot



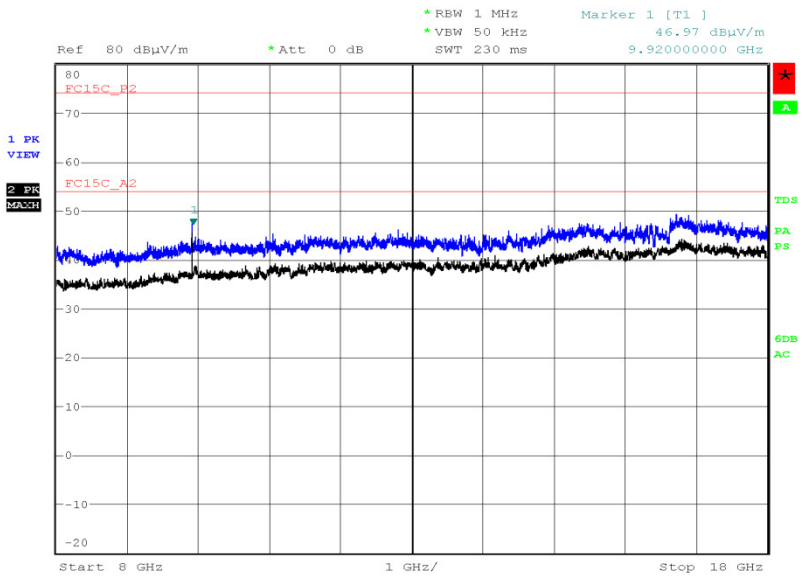
Product Service

Bluetooth, 2480 MHz, DH5, 3 GHz to 8 GHz, Spurious Radiated Emissions Plot



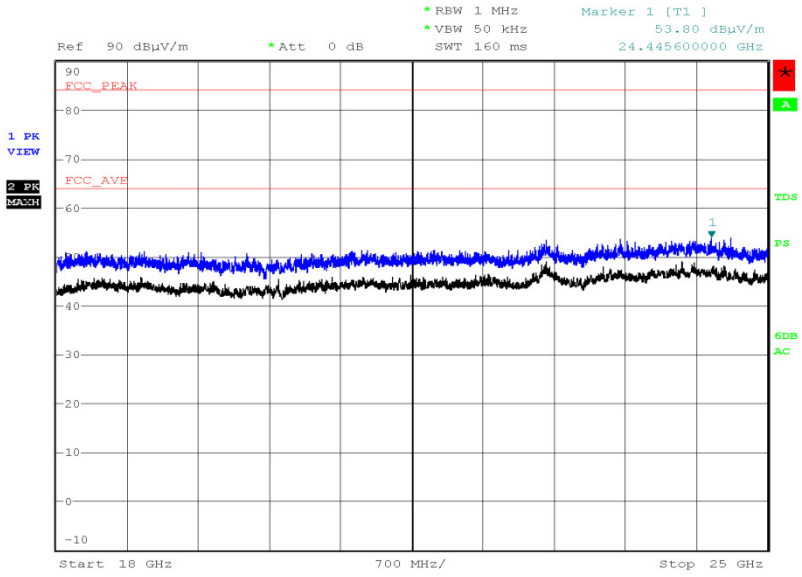
Date: 13.JUN.2016 18:02:16

Bluetooth, 2480 MHz, DH5, 8 GHz to 18 GHz , Spurious Radiated Emissions Plot



Date: 13.JUN.2016 21:59:36

Bluetooth, 2480 MHz, DH5, 18 GHz to 25 GHz, Spurious Radiated Emissions Plot



FCC 47 CFR Part 15, Limit Clause 15.247 (d)

Emissions outside the restricted bands shall be at least 20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

FCC 47 CFR Part 15, Limit Clause 15.205

	Peak (dBµV/m)	Average (dBµV/m)
Restricted Bands of Operation	74	54

FCC 47 CFR Part 15, Limit Clause 15.209

Frequency (MHz)	Field Strength			Measurement Distance (m)
	(µV/m)	Average (dBµV/m)	Peak (dBµV/m)	
30-88	100	40.0	60.0	3
88-216	150	43.5	63.5	3
216-960	200	46.0	66.0	3
Above 960	500	54.0	74.0	3

2.8 RESTRICTED BAND EDGES

2.8.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.205

2.8.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813590 - Modification State 0

2.8.3 Date of Test

12 June 2016

2.8.4 Test Equipment Used

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

2.8.5 Test Procedure

Testing was performed in accordance with ANSI C63.10, clause 6.10.5

Remarks

Plots for average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.3
Final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2

2.8.6 Environmental Conditions

Ambient Temperature	19.4°C
Relative Humidity	62.0%

Product Service

2.8.7 Test Results

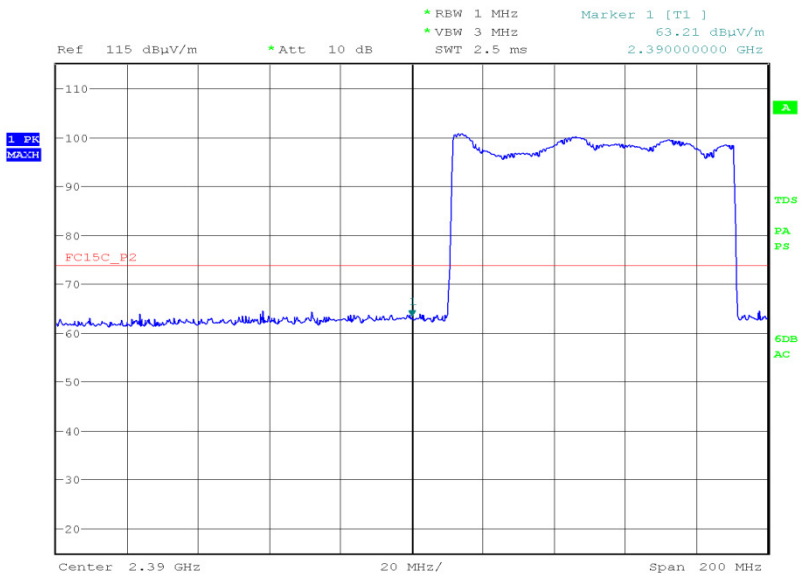
4.0 V DC Supply

Hopping Mode

Bluetooth, GFSK, Restricted Band Edges Results

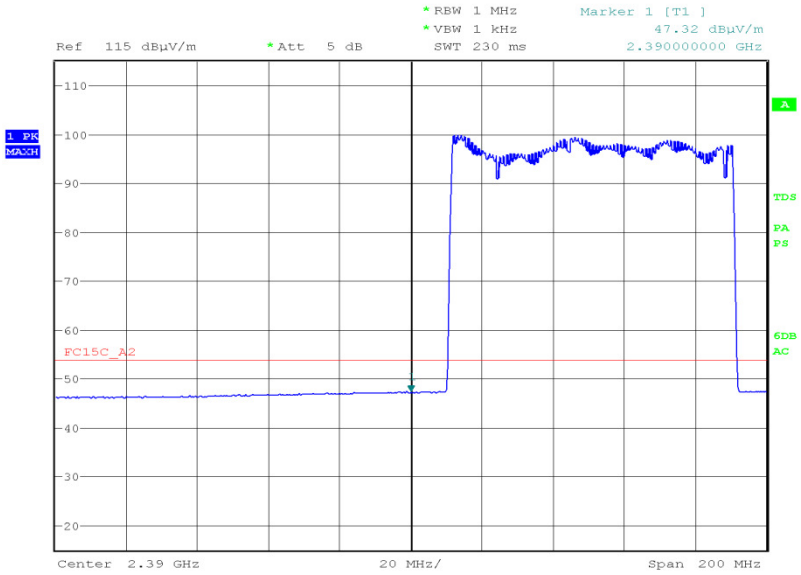
2402 MHz		2480 MHz	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
63.21	46.25	63.77	46.31

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, GFSK, Final Peak, Restricted Band Edges Plot

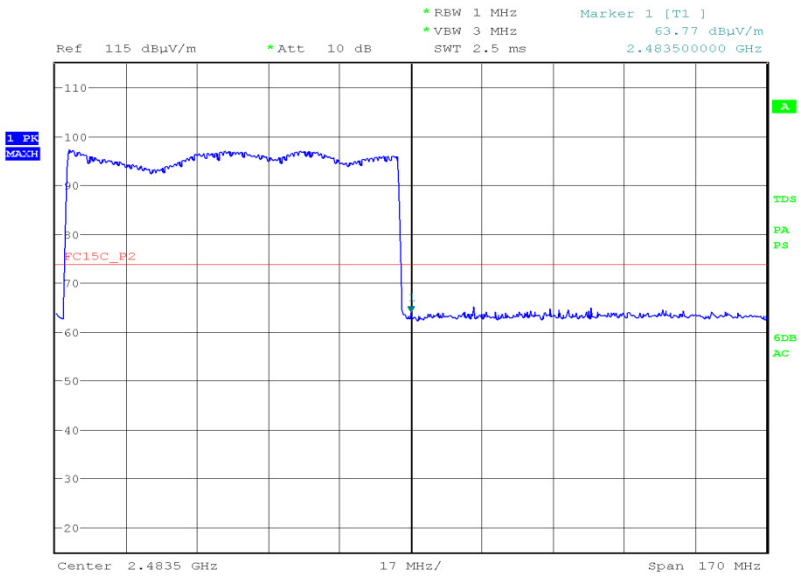


Date: 12.JUN.2016 13:06:24

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, GFSK, Final Average, Restricted Band Edges Plot

