FCC Test Report

FCC ID	:	**COFHOOKREV3**
Equipment	:	**802.11b/g/n + BT 5.0 IOT Module**
Brand Name	:	**USI**
Model Name	:	**HOOK-REV3.0**
Applicant	:	**Universal Global Scientific Industrial Co., Ltd 141, Lane 351, Sec. 1, Taiping Road., Tsaotuen, Nantou 54261, Taiwan**
Manufacturer	:	**Universal Global Scientific Industrial Co., Ltd 141, Lane 351, Sec. 1, Taiping Road., Tsaotuen, Nantou 54261, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Nov. 15, 2018, and testing was started from Jan. 24, 2019 and completed on Jan. 25, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR8N1407AD	01	Initial issue of report	Mar. 29, 2019
FR8N1407AD	02	Add conduction	Apr. 01, 2019

Summary of Test Result

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

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Sam Tsai

Report Producer: Debby Hung

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 π/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.	Brand	Model Name	Antenna Type	Connector
1	Linx	ANT-2.4-CW-RAH	Monopole Antenna	Reversed-SMA

Ant.	Port	Gain (dBi)	
		2.4G	BT
1	1	-2.4	-2.4

For 2.4 GHz function:

For IEEE 802.11b/g/n mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

For Bluetooth function:

For Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition					
EUT Power Type	DC Power Source				
EUT Function	☒	Point-to-multipoint	☐	Point-to-point	
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) ≥ 1/T
BT-BR(1Mbps)	0.774	1.113	2.944m	1k
BT-EDR(2Mbps)	0.785	1.051	2.89m	1k
BT-EDR(3Mbps)	0.783	1.062	2.892m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

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
- KDB 558074 D01 v05r01
- 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
AC Conduction	CO04-HY	Lego	23°C / 54%	25/Jan/2019
RF Conducted	TH01-HY	Clara	22.5°C / 65%	24/Jan/2019
Radiated	03CH09-HY	Kevin	20.4°C / 47%	24/Jan/2019

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 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

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	3.8V

2.2 Test Channel Mode

Test Software	cmd

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	0
2441MHz	0
2480MHz	0
BT-EDR(2Mbps)	-
2402MHz	0
2441MHz	0
2480MHz	0
BT-EDR(3Mbps)	-
2402MHz	0
2441MHz	0
2480MHz	0

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	DC 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	DC mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	**Z Plane**
	
Worst Planes of EUT	V

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC power supply	GW	GPS-3030DD	-
2	Test Fixture	-	-	-
3	Antenna	-	-	-

Note.Support equipment No.3 was provided by customer.

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	PC	ASUS	D302MT	-
2	Monitor	DELL	VCDTS21553-3P	R35737 / DOC
3	DC Power Supply	GW	GPS-3030DD	-
4	Test Fixture	-	-	-

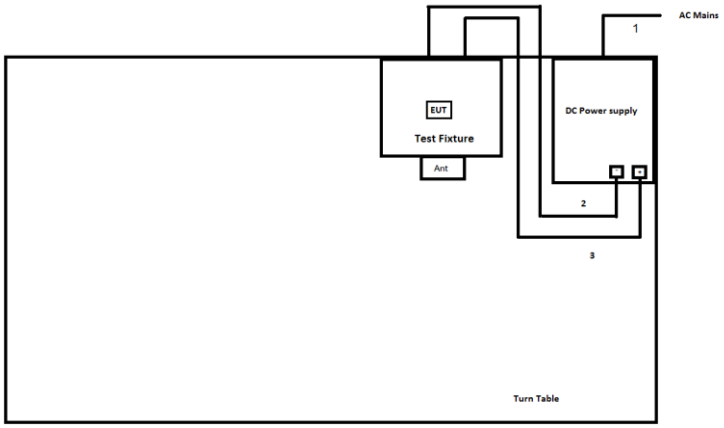
Note.Support equipment No.1 was provided by customer.

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC Power Supply	GW	GPS-3030DD	-
2	Test Fixture	-	-	-
3	Antenna	-	-	-

Note.Support equipment No.3 was provided by customer.

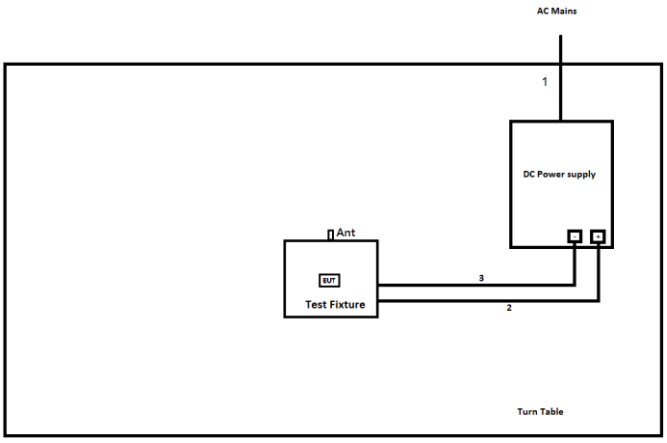
2.5 Test Setup Diagram

Test Setup Diagram - Conduction Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	DC Power line	No	1.0	-
3	DC Power line	No	1.0	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	DC Power line	No	1.0	-
3	DC Power line	No	1.0	-

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

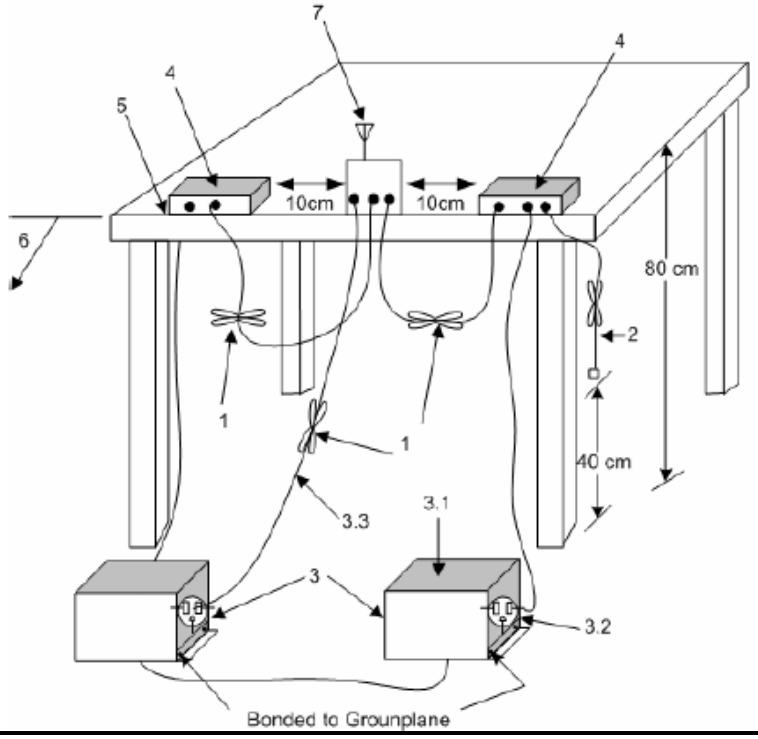
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



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	
▪ 2400-2483.5 MHz Band:	
	▪ N ≥75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz).
	▪ 75>N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
N:Number of Hopping Frequencies; **ChS**: Hopping Channel Separation	

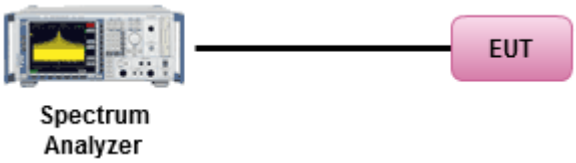
3.2.2 Measuring Instruments

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

20dB Bandwidth and Carrier Frequency Separation


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	
▪ 2400-2483.5 MHz Band:	
	▪ N ≥ 75; Power 30dBm; EIRP 36dBm
	▪ 75 >N ≥ 15; Power 21dBm; EIRP 27dBm
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

Maximum Conducted Output Power (Peak Power Meter)


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	
▪ 2400-2483.5 MHz Band:	
	▪ N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz).
	▪ 75 >N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
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

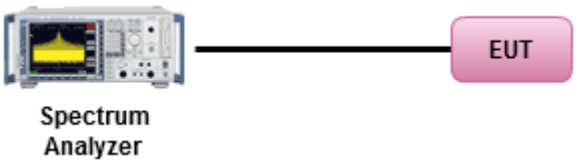
3.4.3 Measuring Instruments

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

Number of Hopping Frequencies and Hopping Frequencies Bandedge


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	
▪ 2400-2483.5 MHz Band:	
	▪ N ≥ 75; 0.4s in N x 0.4 period
	▪ 75 >N ≥ 15; 0.4s in N x 0.4 period
N:Number of Hopping Frequencies	

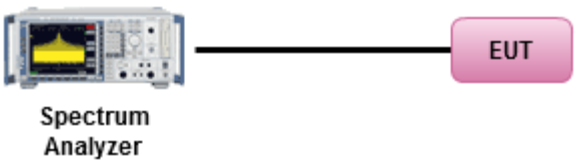
3.5.2 Measuring Instruments

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

Time of Occupancy (Dwell Time)
 Spectrum Analyzer

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.	

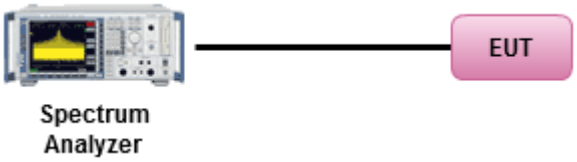
3.6.2 Measuring Instruments

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

Emissions in Non-restricted Frequency Bands


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 below30 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.

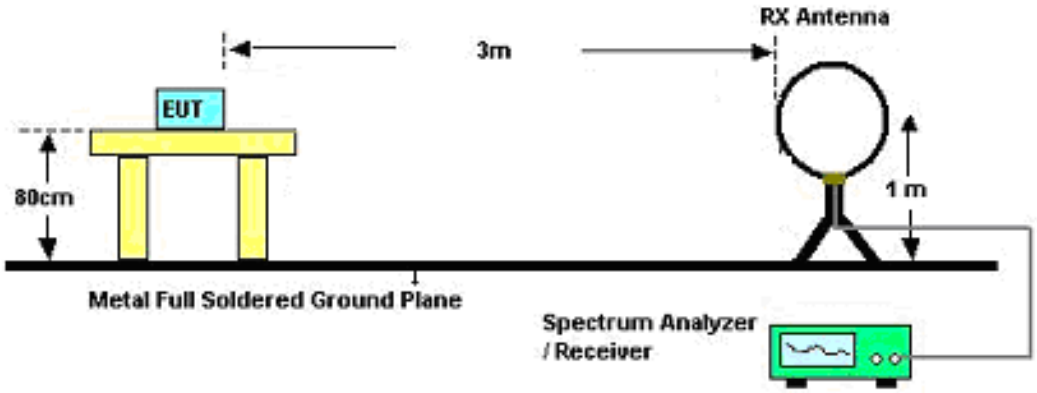
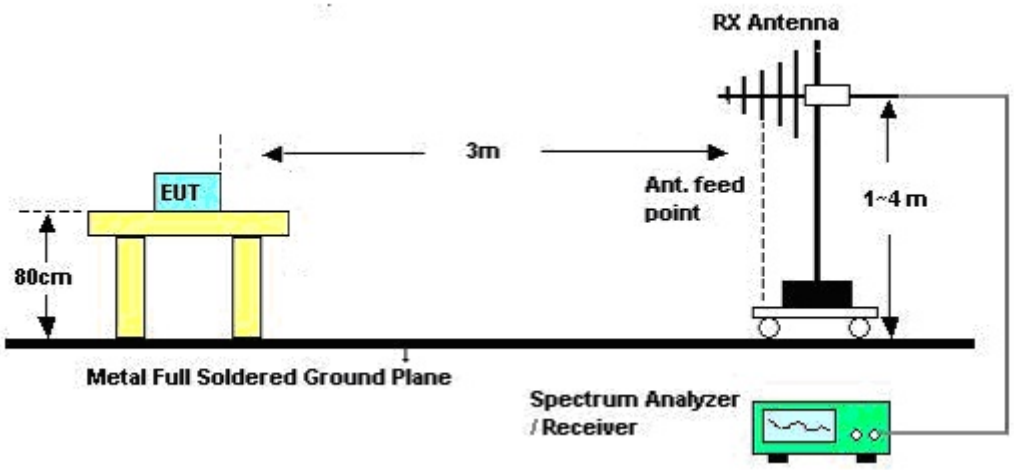
3.7.2 Measuring Instruments

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

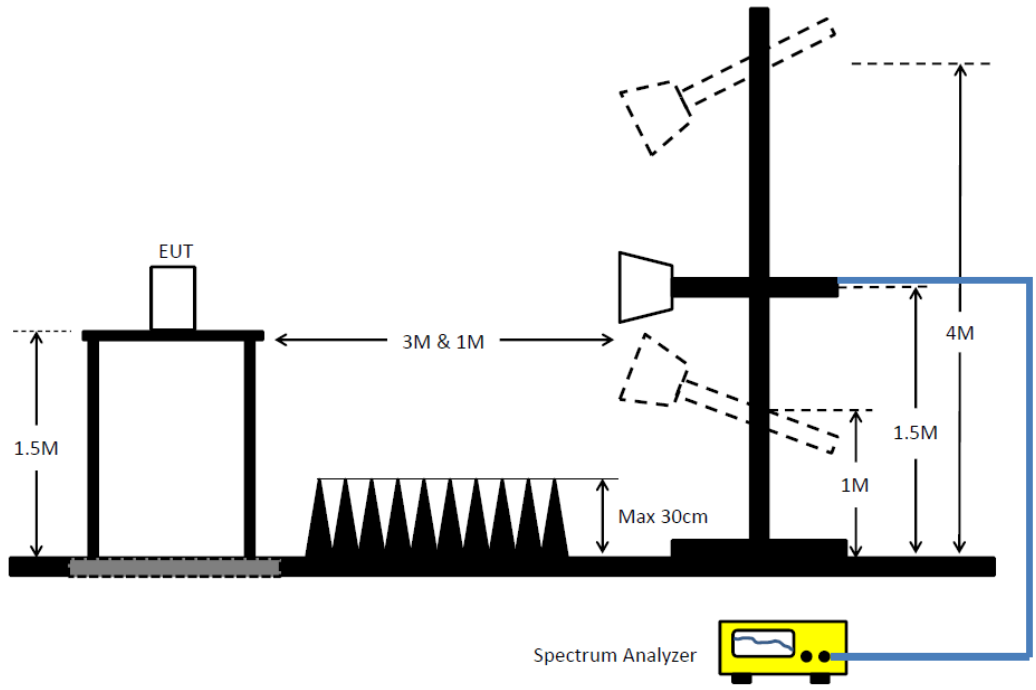
3.7.3 Test Procedures

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

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



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 Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY12585/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2018	25/Oct/2019

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	01/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	02/Feb/2018	01/Feb/2019

Instrument for AC Conduction

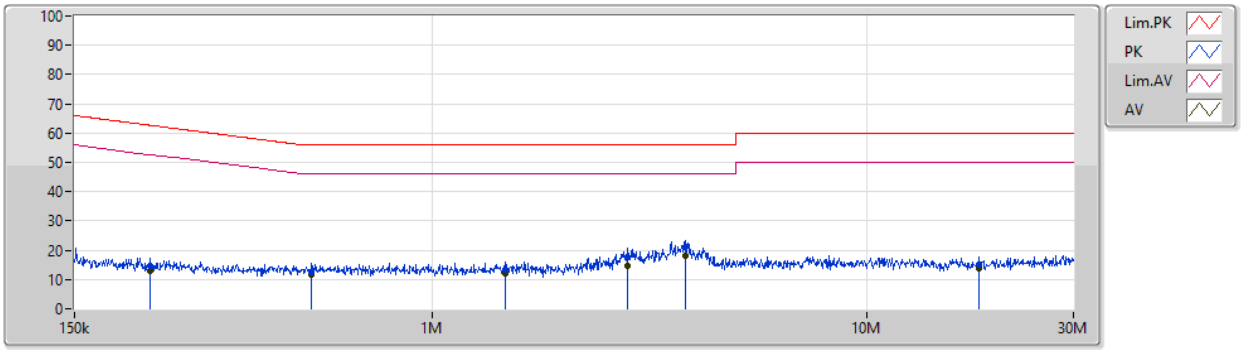
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Puls e Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	DC mode_TX		

DC Conduction

25/01/2019

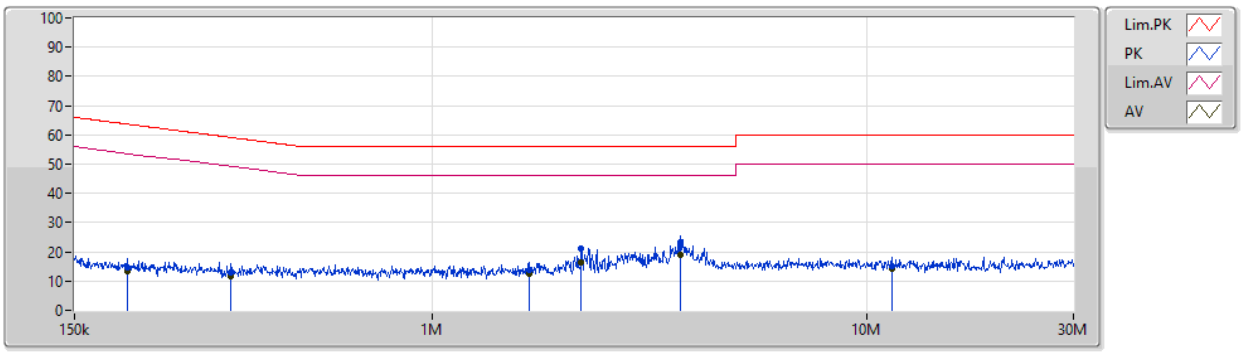


Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	224.49k	14.48	62.65	-48.17	19.47	Neutral	-	-4.99	9.59	0.01	9.87
AV	224.49k	12.95	52.65	-39.70	19.47	Neutral	-	-6.52	9.59	0.01	9.87
QP	527.486k	12.45	56.00	-43.55	19.48	Neutral	-	-7.03	9.59	0.01	9.88
AV	527.486k	11.57	46.00	-34.43	19.48	Neutral	-	-7.91	9.59	0.01	9.88
QP	1.477M	13.40	56.00	-42.60	19.52	Neutral	-	-6.12	9.60	0.03	9.89
AV	1.477M	12.21	46.00	-33.79	19.52	Neutral	-	-7.31	9.60	0.03	9.89
QP	2.81M	17.83	56.00	-38.17	19.54	Neutral	-	-1.71	9.61	0.04	9.89
AV	2.81M	14.82	46.00	-31.18	19.54	Neutral	-	-4.72	9.61	0.04	9.89
QP	3.821M	21.30	56.00	-34.70	19.54	Neutral	-	1.76	9.61	0.04	9.89
AV	3.821M	18.19	46.00	-27.81	19.54	Neutral	"Worst"	-1.35	9.61	0.04	9.89
QP	18.198M	14.96	60.00	-45.04	19.68	Neutral	-	-4.72	9.68	0.10	9.90
AV	18.198M	13.67	50.00	-36.33	19.68	Neutral	-	-6.01	9.68	0.10	9.90

