FCC RF Test Report

APPLICANT	:	Quectel Wireless Solutions Co., Ltd.
EQUIPMENT	:	Smart Module
BRAND NAME	:	Quectel
MODEL NAME	:	SC668S-NA
FCC ID	:	XMR2022SC668SNA
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System
TEST DATE(S)	:	Apr. 14, 2023

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED
Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China

TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1 GENERAL DESCRIPTION **5**

1.1 Applicant 5
1.2 Manufacturer 5
1.3 Product Feature of Equipment Under Test 5
1.4 Modification of EUT 5
1.5 Testing Location 6
1.6 Test Software 6
1.7 Applicable Standards 6

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **7**

2.1 Test Mode 7
2.2 Connection Diagram of Test System 7
2.3 EUT Operation Test Setup 7
2.4 Radiated Band Edges and Spurious Emission Measurement 8

3 LIST OF MEASURING EQUIPMENT **12**

4 UNCERTAINTY OF EVALUATION **13**

APPENDIX A. RADIATED SPURIOUS EMISSION

APPENDIX B. DUTY CYCLE PLOTS

APPENDIX C. SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR311713A	Rev. 01	Initial issue of report	Apr. 21, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
2.4	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 1.95 dB at 2372.61 MHz

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Applicant

Quectel Wireless Solutions Co., Ltd.
Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

1.2 Manufacturer

Quectel Wireless Solutions Co., Ltd.
Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smart Module
Brand Name	Quectel
Model Name	SC668S-NA
FCC ID	XMR2022SC668SNA
SN	Radiation: D1C22LT14000064
HW Version	R1.0
SW Version	SC668SNANAR02A02
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Modification of EUT

No modifications are made to the EUT during all test items.

1.5 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH04-KS	CN1257	314309

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24al

1.7 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart C §15.247
- FCC KDB 558074 D01 15.247 Meas Guidance v05r02
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

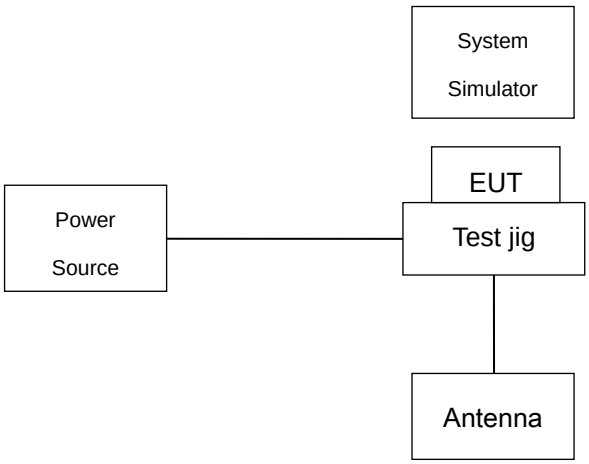
The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

2.1 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

Simultaneous transmission
Bluetooth LE(2Mbps) CH39 (2480MHz)+ LTE Band 14 (BW=5M) 802.11n HT40 CH03 (2422MHz)+ LTE Band 14 (BW=5M)

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuous transmit.

2.4 Radiated Band Edges and Spurious Emission Measurement

2.4.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

2.4.2 Measuring Instruments

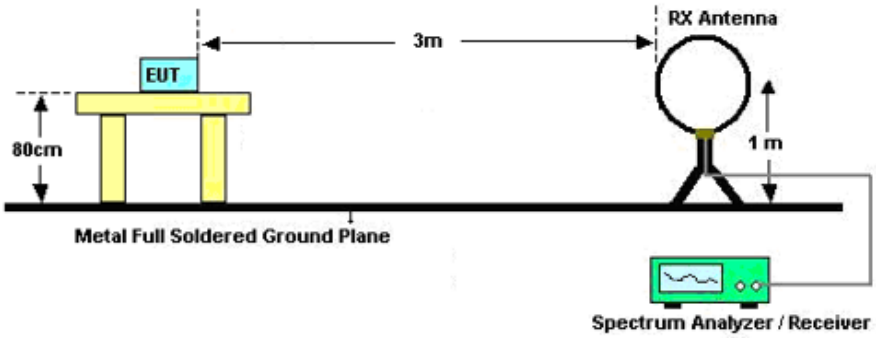
The measuring equipment is listed in the section 4 of this test report.

2.4.3 Test Procedures

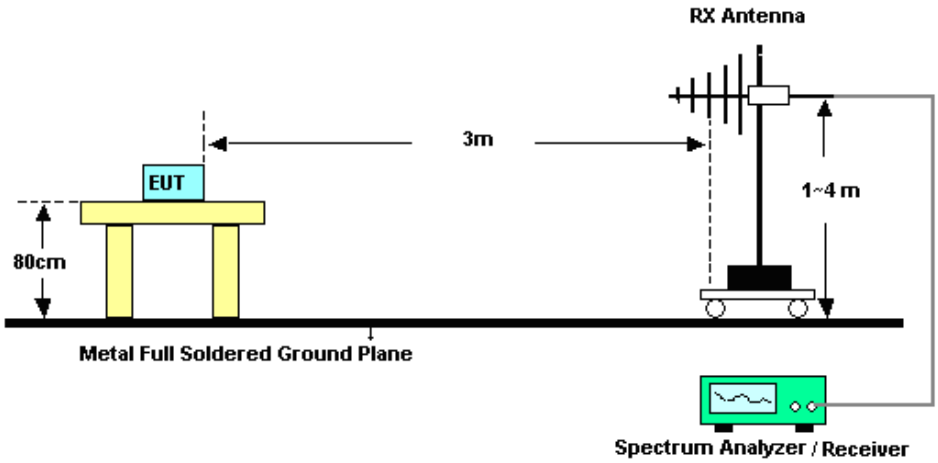
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

