

FCC Test Report

Equipment : Pen Tablet
Brand Name : Wacom
Model No. : CTL-4100WL
FCC ID : HV4CTL4100WL
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant / Manufacturer : Wacom Co., Ltd.
2-510-1 Toyonodai, Kazo-shi, Saitama 349-1148 Japan

The product sample received on Nov. 16, 2017 and completely tested on Dec. 20, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 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 INTERNATIONAL INC., the test report shall not be reproduced except in full.


Phoenix Chen / Assistant Manager





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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

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
2400-2483.5	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	-	pcbmonoA2	PCB	I-PEX	0

1.1.3 EUT Information

Operational Condition	
EUT Power Type	From System USB Charger
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)	0.794	1.002	2.924m	1k
BT-EDR(2Mbps)	0.783	1.062	2.931m	1k
BT-EDR(3Mbps)	0.795	0.996	2.933m	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
- ♦ Public Notice DA 00-705
- ♦ ANSI C63.10-2013

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. TW1190 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	23.5°C / 65%	20/Dec/2017
Radiated	03CH01-HY	Lynus	23.8°C / 61.7%	24/Nov/2017
AC Conduction	CO04-HY	Thor	23.7°C / 64%	27/Nov/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

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software Version	Airoha.AB1122 ver 2.0.11.10812
-----------------------	--------------------------------

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	47
2441MHz	47
2480MHz	47
BT-EDR(2Mbps)	-
2402MHz	default
2441MHz	default
2480MHz	default
BT-EDR(3Mbps)	-
2402MHz	default
2441MHz	default
2480MHz	default

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	USB 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	USB Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.4 Accessories

Accessories				
Battery	Brand Name	Wacom	Model Name	PR-234385G
	Manufacturer	TCL Hyperpower Batteries		
	Power Rating	3.8Vdc, 1260mAh	Type	Li-ion
Touch Pen	Brand Name	Wacom	Model Name	LP-1100
Micro USB Cable	Brand Name	Wacom	Model Name	STJ-A393
	signal line	1.5 meter, shielded cable, w/o ferrite core		

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

2.5 Support Equipment

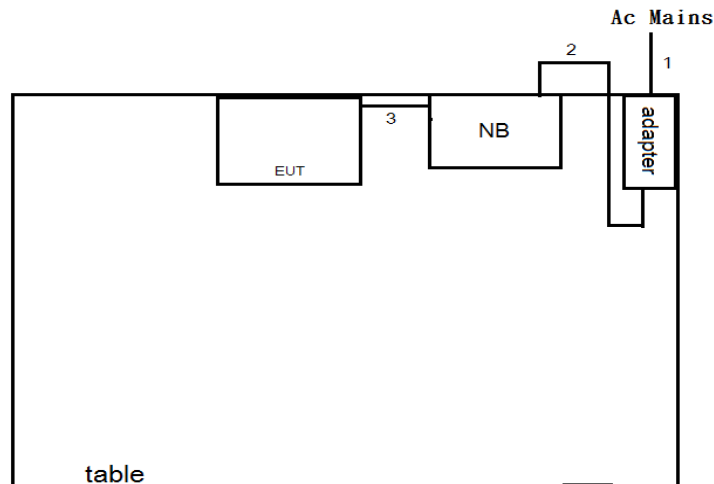
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DOC
2	Adapter for Notebook	DELL	HA65NM130	DOC
3	AC Source	G.W	APS-9102	N/A

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DOC
2	Adapter for Notebook	DELL	LA65NS2-01	N/A

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DOC
2	Adapter for Notebook	DELL	LA65NS2-01	N/A

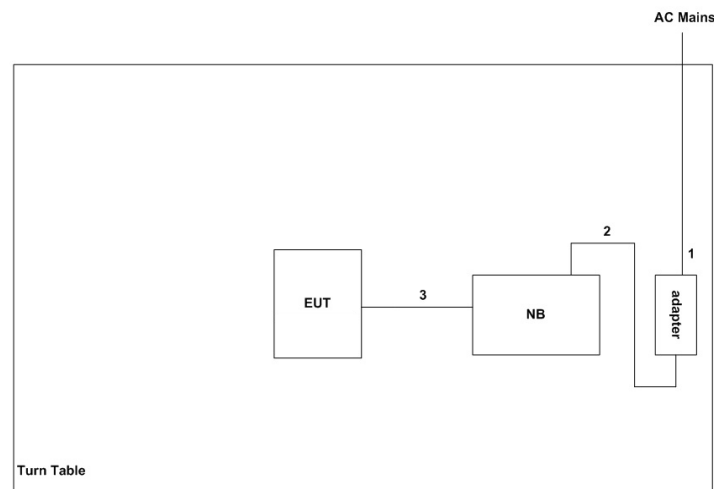
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power cable	No	1.8m
2	DC Power cable	No	1.5m
3	USB Cable	D	1.5m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	AC Power cable	No	1.8m
2	DC Power cable	No	1.5m
3	USB Cable	D	1.5m

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.

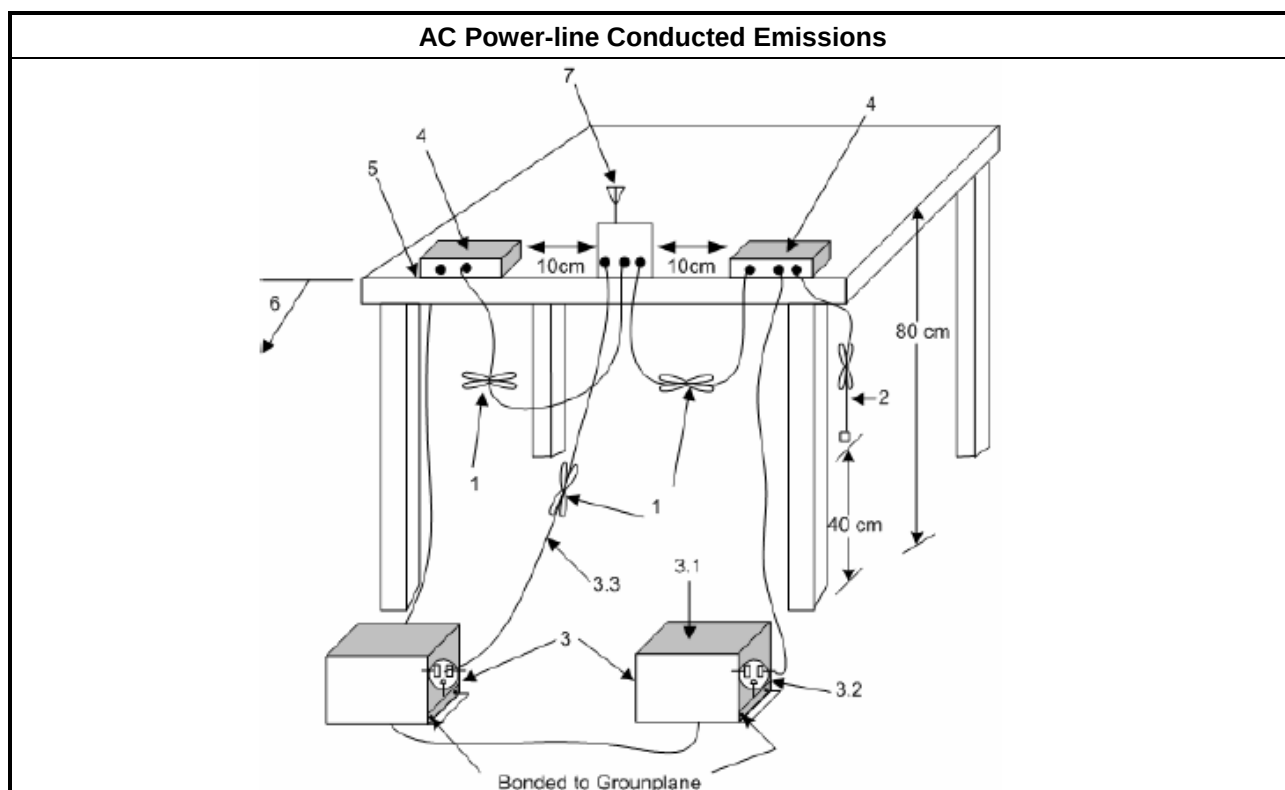
3.1.2 Measuring Instruments

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	

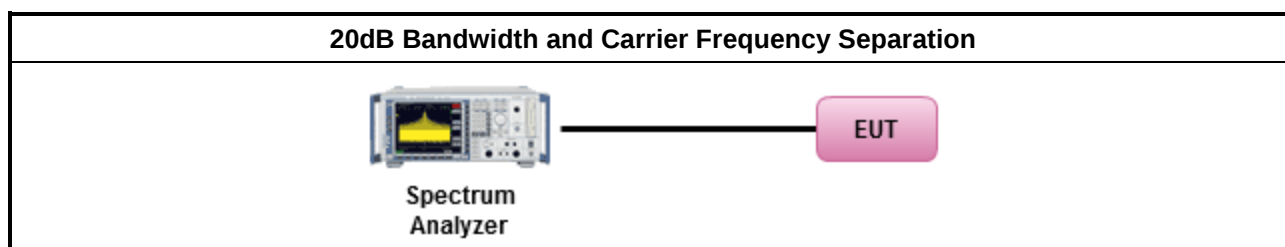
3.2.2 Measuring Instruments

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	

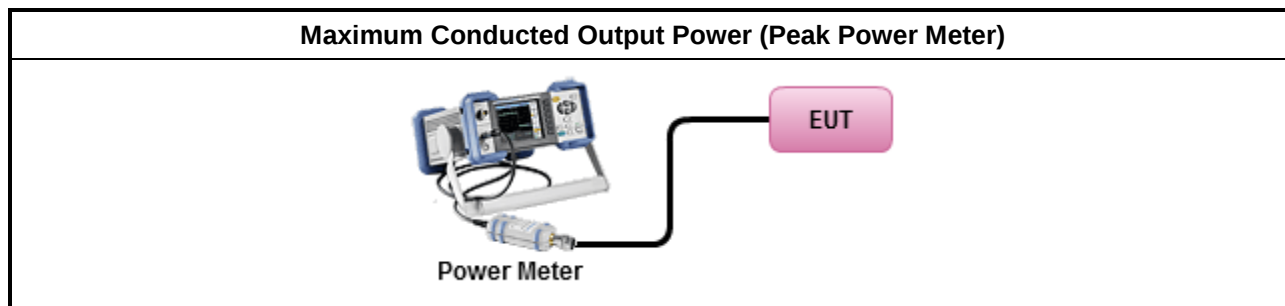
3.3.2 Measuring Instruments

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

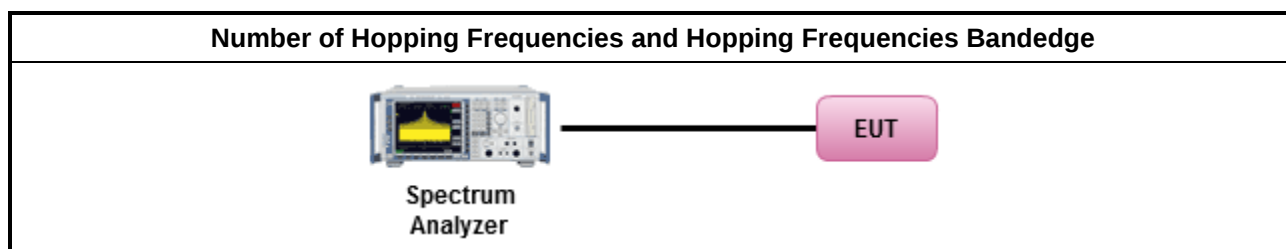
3.4.3 Measuring Instruments

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	

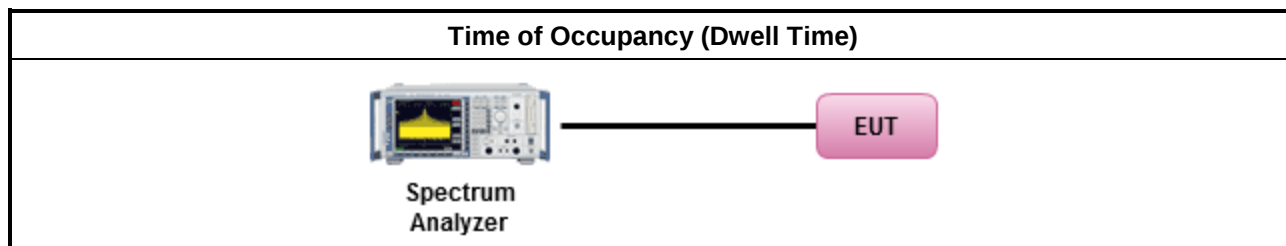
3.5.2 Measuring Instruments

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.	

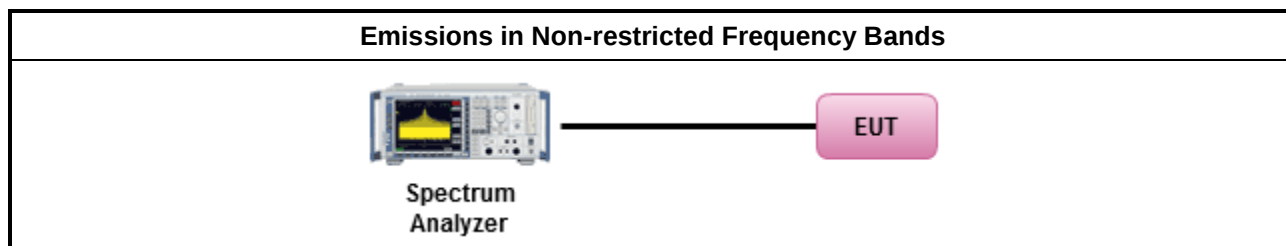
3.6.2 Measuring Instruments

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.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

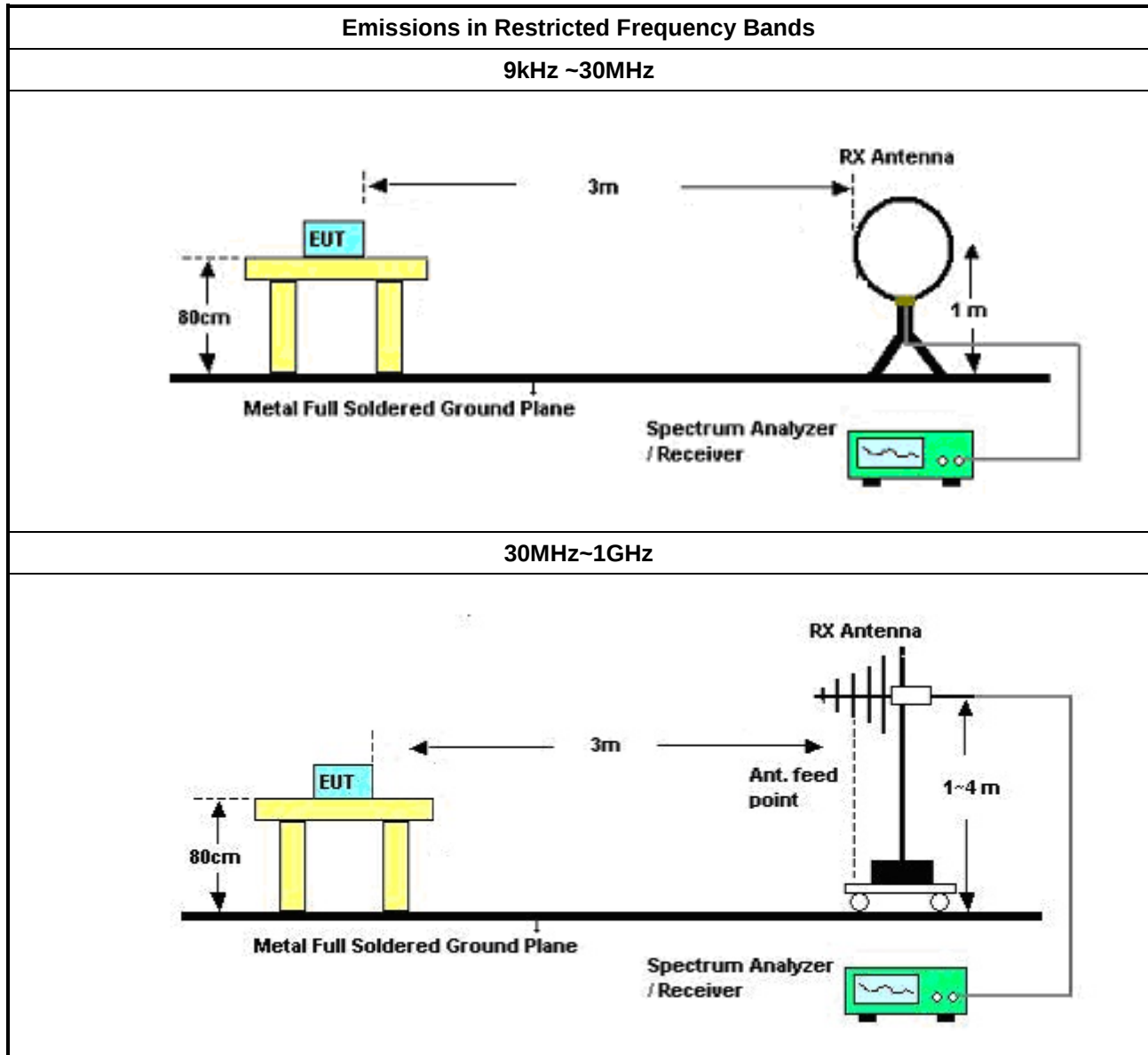
3.7.2 Measuring Instruments

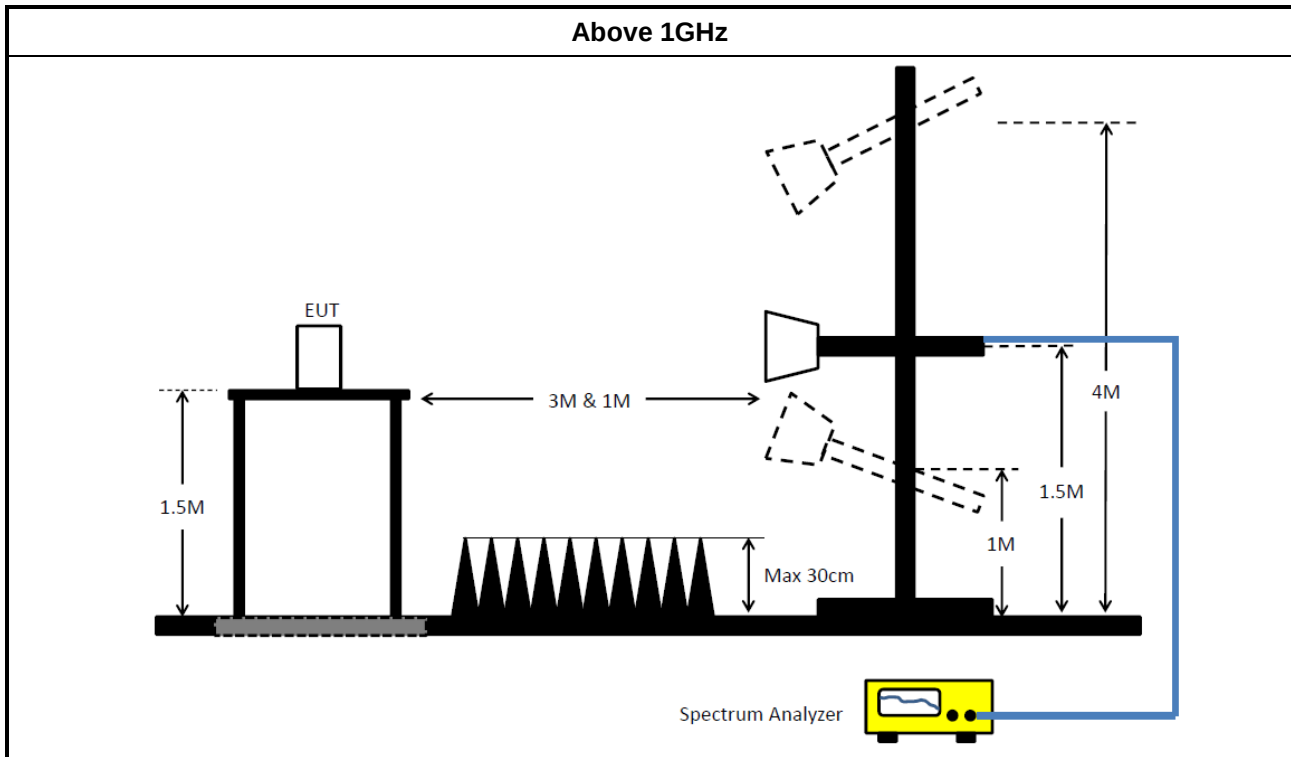
Refer a test equipment and calibration data table in this test report.