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	DC mode_TX		

DC Conduction

25/01/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	198.359k	14.63	63.69	-49.06	19.48	Line	-	-4.85	9.60	0.01	9.87
AV	198.359k	13.28	53.69	-40.41	19.48	Line	-	-6.20	9.60	0.01	9.87
QP	344.115k	13.09	59.10	-46.01	19.48	Line	-	-6.39	9.59	0.01	9.88
AV	344.115k	11.82	49.10	-37.28	19.48	Line	-	-7.66	9.59	0.01	9.88
QP	1.672M	13.71	56.00	-42.29	19.54	Line	-	-5.83	9.62	0.03	9.89
AV	1.672M	12.54	46.00	-33.46	19.54	Line	-	-7.00	9.62	0.03	9.89
QP	2.202M	21.28	56.00	-34.72	19.54	Line	-	1.74	9.62	0.03	9.89
AV	2.202M	16.20	46.00	-29.80	19.54	Line	-	-3.34	9.62	0.03	9.89
QP	3.73M	23.24	56.00	-32.76	19.56	Line	-	3.68	9.63	0.04	9.89
AV	3.73M	18.99	46.00	-27.01	19.56	Line	"Worst"	-0.57	9.63	0.04	9.89
QP	11.453M	15.30	60.00	-44.70	19.63	Line	-	-4.33	9.66	0.08	9.89
AV	11.453M	14.27	50.00	-35.73	19.63	Line	-	-5.36	9.66	0.08	9.89

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)	1.006M	939.53k	940KF1D	921.25k	933.283k
BT-EDR(2Mbps)	1.335M	1.226M	1M23G1D	1.315M	1.222M
BT-EDR(3Mbps)	1.29M	1.219M	1M22G1D	1.28M	1.218M

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;

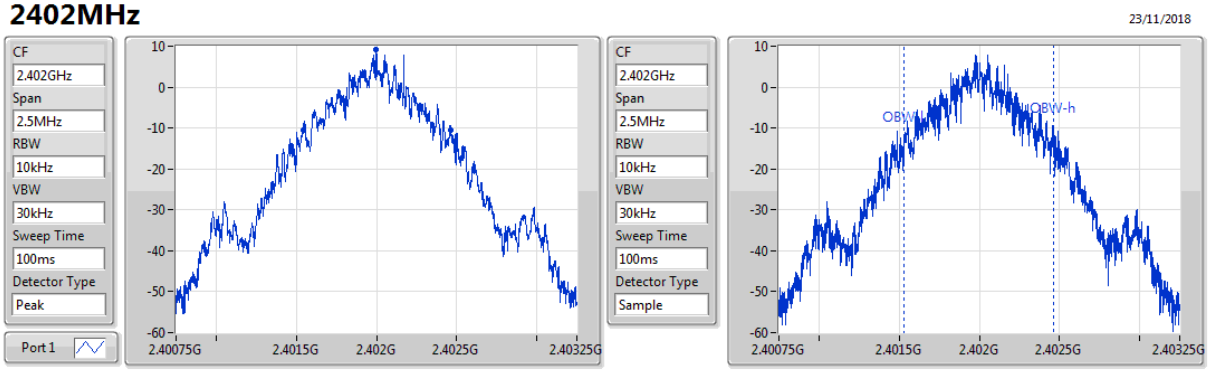
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	921.25k	933.283k
2441MHz	Pass	Inf	1.006M	939.53k
2480MHz	Pass	Inf	991.25k	935.782k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.318M	1.226M
2441MHz	Pass	Inf	1.335M	1.223M
2480MHz	Pass	Inf	1.315M	1.222M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.285M	1.219M
2441MHz	Pass	Inf	1.29M	1.218M
2480MHz	Pass	Inf	1.28M	1.219M

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

BT-BR(1Mbps) **EBW**

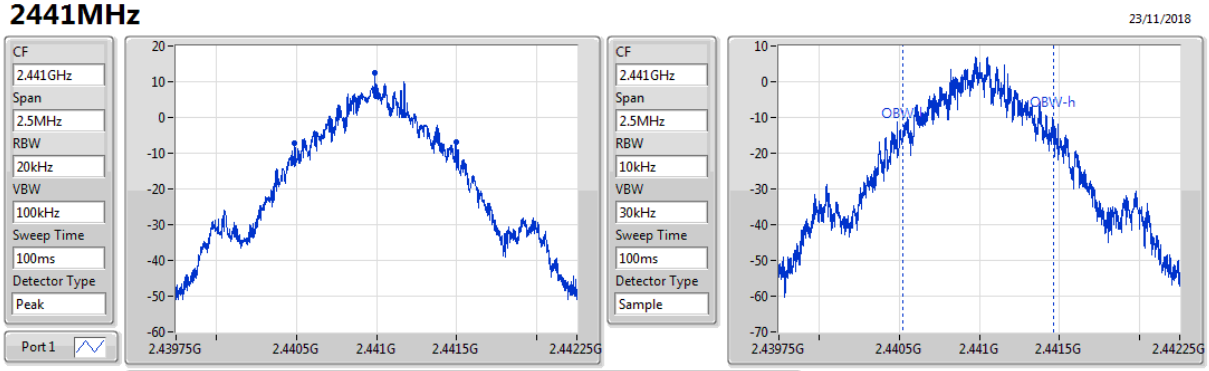
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
921.25k	2.401544G	2.402465G	933.283k	2.401529G	2.402462G	Inf	1

BT-BR(1Mbps) **EBW**

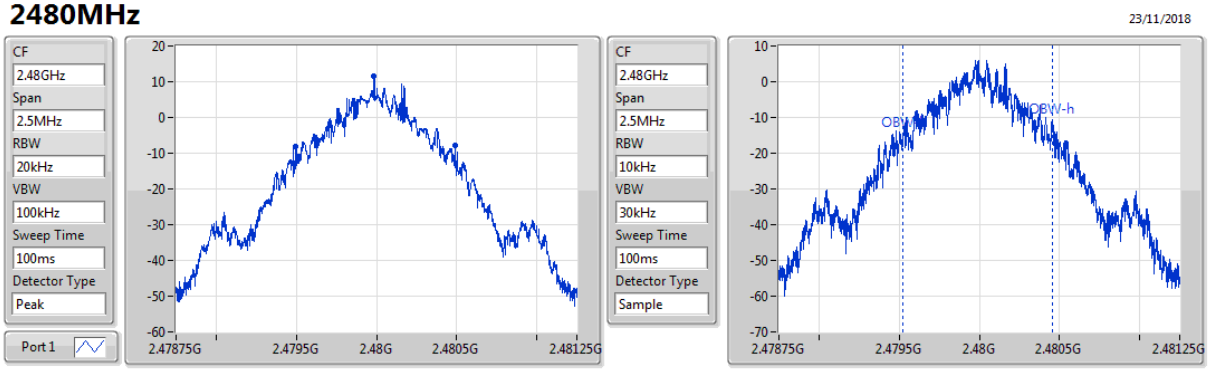
2441MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.006M	2.440489G	2.441495G	939.53k	2.44052G	2.44146G	Inf	1

BT-BR(1Mbps) **EBW**

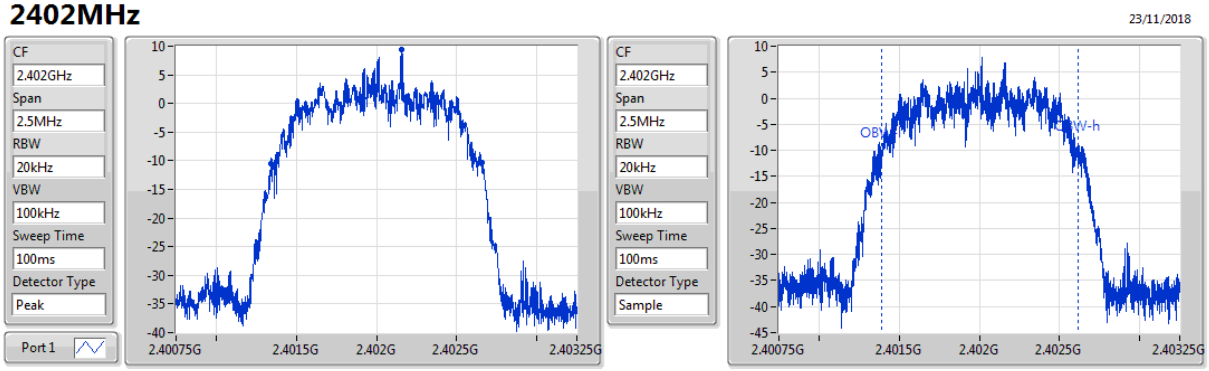
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
991.25k	2.479498G	2.480489G	935.782k	2.479521G	2.480457G	Inf	1

BT-EDR(2Mbps) **EBW**

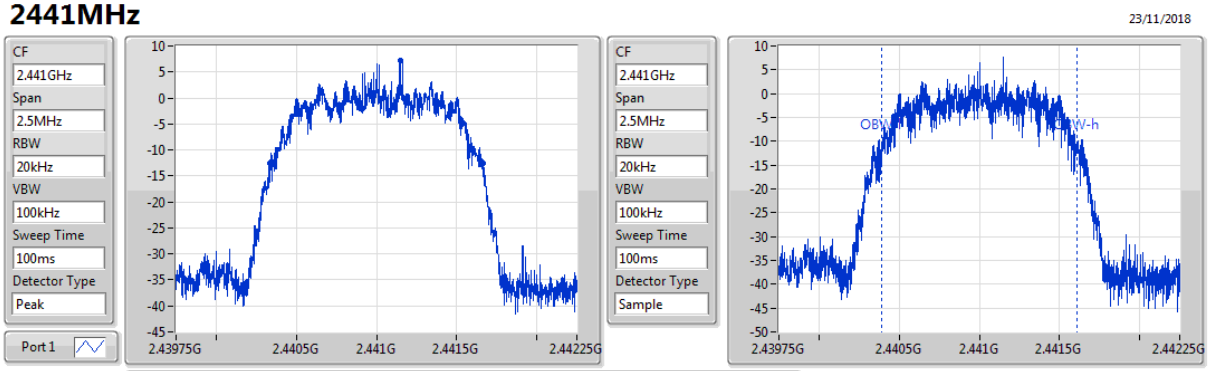
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.318M	2.401339G	2.402656G	1.226M	2.40139G	2.402616G	Inf	1

BT-EDR(2Mbps) **EBW**

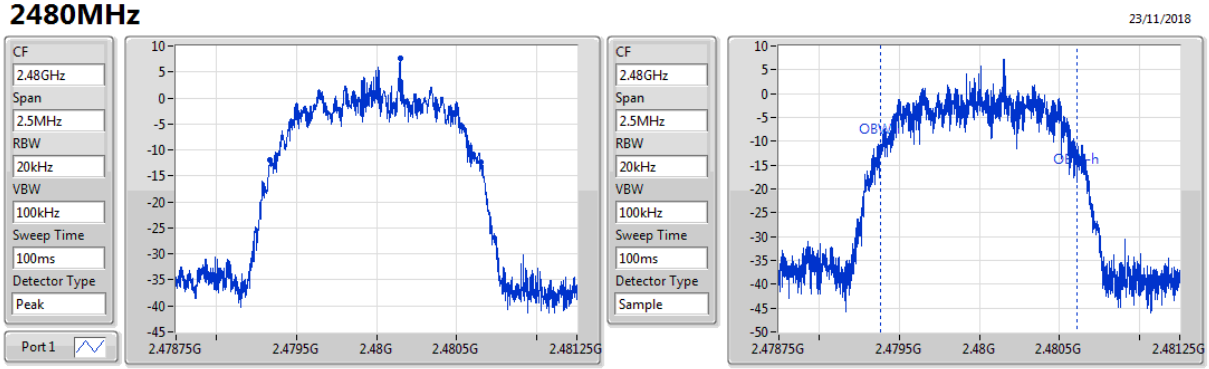
2441MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.335M	2.440333G	2.441668G	1.223M	2.440389G	2.441612G	Inf	1

BT-EDR(2Mbps) **EBW**

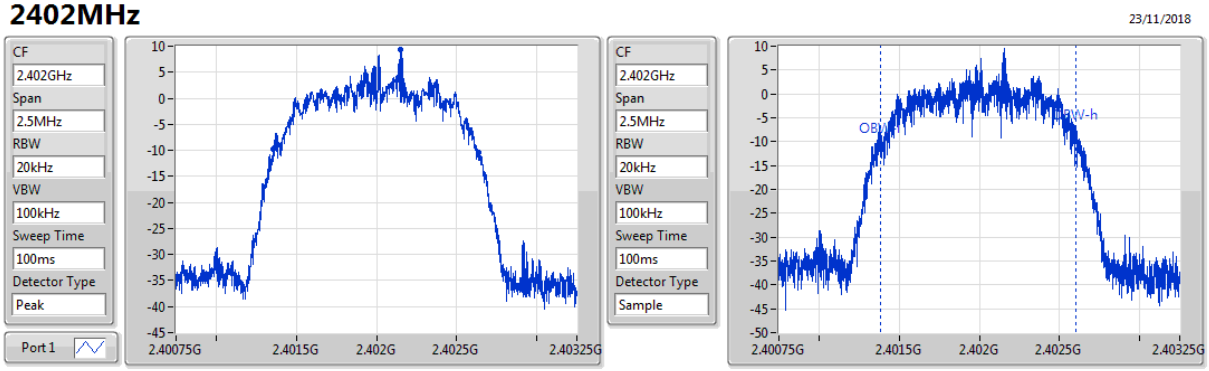
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.315M	2.479336G	2.480651G	1.222M	2.479384G	2.480606G	Inf	1

BT-EDR(3Mbps) **EBW**

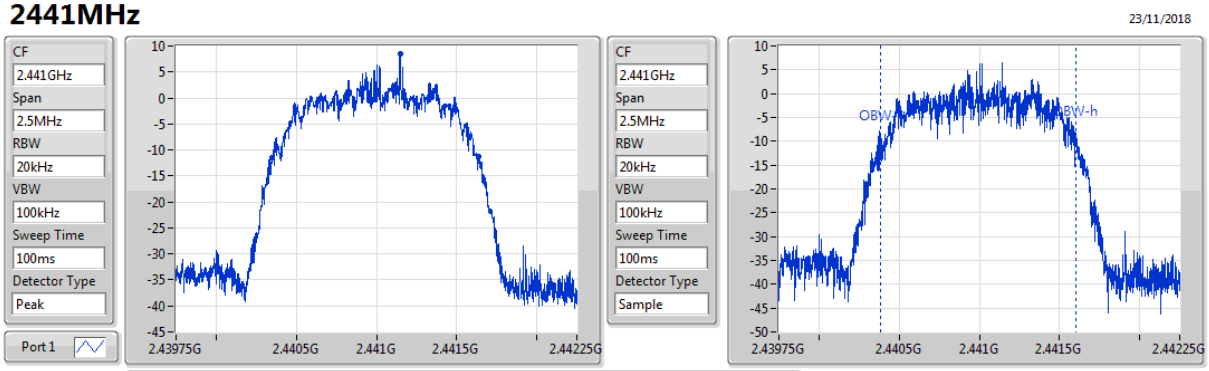
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.285M	2.401354G	2.402639G	1.219M	2.401384G	2.402603G	Inf	1

BT-EDR(3Mbps) **EBW**

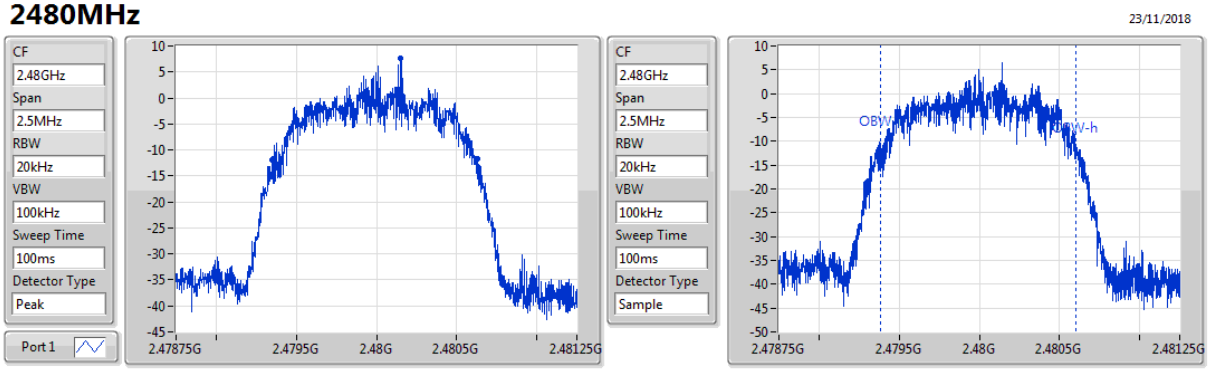
2441MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.29M	2.440348G	2.441638G	1.218M	2.440384G	2.441602G	Inf	1

