

FCC Test Report

Equipment : Bluetooth Earphone
Brand Name : Bang & Olufsen
Model No. : Beoplay E6
FCC ID : TTUBEOPLAYE6
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☐ Point-to-multipoint; ☒ Point-to-point
Applicant : Bang & Olufsen a/s
Peter Bangs Vej 15, DK-7600 Struer, Denmark
Manufacturer : Bang & Olufsen a/s
Peter Bangs Vej 15, DK-7600 Struer, Denmark

The product sample received on Jan. 24, 2018 and completely tested on Feb. 07, 2018. 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.


Allen Lin



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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



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
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FCC ID: TTUBEOPLAYE6

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	Sage Elephant Tech co., Ltd	F0352104001-A	PIFA Antenna	fixed on board	-0.68

1.1.3 EUT Information

Operational Condition	
EUT Power Type	From host system / Battery
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)	0.748	1.261	2.911m	1k
BT-EDR(2Mbps)	0.786	1.046	2.918m	1k
BT-EDR(3Mbps)	0.764	1.169	2.919m	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	TH06-HY	Tim	22.5°C / 65%	05/Feb/2018
Radiated	03CH02-HY	Eric	24.4°C / 63%	07/Feb/2018
AC Conduction	CO04-HY	Eric	24.4°C / 63%	06/Feb/2018

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 (9kHz ~ 30MHz)	3.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	3.7V

2.2 Test Channel Mode

Test Software Version	BlueSuite_2_6_2_632
-----------------------	---------------------

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	23
2441MHz	25
2480MHz	27
BT-EDR(2Mbps)	-
2402MHz	52
2441MHz	53
2480MHz	53
BT-EDR(3Mbps)	-
2402MHz	52
2441MHz	53
2480MHz	53

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				
Built-Battery 1	Brand Name	VARTA	Model Name	CP1254 A3
	Power Rating	3.7 Vdc, 60 mAh	Type	Li-ion, Button cell
Built-Battery 2	Brand Name	VDL	Model Name	ZJ1254
	Power Rating	3.7 Vdc, 55 mAh	Type	Li-ion, Button cell
E6 Charging dongle	Brand Name	Bang & Olufsen	Model Name	1140800
	Power Cord	1.2 meter, Shielded cable		

2.5 Support Equipment

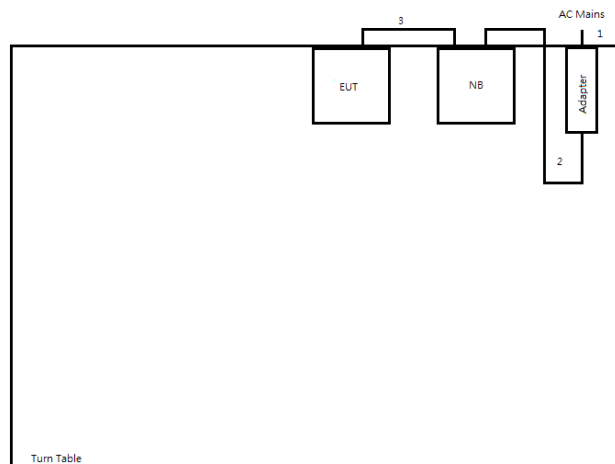
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	DC Source	GW	GPS-3030DD	-

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC
2	AC adapter for NB	DELL	LA65NS2-01	-

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC
2	AC adapter for NB	DELL	LA65NS2-01	-

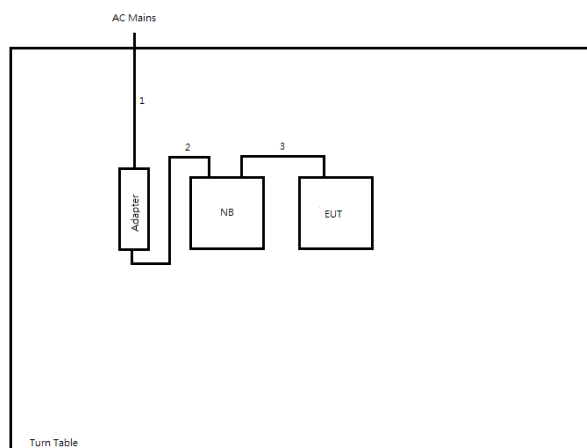
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8m	-
2	DC Power cable	No	1.5m	-
3	E6 Charging dongle	D	1.2m	-

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8m	-
2	DC Power cable	No	1.5m	-
3	E6 Charging dongle	D	1.2m	-

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.

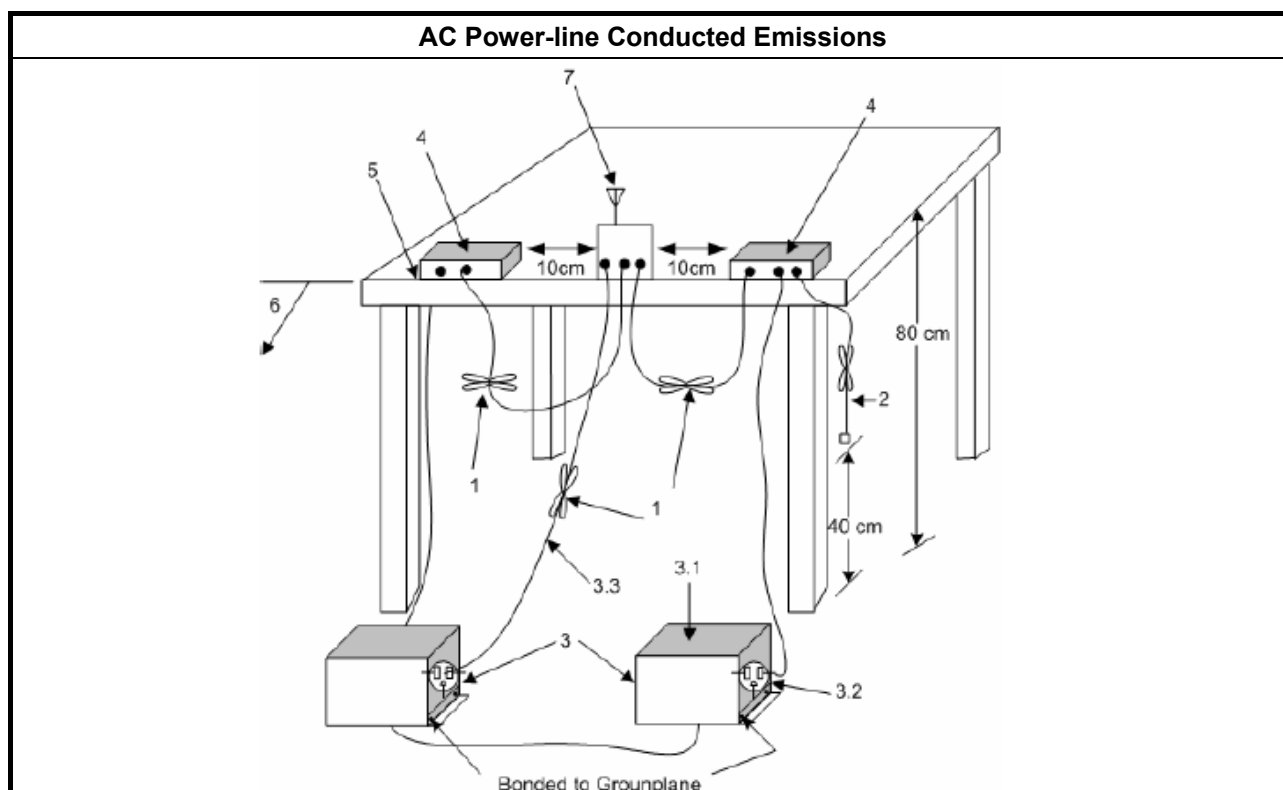
3.1.2 Measuring Instruments

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	

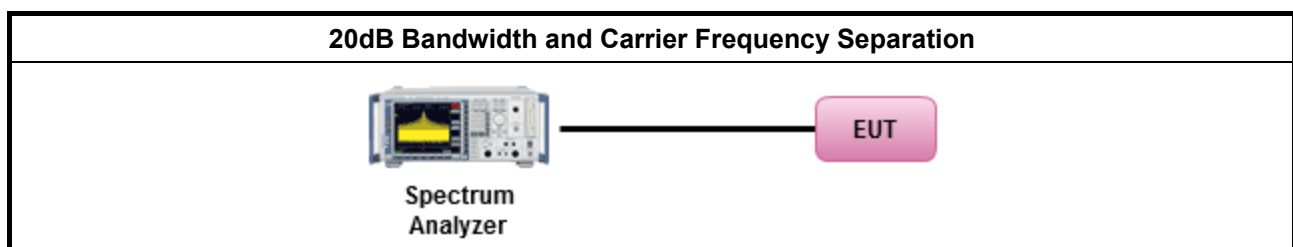
3.2.2 Measuring Instruments

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	

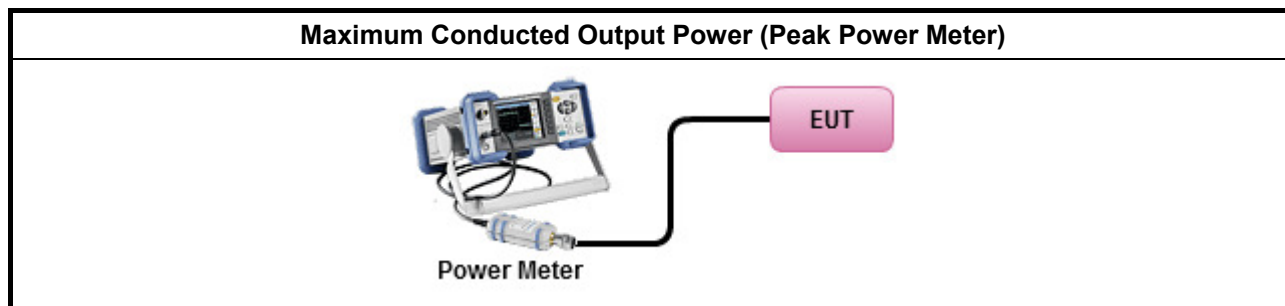
3.3.2 Measuring Instruments

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 $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	▪ $50 > N \geq 25$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
▪ 2400-2483.5 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	▪ $75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
▪ 5725-5850 MHz Band:	
	▪ $N \geq 75$ and $ChS \geq MAX$ (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

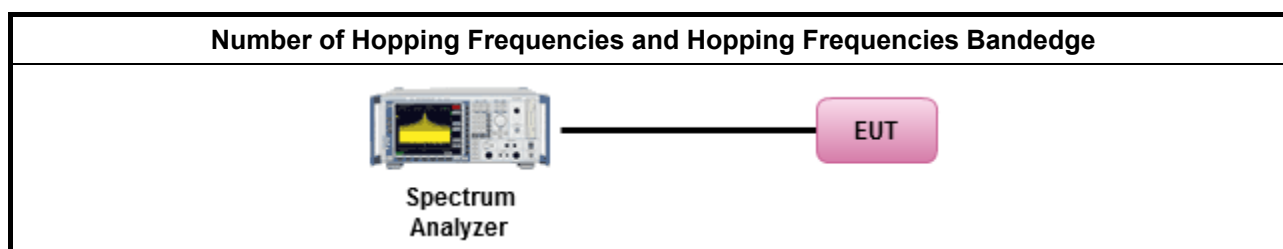
3.4.3 Measuring Instruments

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	

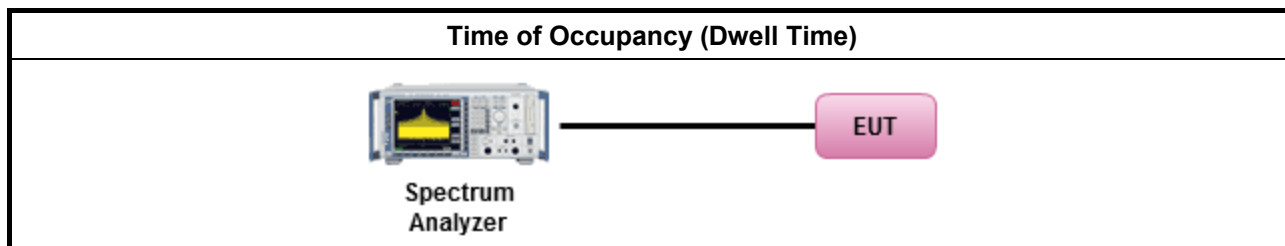
3.5.2 Measuring Instruments

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.	

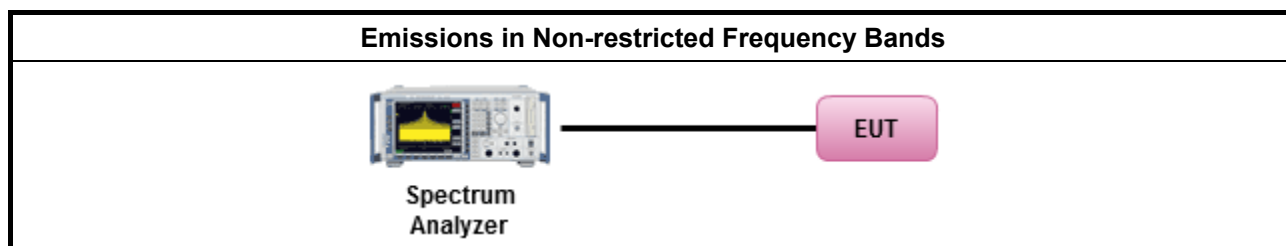
3.6.2 Measuring Instruments

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.

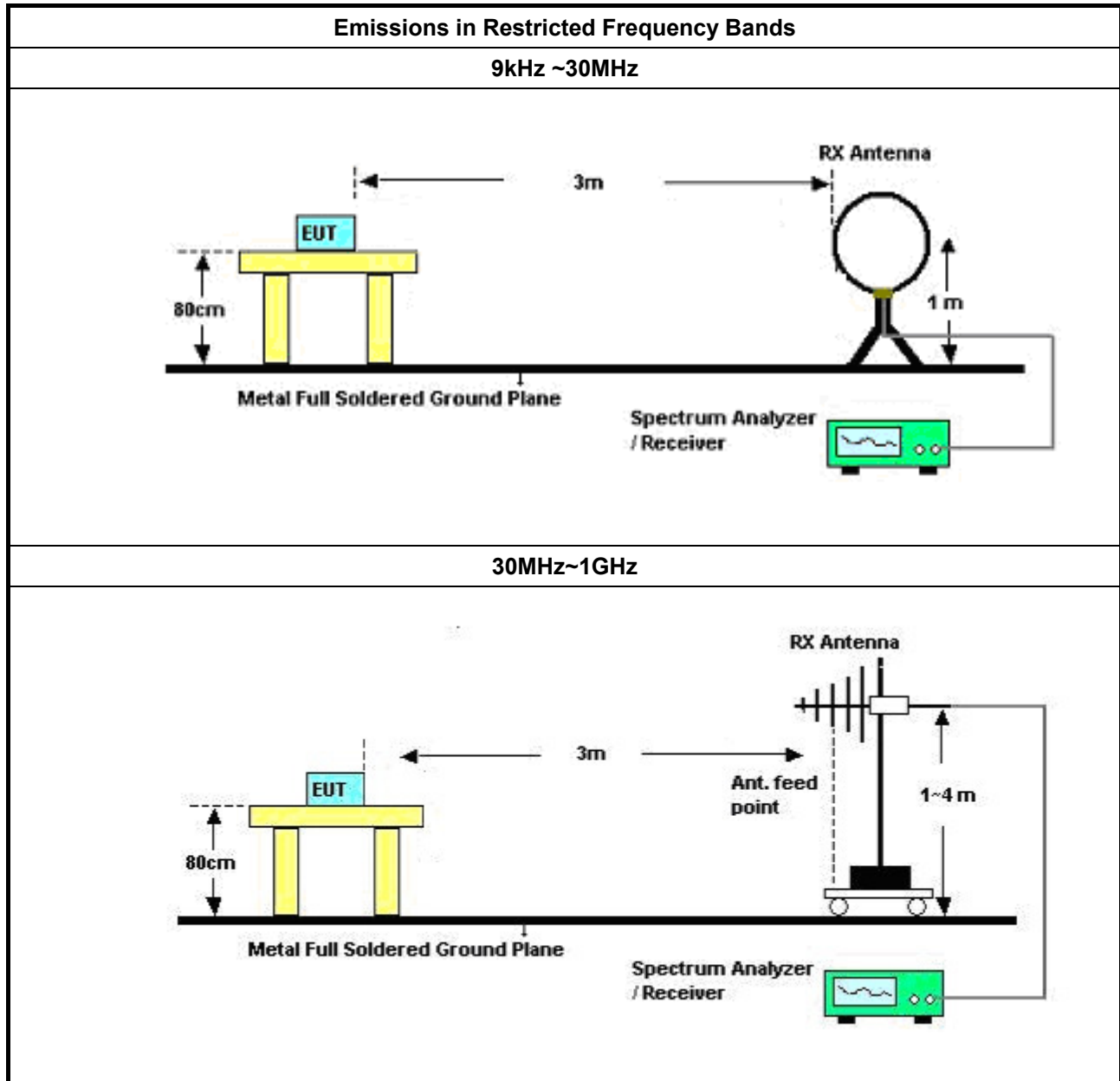
3.7.2 Measuring Instruments

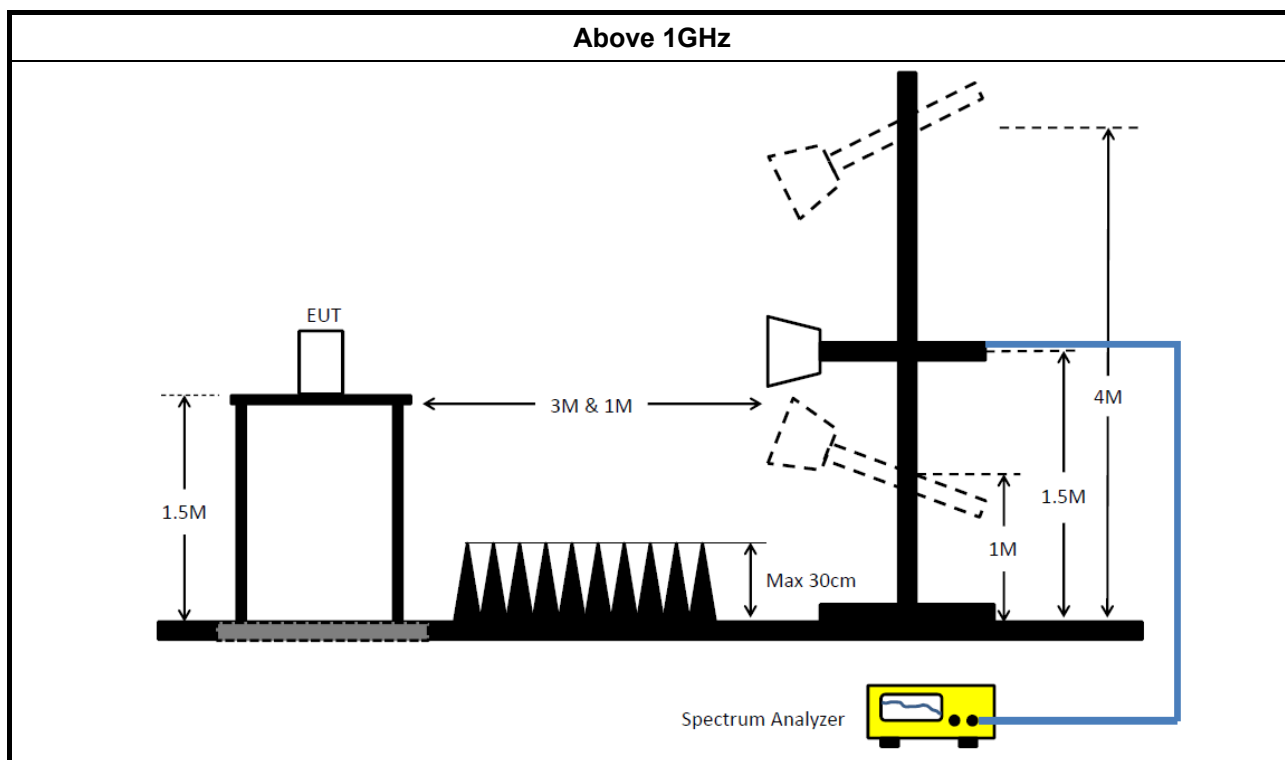
Refer a test equipment and calibration data table in this test report.