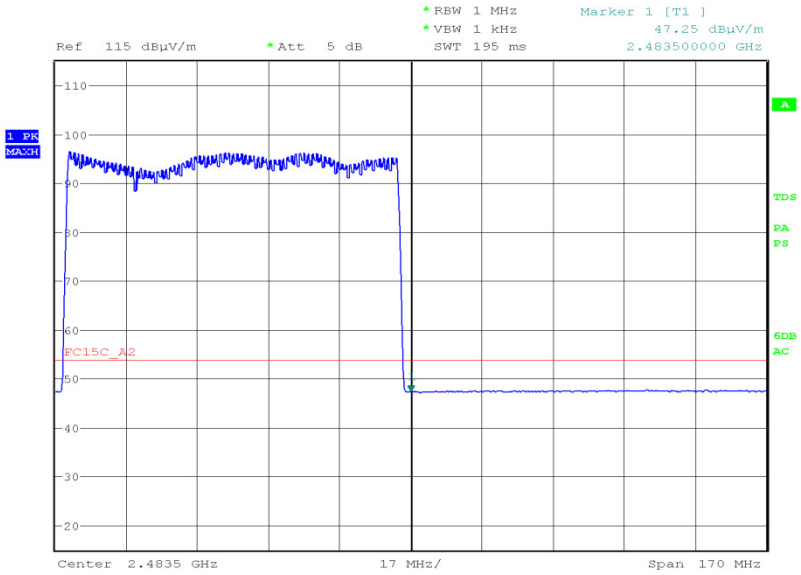


Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, GFSK, Final Peak, Restricted Band Edges Plot



Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, GFSK, Final Average, Restricted Band Edges Plot



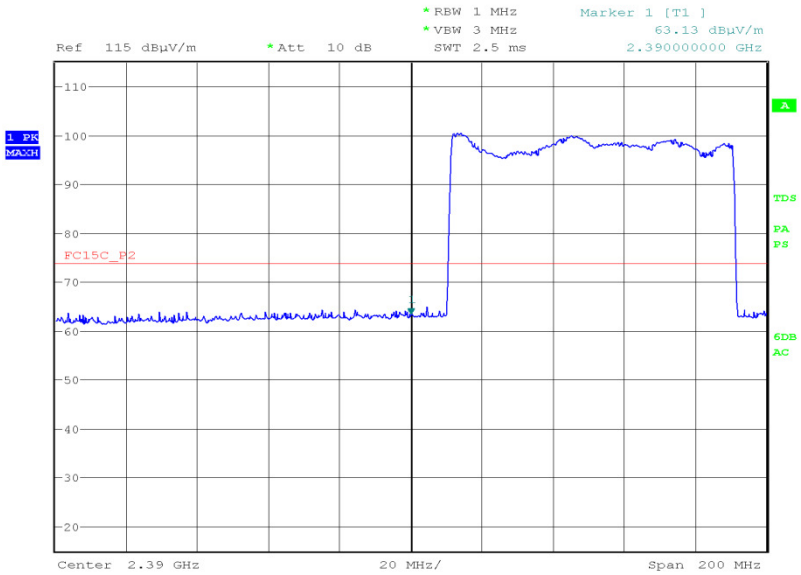
Date: 12.JUN.2016 12:58:58

Product Service

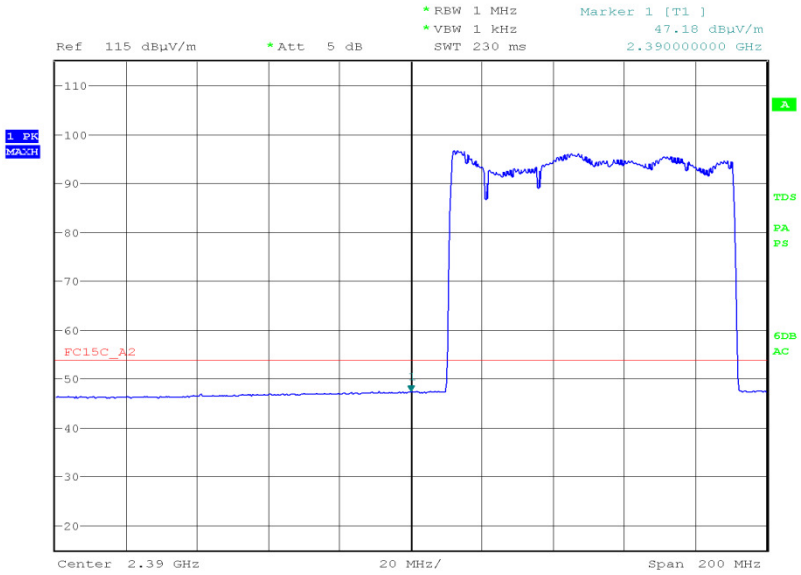
Bluetooth, pi/4 DQPSK, Restricted Band Edges Results

2402 MHz		2480 MHz	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
63.13	46.30	63.06	46.32

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, pi/4 DQPSK, Final Peak, Restricted Band Edges Plot

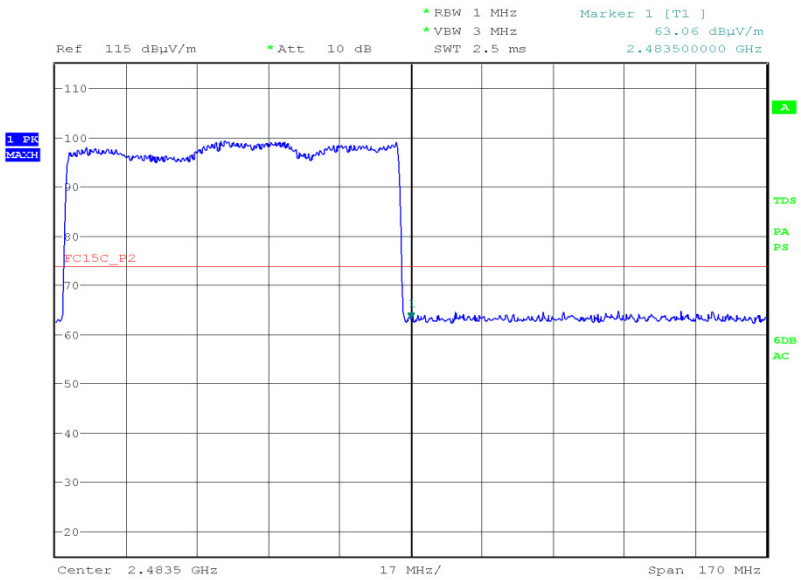


Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, pi/4 DQPSK, Final Average, Restricted Band Edges Plot



Date: 12.JUN.2016 13:16:26

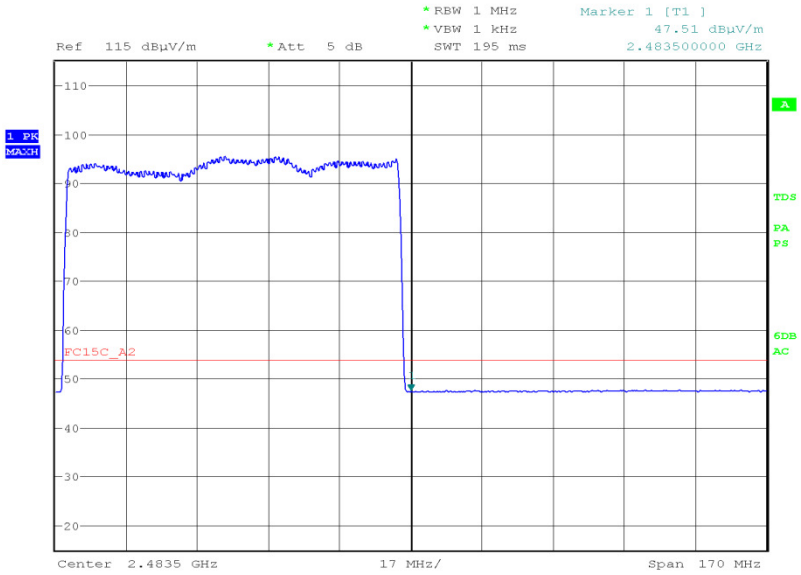
Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, pi/4 DQPSK, Final Peak, Restricted Band Edges Plot



Date: 12.JUN.2016 13:30:41

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, pi/4 DQPSK, Final Average, Restricted Band Edges Plot