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.

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	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018

NCR : Non-Calibration Require

Instrument for Radiated Test

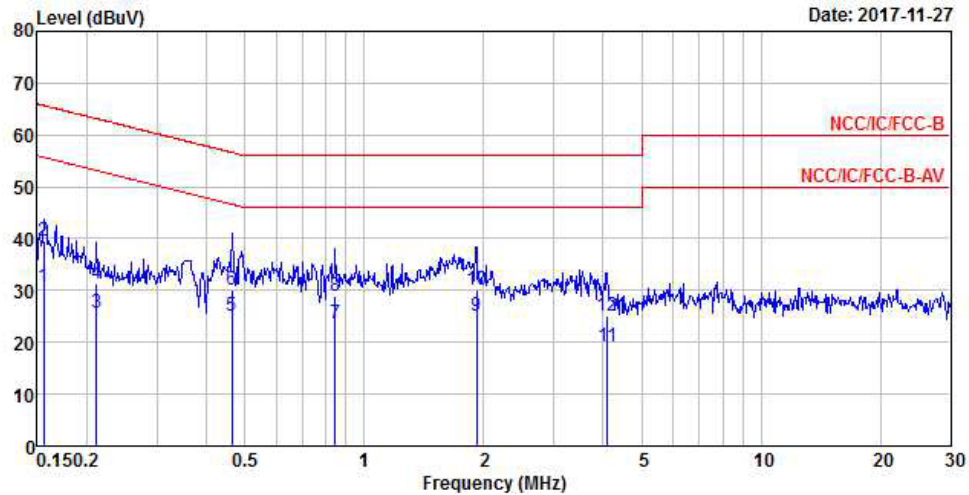
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	27/Nov/2016	26/Nov/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	27/Nov/2016	26/Nov/2017
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	19/Apr/2017	18/Apr/2018
Amplifier	Keysight	83017A	MY53270196	1GHz ~ 26.5GHz	31/Aug/2017	30/Aug/2018
Spectrum	R&S	FSV40	101500	9kHz ~ 40GHz	28/Jun/2017	27/Jun/2018
Receiver	R&S	ESR3	102052	9KHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	26/Jan/2017	25/Jan/2018
RF Cable-high	SUHNER	SUCOFLEX106	CB222	1GHz ~ 40GHz	26/Jan/2017	25/Jan/2018
Bilog Antenna	SCHAFFNER	CBL 6112B	22237	30MHz ~ 1GHz	08/Jul/2017	07/Jul/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	18GHz ~ 40GHz	06/Feb/ 2017	05/Feb/2018
Horn Antenna	SCHWARZBECK	BBHA9120D	1531	1GHz ~ 18GHz	25/Apr/ 2017	24/Apr/2018
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	02/Mar/2017	01/Mar/2018

**Instrument for Conducted Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	30/Dec/2016	29/Dec/2017
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	24/Feb/2017	23/Feb/2018
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY677/3	30MHz~26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY678/3	30MHz~26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10717/4	30MHz~26.5GHz	25/Aug/2017	24/Aug/2018

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	USB Mode		



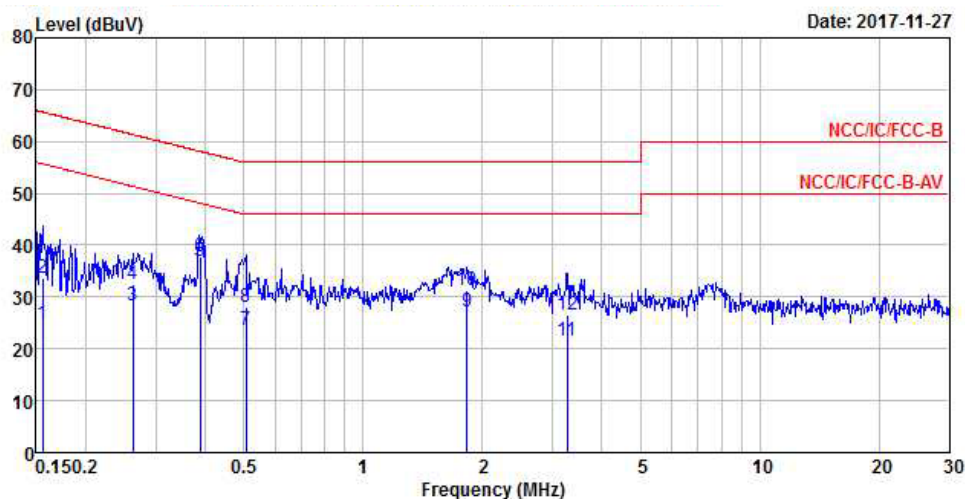
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	30.55	-25.14	55.69	20.88	9.63	0.04	Average
2	0.16	39.67	-26.02	65.69	30.00	9.63	0.04	QP
3	0.21	25.69	-27.45	53.14	16.06	9.62	0.01	Average
4	0.21	31.42	-31.72	63.14	21.79	9.62	0.01	QP
5	0.46	25.00	-21.63	46.63	15.31	9.61	0.08	Average
6	0.46	30.17	-26.46	56.63	20.48	9.61	0.08	QP
7	0.84	23.58	-22.42	46.00	13.94	9.62	0.02	Average
8	0.84	28.94	-27.06	56.00	19.30	9.62	0.02	QP
9 MAX	1.92	25.02	-20.98	46.00	15.39	9.63	0.00	Average
10	1.92	30.11	-25.89	56.00	20.48	9.63	0.00	QP
11	4.09	19.28	-26.72	46.00	9.55	9.64	0.09	Average
12	4.09	25.18	-30.82	56.00	15.45	9.64	0.09	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	USB Mode		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.16	24.71	-30.98	55.69	15.05	9.62	0.04	Average
2	0.16	33.77	-31.92	65.69	24.11	9.62	0.04	QP
3	0.26	28.44	-22.90	51.34	18.78	9.62	0.04	Average
4	0.26	32.56	-28.78	61.34	22.90	9.62	0.04	QP
5 MAX	0.39	36.96	-11.13	48.09	27.25	9.61	0.10	Average
6	0.39	37.66	-20.43	58.09	27.95	9.61	0.10	QP
7	0.51	23.58	-22.42	46.00	13.90	9.61	0.07	Average
8	0.51	28.14	-27.86	56.00	18.46	9.61	0.07	QP
9	1.83	27.13	-18.87	46.00	17.51	9.62	0.00	Average
10	1.83	31.17	-24.83	56.00	21.55	9.62	0.00	QP
11	3.28	21.47	-24.53	46.00	11.78	9.63	0.06	Average
12	3.28	26.68	-29.32	56.00	16.99	9.63	0.06	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)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	916.25k	898.301k	898KF1D	785k	887.056k
BT-EDR(2Mbps)	1.201M	1.213M	1M21G1D	1.196M	1.191M
BT-EDR(3Mbps)	1.239M	1.211M	1M21G1D	1.229M	1.201M

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;

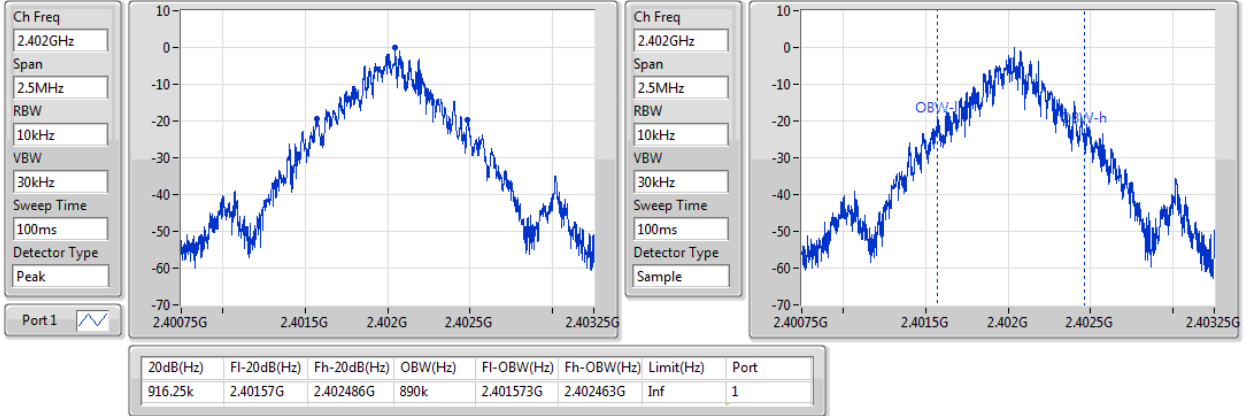
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	916.25k	890k
2441MHz	Pass	Inf	836.25k	898.301k
2480MHz	Pass	Inf	785k	887.056k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.196M	1.191M
2441MHz	Pass	Inf	1.201M	1.204M
2480MHz	Pass	Inf	1.2M	1.213M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.229M	1.201M
2441MHz	Pass	Inf	1.239M	1.209M
2480MHz	Pass	Inf	1.235M	1.211M

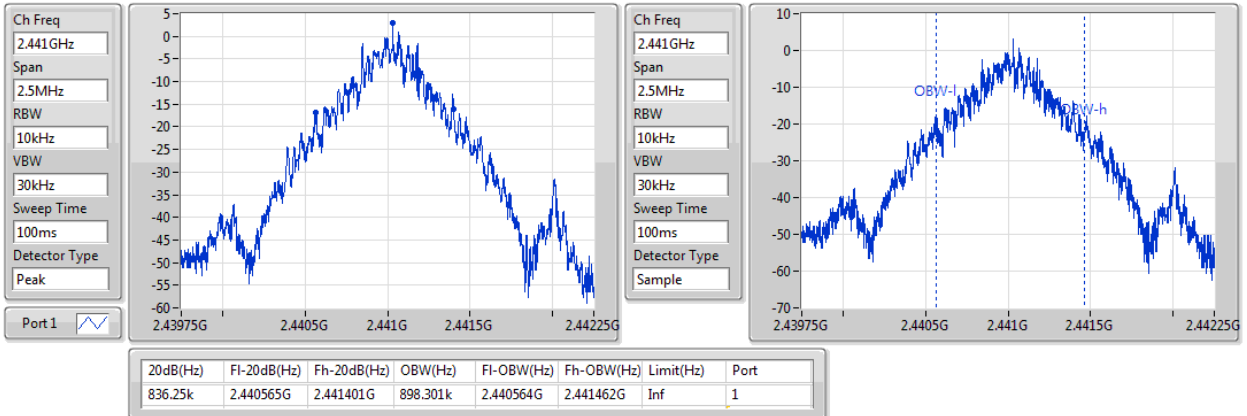
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