2.4.4 Test Setup

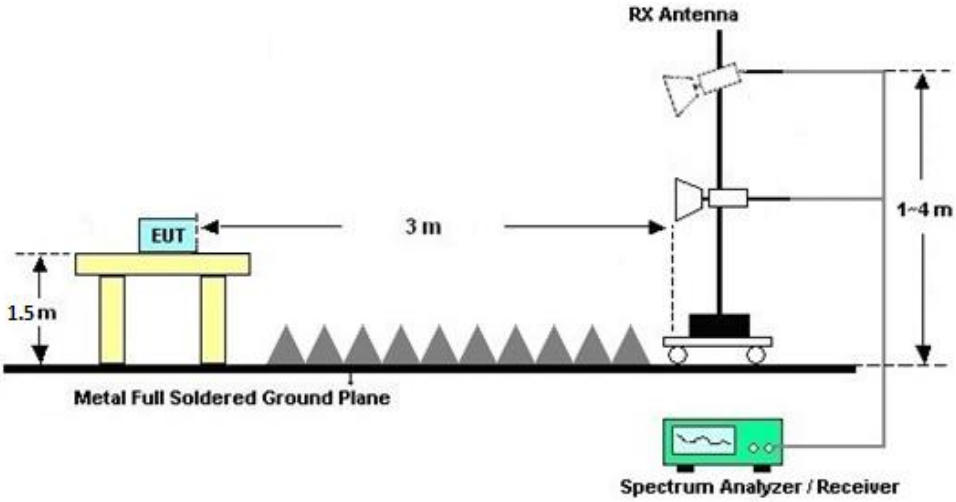
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



2.4.5 Test Results of Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

2.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A.

2.4.7 Duty Cycle

Please refer to Appendix B.

2.4.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix A.

3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 13, 2022	Apr. 14, 2023	Oct. 12, 2023	Radiation (03CH04-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 12, 2022	Apr. 14, 2023	May 23, 2023	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 16, 2022	Apr. 14, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 24, 2022	Apr. 14, 2023	May 23, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 16, 2022	Apr. 14, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 08, 2023	Apr. 14, 2023	Jan. 07, 2024	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	May 24, 2022	Apr. 14, 2023	May 23, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2023	Apr. 14, 2023	Jan. 04, 2024	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18GA	060840	1Ghz-18Ghz	Oct. 12, 2022	Apr. 14, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 12, 2022	Apr. 14, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Apr. 14, 2023	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Apr. 14, 2023	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Apr. 14, 2023	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

4 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

---------- THE END ----------

Appendix A. Radiated Spurious Emission Test Data

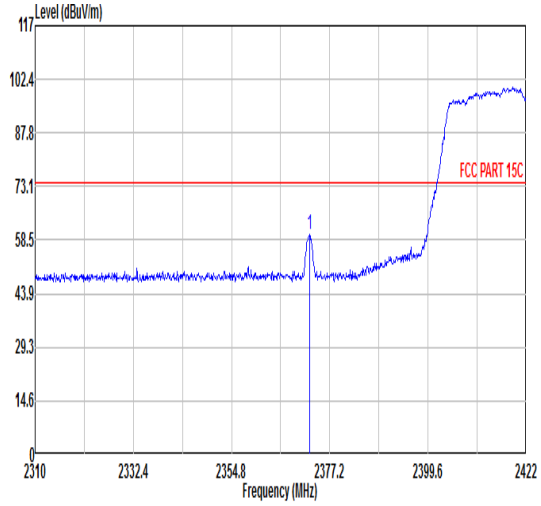
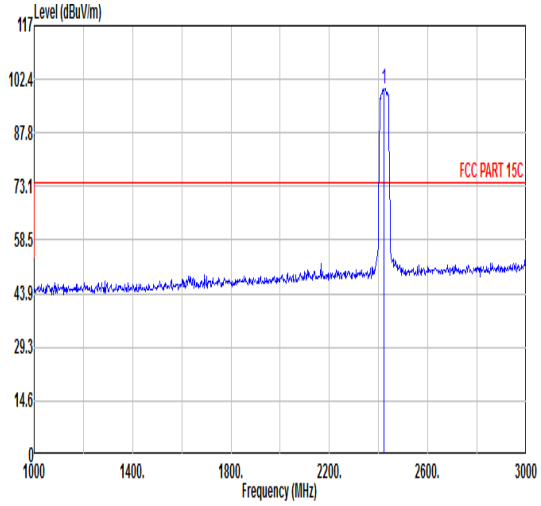
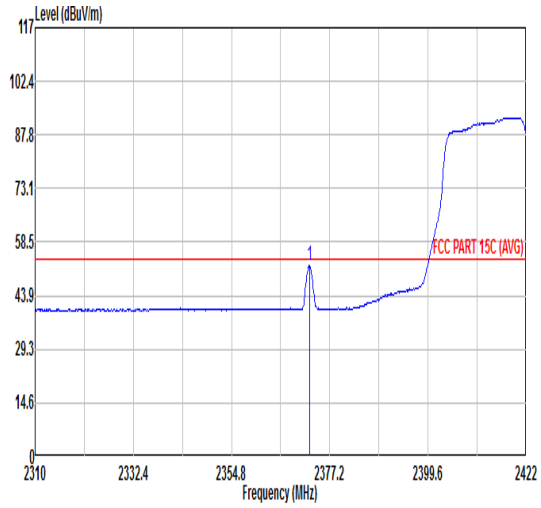
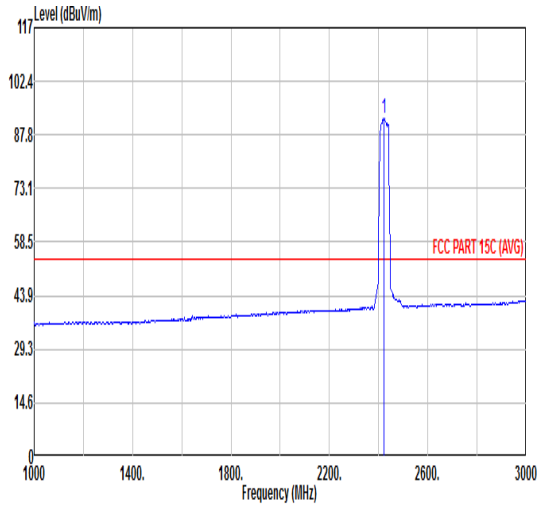
Test Engineer :	Carry Xu	**Relative Humidity :**	41 ~ 42 %
		Temperature :	22 ~ 23 ℃