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

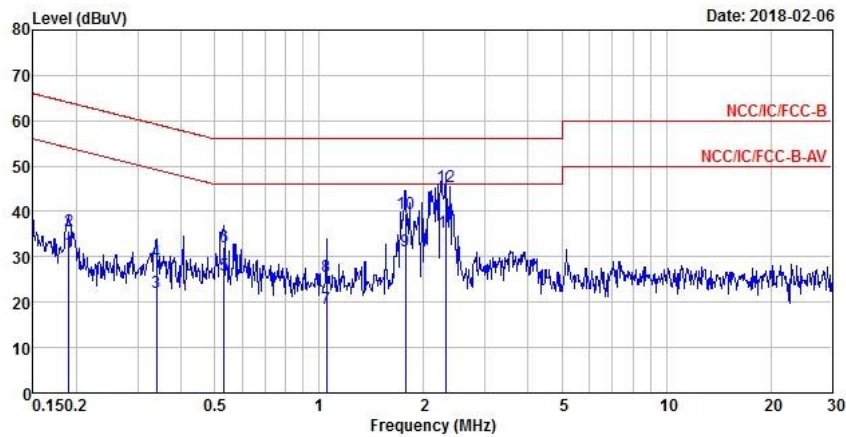
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSP40	100305	9KHz - 40GHz	12/Dec/2017	11/Dec/2018
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz-1GHz	20/Oct/2017	19/Oct/2018
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz	27/Oct/2017	26/Oct/2018
Amplifier	Agilent	8447D	2944A11149	100KHz-1.3GHz	29/Jun/2017	28/Jun/2018
Amplifier	Ketsight	8449B	3008A02602	1GHz-26.5GHz	19/Sep/2017	18/Sep/2018
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D 01531	1GHz-18GHz	11/May/2017	10/May/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA 9170221	18GHz-40GHz	10/Mar/2017	09/Mar/2018
Bilog Antenna	SCHAFFNER	CBL6112B	2723	30MHz-1GHz	09/Sep/2017	08/Sep/2018
Amplifier	MITEQ	TTA1840-35-HG	1864481	18GHz-40GHz	24/Aug/2017	23/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9KHz-30MHz	02/Mar/2017	01/Mar/2018
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	19/Jan/2018	18/Jan/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	19/Jan/2018	18/Jan/2019
Receiver	R&S	ESU3	102052	9kHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018

**Instrument for Conducted Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101515	9kHz~40GHz	08/Dec/2017	07/Dec/2018
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		

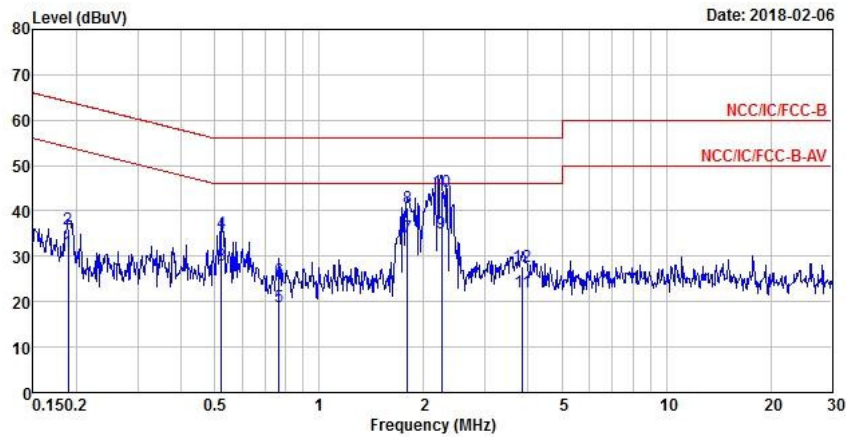


	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1904	30.92	-23.10	54.02	21.29	9.62	0.01	Average
2	0.1904	35.82	-28.20	64.02	26.19	9.62	0.01	QP
3	0.3392	22.03	-27.19	49.22	12.34	9.61	0.08	Average
4	0.3392	28.94	-30.28	59.22	19.25	9.61	0.08	QP
5	0.5322	25.96	-20.04	46.00	16.28	9.61	0.07	Average
6	0.5322	32.14	-23.86	56.00	22.46	9.61	0.07	QP
7	1.0485	18.62	-27.38	46.00	9.00	9.62	0.00	Average
8	1.0485	25.65	-30.35	56.00	16.03	9.62	0.00	QP
9	1.7716	31.33	-14.67	46.00	21.70	9.63	0.00	Average
10	1.7716	39.58	-16.42	56.00	29.95	9.63	0.00	QP
11	2.3213	35.49	-10.51	46.00	25.84	9.63	0.02	Average
12 MAX	2.3213	45.52	-10.48	56.00	35.87	9.63	0.02	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	0.1894	31.11	-22.95	54.06	21.48	9.62	0.01	Average
2	0.1894	36.04	-28.02	64.06	26.41	9.62	0.01	QP
3	0.5238	28.08	-17.92	46.00	18.40	9.61	0.07	Average
4	0.5238	35.21	-20.79	56.00	25.53	9.61	0.07	QP
5	0.7670	19.04	-26.96	46.00	9.40	9.61	0.03	Average
6	0.7670	24.92	-31.08	56.00	15.28	9.61	0.03	QP
7	1.8000	34.35	-11.65	46.00	24.73	9.62	0.00	Average
8	1.8000	40.82	-15.18	56.00	31.20	9.62	0.00	QP
9 MAX	2.2486	35.25	-10.75	46.00	25.62	9.62	0.01	Average
10	2.2486	44.41	-11.59	56.00	34.78	9.62	0.01	QP
11	3.8603	22.24	-23.76	46.00	12.53	9.63	0.08	Average
12	3.8603	27.64	-28.36	56.00	17.93	9.63	0.08	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)	918.75k	879.56k	880KF1D	916.25k	873.313k
BT-EDR(2Mbps)	1.259M	1.197M	1M20G1D	1.228M	1.194M
BT-EDR(3Mbps)	1.25M	1.212M	1M21G1D	1.248M	1.209M

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;

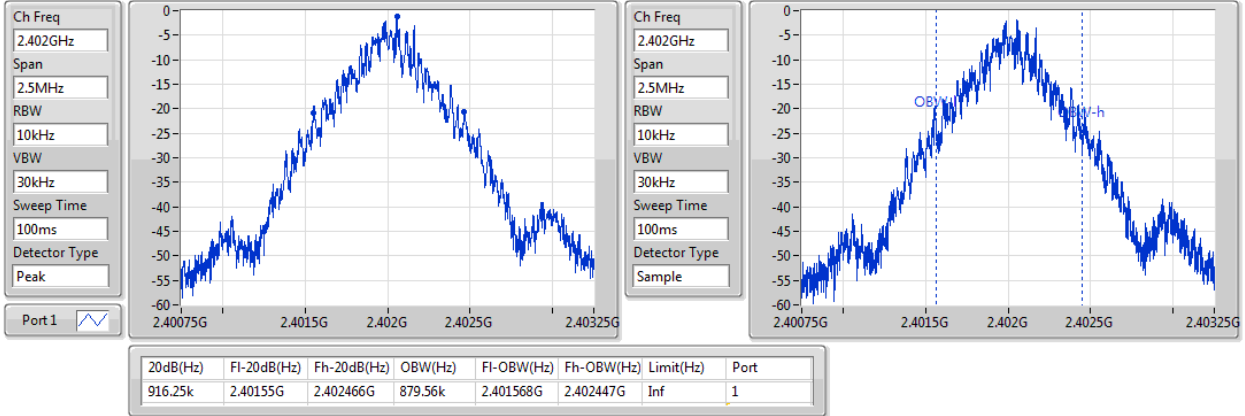
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	916.25k	879.56k
2441MHz_TnomVnom	Pass	Inf	918.75k	873.313k
2480MHz_TnomVnom	Pass	Inf	918.75k	875.812k
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.235M	1.197M
2441MHz_TnomVnom	Pass	Inf	1.228M	1.196M
2480MHz_TnomVnom	Pass	Inf	1.259M	1.194M
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.249M	1.209M
2441MHz_TnomVnom	Pass	Inf	1.25M	1.212M
2480MHz_TnomVnom	Pass	Inf	1.248M	1.209M

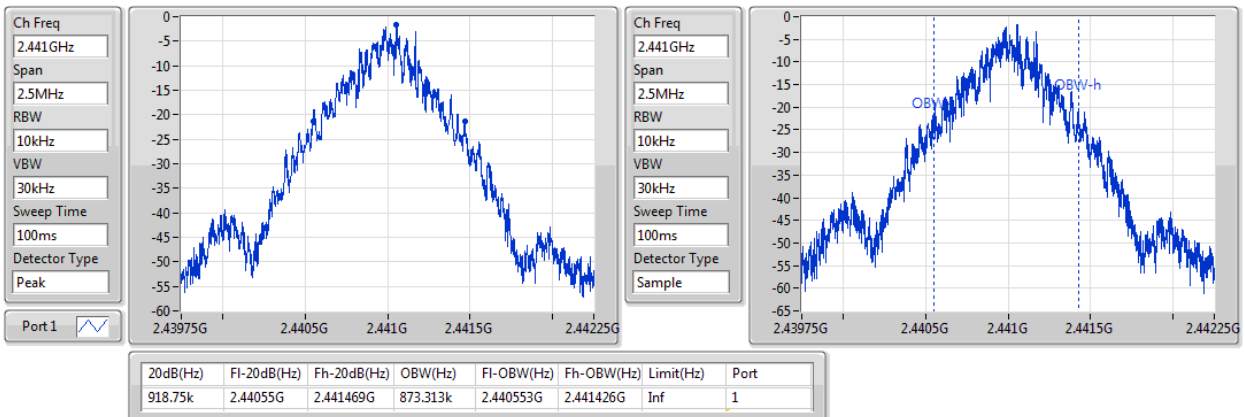
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

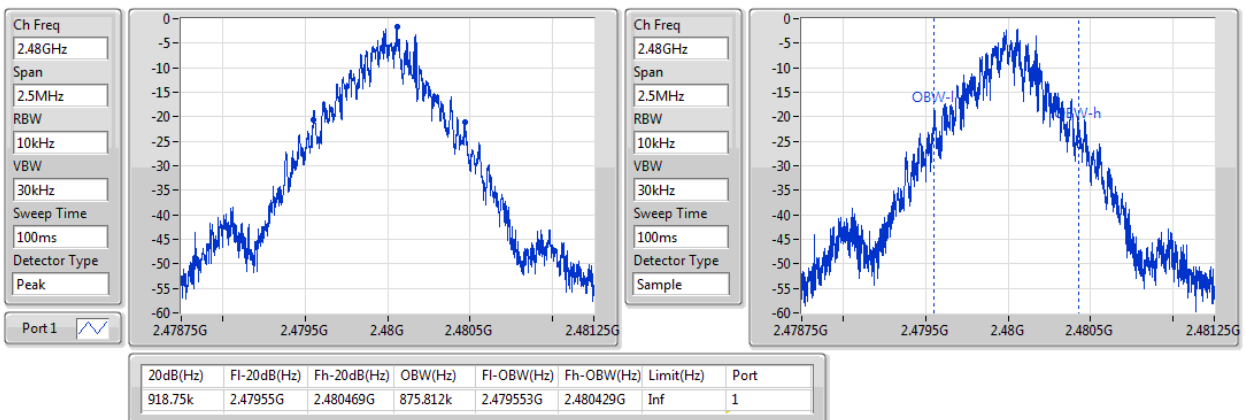
05/02/2018


BT-BR(1Mbps)
EBW
2441MHz

05/02/2018

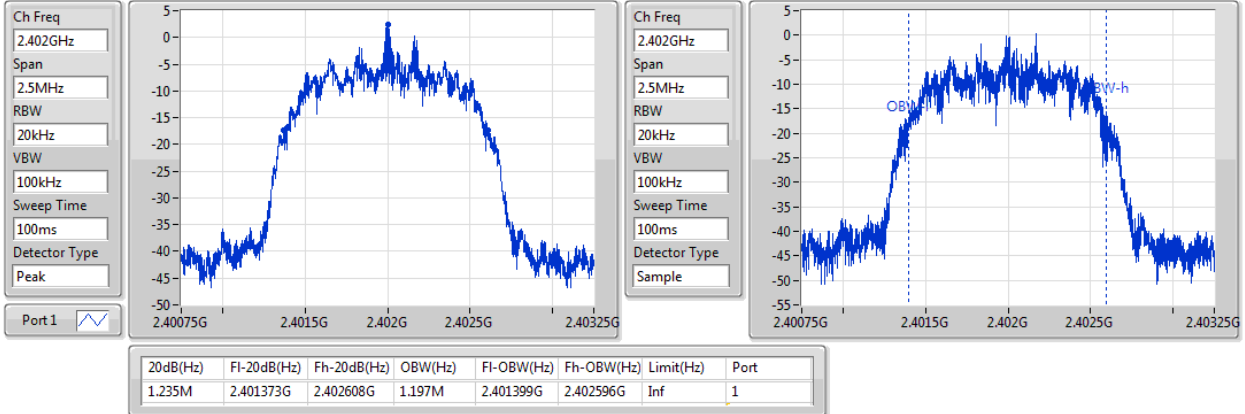

BT-BR(1Mbps)
EBW
2480MHz

05/02/2018

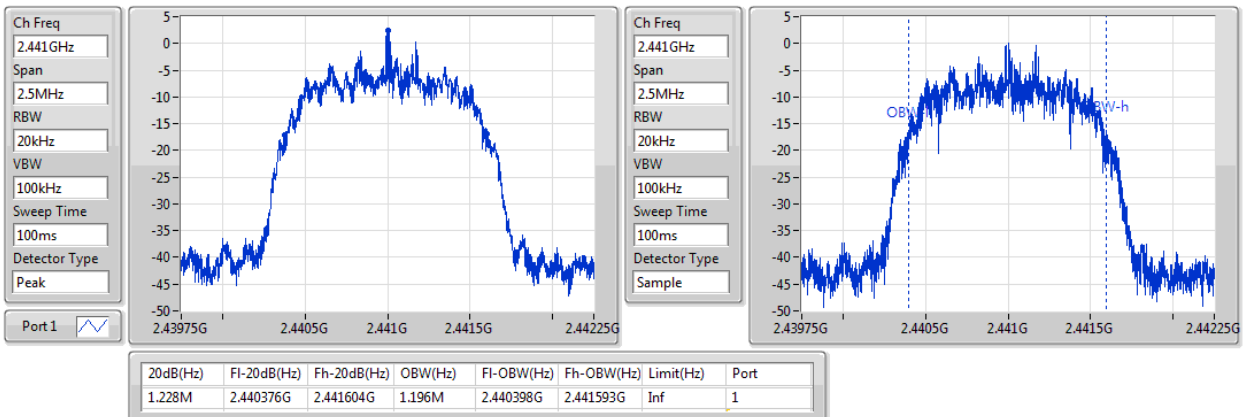


BT-EDR(2Mbps)
EBW
2402MHz

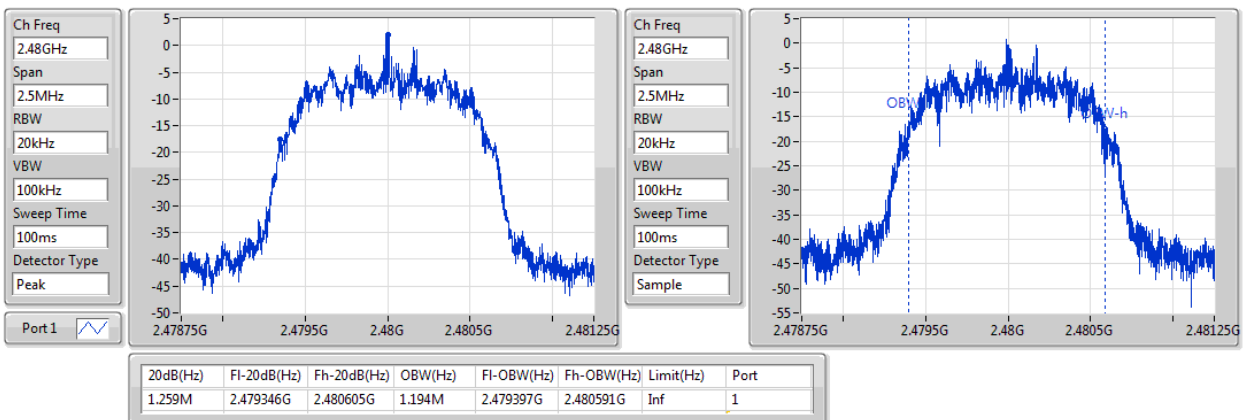
05/02/2018


BT-EDR(2Mbps)
EBW
2441MHz

05/02/2018

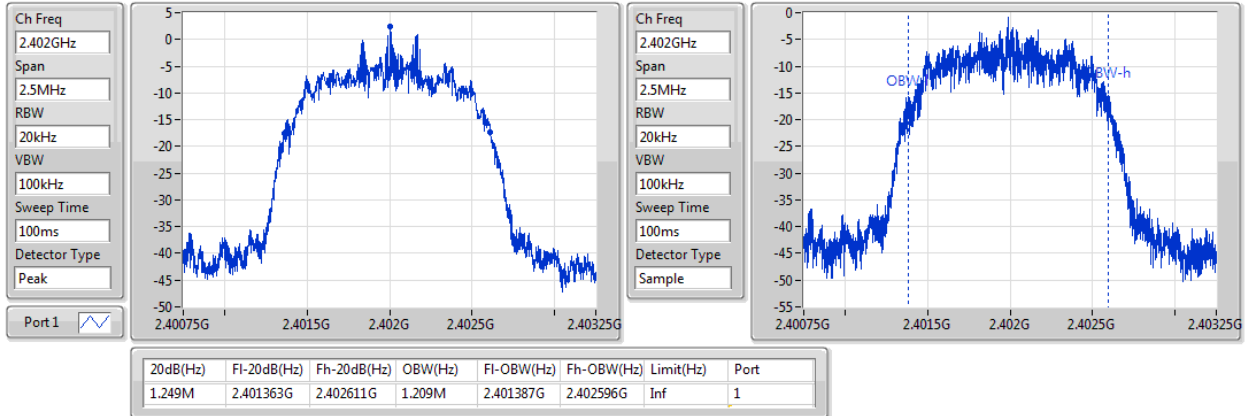

BT-EDR(2Mbps)
EBW
2480MHz

05/02/2018

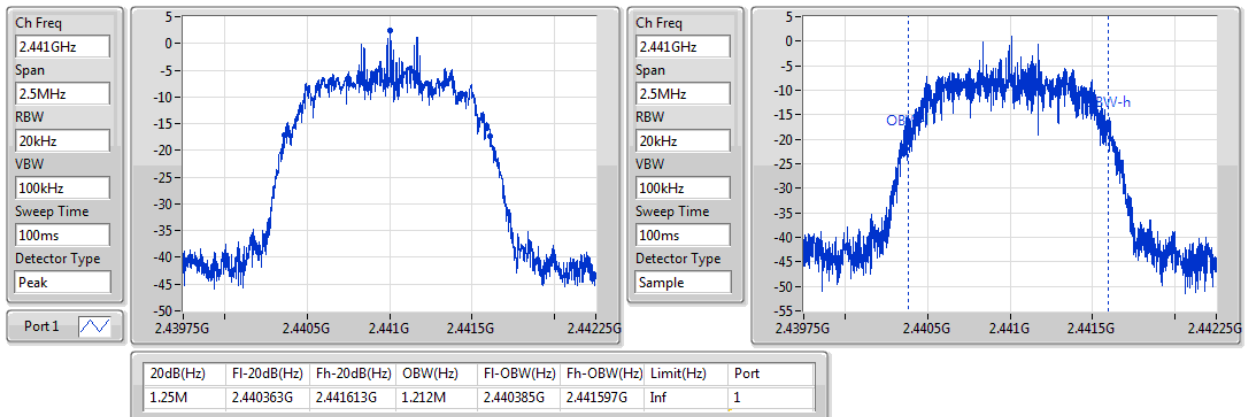


BT-EDR(3Mbps)
EBW
2402MHz

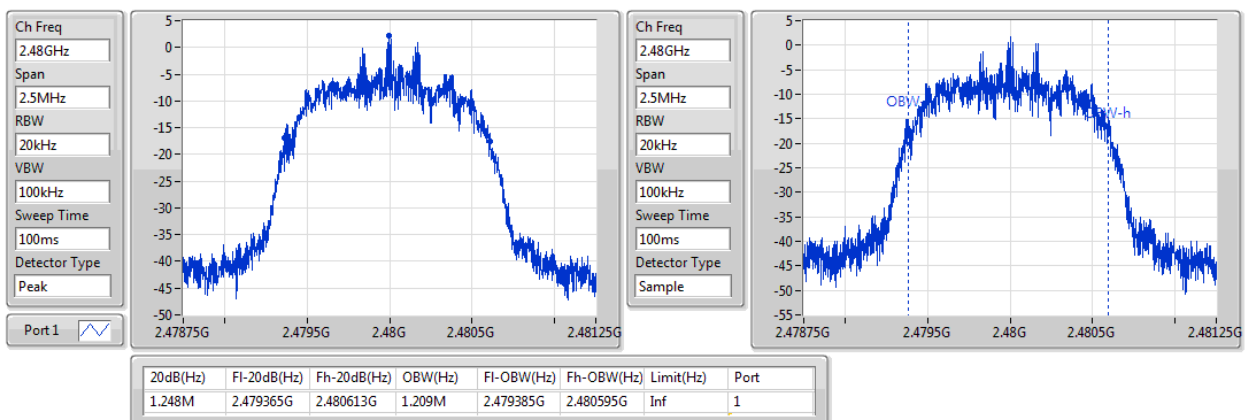
05/02/2018


BT-EDR(3Mbps)
EBW
2441MHz

05/02/2018


BT-EDR(3Mbps)
EBW
2480MHz

05/02/2018



Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	999k
BT-EDR(2Mbps)	1.005M	999k
BT-EDR(3Mbps)	1.0005M	999k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402004G	2.403003G	999k	610.2225k
2441MHz_TnomVnom	Pass	2.441004G	2.442004G	1.0005M	611.8875k
2480MHz_TnomVnom	Pass	2.479002G	2.480003G	1.0005M	611.8875k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401999G	2.403004G	1.005M	822.51k
2441MHz_TnomVnom	Pass	2.441002G	2.442004G	1.002M	817.848k
2480MHz_TnomVnom	Pass	2.479002G	2.480001G	999k	838.494k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402002G	2.403003G	1.0005M	831.834k
2441MHz_TnomVnom	Pass	2.441002G	2.442003G	1.0005M	832.5k
2480MHz_TnomVnom	Pass	2.479002G	2.480001G	999k	831.168k