BT-EDR(3Mbps) **EBW**

2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.28M	2.479349G	2.480629G	1.219M	2.479382G	2.480601G	Inf	1

Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	1.0005M
BT-EDR(2Mbps)	1.002M	999k
BT-EDR(3Mbps)	1.0035M	1.0005M

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.401993G	2.402994G	1.0005M	613.5525k
2441MHz	Pass	2.44099G	2.441992G	1.002M	669.996k
2480MHz	Pass	2.478989G	2.479989G	1.0005M	660.1725k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402157G	2.403156G	999k	877.788k
2441MHz	Pass	2.441154G	2.442154G	1.0005M	889.11k
2480MHz	Pass	2.479151G	2.480153G	1.002M	875.79k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402154G	2.403157G	1.0035M	855.81k
2441MHz	Pass	2.441151G	2.442151G	1.0005M	859.14k
2480MHz	Pass	2.479146G	2.48015G	1.0035M	852.48k

BT-BR(1Mbps) **Channel Separation**

2.402G/2.403GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401993G	2.402994G	1.0005M	613.5525k

BT-BR(1Mbps) **Channel Separation**

2.441G/2.442GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.44099G	2.441992G	1.002M	669.996k

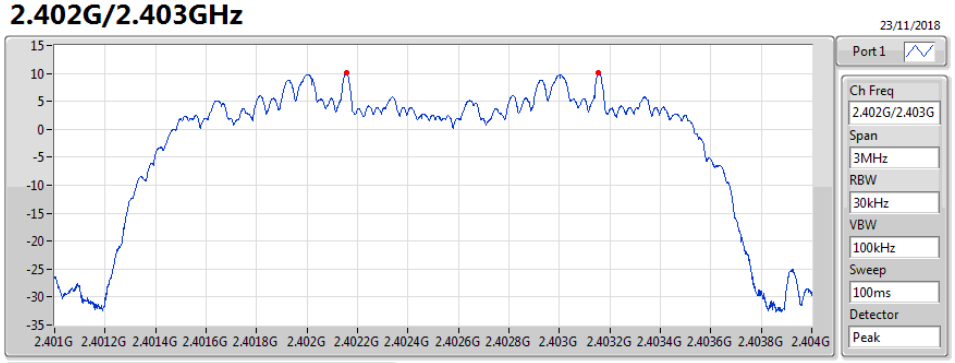
BT-BR(1Mbps) **Channel Separation**

2.48G/2.479GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478989G	2.479989G	1.0005M	660.1725k

BT-EDR(2Mbps) **Channel Separation**

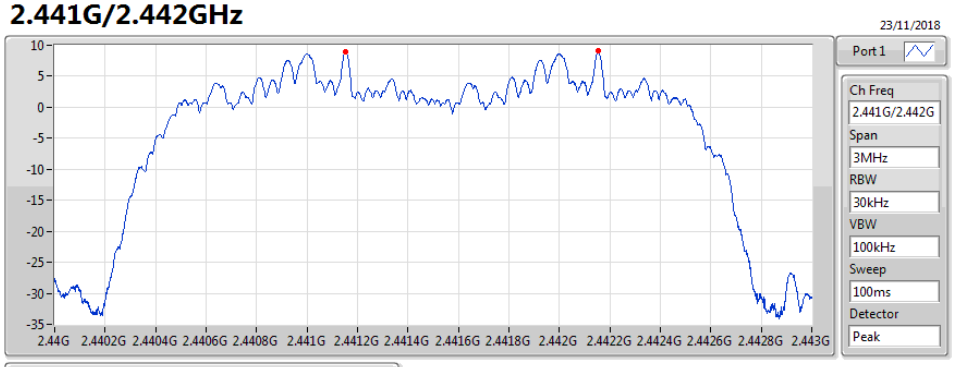
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402157G	2.403156G	999k	877.788k

BT-EDR(2Mbps) **Channel Separation**

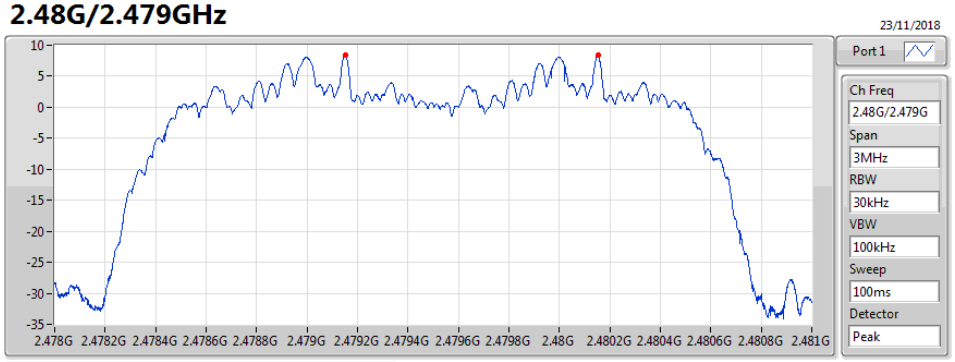
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441154G	2.442154G	1.0005M	889.11k

BT-EDR(2Mbps) **Channel Separation**

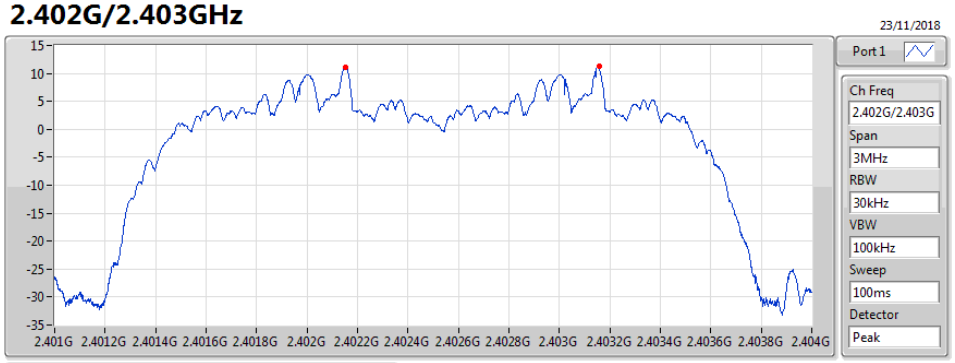
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479151G	2.480153G	1.002M	875.79k

BT-EDR(3Mbps) **Channel Separation**

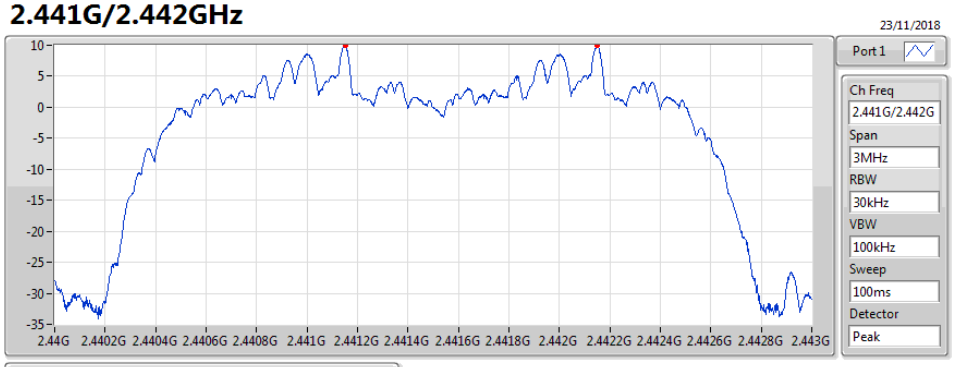
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402154G	2.403157G	1.0035M	855.81k

BT-EDR(3Mbps) **Channel Separation**

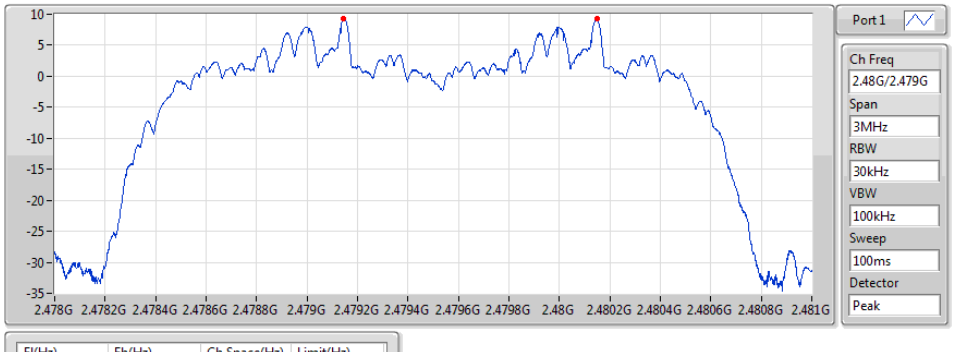
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441151G	2.442151G	1.0005M	859.14k

BT-EDR(3Mbps) **Channel Separation**

2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479146G	2.48015G	1.0035M	852.48k

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	15.70	0.03715
BT-EDR(2Mbps)	15.12	0.03251
BT-EDR(3Mbps)	15.33	0.03412

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	15.70	30.00
2441MHz_TnomVnom	Pass	-2.40	13.63	30.00
2480MHz_TnomVnom	Pass	-2.40	13.95	30.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	15.12	30.00
2441MHz_TnomVnom	Pass	-2.40	14.74	30.00
2480MHz_TnomVnom	Pass	-2.40	14.36	30.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	15.33	30.00
2441MHz_TnomVnom	Pass	-2.40	14.95	30.00
2480MHz_TnomVnom	Pass	-2.40	14.60	30.00

Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	15.55	0.03589
BT-EDR(2Mbps)	12.39	0.01734
BT-EDR(3Mbps)	12.36	0.01722

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	15.55	30.00
2441MHz_TnomVnom	Pass	-2.40	13.45	30.00
2480MHz_TnomVnom	Pass	-2.40	13.79	30.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	12.39	30.00
2441MHz_TnomVnom	Pass	-2.40	12.05	30.00
2480MHz_TnomVnom	Pass	-2.40	11.77	30.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	-2.40	12.36	30.00
2441MHz_TnomVnom	Pass	-2.40	12.12	30.00
2480MHz_TnomVnom	Pass	-2.40	11.77	30.00

Summary

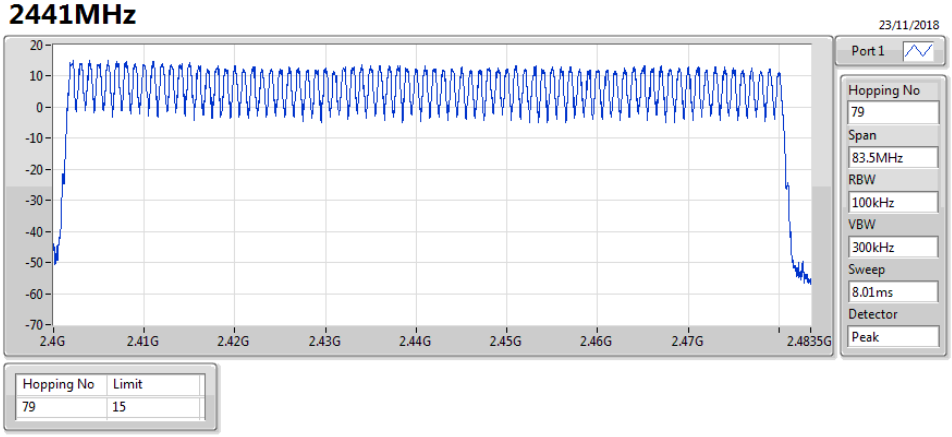
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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) **Hopping Ch**

2441MHz

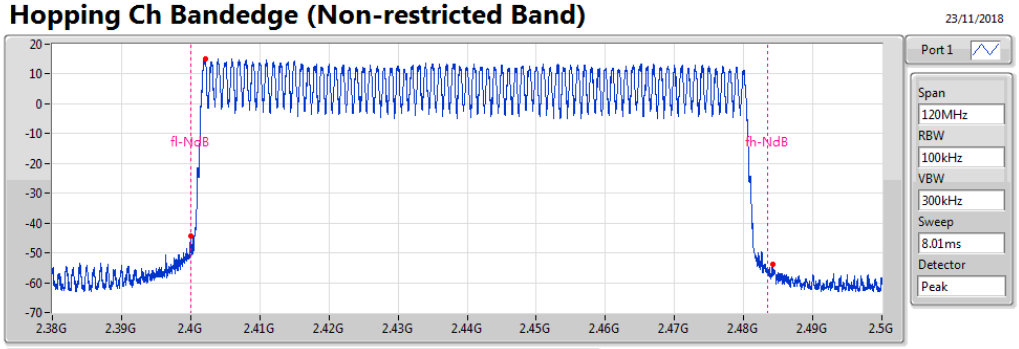


Hopping No	Limit
79	15

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

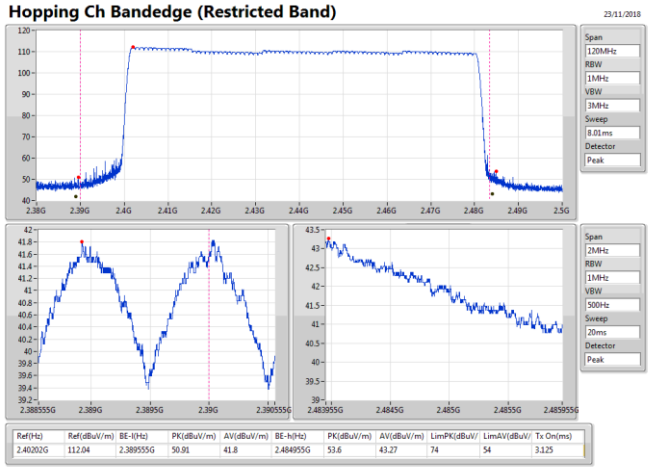


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-4.93	2.40217G	15.07	2.399995G	-44.26	2.484175G	-53.74

BT-BR(1Mbps)

2441MHz

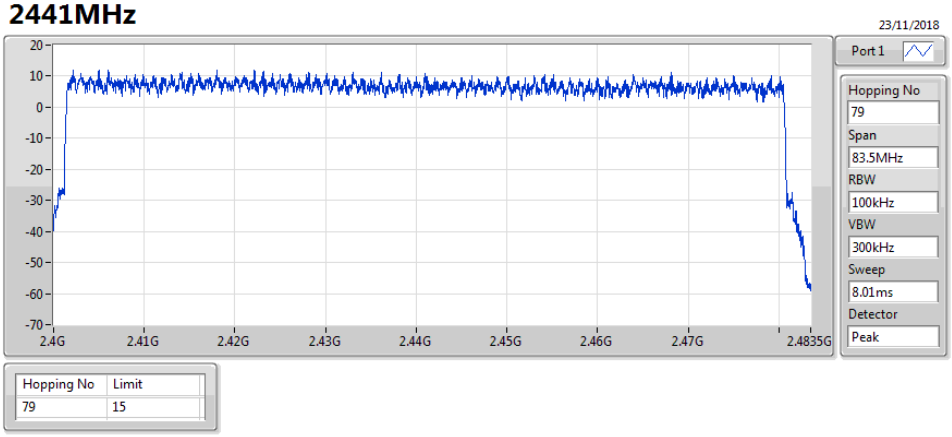
Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)
2.40202G	112.04	2.389555G	50.91	41.8	2.484955G	53.6	43.27	74	54	3.125

BT-EDR(2Mbps) **Hopping Ch**

2441MHz

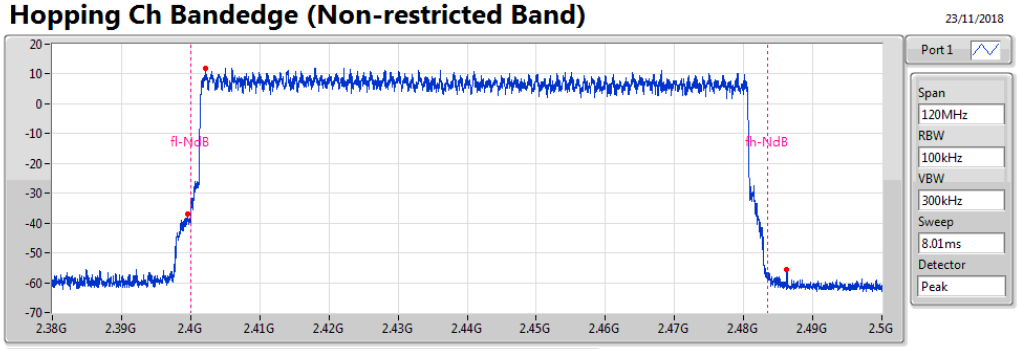


Hopping No	Limit
79	15

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

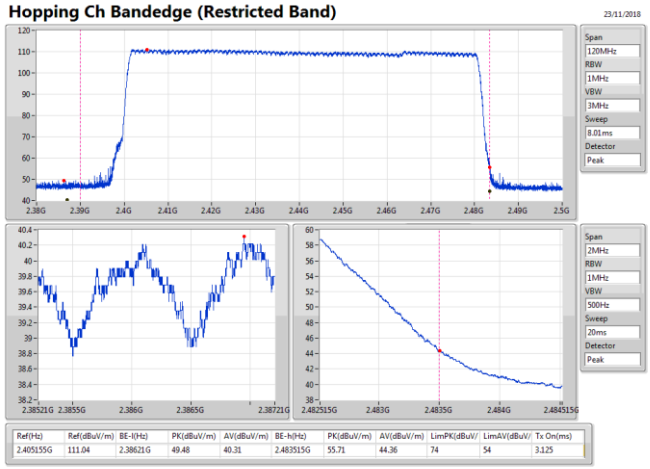


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-7.94	2.40214G	12.06	2.399605G	-36.86	2.486245G	-55.67