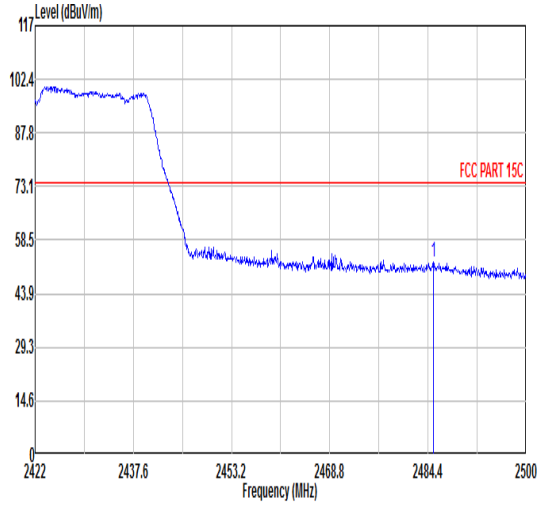
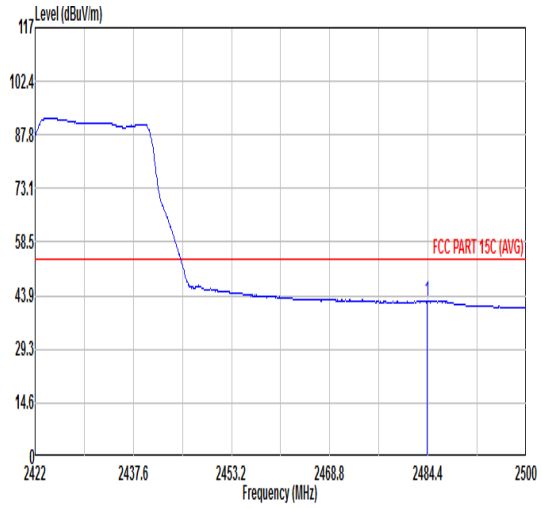
Radiated Spurious Emission Test Modes

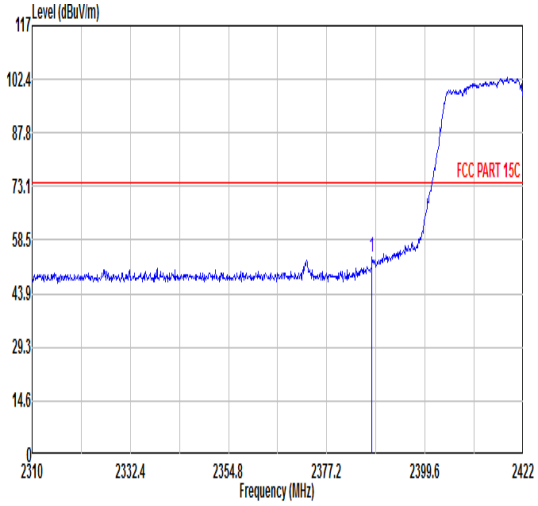
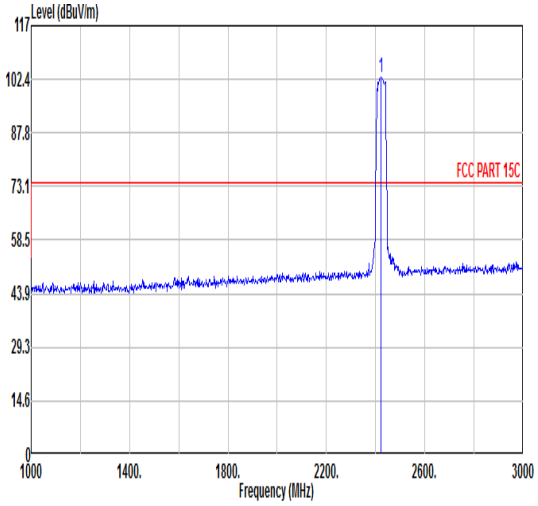
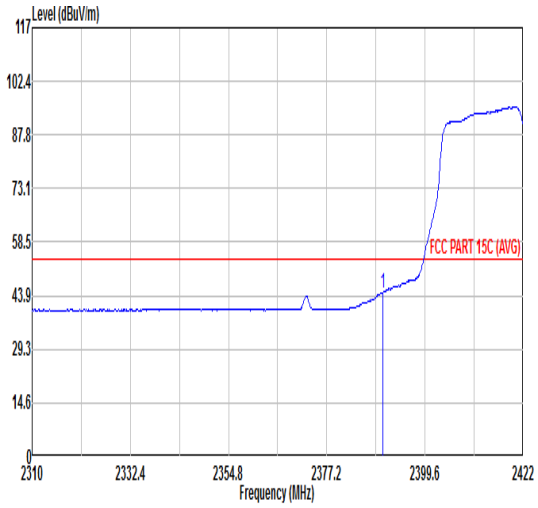
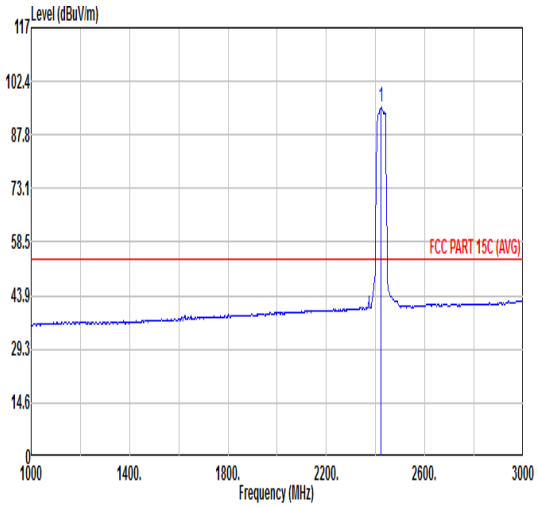
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	1	802.11n HT40	03	2422	MCS0	-	-
	Part 90R LTE Band 14 BW=5M							
Mode 2	2400-2483.5	1	Bluetooth-LE_GSFK	39	2480	2Mbps	-	-
	Part 90R LTE Band 14 BW=5M							