BT-BR(1Mbps)

Channel Separation

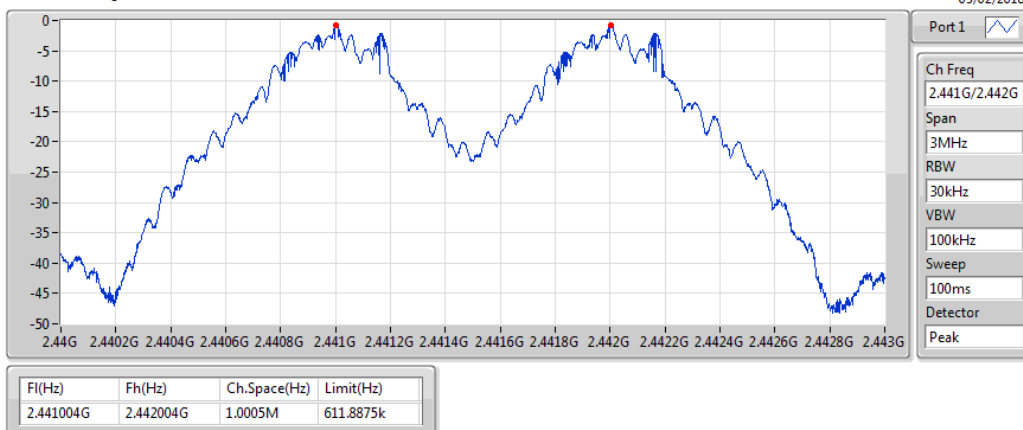
2.402G/2.403GHz



BT-BR(1Mbps)

Channel Separation

2.441G/2.442GHz



BT-BR(1Mbps)

Channel Separation

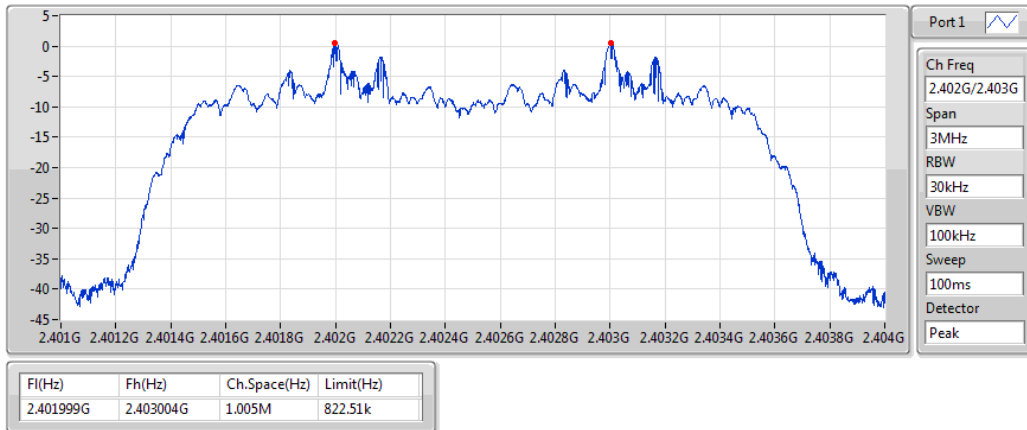
2.48G/2.479GHz



BT-EDR(2Mbps)

Channel Separation

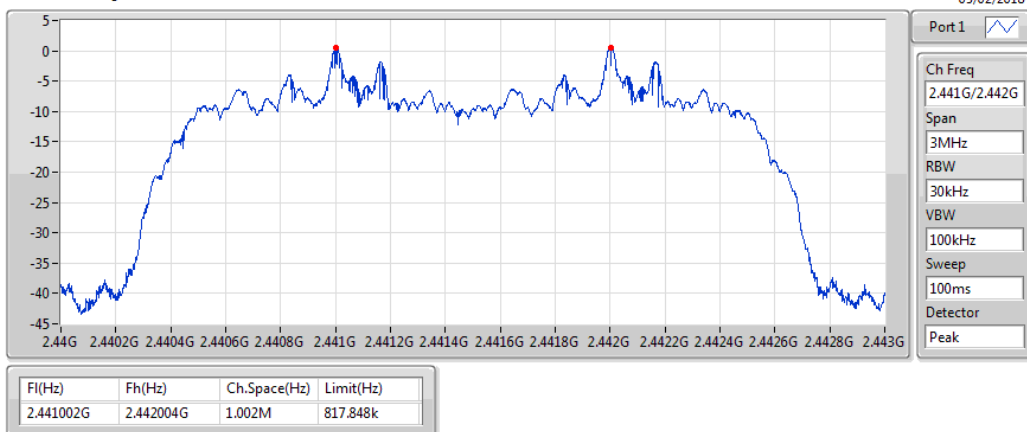
2.402G/2.403GHz



BT-EDR(2Mbps)

Channel Separation

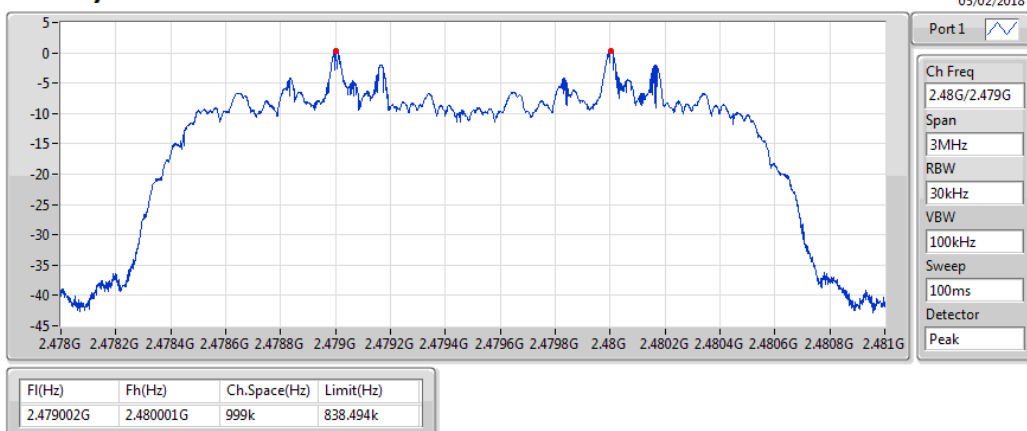
2.441G/2.442GHz



BT-EDR(2Mbps)

Channel Separation

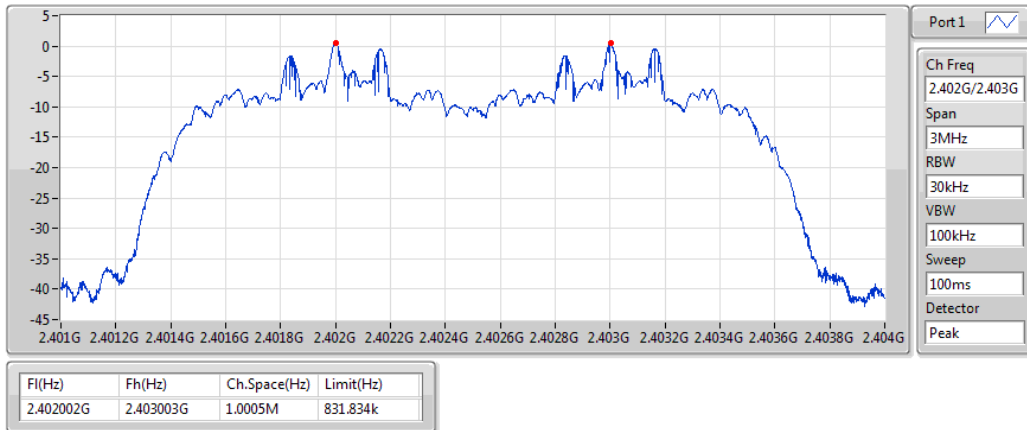
2.48G/2.479GHz



BT-EDR(3Mbps)

Channel Separation

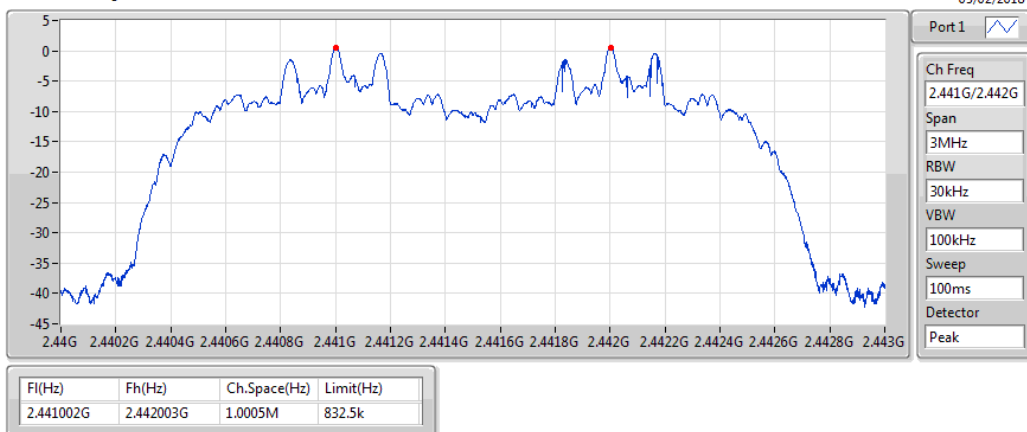
2.402G/2.403GHz



BT-EDR(3Mbps)

Channel Separation

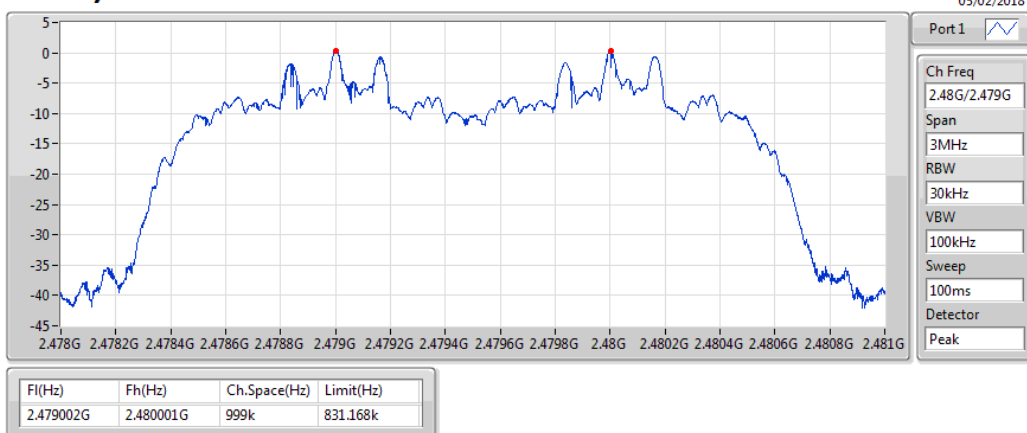
2.441G/2.442GHz



BT-EDR(3Mbps)

Channel Separation

2.48G/2.479GHz



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.15	0.00327
BT-EDR(2Mbps)	6.94	0.00494
BT-EDR(3Mbps)	7.20	0.00525

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	5.15	21.00
2441MHz_TnomVnom	Pass	-0.68	5.09	21.00
2480MHz_TnomVnom	Pass	-0.68	5.06	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	6.84	21.00
2441MHz_TnomVnom	Pass	-0.68	6.94	21.00
2480MHz_TnomVnom	Pass	-0.68	6.87	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	7.09	21.00
2441MHz_TnomVnom	Pass	-0.68	7.20	21.00
2480MHz_TnomVnom	Pass	-0.68	7.11	21.00

Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	4.63	0.00290
BT-EDR(2Mbps)	4.61	0.00289
BT-EDR(3Mbps)	4.58	0.00287

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	4.63	21.00
2441MHz_TnomVnom	Pass	-0.68	4.60	21.00
2480MHz_TnomVnom	Pass	-0.68	4.58	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	4.48	21.00
2441MHz_TnomVnom	Pass	-0.68	4.61	21.00
2480MHz_TnomVnom	Pass	-0.68	4.49	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-0.68	4.51	21.00
2441MHz_TnomVnom	Pass	-0.68	4.58	21.00
2480MHz_TnomVnom	Pass	-0.68	4.40	21.00

Summary

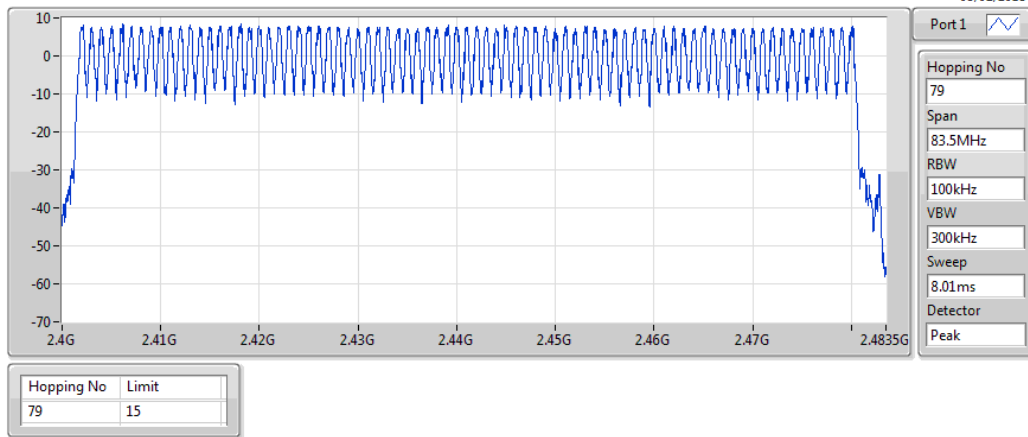
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

Result

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

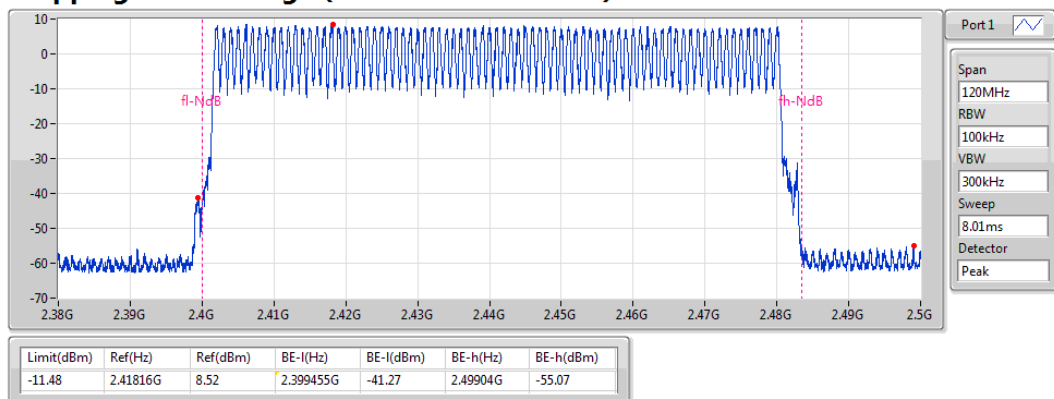
BT-BR(1Mbps) 2441MHz

Hopping Ch



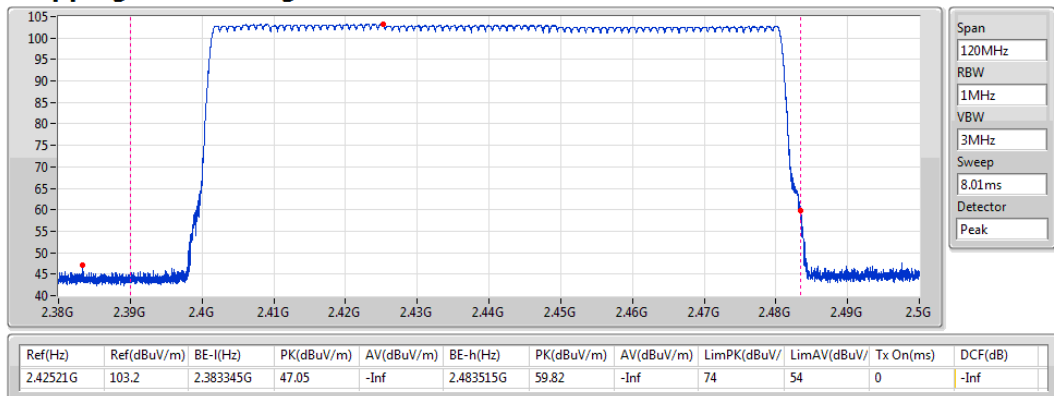
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



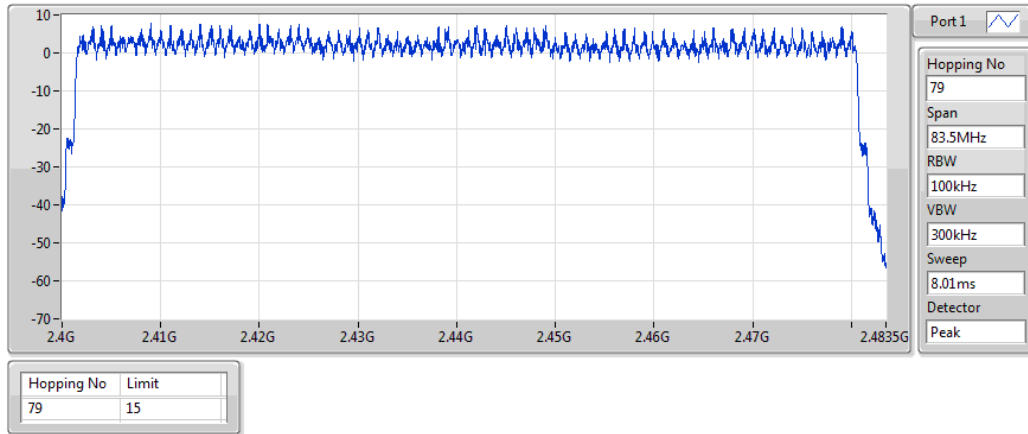
BT-BR(1Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