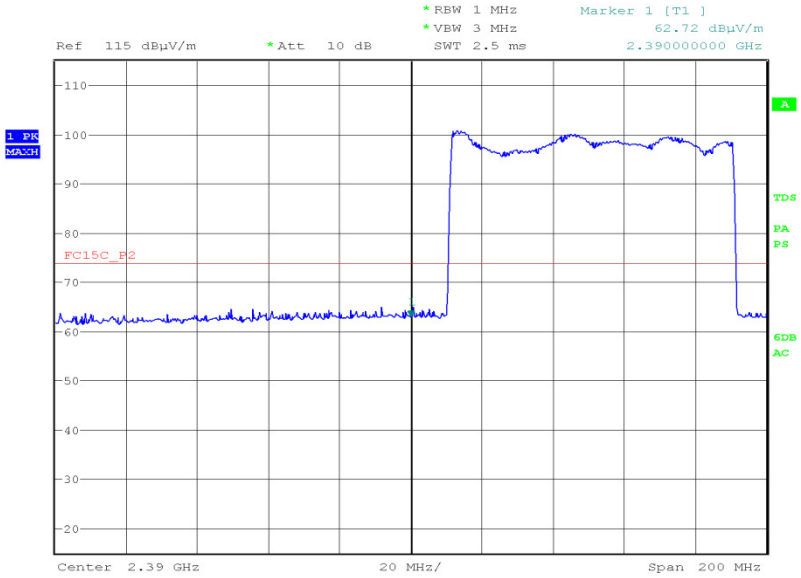


Date: 12.JUN.2016 13:32:50

Bluetooth, 8-DPSK, Restricted Band Edges Results

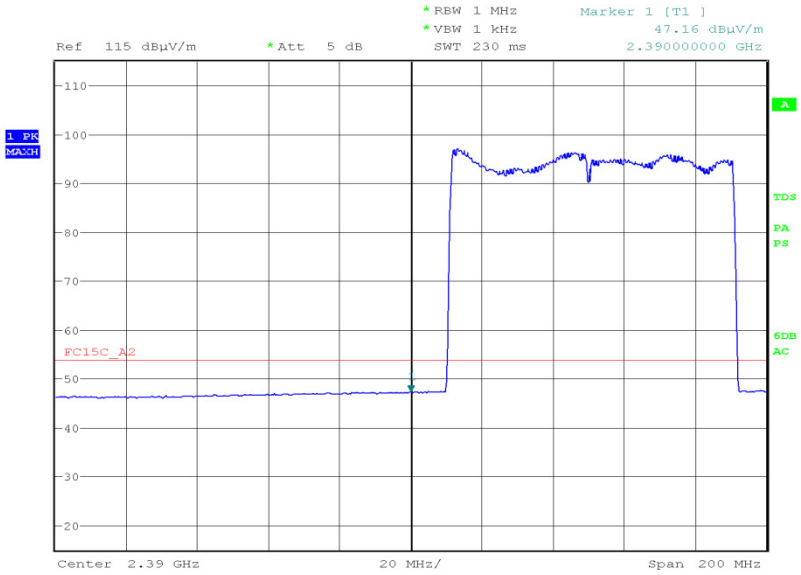
2402 MHz		2480 MHz	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
62.72	46.28	63.70	46.42

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, 8-DPSK, Final Peak, Restricted Band Edges Plot



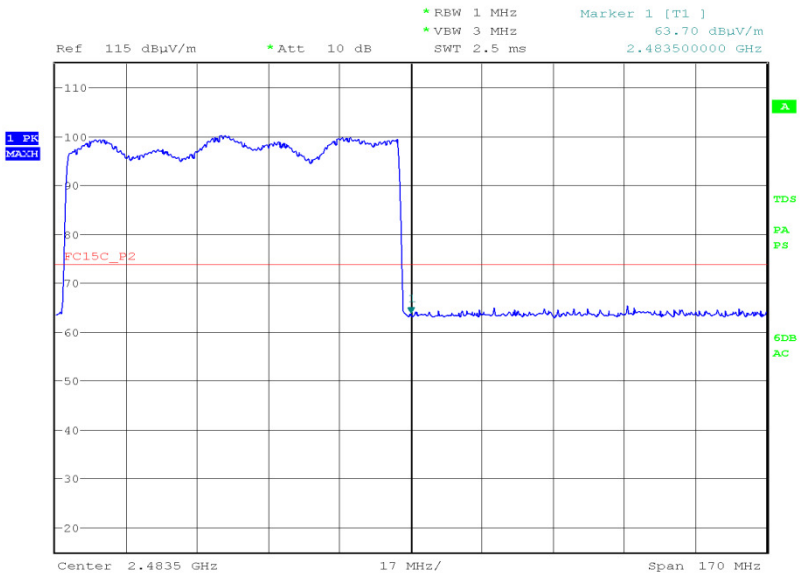
Product Service

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, 8-DPSK, Final Average, Restricted Band Edges Plot



Date: 12.JUN.2016 14:01:27

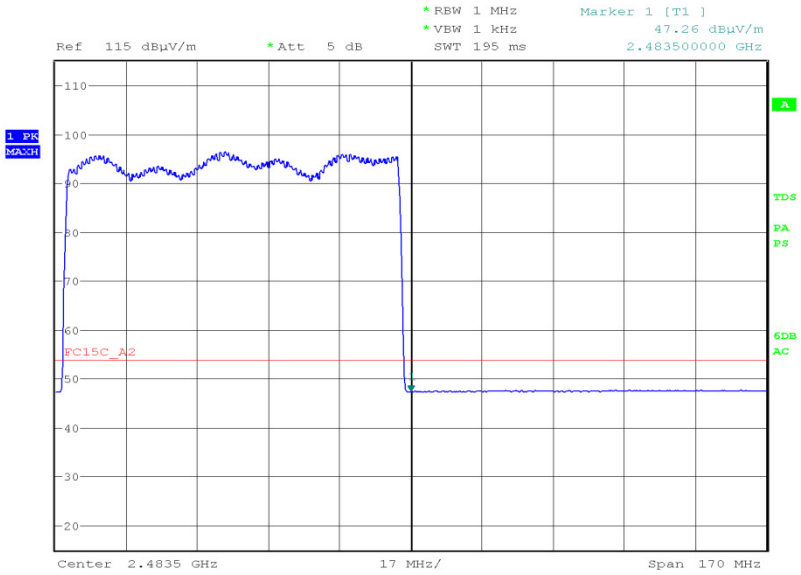
Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, 8-DPSK, Final Peak, Restricted Band Edges Plot



Date: 12.JUN.2016 14:12:10

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, 8-DPSK, Final Average, Restricted Band Edges Plot



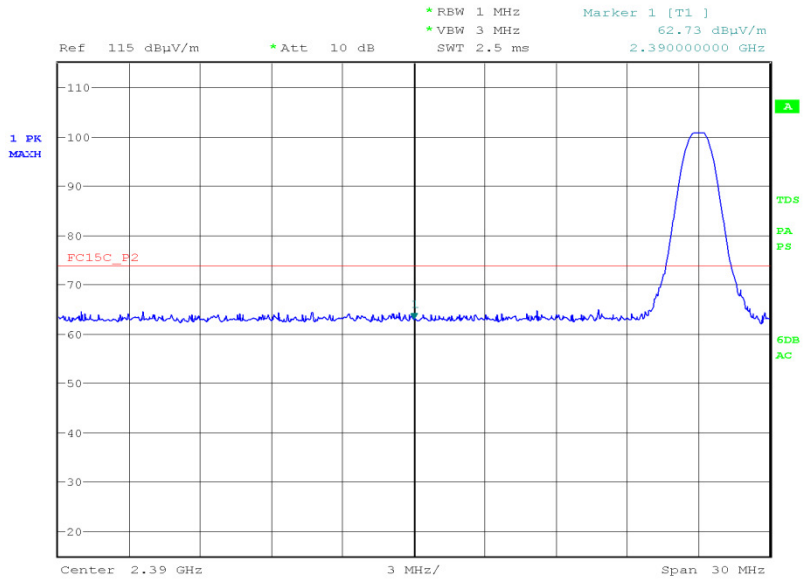
Date: 12.JUN.2016 14:14:24

Static Mode

Bluetooth, GFSK, Restricted Band Edges Results

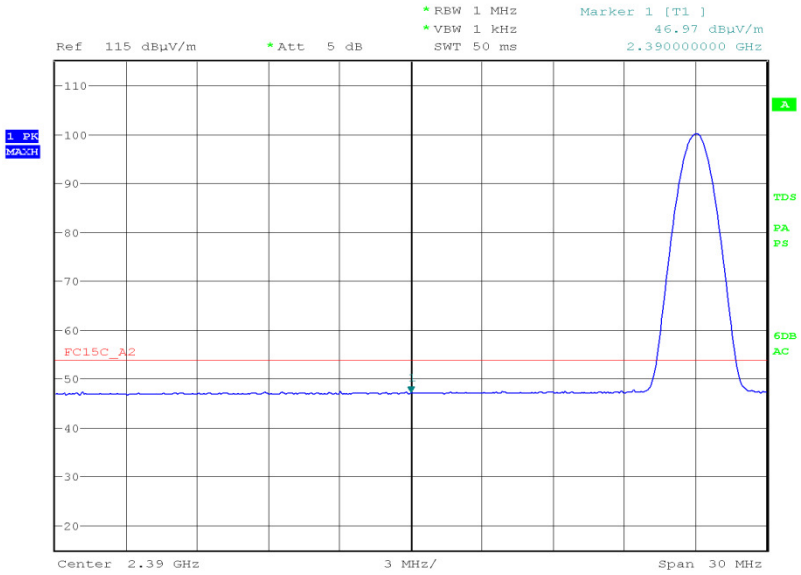
2402 MHz		2480 MHz,	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
62.73	46.05	61.82	46.38

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, GFSK, Final Peak, Restricted Band Edges Plot