BT-EDR(2Mbps)

2441MHz

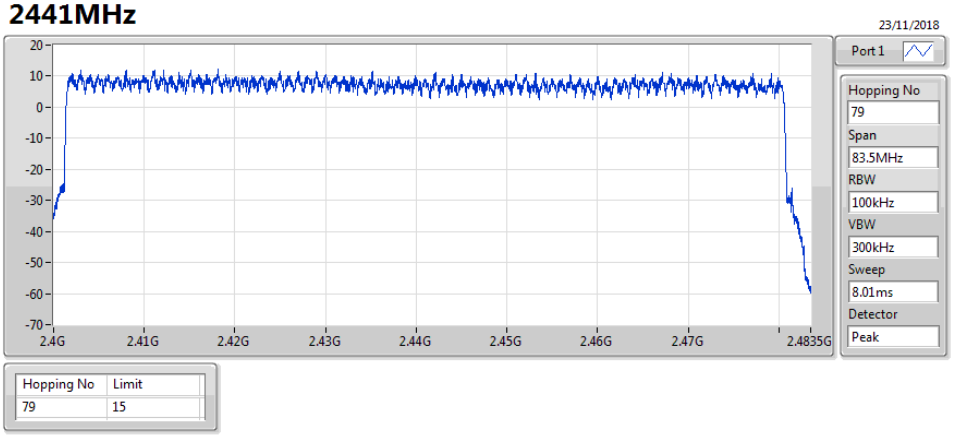
Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)
2.405155G	111.04	2.38621G	49.48	40.31	2.483515G	55.71	44.36	74	54	3.125

BT-EDR(3Mbps) **Hopping Ch**

2441MHz

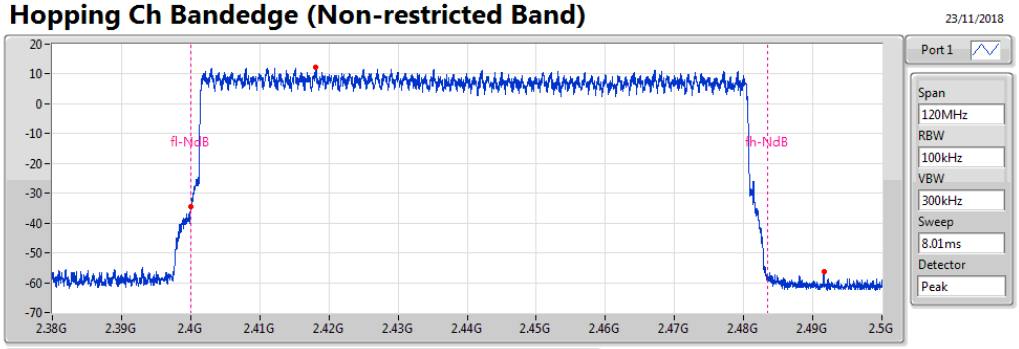


Hopping No	Limit
79	15

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

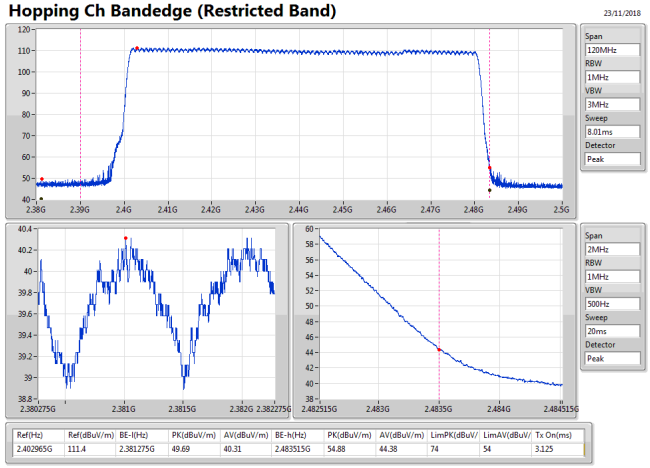


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-7.73	2.418145G	12.27	2.399995G	-34.62	2.4916G	-56.22

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)
2.402965G	111.4	2.381275G	49.69	40.31	2.483515G	54.88	44.38	74	54	3.125

Summary

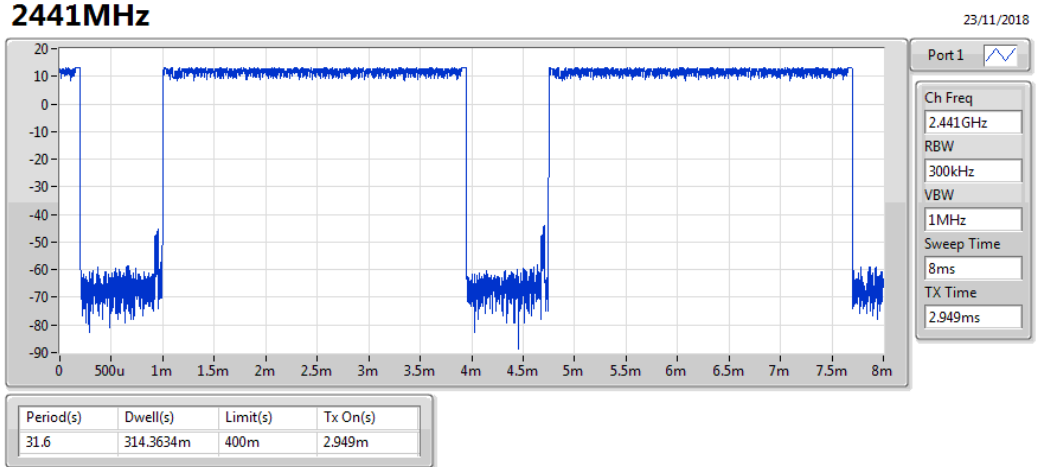
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	314.3634m
BT-EDR(2Mbps)	308.5004m
BT-EDR(3Mbps)	308.7136m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	314.3634m	400m	2.949m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.5004m	400m	2.894m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	308.7136m	400m	2.896m

BT-BR(1Mbps) **Dwell**

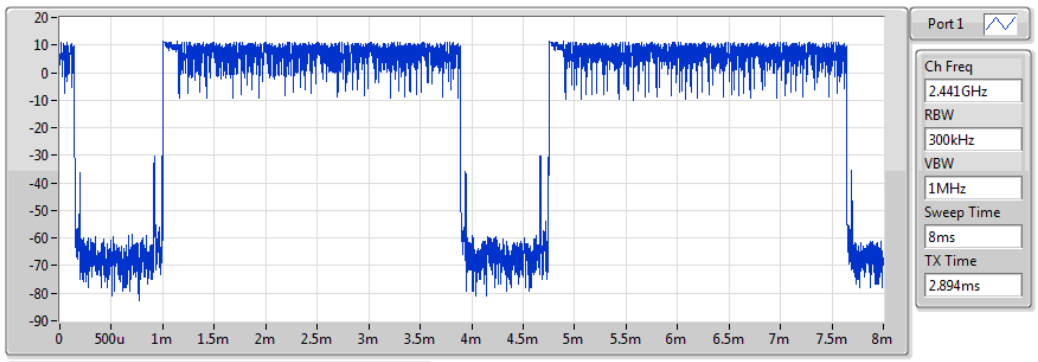
2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	314.3634m	400m	2.949m

BT-EDR(2Mbps) **Dwell**

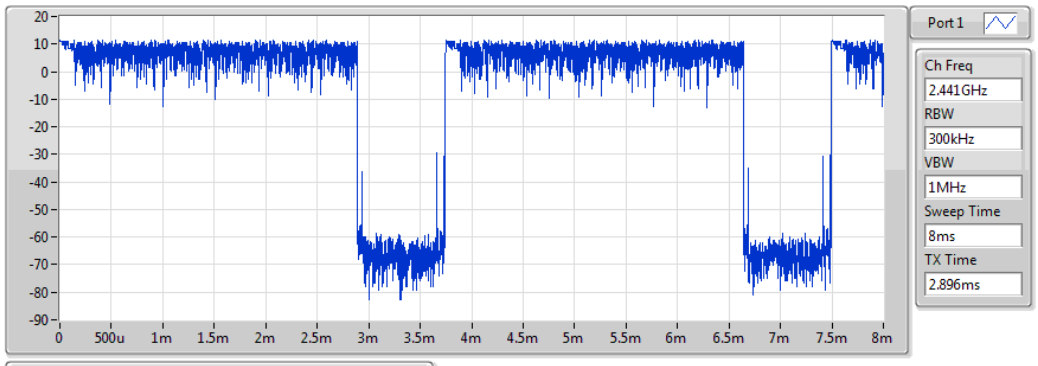
2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.5004m	400m	2.894m

BT-EDR(3Mbps) **Dwell**

2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.7136m	400m	2.896m

Summary

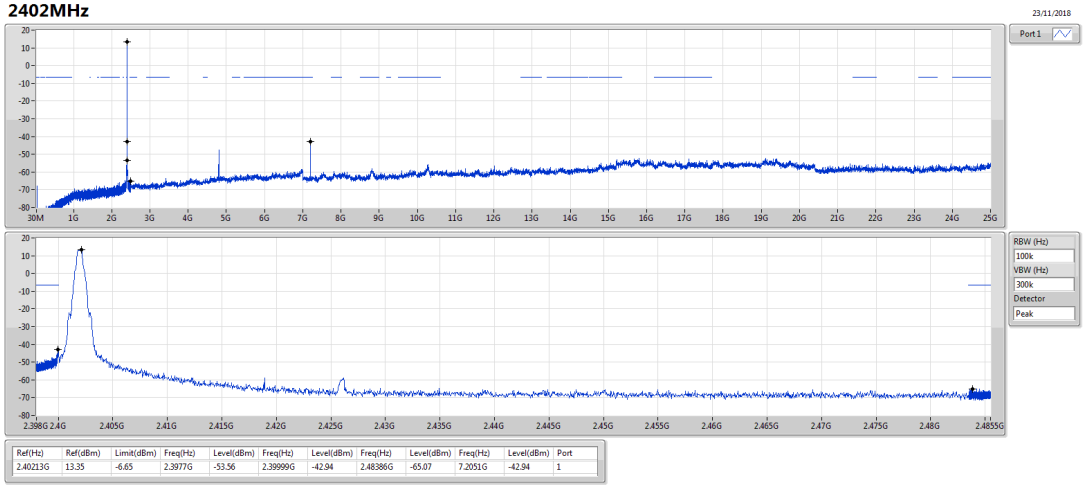
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40213G	13.35	-6.65	2.3977G	-53.56	2.39999G	-42.94	2.48386G	-65.07	7.2051G	-42.94	1
BT-EDR(2Mbps)	Pass	2.40184G	9.74	-10.26	2.398G	-43.55	2.4G	-34.17	2.48512G	-64.74	17.18184G	-53.62	1
BT-EDR(3Mbps)	Pass	2.40192G	10.60	-9.40	2.398G	-50.45	2.39995G	-34.29	2.48375G	-65.00	7.2051G	-52.01	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	2.40213G	13.35	-6.65	2.3977G	-53.56	2.39999G	-42.94	2.48386G	-65.07	7.2051G	-42.94	1
2441MHz	Pass	2.441G	12.45	-7.55	2.39326G	-63.98	2.39944G	-63.92	2.48528G	-64.14	15.32721G	-52.85	1
2480MHz	Pass	2.48016G	11.63	-8.37	2.30062G	-66.65	2.39966G	-65.18	2.48359G	-51.87	16.39383G	-53.31	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	9.74	-10.26	2.398G	-43.55	2.4G	-34.17	2.48512G	-64.74	17.18184G	-53.62	1
2441MHz	Pass	2.44117G	10.96	-9.04	2.3095G	-63.32	2.39891G	-59.58	2.48364G	-63.64	15.29906G	-52.88	1
2480MHz	Pass	2.48016G	10.33	-9.67	2.39415G	-63.89	2.39909G	-57.36	2.4837G	-54.69	16.77095G	-53.83	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40192G	10.60	-9.40	2.398G	-50.45	2.39995G	-34.29	2.48375G	-65.00	7.2051G	-52.01	1
2441MHz	Pass	2.44096G	10.01	-9.99	2.39001G	-65.00	2.39888G	-58.95	2.48507G	-64.64	16.3882G	-54.48	1
2480MHz	Pass	2.47999G	8.87	-11.13	2.39208G	-62.38	2.39917G	-56.65	2.48353G	-54.07	17.15651G	-54.18	1

BT-BR(1Mbps) **CSE NdB**

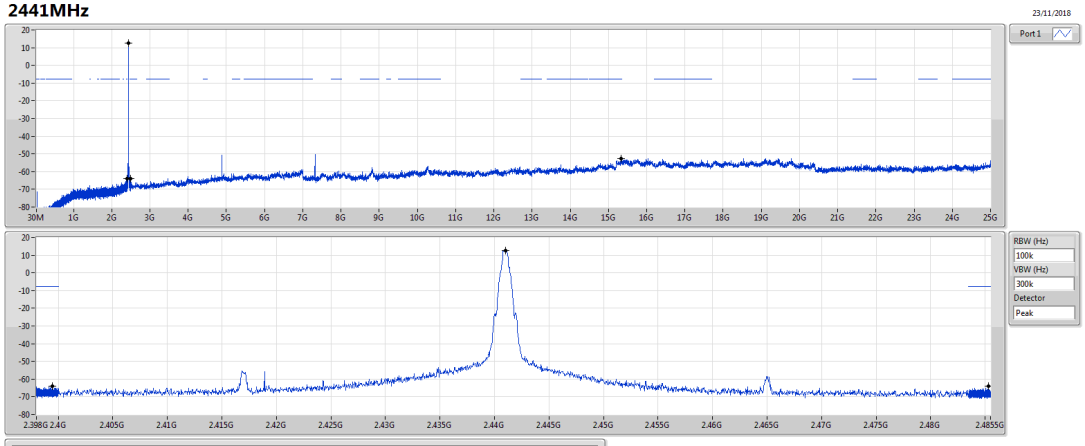
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	13.35	-6.65	2.3977G	-53.56	2.39999G	-42.94	2.48386G	-65.07	7.2051G	-42.94	1

BT-BR(1Mbps) **CSE NdB**

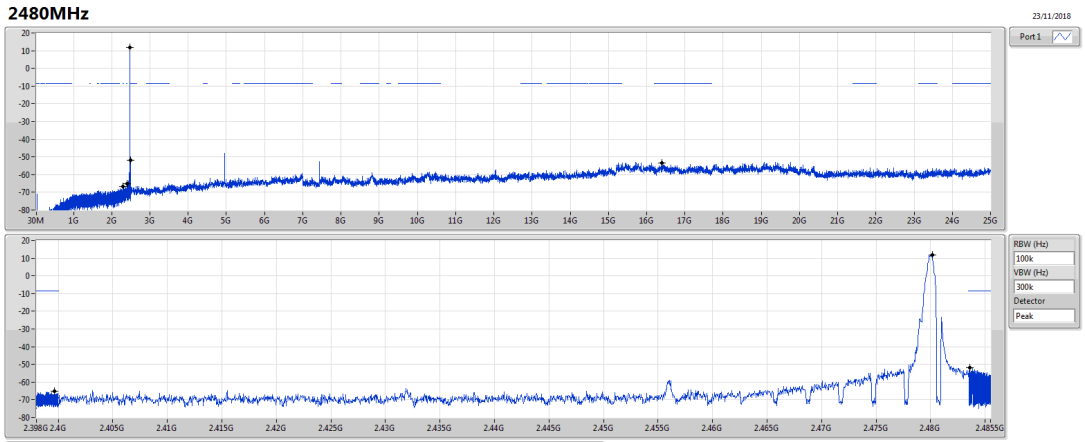
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441G	12.45	-7.55	2.39326G	-63.98	2.39944G	-63.92	2.48528G	-64.14	15.32721G	-52.85	1

BT-BR(1Mbps) **CSE NdB**

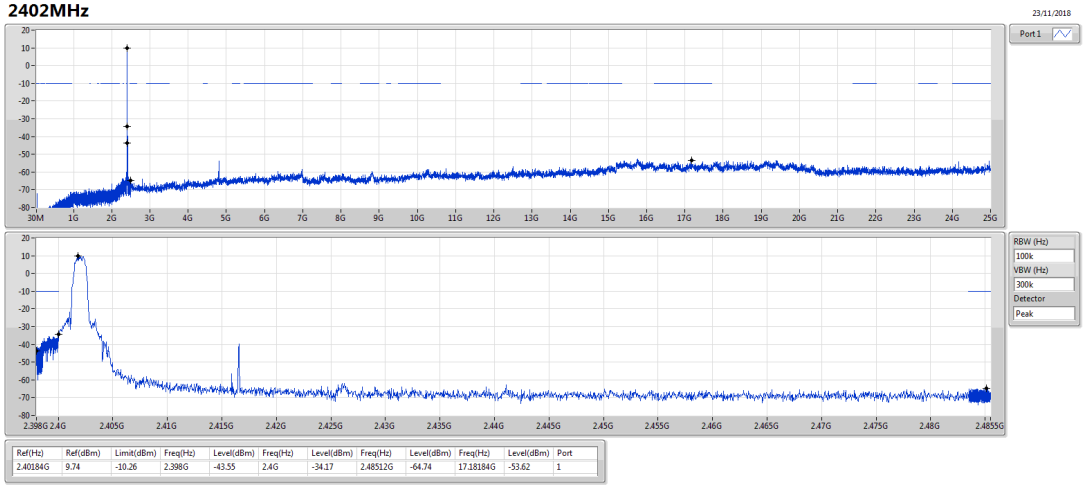
2480MHz



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	11.63	-8.37	2.30062G	-66.65	2.39966G	-65.18	2.48359G	-51.87	16.39383G	-53.31	1