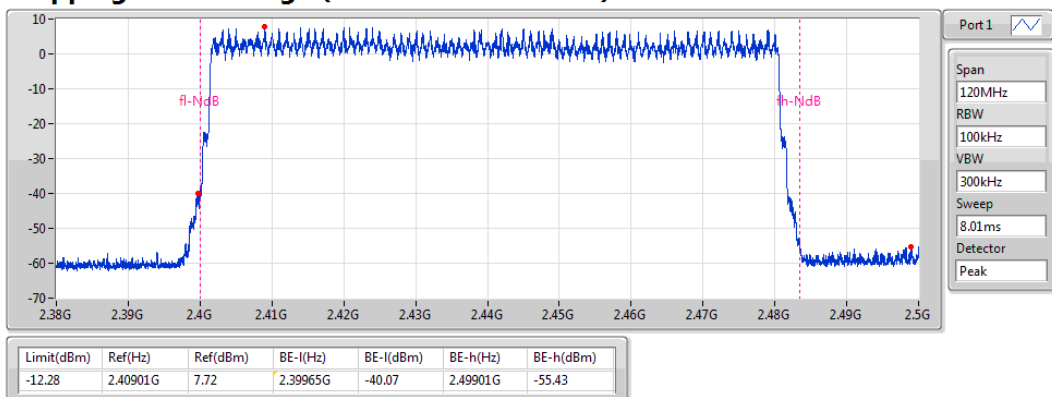
BT-EDR(2Mbps) 2441MHz

Hopping Ch



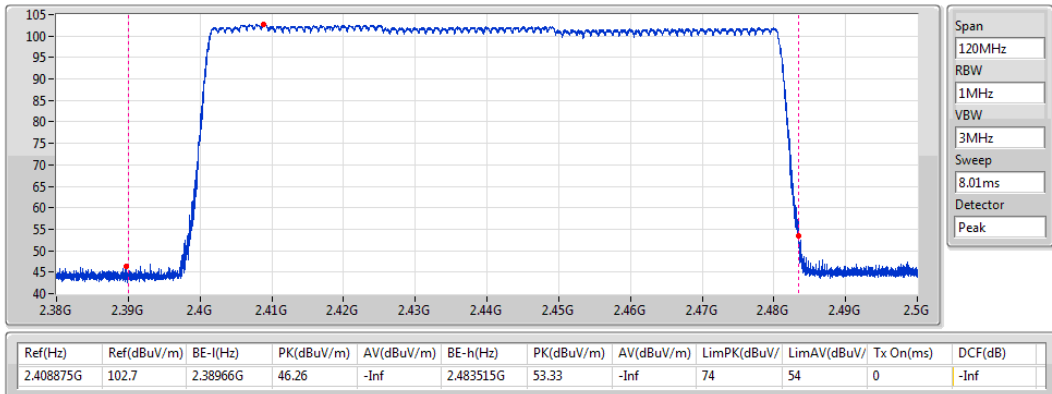
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Non-restricted Band)



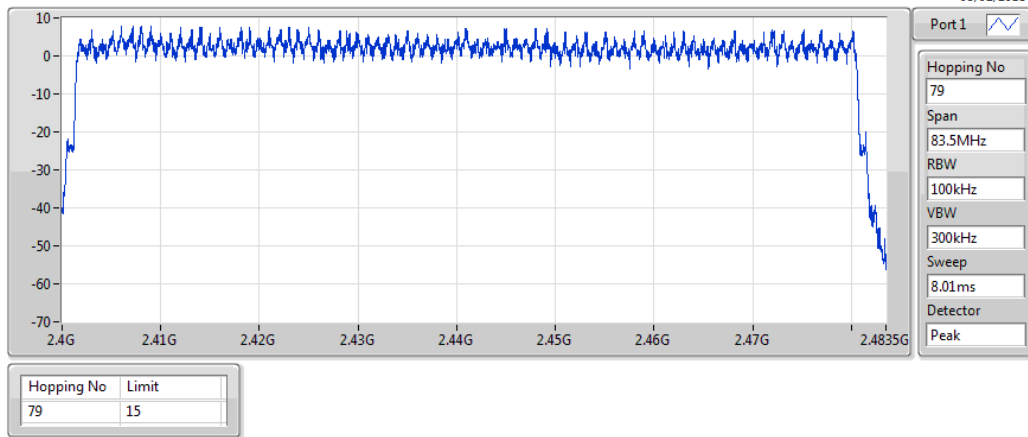
BT-EDR(2Mbps) 2441MHz

Hopping Ch Bandedge (Restricted Band)



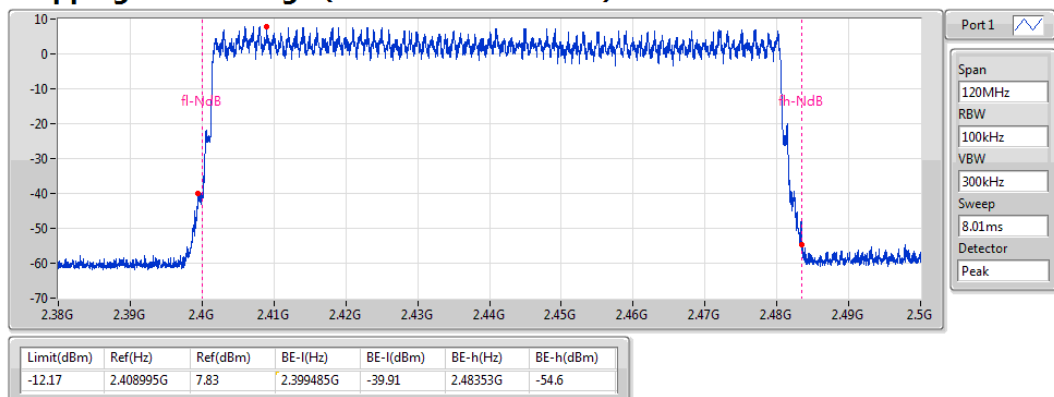
BT-EDR(3Mbps) 2441MHz

Hopping Ch



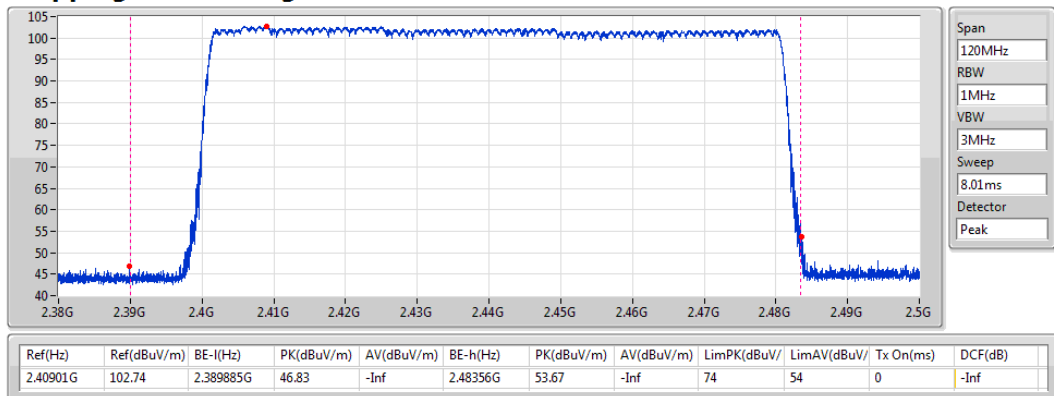
BT-EDR(3Mbps) 2441MHz

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)	309.9928m
BT-EDR(2Mbps)	311.0588m
BT-EDR(3Mbps)	311.1654m

Result

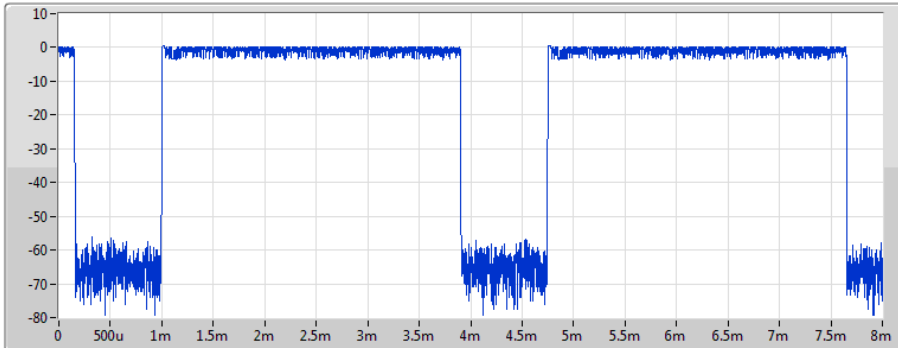
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	309.9928m	400m	2.908m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	311.0588m	400m	2.918m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	311.1654m	400m	2.919m

BT-BR(1Mbps)

2441MHz

Dwell

05/02/2018



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.908ms

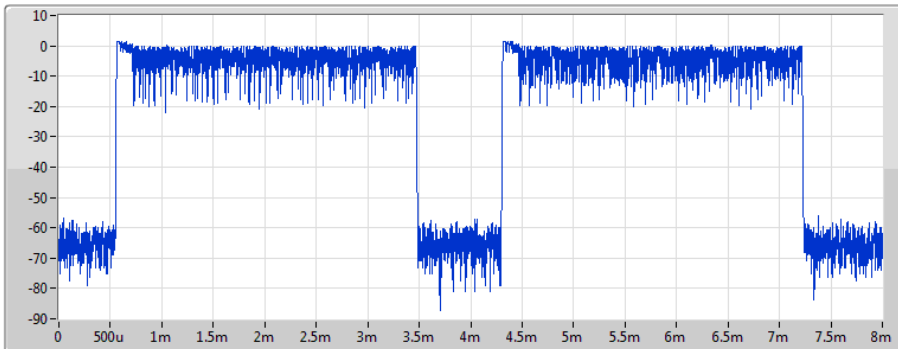
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.9928m	400m	2.908m

BT-EDR(2Mbps)

2441MHz

Dwell

05/02/2018



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.918ms

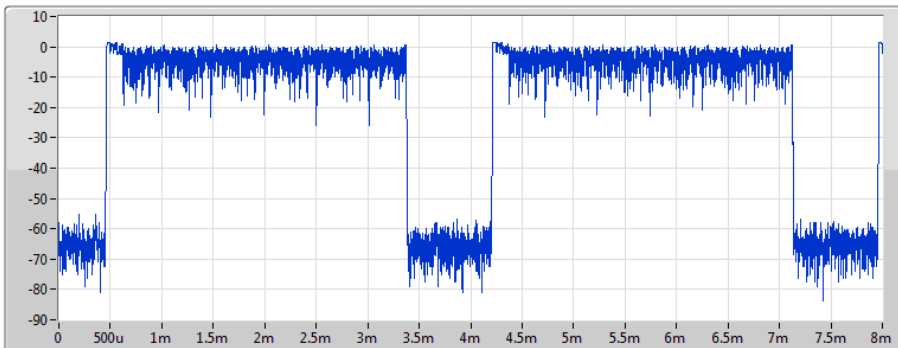
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.0588m	400m	2.918m

BT-EDR(3Mbps)

2441MHz

Dwell

05/02/2018



Port 1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.919ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.1654m	400m	2.919m

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	3.66	-16.34	147.216M	-47.21	2.399988G	-43.88	2.484192G	-57.39	7.205102G	-30.39	1
BT-EDR(2Mbps)	Pass	2.401837G	1.79	-18.21	147.216M	-46.98	2.399992G	-33.22	2.484628G	-58.79	7.205102G	-41.19	1
BT-EDR(3Mbps)	Pass	2.401837G	2.24	-17.76	147.216M	-46.82	2.399992G	-33.52	2.48536G	-58.26	7.205102G	-39.10	1

Result

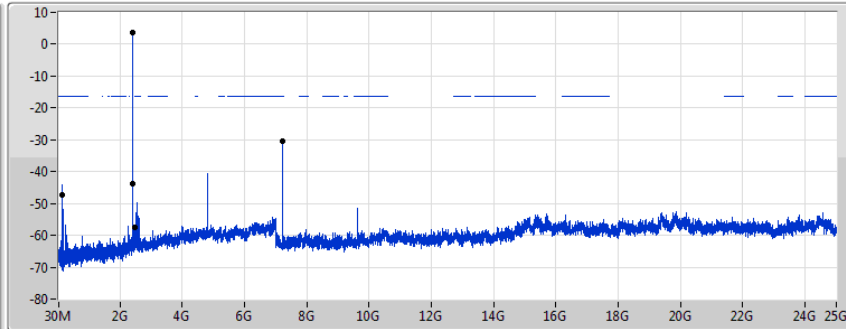
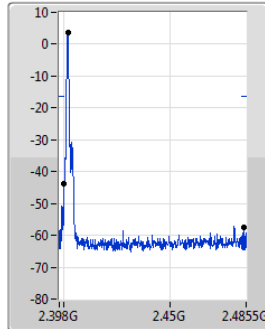
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402004G	3.66	-16.34	147.216M	-47.21	2.399988G	-43.88	2.484192G	-57.39	7.205102G	-30.39	1
2441MHz_TnomVnom	Pass	2.441082G	3.61	-16.39	147.216M	-47.13	2.39924G	-59.50	2.48484G	-59.39	2.595258G	-48.17	1
2480MHz_TnomVnom	Pass	2.48016G	3.39	-16.61	147.216M	-47.30	2.39984G	-60.19	2.48384G	-57.49	2.634659G	-47.51	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401837G	1.79	-18.21	147.216M	-46.98	2.399992G	-33.22	2.484628G	-58.79	7.205102G	-41.19	1
2441MHz_TnomVnom	Pass	2.441082G	1.68	-18.32	147.216M	-47.15	2.398564G	-59.41	2.483976G	-58.88	9.760498G	-50.42	1
2480MHz_TnomVnom	Pass	2.48016G	2.23	-17.77	147.216M	-46.87	2.398244G	-59.87	2.483712G	-57.33	2.634659G	-51.48	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401837G	2.24	-17.76	147.216M	-46.82	2.399992G	-33.52	2.48536G	-58.26	7.205102G	-39.10	1
2441MHz_TnomVnom	Pass	2.440915G	3.75	-16.25	147.216M	-47.20	2.398708G	-59.38	2.484776G	-59.17	2.595258G	-49.59	1
2480MHz_TnomVnom	Pass	2.479993G	3.77	-16.23	147.216M	-47.21	2.398016G	-59.77	2.483828G	-56.42	24.586296G	-52.06	1

BT-BR(1Mbps)

CSE NdB

2402MHz

05/02/2018



Port 1

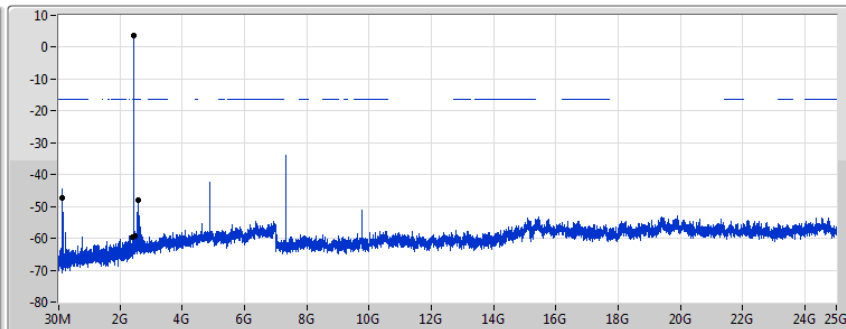
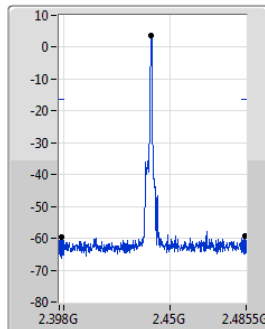
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.402004G	3.66	-16.34	147.216M	-47.21	2.399988G	-43.88	2.484192G	-57.39	7.205102G	-30.39	1

BT-BR(1Mbps)

CSE NdB

2441MHz

05/02/2018



Port 1

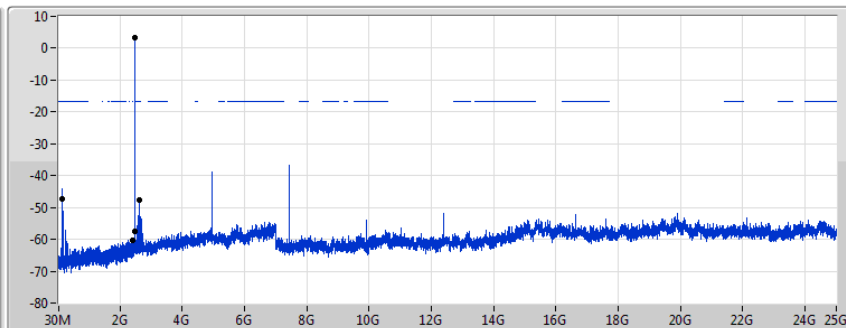
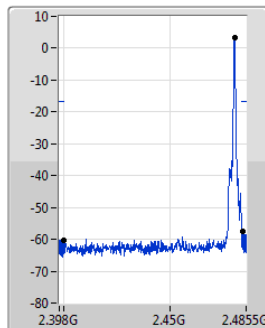
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441082G	3.61	-16.39	147.216M	-47.13	2.39924G	-59.50	2.48484G	-59.39	2.595258G	-48.17	1

BT-BR(1Mbps)

CSE NdB

2480MHz

05/02/2018



Port 1

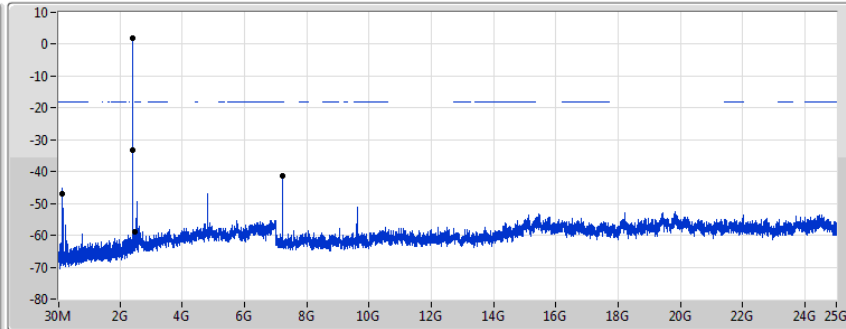
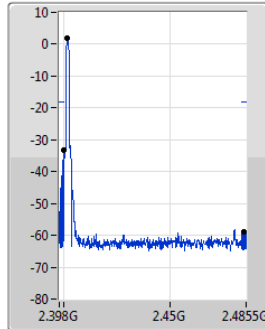
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	3.39	-16.61	147.216M	-47.30	2.39984G	-60.19	2.48384G	-57.49	2.634659G	-47.51	1

BT-EDR(2Mbps)

CSE NdB

2402MHz

05/02/2018



Port 1

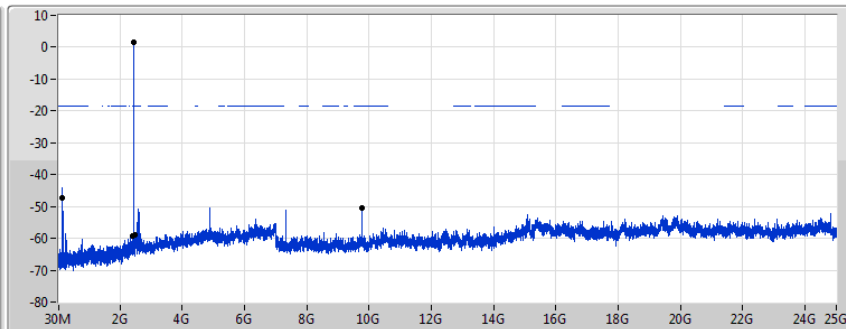
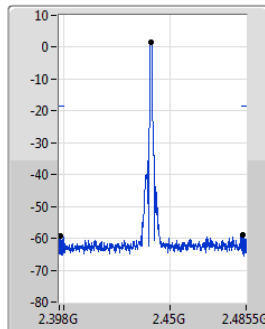
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.401837G	1.79	-18.21	147.216M	-46.98	2.399992G	-33.22	2.484628G	-58.79	7.205102G	-41.19	1