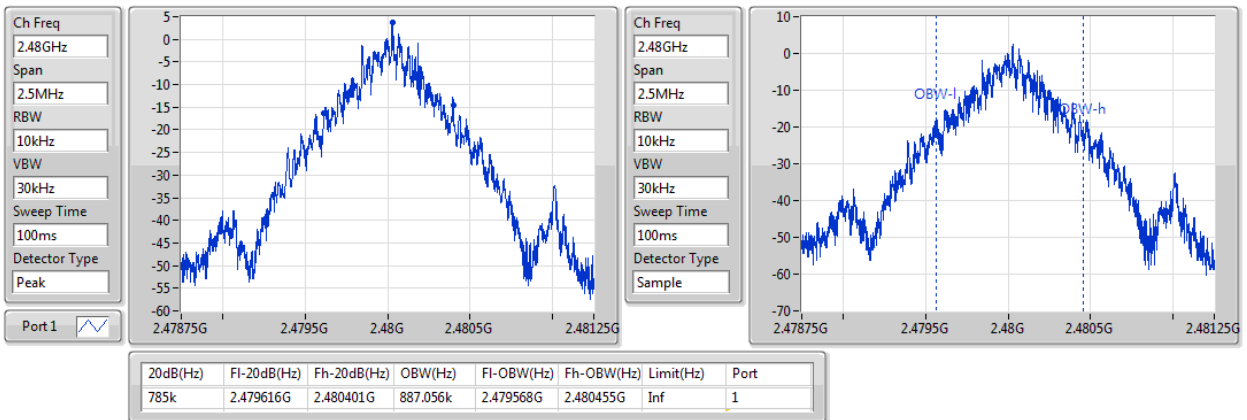
20/12/2017


BT-BR(1Mbps)
EBW
2441MHz

23/11/2017

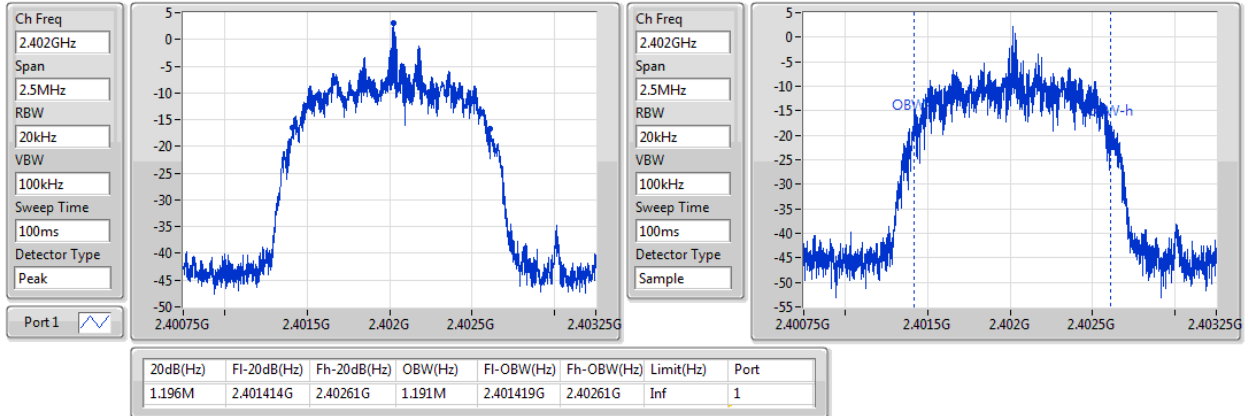

BT-BR(1Mbps)
EBW
2480MHz

23/11/2017

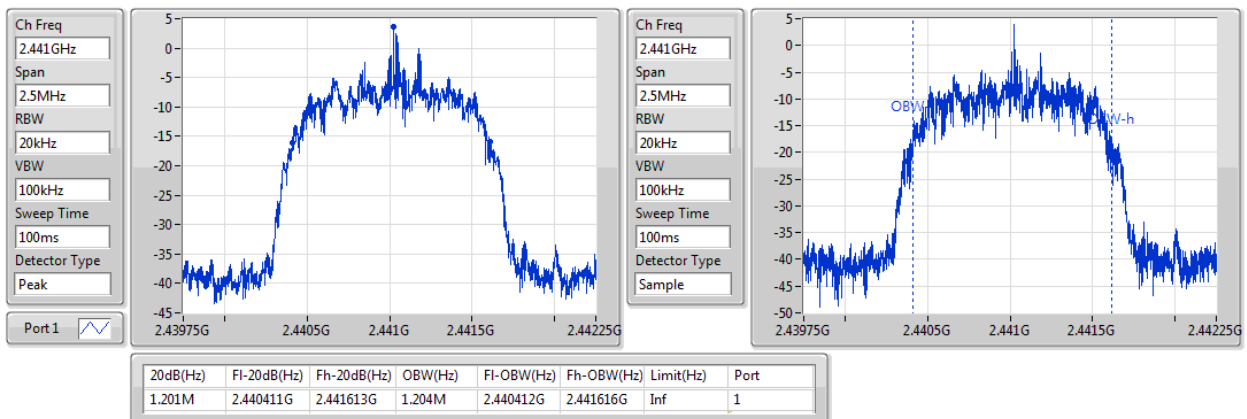


BT-EDR(2Mbps)
EBW
2402MHz

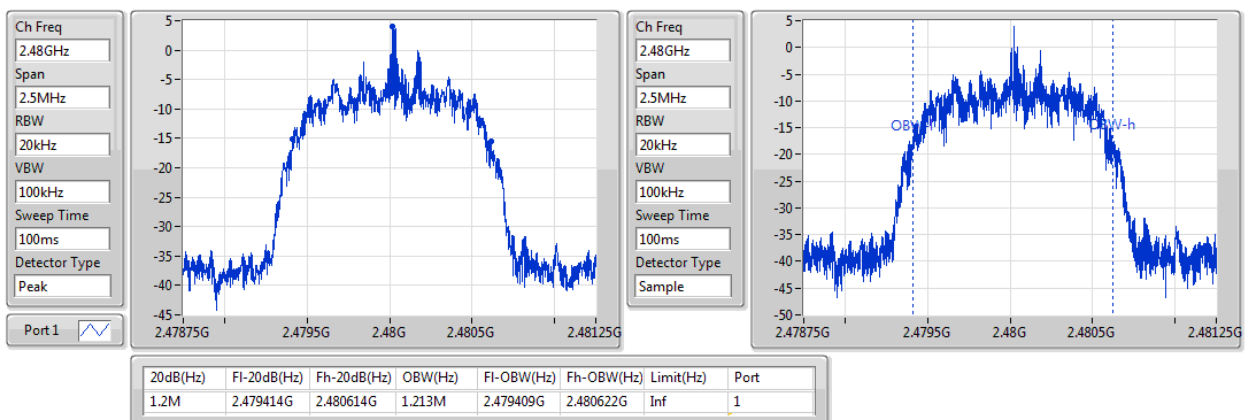
23/11/2017


BT-EDR(2Mbps)
EBW
2441MHz

23/11/2017

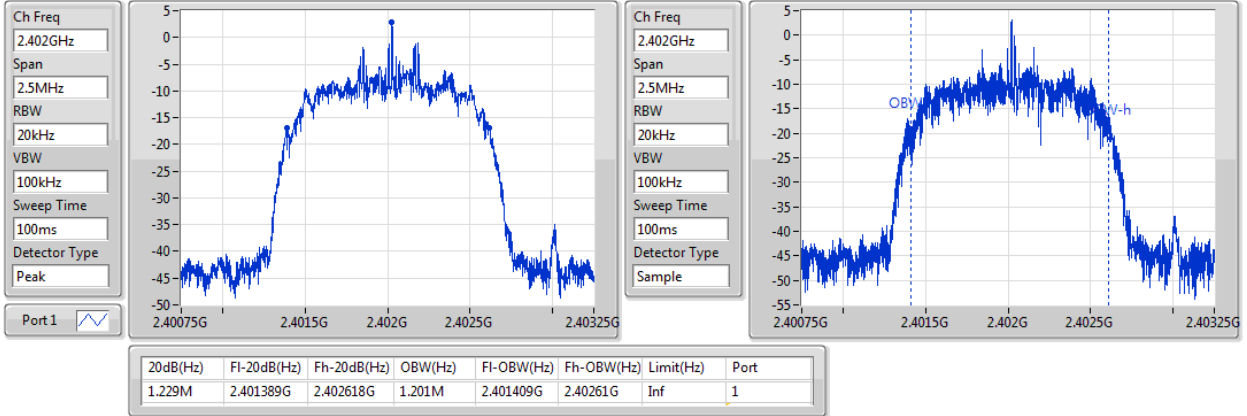

BT-EDR(2Mbps)
EBW
2480MHz

23/11/2017

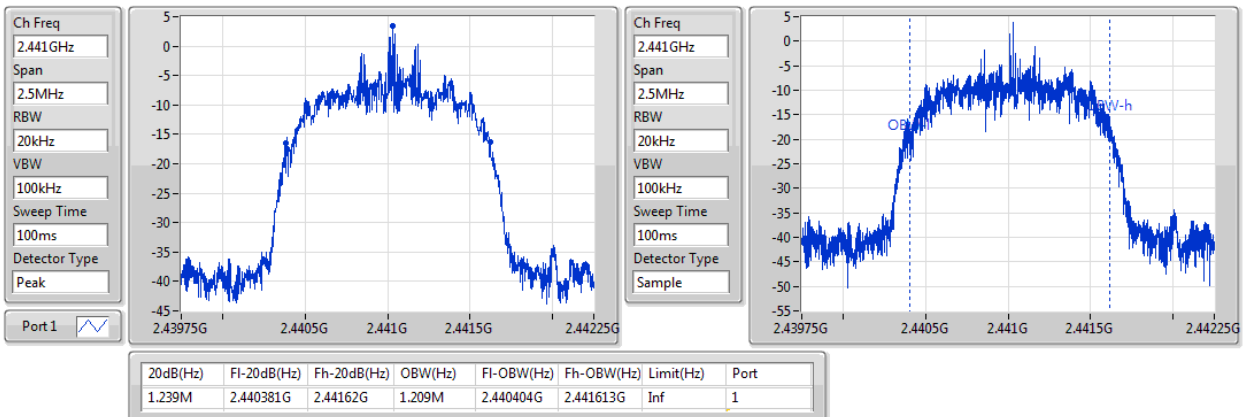


BT-EDR(3Mbps)
EBW
2402MHz

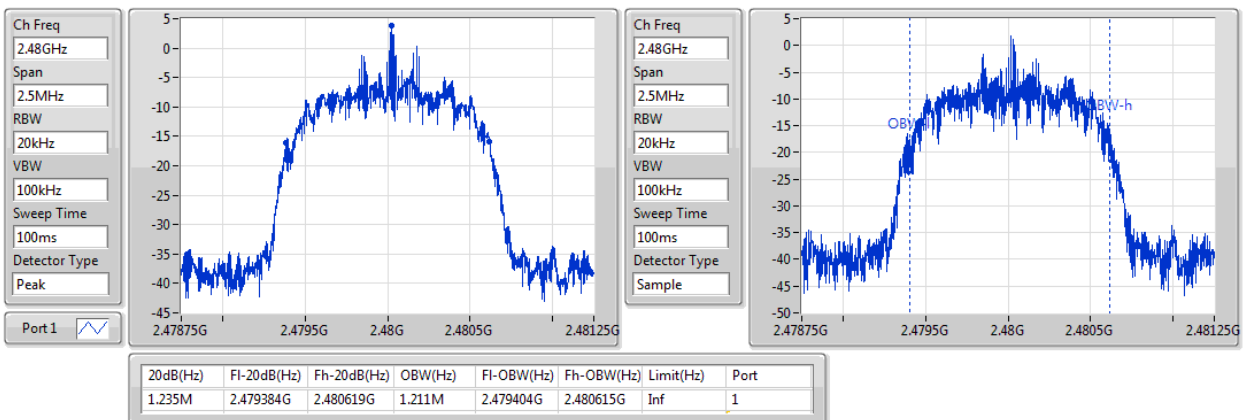
23/11/2017


BT-EDR(3Mbps)
EBW
2441MHz

23/11/2017


BT-EDR(3Mbps)
EBW
2480MHz

23/11/2017



Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	996k
BT-EDR(2Mbps)	1.002M	996k
BT-EDR(3Mbps)	1.002M	997.5k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402035G	2.403037G	1.002M	610.2225k
2441MHz	Pass	2.441026G	2.442024G	997.5k	556.9425k
2480MHz	Pass	2.479026G	2.480022G	996k	522.81k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402022G	2.403024G	1.002M	666k
2441MHz	Pass	2.441025G	2.442022G	997.5k	666k
2480MHz	Pass	2.479028G	2.480024G	996k	666k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402022G	2.403024G	1.002M	666k
2441MHz	Pass	2.441023G	2.442022G	999k	666k
2480MHz	Pass	2.479026G	2.480024G	997.5k	666k

BT-BR(1Mbps)

Channel Separation

2.402G/2.403GHz



Ff(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402035G	2.403037G	1.002M	610.2225k

BT-BR(1Mbps)

Channel Separation

2.441G/2.442GHz



Ff(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441026G	2.442024G	997.5k	556.9425k

BT-BR(1Mbps)

Channel Separation

2.48G/2.479GHz

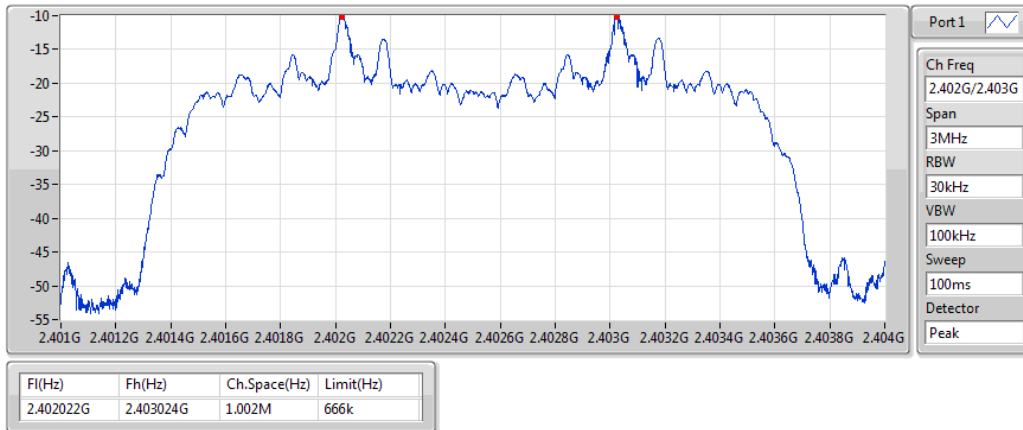


Ff(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479026G	2.480022G	996k	522.81k

BT-EDR(2Mbps)

Channel Separation

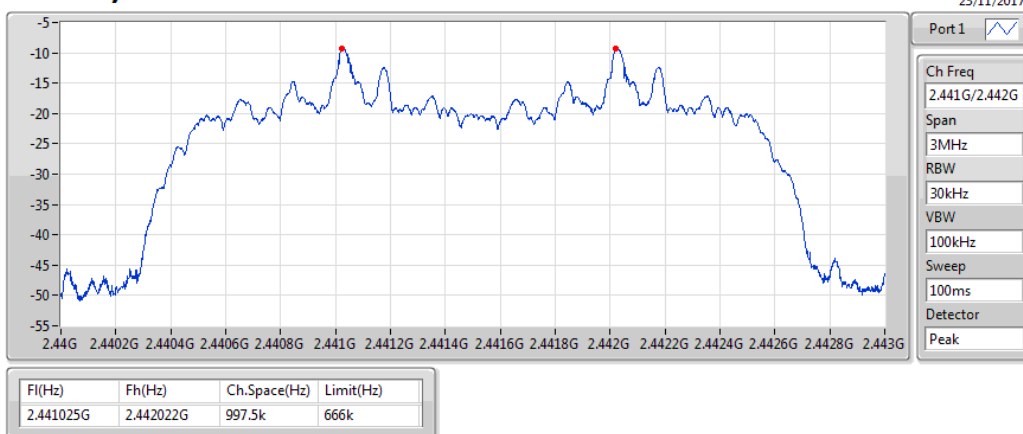
2.402G/2.403GHz



BT-EDR(2Mbps)

Channel Separation

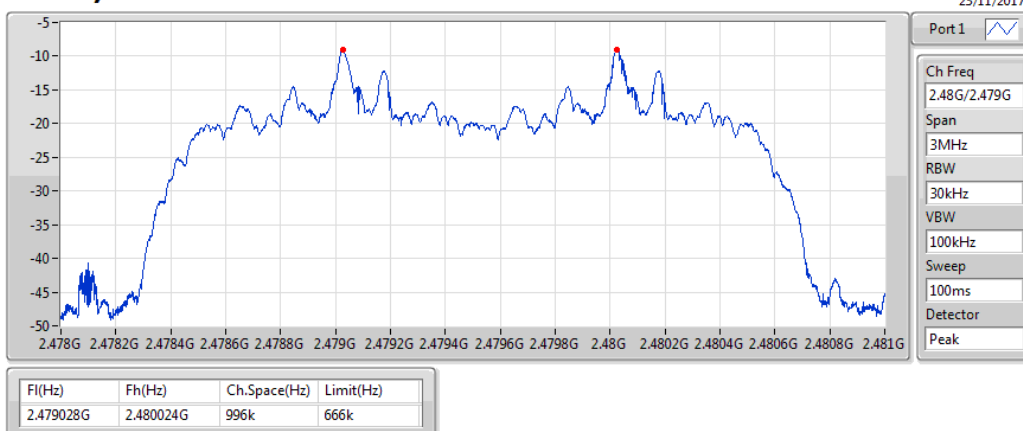
2.441G/2.442GHz



BT-EDR(2Mbps)

Channel Separation

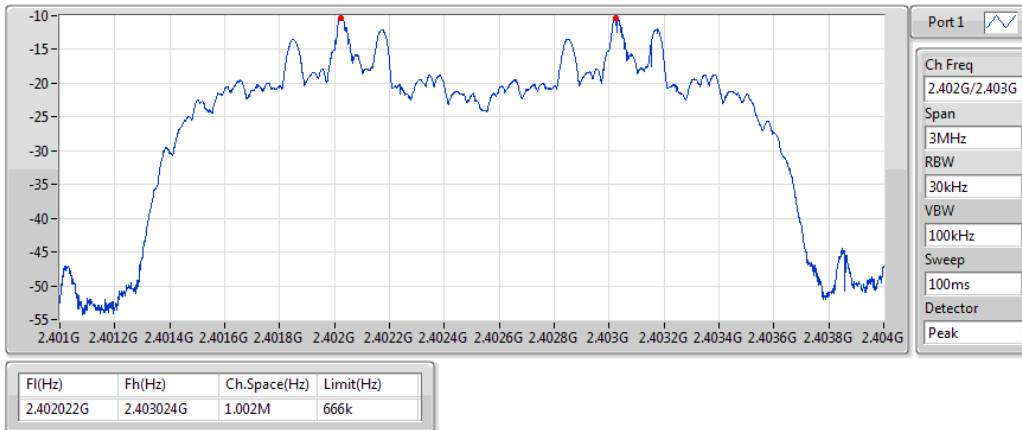
2.48G/2.479GHz



BT-EDR(3Mbps)

Channel Separation

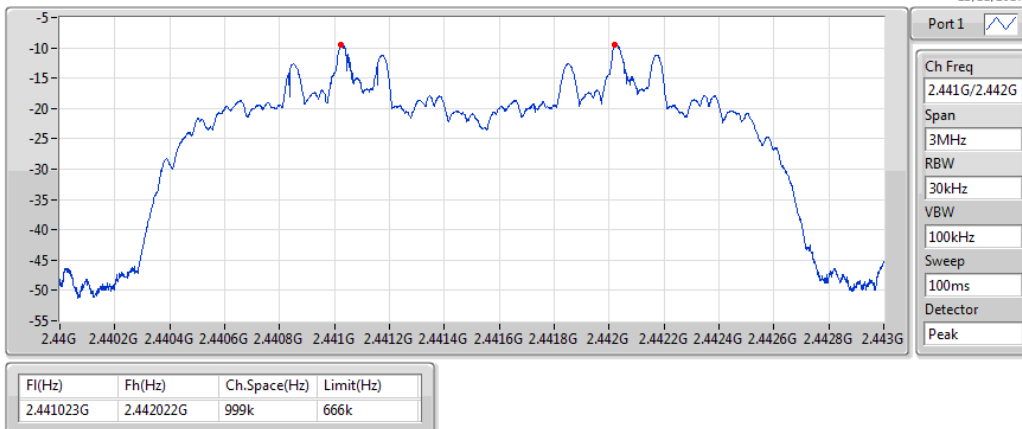
2.402G/2.403GHz



BT-EDR(3Mbps)

Channel Separation

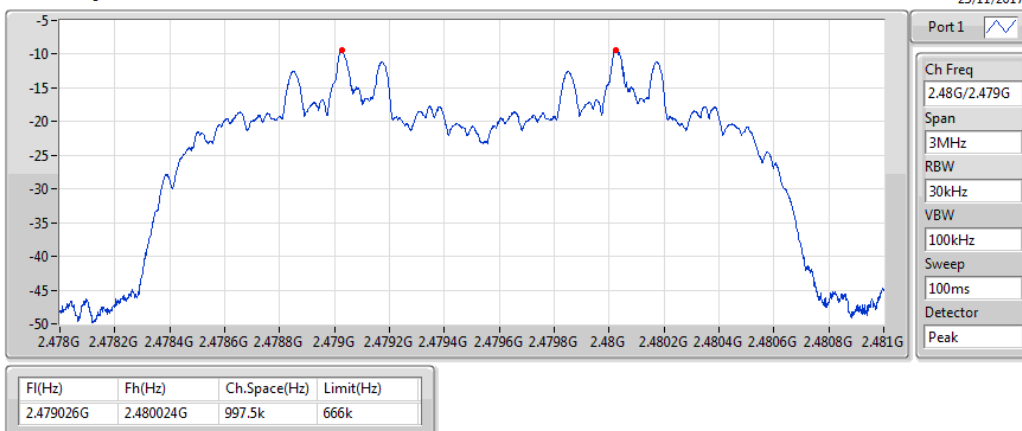
2.441G/2.442GHz



BT-EDR(3Mbps)

Channel Separation

2.48G/2.479GHz



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.88	0.00387
BT-EDR(2Mbps)	5.64	0.00366
BT-EDR(3Mbps)	5.79	0.00379

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.00	5.24	21.00
2441MHz	Pass	0.00	5.88	21.00
2480MHz	Pass	0.00	5.85	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.00	4.99	21.00
2441MHz	Pass	0.00	5.64	21.00
2480MHz	Pass	0.00	5.61	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.00	5.18	21.00
2441MHz	Pass	0.00	5.79	21.00
2480MHz	Pass	0.00	5.76	21.00

Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.69	0.00371
BT-EDR(2Mbps)	3.30	0.00214
BT-EDR(3Mbps)	3.20	0.00209

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.00	5.00	21.00
2441MHz	Pass	0.00	5.69	21.00
2480MHz	Pass	0.00	5.57	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.00	2.04	21.00
2441MHz	Pass	0.00	3.08	21.00
2480MHz	Pass	0.00	3.30	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.00	2.02	21.00
2441MHz	Pass	0.00	3.00	21.00
2480MHz	Pass	0.00	3.20	21.00

Summary

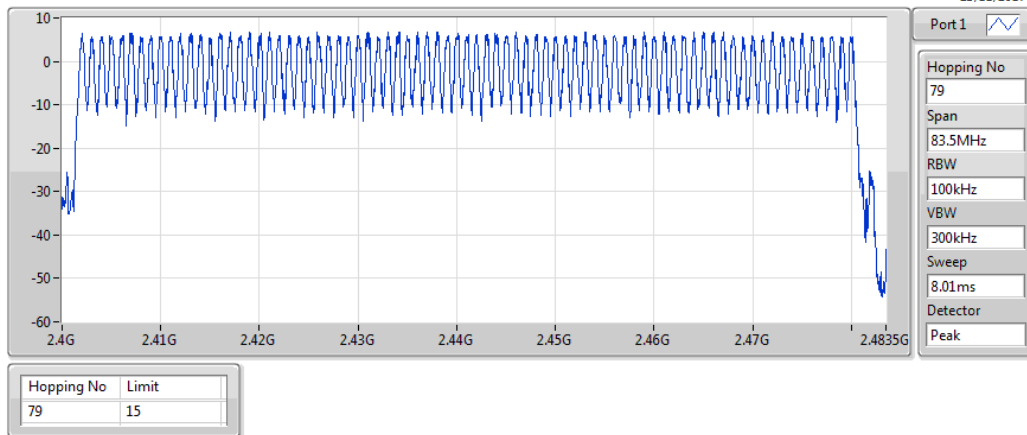
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

Result

Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2441MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2441MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2441MHz	Pass	79	15

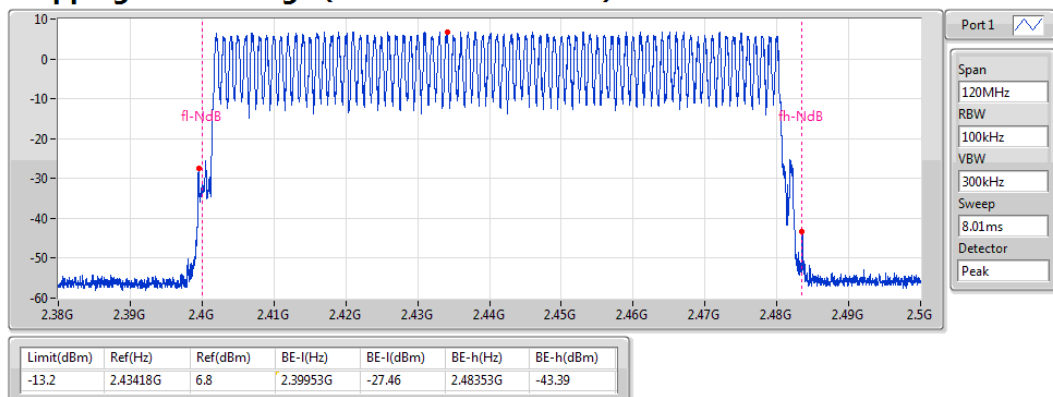
BT-BR(1Mbps) 2441MHz

Hopping Ch



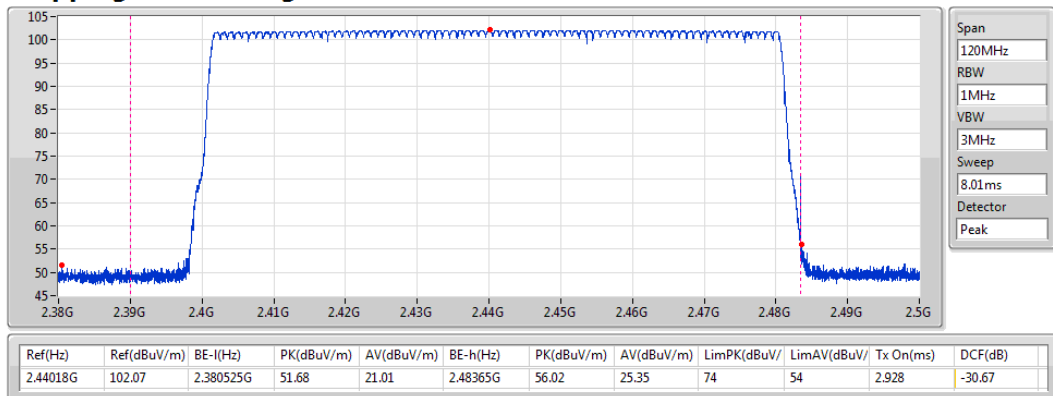
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