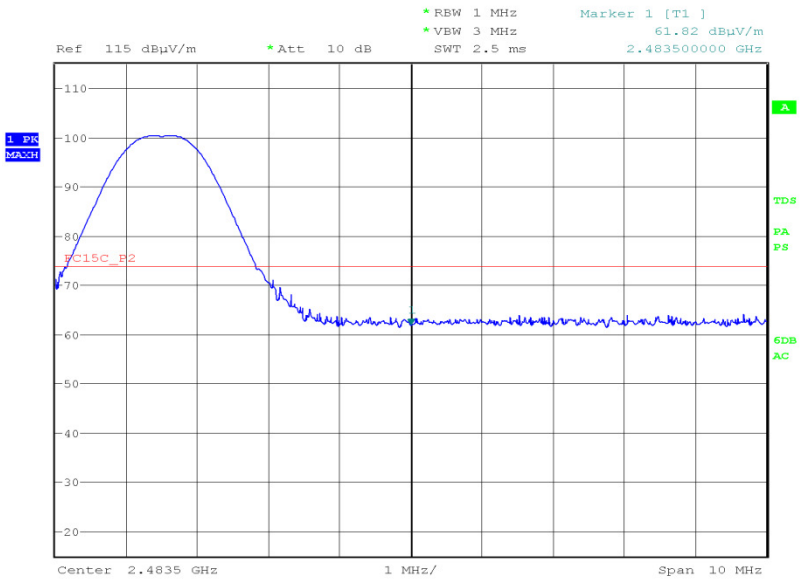
Product Service

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, GFSK, Final Average, Restricted Band Edges Plot



Date: 12.JUN.2016 10:39:43

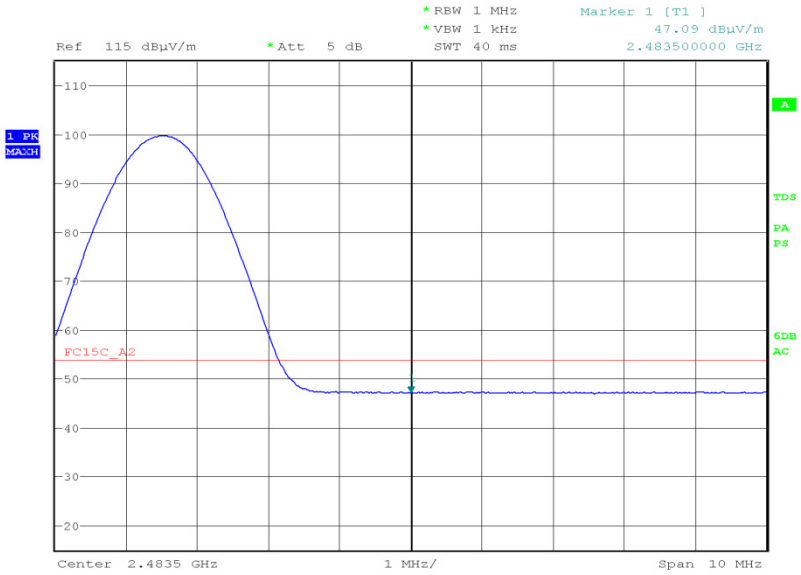
Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, GFSK, Final Peak, Restricted Band Edges Plot



Date: 12.JUN.2016 11:00:43

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, GFSK, Final Average, Restricted Band Edges Plot



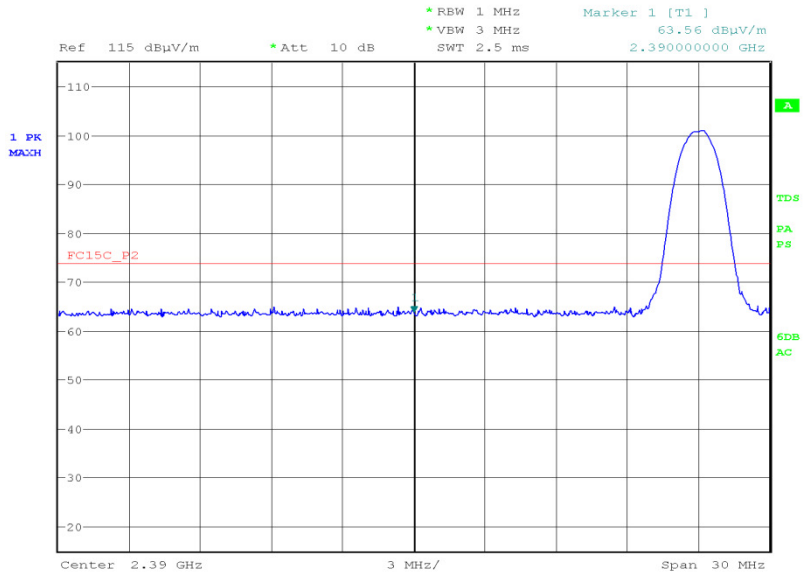
Date: 12.JUN.2016 11:08:46

Product Service

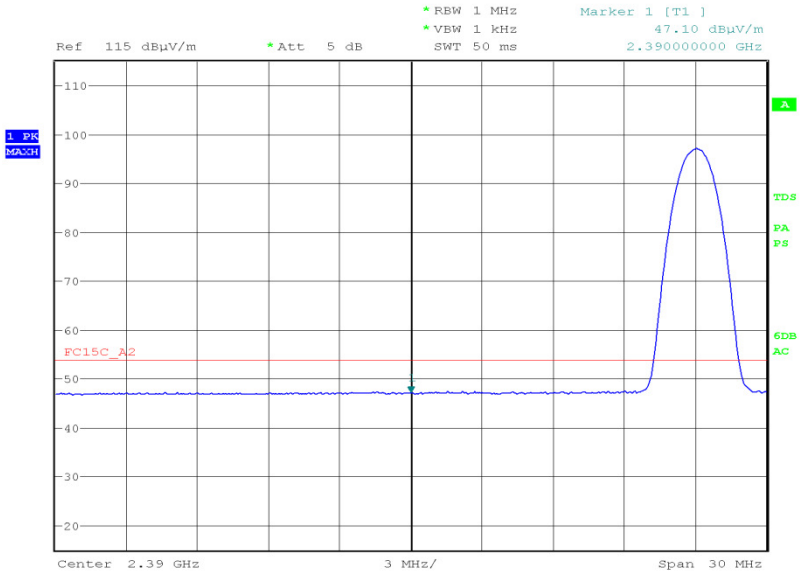
Bluetooth, pi/4 DQPSK, Restricted Band Edges Results

2402 MHz		2480 MHz,	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
63.56	46.20	62.81	46.36

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, pi/4 DQPSK, Final Peak, Restricted Band Edges Plot

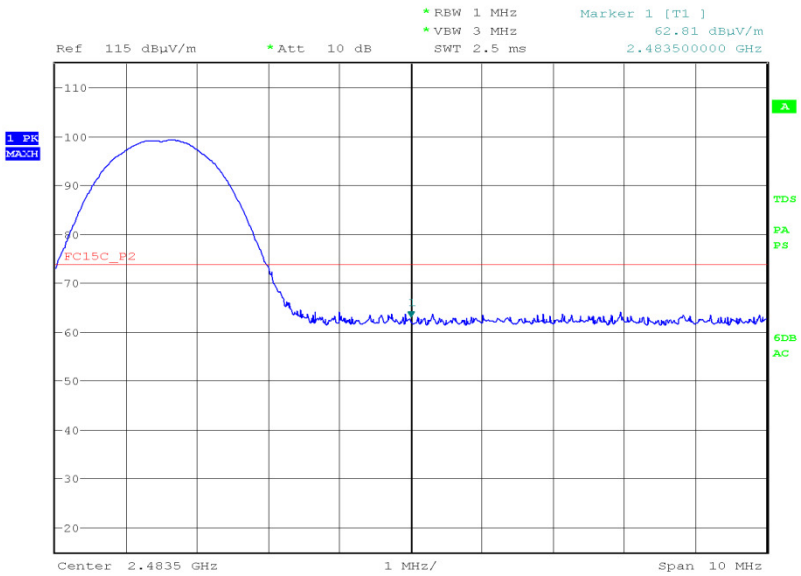


Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, pi/4 DQPSK, Final Average, Restricted Band Edges Plot



Date: 12.JUN.2016 11:39:52

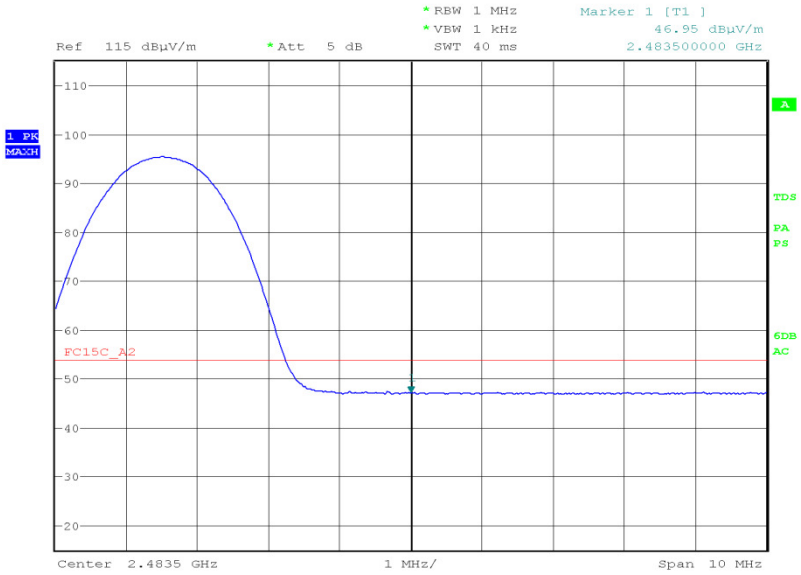
Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, pi/4 DQPSK, Final Peak, Restricted Band Edges Plot