BT-EDR(2Mbps)

CSE NdB

2441MHz

05/02/2018



Port 1

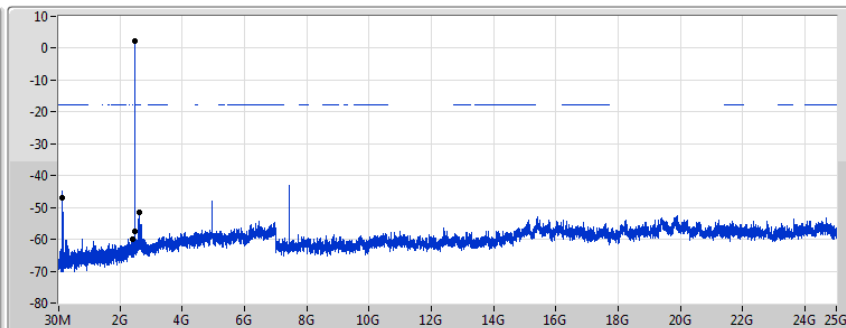
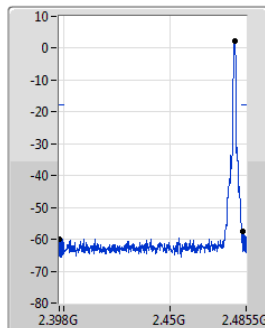
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2.441082G	1.68	-18.32	147.216M	-47.15	2.398564G	-59.41	2.483976G	-58.88	9.760498G	-50.42	1

BT-EDR(2Mbps)

CSE NdB

2480MHz

05/02/2018



Port 1

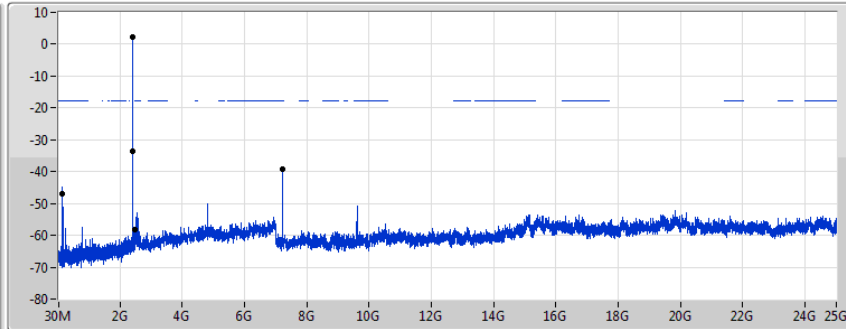
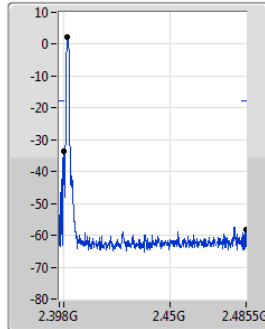
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	2.23	-17.77	147.216M	-46.87	2.398244G	-59.87	2.483712G	-57.33	2.634659G	-51.48	1

BT-EDR(3Mbps)

CSE NdB

2402MHz

05/02/2018



Port 1

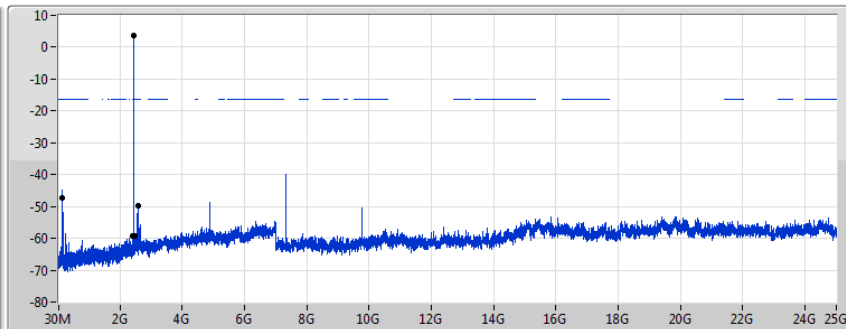
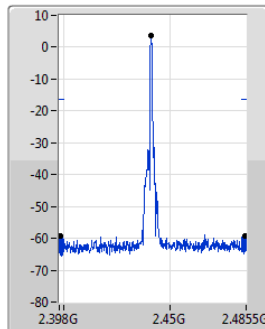
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.401837G	2.24	-17.76	147.216M	-46.82	2.399992G	-33.52	2.48536G	-58.26	7.205102G	-39.10	1

BT-EDR(3Mbps)

CSE NdB

2441MHz

05/02/2018



Port 1

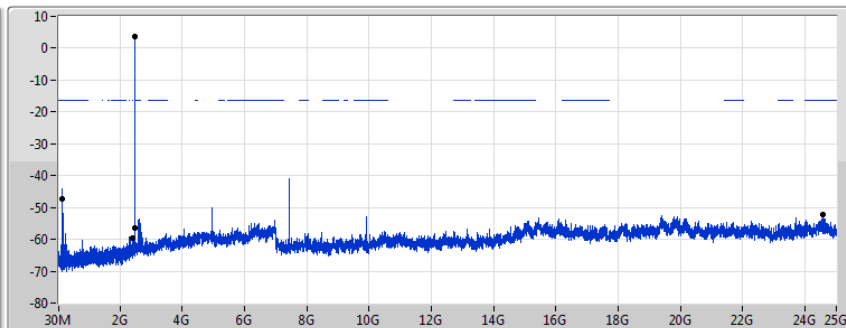
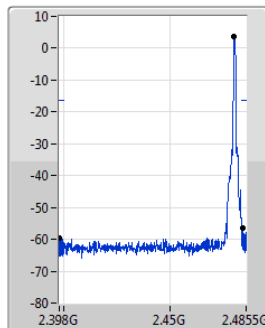
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.440915G	3.75	-16.25	147.216M	-47.20	2.398708G	-59.38	2.484776G	-59.17	2.595258G	-49.59	1

BT-EDR(3Mbps)

CSE NdB

2480MHz

05/02/2018



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
2.479993G	3.77	-16.23	147.216M	-47.21	2.398016G	-59.77	2.483828G	-56.42	24.586296G	-52.06	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	99.84M	38.74	43.50	-4.76	-10.37	3	Horizontal	0	1.00	-

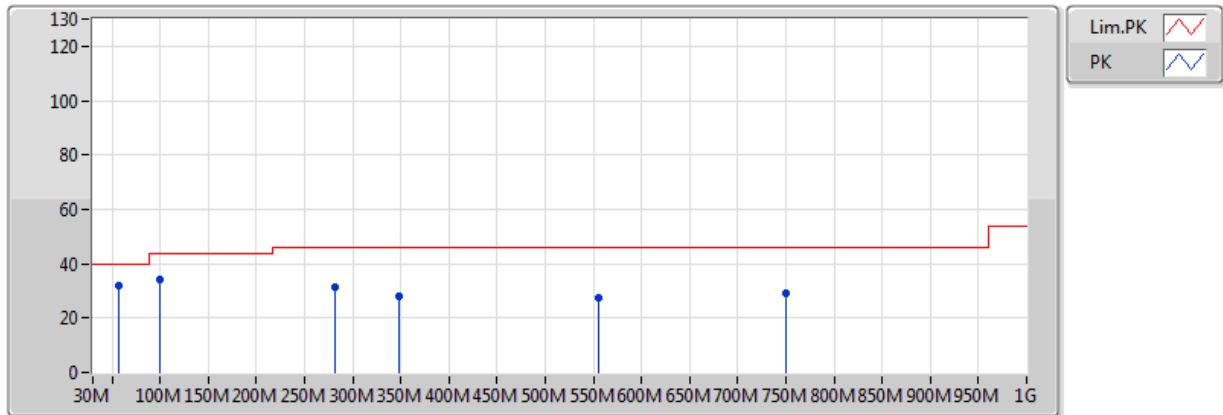
Result

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	99.84M	38.74	43.50	-4.76	-10.37	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	293.84M	37.04	46.00	-8.96	-5.91	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	317.12M	31.34	46.00	-14.66	-5.48	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	386.96M	30.38	46.00	-15.62	-4.22	3	Horizontal	0	1.00	-
2441MHz	Pass	PK	621.7M	27.57	46.00	-18.43	-0.47	3	Horizontal	0	1.00	-
2441MHz	Pass	QP	70.74M	33.84	40.00	-6.16	-15.07	3	Horizontal	262	2.28	-
2441MHz	Pass	PK	57.16M	31.84	40.00	-8.16	-14.90	3	Vertical	360	1.00	-
2441MHz	Pass	PK	99.84M	34.15	43.50	-9.35	-10.37	3	Vertical	360	1.00	-
2441MHz	Pass	PK	282.2M	31.53	46.00	-14.47	-6.23	3	Vertical	360	1.00	-
2441MHz	Pass	PK	348.16M	27.80	46.00	-18.20	-4.91	3	Vertical	360	1.00	-
2441MHz	Pass	PK	555.74M	27.50	46.00	-18.50	-0.88	3	Vertical	360	1.00	-
2441MHz	Pass	PK	749.74M	28.97	46.00	-17.03	0.95	3	Vertical	360	1.00	-

BT-BR(1Mbps)

2441MHz_USB

05/02/2018

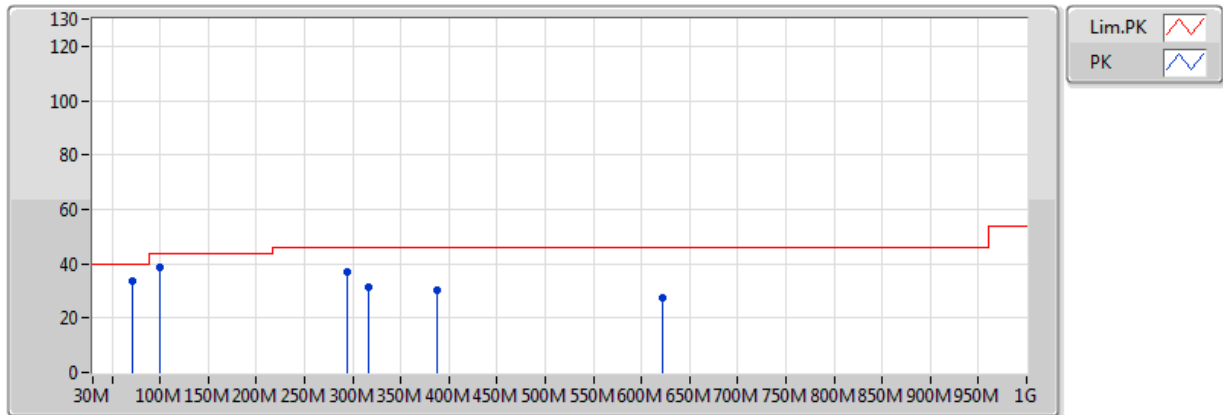


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	57.16M	31.84	40.00	-8.16	-14.90	3	Vertical	360	1.00	-	46.74	11.78	0.91	27.59
PK	99.84M	34.15	43.50	-9.35	-10.37	3	Vertical	360	1.00	-	44.52	15.97	1.47	27.81
PK	282.2M	31.53	46.00	-14.47	-6.23	3	Vertical	360	1.00	-	37.76	18.12	2.90	27.24
PK	348.16M	27.80	46.00	-18.20	-4.91	3	Vertical	360	1.00	-	32.71	19.56	3.10	27.57
PK	555.74M	27.50	46.00	-18.50	-0.88	3	Vertical	360	1.00	-	28.38	24.04	3.60	28.53
PK	749.74M	28.97	46.00	-17.03	0.95	3	Vertical	360	1.00	-	28.02	25.05	4.12	28.22

BT-BR(1Mbps)

2441MHz_USB

05/02/2018



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	99.84M	38.74	43.50	-4.76	-10.37	3	Horizontal	0	1.00	-	49.11	15.97	1.47	27.81
PK	293.84M	37.04	46.00	-8.96	-5.91	3	Horizontal	0	1.00	-	42.95	18.33	2.98	27.21
PK	317.12M	31.34	46.00	-14.66	-5.48	3	Horizontal	0	1.00	-	36.82	18.81	3.03	27.33
PK	386.96M	30.38	46.00	-15.62	-4.22	3	Horizontal	0	1.00	-	34.60	20.47	3.16	27.86
PK	621.7M	27.57	46.00	-18.43	-0.47	3	Horizontal	0	1.00	-	28.04	24.32	3.73	28.52
QP	70.74M	33.84	40.00	-6.16	-15.07	3	Horizontal	262	2.28	-	48.91	11.51	1.08	27.66

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	7.32348G	65.71	74.00	-8.29	9.31	3	Horizontal	168	1.49	-
BT-EDR(2Mbps)	Pass	PK	2.495G	60.42	74.00	-13.58	35.42	3	Horizontal	81	1.03	-
BT-EDR(3Mbps)	Pass	PK	2.3498G	60.02	74.00	-13.98	34.73	3	Vertical	334	3.69	-

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	2.3774G	36.54	54.00	-17.46	34.87	3	Horizontal	83	1.02	-
2402MHz	Pass	AV	2.402G	68.67	Inf	-Inf	34.98	3	Horizontal	83	1.02	-
2402MHz	Pass	PK	2.3774G	59.04	74.00	-14.96	34.87	3	Horizontal	83	1.02	-
2402MHz	Pass	PK	2.402G	91.17	Inf	-Inf	34.98	3	Horizontal	83	1.02	-
2402MHz	Pass	AV	2.3846G	36.46	54.00	-17.54	34.90	3	Vertical	247	1.50	-
2402MHz	Pass	AV	2.402G	66.72	Inf	-Inf	34.98	3	Vertical	247	1.50	-
2402MHz	Pass	PK	2.3846G	58.96	74.00	-15.04	34.90	3	Vertical	247	1.50	-
2402MHz	Pass	PK	2.402G	89.22	Inf	-Inf	34.98	3	Vertical	247	1.50	-
2402MHz	Pass	AV	4.8043G	39.21	54.00	-14.79	3.09	3	Horizontal	155	1.46	-
2402MHz	Pass	PK	4.8043G	61.71	74.00	-12.29	3.09	3	Horizontal	155	1.46	-
2402MHz	Pass	AV	4.80376G	37.06	54.00	-16.94	3.09	3	Vertical	217	1.04	-
2402MHz	Pass	PK	4.80376G	59.56	74.00	-14.44	3.09	3	Vertical	217	1.04	-
2441MHz	Pass	AV	2.3842G	36.69	54.00	-17.31	34.90	3	Horizontal	86	1.08	-
2441MHz	Pass	AV	2.441G	65.67	Inf	-Inf	35.16	3	Horizontal	86	1.08	-
2441MHz	Pass	AV	2.4862G	37.33	54.00	-16.67	35.37	3	Horizontal	86	1.08	-
2441MHz	Pass	PK	2.3842G	59.19	74.00	-14.81	34.90	3	Horizontal	86	1.08	-
2441MHz	Pass	PK	2.441G	88.17	Inf	-Inf	35.16	3	Horizontal	86	1.08	-
2441MHz	Pass	PK	2.4862G	59.83	74.00	-14.17	35.37	3	Horizontal	86	1.08	-
2441MHz	Pass	AV	2.3682G	37.03	54.00	-16.97	34.82	3	Vertical	124	3.62	-
2441MHz	Pass	AV	2.441G	64.95	Inf	-Inf	35.16	3	Vertical	124	3.62	-
2441MHz	Pass	AV	2.4846G	37.23	54.00	-16.77	35.37	3	Vertical	124	3.62	-
2441MHz	Pass	PK	2.3682G	59.53	74.00	-14.47	34.82	3	Vertical	124	3.62	-
2441MHz	Pass	PK	2.441G	87.45	Inf	-Inf	35.16	3	Vertical	124	3.62	-
2441MHz	Pass	PK	2.4846G	59.73	74.00	-14.27	35.37	3	Vertical	124	3.62	-
2441MHz	Pass	AV	4.8817G	38.65	54.00	-15.35	3.26	3	Horizontal	147	1.02	-
2441MHz	Pass	AV	7.32348G	43.21	54.00	-10.79	9.31	3	Horizontal	168	1.49	-
2441MHz	Pass	PK	4.8817G	61.15	74.00	-12.85	3.26	3	Horizontal	147	1.02	-
2441MHz	Pass	PK	7.32348G	65.71	74.00	-8.29	9.31	3	Horizontal	168	1.49	-
2441MHz	Pass	AV	4.8817G	38.60	54.00	-15.40	3.26	3	Vertical	149	2.15	-
2441MHz	Pass	AV	7.3236G	42.03	54.00	-11.97	9.31	3	Vertical	162	3.37	-
2441MHz	Pass	PK	4.8817G	61.10	74.00	-12.90	3.26	3	Vertical	149	2.15	-
2441MHz	Pass	PK	7.3236G	64.53	74.00	-9.47	9.31	3	Vertical	162	3.37	-
2480MHz	Pass	AV	2.4798G	63.26	Inf	-Inf	35.35	3	Horizontal	20	1.16	-
2480MHz	Pass	AV	2.4838G	37.40	54.00	-16.60	35.36	3	Horizontal	20	1.16	-
2480MHz	Pass	PK	2.4798G	85.76	Inf	-Inf	35.35	3	Horizontal	20	1.16	-
2480MHz	Pass	PK	2.4838G	59.90	74.00	-14.10	35.36	3	Horizontal	20	1.16	-
2480MHz	Pass	AV	2.48G	69.76	Inf	-Inf	35.35	3	Vertical	63	3.56	-
2480MHz	Pass	AV	2.4912G	37.31	54.00	-16.69	35.40	3	Vertical	63	3.56	-
2480MHz	Pass	PK	2.48G	92.26	Inf	-Inf	35.35	3	Vertical	63	3.56	-
2480MHz	Pass	PK	2.4912G	59.81	74.00	-14.19	35.40	3	Vertical	63	3.56	-
2480MHz	Pass	AV	4.95964G	37.02	54.00	-16.98	3.43	3	Horizontal	157	1.69	-
2480MHz	Pass	AV	7.4394G	41.80	54.00	-12.20	9.81	3	Horizontal	143	1.85	-
2480MHz	Pass	PK	4.95964G	59.52	74.00	-14.48	3.43	3	Horizontal	157	1.69	-
2480MHz	Pass	PK	7.4394G	64.30	74.00	-9.70	9.81	3	Horizontal	143	1.85	-
2480MHz	Pass	AV	4.96036G	40.02	54.00	-13.98	3.43	3	Vertical	141	3.45	-
2480MHz	Pass	AV	7.44054G	39.06	54.00	-14.94	9.82	3	Vertical	153	1.43	-
2480MHz	Pass	PK	4.96036G	62.52	74.00	-11.48	3.43	3	Vertical	141	3.45	-