BT-EDR(2Mbps) **CSE NdB**

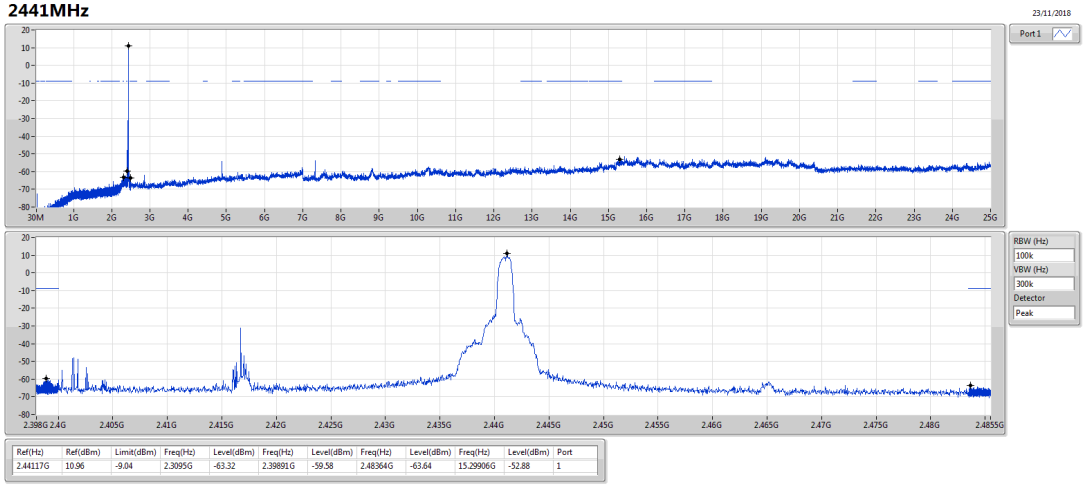
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40184G	9.74	-10.26	2.398G	-43.55	2.4G	-34.17	2.48512G	-64.74	17.18184G	-53.62	1

BT-EDR(2Mbps) **CSE NdB**

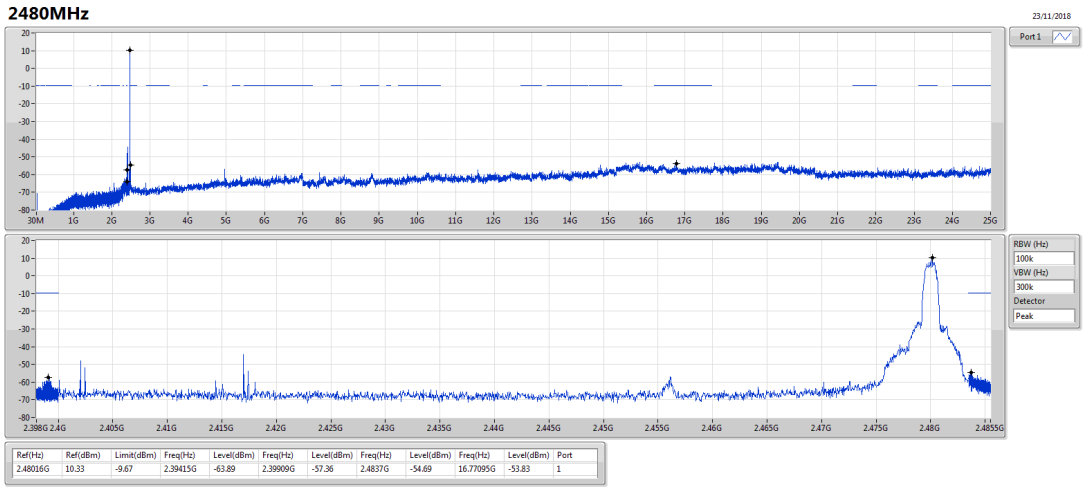
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44117G	10.96	-9.04	2.3095G	-63.32	2.39891G	-59.58	2.48364G	-63.64	15.29906G	-52.88	1

BT-EDR(2Mbps) **CSE NdB**

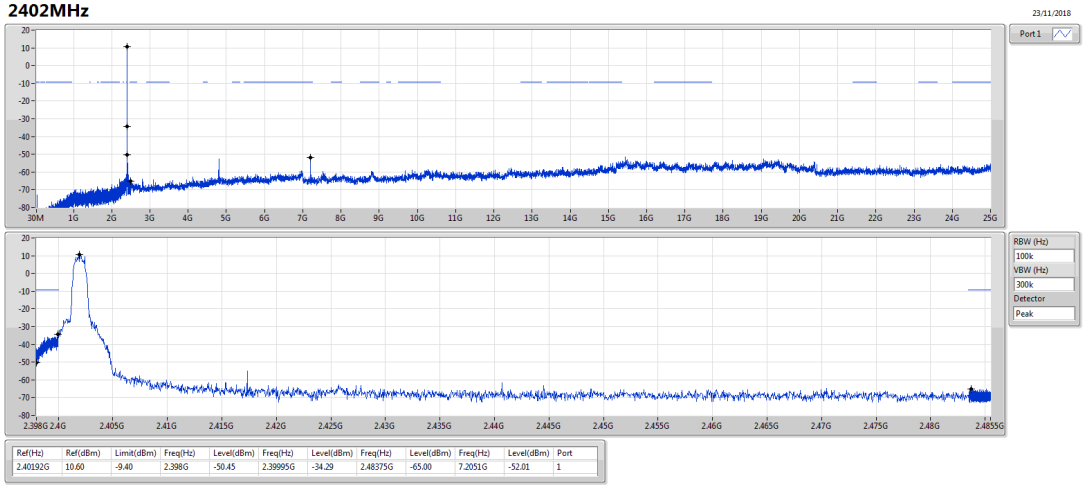
2480MHz



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	10.33	-9.67	2.39415G	-63.89	2.39909G	-57.36	2.4837G	-54.69	16.77095G	-53.83	1

BT-EDR(3Mbps) **CSE NdB**

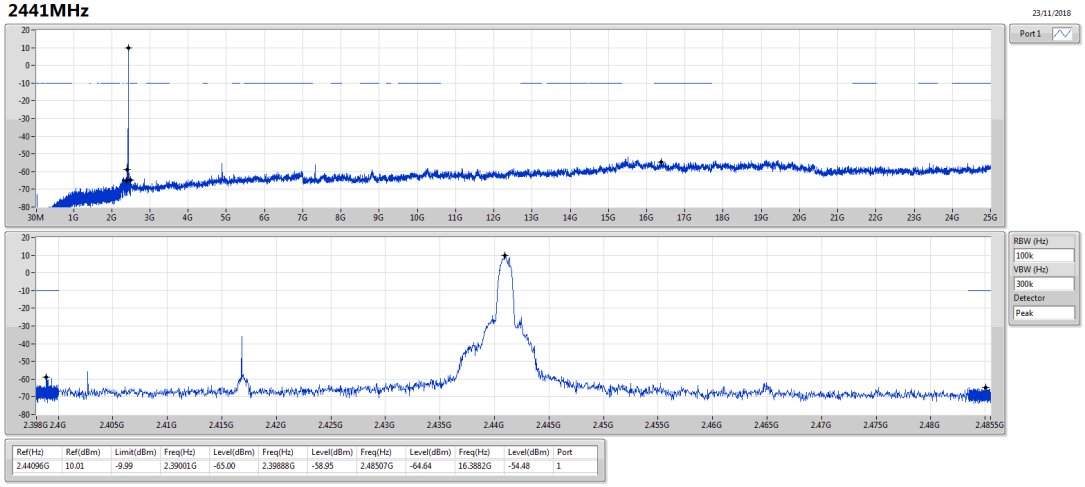
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40192G	10.60	-9.40	2.398G	-50.45	2.39995G	-34.29	2.48375G	-65.00	7.2051G	-52.01	1

BT-EDR(3Mbps) **CSE NdB**

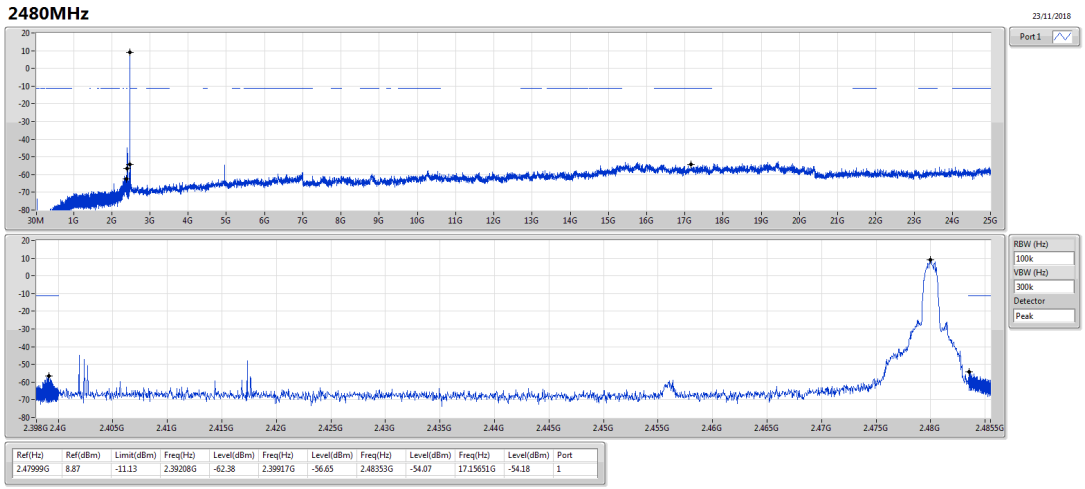
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44096G	10.01	-9.99	2.39001G	-65.00	2.39888G	-58.95	2.48507G	-64.64	16.3882G	-54.48	1

BT-EDR(3Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	8.87	-11.13	2.39208G	-62.38	2.39917G	-56.65	2.48353G	-54.07	17.15651G	-54.18	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	30M	22.16	40.00	-17.84	-13.40	3	Vertical	360	3.00	-

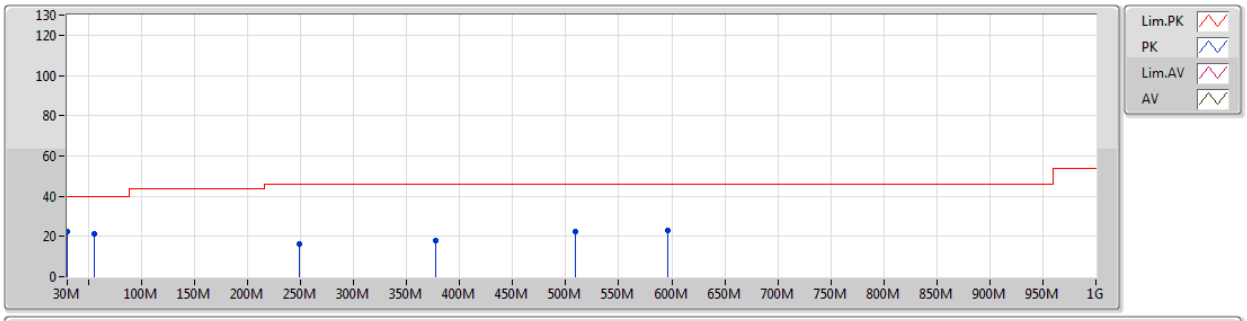
Result

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	30M	22.16	40.00	-17.84	-13.40	3	Vertical	360	3.00	-
2441MHz	Pass	PK	55.22M	21.46	40.00	-18.54	-25.17	3	Vertical	360	3.00	-
2441MHz	Pass	PK	249.22M	16.17	46.00	-29.83	-17.26	3	Vertical	360	3.00	-
2441MHz	Pass	PK	377.26M	17.82	46.00	-28.18	-14.79	3	Vertical	360	3.00	-
2441MHz	Pass	PK	509.18M	22.50	46.00	-23.50	-12.12	3	Vertical	360	3.00	-
2441MHz	Pass	PK	596.48M	22.95	46.00	-23.05	-10.91	3	Vertical	360	3.00	-
2441MHz	Pass	PK	30M	19.75	40.00	-20.25	-13.40	3	Horizontal	0	3.00	-
2441MHz	Pass	PK	132.82M	13.46	43.50	-30.04	-19.19	3	Horizontal	0	3.00	-
2441MHz	Pass	PK	262.8M	16.36	46.00	-29.64	-15.85	3	Horizontal	0	3.00	-
2441MHz	Pass	PK	396.66M	18.46	46.00	-27.54	-14.16	3	Horizontal	0	3.00	-
2441MHz	Pass	PK	485.9M	20.20	46.00	-25.80	-12.30	3	Horizontal	0	3.00	-
2441MHz	Pass	PK	584.84M	21.83	46.00	-24.17	-10.99	3	Horizontal	0	3.00	-

BT-BR(1Mbps)

23/01/2019

2441MHz_DC Power Supply

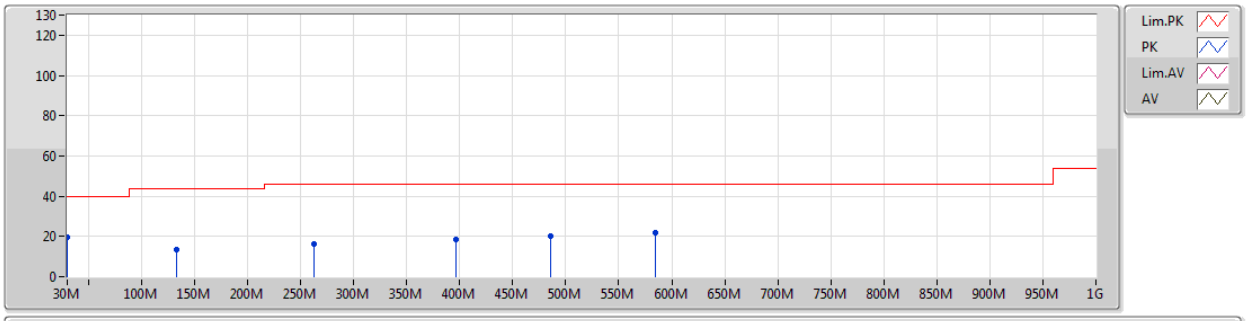


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	30M	22.16	40.00	-17.84	-13.40	3	Vertical	360	3.00	-
PK	55.22M	21.46	40.00	-18.54	-25.17	3	Vertical	360	3.00	-
PK	249.22M	16.17	46.00	-29.83	-17.26	3	Vertical	360	3.00	-
PK	377.26M	17.82	46.00	-28.18	-14.79	3	Vertical	360	3.00	-
PK	509.18M	22.50	46.00	-23.50	-12.12	3	Vertical	360	3.00	-
PK	596.48M	22.95	46.00	-23.05	-10.91	3	Vertical	360	3.00	-

BT-BR(1Mbps)

2441MHz_DC Power Supply

23/01/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	30M	19.75	40.00	-20.25	-13.40	3	Horizontal	0	3.00	-
PK	132.82M	13.46	43.50	-30.04	-19.19	3	Horizontal	0	3.00	-
PK	262.8M	16.36	46.00	-29.64	-15.85	3	Horizontal	0	3.00	-
PK	396.66M	18.46	46.00	-27.54	-14.16	3	Horizontal	0	3.00	-
PK	485.9M	20.20	46.00	-25.80	-12.30	3	Horizontal	0	3.00	-
PK	584.84M	21.83	46.00	-24.17	-10.99	3	Horizontal	0	3.00	-

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	AV	2.4948G	44.51	54.00	-9.49	31.16	3	Vertical	225	1.62	-
BT-2EDR_Nss1_1TX	Pass	AV	2.4835G	44.47	54.00	-9.53	31.11	3	Vertical	208	2.99	-
BT-3EDR_Nss1_1TX	Pass	AV	2.484G	44.19	54.00	-9.81	31.12	3	Vertical	200	2.99	-