Date: 12.JUN.2016 11:48:19

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, pi/4 DQPSK, Final Average, Restricted Band Edges Plot



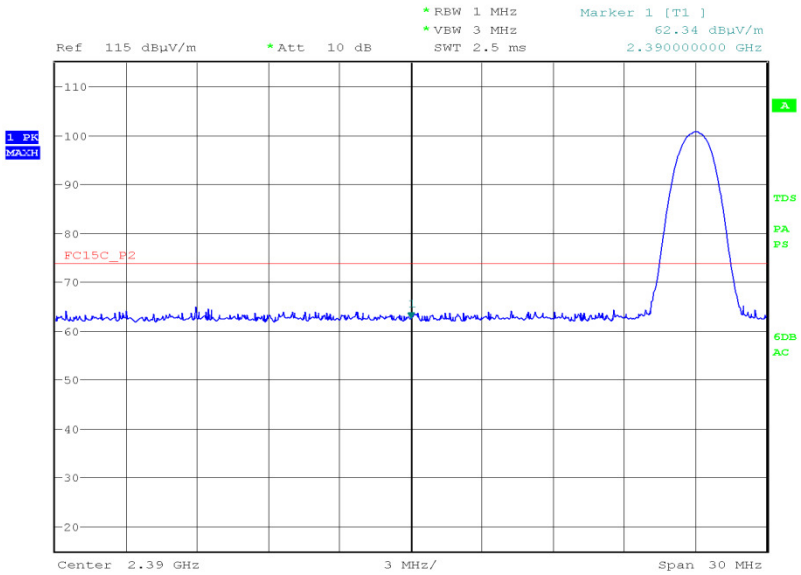
Date: 12.JUN.2016 11:48:51

Product Service

Bluetooth, 8-DPSK, Restricted Band Edges Results

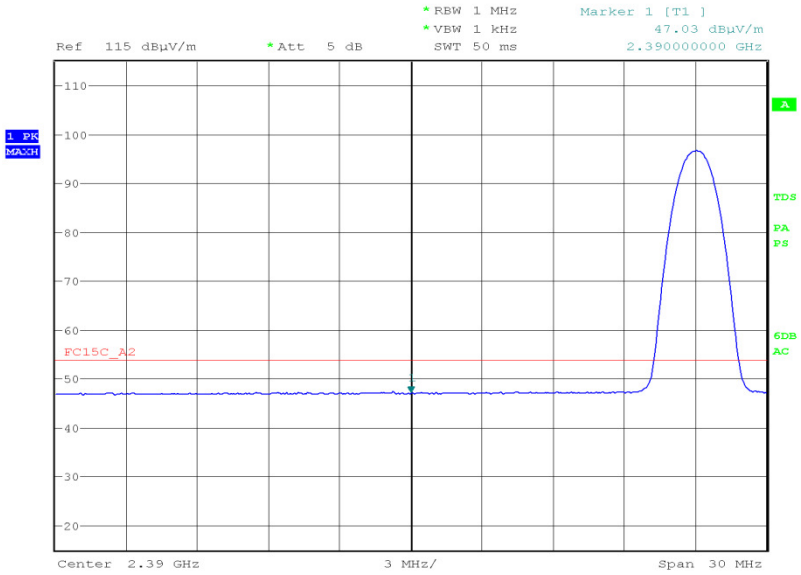
2402 MHz		2480 MHz	
Measured Frequency 2390 MHz		Measured Frequency 2483.5 MHz	
dBµV/m		dBµV/m	
Final Peak	Final Average	Final Peak	Final Average
62.34	46.21	63.54	46.37

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, 8-DPSK, Final Peak, Restricted Band Edges Plot



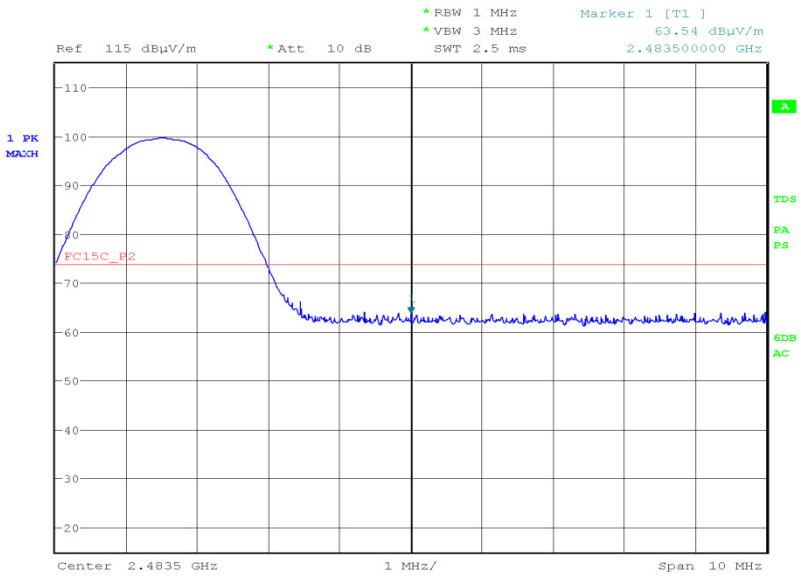
Product Service

Bluetooth, 2402 MHz, Measured Frequency 2390 MHz, 8-DPSK, Final Average, Restricted Band Edges Plot



Date: 12.JUN.2016 12:04:37

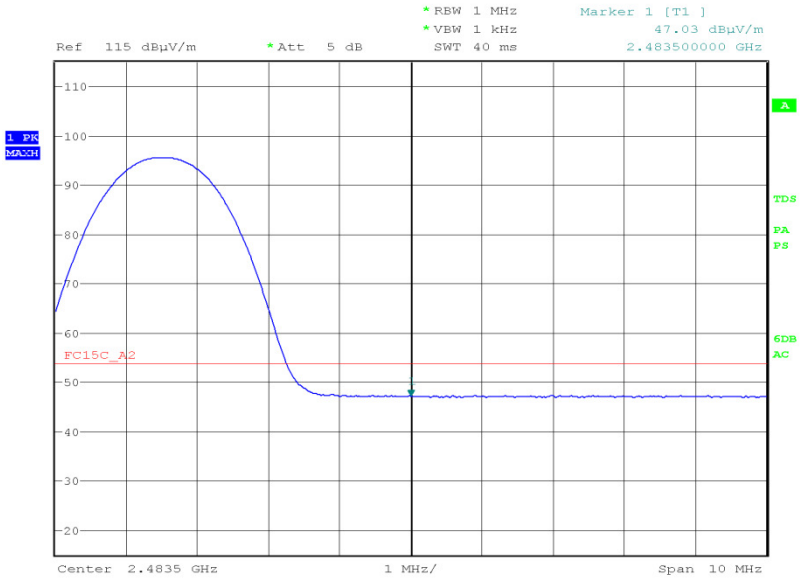
Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, 8-DPSK, Final Peak, Restricted Band Edges Plot



Date: 12.JUN.2016 12:12:23

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.5 MHz, 8-DPSK, Final Average, Restricted Band Edges Plot



Remarks

Final average results shown in the tables above were recorded using a CISPR average detector as described in ANSI C63.10 clause 4.1.2. In order to determine the maximum emissions with the restricted band near the band edge, the method described in ANSI C63.10 clause 6.10.5.2 has been used and these plots are included in the report

Testing was perfomed on the bottom and top channels using GFSK modulation because this was the modulation which produced the highest level of conducted average power.

Testing was performed on the bottom channel using pi/4 DQPSK modulation because this was the modulation which produced the widest value of 20 dB bandwidth.

Testing was performed on the top channel using 8-DPSK modulation because this was the modulation which produced the widest value of 20 dB bandwidth.