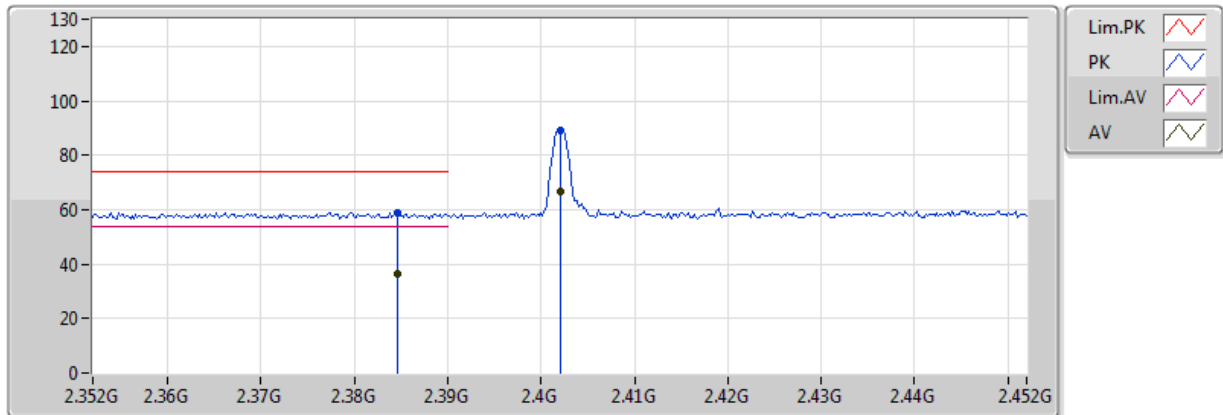
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.44054G	61.56	74.00	-12.44	9.82	3	Vertical	153	1.43	-
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.374G	37.48	54.00	-16.52	34.85	3	Horizontal	1	3.62	-
2402MHz	Pass	AV	2.4018G	64.10	Inf	-Inf	34.98	3	Horizontal	1	3.62	-
2402MHz	Pass	PK	2.374G	59.98	74.00	-14.02	34.85	3	Horizontal	1	3.62	-
2402MHz	Pass	PK	2.4018G	86.60	Inf	-Inf	34.98	3	Horizontal	1	3.62	-
2402MHz	Pass	AV	2.3884G	37.02	54.00	-16.98	34.92	3	Vertical	126	1.00	-
2402MHz	Pass	AV	2.4018G	68.92	Inf	-Inf	34.98	3	Vertical	126	1.00	-
2402MHz	Pass	PK	2.3884G	59.52	74.00	-14.48	34.92	3	Vertical	126	1.00	-
2402MHz	Pass	PK	2.4018G	91.42	Inf	-Inf	34.98	3	Vertical	126	1.00	-
2441MHz	Pass	AV	2.3754G	37.31	54.00	-16.69	34.85	3	Horizontal	81	1.03	-
2441MHz	Pass	AV	2.4406G	65.11	Inf	-Inf	35.16	3	Horizontal	81	1.03	-
2441MHz	Pass	AV	2.495G	37.92	54.00	-16.08	35.42	3	Horizontal	81	1.03	-
2441MHz	Pass	PK	2.3754G	59.81	74.00	-14.19	34.85	3	Horizontal	81	1.03	-
2441MHz	Pass	PK	2.4406G	87.61	Inf	-Inf	35.16	3	Horizontal	81	1.03	-
2441MHz	Pass	PK	2.495G	60.42	74.00	-13.58	35.42	3	Horizontal	81	1.03	-
2441MHz	Pass	AV	2.3806G	36.52	54.00	-17.48	34.88	3	Vertical	334	3.64	-
2441MHz	Pass	AV	2.441G	70.57	Inf	-Inf	35.16	3	Vertical	334	3.64	-
2441MHz	Pass	AV	2.4922G	37.19	54.00	-16.81	35.41	3	Vertical	334	3.64	-
2441MHz	Pass	PK	2.3806G	59.02	74.00	-14.98	34.88	3	Vertical	334	3.64	-
2441MHz	Pass	PK	2.441G	93.07	Inf	-Inf	35.16	3	Vertical	334	3.64	-
2441MHz	Pass	PK	2.4922G	59.69	74.00	-14.31	35.41	3	Vertical	334	3.64	-
2480MHz	Pass	AV	2.4798G	64.00	Inf	-Inf	35.35	3	Horizontal	15	1.01	-
2480MHz	Pass	AV	2.4988G	37.88	54.00	-16.12	35.44	3	Horizontal	15	1.01	-
2480MHz	Pass	PK	2.4798G	86.50	Inf	-Inf	35.35	3	Horizontal	15	1.01	-
2480MHz	Pass	PK	2.4988G	60.38	74.00	-13.62	35.44	3	Horizontal	15	1.01	-
2480MHz	Pass	AV	2.4798G	71.17	Inf	-Inf	35.35	3	Vertical	61	3.66	-
2480MHz	Pass	AV	2.4864G	37.44	54.00	-16.56	35.37	3	Vertical	61	3.66	-
2480MHz	Pass	PK	2.4798G	93.67	Inf	-Inf	35.35	3	Vertical	61	3.66	-
2480MHz	Pass	PK	2.4864G	59.94	74.00	-14.06	35.37	3	Vertical	61	3.66	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3842G	37.13	54.00	-16.87	34.90	3	Horizontal	83	1.01	-
2402MHz	Pass	AV	2.402G	68.75	Inf	-Inf	34.98	3	Horizontal	83	1.01	-
2402MHz	Pass	PK	2.3842G	59.63	74.00	-14.37	34.90	3	Horizontal	83	1.01	-
2402MHz	Pass	PK	2.402G	91.25	Inf	-Inf	34.98	3	Horizontal	83	1.01	-
2402MHz	Pass	AV	2.3758G	36.78	54.00	-17.22	34.85	3	Vertical	128	1.01	-
2402MHz	Pass	AV	2.402G	68.75	Inf	-Inf	34.98	3	Vertical	128	1.01	-
2402MHz	Pass	PK	2.3758G	59.28	74.00	-14.72	34.85	3	Vertical	128	1.01	-
2402MHz	Pass	PK	2.402G	91.25	Inf	-Inf	34.98	3	Vertical	128	1.01	-
2441MHz	Pass	AV	2.387G	37.03	54.00	-16.97	34.91	3	Horizontal	85	1.03	-
2441MHz	Pass	AV	2.441G	65.94	Inf	-Inf	35.16	3	Horizontal	85	1.03	-
2441MHz	Pass	AV	2.495G	36.73	54.00	-17.27	35.42	3	Horizontal	85	1.03	-
2441MHz	Pass	PK	2.387G	59.53	74.00	-14.47	34.91	3	Horizontal	85	1.03	-
2441MHz	Pass	PK	2.441G	88.44	Inf	-Inf	35.16	3	Horizontal	85	1.03	-
2441MHz	Pass	PK	2.495G	59.23	74.00	-14.77	35.42	3	Horizontal	85	1.03	-
2441MHz	Pass	AV	2.3498G	37.52	54.00	-16.48	34.73	3	Vertical	334	3.69	-
2441MHz	Pass	AV	2.441G	70.95	Inf	-Inf	35.16	3	Vertical	334	3.69	-
2441MHz	Pass	AV	2.4914G	37.05	54.00	-16.95	35.40	3	Vertical	334	3.69	-
2441MHz	Pass	PK	2.3498G	60.02	74.00	-13.98	34.73	3	Vertical	334	3.69	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2441MHz	Pass	PK	2.441G	93.45	Inf	-Inf	35.16	3	Vertical	334	3.69	-
2441MHz	Pass	PK	2.4914G	59.55	74.00	-14.45	35.40	3	Vertical	334	3.69	-
2480MHz	Pass	AV	2.4798G	63.90	Inf	-Inf	35.35	3	Horizontal	18	3.68	-
2480MHz	Pass	AV	2.4924G	37.52	54.00	-16.48	35.41	3	Horizontal	18	3.68	-
2480MHz	Pass	PK	2.4798G	86.40	Inf	-Inf	35.35	3	Horizontal	18	3.68	-
2480MHz	Pass	PK	2.4924G	60.02	74.00	-13.98	35.41	3	Horizontal	18	3.68	-
2480MHz	Pass	AV	2.4798G	67.21	Inf	-Inf	35.35	3	Vertical	58	1.50	-
2480MHz	Pass	AV	2.488G	37.25	54.00	-16.75	35.39	3	Vertical	58	1.50	-
2480MHz	Pass	PK	2.4798G	89.71	Inf	-Inf	35.35	3	Vertical	58	1.50	-
2480MHz	Pass	PK	2.488G	59.75	74.00	-14.25	35.39	3	Vertical	58	1.50	-

BT-BR(1Mbps)

2402MHz_TX

07/02/2018

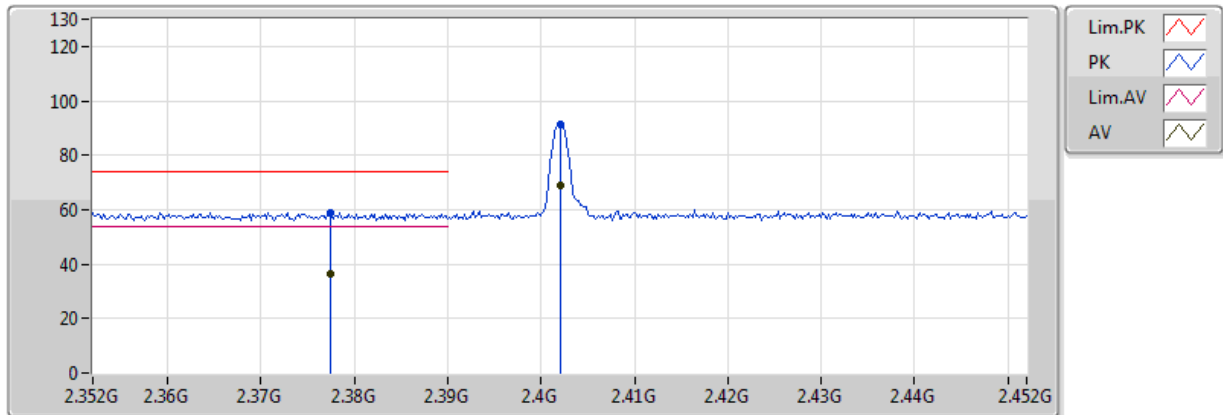


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3846G	36.46	54.00	-17.54	34.90	3	Vertical	247	1.50	-	1.56	26.98	7.92	-
AV	2.402G	66.72	Inf	-Inf	34.98	3	Vertical	247	1.50	-	31.74	27.03	7.95	-
PK	2.3846G	58.96	74.00	-15.04	34.90	3	Vertical	247	1.50	-	24.06	26.98	7.92	-
PK	2.402G	89.22	Inf	-Inf	34.98	3	Vertical	247	1.50	-	54.24	27.03	7.95	-

BT-BR(1Mbps)

2402MHz_TX

07/02/2018

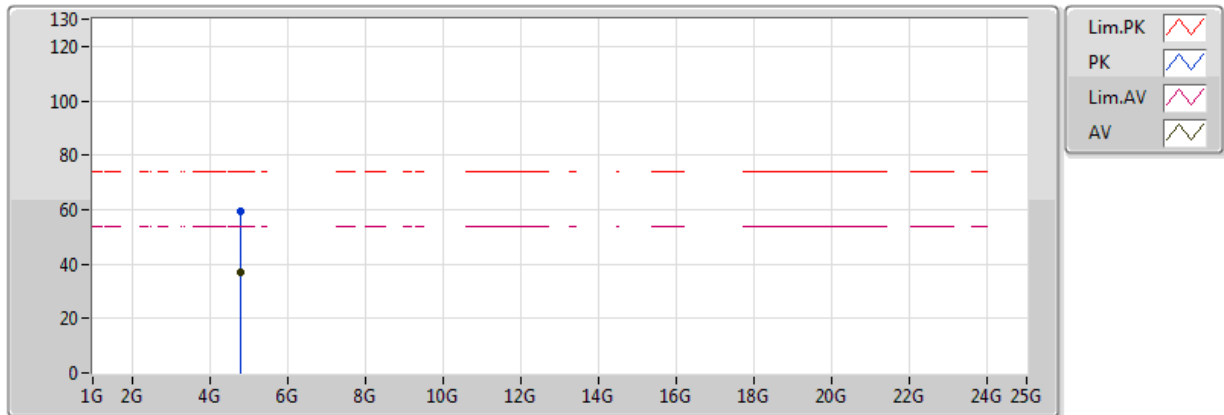


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3774G	36.54	54.00	-17.46	34.87	3	Horizontal	83	1.02	-	1.67	26.96	7.91	-
AV	2.402G	68.67	Inf	-Inf	34.98	3	Horizontal	83	1.02	-	33.69	27.03	7.95	-
PK	2.3774G	59.04	74.00	-14.96	34.87	3	Horizontal	83	1.02	-	24.17	26.96	7.91	-
PK	2.402G	91.17	Inf	-Inf	34.98	3	Horizontal	83	1.02	-	56.19	27.03	7.95	-

BT-BR(1Mbps)

2402MHz_TX

07/02/2018

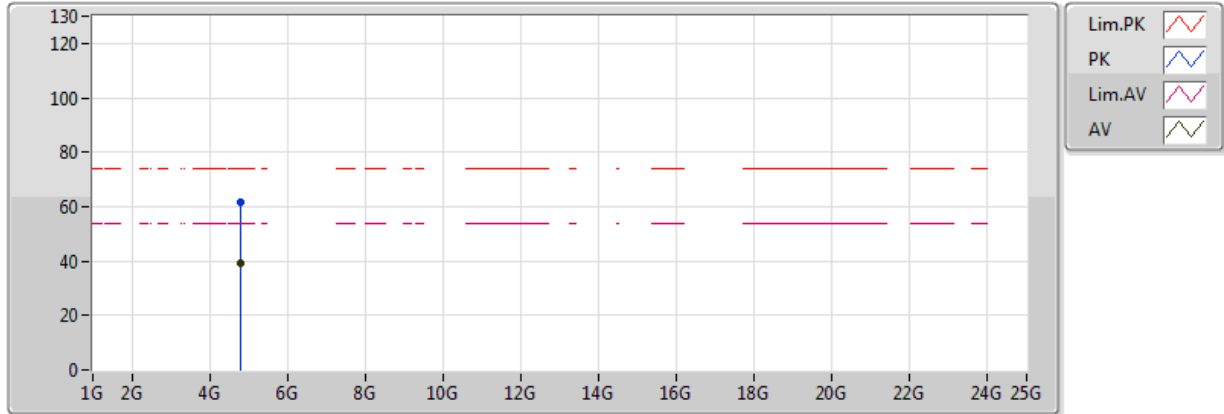


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80376G	37.06	54.00	-16.94	3.09	3	Vertical	217	1.04	-	33.97	31.25	6.43	34.59
PK	4.80376G	59.56	74.00	-14.44	3.09	3	Vertical	217	1.04	-	56.47	31.25	6.43	34.59

BT-BR(1Mbps)

2402MHz_TX

07/02/2018

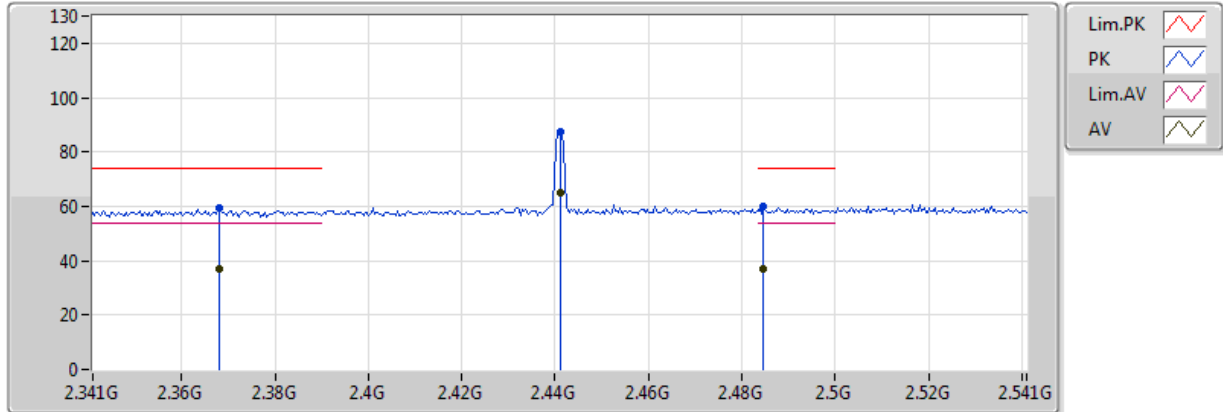


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8043G	39.21	54.00	-14.79	3.09	3	Horizontal	155	1.46	-	36.12	31.25	6.43	34.59
PK	4.8043G	61.71	74.00	-12.29	3.09	3	Horizontal	155	1.46	-	58.62	31.25	6.43	34.59

BT-BR(1Mbps)

2441MHz_TX

07/02/2018

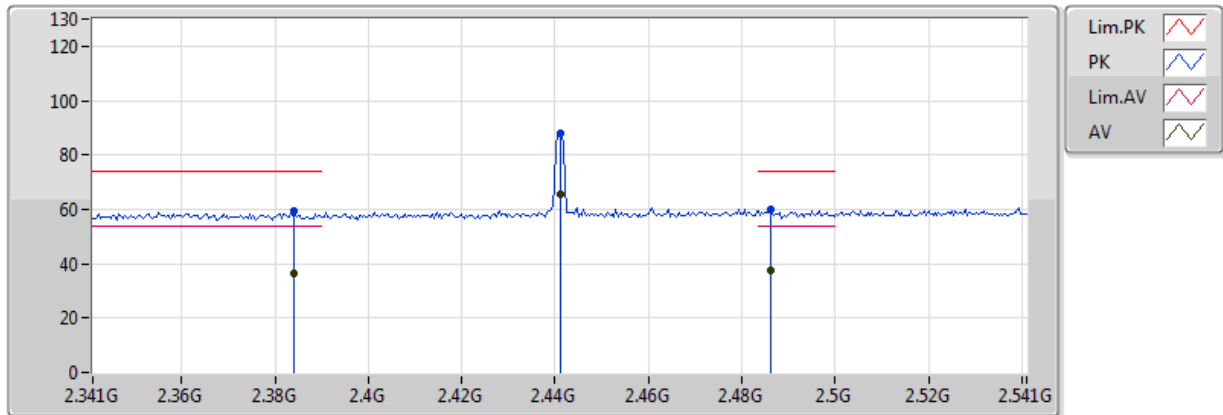


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3682G	37.03	54.00	-16.97	34.82	3	Vertical	124	3.62	-	2.21	26.93	7.89	-
AV	2.441G	64.95	Inf	-Inf	35.16	3	Vertical	124	3.62	-	29.79	27.13	8.03	-
AV	2.4846G	37.23	54.00	-16.77	35.37	3	Vertical	124	3.62	-	1.86	27.26	8.11	-
PK	2.3682G	59.53	74.00	-14.47	34.82	3	Vertical	124	3.62	-	24.71	26.93	7.89	-
PK	2.441G	87.45	Inf	-Inf	35.16	3	Vertical	124	3.62	-	52.29	27.13	8.03	-
PK	2.4846G	59.73	74.00	-14.27	35.37	3	Vertical	124	3.62	-	24.36	27.26	8.11	-

BT-BR(1Mbps)

2441MHz_TX

07/02/2018

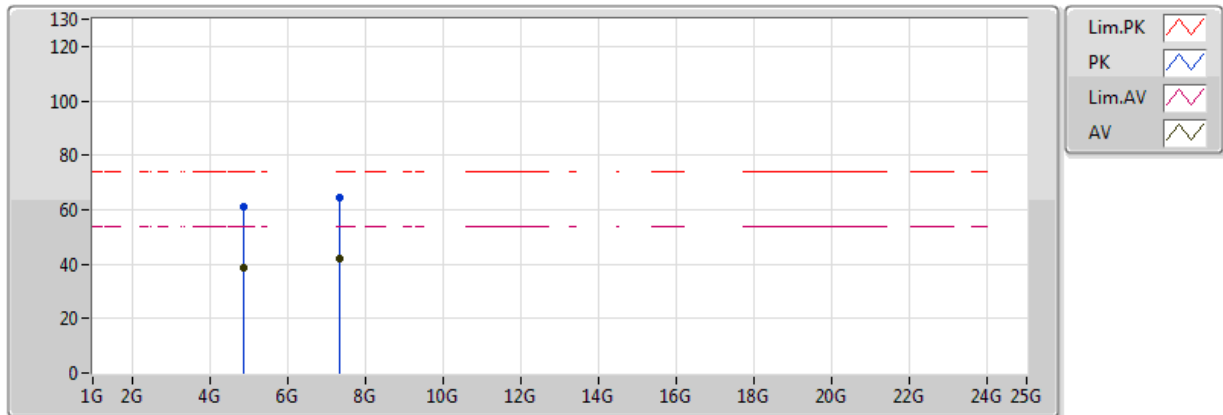


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3842G	36.69	54.00	-17.31	34.90	3	Horizontal	86	1.08	-	1.79	26.98	7.92	-
AV	2.441G	65.67	Inf	-Inf	35.16	3	Horizontal	86	1.08	-	30.51	27.13	8.03	-
AV	2.4862G	37.33	54.00	-16.67	35.37	3	Horizontal	86	1.08	-	1.96	27.26	8.11	-
PK	2.3842G	59.19	74.00	-14.81	34.90	3	Horizontal	86	1.08	-	24.29	26.98	7.92	-
PK	2.441G	88.17	Inf	-Inf	35.16	3	Horizontal	86	1.08	-	53.01	27.13	8.03	-
PK	2.4862G	59.83	74.00	-14.17	35.37	3	Horizontal	86	1.08	-	24.46	27.26	8.11	-

