

FCC Test Report

Equipment : Internet of Things Gateway
Brand Name : DELL
Model No. : N03G
FCC ID : E2K-N03G
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Applicant / Manufacturer : Dell Inc.
One Dell Way, Round Rock, Texas 78682, USA

The product sample received on Jan. 26, 2017 and completely tested on Mar. 22, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given inanes and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONALINC., the test report shall not be reproduced except in full.

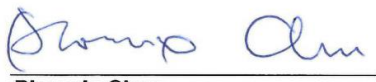

Phoenix Chen
SPORTON INTERNATIONAL INC.

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Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	20dB Bandwidth	15.247(a)	Complied
3.2	15.247(a)	Carrier Frequency Separation	15.247(a)	Complied
3.3	15.247(b)	Maximum Conducted Output Power	15.247(b)	Complied
3.4	15.247(a)	Number of Hopping Frequencies and Hopping Bandedge	15.247(a)	Complied
3.5	15.247(a)	Time of Occupancy (Dwell Time)	15.247(a)	Complied
3.6	15.247(d)	Emissions in Non-restricted Frequency Bands	15.247(d)	Complied
3.7	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



Report No. : FR712529AD

Revision History

[illegible]

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Version	Ch. Frequency (MHz)	Channel Number
2.4-2.4835GHz	BR / EDR	2402-2480	0-78 [79]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-BR(1Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(2Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(3Mbps)	1	1TX

Note:

- ♦ Bluetooth BR uses a GFSK (1Mbps).
- ♦ Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- ♦ Bluetooth BR/EDR uses as a system using FHSS modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	taoglas	TS.07.2113B	Monopole	SMA	1.3

Note: 1: 802.11b/g/n and BT only includes 1TX and Port1 for emission.

1.1.3 EUT Information

Identify EUT	
SW / HW	N/A
Operational Condition	
EUT Power Type	From AC Adapter
Type of EUT	
☒	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device)
☐	Combined Equipment - Brand Name / Model No.: ...
☐	Plug-in radio (EUT intended for a variety of host systems)
☐	Host System - Brand Name / Model No.: ...
☐	Other:

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq$ 1/T
BT-BR(1Mbps)	0.781	1.073	2.873m	1k
BT-EDR(2Mbps)	0.772	1.124	2.878m	1k
BT-EDR(3Mbps)	0.738	1.319	2.879m	1k

1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ FCC Public Notice DA 00-705

1.3 Testing Location Information

Testing Location		
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
Test site Designation No. 553509 with FCC.		
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065 FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.		

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Gary	21.5°C / 62%	06/Mar/2017
Radiated	03CH02-HY	Jeff	22.2°C / 51.8%	18/Mar/2017
AC Conduction	CO04-HY	Bear	20°C / 67%	22/Mar/2017

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	2.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	2.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	2.9 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted-FS	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software	Dos
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Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	15
2440MHz	12
2480MHz	15
BT-EDR(2Mbps)	-
2402MHz	15
2440MHz	13
2480MHz	15
BT-EDR(3Mbps)	-
2402MHz	15
2440MHz	13
2480MHz	15

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	Adapter mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Zigbee+BT
2	Zigbee+WiFi
Refer to Sporton Test Report No.: FA712529 for Co-location RF Exposure Evaluation.	

2.4 Accessories

Accessories				
AC Adapter 1 (US Plug)	Brand Name	DELL	Model Name	DA65NM130
	Manufacturer	DELTA		
	Power Rating	I/P: 100- 240 Vac, 1.7 A, O/P: 19.5 Vdc, 3.34 A		
	Power Cord	0.9 meter, non-shielded cable, w/o ferrite core 1.8 meter, non-shielded cable, w/o ferrite core(DC output cable) 0.12 meter, non-shielded cable, w/o ferrite core(DC to DC cable)		

Reminder: Regarding to more detail and other information, please refer to user manual.

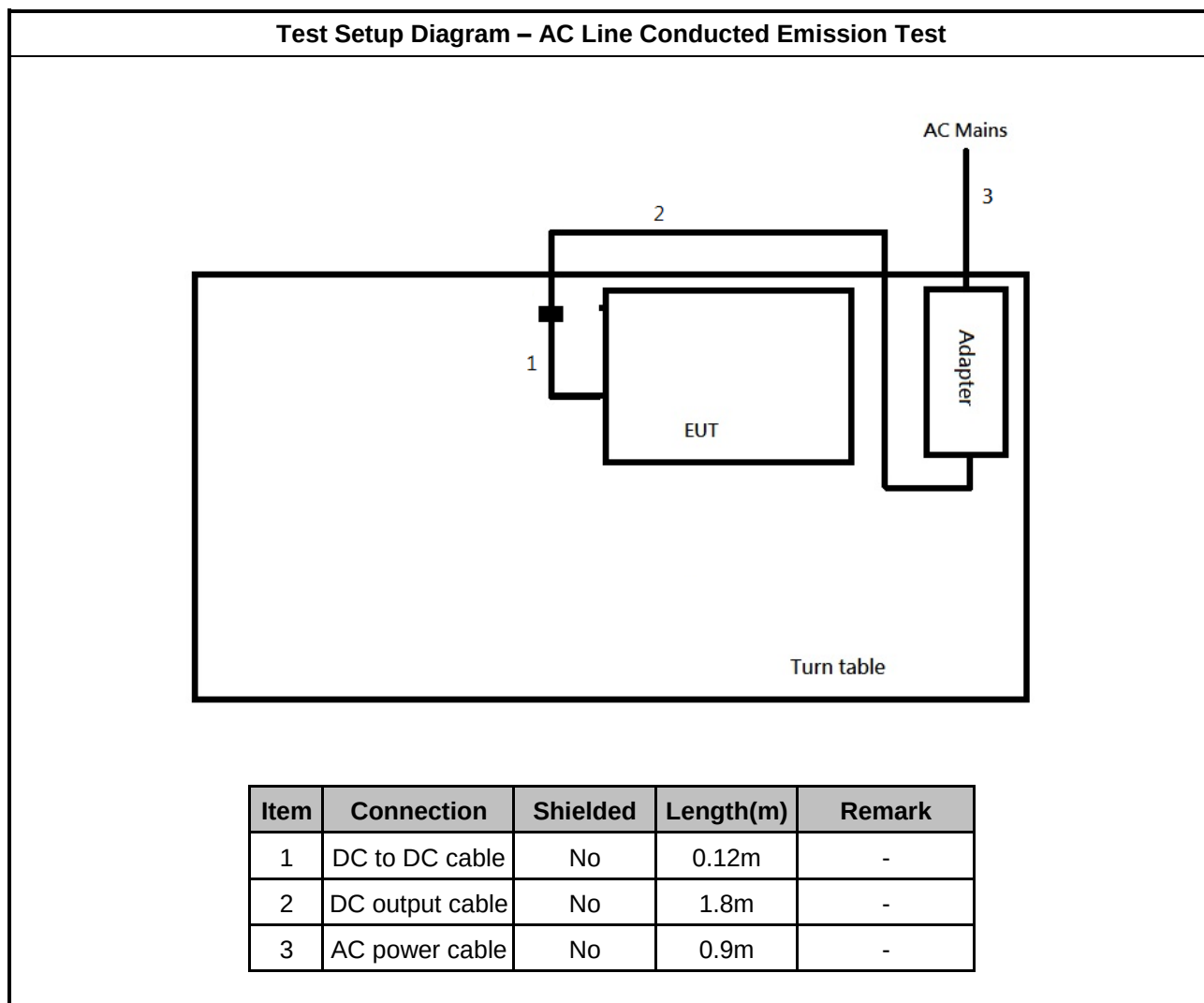
2.5 Support Equipment

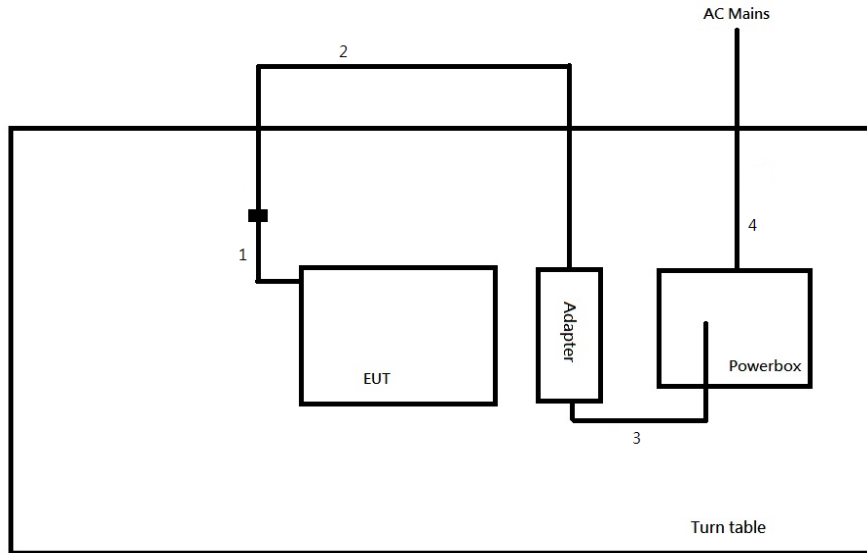
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DOC
2	Adapter for NB	DELL	HA65NM130	DOC

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	USB Dongle	Kingston	DTI/1GB	DOC
2	USB Dongle	Kingston	TS4G IE370	DOC

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	USB Dongle	Kingston	DTI/1GB	DOC
2	USB Dongle	Kingston	TS4G IE370	DOC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length(m)	Remark
1	DC to DC cable	No	0.12m	-
2	DC output cable	No	1.8m	-
3	AC power cable	No	0.9m	-
4	AC power cable	No	1.8m	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

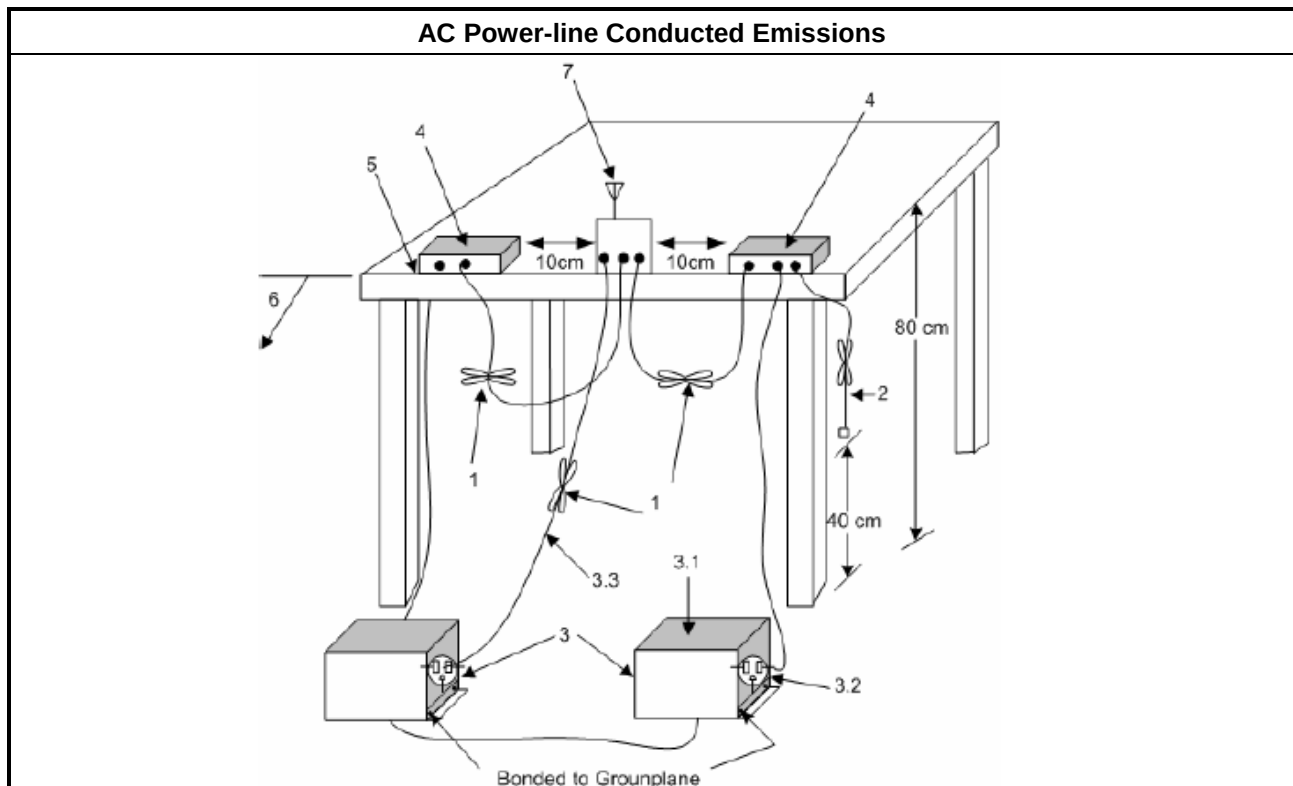
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

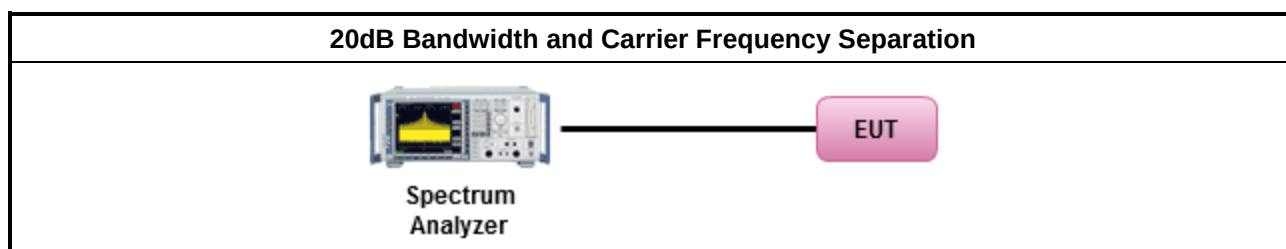
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$; Power 30dBm; EIRP 36dBm
	▪ $50 > N \geq 25$; Power 24dBm; EIRP 30dBm
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
	▪ $75 > N \geq 15$; Power 21dBm; EIRP 27dBm
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$; Power 30dBm; EIRP 36dBm
N: Number of Hopping Frequencies	

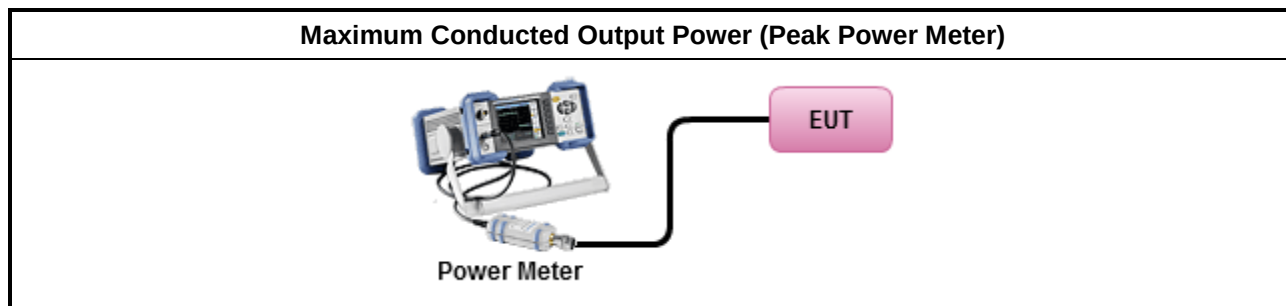
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq \text{MAX}$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq \text{MAX}$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 1 MHz.
N: Number of Hopping Frequencies; ChS : Hopping Channel Separation	

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

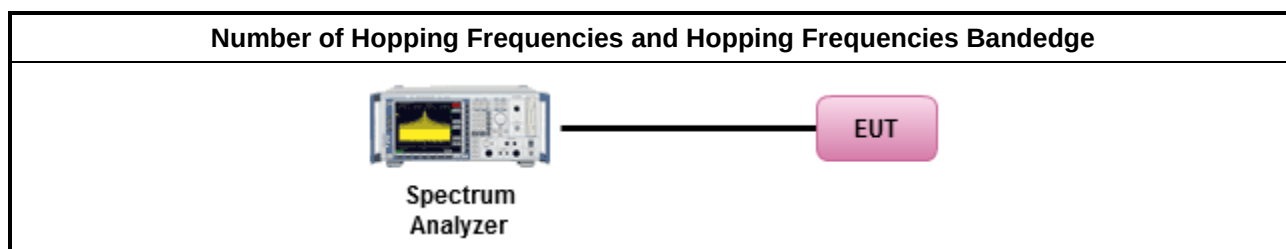
3.4.3 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.4 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
▪ 902-928 MHz Band:	
	▪ $N \geq 50$; 0.4s in 20s period
	▪ $50 > N \geq 25$; 0.4s in 10s period
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$; 0.4s in $N \times 0.4$ period
	▪ $75 > N \geq 15$; 0.4s in $N \times 0.4$ period
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$; 0.4s in 30s period
N: Number of Hopping Frequencies	

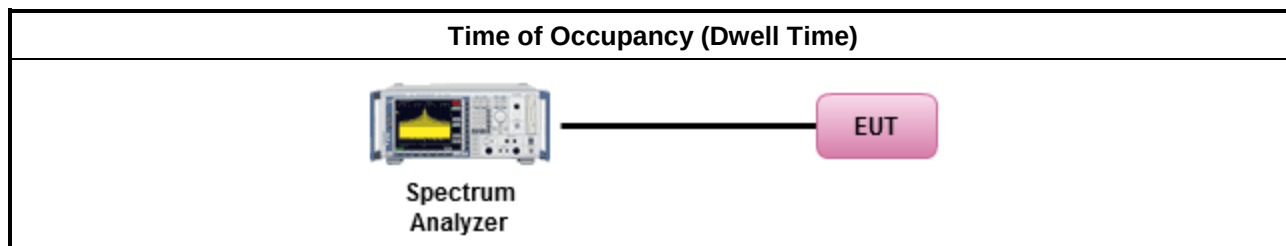
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.	
▪ Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.	
	▪ The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.	