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	2.352G	43.53	54.00	-10.47	30.65	3	Vertical	217	2.21	-
2402MHz	Pass	AV	2.402G	108.15	Inf	-Inf	30.82	3	Vertical	217	2.21	-
2402MHz	Pass	PK	2.3524G	55.86	74.00	-18.14	30.65	3	Vertical	217	2.21	-
2402MHz	Pass	PK	2.402G	108.67	Inf	-Inf	30.82	3	Vertical	217	2.21	-
2402MHz	Pass	AV	2.352G	43.35	54.00	-10.65	30.65	3	Horizontal	227	1.06	-
2402MHz	Pass	AV	2.402G	101.34	Inf	-Inf	30.82	3	Horizontal	227	1.06	-
2402MHz	Pass	PK	2.36G	55.76	74.00	-18.24	30.67	3	Horizontal	227	1.06	-
2402MHz	Pass	PK	2.4018G	101.90	Inf	-Inf	30.82	3	Horizontal	227	1.06	-
2402MHz	Pass	AV	4.80436G	31.77	54.00	-22.23	2.08	3	Vertical	232	1.01	-
2402MHz	Pass	PK	4.7983G	44.40	74.00	-29.60	2.07	3	Vertical	232	1.01	-
2402MHz	Pass	AV	4.79836G	31.85	54.00	-22.15	2.07	3	Horizontal	205	1.50	-
2402MHz	Pass	PK	4.7959G	49.46	74.00	-24.54	2.06	3	Horizontal	205	1.50	-
2441MHz	Pass	AV	2.3746G	43.07	54.00	-10.93	30.72	3	Vertical	358	1.30	-
2441MHz	Pass	AV	2.441G	102.02	Inf	-Inf	30.95	3	Vertical	358	1.30	-
2441MHz	Pass	AV	2.497G	43.88	54.00	-10.12	31.16	3	Vertical	358	1.30	-
2441MHz	Pass	PK	2.3606G	55.22	74.00	-18.78	30.67	3	Vertical	358	1.30	-
2441MHz	Pass	PK	2.441G	102.47	Inf	-Inf	30.95	3	Vertical	358	1.30	-
2441MHz	Pass	PK	2.499G	55.60	74.00	-18.40	31.17	3	Vertical	358	1.30	-
2441MHz	Pass	AV	2.367G	42.90	54.00	-11.10	30.70	3	Horizontal	224	1.04	-
2441MHz	Pass	AV	2.441G	98.34	Inf	-Inf	30.95	3	Horizontal	224	1.04	-
2441MHz	Pass	AV	2.4866G	43.69	54.00	-10.31	31.12	3	Horizontal	224	1.04	-
2441MHz	Pass	PK	2.3666G	55.52	74.00	-18.48	30.70	3	Horizontal	224	1.04	-
2441MHz	Pass	PK	2.441G	98.81	Inf	-Inf	30.95	3	Horizontal	224	1.04	-
2441MHz	Pass	PK	2.4986G	56.02	74.00	-17.98	31.17	3	Horizontal	224	1.04	-
2441MHz	Pass	AV	4.88212G	31.62	54.00	-22.38	2.27	3	Vertical	192	1.00	-
2441MHz	Pass	PK	4.8931G	43.89	74.00	-30.11	2.31	3	Vertical	192	1.00	-
2441MHz	Pass	AV	4.89016G	31.22	54.00	-22.78	2.29	3	Horizontal	211	2.46	-
2441MHz	Pass	PK	4.88728G	43.94	74.00	-30.06	2.29	3	Horizontal	211	2.46	-
2480MHz	Pass	AV	2.48G	103.77	Inf	-Inf	31.09	3	Vertical	225	1.62	-
2480MHz	Pass	AV	2.4948G	44.51	54.00	-9.49	31.16	3	Vertical	225	1.62	-
2480MHz	Pass	PK	2.48G	104.25	Inf	-Inf	31.09	3	Vertical	225	1.62	-
2480MHz	Pass	PK	2.494G	56.02	74.00	-17.98	31.15	3	Vertical	225	1.62	-
2480MHz	Pass	AV	2.48G	98.14	Inf	-Inf	31.09	3	Horizontal	155	1.50	-
2480MHz	Pass	AV	2.4892G	43.97	54.00	-10.03	31.13	3	Horizontal	155	1.50	-
2480MHz	Pass	PK	2.48G	98.70	Inf	-Inf	31.09	3	Horizontal	155	1.50	-
2480MHz	Pass	PK	2.4954G	57.24	74.00	-16.76	31.16	3	Horizontal	155	1.50	-
2480MHz	Pass	AV	4.95964G	31.58	54.00	-22.42	2.47	3	Vertical	187	1.50	-
2480MHz	Pass	PK	4.9648G	43.75	74.00	-30.25	2.48	3	Vertical	187	1.50	-
2480MHz	Pass	AV	4.9732G	30.85	54.00	-23.15	2.50	3	Horizontal	344	1.50	-
2480MHz	Pass	PK	4.95118G	43.45	74.00	-30.55	2.45	3	Horizontal	344	1.50	-
BT-2EDR_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.369G	43.06	54.00	-10.94	30.70	3	Vertical	352	1.50	-
2402MHz	Pass	AV	2.402G	99.56	Inf	-Inf	30.82	3	Vertical	352	1.50	-
2402MHz	Pass	PK	2.3878G	55.67	74.00	-18.33	30.77	3	Vertical	352	1.50	-
2402MHz	Pass	PK	2.4022G	103.22	Inf	-Inf	30.82	3	Vertical	352	1.50	-
2402MHz	Pass	AV	2.384G	42.91	54.00	-11.09	30.76	3	Horizontal	222	1.28	-
2402MHz	Pass	AV	2.402G	95.46	Inf	-Inf	30.82	3	Horizontal	222	1.28	-

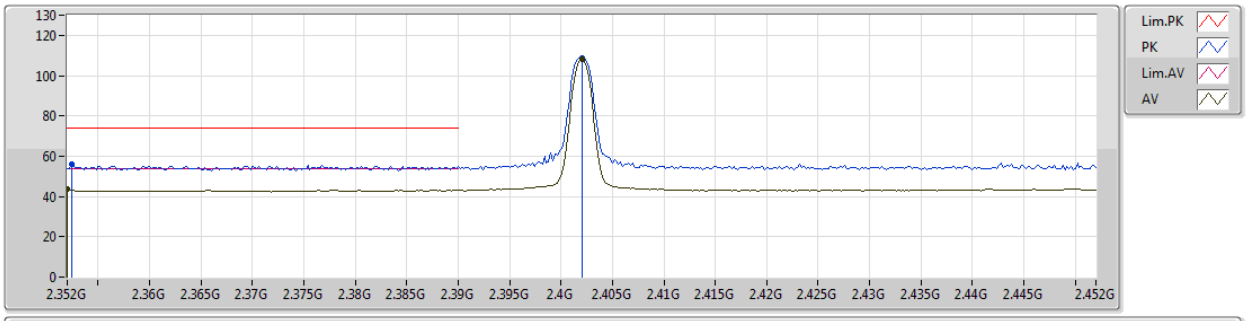
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3656G	56.36	74.00	-17.64	30.69	3	Horizontal	222	1.28	-
2402MHz	Pass	PK	2.4022G	99.21	Inf	-Inf	30.82	3	Horizontal	222	1.28	-
2441MHz	Pass	AV	2.351G	43.07	54.00	-10.93	30.64	3	Vertical	355	1.29	-
2441MHz	Pass	AV	2.441G	98.40	Inf	-Inf	30.95	3	Vertical	355	1.29	-
2441MHz	Pass	AV	2.4998G	43.68	54.00	-10.32	31.17	3	Vertical	355	1.29	-
2441MHz	Pass	PK	2.3454G	55.82	74.00	-18.18	30.62	3	Vertical	355	1.29	-
2441MHz	Pass	PK	2.441G	102.12	Inf	-Inf	30.95	3	Vertical	355	1.29	-
2441MHz	Pass	PK	2.4946G	56.23	74.00	-17.77	31.15	3	Vertical	355	1.29	-
2441MHz	Pass	AV	2.3738G	42.97	54.00	-11.03	30.72	3	Horizontal	219	1.05	-
2441MHz	Pass	AV	2.441G	95.34	Inf	-Inf	30.95	3	Horizontal	219	1.05	-
2441MHz	Pass	AV	2.4862G	43.73	54.00	-10.27	31.12	3	Horizontal	219	1.05	-
2441MHz	Pass	PK	2.389G	55.46	74.00	-18.54	30.77	3	Horizontal	219	1.05	-
2441MHz	Pass	PK	2.441G	98.99	Inf	-Inf	30.95	3	Horizontal	219	1.05	-
2441MHz	Pass	PK	2.4906G	55.62	74.00	-18.38	31.13	3	Horizontal	219	1.05	-
2480MHz	Pass	AV	2.48G	101.94	Inf	-Inf	31.09	3	Vertical	208	2.99	-
2480MHz	Pass	AV	2.4835G	44.47	54.00	-9.53	31.11	3	Vertical	208	2.99	-
2480MHz	Pass	PK	2.4802G	105.61	Inf	-Inf	31.09	3	Vertical	208	2.99	-
2480MHz	Pass	PK	2.49G	56.59	74.00	-17.41	31.13	3	Vertical	208	2.99	-
2480MHz	Pass	AV	2.48G	93.88	Inf	-Inf	31.09	3	Horizontal	151	1.49	-
2480MHz	Pass	AV	2.4848G	43.84	54.00	-10.16	31.12	3	Horizontal	151	1.49	-
2480MHz	Pass	PK	2.4802G	97.59	Inf	-Inf	31.09	3	Horizontal	151	1.49	-
2480MHz	Pass	PK	2.4846G	56.03	74.00	-17.97	31.12	3	Horizontal	151	1.49	-
BT-3EDR_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3668G	43.01	54.00	-10.99	30.70	3	Vertical	348	1.50	-
2402MHz	Pass	AV	2.402G	99.82	Inf	-Inf	30.82	3	Vertical	348	1.50	-
2402MHz	Pass	PK	2.3846G	56.90	74.00	-17.10	30.76	3	Vertical	348	1.50	-
2402MHz	Pass	PK	2.402G	103.68	Inf	-Inf	30.82	3	Vertical	348	1.50	-
2402MHz	Pass	AV	2.3862G	43.07	54.00	-10.93	30.76	3	Horizontal	216	1.28	-
2402MHz	Pass	AV	2.402G	95.93	Inf	-Inf	30.82	3	Horizontal	216	1.28	-
2402MHz	Pass	PK	2.3776G	55.59	74.00	-18.41	30.73	3	Horizontal	216	1.28	-
2402MHz	Pass	PK	2.402G	99.74	Inf	-Inf	30.82	3	Horizontal	216	1.28	-
2441MHz	Pass	AV	2.3674G	42.95	54.00	-11.05	30.70	3	Vertical	348	1.50	-
2441MHz	Pass	AV	2.441G	98.12	Inf	-Inf	30.95	3	Vertical	348	1.50	-
2441MHz	Pass	AV	2.499G	43.72	54.00	-10.28	31.17	3	Vertical	348	1.50	-
2441MHz	Pass	PK	2.383G	55.94	74.00	-18.06	30.75	3	Vertical	348	1.50	-
2441MHz	Pass	PK	2.441G	101.97	Inf	-Inf	30.95	3	Vertical	348	1.50	-
2441MHz	Pass	PK	2.4986G	56.04	74.00	-17.96	31.17	3	Vertical	348	1.50	-
2441MHz	Pass	AV	2.385G	42.97	54.00	-11.03	30.76	3	Horizontal	212	1.04	-
2441MHz	Pass	AV	2.441G	95.25	Inf	-Inf	30.95	3	Horizontal	212	1.04	-
2441MHz	Pass	AV	2.499G	43.70	54.00	-10.30	31.17	3	Horizontal	212	1.04	-
2441MHz	Pass	PK	2.3626G	55.27	74.00	-18.73	30.68	3	Horizontal	212	1.04	-
2441MHz	Pass	PK	2.441G	99.07	Inf	-Inf	30.95	3	Horizontal	212	1.04	-
2441MHz	Pass	PK	2.4934G	55.24	74.00	-18.76	31.14	3	Horizontal	212	1.04	-
2480MHz	Pass	AV	2.48G	101.92	Inf	-Inf	31.09	3	Vertical	200	2.99	-
2480MHz	Pass	AV	2.484G	44.19	54.00	-9.81	31.12	3	Vertical	200	2.99	-
2480MHz	Pass	PK	2.48G	105.60	Inf	-Inf	31.09	3	Vertical	200	2.99	-
2480MHz	Pass	PK	2.4842G	56.34	74.00	-17.66	31.12	3	Vertical	200	2.99	-
2480MHz	Pass	AV	2.48G	94.06	Inf	-Inf	31.09	3	Horizontal	143	1.50	-
2480MHz	Pass	AV	2.4958G	44.04	54.00	-9.96	31.16	3	Horizontal	143	1.50	-

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	2.48G	97.83	Inf	-Inf	31.09	3	Horizontal	143	1.50	-
2480MHz	Pass	PK	2.4962G	56.11	74.00	-17.89	31.16	3	Horizontal	143	1.50	-

BT-BR(1Mbps)

2402MHz_TX

22/01/2019

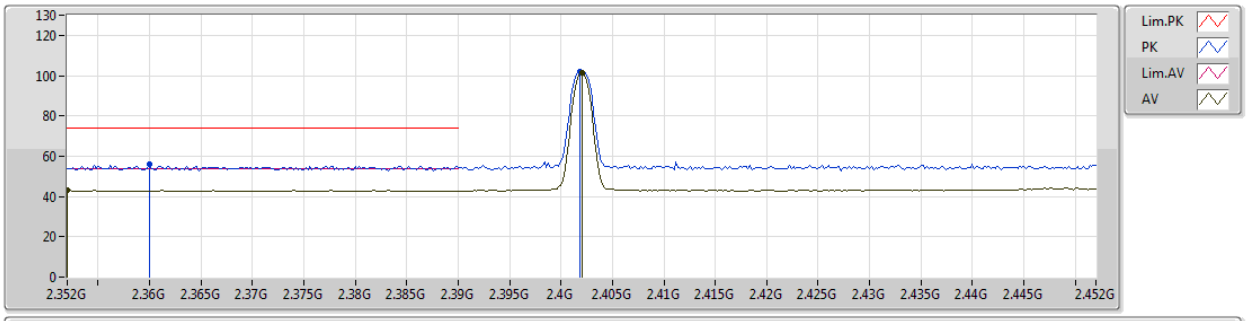


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.352G	43.53	54.00	-10.47	30.65	3	Vertical	217	2.21	-
AV	2.402G	108.15	Inf	-Inf	30.82	3	Vertical	217	2.21	-
PK	2.3524G	55.86	74.00	-18.14	30.65	3	Vertical	217	2.21	-
PK	2.402G	108.67	Inf	-Inf	30.82	3	Vertical	217	2.21	-

BT-BR(1Mbps)

2402MHz_TX

22/01/2019

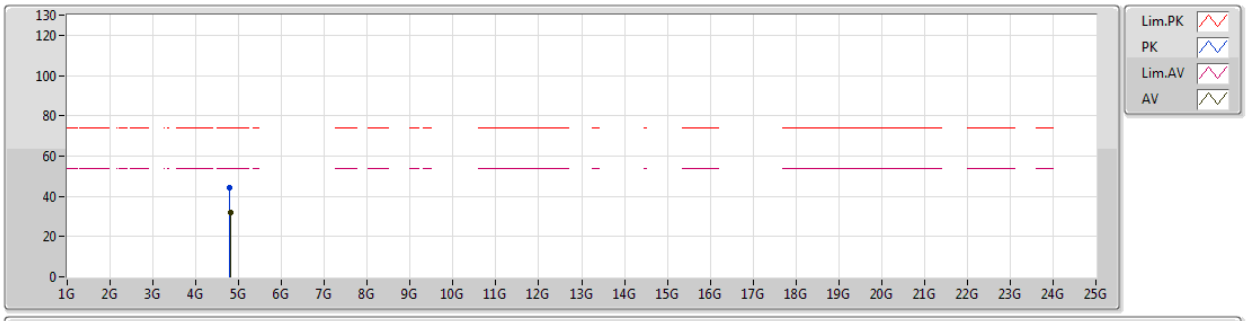


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.352G	43.35	54.00	-10.65	30.65	3	Horizontal	227	1.06	-
AV	2.402G	101.34	Inf	-Inf	30.82	3	Horizontal	227	1.06	-
PK	2.36G	55.76	74.00	-18.24	30.67	3	Horizontal	227	1.06	-
PK	2.4018G	101.90	Inf	-Inf	30.82	3	Horizontal	227	1.06	-

BT-BR(1Mbps)

2402MHz_TX

22/01/2019

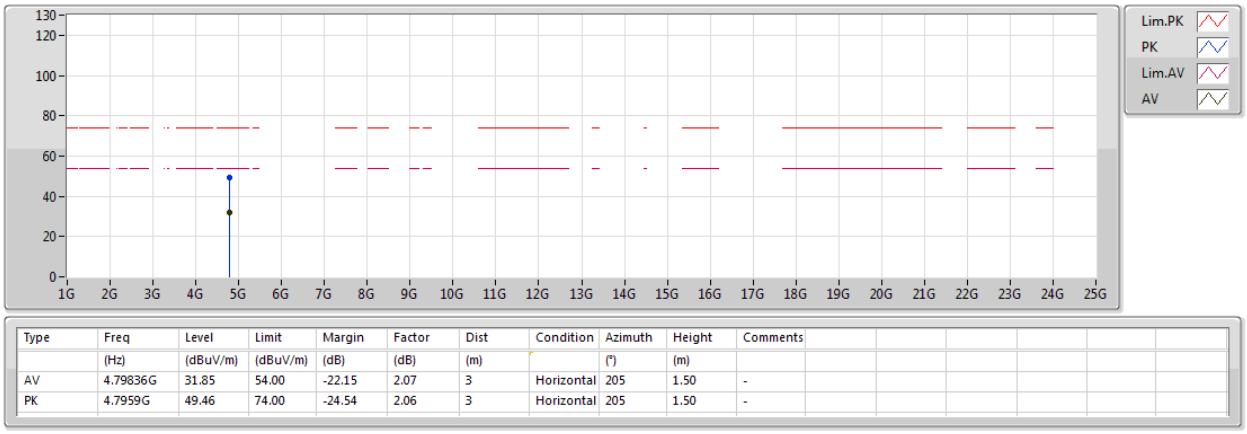


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80436G	31.77	54.00	-22.23	2.08	3	Vertical	232	1.01	-
PK	4.7983G	44.40	74.00	-29.60	2.07	3	Vertical	232	1.01	-

BT-BR(1Mbps)

2402MHz_TX

22/01/2019

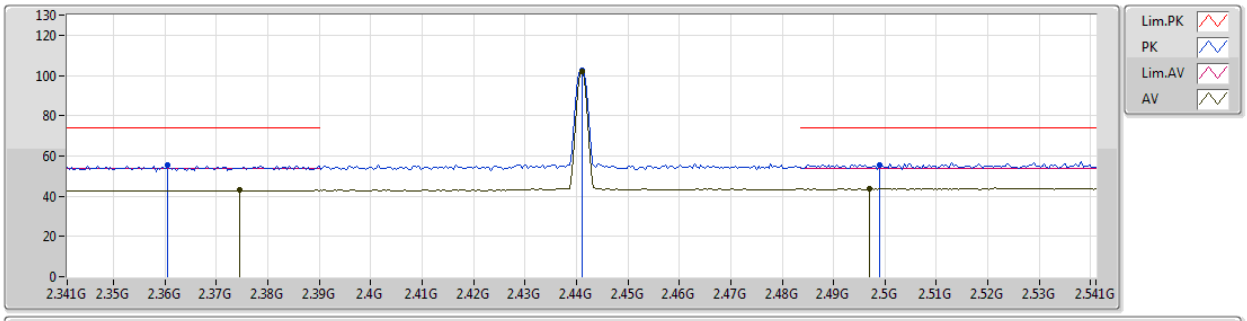


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.79836G	31.85	54.00	-22.15	2.07	3	Horizontal	205	1.50	-
PK	4.7959G	49.46	74.00	-24.54	2.06	3	Horizontal	205	1.50	-