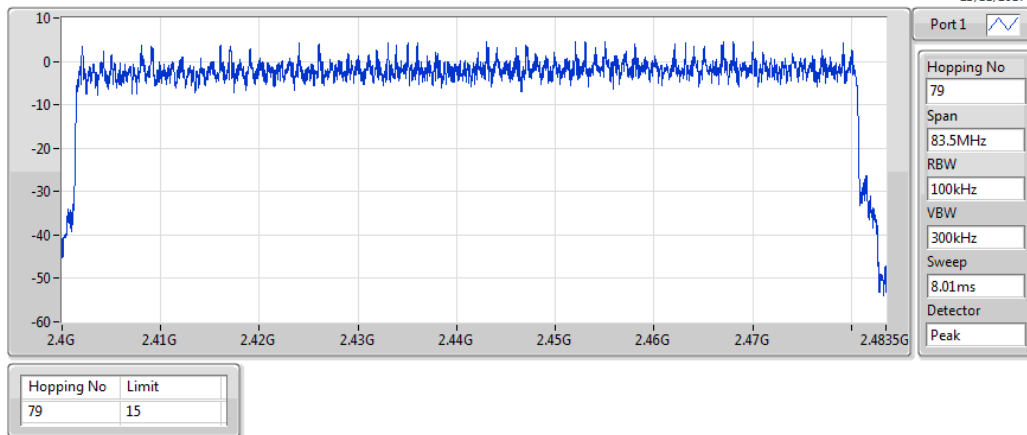
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



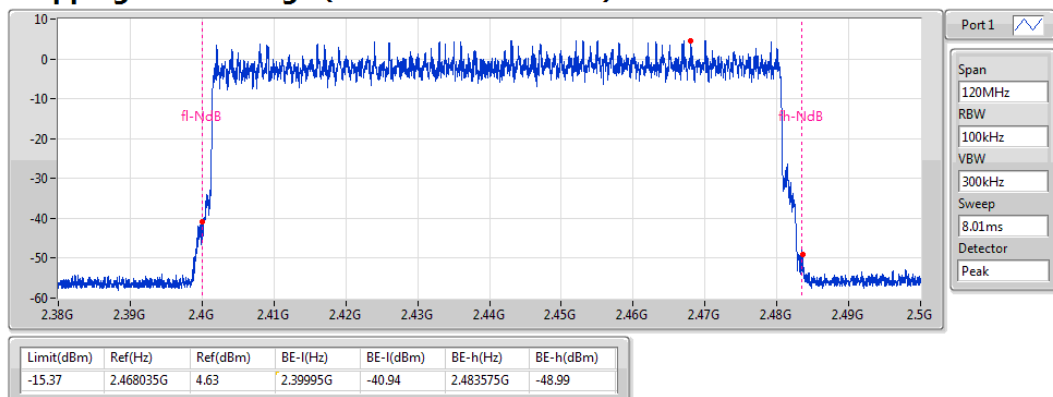
BT-EDR(2Mbps) 2441MHz

Hopping Ch



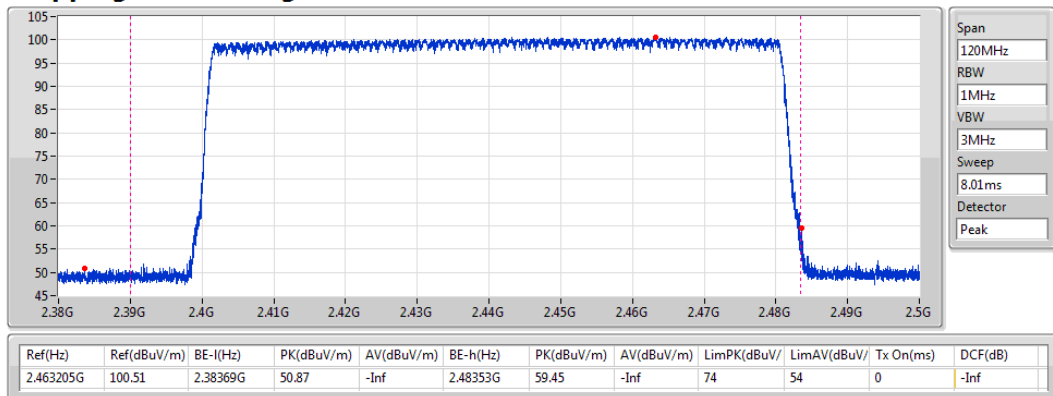
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



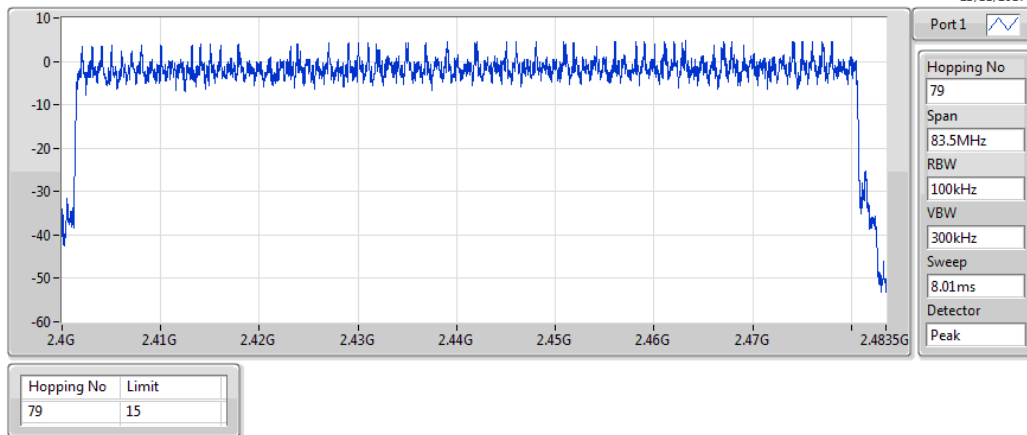
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



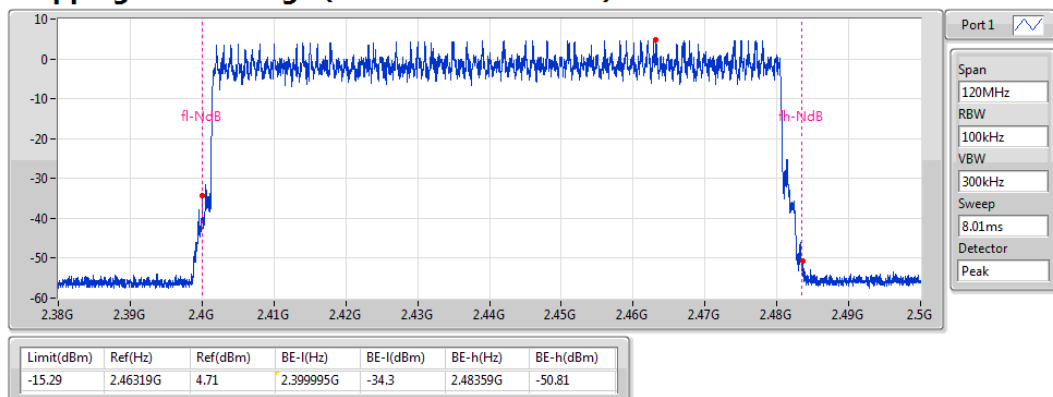
BT-EDR(3Mbps) 2441MHz

Hopping Ch



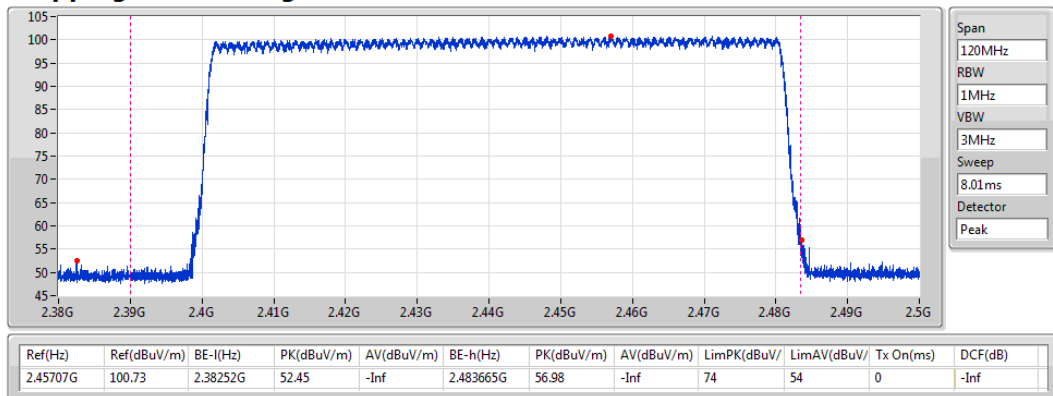
BT-EDR(3Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



BT-EDR(3Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



Summary

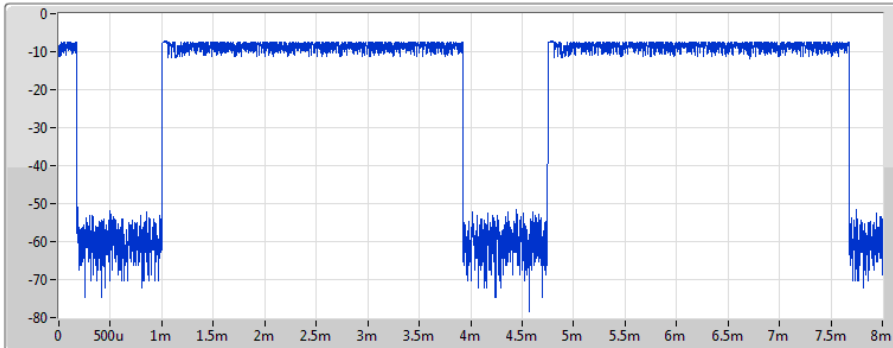
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	312.1248m
BT-EDR(2Mbps)	312.7644m
BT-EDR(3Mbps)	312.9776m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	312.1248m	400m	2.928m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	312.7644m	400m	2.934m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	312.9776m	400m	2.936m

BT-BR(1Mbps)

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	312.1248m	400m	2.928m

Dwell

23/11/2017

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

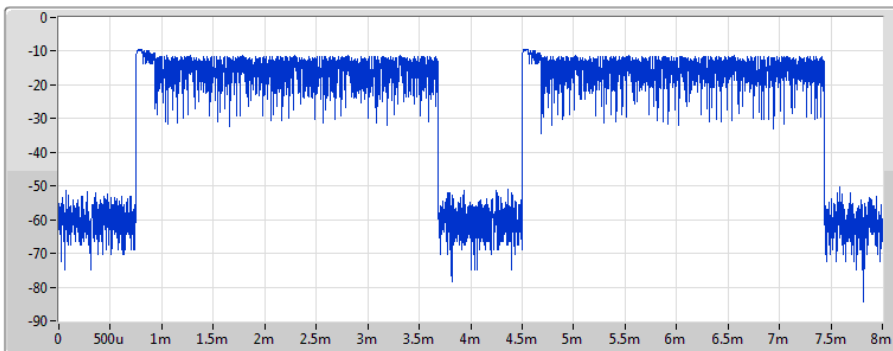
VBW
1MHz

Sweep Time
8ms

TX Time
2.928ms

BT-EDR(2Mbps)

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	312.7644m	400m	2.934m

Dwell

23/11/2017

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

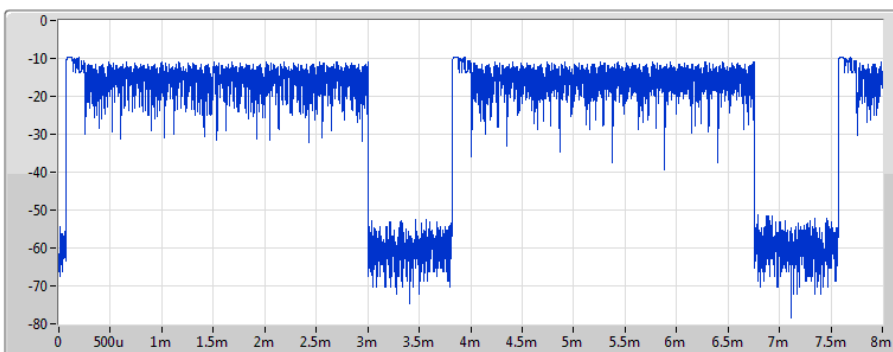
VBW
1MHz

Sweep Time
8ms

TX Time
2.934ms

BT-EDR(3Mbps)

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	312.9776m	400m	2.936m

Dwell

23/11/2017

Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.936ms

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
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.402004G	-0.74	-20.74	1.860464G	-53.08	2.399528G	-41.49	2.484264G	-51.59	21.921142G	-33.77	1
BT-EDR(2Mbps)	Pass	2.402004G	-0.57	-20.57	1.955184G	-54.97	2.399524G	-36.23	2.484792G	-55.24	6.934928G	-49.37	1
BT-EDR(3Mbps)	Pass	2.40167G	-0.02	-20.02	2.049904G	-55.02	2.399544G	-35.15	2.485404G	-55.06	6.903971G	-47.65	1

Result

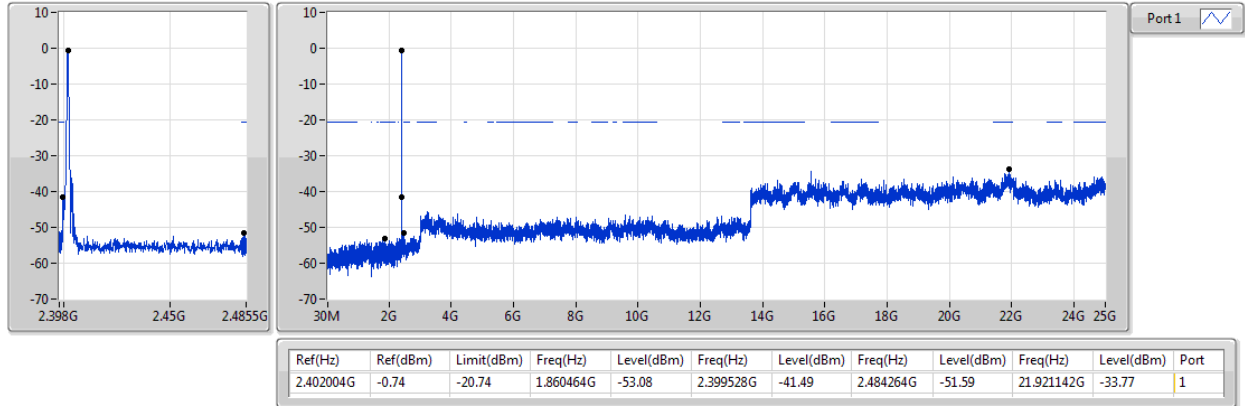
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	-0.74	-20.74	1.860464G	-53.08	2.399528G	-41.49	2.484264G	-51.59	21.921142G	-33.77	1
2441MHz	Pass	2.441082G	6.61	-13.39	1.988336G	-53.90	2.3984G	-55.34	2.484484G	-54.51	6.971514G	-48.63	1
2480MHz	Pass	2.48016G	6.41	-13.59	1.99544G	-55.61	2.399644G	-55.12	2.483528G	-41.23	6.979957G	-49.13	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402004G	-0.57	-20.57	1.955184G	-54.97	2.399524G	-36.23	2.484792G	-55.24	6.934928G	-49.37	1
2441MHz	Pass	2.441082G	4.78	-15.22	1.943344G	-55.40	2.399252G	-55.47	2.483904G	-54.34	6.977143G	-48.79	1
2480MHz	Pass	2.48016G	3.95	-16.05	2.174224G	-54.47	2.398468G	-55.20	2.483516G	-45.87	6.965886G	-47.91	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	-0.02	-20.02	2.049904G	-55.02	2.399544G	-35.15	2.485404G	-55.06	6.903971G	-47.65	1
2441MHz	Pass	2.441082G	1.48	-18.52	2.3092G	-54.46	2.399108G	-54.68	2.483788G	-54.08	6.949G	-48.98	1
2480MHz	Pass	2.48016G	0.49	-19.51	1.617744G	-55.02	2.398808G	-54.76	2.483524G	-46.61	6.9687G	-48.64	1

BT-BR(1Mbps)

CSE NdB

2402MHz

20/12/2017

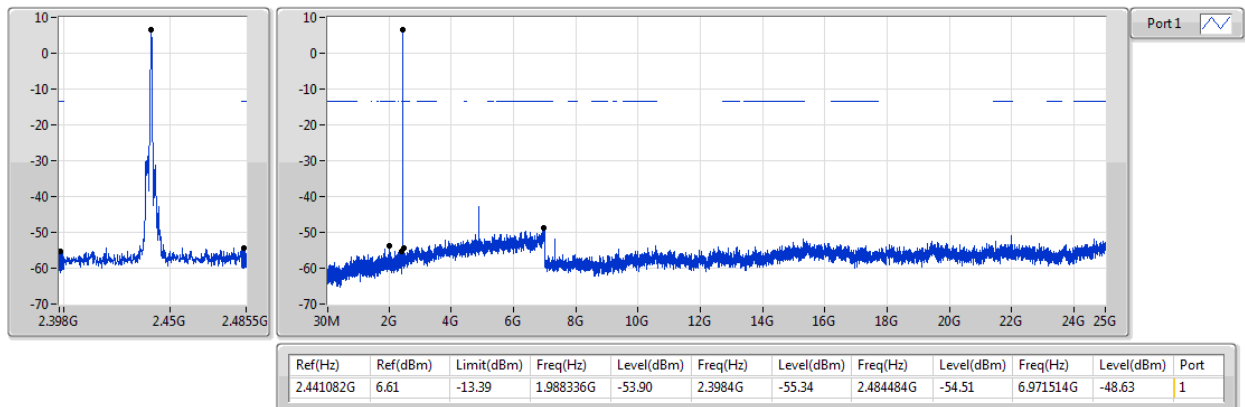


BT-BR(1Mbps)

CSE NdB

2441MHz

23/11/2017

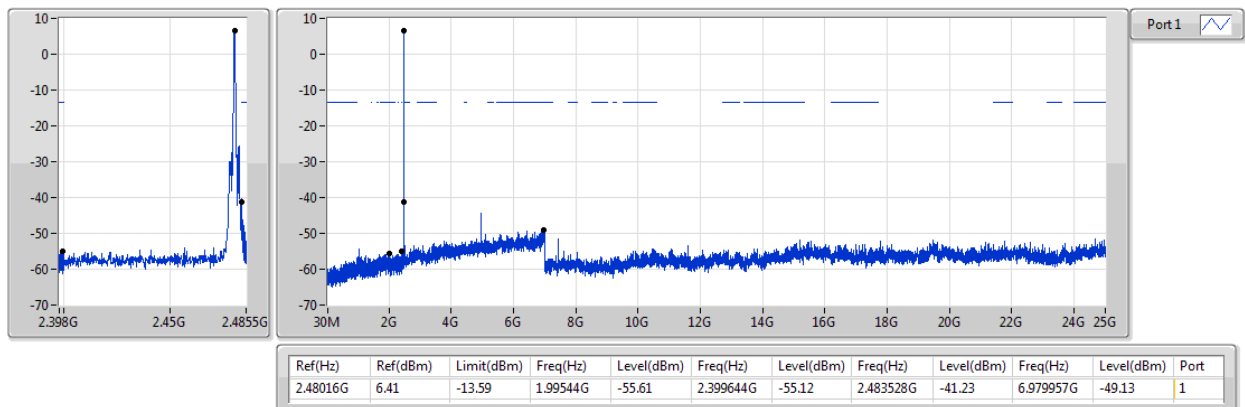


BT-BR(1Mbps)

CSE NdB

2480MHz

23/11/2017

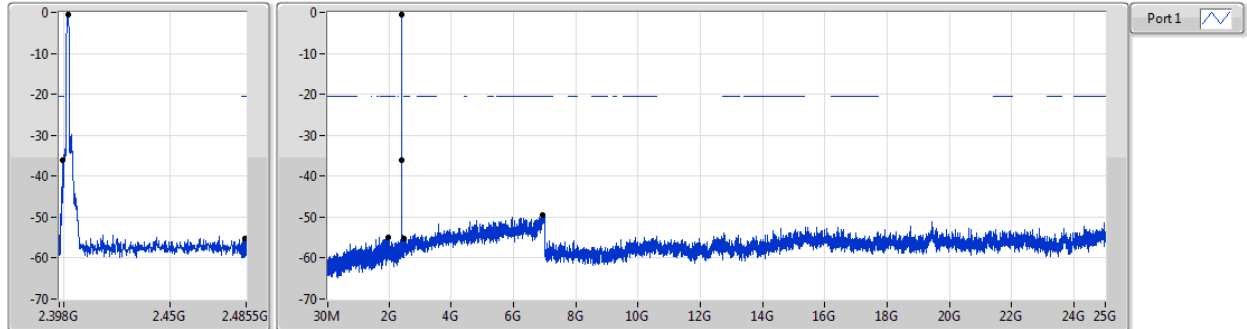


BT-EDR(2Mbps)