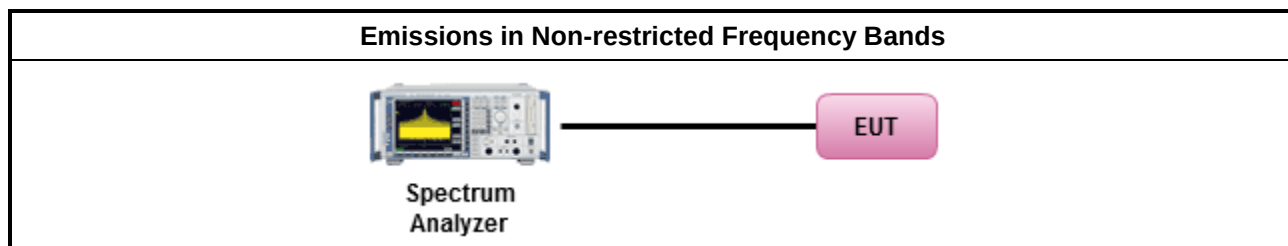
3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

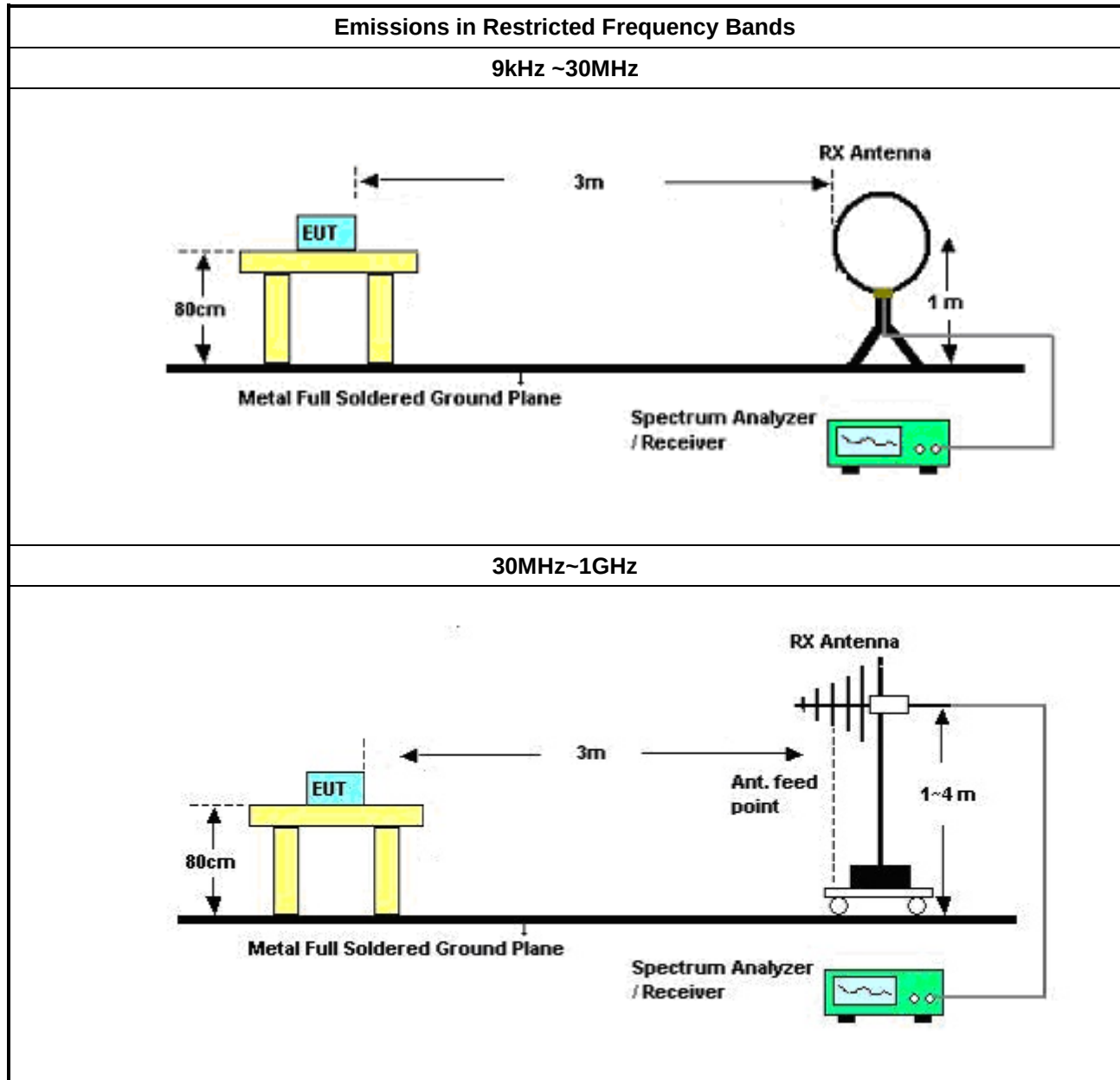
3.7.2 Measuring Instruments

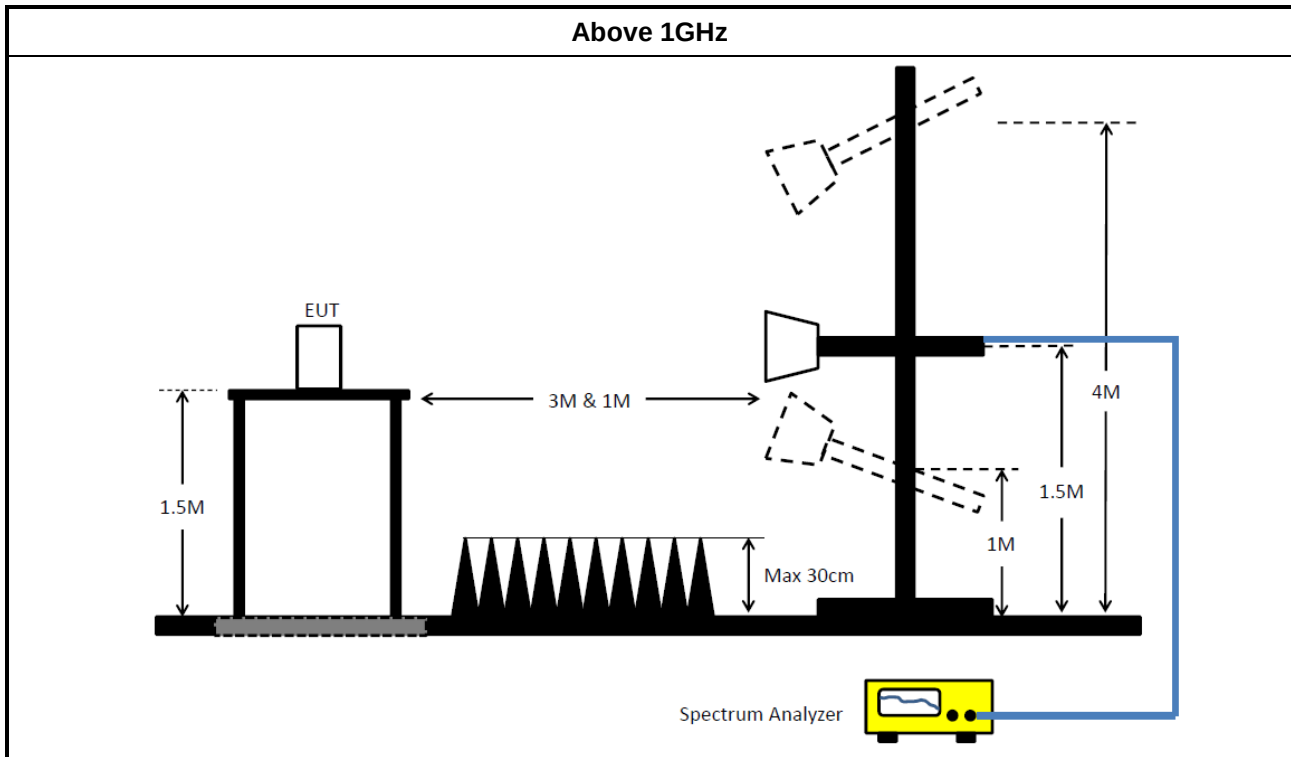
Refer a test equipment and calibration data table in this test report.

3.7.3 Test Procedures

Test Method	
	- The average emission levels shall be measured in [hopping duty factor]. - Refer as ANSI C63.10; clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. - For the transmitter unwanted emissions shall be measured using following options below:
	Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
	Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

3.7.4 Test Setup





3.7.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.7.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102051	9KHz ~ 3.6GHz	15/Apr/2016	14/Apr/2017
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	15/Nov/2016	14/Nov/2017
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	24/Oct/2016	23/Oct/2017

NCR : Non-Calibration Require

Instrument for Radiated Test

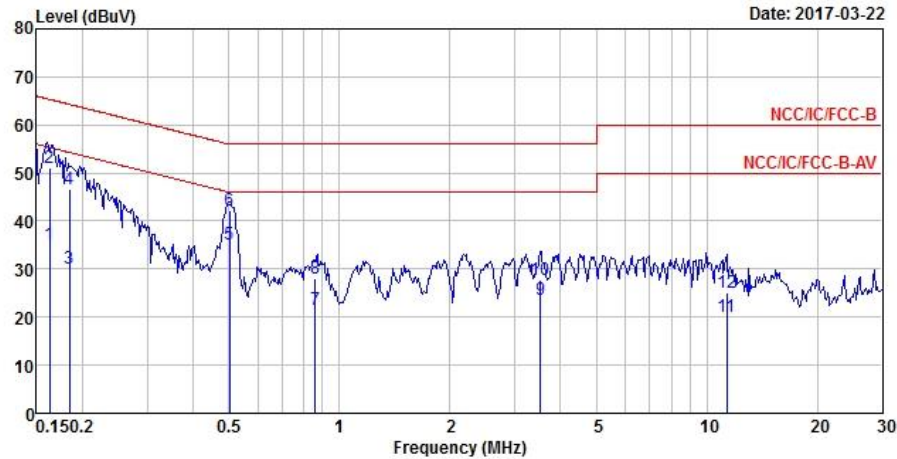
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSP40	100593	9KHz - 40GHz	26/Oct/2016	25/Oct/2017
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz-1GHz	03/Jun/2016	02/Jun/2017
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz	12/Dec/2016	11/Dec/2017
Amplifier	Agilent	8447D	2944A11149	100KHz-1.3GHz	01/Jul/2016	30/Jun/2017
Amplifier	Agilent	8449B	3008A02373	1GHz-26.5GHz	02/Sep/2016	01/Sep/2017
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D01543	1GHz-18GHz	22/Apr/2016	21/Apr/2017
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170339	15GHz-40GHz	10/Mar/2016	09/Mar/2018
Bilog Antenna	SCHAFFNER	CBL6112B	2723	30MHz-1GHz	01/Oct/2016	30/Sep/2017
Loop Antenna	TESEQ	HLA 6120	31244	9KHz-30MHz	02/Mar/2017	01/Mar/2018
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	26/Jan/2017	25/Jan/2018
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	26/Jan/2017	25/Jan/2018

**Instrument for Conducted Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	30/Dec/2016	29/Dec/ 2017
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	21/Jul/2016	20/Jul/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	02/Oct/2016	01/Oct/2017

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		



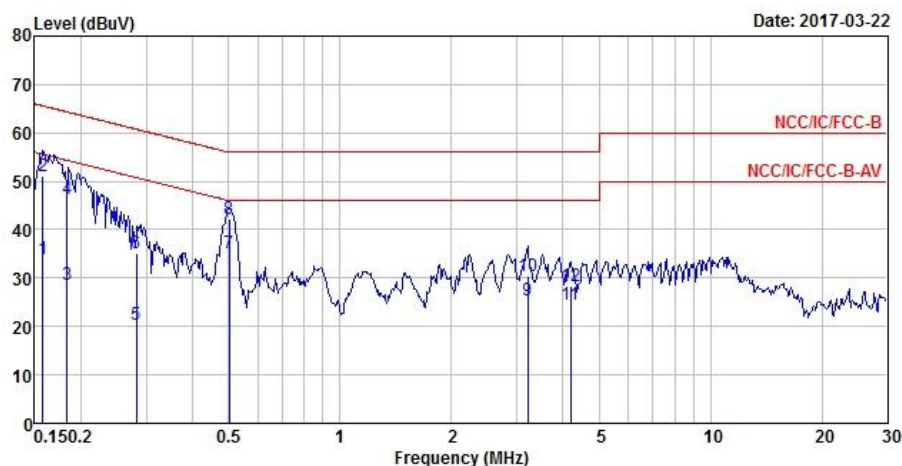
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	35.11	-20.20	55.31	25.25	9.62	0.24	Average
2	0.16	51.18	-14.13	65.31	41.32	9.62	0.24	QP
3	0.18	30.10	-24.20	54.30	20.17	9.65	0.28	Average
4	0.18	46.71	-17.59	64.30	36.78	9.65	0.28	QP
5 MAX	0.50	34.99	-11.01	46.00	25.27	9.62	0.10	Average
6	0.50	42.26	-13.74	56.00	32.54	9.62	0.10	QP
7	0.86	21.61	-24.39	46.00	11.91	9.60	0.10	Average
8	0.86	28.03	-27.97	56.00	18.33	9.60	0.10	QP
9	3.53	23.58	-22.42	46.00	13.74	9.70	0.14	Average
10	3.53	27.71	-28.29	56.00	17.87	9.70	0.14	QP
11	11.31	20.08	-29.92	50.00	10.11	9.77	0.20	Average
12	11.31	25.10	-34.90	60.00	15.13	9.77	0.20	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	33.82	-21.75	55.57	23.93	9.66	0.23	Average
2	0.16	50.96	-14.61	65.57	41.07	9.66	0.23	QP
3	0.18	28.71	-25.61	54.32	18.78	9.65	0.28	Average
4	0.18	46.48	-17.84	64.32	36.55	9.65	0.28	QP
5	0.28	20.28	-30.48	50.76	10.42	9.66	0.20	Average
6	0.28	35.02	-25.74	60.76	25.16	9.66	0.20	QP
7 MAX	0.50	35.11	-10.89	46.00	25.34	9.67	0.10	Average
8	0.50	42.18	-13.82	56.00	32.41	9.67	0.10	QP
9	3.21	25.26	-20.74	46.00	15.31	9.78	0.17	Average
10	3.21	30.49	-25.51	56.00	20.54	9.78	0.17	QP
11	4.20	24.38	-21.62	46.00	14.50	9.77	0.11	Average
12	4.20	28.33	-27.67	56.00	18.45	9.77	0.11	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2.4-2.4835GHz	1.091M	1.057M	1M06F1D	1.015M	1.049M
BT-EDR(2Mbps)	-	-	-	-	-
2.4-2.4835GHz	1.316M	1.204M	1M20G1D	1.314M	1.193M
BT-EDR(3Mbps)	-	-	-	-	-
2.4-2.4835GHz	1.274M	1.212M	1M21G1D	1.251M	1.207M

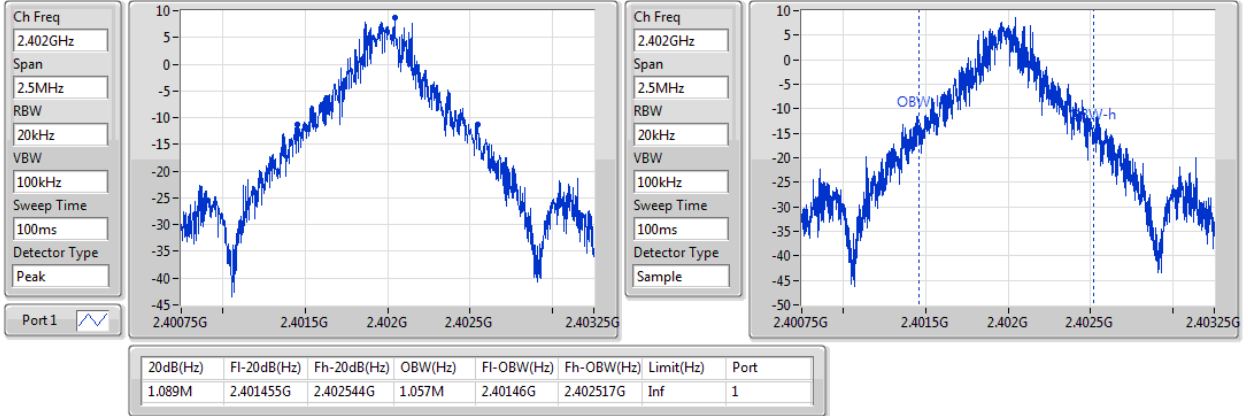
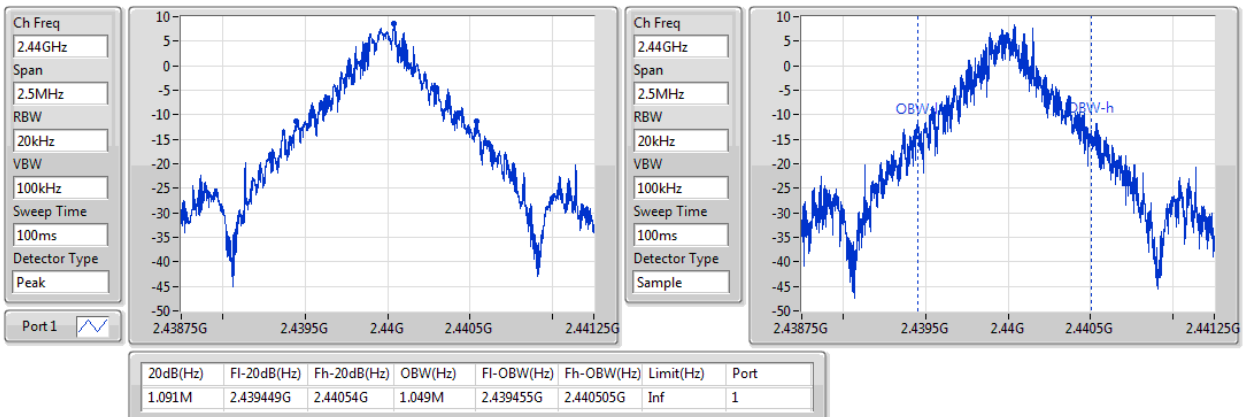
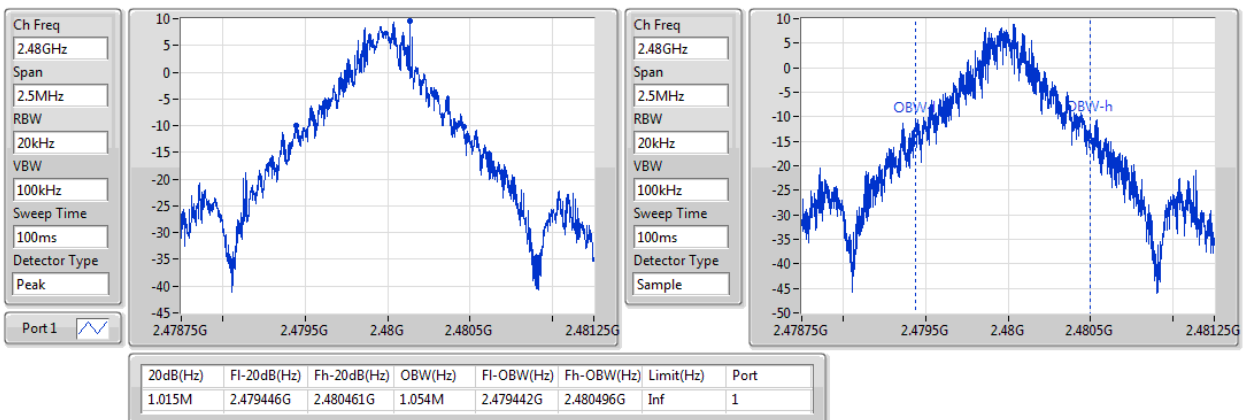
Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

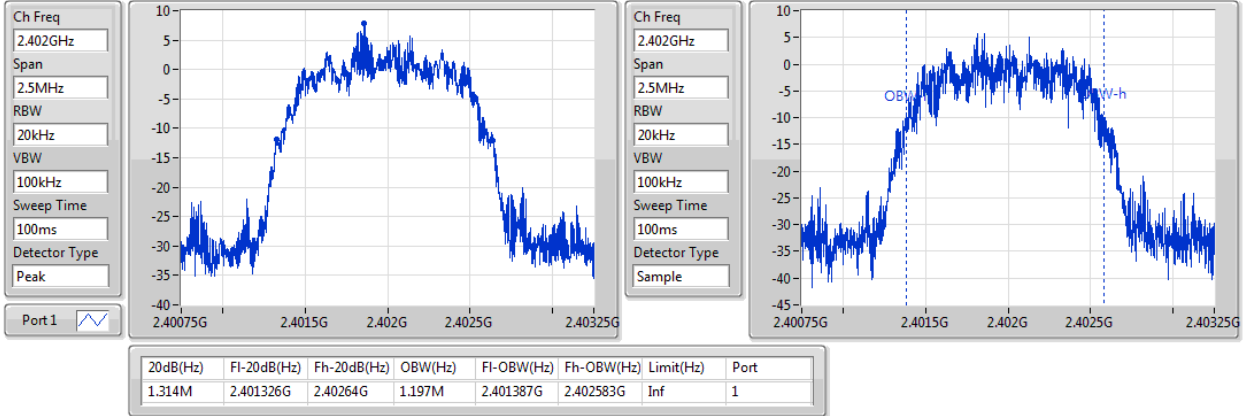
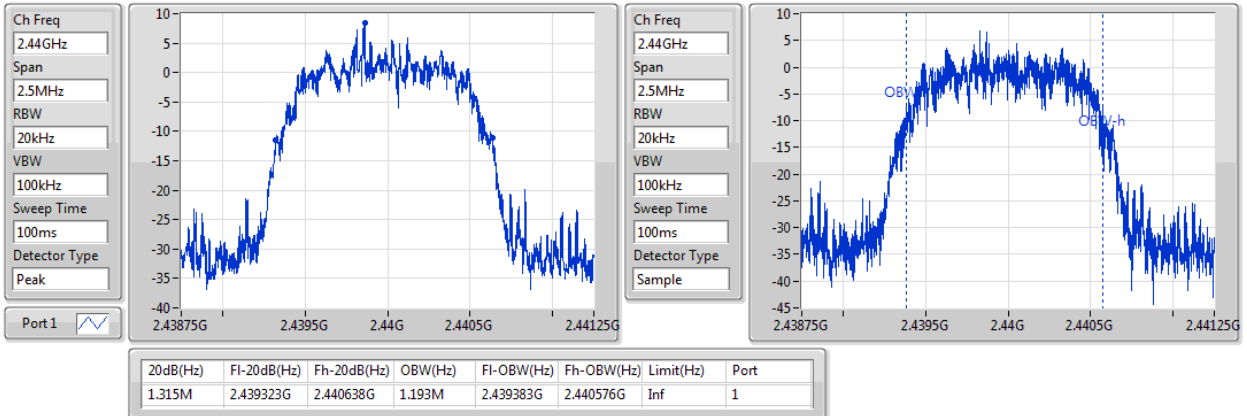
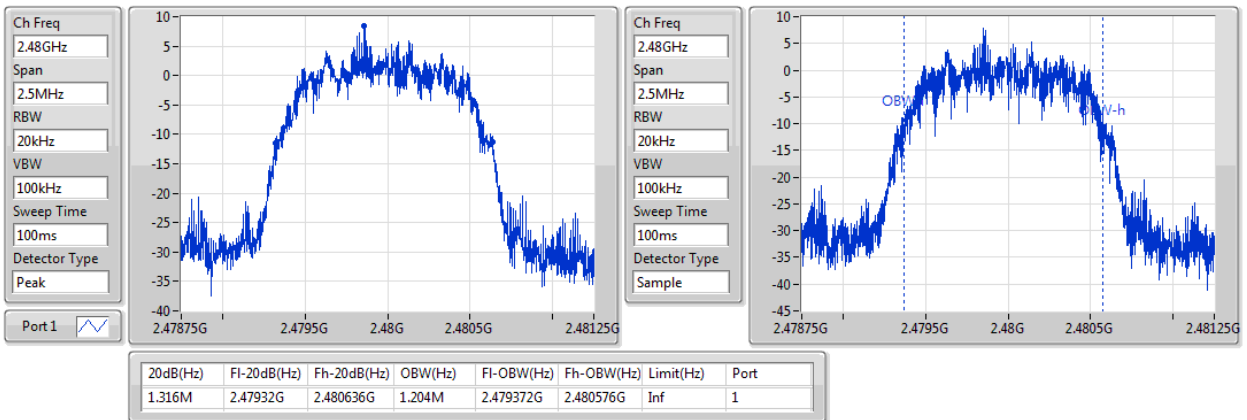
Min-N dB = Minimum 20dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

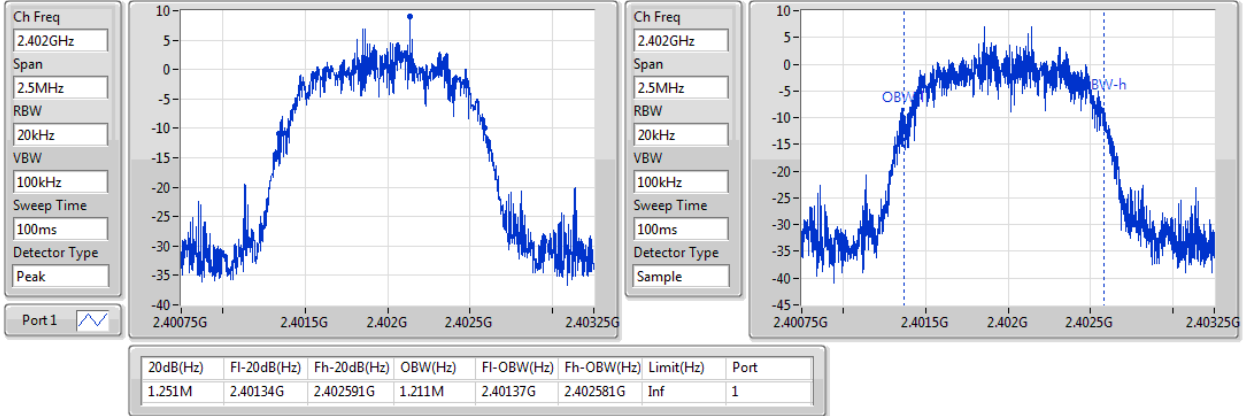
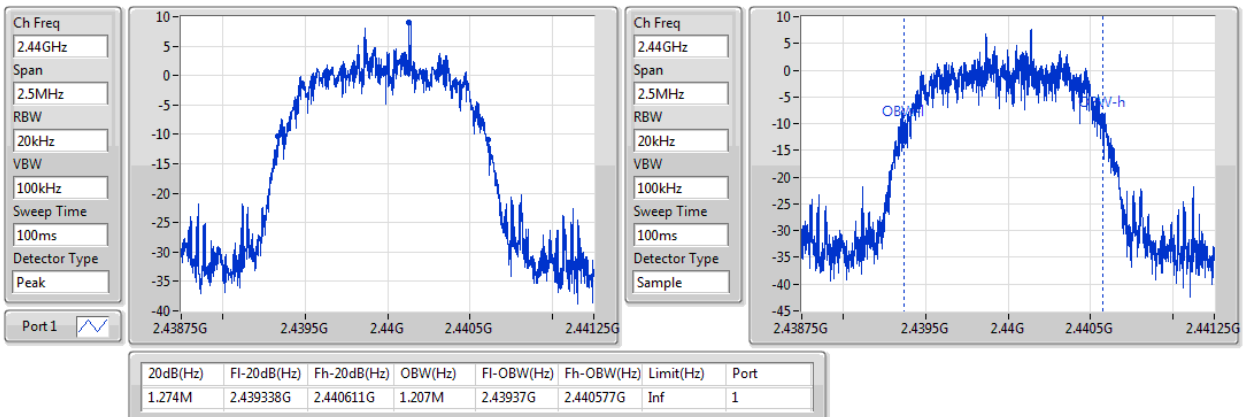
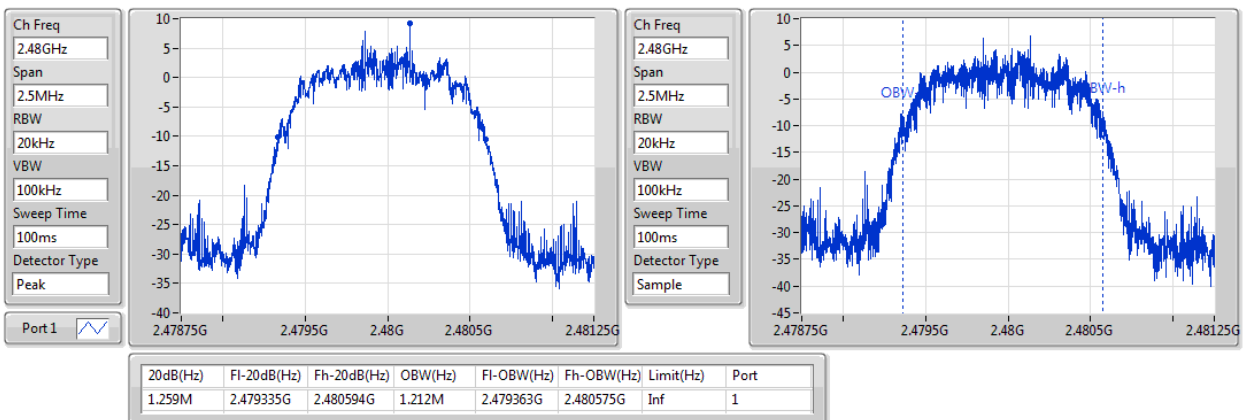
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.089M	1.057M
2440MHz	Pass	Inf	1.091M	1.049M
2480MHz	Pass	Inf	1.015M	1.054M
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.314M	1.197M
2440MHz	Pass	Inf	1.315M	1.193M
2480MHz	Pass	Inf	1.316M	1.204M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.251M	1.211M
2440MHz	Pass	Inf	1.274M	1.207M
2480MHz	Pass	Inf	1.259M	1.212M

Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

BT-BR(1Mbps)
EBW
2440MHz

BT-BR(1Mbps)
EBW
2480MHz


BT-EDR(2Mbps)
EBW
2402MHz

BT-EDR(2Mbps)
EBW
2440MHz

BT-EDR(2Mbps)
EBW
2480MHz


BT-EDR(3Mbps)
EBW
2402MHz

BT-EDR(3Mbps)
EBW
2440MHz

BT-EDR(3Mbps)
EBW
2480MHz


Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
BT-BR(1Mbps)	-	-
2.4-2.4835GHz	1.002M	997.5k
BT-EDR(2Mbps)	-	-
2.4-2.4835GHz	1.005M	1.002M
BT-EDR(3Mbps)	-	-
2.4-2.4835GHz	1.0005M	1.0005M

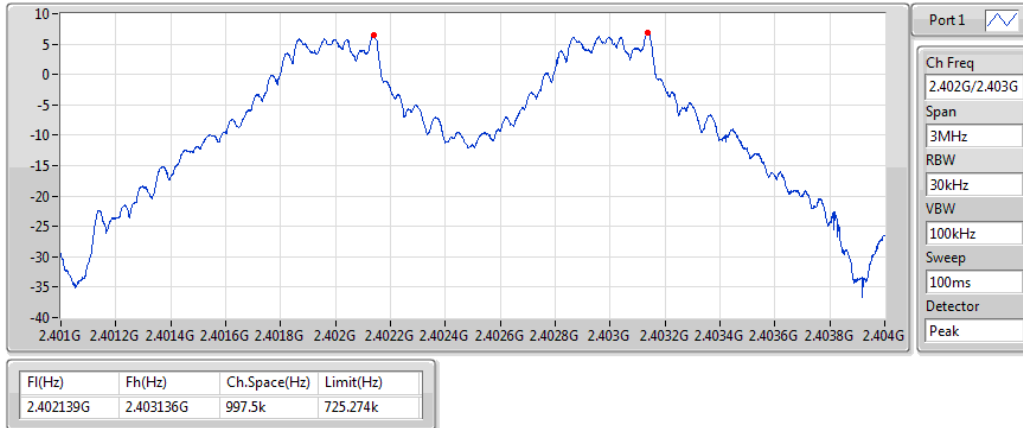
Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402139G	2.403136G	997.5k	725.274k
2440MHz	Pass	2.440139G	2.441141G	1.002M	726.606k
2480MHz	Pass	2.479137G	2.480135G	997.5k	675.99k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.401864G	2.402868G	1.0035M	874.458k
2440MHz	Pass	2.439866G	2.440871G	1.005M	875.79k
2480MHz	Pass	2.478861G	2.479863G	1.002M	876.456k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402134G	2.403135G	1.0005M	849.816k
2440MHz	Pass	2.440134G	2.441135G	1.0005M	848.484k
2480MHz	Pass	2.479133G	2.480133G	1.0005M	838.494k

BT-BR(1Mbps)

Channel Separation

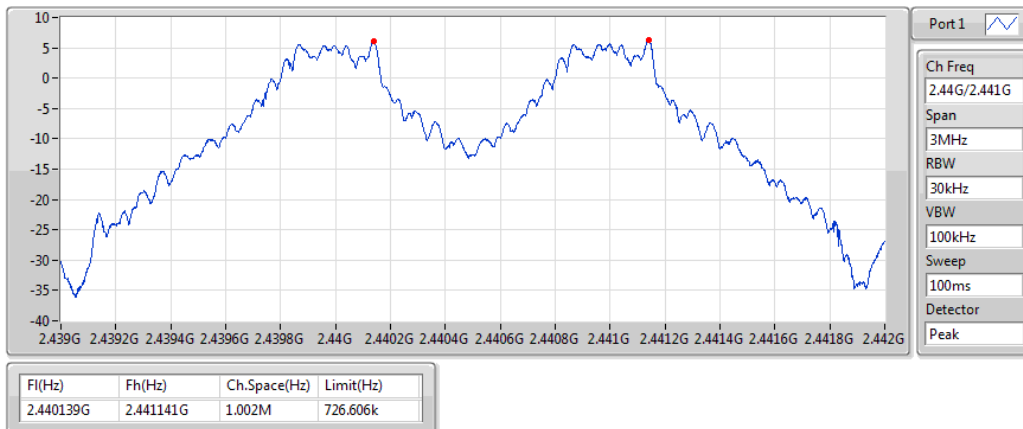
2.402G/2.403GHz



BT-BR(1Mbps)

Channel Separation

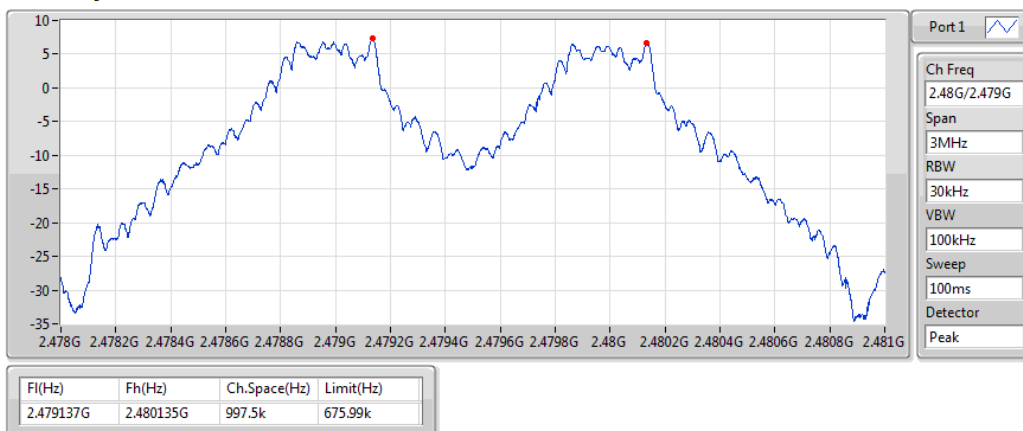
2.44G/2.441GHz



BT-BR(1Mbps)

Channel Separation

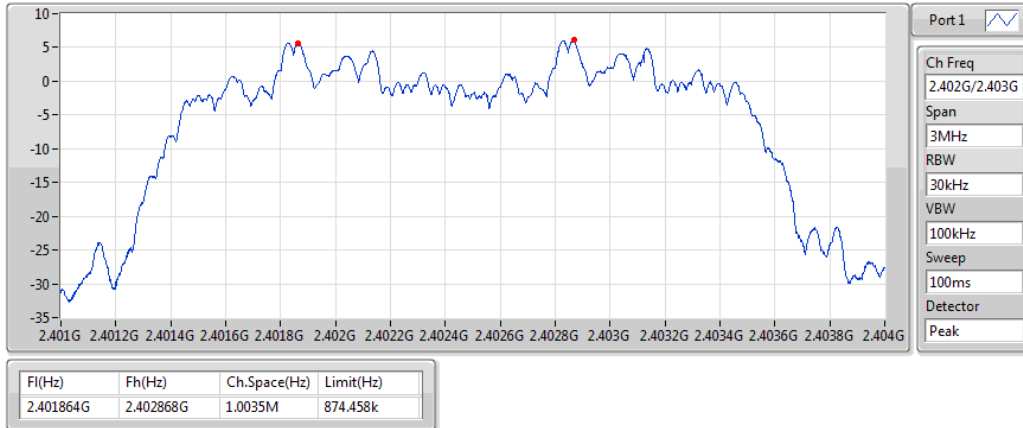
2.48G/2.479GHz



BT-EDR(2Mbps)

Channel Separation

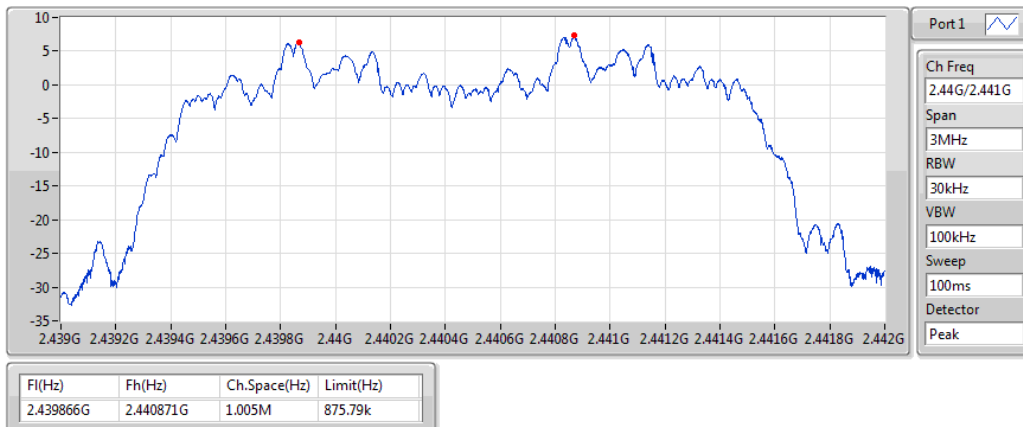
2.402G/2.403GHz



BT-EDR(2Mbps)

Channel Separation

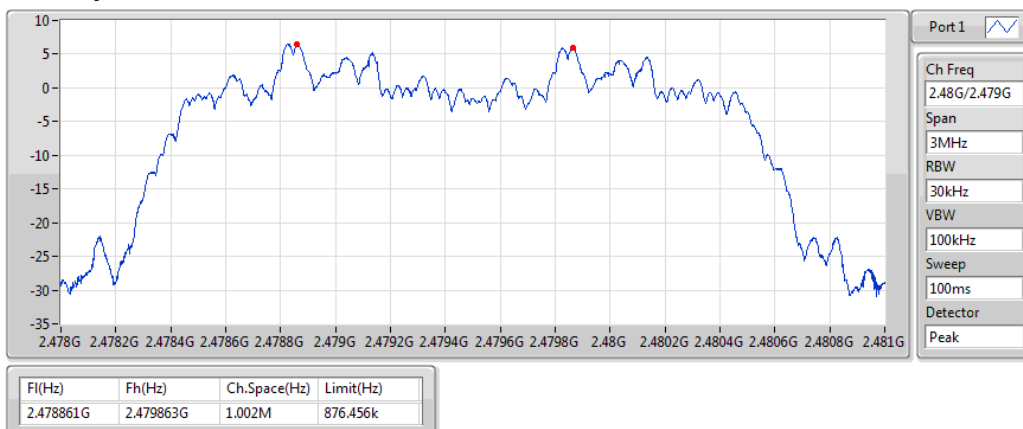
2.44G/2.441GHz



BT-EDR(2Mbps)

Channel Separation

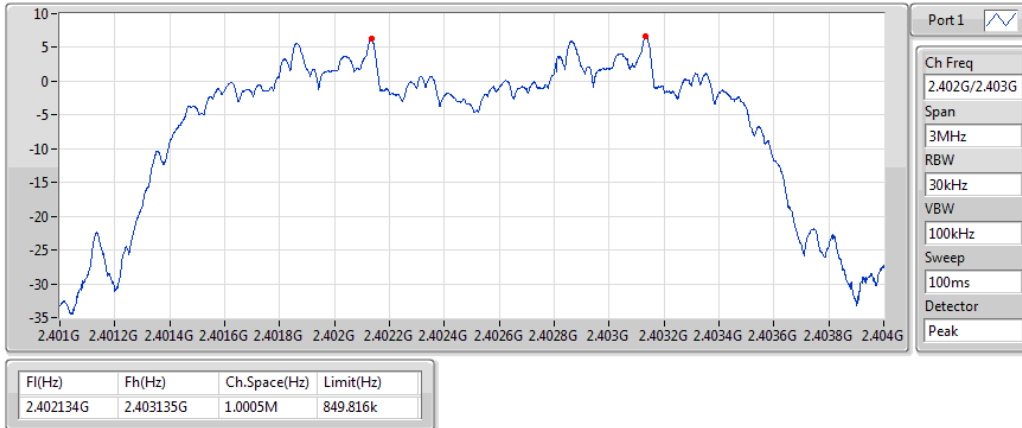
2.48G/2.479GHz



BT-EDR(3Mbps)

Channel Separation

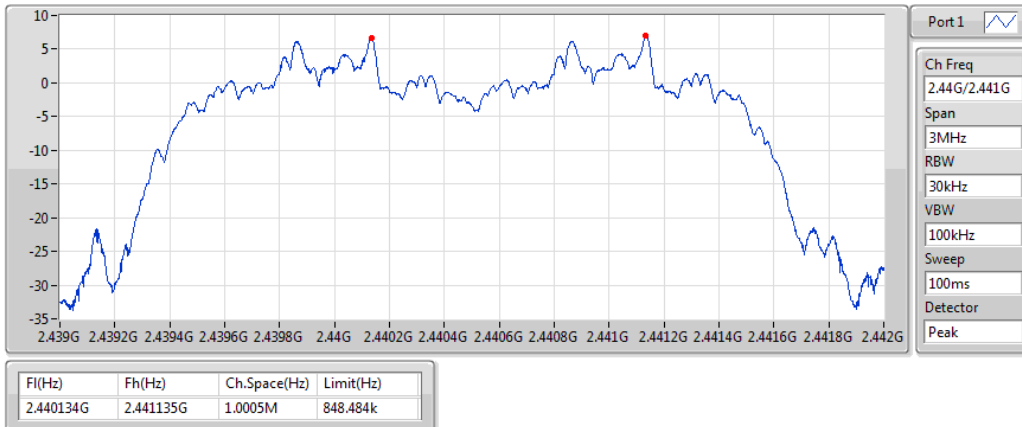
2.402G/2.403GHz



BT-EDR(3Mbps)

Channel Separation

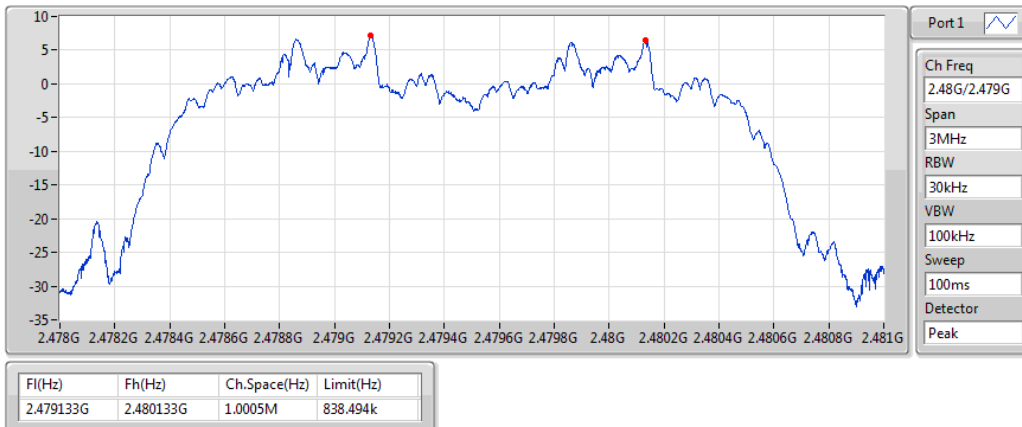
2.44G/2.441GHz



BT-EDR(3Mbps)

Channel Separation

2.48G/2.479GHz



Summary

Mode	Power (dBm)	Power (W)
BT-BR(1Mbps)	-	-
2.4-2.4835GHz	13.75	0.02371
BT-EDR(2Mbps)	-	-
2.4-2.4835GHz	14.85	0.03055
BT-EDR(3Mbps)	-	-
2.4-2.4835GHz	15.12	0.03251

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	1.30	13.28	21.00
2440MHz	Pass	1.30	12.87	21.00
2480MHz	Pass	1.30	13.75	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	1.30	14.39	21.00
2440MHz	Pass	1.30	14.85	21.00
2480MHz	Pass	1.30	14.78	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	1.30	14.70	21.00
2440MHz	Pass	1.30	15.12	21.00
2480MHz	Pass	1.30	15.01	21.00

Summary

Mode	Power	Power
	(dBm)	(W)
BT-BR(1Mbps)	-	-
2.4-2.4835GHz	12.91	0.01954
BT-EDR(2Mbps)	-	-
2.4-2.4835GHz	12.36	0.01722
BT-EDR(3Mbps)	-	-
2.4-2.4835GHz	12.19	0.01656

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	1.30	12.53	21.00
2440MHz	Pass	1.30	12.15	21.00
2480MHz	Pass	1.30	12.91	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	1.30	12.15	21.00
2440MHz	Pass	1.30	12.29	21.00
2480MHz	Pass	1.30	12.36	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	1.30	12.18	21.00
2440MHz	Pass	1.30	12.19	21.00
2480MHz	Pass	1.30	12.17	21.00

Summary

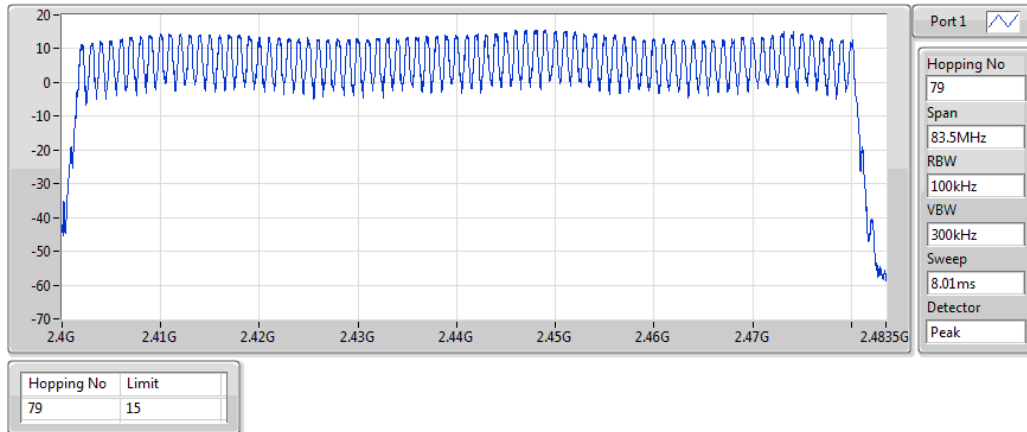
Mode	Max-Hop No
BT-BR(1Mbps)	-
2.4-2.4835GHz	79
BT-EDR(2Mbps)	-
2.4-2.4835GHz	79
BT-EDR(3Mbps)	-
2.4-2.4835GHz	79

Result

Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

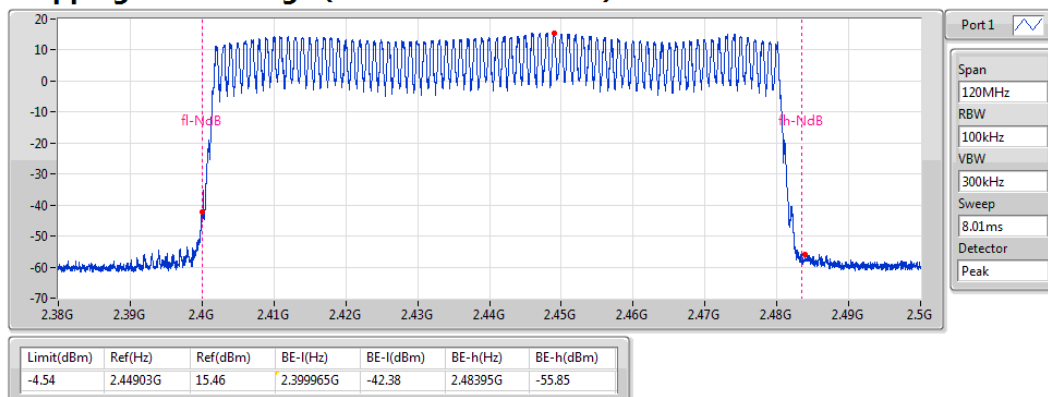
BT-BR(1Mbps) 2440MHz

Hopping Ch



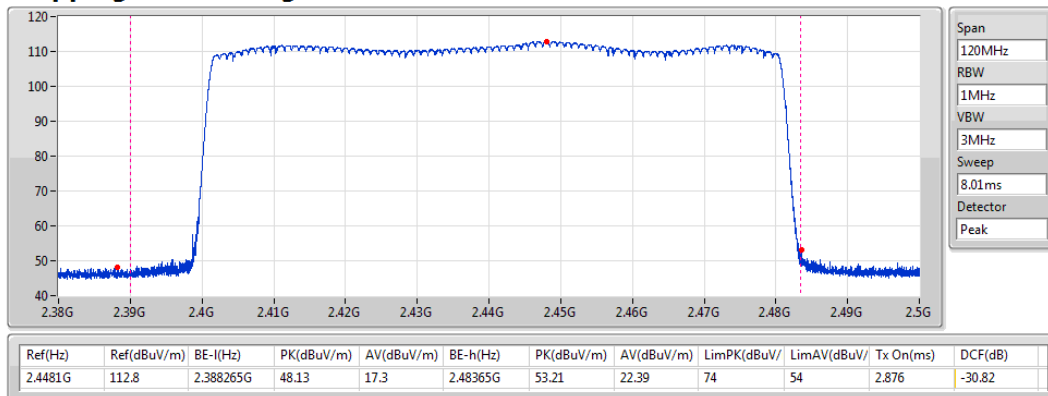
BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



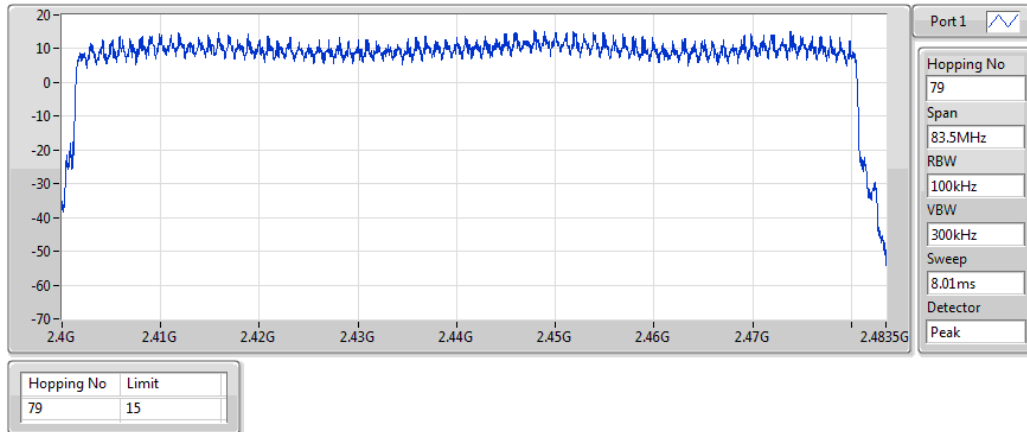
BT-BR(1Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



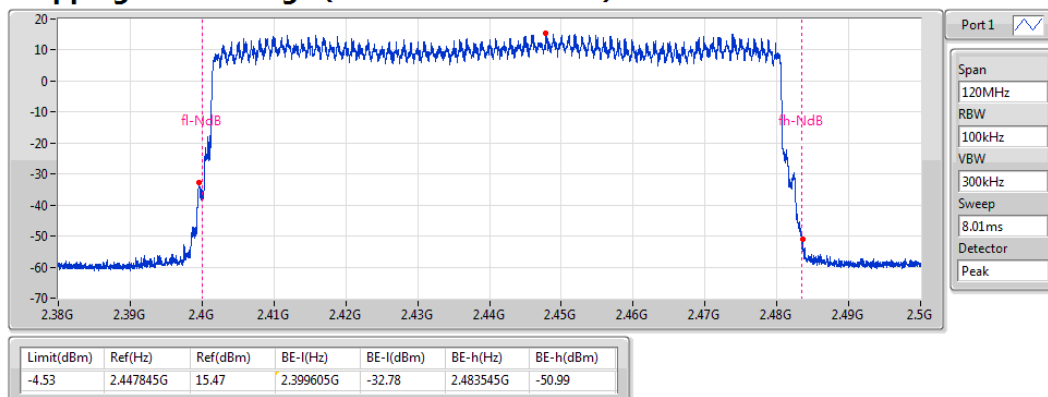
BT-EDR(2Mbps) 2440MHz

Hopping Ch



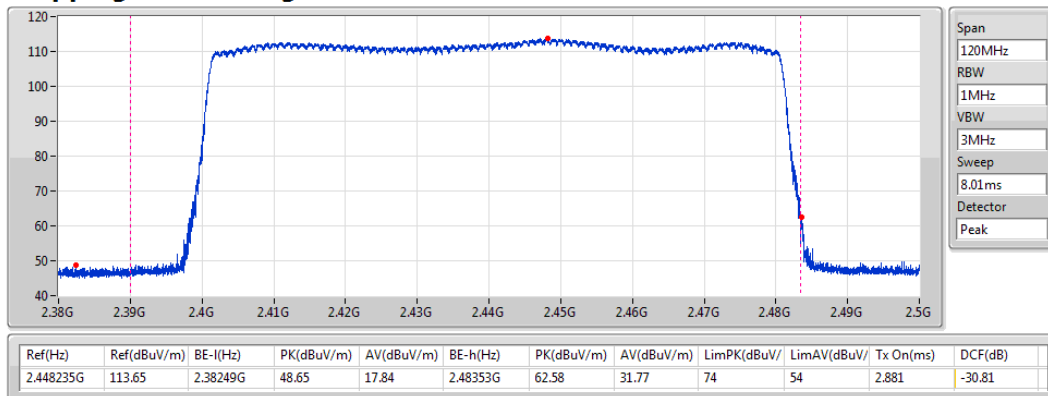
BT-EDR(2Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



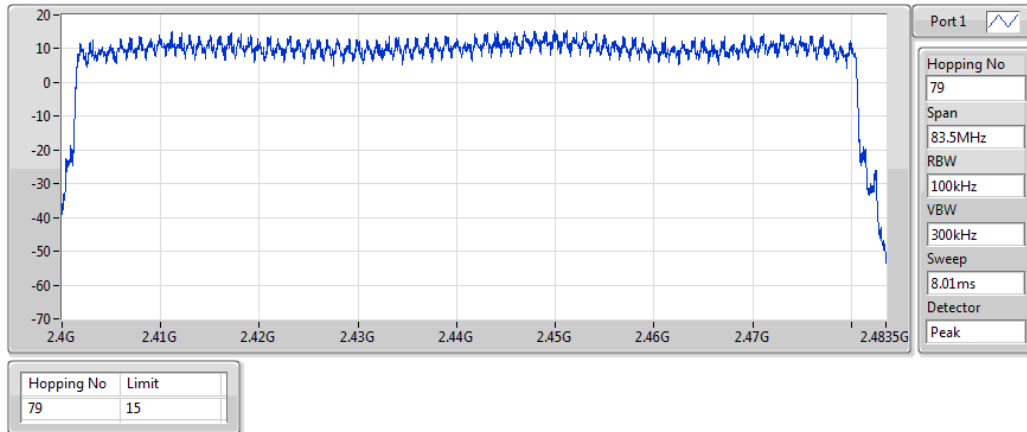
BT-EDR(2Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



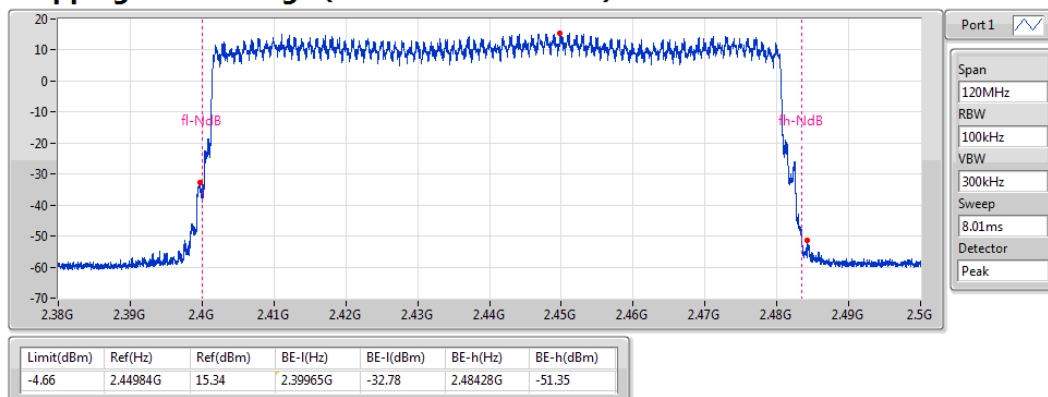
BT-EDR(3Mbps) 2440MHz

Hopping Ch



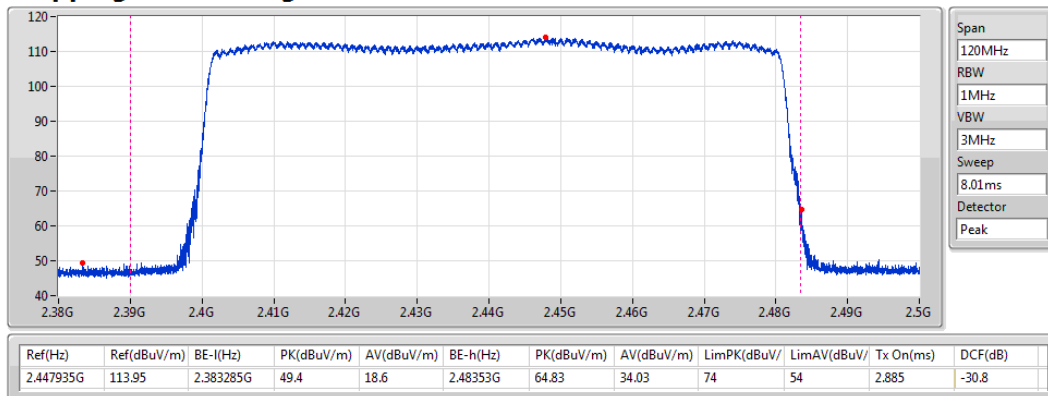
BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Non-restricted Band)



BT-EDR(3Mbps) 2440MHz

Hopping Ch Bandedge (Restricted Band)



Summary

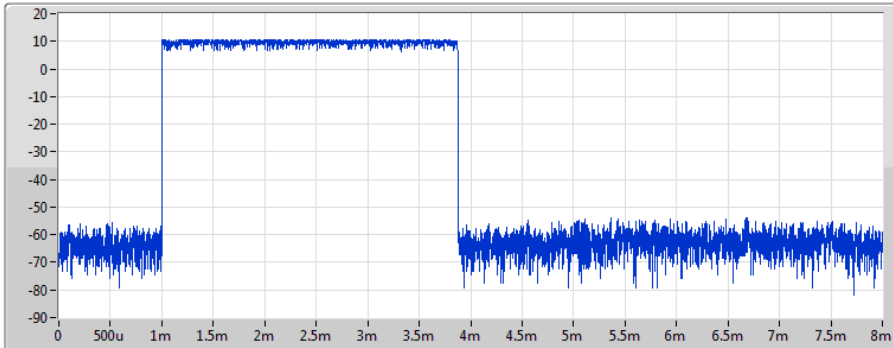
Mode	Max-Dwell (s)
BT-BR(1Mbps)	-
2.4-2.4835GHz	306.5816m
BT-EDR(2Mbps)	-
2.4-2.4835GHz	307.1146m
BT-EDR(3Mbps)	-
2.4-2.4835GHz	307.541m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	306.5816m	400m	2.876m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.1146m	400m	2.881m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.541m	400m	2.885m

BT-BR(1Mbps)

2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	306.5816m	400m	2.876m

Dwell

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

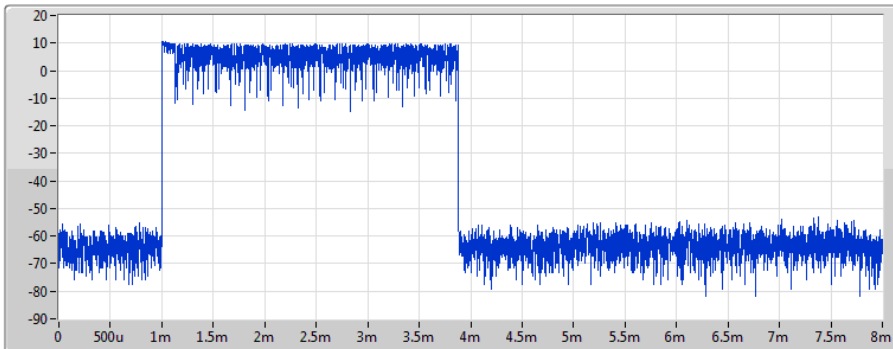
VBW
1MHz

Sweep Time
8ms

TX Time
2.876ms

BT-EDR(2Mbps)

2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.1146m	400m	2.881m

Dwell

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

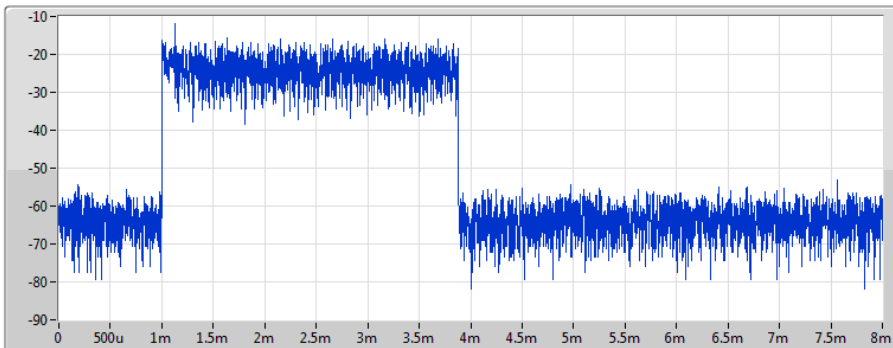
VBW
1MHz

Sweep Time
8ms

TX Time
2.881ms

BT-EDR(3Mbps)

2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.541m	400m	2.885m

Dwell

Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.885ms

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.439746G	10.04	-9.96	2.398G	-57.91	2.399484G	-29.03	2.484344G	-57.26	7.205102G	-42.18	1

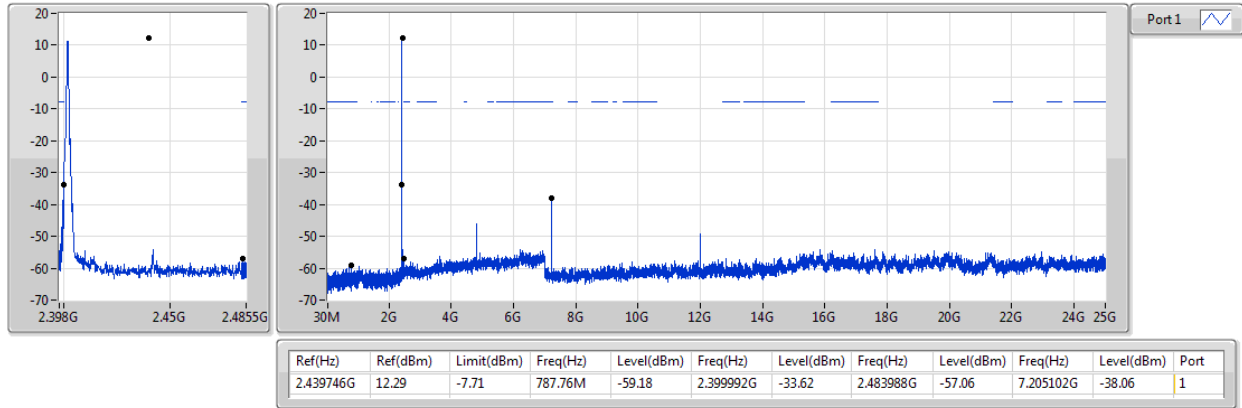
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.439746G	12.29	-7.71	787.76M	-59.18	2.399992G	-33.62	2.483988G	-57.06	7.205102G	-38.06	1
2440MHz	Pass	2.439913G	11.13	-8.87	839.856M	-59.61	2.399984G	-57.33	2.484252G	-57.75	6.808284G	-53.78	1
2480MHz	Pass	2.439913G	11.13	-8.87	798.416M	-59.72	2.39992G	-53.82	2.483536G	-53.77	6.245422G	-53.09	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.439746G	10.04	-9.96	2.398G	-57.91	2.399484G	-29.03	2.484344G	-57.26	7.205102G	-42.18	1
2440MHz	Pass	2.44008G	12.19	-7.81	915.632M	-59.15	2.399768G	-57.81	2.485308G	-57.64	6.200393G	-53.72	1
2480MHz	Pass	2.439913G	11.13	-8.87	849.328M	-59.46	2.399848G	-51.05	2.483524G	-43.39	6.887085G	-53.87	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44008G	12.19	-7.81	2.398G	-56.55	2.399524G	-28.63	2.484328G	-57.59	7.205102G	-41.25	1
2440MHz	Pass	2.439746G	10.04	-9.96	675.28M	-59.23	2.398908G	-58.27	2.484184G	-57.71	15.251222G	-54.03	1
2480MHz	Pass	2.439746G	10.04	-9.96	1.821392G	-58.35	2.399828G	-54.28	2.484356G	-51.57	6.934928G	-53.90	1

BT-BR(1Mbps)

CSE NdB

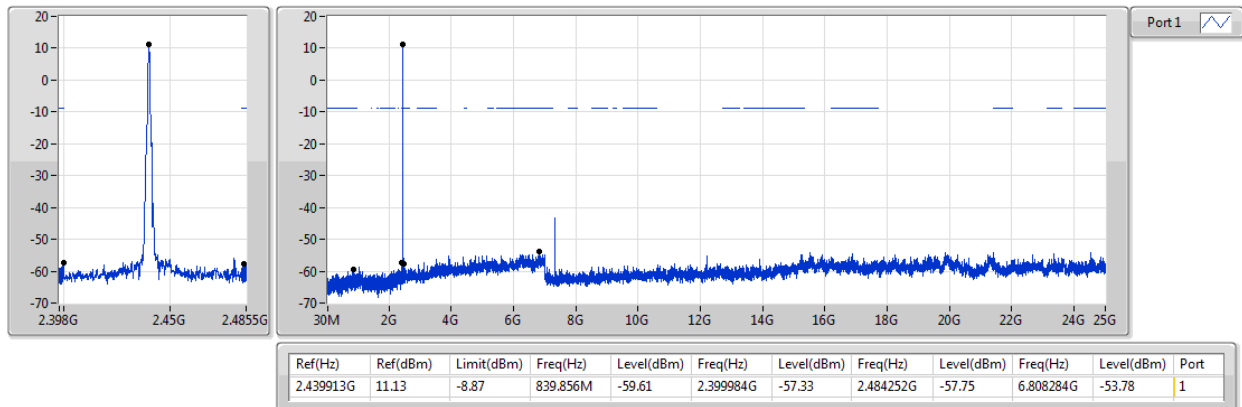
2402MHz



BT-BR(1Mbps)

CSE NdB

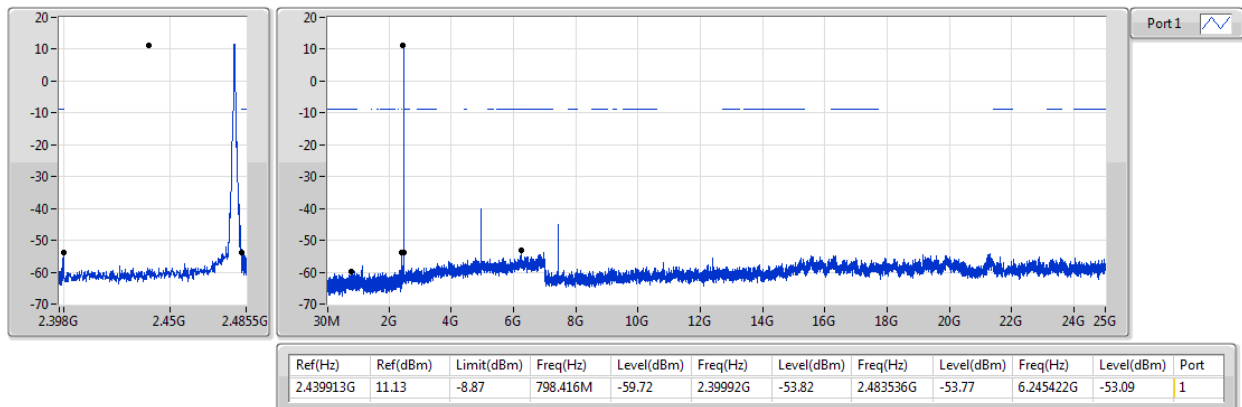
2440MHz



BT-BR(1Mbps)

CSE NdB

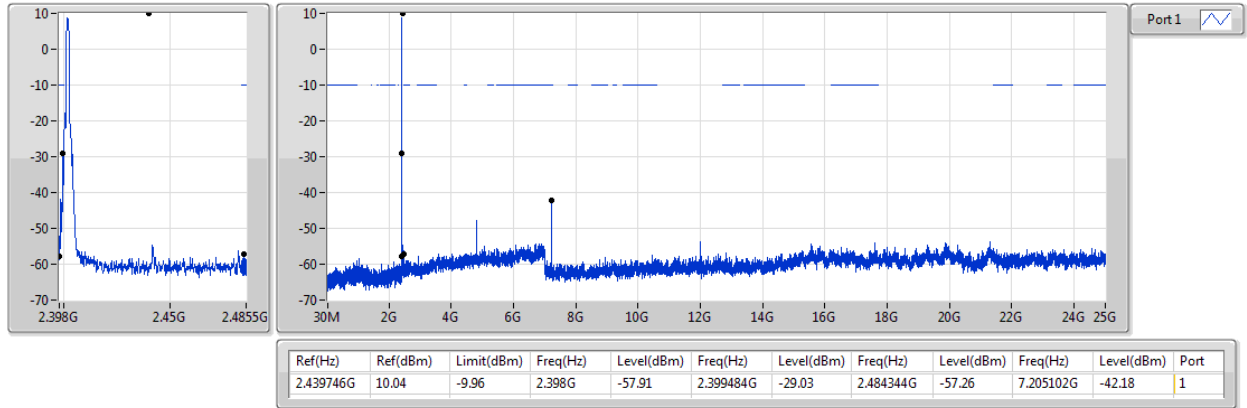
2480MHz



BT-EDR(2Mbps)

CSE NdB

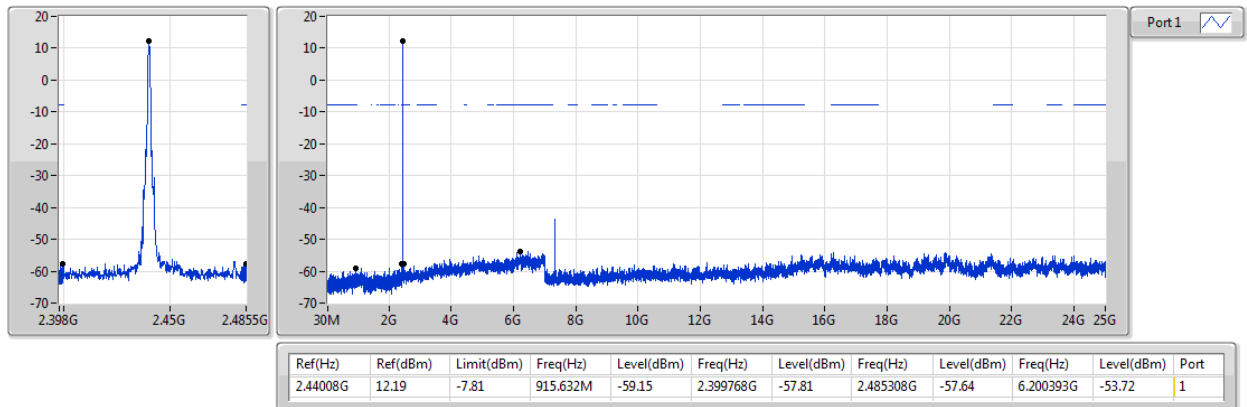
2402MHz



BT-EDR(2Mbps)

CSE NdB

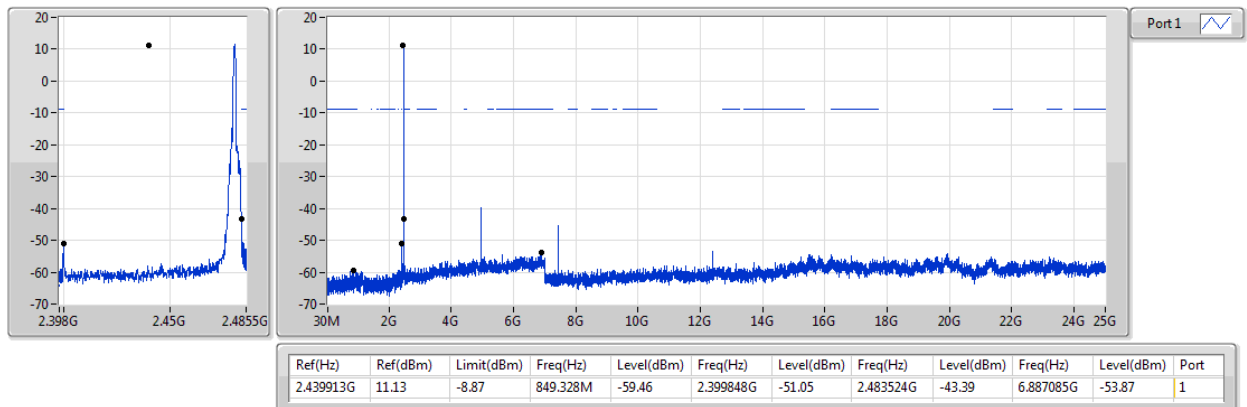
2440MHz



BT-EDR(2Mbps)

CSE NdB

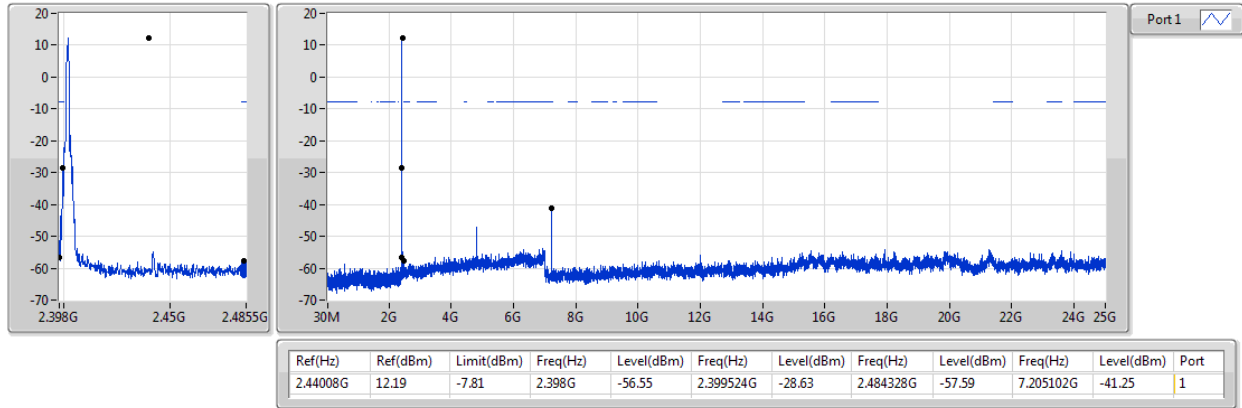
2480MHz



BT-EDR(3Mbps)

CSE NdB

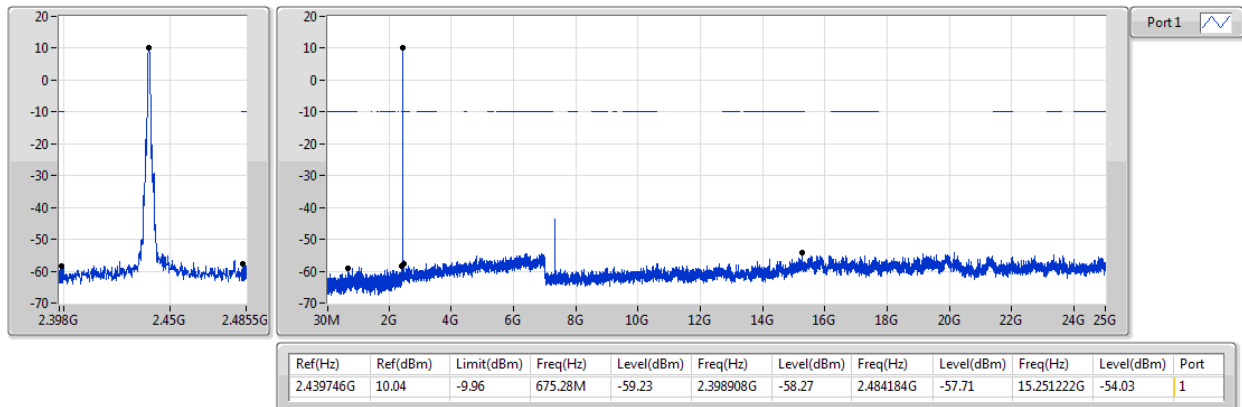
2402MHz



BT-EDR(3Mbps)

CSE NdB

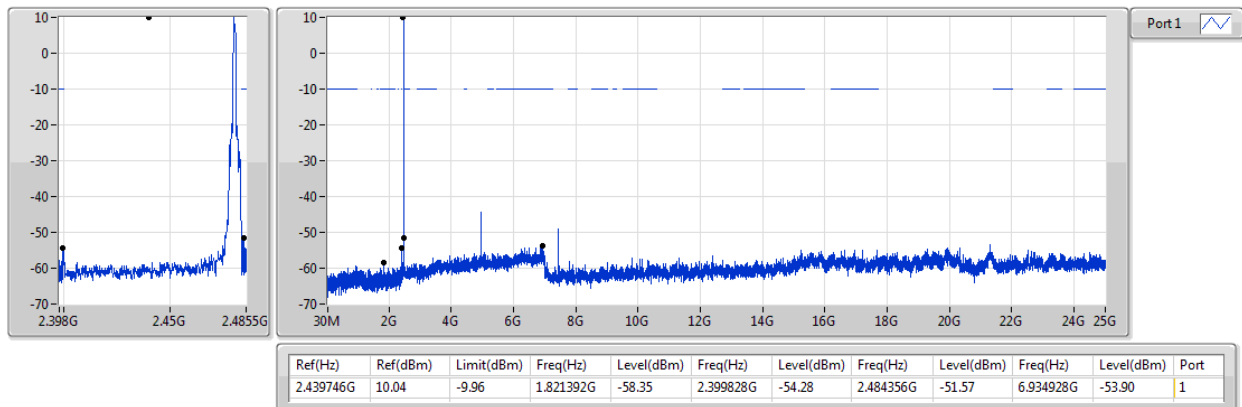
2440MHz



BT-EDR(3Mbps)

CSE NdB

2480MHz



**Summary**

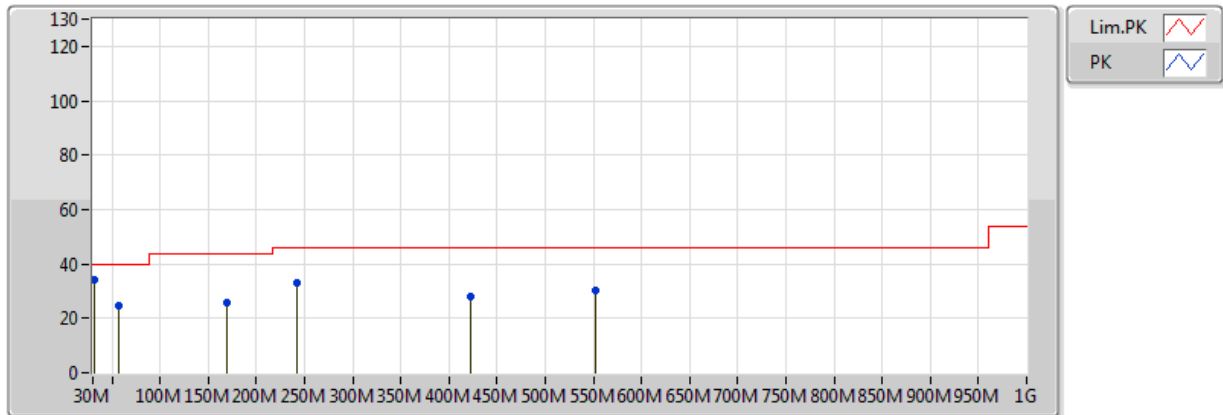
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	PK	31.94M	34.22	40.00	-5.78	-5.20	3	V	360	3.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	47.46M	28.15	40.00	-11.85	-12.67	3	H	0	3.00	-
2440MHz	Pass	PK	132.82M	25.92	43.50	-17.58	-9.27	3	H	0	3.00	-
2440MHz	Pass	PK	167.74M	32.26	43.50	-11.24	-10.70	3	H	0	3.00	-
2440MHz	Pass	PK	241.46M	34.86	46.00	-11.14	-8.39	3	H	0	3.00	-
2440MHz	Pass	PK	348.16M	28.41	46.00	-17.59	-5.46	3	H	0	3.00	-
2440MHz	Pass	PK	482.02M	29.29	46.00	-16.71	-2.70	3	H	0	3.00	-
2440MHz	Pass	PK	31.94M	34.22	40.00	-5.78	-5.20	3	V	360	3.00	-
2440MHz	Pass	PK	57.16M	24.67	40.00	-15.33	-14.81	3	V	360	3.00	-
2440MHz	Pass	PK	169.68M	25.73	43.50	-17.77	-10.76	3	V	360	3.00	-
2440MHz	Pass	PK	241.46M	33.31	46.00	-12.69	-8.39	3	V	360	3.00	-
2440MHz	Pass	PK	421.88M	27.87	46.00	-18.13	-3.56	3	V	360	3.00	-
2440MHz	Pass	PK	551.86M	30.28	46.00	-15.72	-0.93	3	V	360	3.00	-

BT-EDR(3Mbps)

2440MHz_Adapter

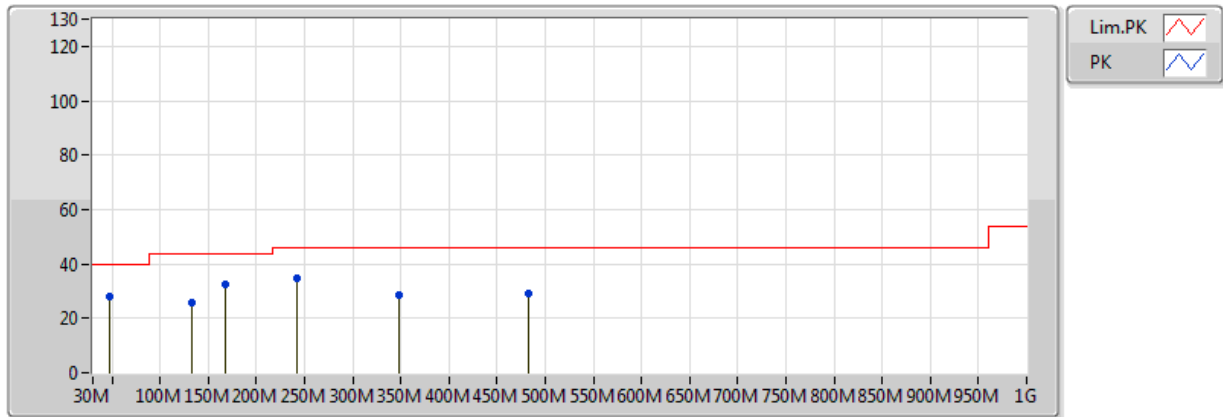


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	31.94M	34.22	40.00	-5.78	-5.20	3	V	360	3.00	-
PK	57.16M	24.67	40.00	-15.33	-14.81	3	V	360	3.00	-
PK	169.68M	25.73	43.50	-17.77	-10.76	3	V	360	3.00	-
PK	241.46M	33.31	46.00	-12.69	-8.39	3	V	360	3.00	-
PK	421.88M	27.87	46.00	-18.13	-3.56	3	V	360	3.00	-
PK	551.86M	30.28	46.00	-15.72	-0.93	3	V	360	3.00	-

BT-EDR(3Mbps)

2440MHz_Adapter



EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	47.46M	28.15	40.00	-11.85	-12.67	3	H	0	3.00	-
PK	132.82M	25.92	43.50	-17.58	-9.27	3	H	0	3.00	-
PK	167.74M	32.26	43.50	-11.24	-10.70	3	H	0	3.00	-
PK	241.46M	34.86	46.00	-11.14	-8.39	3	H	0	3.00	-
PK	348.16M	28.41	46.00	-17.59	-5.46	3	H	0	3.00	-
PK	482.02M	29.29	46.00	-16.71	-2.70	3	H	0	3.00	-

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	PK	2.483502G	72.69	74.00	-1.31	31.07	3	V	190	1.75	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3552G	35.99	54.00	-18.01	30.64	3	V	184	1.51	-
2402MHz	Pass	AV	2.4022G	92.20	Inf	-Inf	30.80	3	V	184	1.51	-
2402MHz	Pass	PK	2.3552G	58.49	74.00	-15.51	30.64	3	V	184	1.51	-
2402MHz	Pass	PK	2.4022G	114.70	Inf	-Inf	30.80	3	V	184	1.51	-
2440MHz	Pass	AV	2.3644G	35.48	54.00	-18.52	30.67	3	V	190	1.62	-
2440MHz	Pass	AV	2.44G	92.67	Inf	-Inf	30.93	3	V	190	1.62	-
2440MHz	Pass	AV	2.4892G	36.31	54.00	-17.69	31.09	3	V	190	1.62	-
2440MHz	Pass	PK	2.3644G	57.98	74.00	-16.02	30.67	3	V	190	1.62	-
2440MHz	Pass	PK	2.44G	115.17	Inf	-Inf	30.93	3	V	190	1.62	-
2440MHz	Pass	PK	2.4892G	58.81	74.00	-15.19	31.09	3	V	190	1.62	-
2480MHz	Pass	AV	2.48G	91.42	Inf	-Inf	31.06	3	V	193	1.24	-
2480MHz	Pass	AV	2.483502G	41.57	54.00	-12.43	31.07	3	V	193	1.24	-
2480MHz	Pass	PK	2.48G	113.92	Inf	-Inf	31.06	3	V	193	1.24	-
2480MHz	Pass	PK	2.483502G	64.07	74.00	-9.93	31.07	3	V	193	1.24	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3576G	35.70	54.00	-18.30	30.65	3	V	185	1.51	-
2402MHz	Pass	AV	2.4022G	92.77	Inf	-Inf	30.80	3	V	185	1.51	-
2402MHz	Pass	PK	2.3576G	58.20	74.00	-15.80	30.65	3	V	185	1.51	-
2402MHz	Pass	PK	2.4022G	115.27	Inf	-Inf	30.80	3	V	185	1.51	-
2440MHz	Pass	AV	2.3424G	35.32	54.00	-18.68	30.60	3	V	189	1.62	-
2440MHz	Pass	AV	2.44G	93.09	Inf	-Inf	30.93	3	V	189	1.62	-
2440MHz	Pass	AV	2.4896G	36.31	54.00	-17.69	31.09	3	V	189	1.62	-
2440MHz	Pass	PK	2.3424G	57.82	74.00	-16.18	30.60	3	V	189	1.62	-
2440MHz	Pass	PK	2.44G	115.59	Inf	-Inf	30.93	3	V	189	1.62	-
2440MHz	Pass	PK	2.4896G	58.81	74.00	-15.19	31.09	3	V	189	1.62	-
2480MHz	Pass	AV	2.4798G	92.05	Inf	-Inf	31.06	3	V	193	1.25	-
2480MHz	Pass	AV	2.483502G	49.45	54.00	-4.55	31.07	3	V	193	1.25	-
2480MHz	Pass	PK	2.4798G	114.55	Inf	-Inf	31.06	3	V	193	1.25	-
2480MHz	Pass	PK	2.483502G	71.95	74.00	-2.05	31.07	3	V	193	1.25	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3772G	35.82	54.00	-18.18	30.71	3	V	185	1.52	-
2402MHz	Pass	AV	2.4022G	93.01	Inf	-Inf	30.80	3	V	185	1.52	-
2402MHz	Pass	PK	2.3772G	58.32	74.00	-15.68	30.71	3	V	185	1.52	-
2402MHz	Pass	PK	2.4022G	115.51	Inf	-Inf	30.80	3	V	185	1.52	-
2402MHz	Pass	PK	4.88G	54.83	74.00	-19.17	2.19	3	V	69	1.87	-
2402MHz	Pass	AV	4.88G	32.33	54.00	-21.67	2.19	3	V	69	1.87	-
2402MHz	Pass	AV	4.88G	29.39	54.00	-24.61	2.19	3	H	303	2.11	-
2402MHz	Pass	PK	4.88G	51.89	74.00	-22.11	2.19	3	H	303	2.11	-
2440MHz	Pass	AV	2.3728G	35.41	54.00	-18.59	30.70	3	V	191	1.63	-
2440MHz	Pass	AV	2.44G	93.10	Inf	-Inf	30.93	3	V	191	1.63	-
2440MHz	Pass	AV	2.4844G	36.09	54.00	-17.91	31.08	3	V	191	1.63	-
2440MHz	Pass	PK	2.3728G	57.91	74.00	-16.09	30.70	3	V	191	1.63	-
2440MHz	Pass	PK	2.44G	115.60	Inf	-Inf	30.93	3	V	191	1.63	-
2440MHz	Pass	PK	2.4844G	58.59	74.00	-15.41	31.08	3	V	191	1.63	-
2440MHz	Pass	AV	4.88G	35.03	54.00	-18.97	2.19	3	V	69	2.48	-
2440MHz	Pass	PK	4.88G	45.79	74.00	-28.21	2.19	3	V	69	2.48	-
2440MHz	Pass	AV	4.88G	34.42	54.00	-19.58	2.19	3	H	240	1.49	-



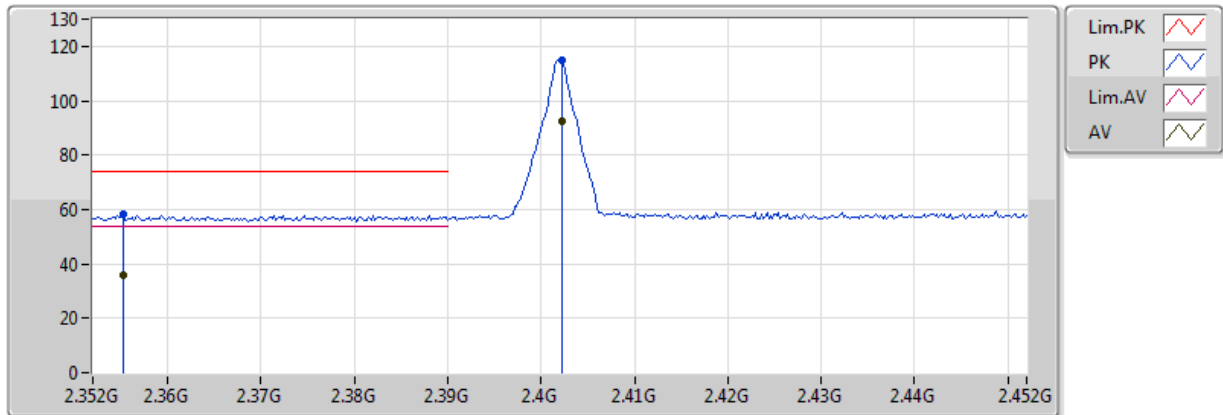
RSE TX above 1GHz Result

Appendix G.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2440MHz	Pass	PK	4.88G	45.43	74.00	-28.57	2.19	3	H	240	1.49	-
2480MHz	Pass	AV	2.48G	109.48	Inf	-Inf	31.06	3	V	190	1.75	-
2480MHz	Pass	AV	2.483502G	50.19	54.00	-3.81	31.07	3	V	190	1.75	-
2480MHz	Pass	PK	2.48G	115.22	Inf	-Inf	31.06	3	V	190	1.75	-
2480MHz	Pass	PK	2.483502G	72.69	74.00	-1.31	31.07	3	V	190	1.75	-
2480MHz	Pass	AV	4.96G	38.93	54.00	-15.07	2.41	3	V	345	1.76	-
2480MHz	Pass	PK	4.96G	61.43	74.00	-12.57	2.41	3	V	345	1.76	-
2480MHz	Pass	AV	4.96G	37.13	54.00	-16.87	2.41	3	H	299	2.00	-
2480MHz	Pass	PK	4.96G	59.63	74.00	-14.37	2.41	3	H	299	2.00	-

BT-BR(1Mbps)

2402MHz_TX

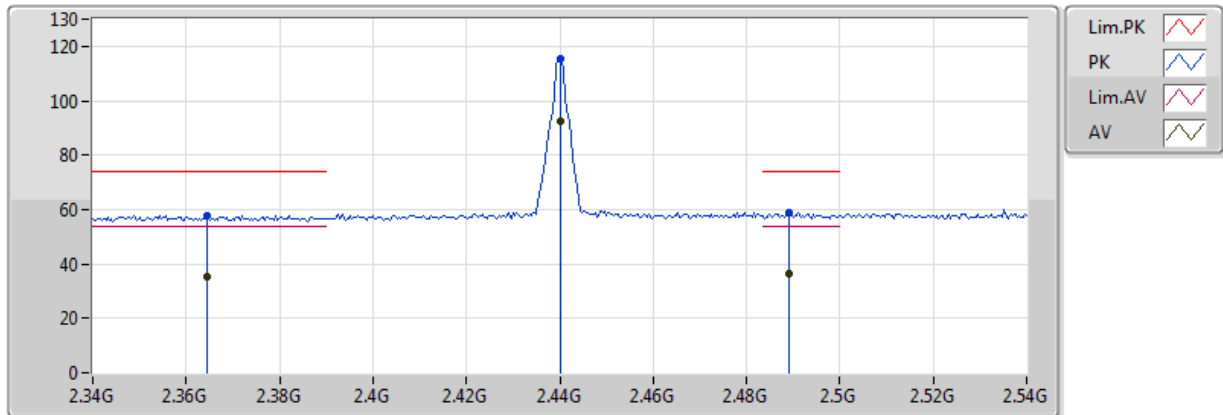


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3552G	35.99	54.00	-18.01	30.64	3	V	184	1.51	-
AV	2.4022G	92.20	Inf	-Inf	30.80	3	V	184	1.51	-
PK	2.3552G	58.49	74.00	-15.51	30.64	3	V	184	1.51	-
PK	2.4022G	114.70	Inf	-Inf	30.80	3	V	184	1.51	-

BT-BR(1Mbps)

2440MHz_TX

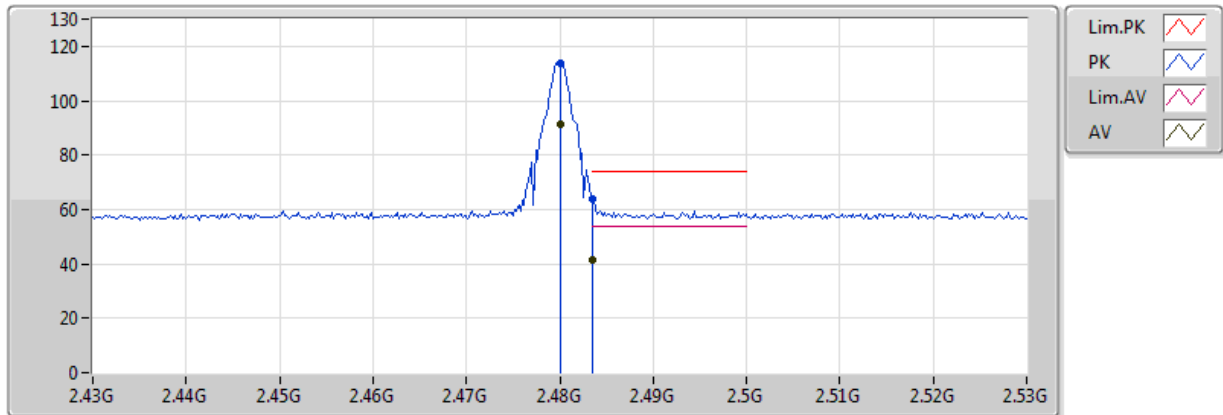


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3644G	35.48	54.00	-18.52	30.67	3	V	190	1.62	-
AV	2.44G	92.67	Inf	-Inf	30.93	3	V	190	1.62	-
AV	2.4892G	36.31	54.00	-17.69	31.09	3	V	190	1.62	-
PK	2.3644G	57.98	74.00	-16.02	30.67	3	V	190	1.62	-
PK	2.44G	115.17	Inf	-Inf	30.93	3	V	190	1.62	-
PK	2.4892G	58.81	74.00	-15.19	31.09	3	V	190	1.62	-

BT-BR(1Mbps)

2480MHz_TX

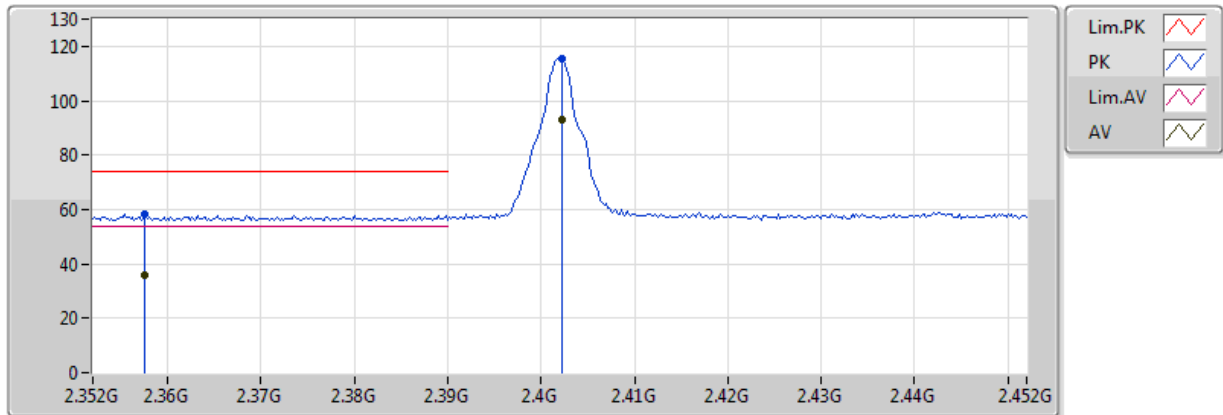


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.48G	91.42	Inf	-Inf	31.06	3	V	193	1.24	-
AV	2.483502G	41.57	54.00	-12.43	31.07	3	V	193	1.24	-
PK	2.48G	113.92	Inf	-Inf	31.06	3	V	193	1.24	-
PK	2.483502G	64.07	74.00	-9.93	31.07	3	V	193	1.24	-

BT-EDR(2Mbps)

2402MHz_TX

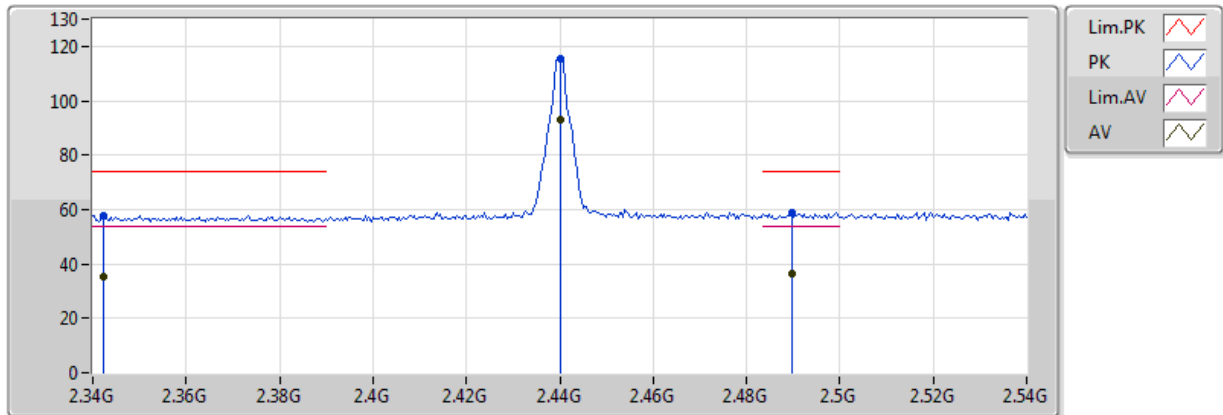


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3576G	35.70	54.00	-18.30	30.65	3	V	185	1.51	-
AV	2.4022G	92.77	Inf	-Inf	30.80	3	V	185	1.51	-
PK	2.3576G	58.20	74.00	-15.80	30.65	3	V	185	1.51	-
PK	2.4022G	115.27	Inf	-Inf	30.80	3	V	185	1.51	-

BT-EDR(2Mbps)

2440MHz_TX

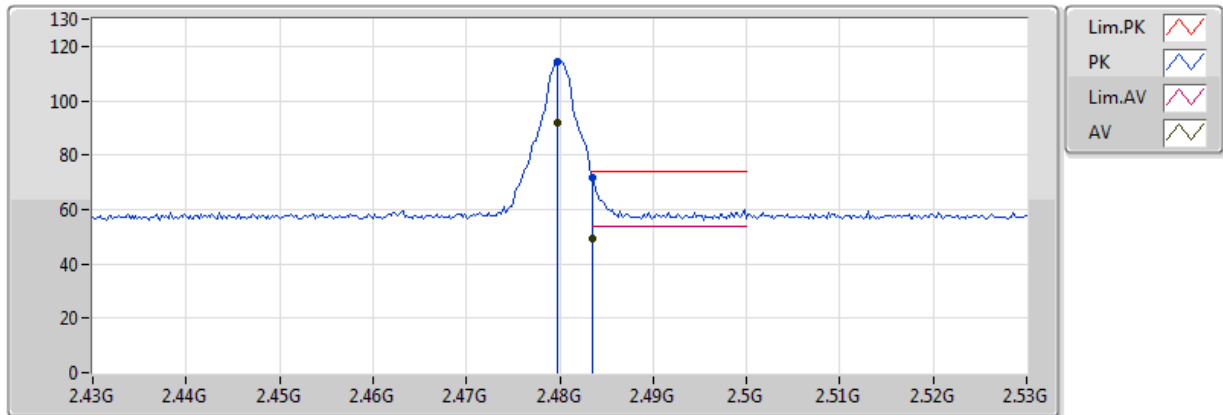


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3424G	35.32	54.00	-18.68	30.60	3	V	189	1.62	-
AV	2.44G	93.09	Inf	-Inf	30.93	3	V	189	1.62	-
AV	2.4896G	36.31	54.00	-17.69	31.09	3	V	189	1.62	-
PK	2.3424G	57.82	74.00	-16.18	30.60	3	V	189	1.62	-
PK	2.44G	115.59	Inf	-Inf	30.93	3	V	189	1.62	-
PK	2.4896G	58.81	74.00	-15.19	31.09	3	V	189	1.62	-

BT-EDR(2Mbps)

2480MHz_TX

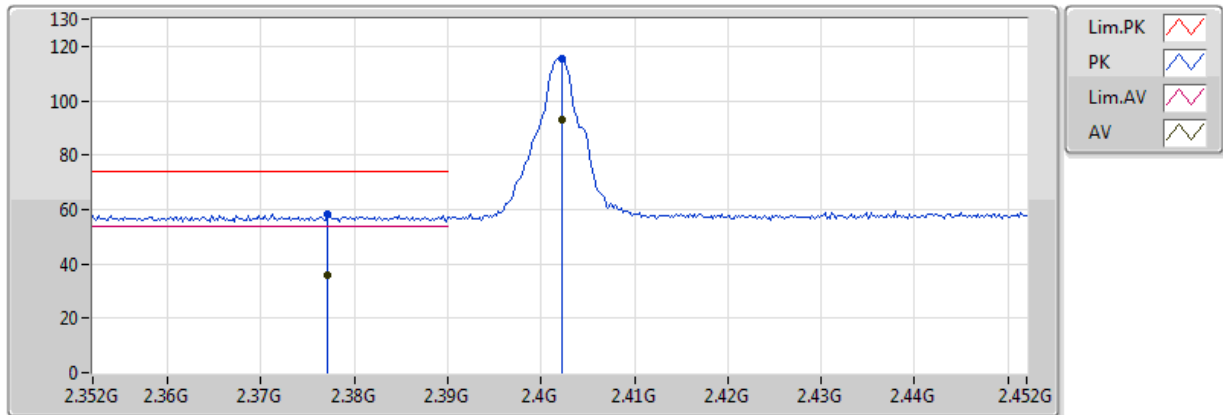


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4798G	92.05	Inf	-Inf	31.06	3	V	193	1.25	-
AV	2.483502G	49.45	54.00	-4.55	31.07	3	V	193	1.25	-
PK	2.4798G	114.55	Inf	-Inf	31.06	3	V	193	1.25	-
PK	2.483502G	71.95	74.00	-2.05	31.07	3	V	193	1.25	-

BT-EDR(3Mbps)

2402MHz_TX

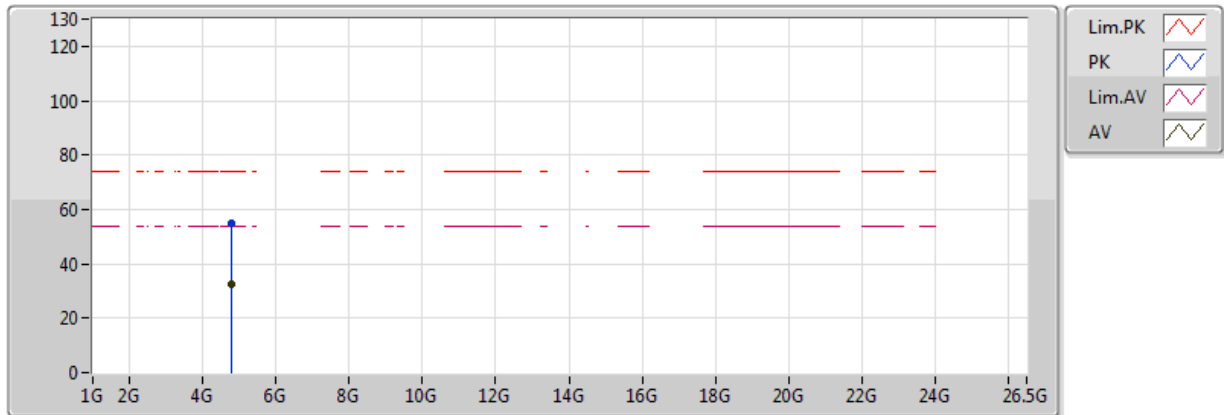


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3772G	35.82	54.00	-18.18	30.71	3	V	185	1.52	-
AV	2.4022G	93.01	Inf	-Inf	30.80	3	V	185	1.52	-
PK	2.3772G	58.32	74.00	-15.68	30.71	3	V	185	1.52	-
PK	2.4022G	115.51	Inf	-Inf	30.80	3	V	185	1.52	-

BT-EDR(3Mbps)

2402MHz_TX

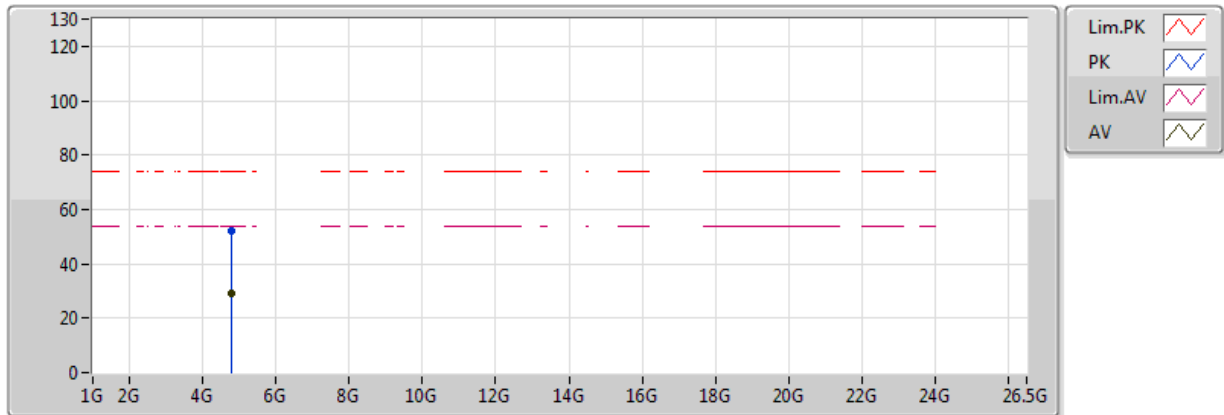


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.804G	32.33	54.00	-21.67	1.98	3	V	69	1.87	-
PK	4.804G	54.83	74.00	-19.17	1.98	3	V	69	1.87	-

BT-EDR(3Mbps)

2402MHz_TX

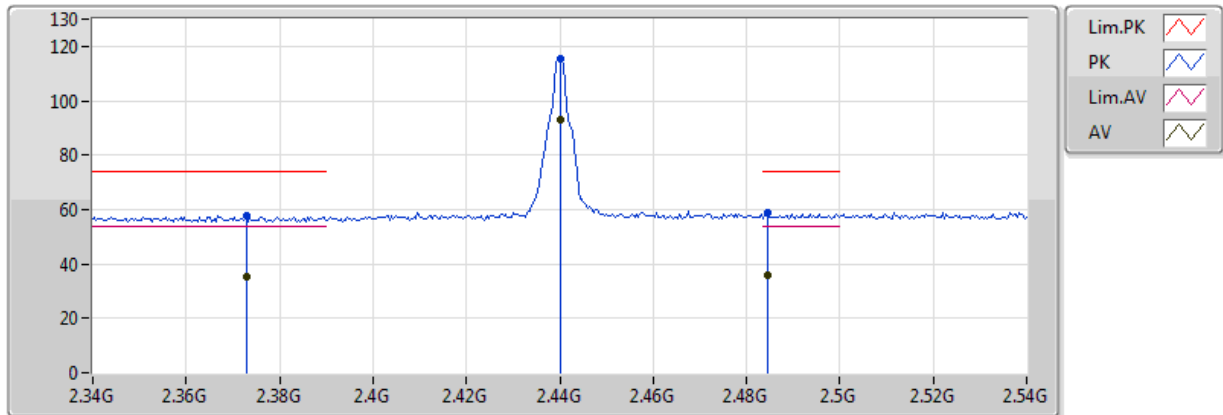


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.804G	29.39	54.00	-24.61	1.98	3	H	303	2.11	-
PK	4.804G	51.89	74.00	-22.11	1.98	3	H	303	2.11	-

BT-EDR(3Mbps)

2440MHz_TX

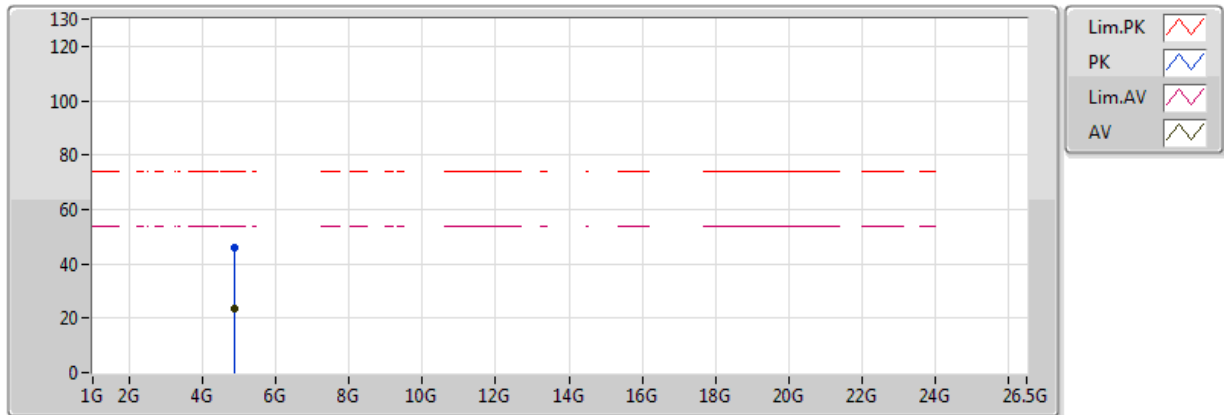


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3728G	35.41	54.00	-18.59	30.70	3	V	191	1.63	-
AV	2.44G	93.10	Inf	-Inf	30.93	3	V	191	1.63	-
AV	2.4844G	36.09	54.00	-17.91	31.08	3	V	191	1.63	-
PK	2.3728G	57.91	74.00	-16.09	30.70	3	V	191	1.63	-
PK	2.44G	115.60	Inf	-Inf	30.93	3	V	191	1.63	-
PK	2.4844G	58.59	74.00	-15.41	31.08	3	V	191	1.63	-

BT-EDR(3Mbps)

2440MHz_TX

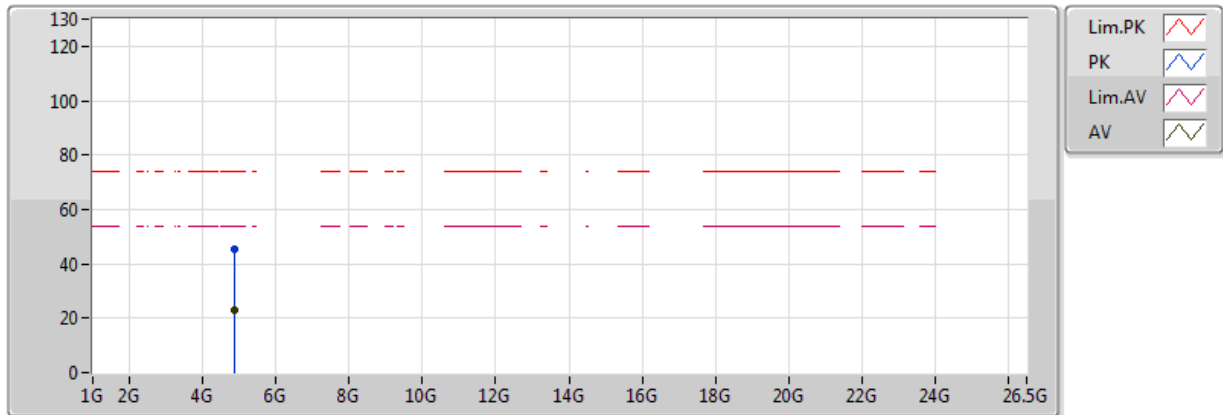


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.88G	23.29	54.00	-30.71	2.19	3	V	69	2.48	-
PK	4.88G	45.79	74.00	-28.21	2.19	3	V	69	2.48	-

BT-EDR(3Mbps)

2440MHz_TX

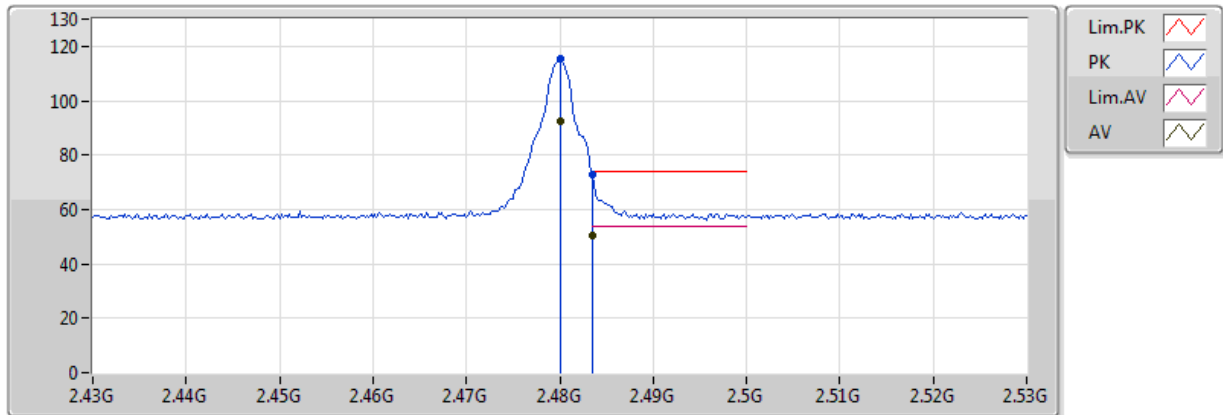


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.88G	22.93	54.00	-31.07	2.19	3	H	240	1.49	-
PK	4.88G	45.43	74.00	-28.57	2.19	3	H	240	1.49	-

BT-EDR(3Mbps)

2480MHz_TX

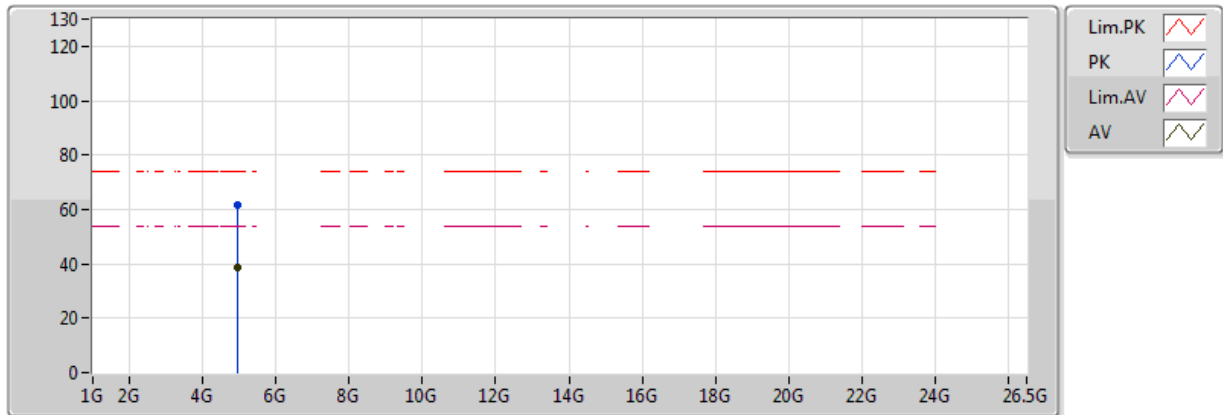


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.48G	92.72	Inf	-Inf	31.06	3	V	190	1.75	-
AV	2.483502G	50.19	54.00	-3.81	31.07	3	V	190	1.75	-
PK	2.48G	115.22	Inf	-Inf	31.06	3	V	190	1.75	-
PK	2.483502G	72.69	74.00	-1.31	31.07	3	V	190	1.75	-

BT-EDR(3Mbps)

2480MHz_TX

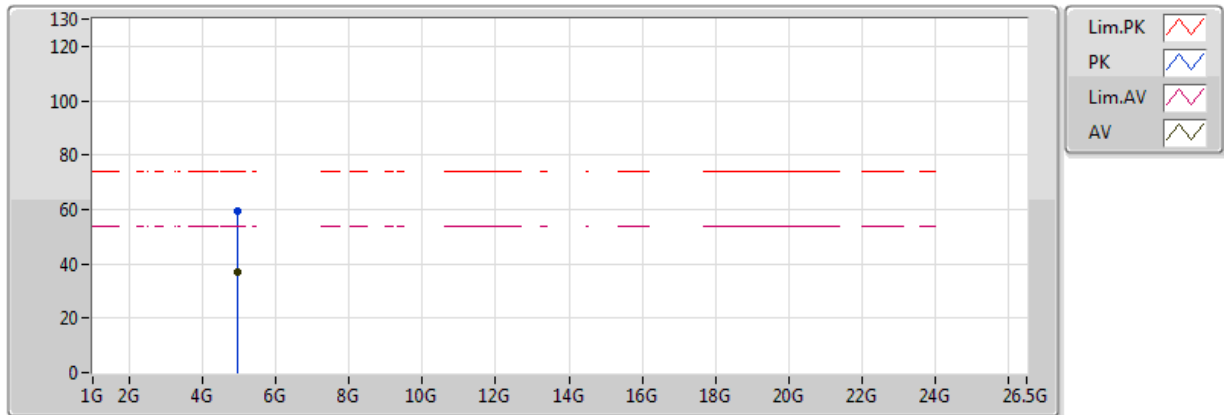


EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.96G	38.93	54.00	-15.07	2.41	3	V	345	1.76	-
PK	4.96G	61.43	74.00	-12.57	2.41	3	V	345	1.76	-

BT-EDR(3Mbps)

2480MHz_TX



EUT = Y

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.96G	37.13	54.00	-16.87	2.41	3	H	299	2.00	-
PK	4.96G	59.63	74.00	-14.37	2.41	3	H	299	2.00	-