BT-BR(1Mbps)

2441MHz_TX

22/01/2019

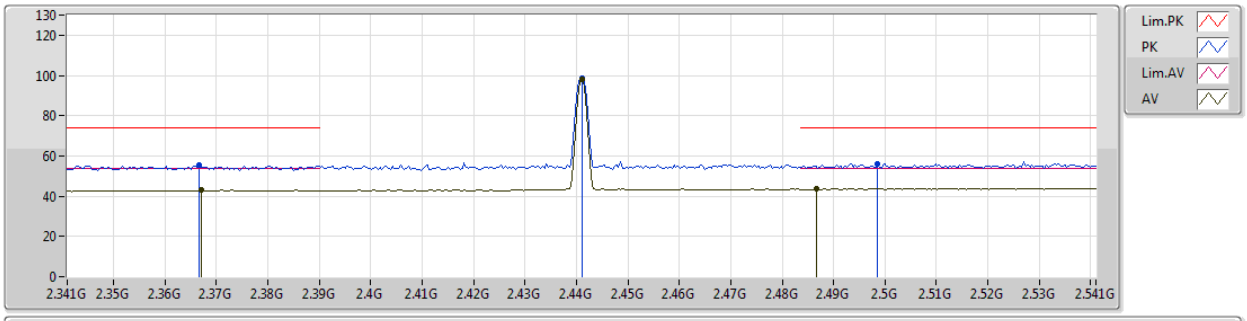


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3746G	43.07	54.00	-10.93	30.72	3	Vertical	358	1.30	-
AV	2.441G	102.02	Inf	-Inf	30.95	3	Vertical	358	1.30	-
AV	2.497G	43.88	54.00	-10.12	31.16	3	Vertical	358	1.30	-
PK	2.3606G	55.22	74.00	-18.78	30.67	3	Vertical	358	1.30	-
PK	2.441G	102.47	Inf	-Inf	30.95	3	Vertical	358	1.30	-
PK	2.499G	55.60	74.00	-18.40	31.17	3	Vertical	358	1.30	-

BT-BR(1Mbps)

2441MHz_TX

22/01/2019

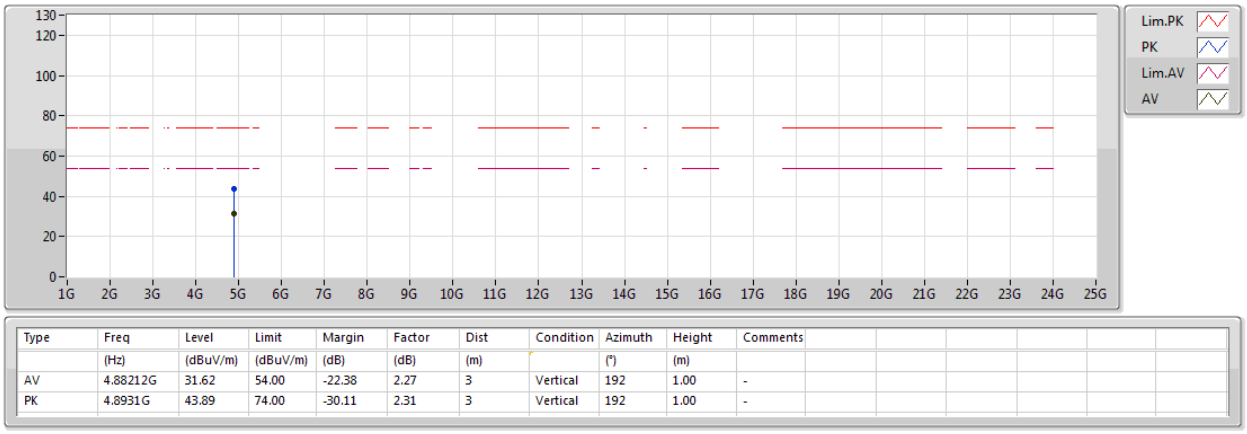


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.367G	42.90	54.00	-11.10	30.70	3	Horizontal	224	1.04	-
AV	2.441G	98.34	Inf	-Inf	30.95	3	Horizontal	224	1.04	-
AV	2.4866G	43.69	54.00	-10.31	31.12	3	Horizontal	224	1.04	-
PK	2.3666G	55.52	74.00	-18.48	30.70	3	Horizontal	224	1.04	-
PK	2.441G	98.81	Inf	-Inf	30.95	3	Horizontal	224	1.04	-
PK	2.4986G	56.02	74.00	-17.98	31.17	3	Horizontal	224	1.04	-

BT-BR(1Mbps)

2441MHz_TX

22/01/2019

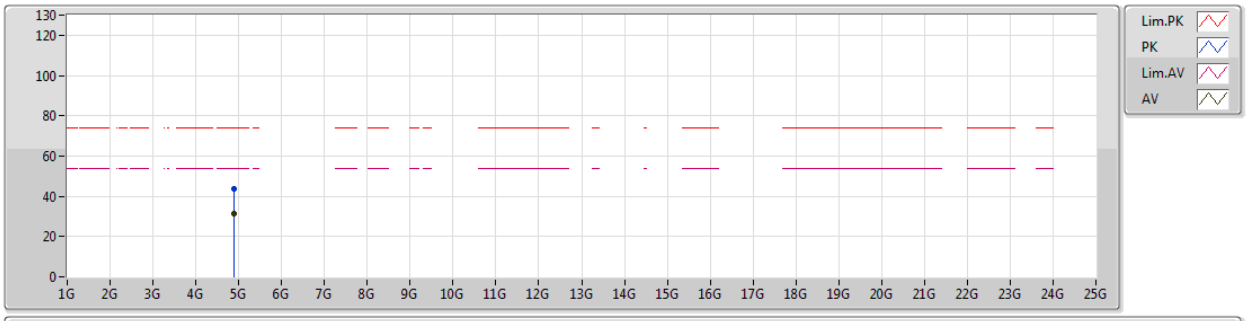


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88212G	31.62	54.00	-22.38	2.27	3	Vertical	192	1.00	-
PK	4.8931G	43.89	74.00	-30.11	2.31	3	Vertical	192	1.00	-

BT-BR(1Mbps)

2441MHz_TX

22/01/2019

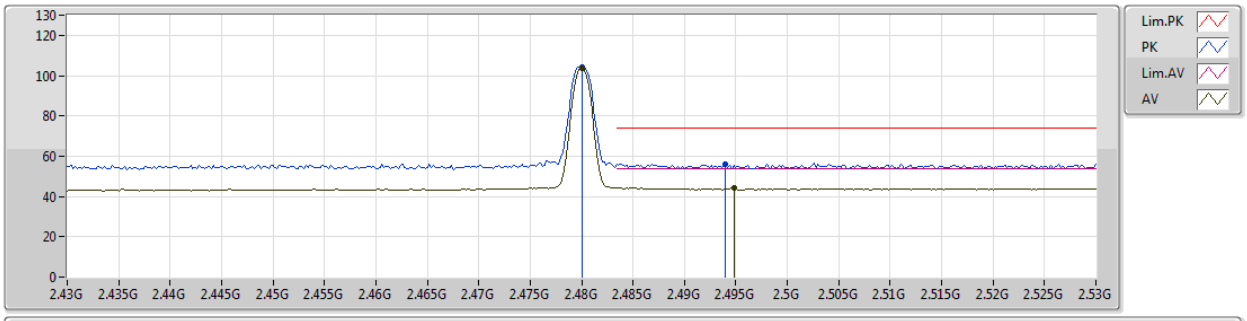


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.89016G	31.22	54.00	-22.78	2.29	3	Horizontal	211	2.46	-
PK	4.88728G	43.94	74.00	-30.06	2.29	3	Horizontal	211	2.46	-

BT-BR(1Mbps)

2480MHz_TX

22/01/2019

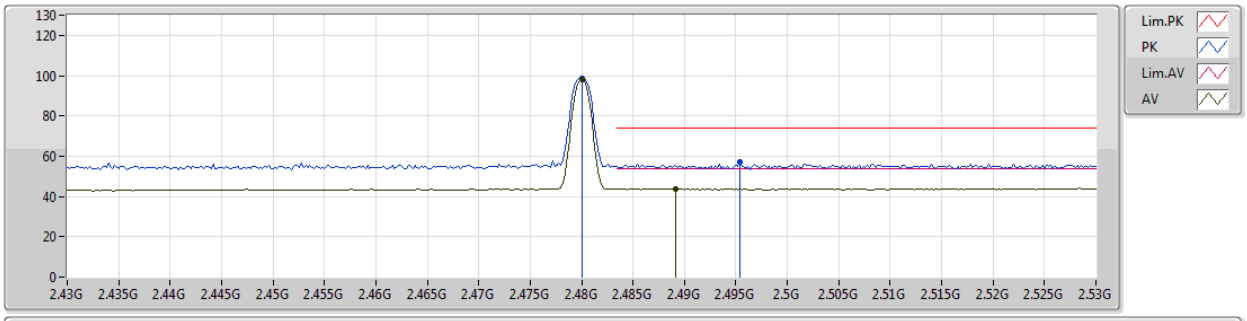


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	103.77	Inf	-Inf	31.09	3	Vertical	225	1.62	-
AV	2.4948G	44.51	54.00	-9.49	31.16	3	Vertical	225	1.62	-
PK	2.48G	104.25	Inf	-Inf	31.09	3	Vertical	225	1.62	-
PK	2.494G	56.02	74.00	-17.98	31.15	3	Vertical	225	1.62	-

BT-BR(1Mbps)

2480MHz_TX

22/01/2019

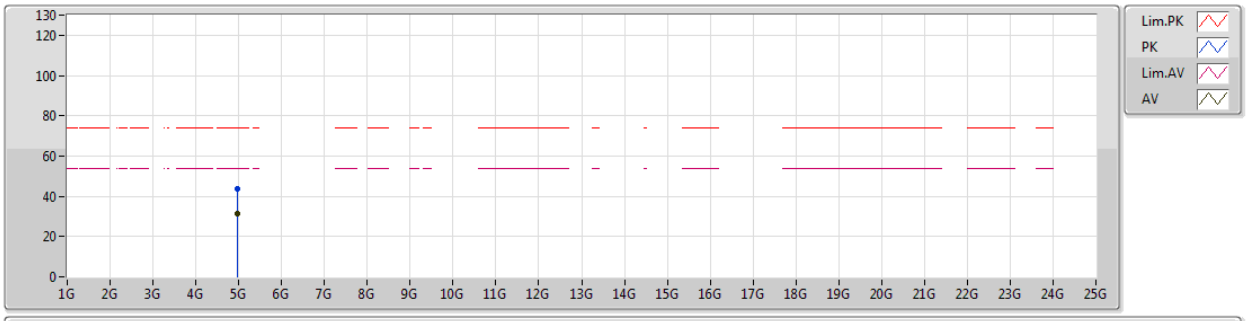


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	98.14	Inf	-Inf	31.09	3	Horizontal	155	1.50	-
AV	2.4892G	43.97	54.00	-10.03	31.13	3	Horizontal	155	1.50	-
PK	2.48G	98.70	Inf	-Inf	31.09	3	Horizontal	155	1.50	-
PK	2.4954G	57.24	74.00	-16.76	31.16	3	Horizontal	155	1.50	-

BT-BR(1Mbps)

2480MHz_TX

22/01/2019

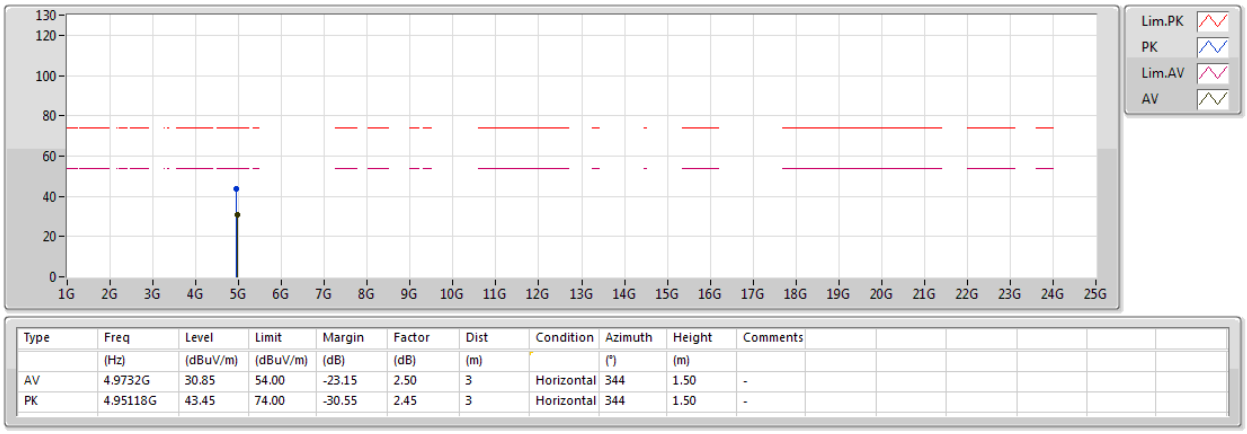


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.95964G	31.58	54.00	-22.42	2.47	3	Vertical	187	1.50	-
PK	4.9648G	43.75	74.00	-30.25	2.48	3	Vertical	187	1.50	-

BT-BR(1Mbps)

2480MHz_TX

22/01/2019

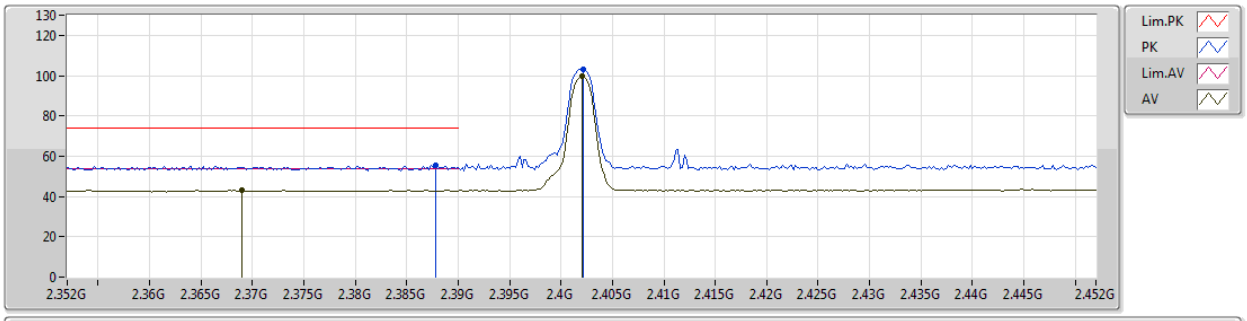


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.9732G	30.85	54.00	-23.15	2.50	3	Horizontal	344	1.50	-
PK	4.95118G	43.45	74.00	-30.55	2.45	3	Horizontal	344	1.50	-

BT-2EDR_Nss1_1TX

2402MHz_TX

22/01/2019

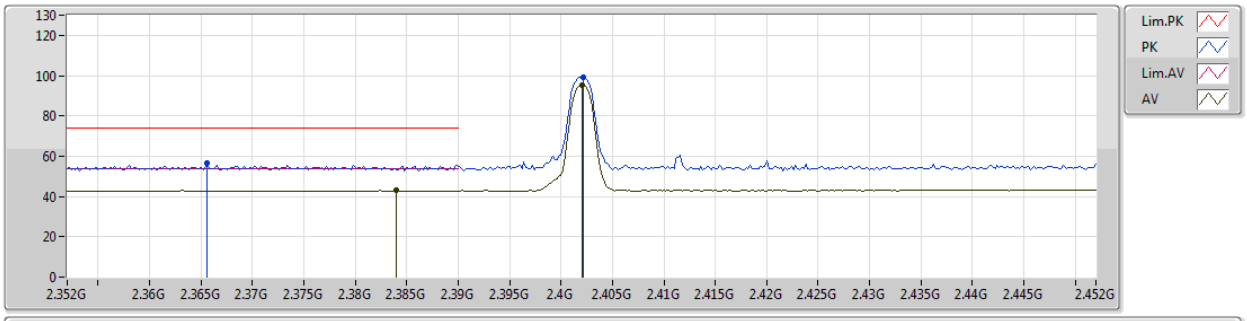


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.369G	43.06	54.00	-10.94	30.70	3	Vertical	352	1.50	-
AV	2.402G	99.56	Inf	-Inf	30.82	3	Vertical	352	1.50	-
PK	2.3878G	55.67	74.00	-18.33	30.77	3	Vertical	352	1.50	-
PK	2.4022G	103.22	Inf	-Inf	30.82	3	Vertical	352	1.50	-

BT-2EDR_Nss1_1TX

2402MHz_TX

22/01/2019

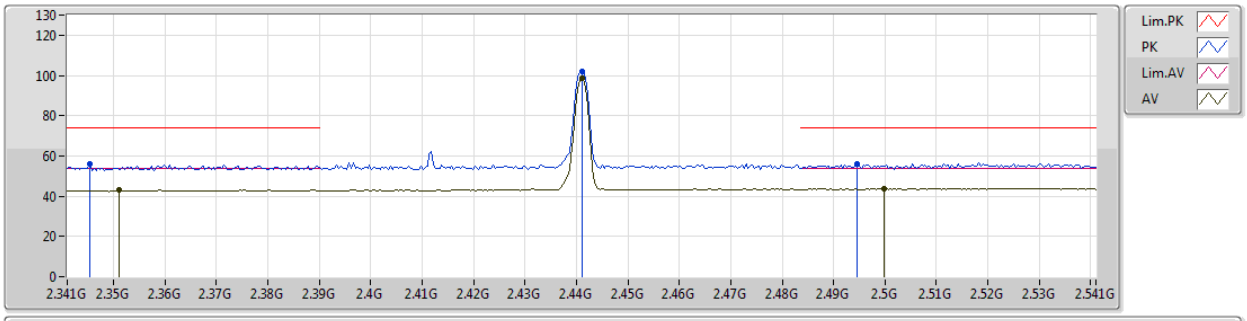


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.384G	42.91	54.00	-11.09	30.76	3	Horizontal	222	1.28	-
AV	2.402G	95.46	Inf	-Inf	30.82	3	Horizontal	222	1.28	-
PK	2.3656G	56.36	74.00	-17.64	30.69	3	Horizontal	222	1.28	-
PK	2.4022G	99.21	Inf	-Inf	30.82	3	Horizontal	222	1.28	-