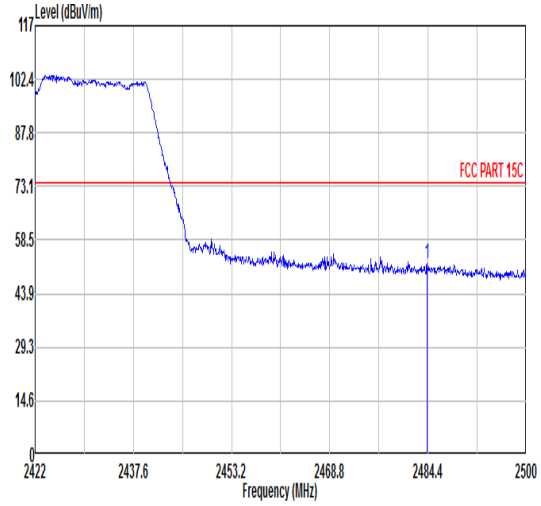
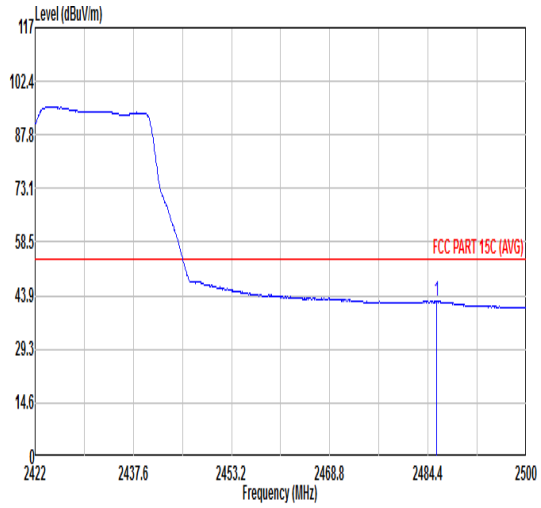
Summary of each worse mode

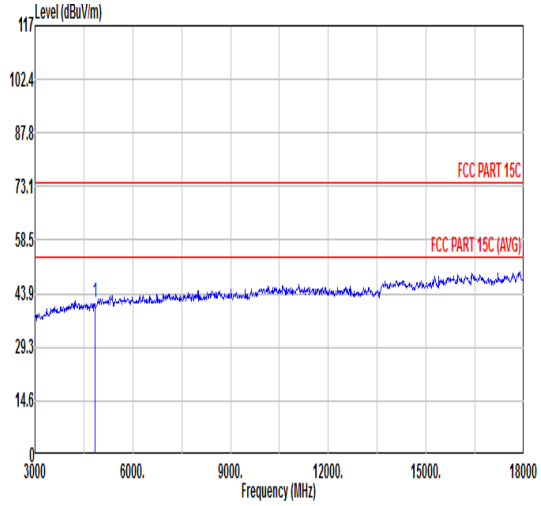
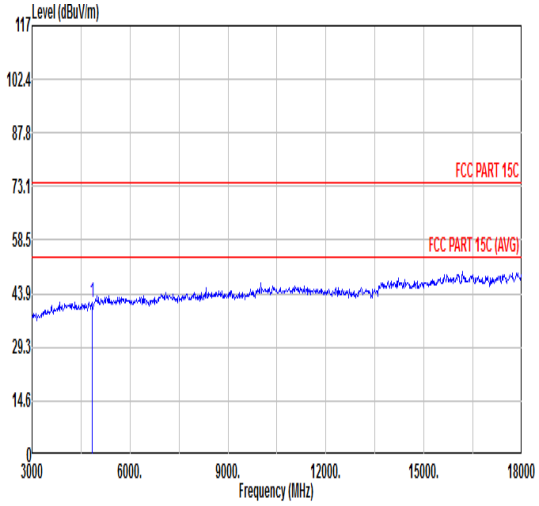
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	802.11n HT40	03	2372.61	52.05	54.00	-1.95	H	AVERAGE	Pass	Band Edge
	802.11n HT40	03	4844.00	41.69	74.00	-32.31	H	PEAK	Pass	Harmonic
2	Bluetooth-LE_GSFK	39	2483.50	44.10	54.00	-9.90	V	AVERAGE	Pass	Band Edge
	Bluetooth-LE_GSFK	39	4960.00	42.21	74.00	-31.79	H	PEAK	Pass	Harmonic