BT-BR(1Mbps)

2441MHz_TX

07/02/2018

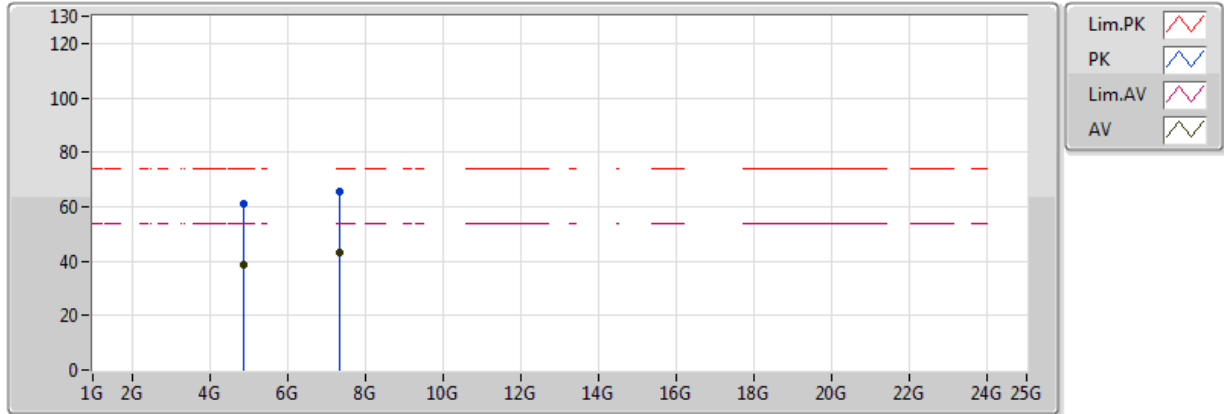


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8817G	38.60	54.00	-15.40	3.26	3	Vertical	149	2.15	-	35.34	31.39	6.45	34.57
AV	7.3236G	42.03	54.00	-11.97	9.31	3	Vertical	162	3.37	-	32.72	35.84	8.46	34.99
PK	4.8817G	61.10	74.00	-12.90	3.26	3	Vertical	149	2.15	-	57.84	31.39	6.45	34.57
PK	7.3236G	64.53	74.00	-9.47	9.31	3	Vertical	162	3.37	-	55.22	35.84	8.46	34.99

BT-BR(1Mbps)

2441MHz_TX

07/02/2018

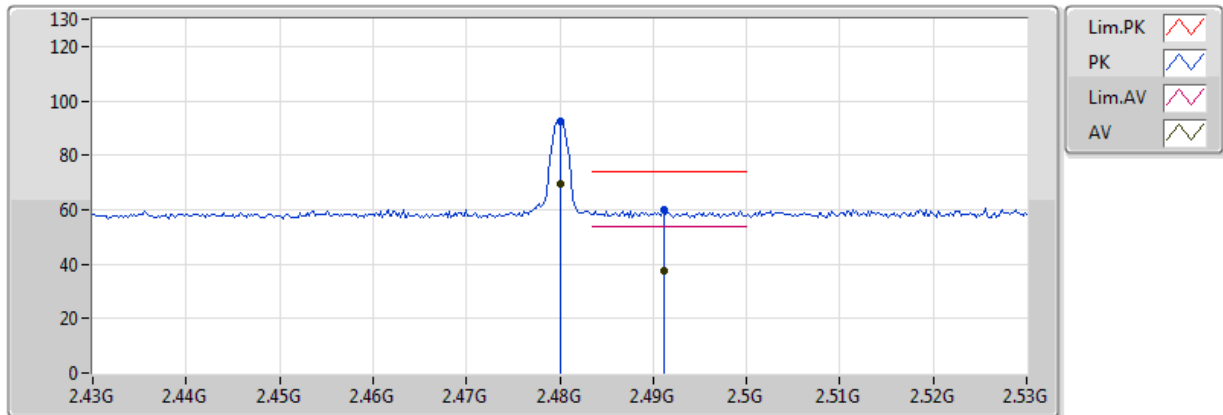


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8817G	38.65	54.00	-15.35	3.26	3	Horizontal	147	1.02	-	35.39	31.39	6.45	34.57
AV	7.32348G	43.21	54.00	-10.79	9.31	3	Horizontal	168	1.49	-	33.90	35.84	8.46	34.99
PK	4.8817G	61.15	74.00	-12.85	3.26	3	Horizontal	147	1.02	-	57.89	31.39	6.45	34.57
PK	7.32348G	65.71	74.00	-8.29	9.31	3	Horizontal	168	1.49	-	56.40	35.84	8.46	34.99

BT-BR(1Mbps)

2480MHz_TX

07/02/2018

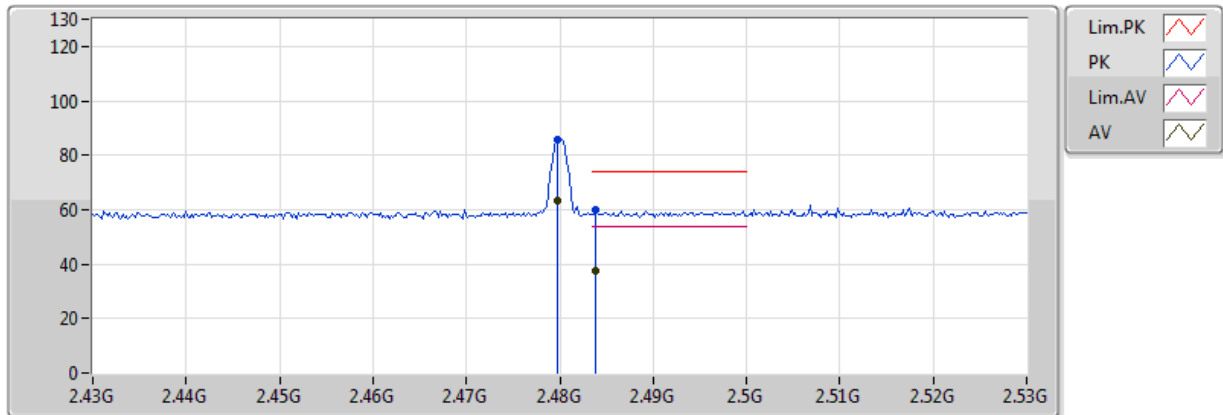


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	69.76	Inf	-Inf	35.35	3	Vertical	63	3.56	-	34.41	27.24	8.10	-
AV	2.4912G	37.31	54.00	-16.69	35.40	3	Vertical	63	3.56	-	1.91	27.28	8.12	-
PK	2.48G	92.26	Inf	-Inf	35.35	3	Vertical	63	3.56	-	56.91	27.24	8.10	-
PK	2.4912G	59.81	74.00	-14.19	35.40	3	Vertical	63	3.56	-	24.41	27.28	8.12	-

BT-BR(1Mbps)

2480MHz_TX

07/02/2018

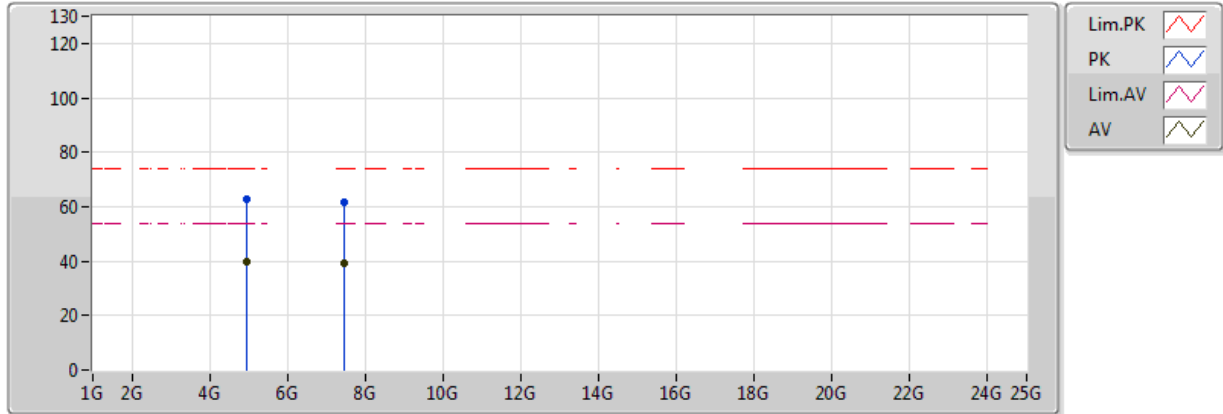


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	63.26	Inf	-Inf	35.35	3	Horizontal	20	1.16	-	27.91	27.24	8.10	-
AV	2.4838G	37.40	54.00	-16.60	35.36	3	Horizontal	20	1.16	-	2.04	27.25	8.11	-
PK	2.4798G	85.76	Inf	-Inf	35.35	3	Horizontal	20	1.16	-	50.41	27.24	8.10	-
PK	2.4838G	59.90	74.00	-14.10	35.36	3	Horizontal	20	1.16	-	24.54	27.25	8.11	-

BT-BR(1Mbps)

2480MHz_TX

07/02/2018

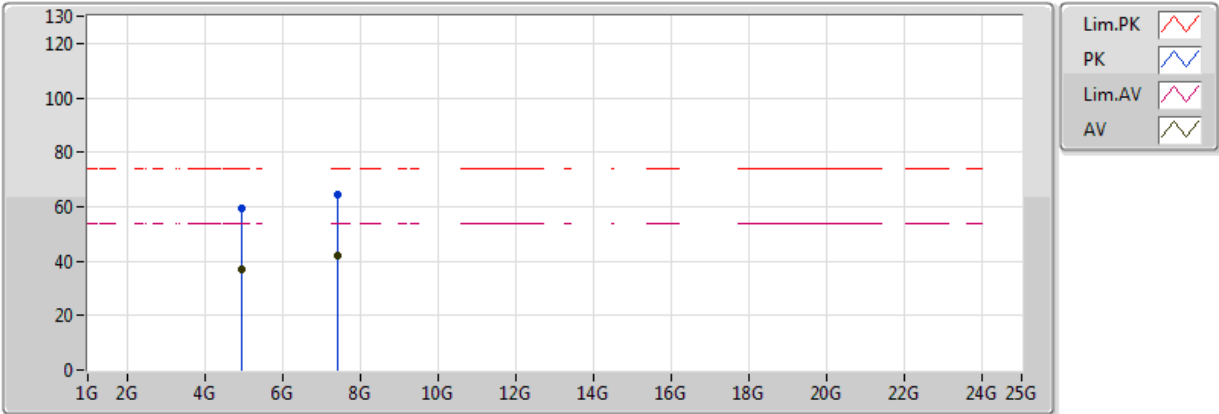


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96036G	40.02	54.00	-13.98	3.43	3	Vertical	141	3.45	-	36.59	31.53	6.46	34.56
AV	7.44054G	39.06	54.00	-14.94	9.82	3	Vertical	153	1.43	-	29.24	36.15	8.69	35.02
PK	4.96036G	62.52	74.00	-11.48	3.43	3	Vertical	141	3.45	-	59.09	31.53	6.46	34.56
PK	7.44054G	61.56	74.00	-12.44	9.82	3	Vertical	153	1.43	-	51.74	36.15	8.69	35.02

BT-BR(1Mbps)

2480MHz_TX

07/02/2018

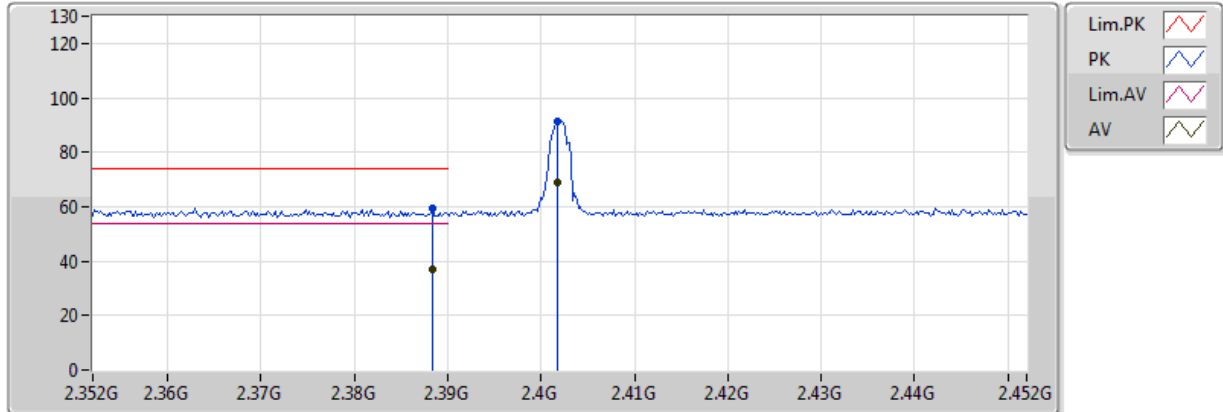


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95964G	37.02	54.00	-16.98	3.43	3	Horizontal	157	1.69	-	33.59	31.53	6.46	34.56
AV	7.4394G	41.80	54.00	-12.20	9.81	3	Horizontal	143	1.85	-	31.99	36.14	8.69	35.02
PK	4.95964G	59.52	74.00	-14.48	3.43	3	Horizontal	157	1.69	-	56.09	31.53	6.46	34.56
PK	7.4394G	64.30	74.00	-9.70	9.81	3	Horizontal	143	1.85	-	54.49	36.14	8.69	35.02

BT-EDR(2Mbps)

2402MHz_TX

07/02/2018

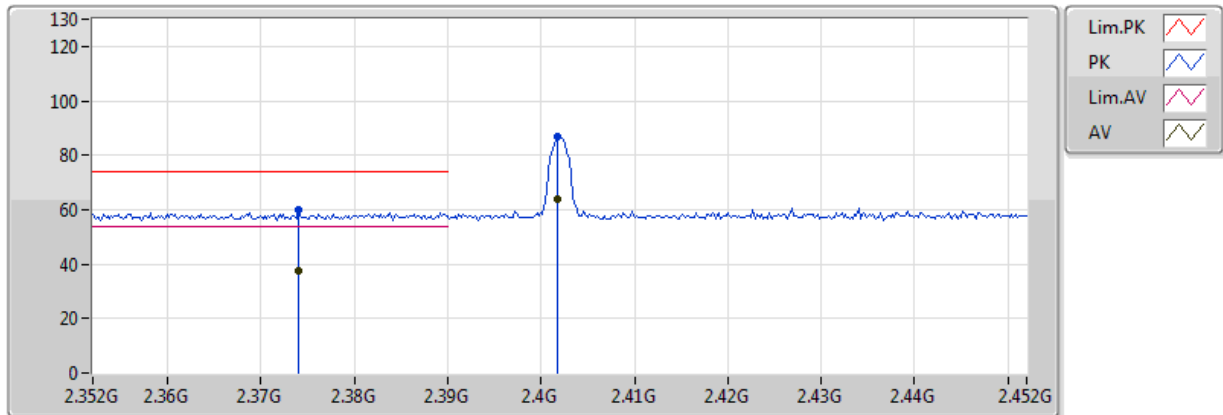


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	37.02	54.00	-16.98	34.92	3	Vertical	126	1.00	-	2.10	26.99	7.93	-
AV	2.4018G	68.92	Inf	-Inf	34.98	3	Vertical	126	1.00	-	33.94	27.03	7.95	-
PK	2.3884G	59.52	74.00	-14.48	34.92	3	Vertical	126	1.00	-	24.60	26.99	7.93	-
PK	2.4018G	91.42	Inf	-Inf	34.98	3	Vertical	126	1.00	-	56.44	27.03	7.95	-

BT-EDR(2Mbps)

2402MHz_TX

07/02/2018

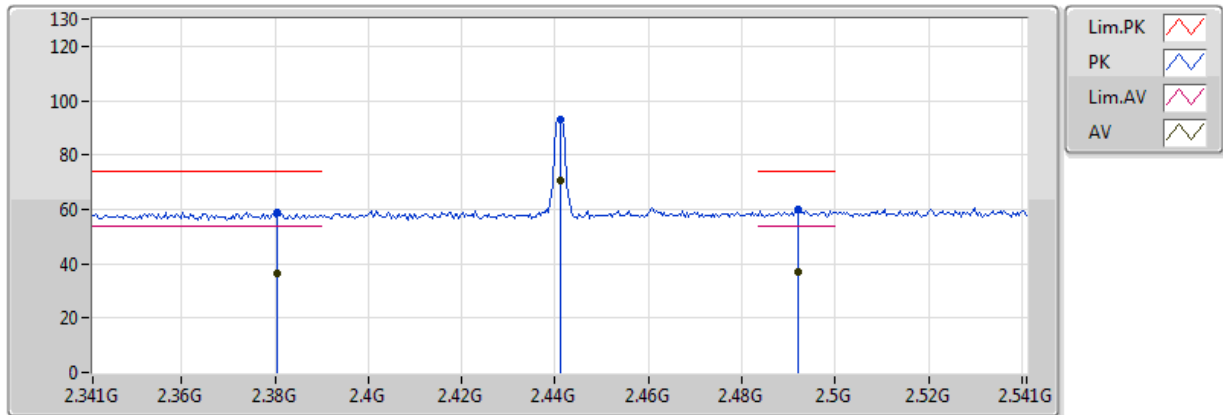


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.374G	37.48	54.00	-16.52	34.85	3	Horizontal	1	3.62	-	2.63	26.95	7.90	-
AV	2.4018G	64.10	Inf	-Inf	34.98	3	Horizontal	1	3.62	-	29.12	27.03	7.95	-
PK	2.374G	59.98	74.00	-14.02	34.85	3	Horizontal	1	3.62	-	25.13	26.95	7.90	-
PK	2.4018G	86.60	Inf	-Inf	34.98	3	Horizontal	1	3.62	-	51.62	27.03	7.95	-

BT-EDR(2Mbps)

2441MHz_TX

07/02/2018

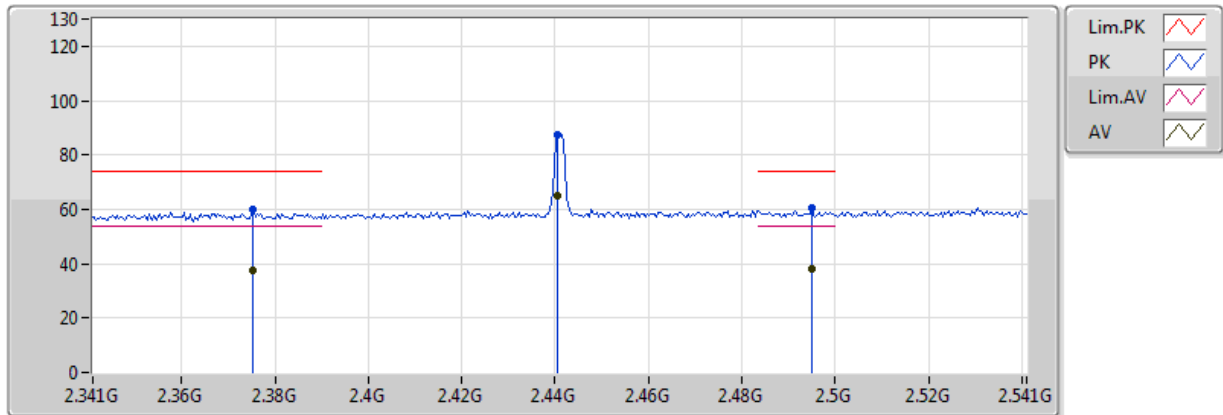


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3806G	36.52	54.00	-17.48	34.88	3	Vertical	334	3.64	-	1.64	26.97	7.91	-
AV	2.441G	70.57	Inf	-Inf	35.16	3	Vertical	334	3.64	-	35.41	27.13	8.03	-
AV	2.4922G	37.19	54.00	-16.81	35.41	3	Vertical	334	3.64	-	1.78	27.28	8.13	-
PK	2.3806G	59.02	74.00	-14.98	34.88	3	Vertical	334	3.64	-	24.14	26.97	7.91	-
PK	2.441G	93.07	Inf	-Inf	35.16	3	Vertical	334	3.64	-	57.91	27.13	8.03	-
PK	2.4922G	59.69	74.00	-14.31	35.41	3	Vertical	334	3.64	-	24.28	27.28	8.13	-