BT-2EDR_Nss1_1TX

2441MHz_TX

22/01/2019

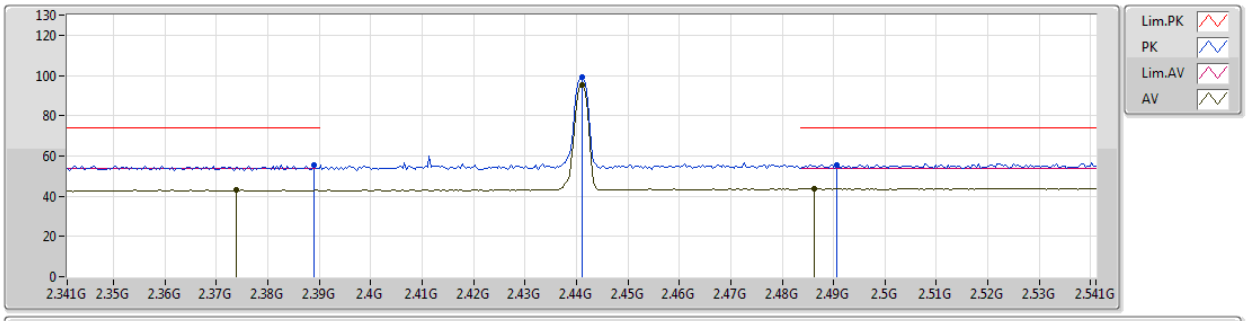


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.351G	43.07	54.00	-10.93	30.64	3	Vertical	355	1.29	-
AV	2.441G	98.40	Inf	-Inf	30.95	3	Vertical	355	1.29	-
AV	2.4998G	43.68	54.00	-10.32	31.17	3	Vertical	355	1.29	-
PK	2.3454G	55.82	74.00	-18.18	30.62	3	Vertical	355	1.29	-
PK	2.441G	102.12	Inf	-Inf	30.95	3	Vertical	355	1.29	-
PK	2.4946G	56.23	74.00	-17.77	31.15	3	Vertical	355	1.29	-

BT-2EDR_Nss1_1TX

2441MHz_TX

22/01/2019

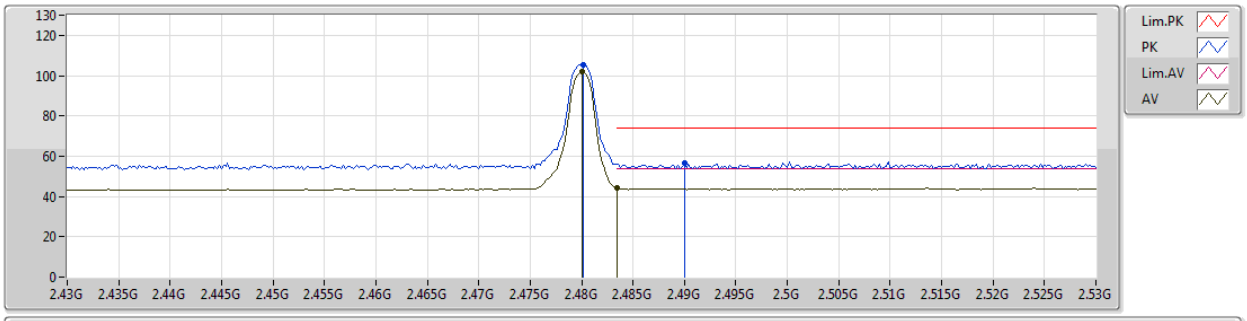


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3738G	42.97	54.00	-11.03	30.72	3	Horizontal	219	1.05	-
AV	2.441G	95.34	Inf	-Inf	30.95	3	Horizontal	219	1.05	-
AV	2.4862G	43.73	54.00	-10.27	31.12	3	Horizontal	219	1.05	-
PK	2.389G	55.46	74.00	-18.54	30.77	3	Horizontal	219	1.05	-
PK	2.441G	98.99	Inf	-Inf	30.95	3	Horizontal	219	1.05	-
PK	2.4906G	55.62	74.00	-18.38	31.13	3	Horizontal	219	1.05	-

BT-2EDR_Nss1_1TX

2480MHz_TX

22/01/2019

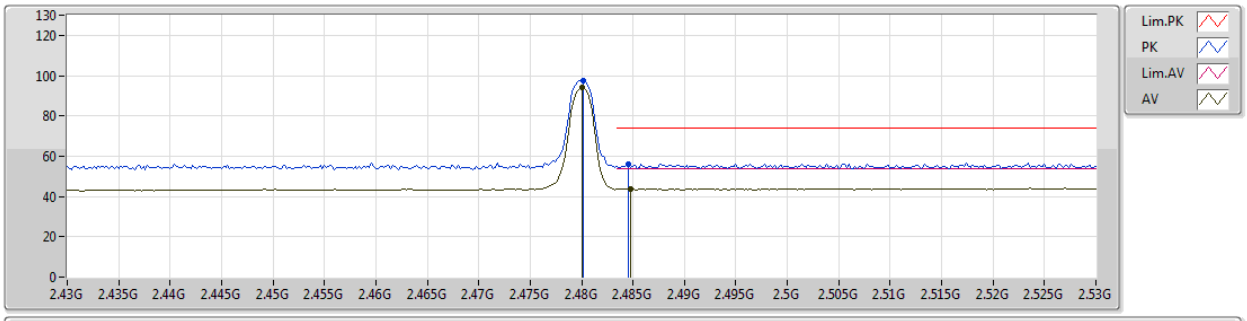


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	101.94	Inf	-Inf	31.09	3	Vertical	208	2.99	-
AV	2.4835G	44.47	54.00	-9.53	31.11	3	Vertical	208	2.99	-
PK	2.4802G	105.61	Inf	-Inf	31.09	3	Vertical	208	2.99	-
PK	2.49G	56.59	74.00	-17.41	31.13	3	Vertical	208	2.99	-

BT-2EDR_Nss1_1TX

2480MHz_TX

22/01/2019

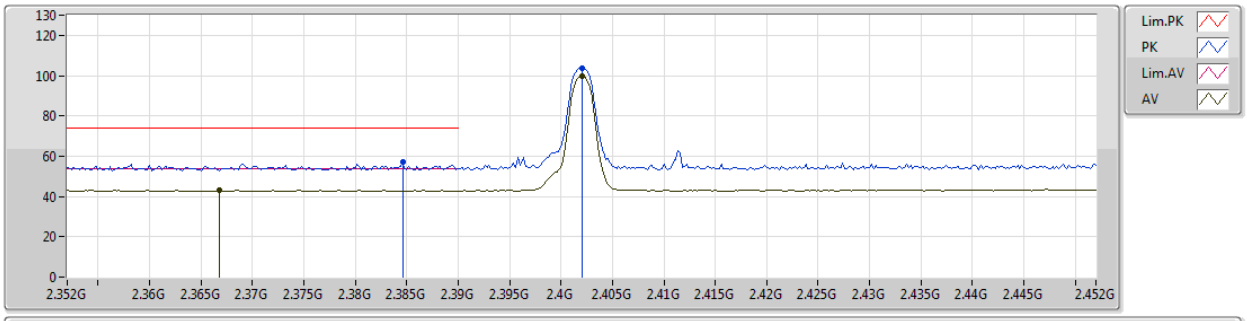


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	93.88	Inf	-Inf	31.09	3	Horizontal	151	1.49	-
AV	2.4848G	43.84	54.00	-10.16	31.12	3	Horizontal	151	1.49	-
PK	2.4802G	97.59	Inf	-Inf	31.09	3	Horizontal	151	1.49	-
PK	2.4846G	56.03	74.00	-17.97	31.12	3	Horizontal	151	1.49	-

BT-3EDR_Nss1_1TX

2402MHz_TX

23/01/2019

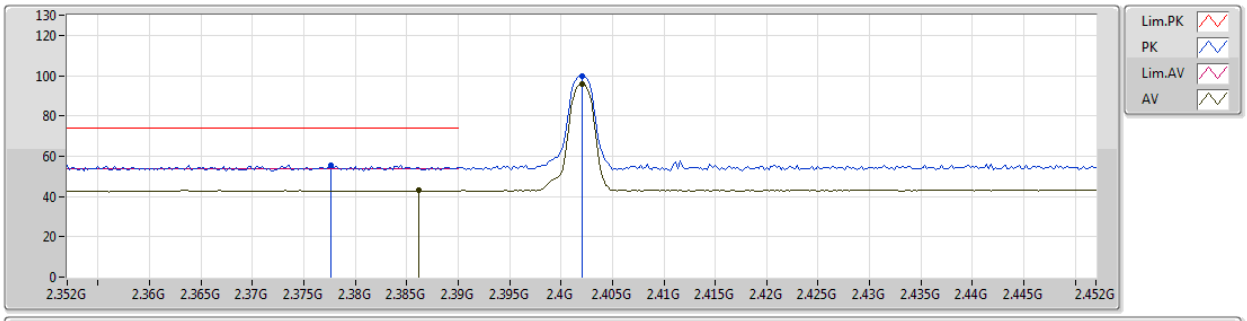


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3668G	43.01	54.00	-10.99	30.70	3	Vertical	348	1.50	-
AV	2.402G	99.82	Inf	-Inf	30.82	3	Vertical	348	1.50	-
PK	2.3846G	56.90	74.00	-17.10	30.76	3	Vertical	348	1.50	-
PK	2.402G	103.68	Inf	-Inf	30.82	3	Vertical	348	1.50	-

BT-3EDR_Nss1_1TX

2402MHz_TX

23/01/2019

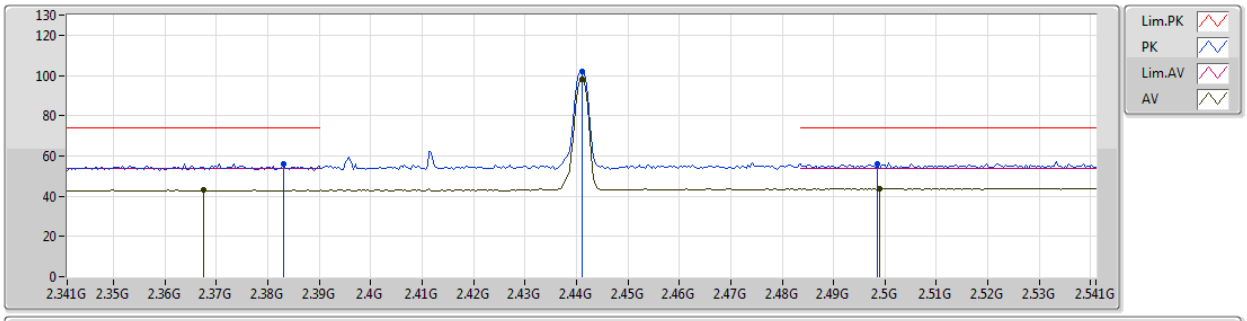


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3862G	43.07	54.00	-10.93	30.76	3	Horizontal	216	1.28	-
AV	2.402G	95.93	Inf	-Inf	30.82	3	Horizontal	216	1.28	-
PK	2.3776G	55.59	74.00	-18.41	30.73	3	Horizontal	216	1.28	-
PK	2.402G	99.74	Inf	-Inf	30.82	3	Horizontal	216	1.28	-

BT-3EDR_Nss1_1TX

2441MHz_TX

23/01/2019

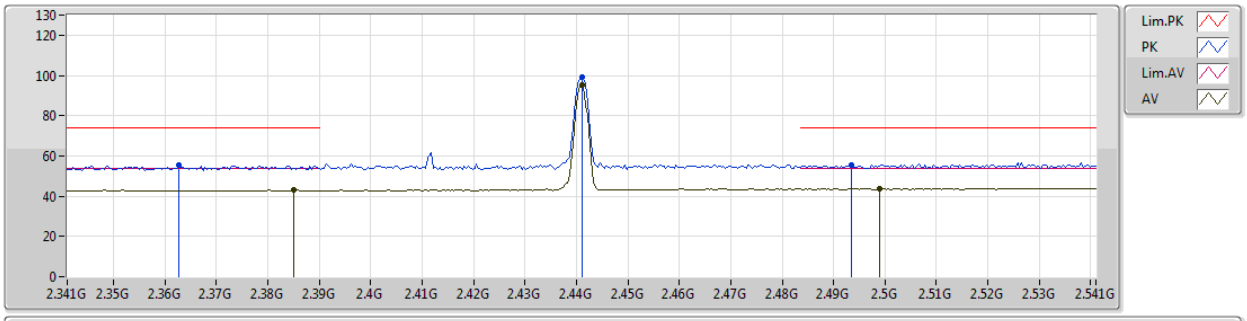


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3674G	42.95	54.00	-11.05	30.70	3	Vertical	348	1.50	-
AV	2.441G	98.12	Inf	-Inf	30.95	3	Vertical	348	1.50	-
AV	2.499G	43.72	54.00	-10.28	31.17	3	Vertical	348	1.50	-
PK	2.383G	55.94	74.00	-18.06	30.75	3	Vertical	348	1.50	-
PK	2.441G	101.97	Inf	-Inf	30.95	3	Vertical	348	1.50	-
PK	2.4986G	56.04	74.00	-17.96	31.17	3	Vertical	348	1.50	-

BT-3EDR_Nss1_1TX

2441MHz_TX

23/01/2019

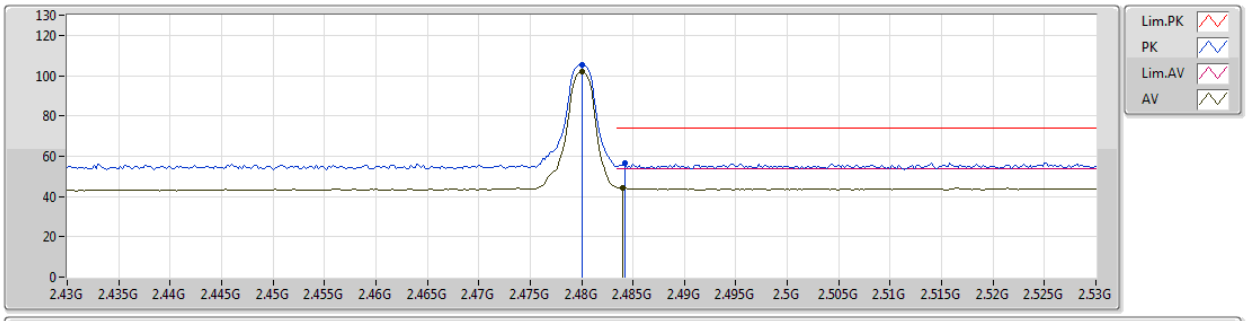


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.385G	42.97	54.00	-11.03	30.76	3	Horizontal	212	1.04	-
AV	2.441G	95.25	Inf	-Inf	30.95	3	Horizontal	212	1.04	-
AV	2.499G	43.70	54.00	-10.30	31.17	3	Horizontal	212	1.04	-
PK	2.3626G	55.27	74.00	-18.73	30.68	3	Horizontal	212	1.04	-
PK	2.441G	99.07	Inf	-Inf	30.95	3	Horizontal	212	1.04	-
PK	2.4934G	55.24	74.00	-18.76	31.14	3	Horizontal	212	1.04	-

BT-3EDR_Nss1_1TX

2480MHz_TX

23/01/2019

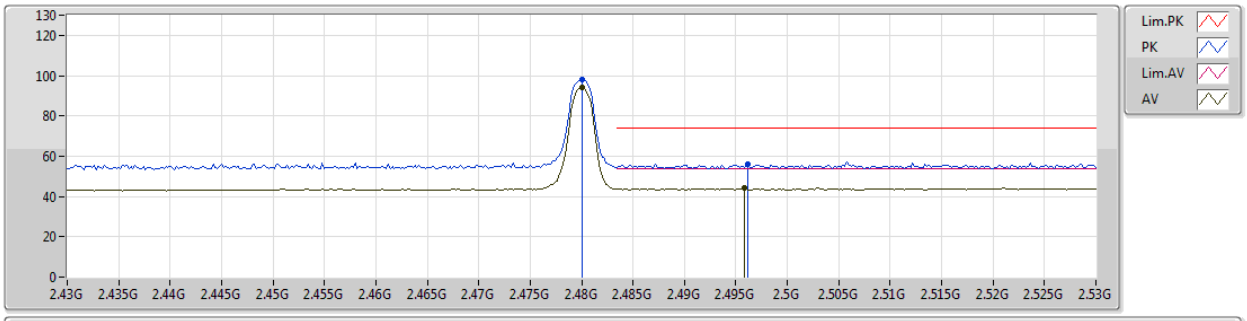


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	101.92	Inf	-Inf	31.09	3	Vertical	200	2.99	-
AV	2.484G	44.19	54.00	-9.81	31.12	3	Vertical	200	2.99	-
PK	2.48G	105.60	Inf	-Inf	31.09	3	Vertical	200	2.99	-
PK	2.4842G	56.34	74.00	-17.66	31.12	3	Vertical	200	2.99	-

BT-3EDR_Nss1_1TX

2480MHz_TX

23/01/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.48G	94.06	Inf	-Inf	31.09	3	Horizontal	143	1.50	-
AV	2.4958G	44.04	54.00	-9.96	31.16	3	Horizontal	143	1.50	-
PK	2.48G	97.83	Inf	-Inf	31.09	3	Horizontal	143	1.50	-
PK	2.4962G	56.11	74.00	-17.89	31.16	3	Horizontal	143	1.50	-