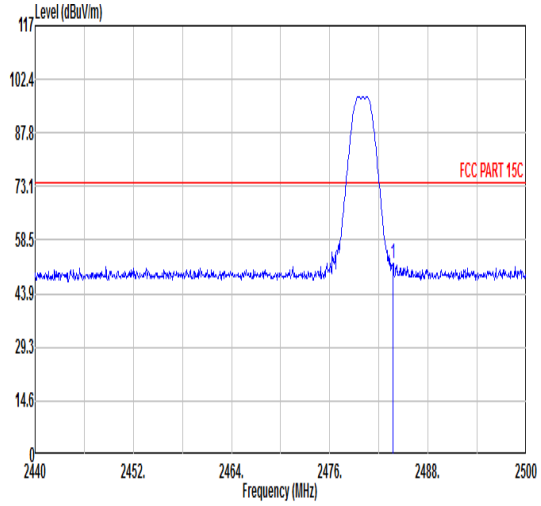
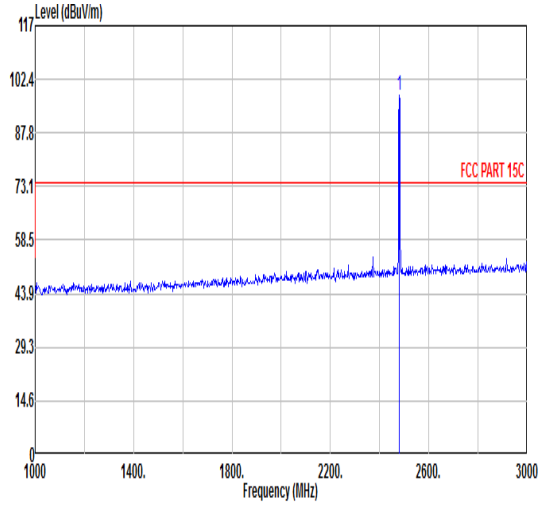
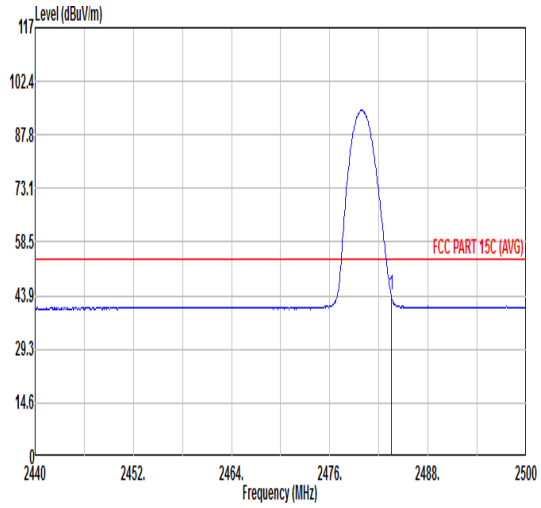
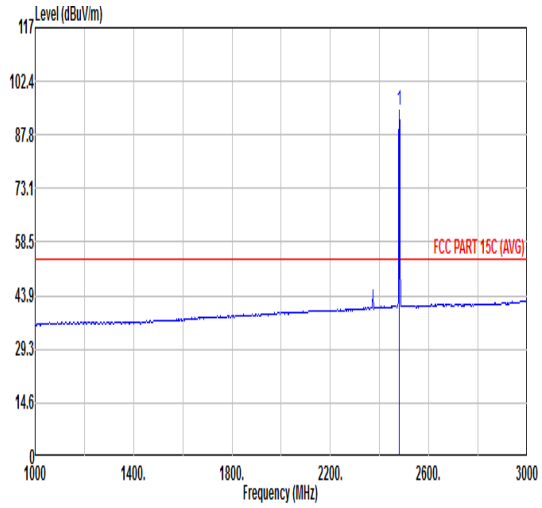
Mode	1	
	Band Edge - L	
	2400-2483.5_802.11n HT40_CH03_2422MHz	
ANT	1	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2372.61 59.94 74.00 -14.06 52.83 30.90 7.13 36.92 6.00 100 320 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2422.00 99.90 74.00 25.90 92.57 31.04 7.22 36.93 6.00 100 320 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2372.61 52.05 54.00 -1.95 44.94 30.90 7.13 36.92 6.00 100 320 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2422.00 92.36 54.00 38.36 85.05 31.03 7.21 36.93 6.00 100 320 AVERAGE