FCC 47 CFR Part 15, Limit Clause 15.205

	Peak (dBµV/m)	Average (dBµV/m)
Restricted Bands of Operation	74	54

2.9 AUTHORISED BAND EDGES

2.9.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)

2.9.2 Equipment Under Test and Modification State

S/N: IMEI 004401115813590 - Modification State 0

2.9.3 Date of Test

12 June 2016

2.9.4 Test Equipment Used

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

2.9.5 Test Procedure

Testing was performed in accordance with ANSI C63.10, clause 6.10.4

2.9.6 Environmental Conditions

Ambient Temperature	19.4°C
Relative Humidity	62.0%

Product Service

2.9.7 Test Results

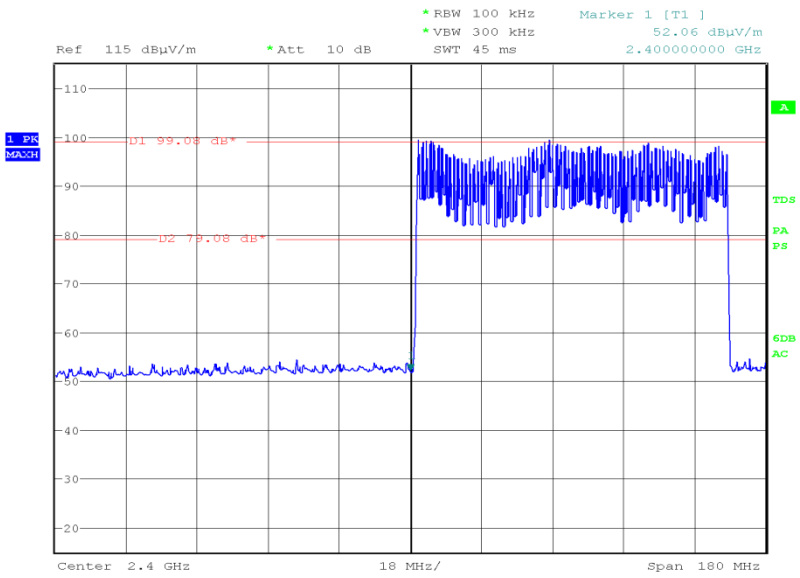
4.0 V DC Supply

Hopping Mode

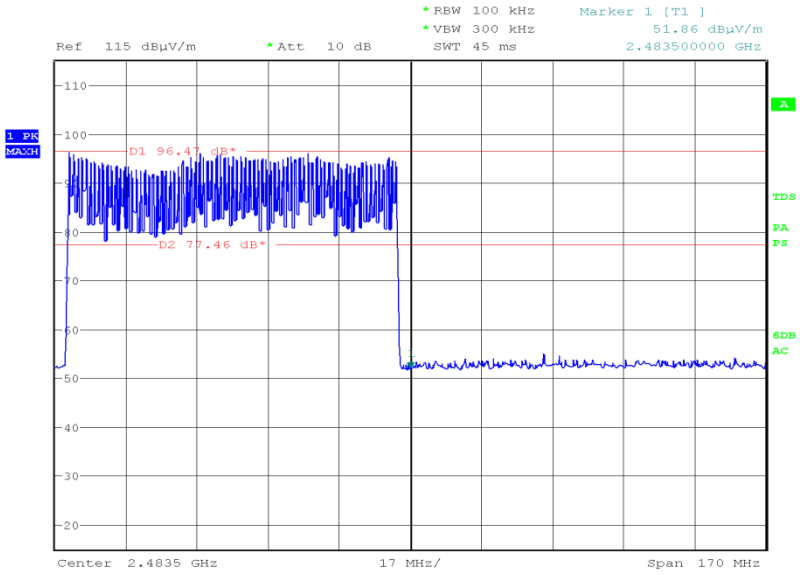
Bluetooth, GFSK, Authorised Band Edges Results

2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
52.06	51.86

Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, GFSK, Final Peak, Authorised Band Edges Plot



Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, GFSK, Final Peak, Authorised Band Edges Plot

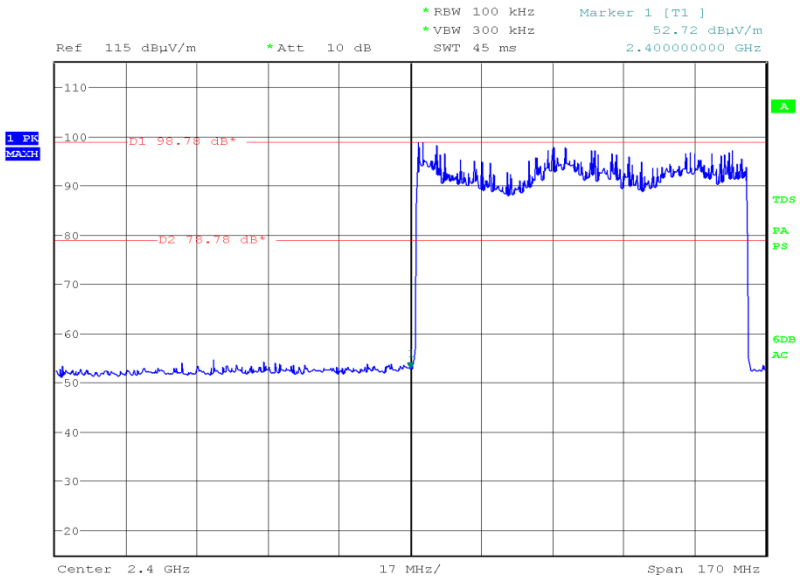


Product Service

Bluetooth, pi/4 DQPSK, Authorised Band Edges Results

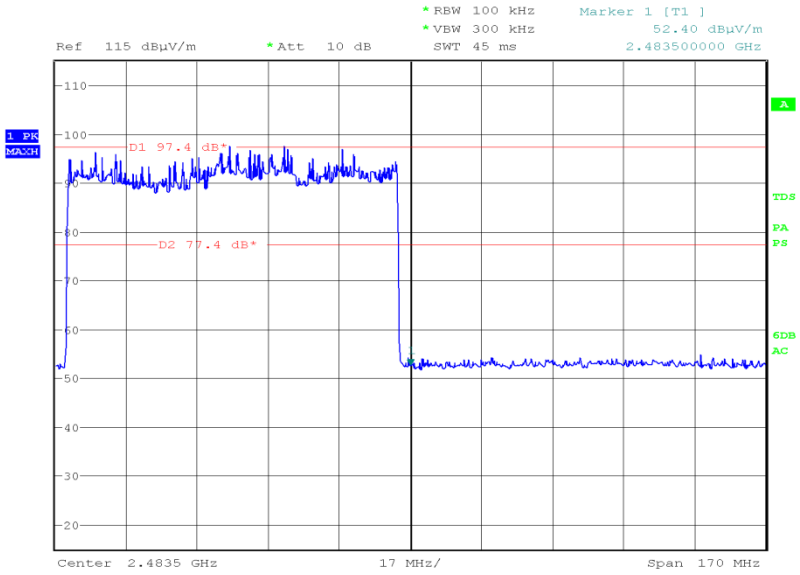
2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
52.72	52.40

Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, pi/4 DQPSK, Final Peak, Authorised Band Edges Plot



Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, pi/4 DQPSK, Final Peak, Authorised Band Edges Plot



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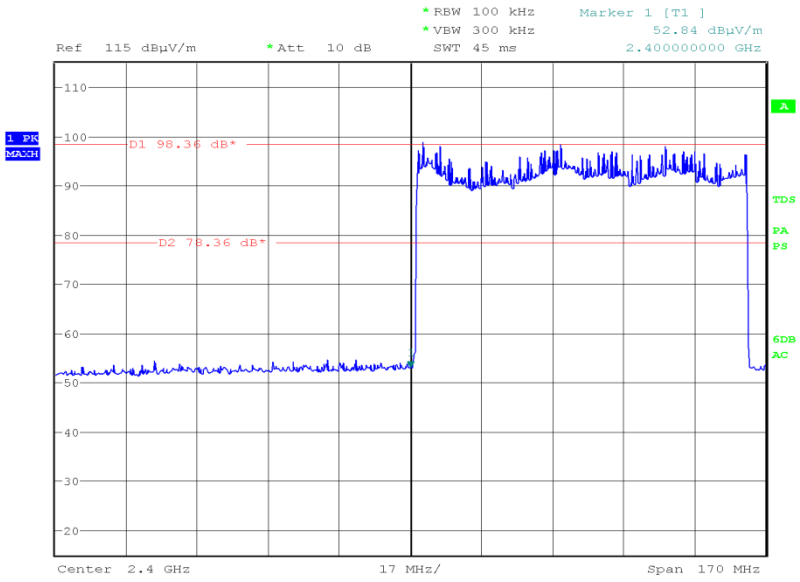
Product Service

Bluetooth, 8-DPSK, Authorised Band Edges Results

2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
52.84	53.05

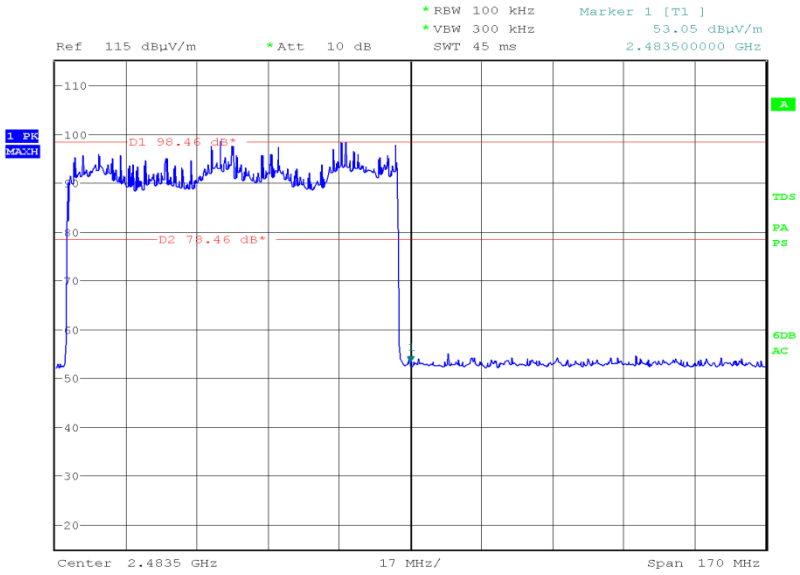
Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, 8-DPSK, Final Peak, Authorised Band Edges Plot