BT-EDR(2Mbps)

2441MHz_TX

07/02/2018

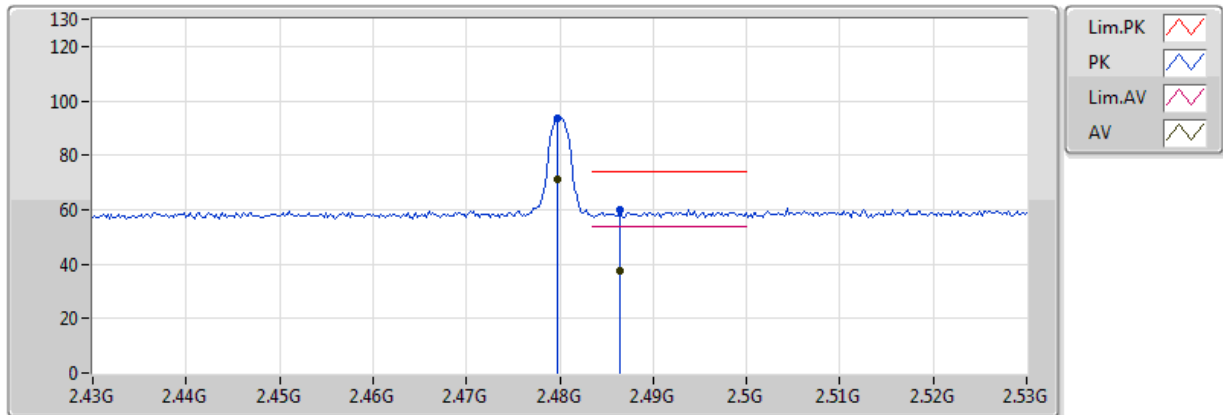


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3754G	37.31	54.00	-16.69	34.85	3	Horizontal	81	1.03	-	2.46	26.95	7.90	-
AV	2.4406G	65.11	Inf	-Inf	35.16	3	Horizontal	81	1.03	-	29.95	27.13	8.03	-
AV	2.495G	37.92	54.00	-16.08	35.42	3	Horizontal	81	1.03	-	2.50	27.29	8.13	-
PK	2.3754G	59.81	74.00	-14.19	34.85	3	Horizontal	81	1.03	-	24.96	26.95	7.90	-
PK	2.4406G	87.61	Inf	-Inf	35.16	3	Horizontal	81	1.03	-	52.45	27.13	8.03	-
PK	2.495G	60.42	74.00	-13.58	35.42	3	Horizontal	81	1.03	-	25.00	27.29	8.13	-

BT-EDR(2Mbps)

2480MHz_TX

07/02/2018

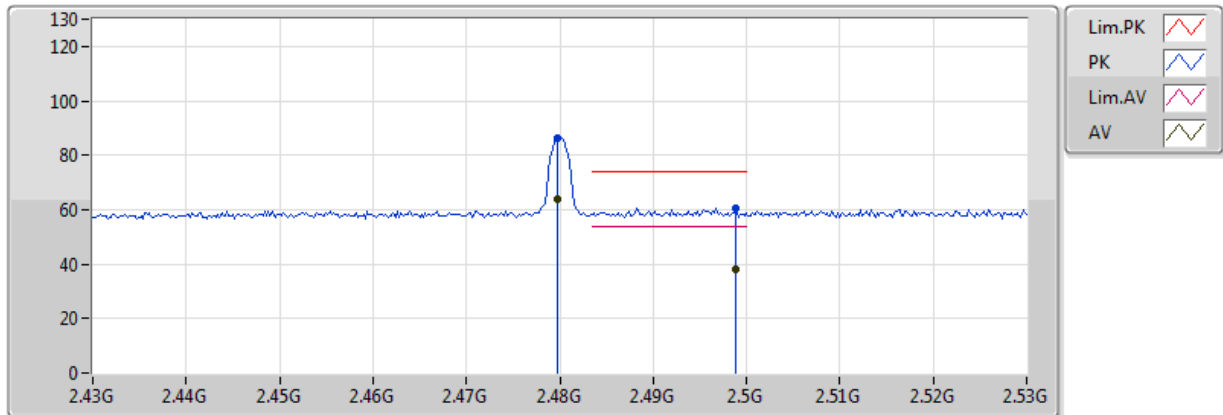


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	71.17	Inf	-Inf	35.35	3	Vertical	61	3.66	-	35.82	27.24	8.10	-
AV	2.4864G	37.44	54.00	-16.56	35.37	3	Vertical	61	3.66	-	2.07	27.26	8.11	-
PK	2.4798G	93.67	Inf	-Inf	35.35	3	Vertical	61	3.66	-	58.32	27.24	8.10	-
PK	2.4864G	59.94	74.00	-14.06	35.37	3	Vertical	61	3.66	-	24.57	27.26	8.11	-

BT-EDR(2Mbps)

2480MHz_TX

07/02/2018

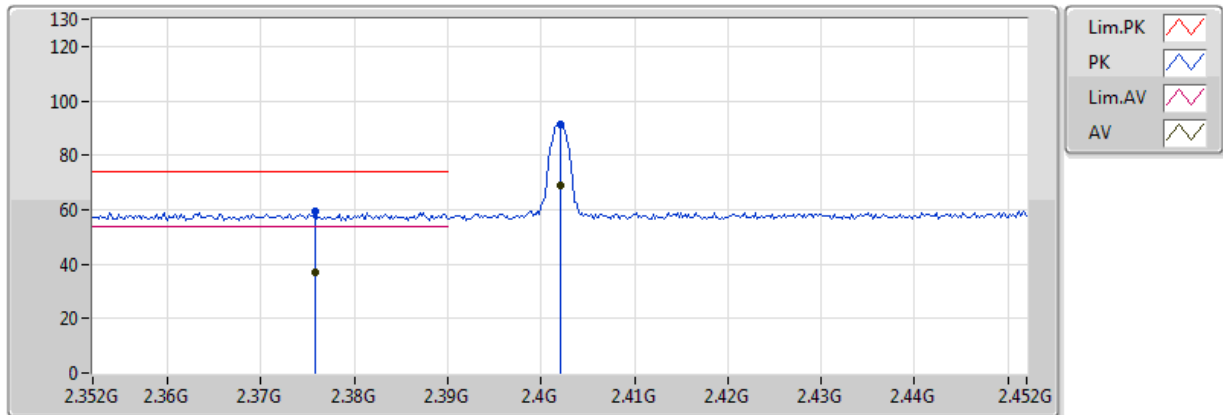


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	64.00	Inf	-Inf	35.35	3	Horizontal	15	1.01	-	28.65	27.24	8.10	-
AV	2.4988G	37.88	54.00	-16.12	35.44	3	Horizontal	15	1.01	-	2.44	27.30	8.14	-
PK	2.4798G	86.50	Inf	-Inf	35.35	3	Horizontal	15	1.01	-	51.15	27.24	8.10	-
PK	2.4988G	60.38	74.00	-13.62	35.44	3	Horizontal	15	1.01	-	24.94	27.30	8.14	-

BT-EDR(3Mbps)

2402MHz_TX

07/02/2018

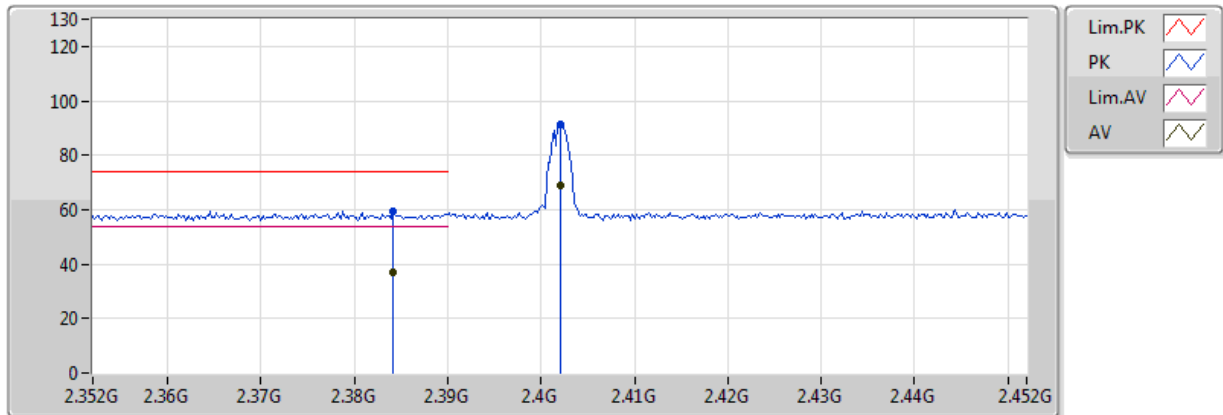


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3758G	36.78	54.00	-17.22	34.85	3	Vertical	128	1.01	-	1.93	26.95	7.90	-
AV	2.402G	68.75	Inf	-Inf	34.98	3	Vertical	128	1.01	-	33.77	27.03	7.95	-
PK	2.3758G	59.28	74.00	-14.72	34.85	3	Vertical	128	1.01	-	24.43	26.95	7.90	-
PK	2.402G	91.25	Inf	-Inf	34.98	3	Vertical	128	1.01	-	56.27	27.03	7.95	-

BT-EDR(3Mbps)

2402MHz_TX

07/02/2018

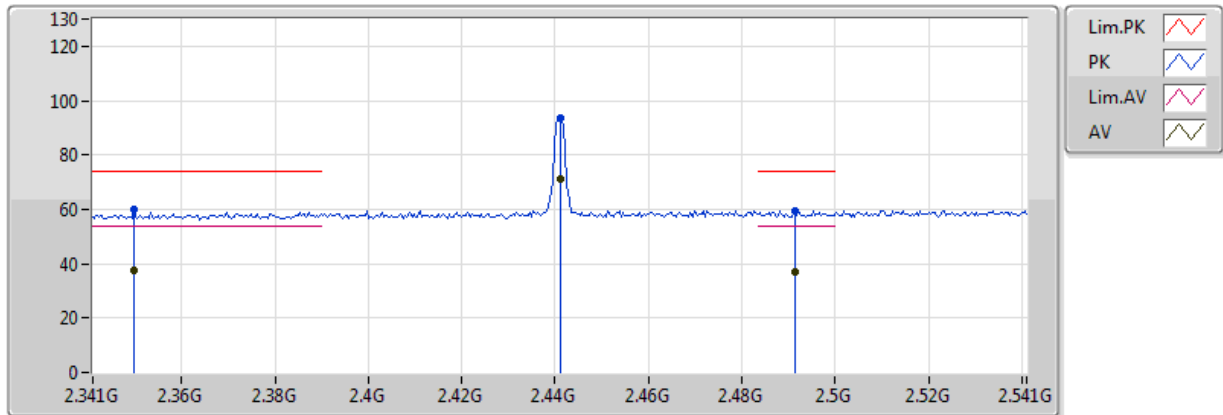


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3842G	37.13	54.00	-16.87	34.90	3	Horizontal	83	1.01	-	2.23	26.98	7.92	-
AV	2.402G	68.75	Inf	-Inf	34.98	3	Horizontal	83	1.01	-	33.77	27.03	7.95	-
PK	2.3842G	59.63	74.00	-14.37	34.90	3	Horizontal	83	1.01	-	24.73	26.98	7.92	-
PK	2.402G	91.25	Inf	-Inf	34.98	3	Horizontal	83	1.01	-	56.27	27.03	7.95	-

BT-EDR(3Mbps)

2441MHz_TX

07/02/2018

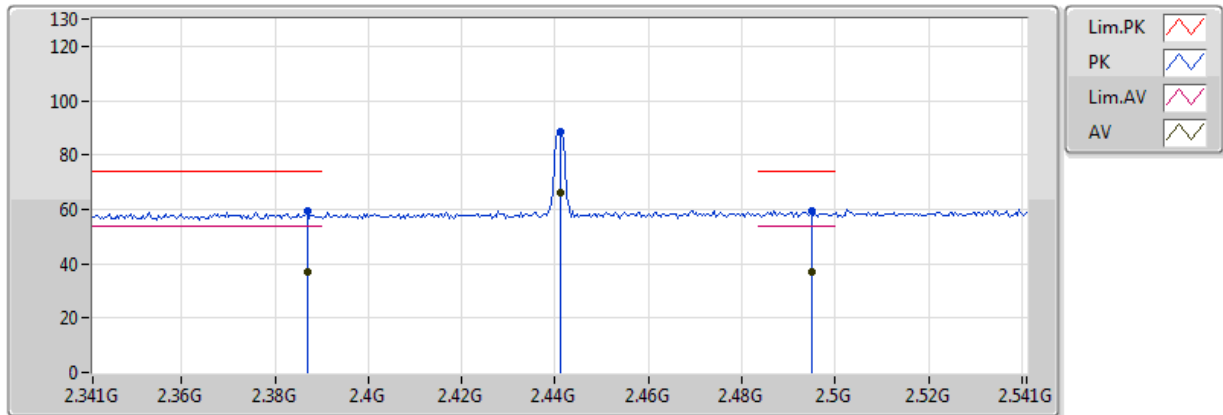


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3498G	37.52	54.00	-16.48	34.73	3	Vertical	334	3.69	-	2.79	26.88	7.85	-
AV	2.441G	70.95	Inf	-Inf	35.16	3	Vertical	334	3.69	-	35.79	27.13	8.03	-
AV	2.4914G	37.05	54.00	-16.95	35.40	3	Vertical	334	3.69	-	1.65	27.28	8.12	-
PK	2.3498G	60.02	74.00	-13.98	34.73	3	Vertical	334	3.69	-	25.29	26.88	7.85	-
PK	2.441G	93.45	Inf	-Inf	35.16	3	Vertical	334	3.69	-	58.29	27.13	8.03	-
PK	2.4914G	59.55	74.00	-14.45	35.40	3	Vertical	334	3.69	-	24.15	27.28	8.12	-

BT-EDR(3Mbps)

2441MHz_TX

07/02/2018

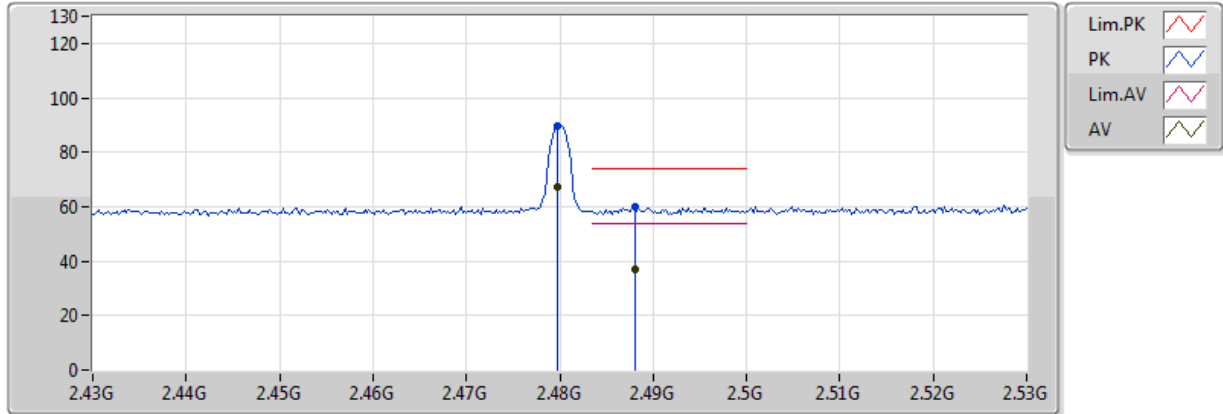


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.387G	37.03	54.00	-16.97	34.91	3	Horizontal	85	1.03	-	2.12	26.98	7.93	-
AV	2.441G	65.94	Inf	-Inf	35.16	3	Horizontal	85	1.03	-	30.78	27.13	8.03	-
AV	2.495G	36.73	54.00	-17.27	35.42	3	Horizontal	85	1.03	-	1.31	27.29	8.13	-
PK	2.387G	59.53	74.00	-14.47	34.91	3	Horizontal	85	1.03	-	24.62	26.98	7.93	-
PK	2.441G	88.44	Inf	-Inf	35.16	3	Horizontal	85	1.03	-	53.28	27.13	8.03	-
PK	2.495G	59.23	74.00	-14.77	35.42	3	Horizontal	85	1.03	-	23.81	27.29	8.13	-

BT-EDR(3Mbps)

2480MHz_TX

07/02/2018

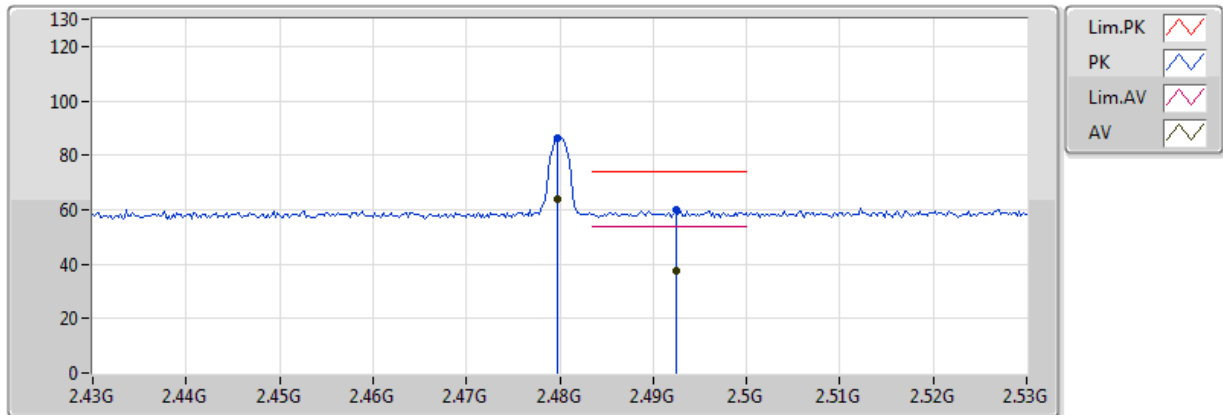


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	67.21	Inf	-Inf	35.35	3	Vertical	58	1.50	-	31.86	27.24	8.10	-
AV	2.488G	37.25	54.00	-16.75	35.39	3	Vertical	58	1.50	-	1.86	27.27	8.12	-
PK	2.4798G	89.71	Inf	-Inf	35.35	3	Vertical	58	1.50	-	54.36	27.24	8.10	-
PK	2.488G	59.75	74.00	-14.25	35.39	3	Vertical	58	1.50	-	24.36	27.27	8.12	-

BT-EDR(3Mbps)

2480MHz_TX

07/02/2018



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	2.4798G	63.90	Inf	-Inf	35.35	3	Horizontal	18	3.68	-	28.55	27.24	8.10	-
AV	2.4924G	37.52	54.00	-16.48	35.41	3	Horizontal	18	3.68	-	2.11	27.28	8.13	-
PK	2.4798G	86.40	Inf	-Inf	35.35	3	Horizontal	18	3.68	-	51.05	27.24	8.10	-
PK	2.4924G	60.02	74.00	-13.98	35.41	3	Horizontal	18	3.68	-	24.61	27.28	8.13	-