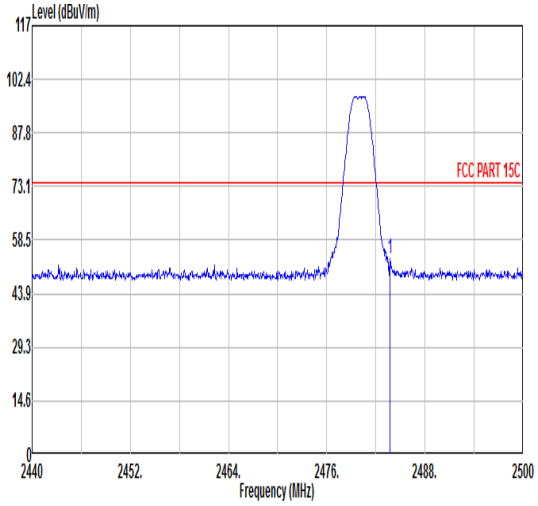
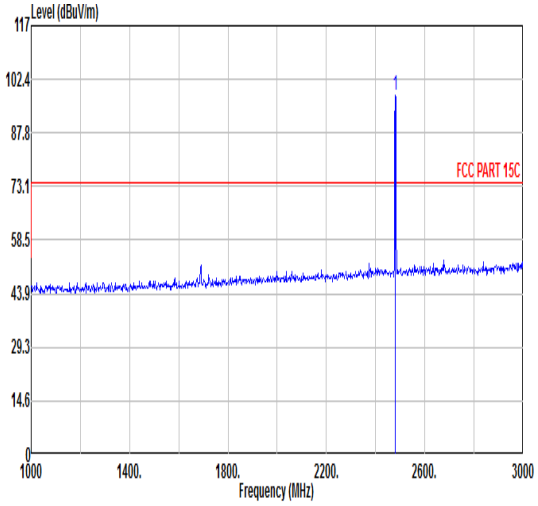
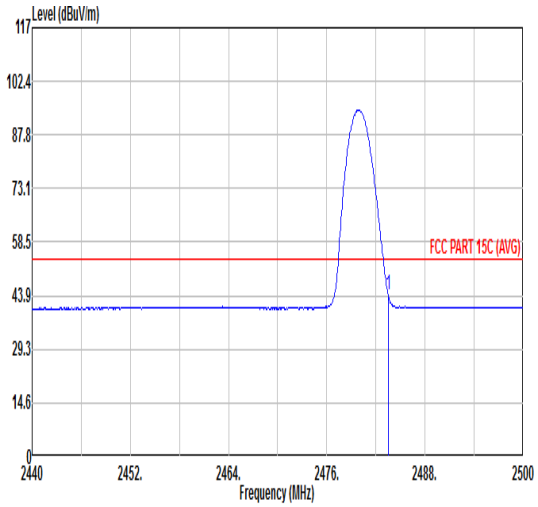
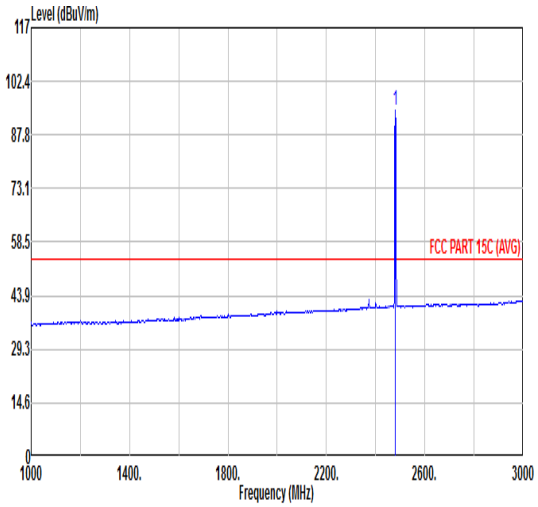
Mode	1	
	Band Edge - R	
	2400-2483.5_802.11n HT40_CH03_2422MHz	
ANT	1	
Pol.	Horizontal	Fundamental
Peak	 Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2485.26 52.39 74.00 -21.61 44.89 31.14 7.32 36.96 6.00 100 320 PEAK	Blank
Avg	 Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.24 42.46 54.00 -11.54 34.96 31.14 7.32 36.96 6.00 100 320 AVERAGE	Blank

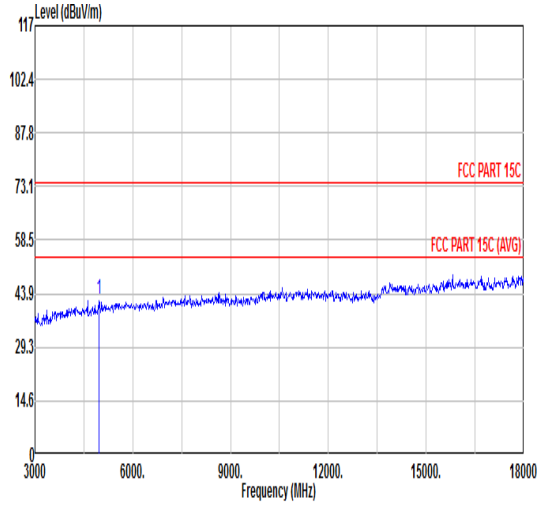
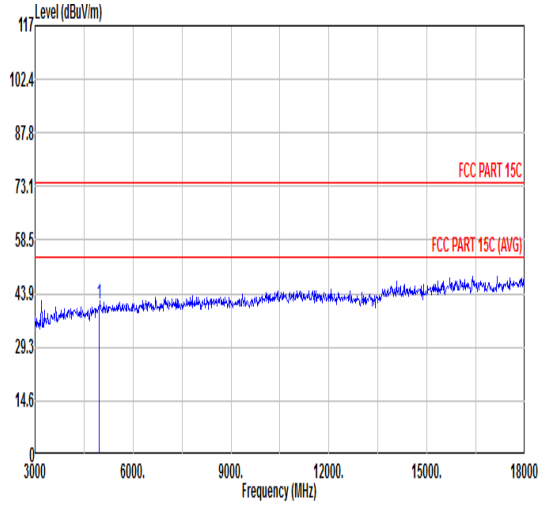
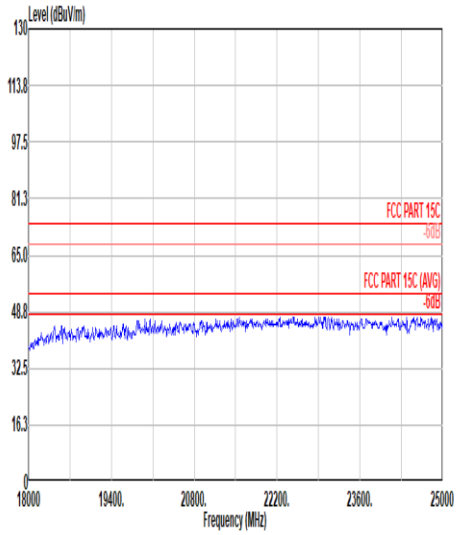
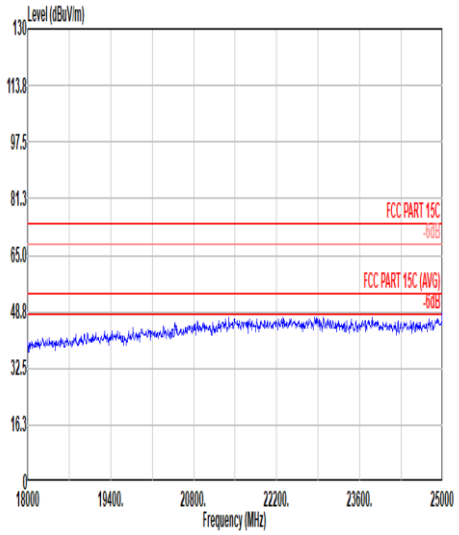
Mode	1	
	Band Edge - L	
	2400-2483.5_802.11n HT40_CH03_2422MHz	
ANT	1	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2387.50 53.76 74.00 -20.24 46.56 30.96 7.16 36.92 6.00 315 166 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2422.00 103.09 74.00 29.09 95.76 31.04 7.22 36.93 6.00 315 166 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2389.97 44.66 54.00 -9.34 37.46 30.96 7.16 36.92 6.00 315 166 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2422.00 95.22 54.00 41.22 87.89 31.04 7.22 36.93 6.00 315 166 AVERAGE