Date: 12.JUN.2016 13:57:58

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, 8-DPSK, Final Peak, Authorised Band Edges Plot

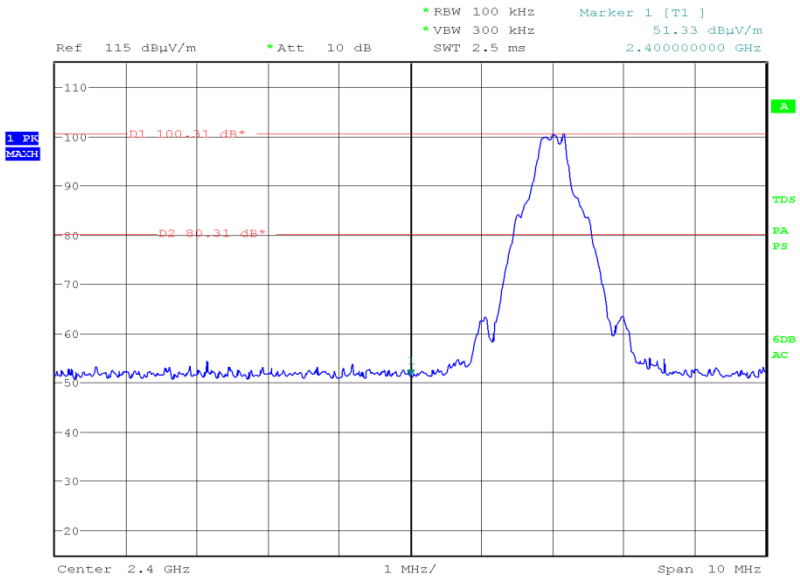


Static Mode

Bluetooth, GFSK, Authorised Band Edges Results

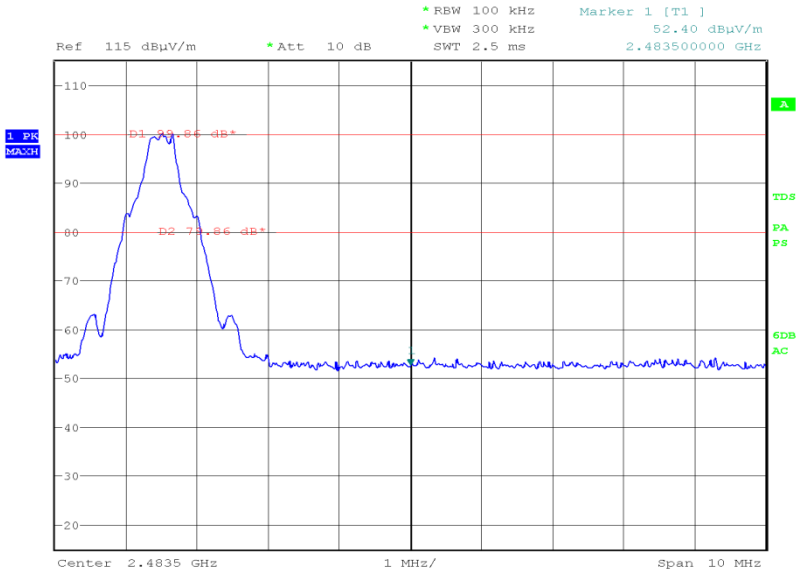
2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
51.33	52.40

Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, GFSK, Final Peak, Authorised Band Edges Plot



Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, GFSK, Final Peak, Authorised Band Edges Plot

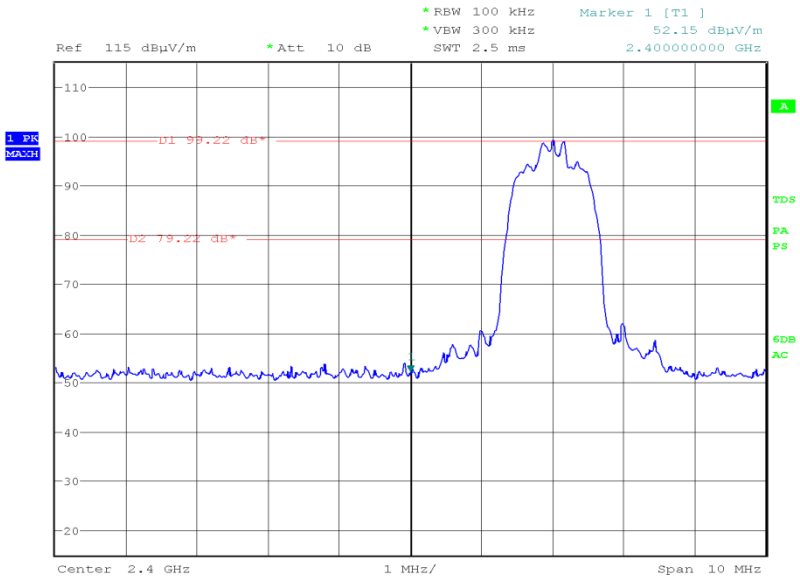


Date: 12.JUN.2016 11:06:11

Bluetooth, pi/4 DQPSK, Authorised Band Edges Results

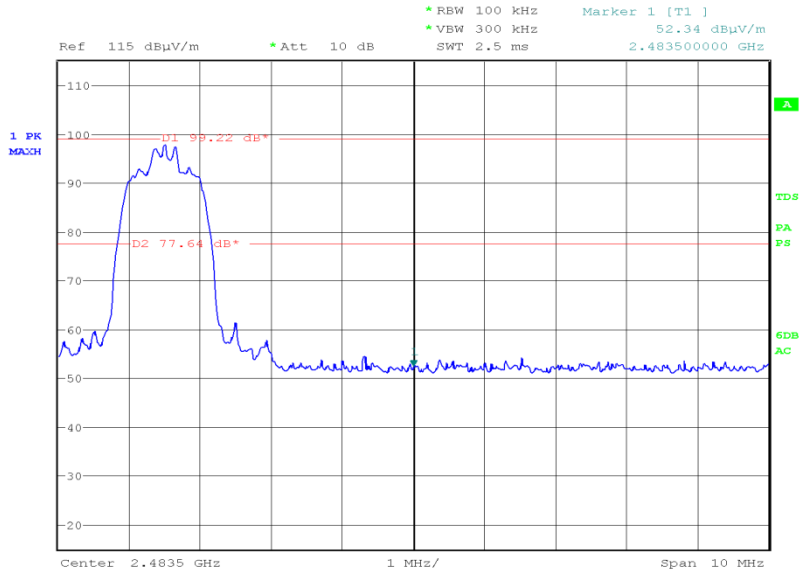
2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
52.15	52.34

Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, pi/4 DQPSK, Final Peak, Authorised Band Edges Plot



Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, pi/4 DQPSK, Final Peak, Authorised Band Edges Plot

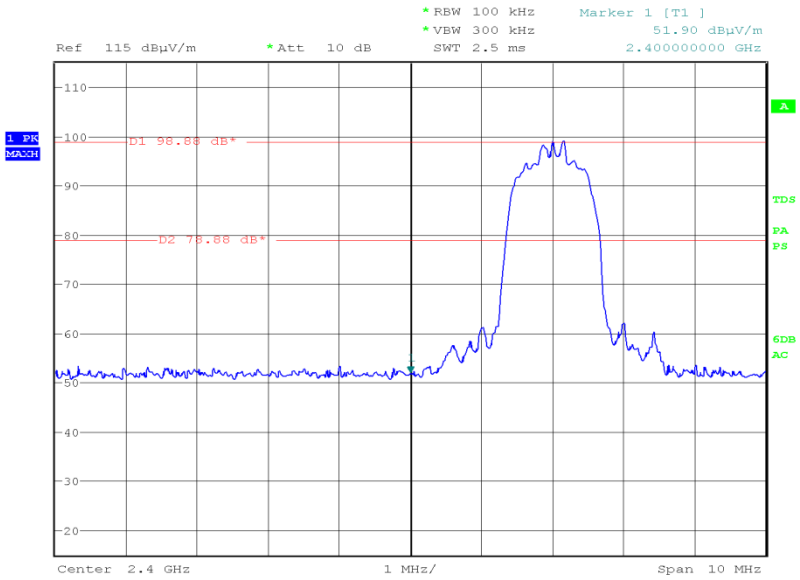


Date: 12.JUN.2016 11:46:57

Bluetooth, 8-DPSK, Authorised Band Edges Results

2402 MHz	2480 MHz
Measured Frequency 2400.00 MHz	Measured Frequency 2483.50 MHz
dBµV/m	dBµV/m
Final Peak	Final Peak
51.90	51.52