CSE NdB

2402MHz

23/11/2017



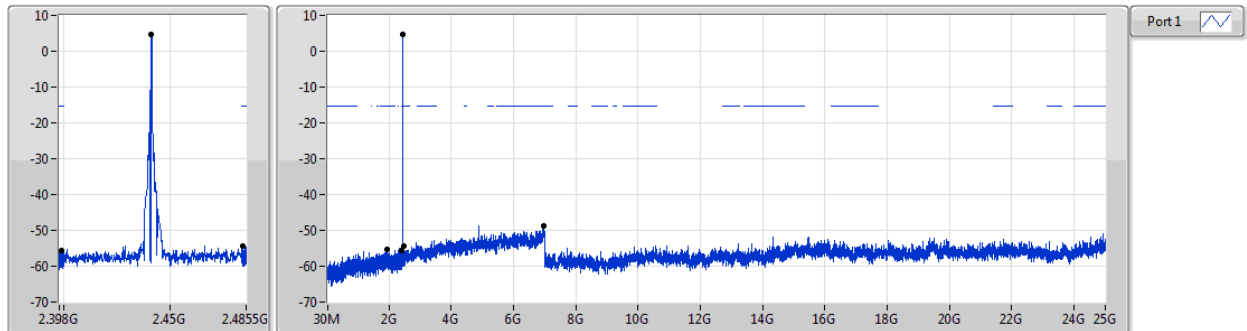
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.402004G	-0.57	-20.57	1.955184G	-54.97	2.399524G	-36.23	2.484792G	-55.24	6.934928G	-49.37	1

BT-EDR(2Mbps)

CSE NdB

2441MHz

23/11/2017



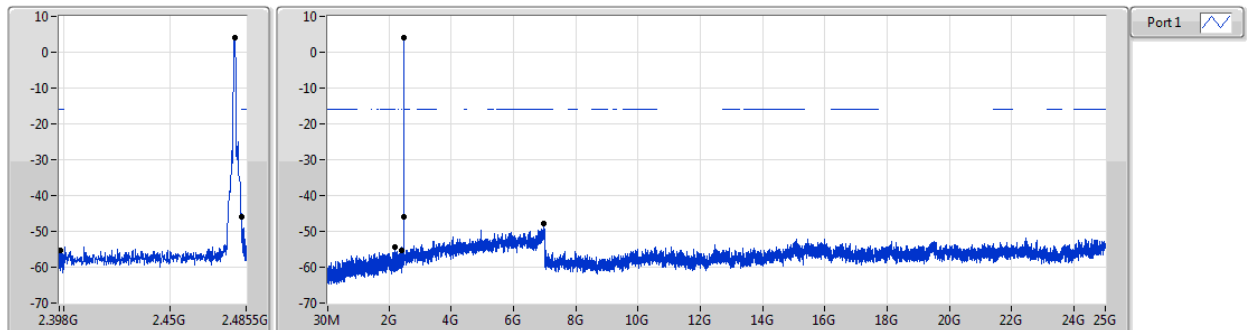
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441082G	4.78	-15.22	1.943344G	-55.40	2.399252G	-55.47	2.483904G	-54.34	6.977143G	-48.79	1

BT-EDR(2Mbps)

CSE NdB

2480MHz

23/11/2017



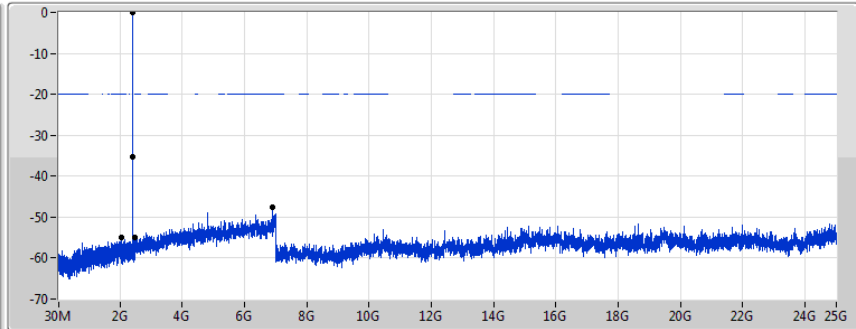
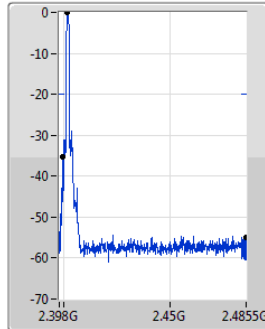
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2.48016G	3.95	-16.05	2.174224G	-54.47	2.398468G	-55.20	2.483516G	-45.87	6.965886G	-47.91	1

BT-EDR(3Mbps)

CSE NdB

2402MHz

23/11/2017



Port 1

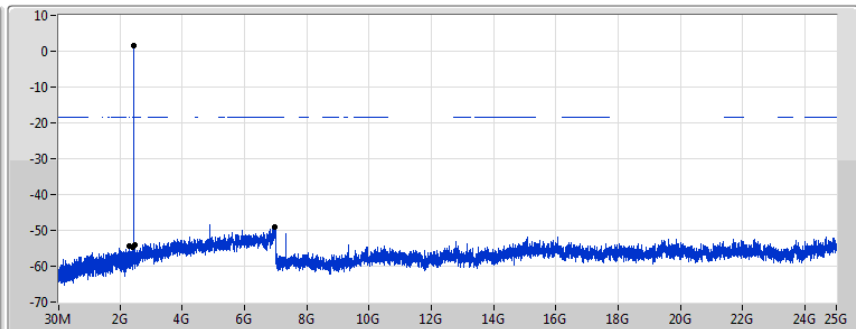
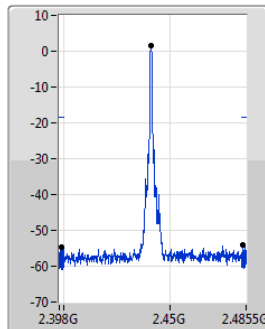
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40167G	-0.02	-20.02	2.049904G	-55.02	2.399544G	-35.15	2.485404G	-55.06	6.903971G	-47.65	1

BT-EDR(3Mbps)

CSE NdB

2441MHz

23/11/2017



Port 1

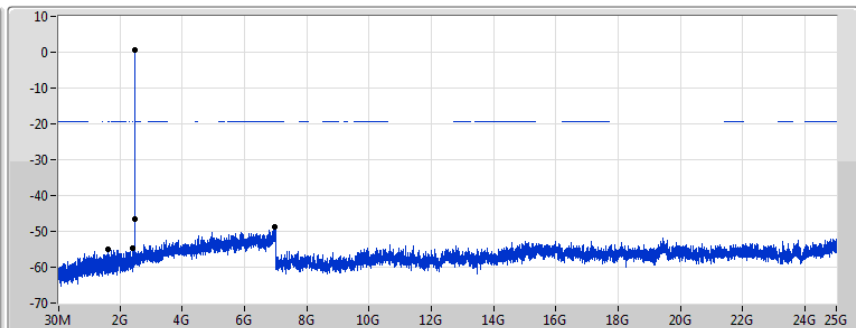
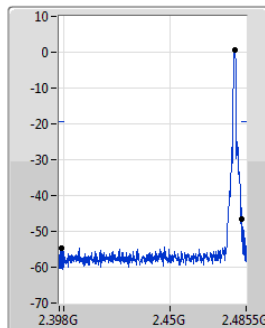
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441082G	1.48	-18.52	2.3092G	-54.46	2.399108G	-54.68	2.483788G	-54.08	6.949G	-48.98	1

BT-EDR(3Mbps)

CSE NdB

2480MHz

23/11/2017



Port 1

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	0.49	-19.51	1.617744G	-55.02	2.398808G	-54.76	2.483524G	-46.61	6.9687G	-48.64	1

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	288.02M	42.34	46.00	-3.66	-12.15	3	Horizontal	360	1.00	-

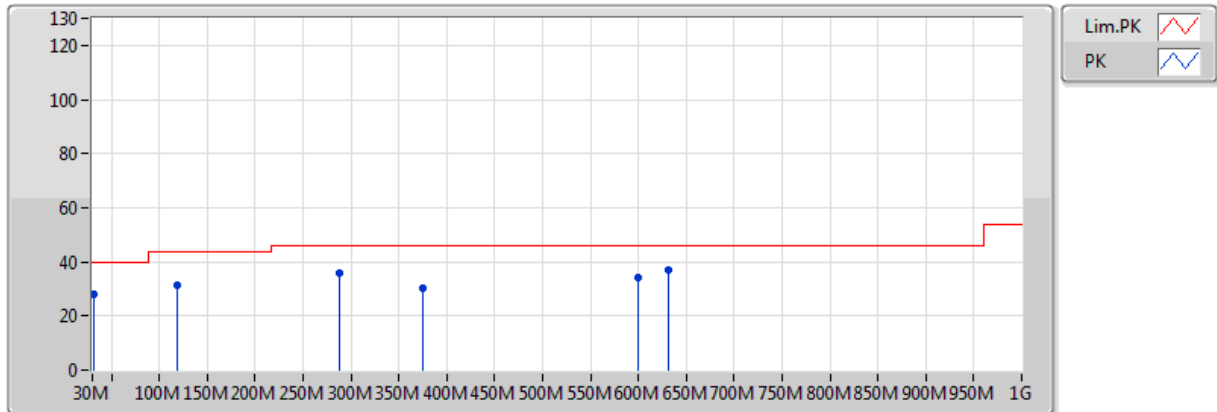
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	43.58M	34.31	40.00	-5.69	-15.40	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	127M	37.05	43.50	-6.45	-14.25	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	288.02M	42.34	46.00	-3.66	-12.15	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	375.32M	36.05	46.00	-9.95	-9.75	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	664.38M	39.22	46.00	-6.78	-4.35	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	800.18M	36.39	46.00	-9.61	-3.24	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	31.94M	28.08	40.00	-11.92	-9.30	3	Vertical	0	1.00	-
2441MHz	Pass	PK	119.24M	31.32	43.50	-12.18	-14.14	3	Vertical	0	1.00	-
2441MHz	Pass	PK	288.02M	36.00	46.00	-10.00	-12.15	3	Vertical	0	1.00	-
2441MHz	Pass	PK	375.32M	30.05	46.00	-15.95	-9.75	3	Vertical	0	1.00	-
2441MHz	Pass	PK	600.36M	34.05	46.00	-11.95	-4.92	3	Vertical	0	1.00	-
2441MHz	Pass	PK	631.4M	37.07	46.00	-8.93	-4.24	3	Vertical	0	1.00	-

BT-BR(1Mbps)

2441MHz_USB

24/11/2017

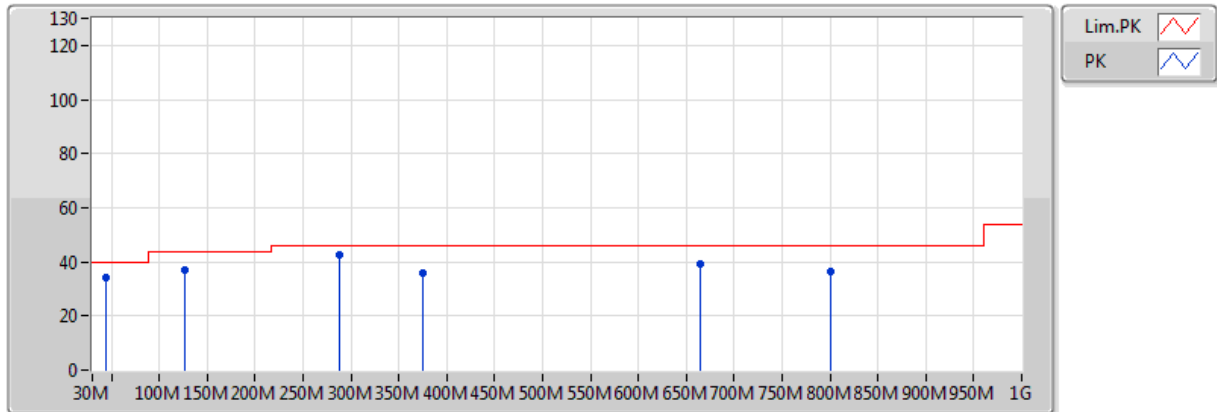


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.94M	28.08	40.00	-11.92	-9.30	3	Vertical	0	1.00	-	37.38	22.54	0.71	32.55
PK	119.24M	31.32	43.50	-12.18	-14.14	3	Vertical	0	1.00	-	45.46	17.04	1.33	32.50
PK	288.02M	36.00	46.00	-10.00	-12.15	3	Vertical	0	1.00	-	48.15	18.04	2.09	32.28
PK	375.32M	30.05	46.00	-15.95	-9.75	3	Vertical	0	1.00	-	39.80	19.95	2.43	32.13
PK	600.36M	34.05	46.00	-11.95	-4.92	3	Vertical	0	1.00	-	38.97	23.81	3.05	31.78
PK	631.4M	37.07	46.00	-8.93	-4.24	3	Vertical	0	1.00	-	41.31	24.18	3.33	31.75

BT-BR(1Mbps)

2441MHz_USB

24/11/2017



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	43.58M	34.31	40.00	-5.69	-15.40	3	Horizontal	360	1.00	-	49.71	16.34	0.80	32.54
PK	127M	37.05	43.50	-6.45	-14.25	3	Horizontal	360	1.00	-	51.30	16.88	1.36	32.49
PK	288.02M	42.34	46.00	-3.66	-12.15	3	Horizontal	360	1.00	-	54.49	18.04	2.09	32.28
PK	375.32M	36.05	46.00	-9.95	-9.75	3	Horizontal	360	1.00	-	45.80	19.95	2.43	32.13
PK	664.38M	39.22	46.00	-6.78	-4.35	3	Horizontal	360	1.00	-	43.57	23.95	3.43	31.73
PK	800.18M	36.39	46.00	-9.61	-3.24	3	Horizontal	360	1.00	-	39.63	24.77	3.58	31.59

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.483502G	62.86	74.00	-11.14	37.56	3	Horizontal	215	1.46	-
BT-EDR(2Mbps)	Pass	PK	2.3704G	60.98	74.00	-13.02	37.30	3	Vertical	19	1.19	-
BT-EDR(3Mbps)	Pass	PK	2.3606G	61.11	74.00	-12.89	37.27	3	Horizontal	232	2.74	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3538G	37.97	54.00	-16.03	37.25	3	Horizontal	316	1.00	-
2402MHz	Pass	AV	2.4022G	74.10	Inf	-Inf	37.38	3	Horizontal	316	1.00	-
2402MHz	Pass	PK	2.3538G	60.47	74.00	-13.53	37.25	3	Horizontal	316	1.00	-
2402MHz	Pass	PK	2.4022G	96.60	Inf	-Inf	37.38	3	Horizontal	316	1.00	-
2402MHz	Pass	AV	2.3702G	38.43	54.00	-15.57	37.30	3	Vertical	19	1.21	-
2402MHz	Pass	AV	2.4022G	74.59	Inf	-Inf	37.38	3	Vertical	19	1.21	-
2402MHz	Pass	PK	2.3702G	60.93	74.00	-13.07	37.30	3	Vertical	19	1.21	-
2402MHz	Pass	PK	2.4022G	97.09	Inf	-Inf	37.38	3	Vertical	19	1.21	-
2402MHz	Pass	AV	4.80426G	38.15	54.00	-15.85	6.69	3	Horizontal	214	1.54	-
2402MHz	Pass	PK	4.80426G	60.65	74.00	-13.35	6.69	3	Horizontal	214	1.54	-
2402MHz	Pass	AV	4.80402G	39.75	54.00	-14.25	6.69	3	Vertical	191	1.10	-
2402MHz	Pass	PK	4.80428G	62.25	74.00	-11.75	6.69	3	Vertical	191	1.10	-
2441MHz	Pass	AV	2.3602G	38.28	54.00	-15.72	37.27	3	Horizontal	220	2.38	-
2441MHz	Pass	AV	2.4414G	71.29	Inf	-Inf	37.47	3	Horizontal	220	2.38	-
2441MHz	Pass	AV	2.4954G	37.66	54.00	-16.34	37.58	3	Horizontal	220	2.38	-
2441MHz	Pass	PK	2.3602G	60.78	74.00	-13.22	37.27	3	Horizontal	220	2.38	-
2441MHz	Pass	PK	2.4414G	93.79	Inf	-Inf	37.47	3	Horizontal	220	2.38	-
2441MHz	Pass	PK	2.4954G	60.16	74.00	-13.84	37.58	3	Horizontal	220	2.38	-
2441MHz	Pass	AV	2.365G	37.82	54.00	-16.18	37.28	3	Vertical	27	1.40	-
2441MHz	Pass	AV	2.4414G	71.25	Inf	-Inf	37.47	3	Vertical	27	1.40	-
2441MHz	Pass	AV	2.483502G	38.47	54.00	-15.53	37.56	3	Vertical	27	1.40	-
2441MHz	Pass	PK	2.365G	60.32	74.00	-13.68	37.28	3	Vertical	27	1.40	-
2441MHz	Pass	PK	2.4414G	93.75	Inf	-Inf	37.47	3	Vertical	27	1.40	-
2441MHz	Pass	PK	2.483502G	60.97	74.00	-13.03	37.56	3	Vertical	27	1.40	-
2441MHz	Pass	AV	4.88236G	35.89	54.00	-18.11	6.84	3	Horizontal	214	1.50	-
2441MHz	Pass	PK	4.88236G	58.39	74.00	-15.61	6.84	3	Horizontal	214	1.50	-
2441MHz	Pass	AV	4.8824G	36.51	54.00	-17.49	6.84	3	Vertical	190	1.34	-
2441MHz	Pass	PK	4.8824G	59.01	74.00	-14.99	6.84	3	Vertical	190	1.34	-
2480MHz	Pass	AV	2.4802G	69.88	Inf	-Inf	37.55	3	Horizontal	215	1.46	-
2480MHz	Pass	AV	2.483502G	40.36	54.00	-13.64	37.56	3	Horizontal	215	1.46	-
2480MHz	Pass	PK	2.4802G	92.38	Inf	-Inf	37.55	3	Horizontal	215	1.46	-
2480MHz	Pass	PK	2.483502G	62.86	74.00	-11.14	37.56	3	Horizontal	215	1.46	-
2480MHz	Pass	AV	2.4802G	70.23	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	AV	2.4844G	38.16	54.00	-15.84	37.56	3	Vertical	246	1.50	-
2480MHz	Pass	PK	2.4802G	92.73	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	PK	2.4844G	60.66	74.00	-13.34	37.56	3	Vertical	246	1.50	-
2480MHz	Pass	AV	4.96022G	33.90	54.00	-20.10	6.99	3	Horizontal	210	1.77	-
2480MHz	Pass	PK	4.96022G	56.40	74.00	-17.60	6.99	3	Horizontal	210	1.77	-
2480MHz	Pass	AV	4.95964G	33.55	54.00	-20.45	6.99	3	Vertical	340	1.35	-
2480MHz	Pass	PK	4.95964G	56.05	74.00	-17.95	6.99	3	Vertical	340	1.35	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3646G	37.96	54.00	-16.04	37.28	3	Horizontal	218	1.24	-
2402MHz	Pass	AV	2.4022G	72.71	Inf	-Inf	37.38	3	Horizontal	218	1.24	-
2402MHz	Pass	PK	2.3646G	60.46	74.00	-13.54	37.28	3	Horizontal	218	1.24	-
2402MHz	Pass	PK	2.4022G	95.21	Inf	-Inf	37.38	3	Horizontal	218	1.24	-
2402MHz	Pass	AV	2.3704G	38.48	54.00	-15.52	37.30	3	Vertical	19	1.19	-
2402MHz	Pass	AV	2.4022G	73.22	Inf	-Inf	37.38	3	Vertical	19	1.19	-



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)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3704G	60.98	74.00	-13.02	37.30	3	Vertical	19	1.19	-
2402MHz	Pass	PK	2.4022G	95.72	Inf	-Inf	37.38	3	Vertical	19	1.19	-
2441MHz	Pass	AV	2.3786G	38.14	54.00	-15.86	37.32	3	Horizontal	221	2.38	-
2441MHz	Pass	AV	2.4414G	69.70	Inf	-Inf	37.47	3	Horizontal	221	2.38	-
2441MHz	Pass	AV	2.497G	37.51	54.00	-16.49	37.58	3	Horizontal	221	2.38	-
2441MHz	Pass	PK	2.3786G	60.64	74.00	-13.36	37.32	3	Horizontal	221	2.38	-
2441MHz	Pass	PK	2.4414G	92.20	Inf	-Inf	37.47	3	Horizontal	221	2.38	-
2441MHz	Pass	PK	2.497G	60.01	74.00	-13.99	37.58	3	Horizontal	221	2.38	-
2441MHz	Pass	AV	2.345G	37.99	54.00	-16.01	37.23	3	Vertical	24	1.38	-
2441MHz	Pass	AV	2.4414G	70.14	Inf	-Inf	37.47	3	Vertical	24	1.38	-
2441MHz	Pass	AV	2.4954G	37.98	54.00	-16.02	37.58	3	Vertical	24	1.38	-
2441MHz	Pass	PK	2.345G	60.49	74.00	-13.51	37.23	3	Vertical	24	1.38	-
2441MHz	Pass	PK	2.4414G	92.64	Inf	-Inf	37.47	3	Vertical	24	1.38	-
2441MHz	Pass	PK	2.4954G	60.48	74.00	-13.52	37.58	3	Vertical	24	1.38	-
2480MHz	Pass	AV	2.4802G	68.43	Inf	-Inf	37.55	3	Horizontal	216	1.46	-
2480MHz	Pass	AV	2.4996G	37.73	54.00	-16.27	37.59	3	Horizontal	216	1.46	-
2480MHz	Pass	PK	2.4802G	90.93	Inf	-Inf	37.55	3	Horizontal	216	1.46	-
2480MHz	Pass	PK	2.4996G	60.23	74.00	-13.77	37.59	3	Horizontal	216	1.46	-
2480MHz	Pass	AV	2.4802G	68.91	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	AV	2.4872G	37.73	54.00	-16.27	37.56	3	Vertical	246	1.50	-
2480MHz	Pass	PK	2.4802G	91.41	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	PK	2.4872G	60.23	74.00	-13.77	37.56	3	Vertical	246	1.50	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3644G	38.27	54.00	-15.73	37.28	3	Horizontal	210	1.77	-
2402MHz	Pass	AV	2.4024G	72.15	Inf	-Inf	37.39	3	Horizontal	210	1.77	-
2402MHz	Pass	PK	2.3644G	60.77	74.00	-13.23	37.28	3	Horizontal	215	1.64	-
2402MHz	Pass	PK	2.4024G	94.65	Inf	-Inf	37.39	3	Horizontal	215	1.64	-
2402MHz	Pass	AV	2.3542G	38.33	54.00	-15.67	37.25	3	Vertical	19	1.19	-
2402MHz	Pass	AV	2.4024G	73.22	Inf	-Inf	37.39	3	Vertical	19	1.19	-
2402MHz	Pass	PK	2.3542G	60.83	74.00	-13.17	37.25	3	Vertical	19	1.19	-
2402MHz	Pass	PK	2.4024G	95.72	Inf	-Inf	37.39	3	Vertical	19	1.19	-
2441MHz	Pass	AV	2.3606G	38.61	54.00	-15.39	37.27	3	Horizontal	232	2.74	-
2441MHz	Pass	AV	2.4414G	69.53	Inf	-Inf	37.47	3	Horizontal	232	2.74	-
2441MHz	Pass	AV	2.4934G	37.80	54.00	-16.20	37.58	3	Horizontal	232	2.74	-
2441MHz	Pass	PK	2.3606G	61.11	74.00	-12.89	37.27	3	Horizontal	232	2.74	-
2441MHz	Pass	PK	2.4414G	92.03	Inf	-Inf	37.47	3	Horizontal	232	2.74	-
2441MHz	Pass	PK	2.4934G	60.30	74.00	-13.70	37.58	3	Horizontal	232	2.74	-
2441MHz	Pass	AV	2.3826G	37.68	54.00	-16.32	37.33	3	Vertical	271	1.50	-
2441MHz	Pass	AV	2.4414G	68.86	Inf	-Inf	37.47	3	Vertical	271	1.50	-
2441MHz	Pass	AV	2.499G	37.67	54.00	-16.33	37.59	3	Vertical	271	1.50	-
2441MHz	Pass	PK	2.3826G	60.18	74.00	-13.82	37.33	3	Vertical	271	1.50	-
2441MHz	Pass	PK	2.4414G	91.36	Inf	-Inf	37.47	3	Vertical	271	1.50	-
2441MHz	Pass	PK	2.499G	60.17	74.00	-13.83	37.59	3	Vertical	271	1.50	-
2480MHz	Pass	AV	2.4802G	68.17	Inf	-Inf	37.55	3	Horizontal	214	1.44	-
2480MHz	Pass	AV	2.4902G	37.44	54.00	-16.56	37.57	3	Horizontal	214	1.44	-
2480MHz	Pass	PK	2.4802G	90.67	Inf	-Inf	37.55	3	Horizontal	214	1.44	-
2480MHz	Pass	PK	2.4902G	59.94	74.00	-14.06	37.57	3	Horizontal	214	1.44	-
2480MHz	Pass	AV	2.4802G	68.92	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	AV	2.483502G	38.52	54.00	-15.48	37.56	3	Vertical	246	1.50	-



RSE TX above 1GHz Result

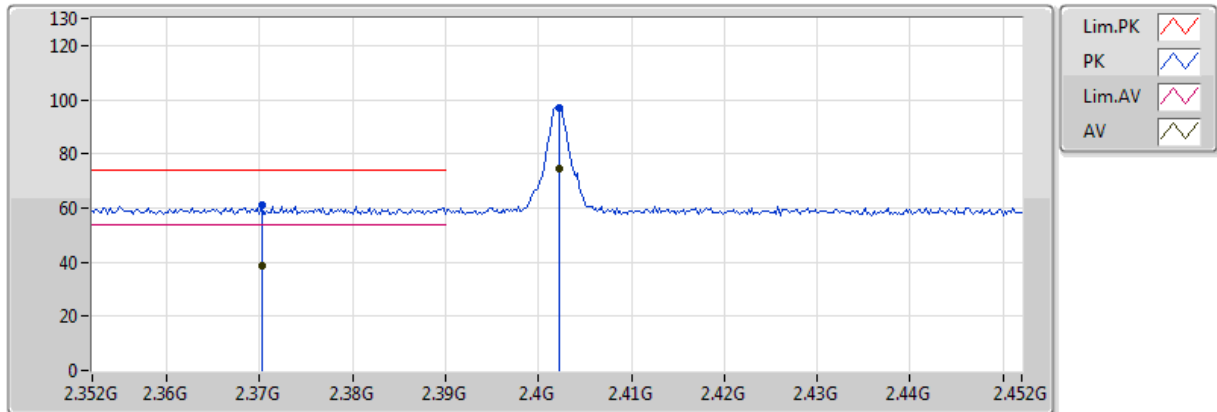
Appendix G.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	2.4802G	91.42	Inf	-Inf	37.55	3	Vertical	246	1.50	-
2480MHz	Pass	PK	2.483502G	61.02	74.00	-12.98	37.56	3	Vertical	246	1.50	-

BT-BR(1Mbps)

2402MHz_TX

23/11/2017

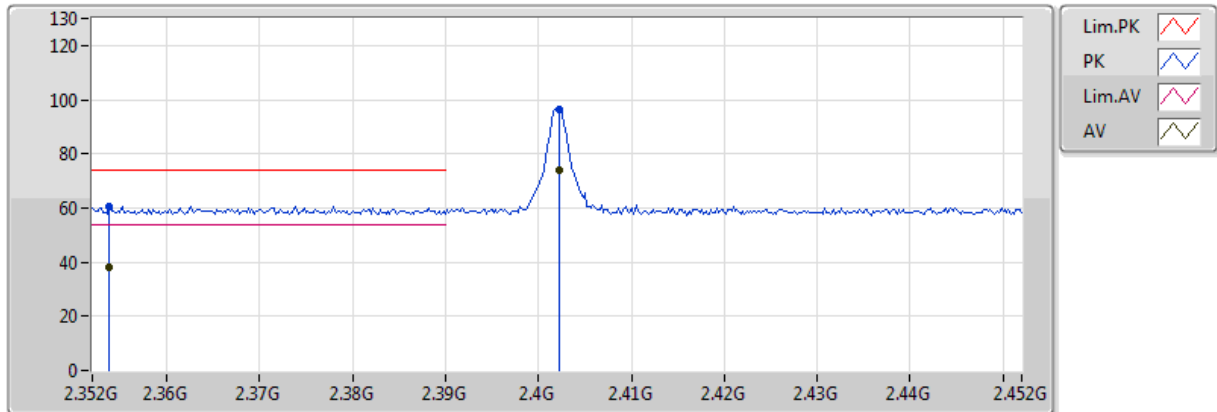


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3702G	38.43	54.00	-15.57	37.30	3	Vertical	19	1.21	-	1.13	32.14	5.16	-
AV	2.4022G	74.59	Inf	-Inf	37.38	3	Vertical	19	1.21	-	37.20	32.18	5.20	-
PK	2.3702G	60.93	74.00	-13.07	37.30	3	Vertical	19	1.21	-	23.63	32.14	5.16	-
PK	2.4022G	97.09	Inf	-Inf	37.38	3	Vertical	19	1.21	-	59.70	32.18	5.20	-

BT-BR(1Mbps)

2402MHz_TX

23/11/2017

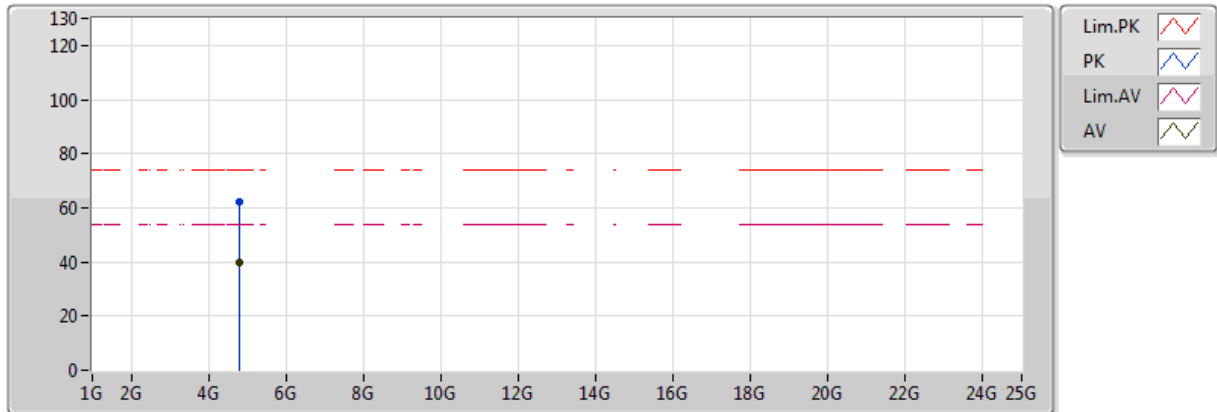


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3538G	37.97	54.00	-16.03	37.25	3	Horizontal	316	1.00	-	0.72	32.12	5.13	-
AV	2.4022G	74.10	Inf	-Inf	37.38	3	Horizontal	316	1.00	-	36.72	32.18	5.20	-
PK	2.3538G	60.47	74.00	-13.53	37.25	3	Horizontal	316	1.00	-	23.22	32.12	5.13	-
PK	2.4022G	96.60	Inf	-Inf	37.38	3	Horizontal	316	1.00	-	59.22	32.18	5.20	-

BT-BR(1Mbps)

2402MHz_TX

23/11/2017

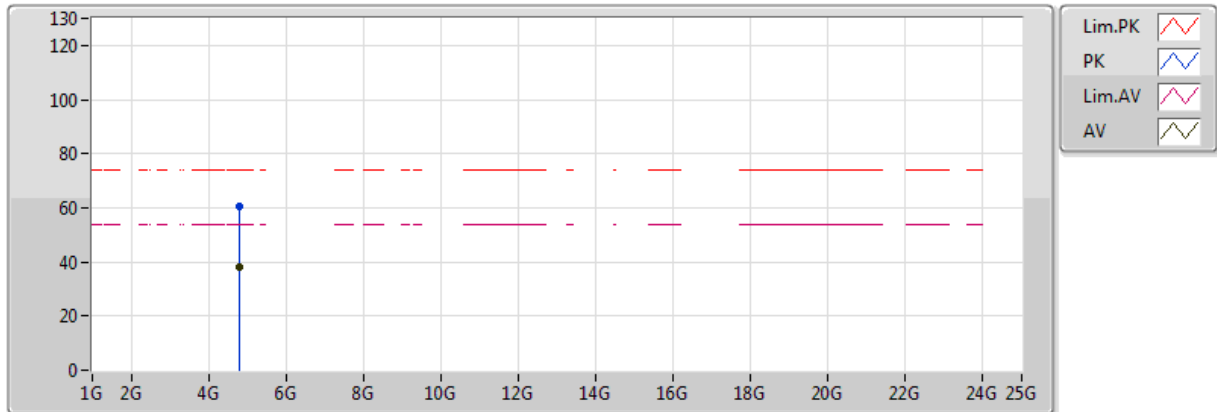


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80402G	39.75	54.00	-14.25	6.69	3	Vertical	191	1.10	-	33.06	34.22	7.34	34.88
PK	4.80428G	62.25	74.00	-11.75	6.69	3	Vertical	191	1.10	-	55.56	34.22	7.35	34.88

BT-BR(1Mbps)

2402MHz_TX

23/11/2017

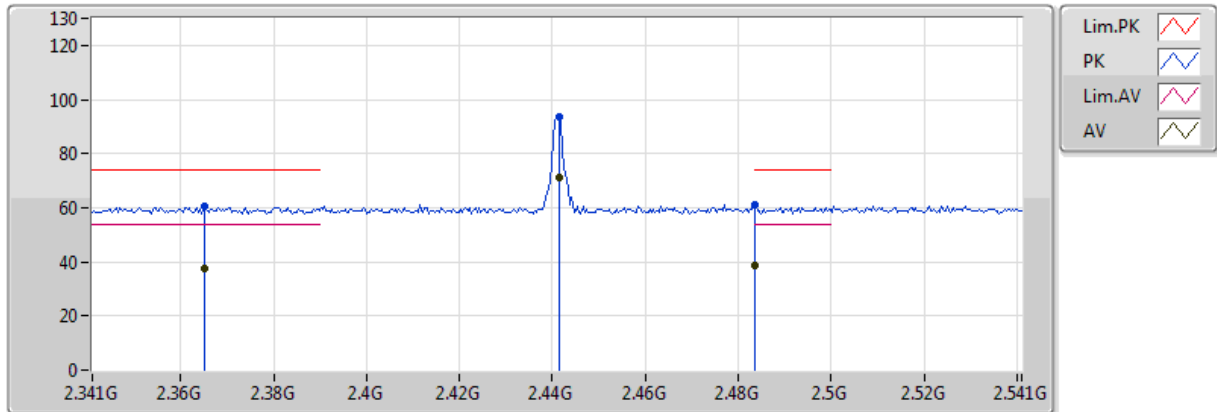


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80426G	38.15	54.00	-15.85	6.69	3	Horizontal	214	1.54	-	31.46	34.22	7.35	34.88
PK	4.80426G	60.65	74.00	-13.35	6.69	3	Horizontal	214	1.54	-	53.97	34.22	7.35	34.88

BT-BR(1Mbps)

2441MHz_TX

23/11/2017

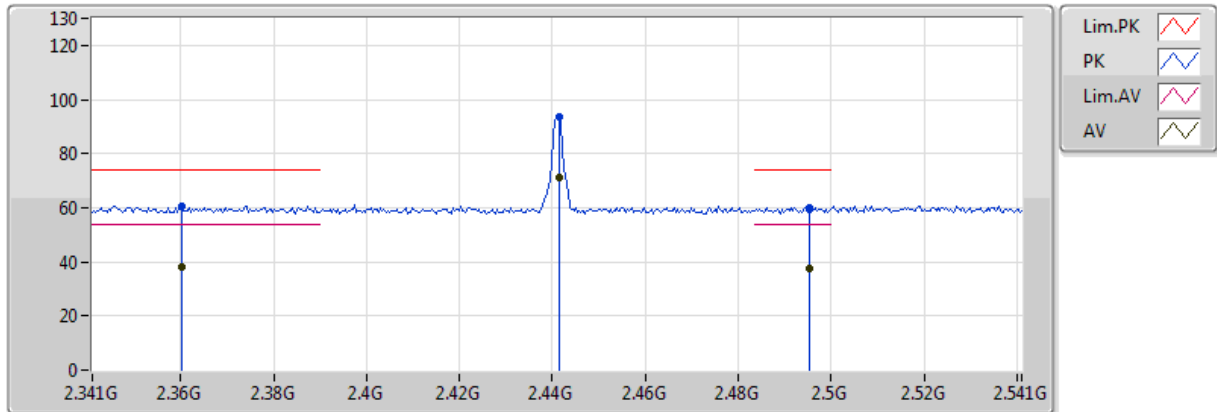


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.365G	37.82	54.00	-16.18	37.28	3	Vertical	27	1.40	-	0.54	32.13	5.15	-
AV	2.4414G	71.25	Inf	-Inf	37.47	3	Vertical	27	1.40	-	33.79	32.23	5.24	-
AV	2.483502G	38.47	54.00	-15.53	37.56	3	Vertical	27	1.40	-	0.91	32.28	5.28	-
PK	2.365G	60.32	74.00	-13.68	37.28	3	Vertical	27	1.40	-	23.04	32.13	5.15	-
PK	2.4414G	93.75	Inf	-Inf	37.47	3	Vertical	27	1.40	-	56.29	32.23	5.24	-
PK	2.483502G	60.97	74.00	-13.03	37.56	3	Vertical	27	1.40	-	23.41	32.28	5.28	-

BT-BR(1Mbps)

2441MHz_TX

23/11/2017

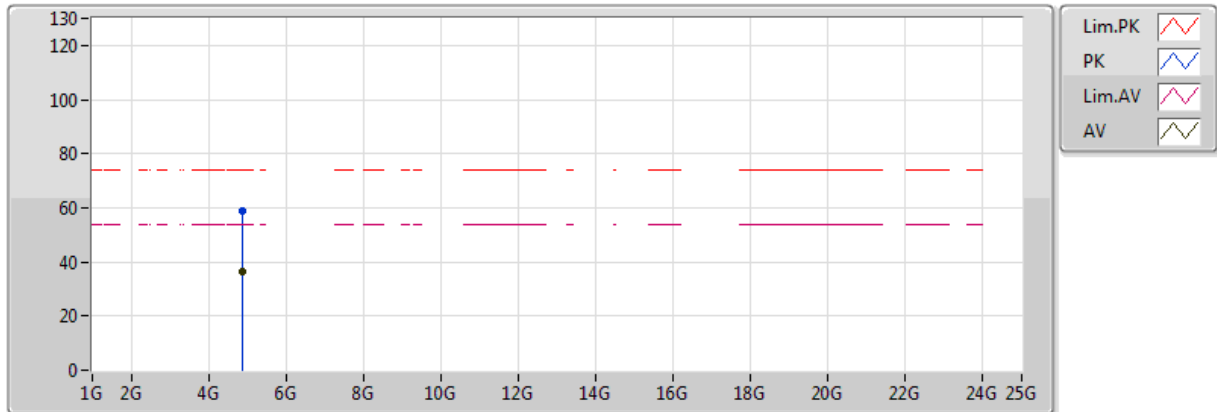


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3602G	38.28	54.00	-15.72	37.27	3	Horizontal	220	2.38	-	1.01	32.13	5.14	-
AV	2.4414G	71.29	Inf	-Inf	37.47	3	Horizontal	220	2.38	-	33.82	32.23	5.24	-
AV	2.4954G	37.66	54.00	-16.34	37.58	3	Horizontal	220	2.38	-	0.08	32.29	5.29	-
PK	2.3602G	60.78	74.00	-13.22	37.27	3	Horizontal	220	2.38	-	23.51	32.13	5.14	-
PK	2.4414G	93.79	Inf	-Inf	37.47	3	Horizontal	220	2.38	-	56.32	32.23	5.24	-
PK	2.4954G	60.16	74.00	-13.84	37.58	3	Horizontal	220	2.38	-	22.58	32.29	5.29	-

BT-BR(1Mbps)

2441MHz_TX

23/11/2017

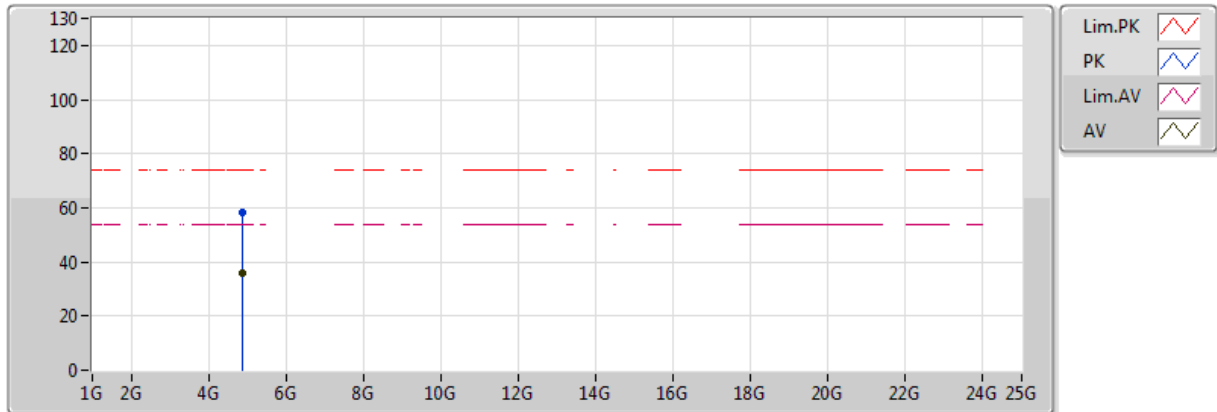


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.8824G	36.51	54.00	-17.49	6.84	3	Vertical	190	1.34	-	29.67	34.25	7.44	34.86
PK	4.8824G	59.01	74.00	-14.99	6.84	3	Vertical	190	1.34	-	52.17	34.25	7.44	34.86

BT-BR(1Mbps)

2441MHz_TX

23/11/2017

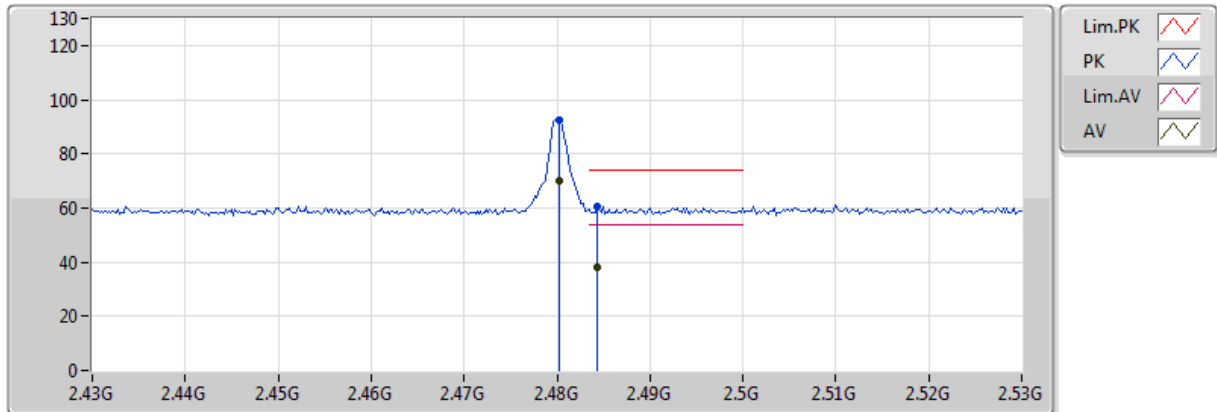


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88236G	35.89	54.00	-18.11	6.84	3	Horizontal	214	1.50	-	29.05	34.25	7.44	34.86
PK	4.88236G	58.39	74.00	-15.61	6.84	3	Horizontal	214	1.50	-	51.55	34.25	7.44	34.86

BT-BR(1Mbps)

2480MHz_TX

23/11/2017

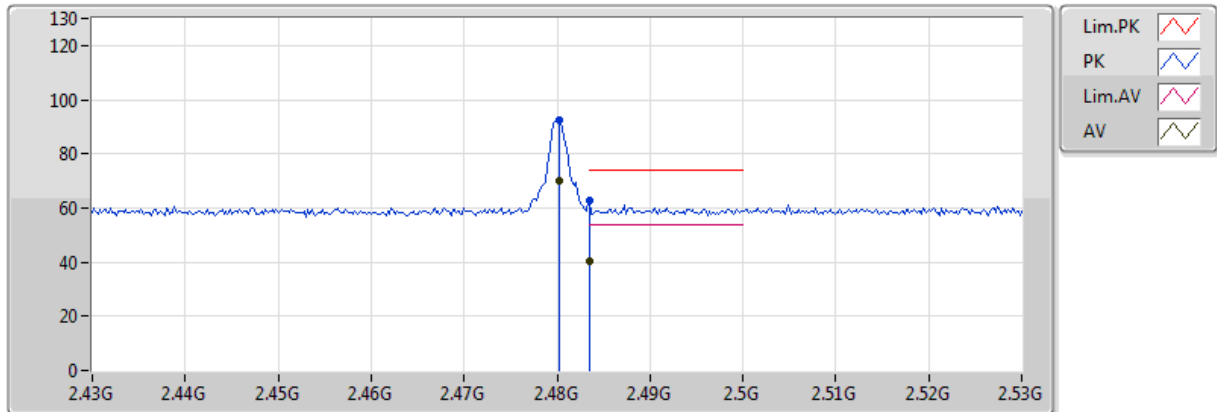


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	70.23	Inf	-Inf	37.55	3	Vertical	246	1.50	-	32.68	32.28	5.27	-
AV	2.4844G	38.16	54.00	-15.84	37.56	3	Vertical	246	1.50	-	0.60	32.28	5.28	-
PK	2.4802G	92.73	Inf	-Inf	37.55	3	Vertical	246	1.50	-	55.18	32.28	5.27	-
PK	2.4844G	60.66	74.00	-13.34	37.56	3	Vertical	246	1.50	-	23.10	32.28	5.28	-

BT-BR(1Mbps)

2480MHz_TX

23/11/2017

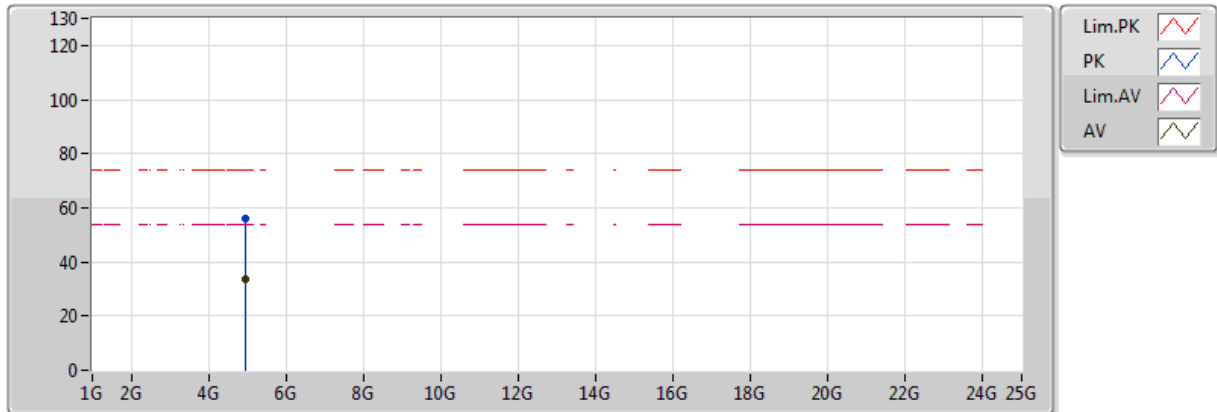


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	69.88	Inf	-Inf	37.55	3	Horizontal	215	1.46	-	32.33	32.28	5.27	-
AV	2.483502G	40.36	54.00	-13.64	37.56	3	Horizontal	215	1.46	-	2.80	32.28	5.28	-
PK	2.4802G	92.38	Inf	-Inf	37.55	3	Horizontal	215	1.46	-	54.83	32.28	5.27	-
PK	2.483502G	62.86	74.00	-11.14	37.56	3	Horizontal	215	1.46	-	25.30	32.28	5.28	-

BT-BR(1Mbps)

2480MHz_TX

23/11/2017

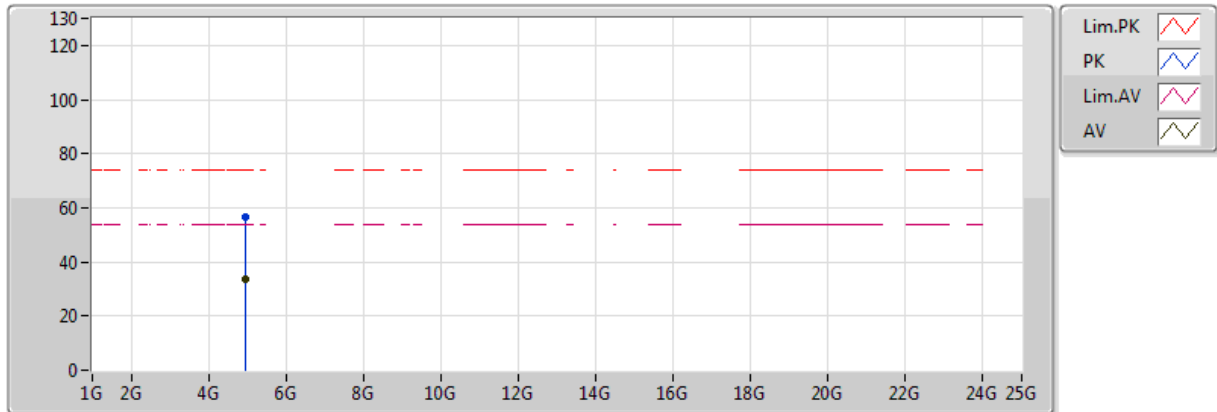


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	4.95964G	56.05	74.00	-17.95	6.99	3	Vertical	340	1.35	-	49.06	34.28	7.54	34.83
AV	4.95964G	33.55	54.00	-20.45	6.99	3	Vertical	340	1.35	-	26.56	34.28	7.54	34.83

BT-BR(1Mbps)

2480MHz_TX

23/11/2017

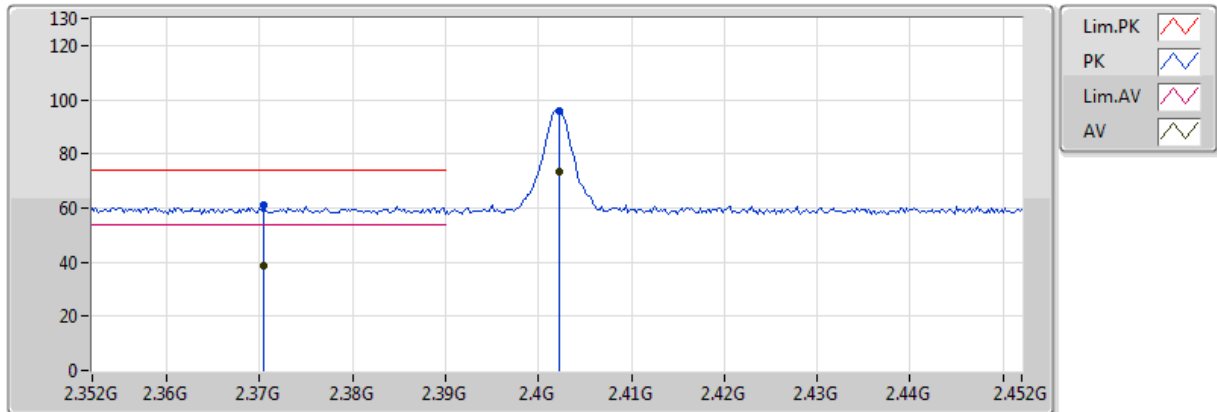


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	4.96022G	56.40	74.00	-17.60	6.99	3	Horizontal	210	1.77	-	49.41	34.28	7.54	34.83
AV	4.96022G	33.90	54.00	-20.10	6.99	3	Horizontal	210	1.77	-	26.91	34.28	7.54	34.83

BT-EDR(2Mbps)

2402MHz_TX

23/11/2017

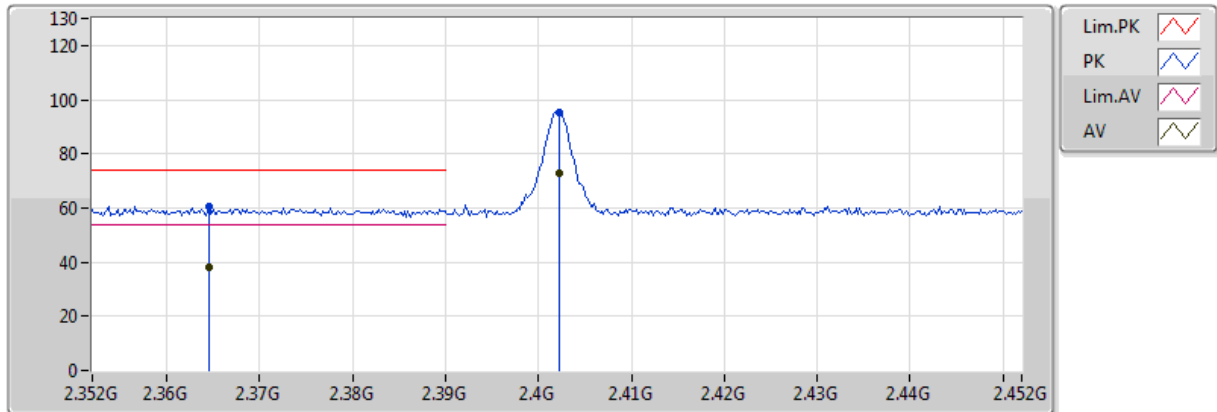


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3704G	38.48	54.00	-15.52	37.30	3	Vertical	19	1.19	-	1.18	32.14	5.16	-
AV	2.4022G	73.22	Inf	-Inf	37.38	3	Vertical	19	1.19	-	35.84	32.18	5.20	-
PK	2.3704G	60.98	74.00	-13.02	37.30	3	Vertical	19	1.19	-	23.68	32.14	5.16	-
PK	2.4022G	95.72	Inf	-Inf	37.38	3	Vertical	19	1.19	-	58.34	32.18	5.20	-

BT-EDR(2Mbps)

2402MHz_TX

23/11/2017

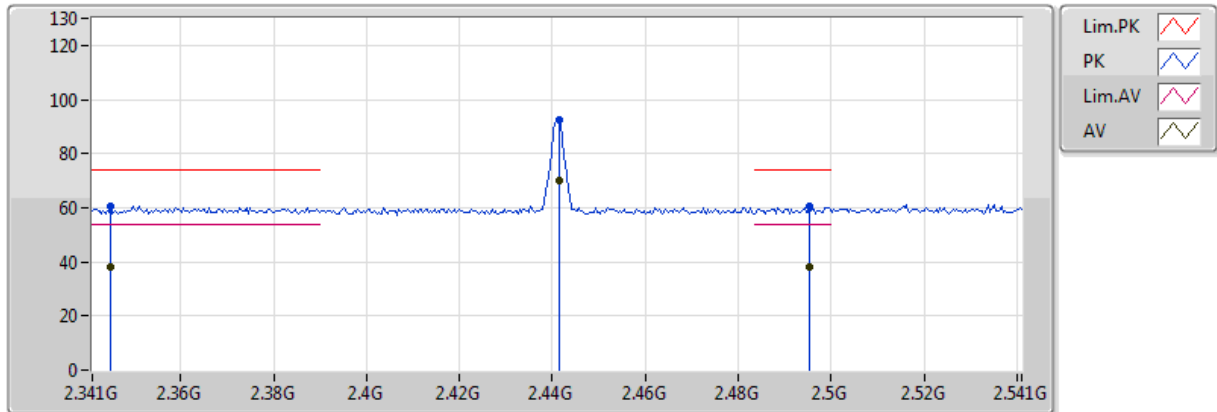


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3646G	37.96	54.00	-16.04	37.28	3	Horizontal	218	1.24	-	0.68	32.13	5.15	-
AV	2.4022G	72.71	Inf	-Inf	37.38	3	Horizontal	218	1.24	-	35.32	32.18	5.20	-
PK	2.3646G	60.46	74.00	-13.54	37.28	3	Horizontal	218	1.24	-	23.18	32.13	5.15	-
PK	2.4022G	95.21	Inf	-Inf	37.38	3	Horizontal	218	1.24	-	57.82	32.18	5.20	-

BT-EDR(2Mbps)

2441MHz_TX

23/11/2017

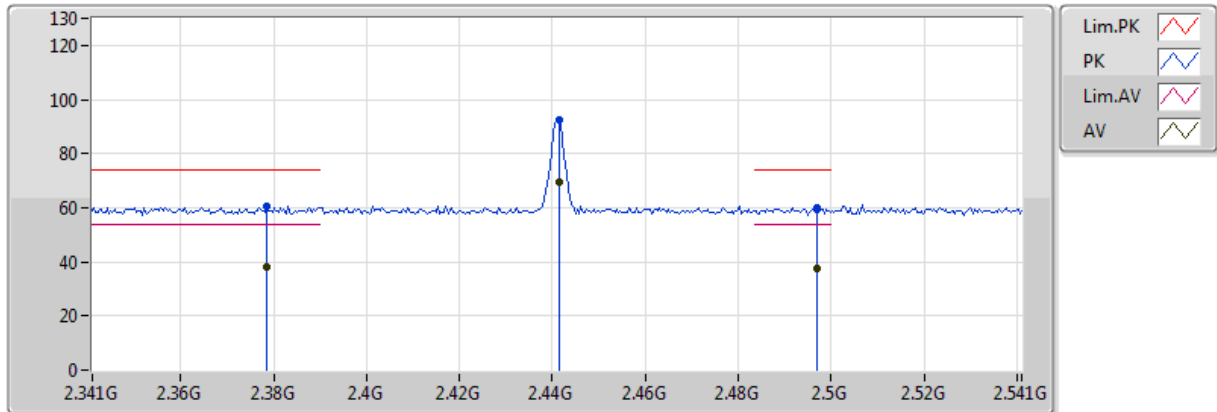


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.345G	37.99	54.00	-16.01	37.23	3	Vertical	24	1.38	-	0.76	32.11	5.12	-
AV	2.4414G	70.14	Inf	-Inf	37.47	3	Vertical	24	1.38	-	32.67	32.23	5.24	-
AV	2.4954G	37.98	54.00	-16.02	37.58	3	Vertical	24	1.38	-	0.40	32.29	5.29	-
PK	2.345G	60.49	74.00	-13.51	37.23	3	Vertical	24	1.38	-	23.26	32.11	5.12	-
PK	2.4414G	92.64	Inf	-Inf	37.47	3	Vertical	24	1.38	-	55.17	32.23	5.24	-
PK	2.4954G	60.48	74.00	-13.52	37.58	3	Vertical	24	1.38	-	22.90	32.29	5.29	-

BT-EDR(2Mbps)

2441MHz_TX

23/11/2017

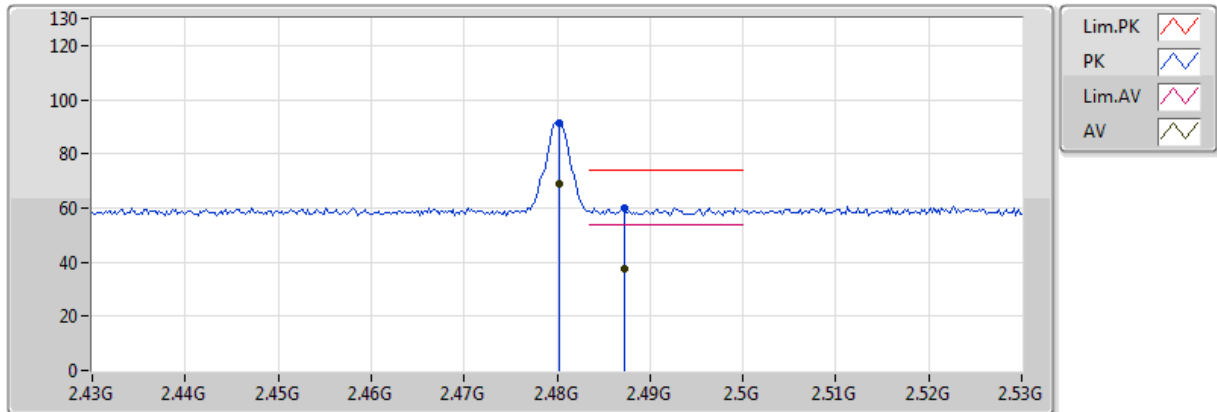


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3786G	38.14	54.00	-15.86	37.32	3	Horizontal	221	2.38	-	0.82	32.15	5.17	-
AV	2.4414G	69.70	Inf	-Inf	37.47	3	Horizontal	221	2.38	-	32.23	32.23	5.24	-
AV	2.497G	37.51	54.00	-16.49	37.58	3	Horizontal	221	2.38	-	-0.07	32.30	5.29	-
PK	2.3786G	60.64	74.00	-13.36	37.32	3	Horizontal	221	2.38	-	23.32	32.15	5.17	-
PK	2.4414G	92.20	Inf	-Inf	37.47	3	Horizontal	221	2.38	-	54.73	32.23	5.24	-
PK	2.497G	60.01	74.00	-13.99	37.58	3	Horizontal	221	2.38	-	22.43	32.30	5.29	-

BT-EDR(2Mbps)

2480MHz_TX

23/11/2017

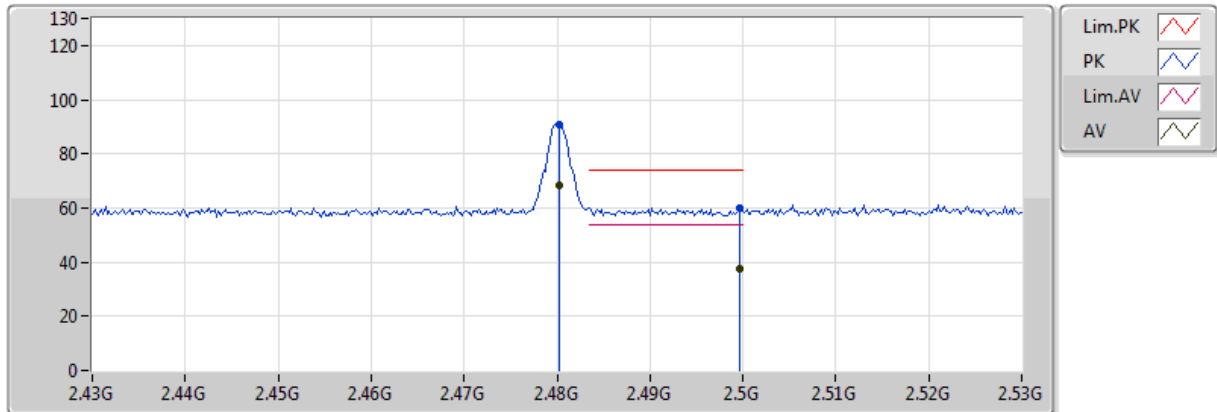


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	68.91	Inf	-Inf	37.55	3	Vertical	246	1.50	-	31.36	32.28	5.27	-
AV	2.4872G	37.73	54.00	-16.27	37.56	3	Vertical	246	1.50	-	0.17	32.28	5.28	-
PK	2.4802G	91.41	Inf	-Inf	37.55	3	Vertical	246	1.50	-	53.86	32.28	5.27	-
PK	2.4872G	60.23	74.00	-13.77	37.56	3	Vertical	246	1.50	-	22.67	32.28	5.28	-

BT-EDR(2Mbps)

2480MHz_TX

23/11/2017

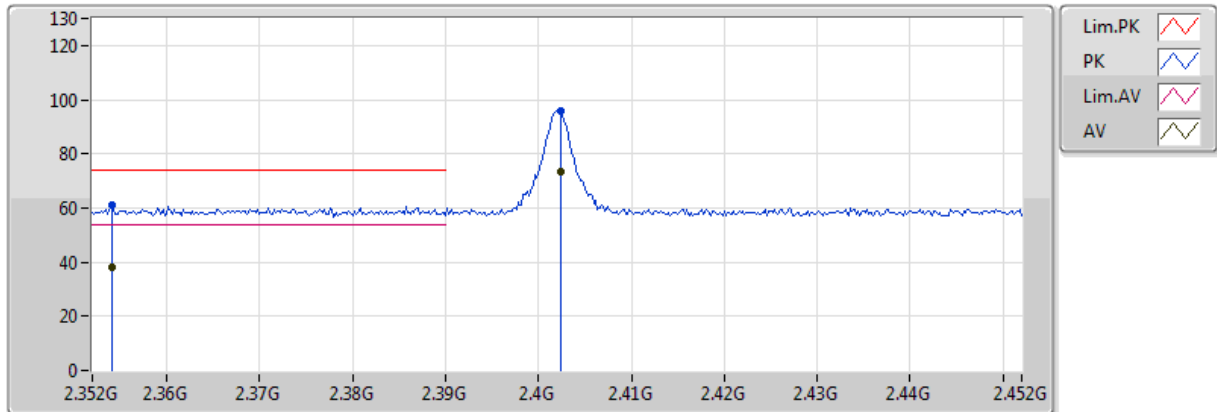


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	68.43	Inf	-Inf	37.55	3	Horizontal	216	1.46	-	30.88	32.28	5.27	-
AV	2.4996G	37.73	54.00	-16.27	37.59	3	Horizontal	216	1.46	-	0.14	32.30	5.29	-
PK	2.4802G	90.93	Inf	-Inf	37.55	3	Horizontal	216	1.46	-	53.38	32.28	5.27	-
PK	2.4996G	60.23	74.00	-13.77	37.59	3	Horizontal	216	1.46	-	22.64	32.30	5.29	-

BT-EDR(3Mbps)

2402MHz_TX

23/11/2017

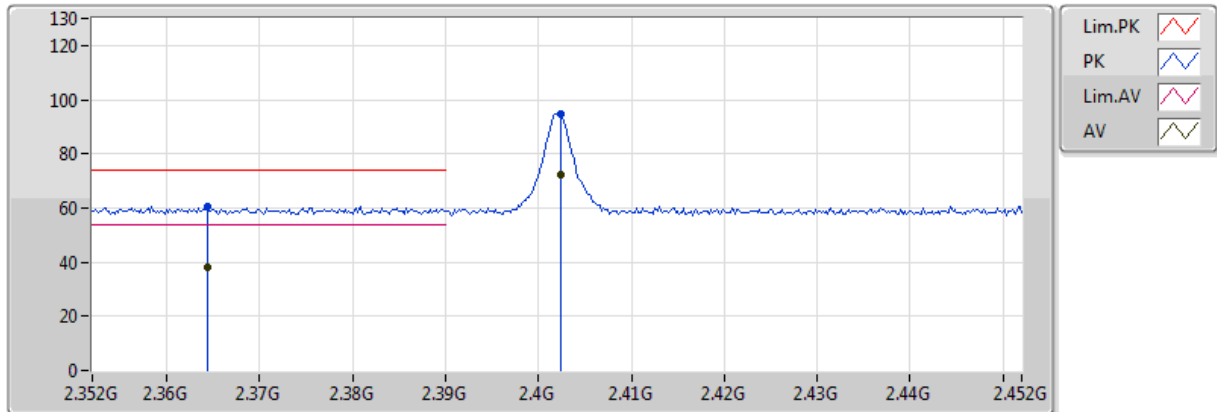


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3542G	38.33	54.00	-15.67	37.25	3	Vertical	19	1.19	-	1.08	32.12	5.13	-
AV	2.4024G	73.22	Inf	-Inf	37.39	3	Vertical	19	1.19	-	35.83	32.18	5.20	-
PK	2.3542G	60.83	74.00	-13.17	37.25	3	Vertical	19	1.19	-	23.58	32.12	5.13	-
PK	2.4024G	95.72	Inf	-Inf	37.39	3	Vertical	19	1.19	-	58.33	32.18	5.20	-

BT-EDR(3Mbps)

2402MHz_TX

23/11/2017

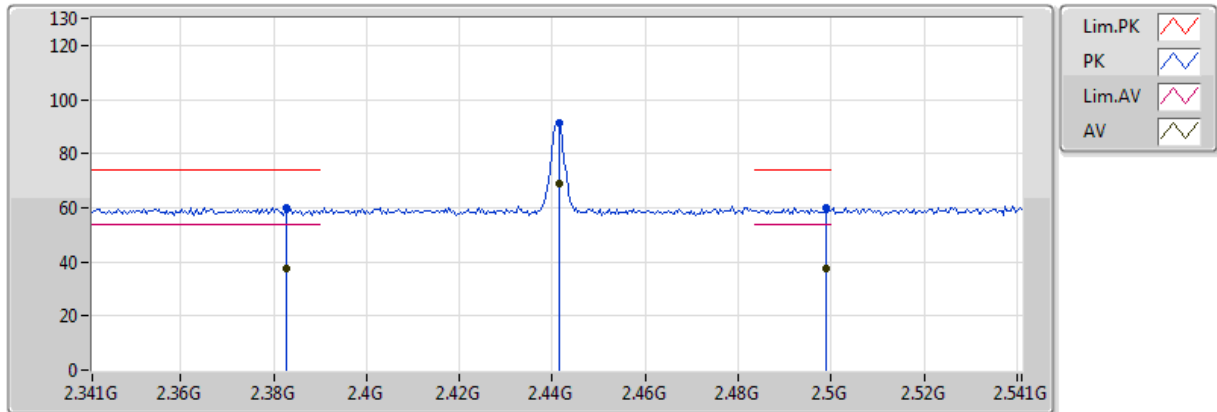


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3644G	38.27	54.00	-15.73	37.28	3	Horizontal	210	1.77	-	0.99	32.13	5.15	-
AV	2.4024G	72.15	Inf	-Inf	37.39	3	Horizontal	210	1.77	-	34.77	32.18	5.20	-
PK	2.3644G	60.77	74.00	-13.23	37.28	3	Horizontal	215	1.64	-	23.49	32.13	5.15	-
PK	2.4024G	94.65	Inf	-Inf	37.39	3	Horizontal	215	1.64	-	57.27	32.18	5.20	-

BT-EDR(3Mbps)

2441MHz_TX

24/11/2017

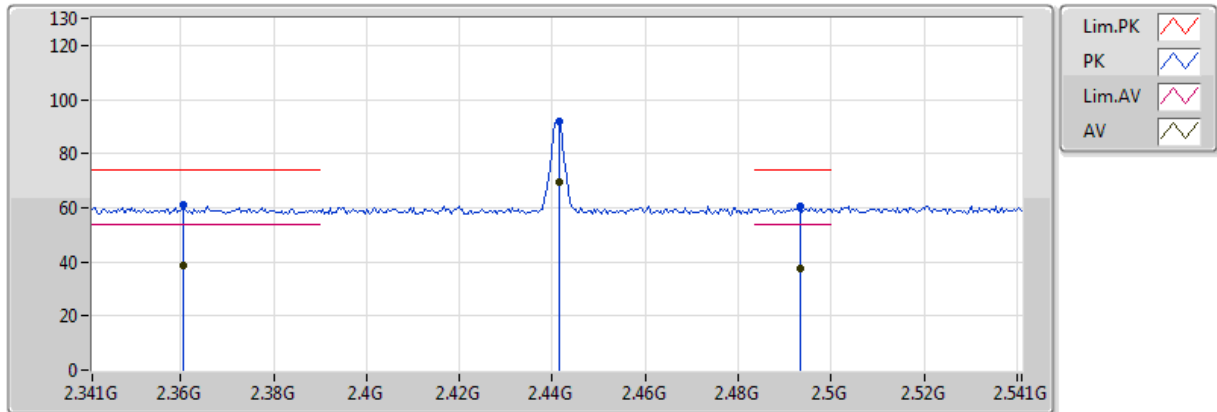


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	2.3826G	60.18	74.00	-13.82	37.33	3	Vertical	271	1.50	-	22.85	32.16	5.17	-
PK	2.4414G	91.36	Inf	-Inf	37.47	3	Vertical	271	1.50	-	53.89	32.23	5.24	-
PK	2.499G	60.17	74.00	-13.83	37.59	3	Vertical	271	1.50	-	22.58	32.30	5.29	-
AV	2.3826G	37.68	54.00	-16.32	37.33	3	Vertical	271	1.50	-	0.35	32.16	5.17	-
AV	2.4414G	68.86	Inf	-Inf	37.47	3	Vertical	271	1.50	-	31.39	32.23	5.24	-
AV	2.499G	37.67	54.00	-16.33	37.59	3	Vertical	271	1.50	-	0.08	32.30	5.29	-

BT-EDR(3Mbps)

2441MHz_TX

24/11/2017

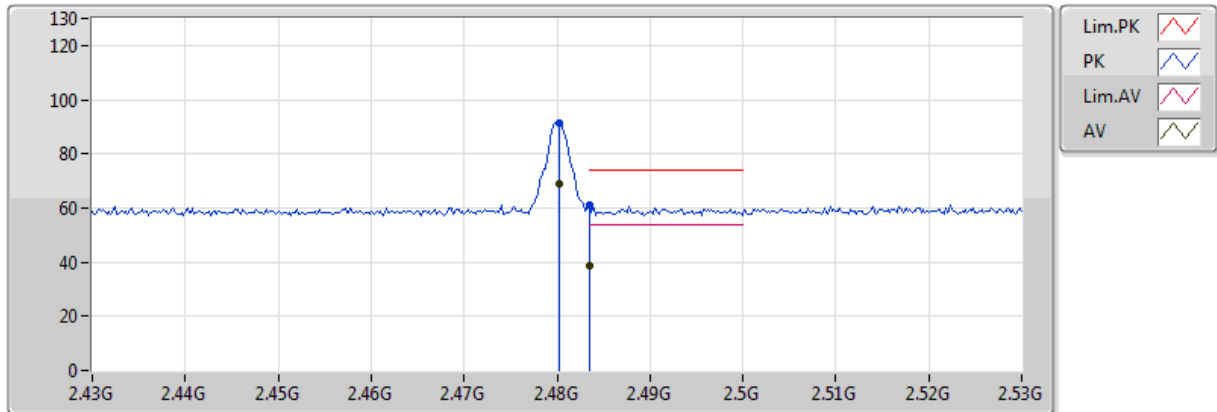


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3606G	38.61	54.00	-15.39	37.27	3	Horizontal	232	2.74	-	1.34	32.13	5.14	-
AV	2.4414G	69.53	Inf	-Inf	37.47	3	Horizontal	232	2.74	-	32.06	32.23	5.24	-
AV	2.4934G	37.80	54.00	-16.20	37.58	3	Horizontal	232	2.74	-	0.22	32.29	5.28	-
PK	2.3606G	61.11	74.00	-12.89	37.27	3	Horizontal	232	2.74	-	23.84	32.13	5.14	-
PK	2.4414G	92.03	Inf	-Inf	37.47	3	Horizontal	232	2.74	-	54.56	32.23	5.24	-
PK	2.4934G	60.30	74.00	-13.70	37.58	3	Horizontal	232	2.74	-	22.72	32.29	5.28	-

BT-EDR(3Mbps)

2480MHz_TX

24/11/2017

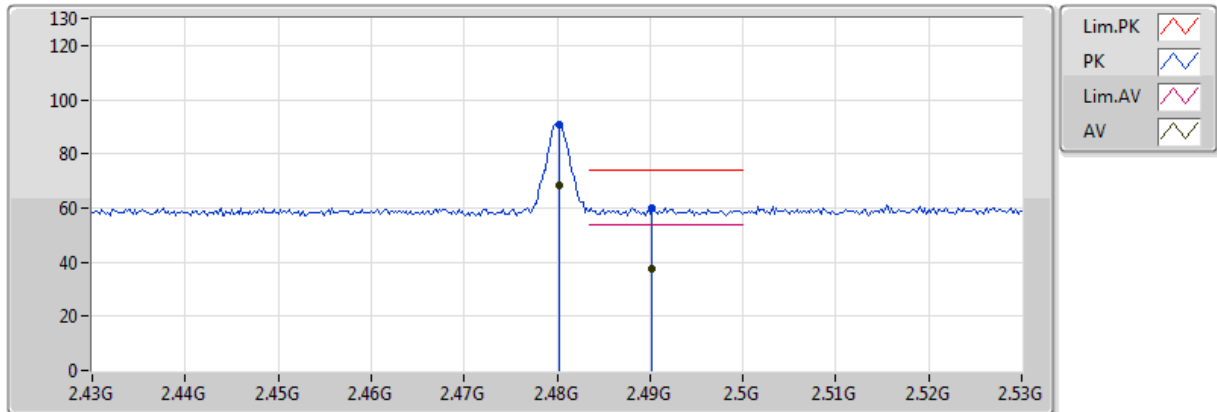


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	68.92	Inf	-Inf	37.55	3	Vertical	246	1.50	-	31.37	32.28	5.27	-
AV	2.483502G	38.52	54.00	-15.48	37.56	3	Vertical	246	1.50	-	0.96	32.28	5.28	-
PK	2.4802G	91.42	Inf	-Inf	37.55	3	Vertical	246	1.50	-	53.87	32.28	5.27	-
PK	2.483502G	61.02	74.00	-12.98	37.56	3	Vertical	246	1.50	-	23.46	32.28	5.28	-

BT-EDR(3Mbps)

2480MHz_TX

24/11/2017



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4802G	68.17	Inf	-Inf	37.55	3	Horizontal	214	1.44	-	30.62	32.28	5.27	-
AV	2.4902G	37.44	54.00	-16.56	37.57	3	Horizontal	214	1.44	-	-0.13	32.29	5.28	-
PK	2.4802G	90.67	Inf	-Inf	37.55	3	Horizontal	214	1.44	-	53.12	32.28	5.27	-
PK	2.4902G	59.94	74.00	-14.06	37.57	3	Horizontal	214	1.44	-	22.37	32.29	5.28	-