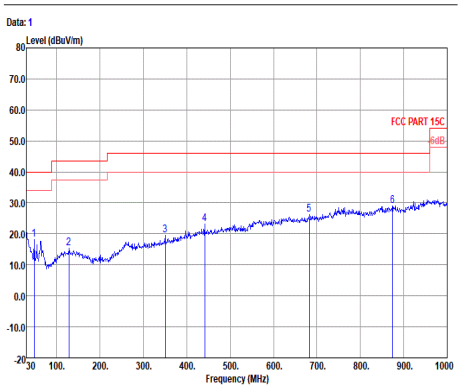
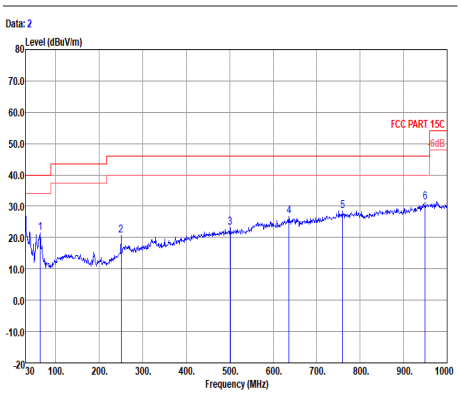
Mode	1	
	Band Edge - R	
	2400-2483.5_802.11n HT40_CH03_2422MHz	
ANT	1	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2484.24 51.92 74.00 -22.08 44.42 31.14 7.32 36.96 6.00 315 166 PEAK	Blank
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2485.73 42.46 54.00 -11.54 34.94 31.15 7.33 36.96 6.00 315 166 AVERAGE	Blank

Mode	1	
	Harmonic	
	2400-2483.5_802.11n HT40_CH03_2422MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4844.00 41.69 74.00 -32.31 60.91 34.59 10.27 64.08 0.00 --- --- PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4844.00 41.39 74.00 -32.61 60.61 34.59 10.27 64.08 0.00 --- --- PEAK

Mode	2	
	Band Edge	
	2400-2483.5_Bluetooth-LE_GSFK _CH39_2480MHz	
ANT	1	
Pol.	Horizontal	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.68 52.31 74.00 -21.69 44.81 31.14 7.32 36.96 6.00 167 333 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 97.79 74.00 23.79 90.29 31.14 7.32 36.96 6.00 167 333 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.50 44.05 54.00 -9.95 36.55 31.14 7.32 36.96 6.00 167 333 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 94.36 54.00 40.36 86.86 31.14 7.32 36.96 6.00 167 333 AVERAGE

Mode	2	
	Band Edge	
	2400-2483.5_Bluetooth-LE_GSFK _CH39_2480MHz	
ANT	1	
Pol.	Vertical	Fundamental
Peak	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.68 53.34 74.00 -20.66 45.84 31.14 7.32 36.96 6.00 306 170 PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 97.98 74.00 23.98 90.48 31.14 7.32 36.96 6.00 306 170 PEAK
Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.50 44.10 54.00 -9.90 36.60 31.14 7.32 36.96 6.00 306 170 AVERAGE	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 94.51 54.00 40.51 87.01 31.14 7.32 36.96 6.00 306 170 AVERAGE

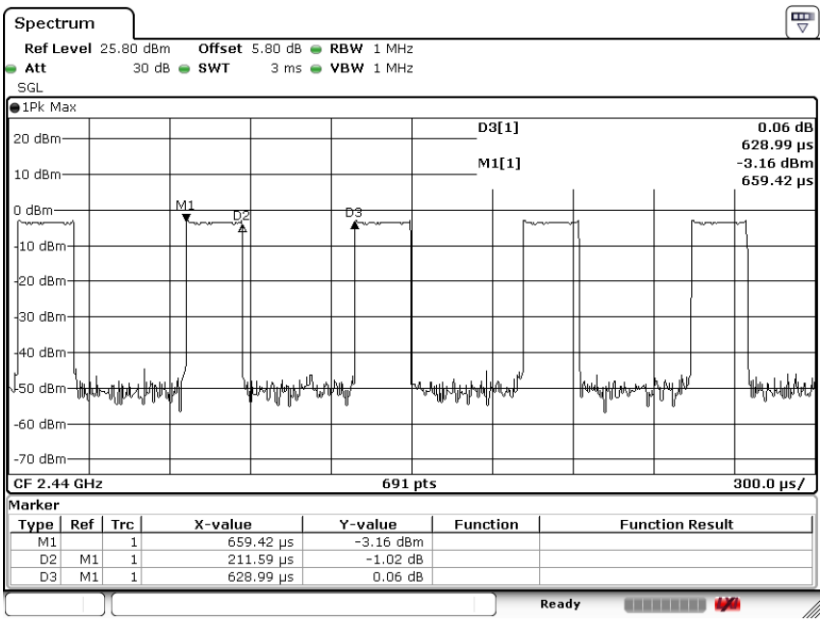
Mode	2	
	Harmonic	
	2400-2483.5_Bluetooth-LE_GSFK _CH39_2480MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4960.00 42.21 74.00 -31.79 61.02 34.80 10.44 64.05 0.00 --- --- PEAK	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4960.00 41.04 74.00 -32.96 59.85 34.80 10.44 64.05 0.00 --- --- PEAK
Peak		

Mode	30M-1G	
	Emission below 1GHz	
	2400-2483.5_Bluetooth-LE_GSFK _CH39_2480MHz	
ANT	1	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 48.43 18.11 -21.89 40.00 34.53 15.00 0.98 32.40 --- --- Peak HORIZONT 2 127.97 15.30 -28.20 43.50 28.62 17.40 1.68 32.40 --- --- Peak HORIZONT 3 350.10 19.58 -26.42 46.00 29.02 20.20 2.76 32.40 --- --- Peak HORIZONT 4 441.28 23.07 -22.93 46.00 29.70 22.66 3.11 32.40 --- --- Peak HORIZONT 5 681.84 26.35 -19.65 46.00 28.54 26.34 3.87 32.40 --- --- Peak HORIZONT 6 873.90 28.96 -17.04 46.00 27.12 29.18 4.37 31.71 --- --- Peak HORIZONT	 Freq Level Over Limit Limit Line ReadAntenna Level Factor Cable Loss Preamp Factor A/Pos T/Pos Remark Pol/Phas MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 1 63.95 21.49 -18.51 40.00 40.97 11.80 1.12 32.40 --- --- Peak VERTICAL 2 250.19 20.80 -25.20 46.00 32.70 18.40 2.10 32.40 --- --- Peak VERTICAL 3 501.42 23.04 -22.96 46.00 28.50 23.80 3.14 32.40 --- --- Peak VERTICAL 4 636.25 26.84 -19.16 46.00 29.24 26.30 3.70 32.40 --- --- Peak VERTICAL 5 759.44 28.59 -17.41 46.00 28.57 28.18 4.10 32.26 --- --- Peak VERTICAL 6 949.56 31.38 -14.62 46.00 27.10 30.80 4.58 31.10 --- --- Peak VERTICAL

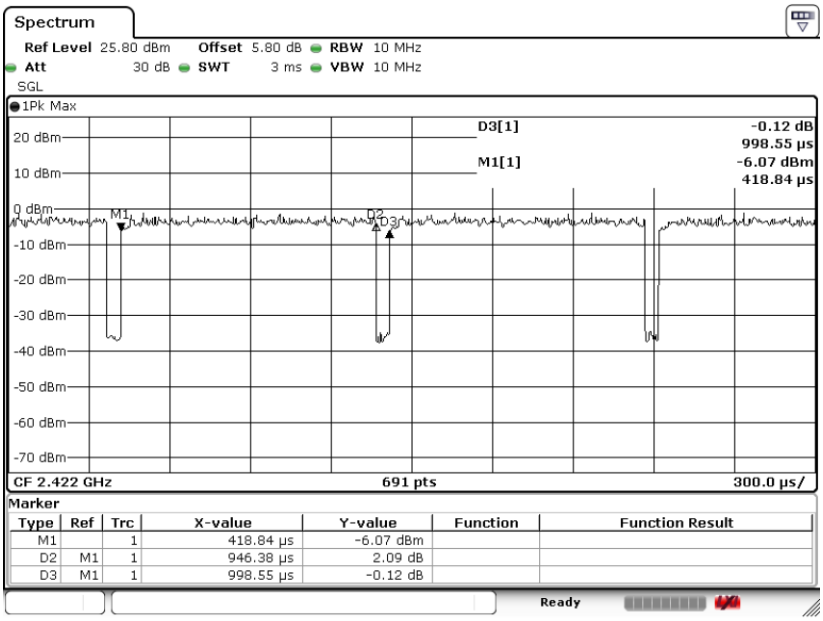
Appendix B. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
Bluetooth LE 2Mbps	33.64	0.212	4.726	5.1khz
802.11n HT40	94.78	0.946	1.057	1.1khz

Bluetooth LE 2Mbps



802.11n40


Spectrum
Ref Level 25.80 dBm Offset 5.80 dB RBW 10 MHz
Att 30 dB SWT 3 ms VBW 10 MHz
SGL
1Pk Max
D3[1] -0.12 dB 998.55 µs
M1[1] -6.07 dBm 418.84 µs
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
M1
D2
D3
CF 2.422 GHz 691 pts 300.0 µs/
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 418.84 µs -6.07 dBm
D2 M1 1 946.38 µs 2.09 dB
D3 M1 1 998.55 µs -0.12 dB
Ready