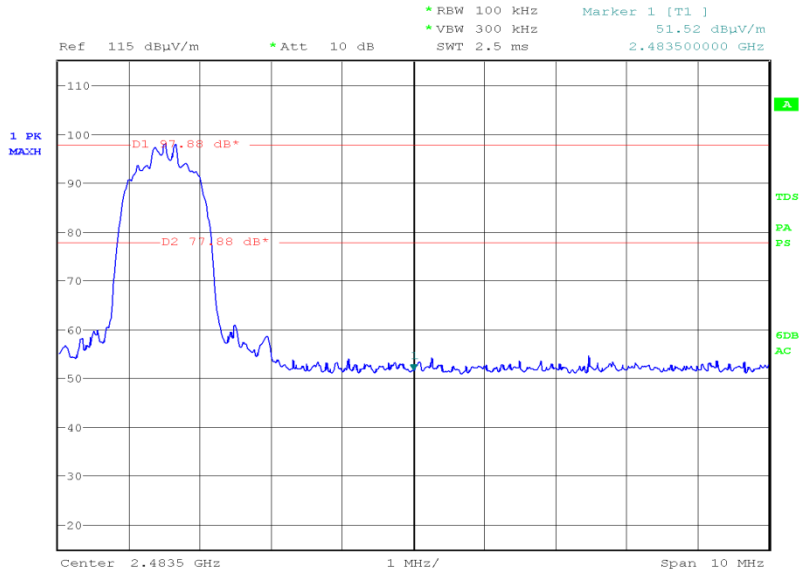
Bluetooth, 2402 MHz, Measured Frequency 2400.00 MHz, 8-DPSK, Final Peak, Authorised Band Edges Plot



Date: 12.JUN.2016 12:06:28

Product Service

Bluetooth, 2480 MHz, Measured Frequency 2483.50 MHz, 8-DPSK, Final Peak, Authorised Band Edges Plot



Remark

Testing was perfomed on the bottom and top channels using GFSK modulation because this was the modulation which produced the highest level of conducted average power.

Testing was performed on the bottom channel using pi/4 DQPSK modulation because this was the modulation which produced the widest value of 20 dB bandwidth.

Testing was performed on the top channel using 8-DPSK modulation because this was the modulation which produced the widest value of 20 dB bandwidth.

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

Product Service

SECTION 3

TEST EQUIPMENT USED

Product Service

3.1 TEST EQUIPMENT USED

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

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.1 – AC Line Conducted Emissions					
LISN	Rohde & Schwarz	ESH2-Z5	17	12	11-Feb-2017
Screened Room (5)	Rainford	Rainford	1545	36	20-Dec-2017
Transient Limiter	Hewlett Packard	11947A	2377	12	16-Feb-2017
Multimeter	Iso-tech	IDM101	2417	12	29-Sep-2016
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	2-Nov-2016
7m Armoured RF Cable	SSI Cable Corp.	1501-13-13-7m WA(-)	3600	-	TU
Hygropalm Temperature and Humidity Meter	Rotronic	HP21	4410	12	27-Apr-2017
Section 2.2 - Frequency Hopping Systems - Number of Hopping Channels					
Power Supply Unit	Farnell	LB30-4	158	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
2 Metre SMA Type Cable	Rhophase	3PS-1801A-2000-3PS	4111	12	6-Nov-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
EMI Receiver	Keysight Technologies	N9038A MXE	4628	12	3-Sep-2016
PXA Signal Analyser	Keysight Technologies	N9030A	4654	12	8-Oct-2016
Section 2.3 - Frequency Hopping Systems - 20 dB Bandwidth					
Power Supply Unit	Farnell	LB30-4	158	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
2 Metre SMA Type Cable	Rhophase	3PS-1801A-2000-3PS	4111	12	6-Nov-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
EMI Receiver	Keysight Technologies	N9038A MXE	4628	12	3-Sep-2016
PXA Signal Analyser	Keysight Technologies	N9030A	4654	12	8-Oct-2016
Section 2.4 - Frequency Hopping Systems - Channel Separation					
Power Supply Unit	Farnell	LB30-4	158	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
2 Metre SMA Type Cable	Rhophase	3PS-1801A-2000-3PS	4111	12	6-Nov-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
EMI Receiver	Keysight Technologies	N9038A MXE	4628	12	3-Sep-2016
PXA Signal Analyser	Keysight Technologies	N9030A	4654	12	8-Oct-2016

Product Service

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.5 - Frequency Hopping Systems - Average Time of Occupancy					
Power Supply Unit	Farnell	LB30-4	158	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
2 Metre SMA Type Cable	Rhophase	3PS-1801A-2000-3PS	4111	12	6-Nov-2016
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Frequency Standard	Spectracom	Secure Sync 1200-0408-0601	4393	6	3-Sep-2016
EMI Receiver	Keysight Technologies	N9038A MXE	4628	12	3-Sep-2016
PXA Signal Analyser	Keysight Technologies	N9030A	4654	12	8-Oct-2016
Section 2.6 - Maximum Conducted Output Power					
Radio Communications Test Set	Rohde & Schwarz	CMU 200	442	12	18-Jan-2017
Power Splitter	Weinschel	1506A	606	12	24-Mar-2017
Programmable Power Supply	Iso-tech	IPS 2010	2435	-	O/P Mon
Hygrometer	Rotronic	I-1000	3220	12	19-Aug-2016
Attenuator (10dB, 20W)	Lucas Weinschel	1	3225	12	16-Dec-2016
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	2-Sep-2016
P-Series Power Meter	Agilent Technologies	N1911A	3981	12	25-Sep-2016
50 MHz-18 GHz Wideband Power Sensor	Agilent Technologies	N1921A	3983	12	25-Sep-2016
TRUE RMS MULTIMETER	Fluke	179	4006	12	9-Dec-2016
Fan Heater	Master	B 3 EPB	4363	-	TU
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	7-Sep-2016
Wideband Radio Test Set	Rohde & Schwarz	CMW500	4546	12	3-Feb-2017
PXA Signal Analyser	Keysight Technologies	N9030A	4654	12	8-Oct-2016
Section x.x Wireless Group - Spurious Radiated Emissions					
Antenna 18-40GHz (Double Ridge Guide)	Link Microtek Ltd	AM180HA-K-TU2	230	24	12-Feb-2018
Hygrometer	Rotronic	A1	1388	12	13-Apr-2017
Pre-Amplifier	Phase One	PS04-0086	1533	12	30-Jul-2016
18GHz - 40GHz Pre-Amplifier	Phase One	PSO4-0087	1534	12	23-Dec-2016
Screened Room (5)	Rainford	Rainford	1545	36	20-Dec-2017
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Antenna (Bilog)	Chase	CBL6143	2904	24	11-Jun-2017
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	2-Nov-2016
9m RF Cable (N Type)	Rhophase	NPS-2303-9000-NPS	3791	-	TU
Tilt Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	TU
Mast Controller	maturo Gmbh	NCD	3917	-	TU
1GHz to 8GHz Low Noise Amplifier	Wright Technologies	APS04-0085	4365	12	6-Oct-2016
Hygropalm Temperature and Humidity Meter	Rotronic	HP21	4410	12	27-Apr-2017
Suspended Substrate Highpass Filter	Advance Power Components	11SH10-3000/X18000-O/O	4412	12	23-Mar-2017
Cable (Yellow, Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4527	-	TU
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	29-Dec-2016

Product Service

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Section 2.8 - Restricted Band Edges					
Hygrometer	Rotronic	A1	1388	12	13-Apr-2017
Screened Room (5)	Rainford	Rainford	1545	36	20-Dec-2017
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	2-Nov-2016
9m RF Cable (N Type)	Rhophase	NPS-2303-9000-NPS	3791	-	TU
Tilt Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	TU
Mast Controller	maturo Gmbh	NCD	3917	-	TU
Hygropalm Temperature and Humidity Meter	Rotronic	HP21	4410	12	27-Apr-2017
Cable (Yellow, Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4527	-	TU
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	29-Dec-2016
Section 2.9 - Authorised Band Edges					
Hygrometer	Rotronic	A1	1388	12	13-Apr-2017
Screened Room (5)	Rainford	Rainford	1545	36	20-Dec-2017
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	2-Nov-2016
9m RF Cable (N Type)	Rhophase	NPS-2303-9000-NPS	3791	-	TU
Tilt Antenna Mast	maturo Gmbh	TAM 4.0-P	3916	-	TU
Mast Controller	maturo Gmbh	NCD	3917	-	TU
Hygropalm Temperature and Humidity Meter	Rotronic	HP21	4410	12	27-Apr-2017
Cable (Yellow, Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4527	-	TU
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	29-Dec-2016

TU – Traceability Unscheduled
O/P MON – Output Monitored with Calibrated Equipment

Product Service

3.2 MEASUREMENT UNCERTAINTY

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

Test Discipline	MU
Frequency Hopping Systems - 20 dB Bandwidth	± 16.74 kHz
Frequency Hopping Systems - Number of Hopping Channels	-
Frequency Hopping Systems - Average Time of Occupancy	-
AC Line Conducted Emissions	± 3.2 dB
Maximum Conducted Output Power	± 0.70 dB
Authorised Band Edges	Conducted: ± 3.08 dB Radiated: 30 MHz to 1 GHz: ± 5.1 dB Radiated: 1 GHz to 40 GHz: ± 6.3 dB
Restricted Band Edges	30 MHz to 1 GHz: ± 5.1 dB 1 GHz to 40 GHz: ± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.1 dB 1 GHz to 40 GHz: ± 6.3 dB
Frequency Hopping Systems - Channel Separation	± 16.74 kHz

Product Service

SECTION 4

ACCREDITATION, DISCLAIMERS AND COPYRIGHT

4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

This report relates only to the actual item/items tested.

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation.

Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited).