FCC Test Report

FCC ID	:	**SWX-UVCG4DB**
Equipment	:	**UniFi PROTECT**
Brand Name	:	**UBIQUITI**
Model Name	:	**UVC-G4-Doorbell**
Applicant	:	**Ubiquiti Inc. 685 Third Avenue, New York, New York 10017 USA**
Manufacturer	:	**Ubiquiti Inc. 685 Third Avenue, New York, New York 10017 USA**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Nov. 02, 2018, and testing was started from Nov. 06, 2018 and completed on Dec. 29, 2018. 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
FR741250-05AD	01	Initial issue of report	Nov. 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: Jackson Tsai

Report Producer: Amber Chiu

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	-	-	Internal antenna	I-Pex

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	0.5	2.5	0.5

For 2.4GHz function:

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

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

For 5GHz function:

For IEEE 802.11 a/n/ac mode (1TX/1RX)

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

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

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

1.1.3 EUT Information

Operational Condition					
EUT Power Type	From AC Adapter				
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)	0.785	1.051	2.889m	1k
BT-EDR(2Mbps)	0.785	1.051	2.892m	1k
BT-EDR(3Mbps)	0.786	1.046	2.894m	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 v05r02
- ANSI C63.10-2013

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Dexter	25~26.8°C / 61~63%	08/Nov/2018
Radiated	03CH09-HY	Jeremy	20.5~22.5°C / 63~65%	06/Nov/2018~ 29/Dec/2018
AC Conduction	CO04-HY	Andy	21.4~23.6°C / 63~65%	08/Nov/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)	3.54 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

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

2.2 Test Channel Mode

Test Software	Dos

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA741250-05 for Co-location RF Exposure Evaluation and Appendix H for Radiated Emission Co-location.	

Note.
Non-AFH: DH5 Packet permit maximum 1600/ 79 / 6 = 3.37 hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times 3.37 x 1.185 = 4 within 1.185 seconds.
AFH: DH5 Packet permit maximum 800/ 20 / 6 = 6.67 hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times 13.33 x 8 = 106.6 within 8 seconds.
Under the above conditions, Non-AFH Mode configuration was found to be the worst case and measured during the test.

2.4 Support Equipment

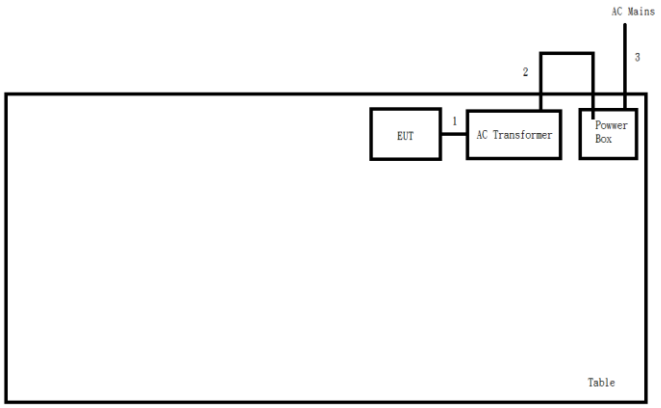
Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AC Transformer	TRIAD	VPL24-1100	N/A

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	AC Power Source	GW	APS-9102	N/A

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AC Transformer	TRIAD	VPL24-1100	N/A

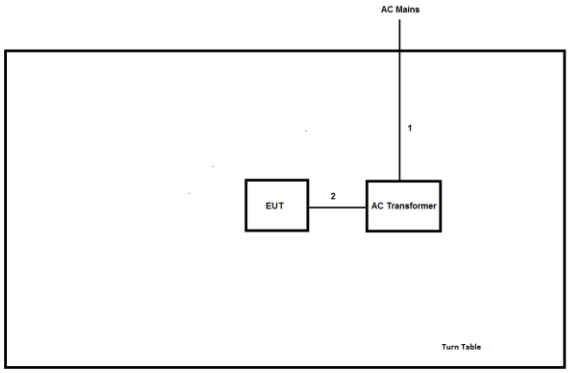
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	DC Power line	No	0.2	-
2	AC Power line	No	1.5	-
3	AC Power line	No	1.5	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.5	-
2	DC Power line	No	0.2	-

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

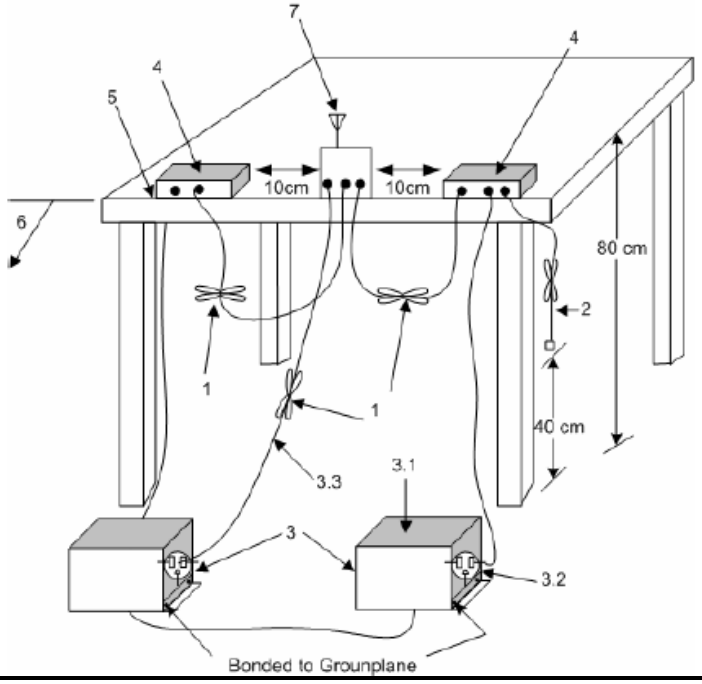
Refer a test equipment and calibration data table in this test report.

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

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	

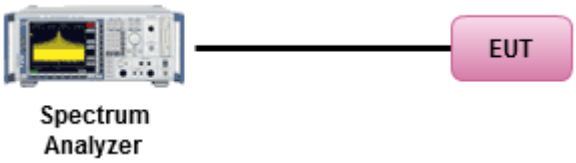
3.2.2 Measuring Instruments

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

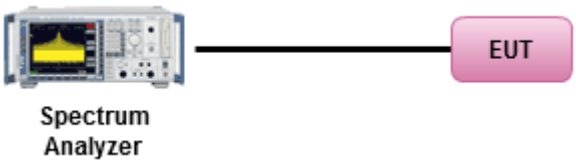
3.4.3 Measuring Instruments

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	

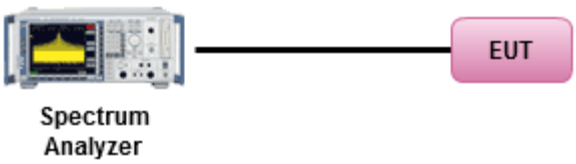
3.5.2 Measuring Instruments

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)


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.	

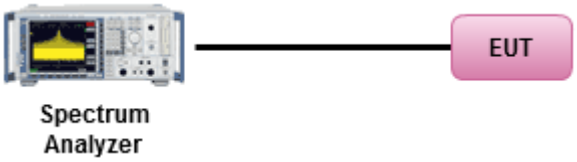
3.6.2 Measuring Instruments

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.

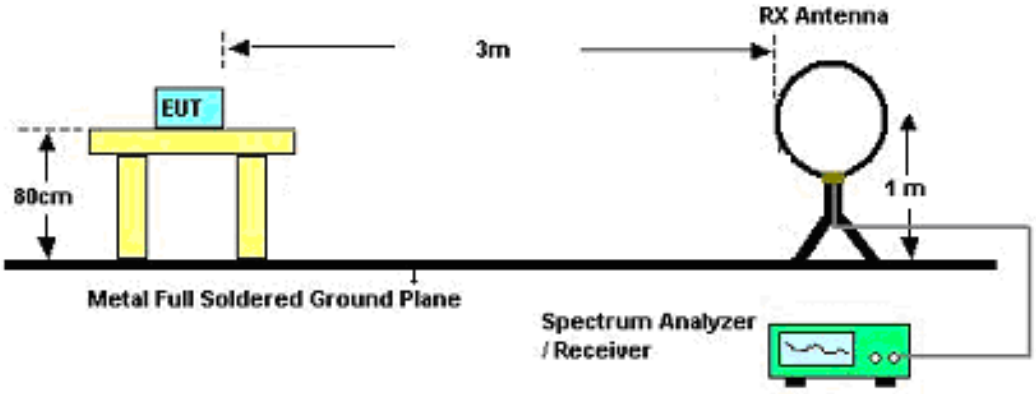
3.7.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.10.3 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.

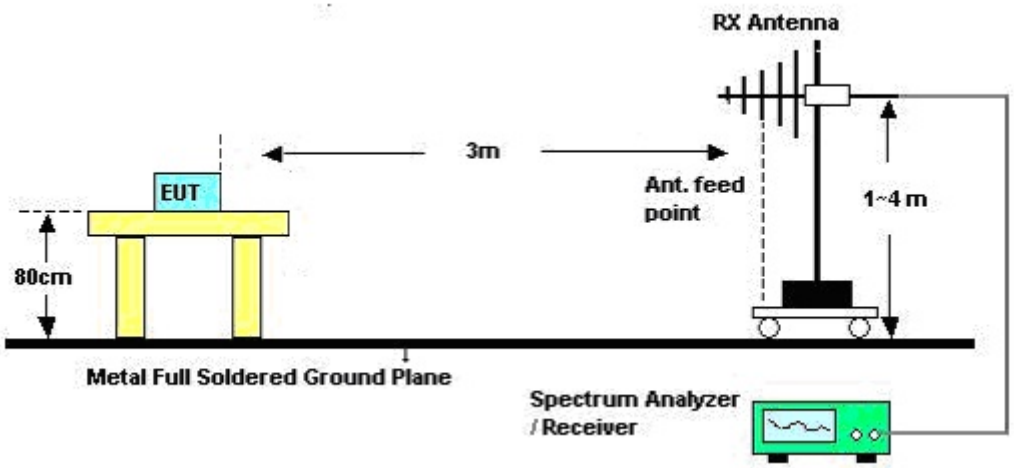
3.7.4 Test Setup

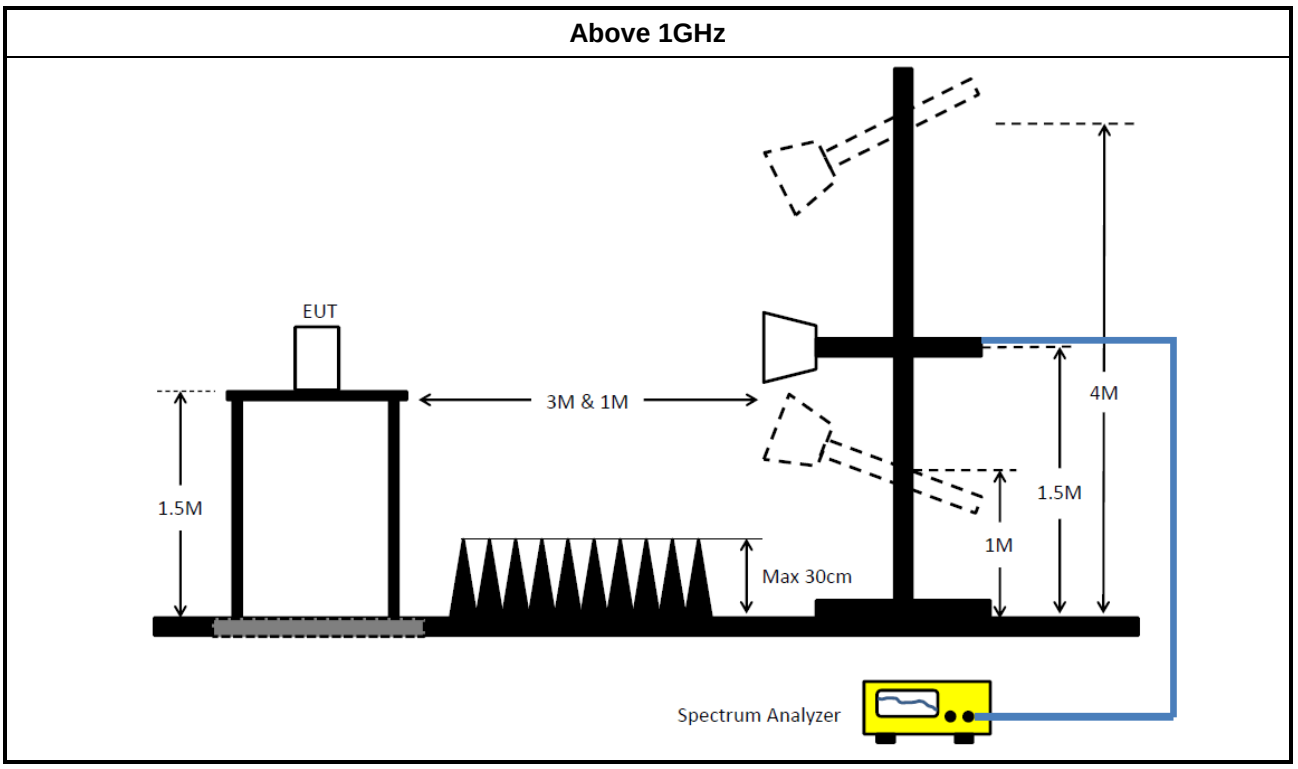
Emissions in Restricted Frequency Bands

9kHz ~30MHz



30MHz~1GHz





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	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
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 Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require.

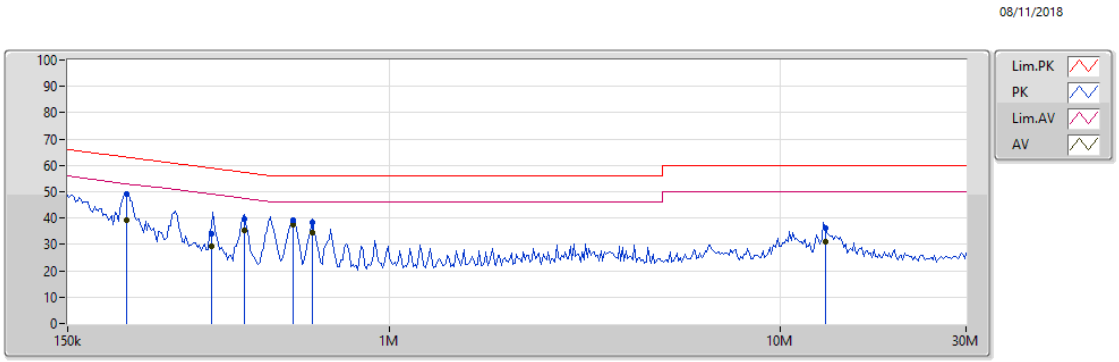
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	05/Feb/2018	04/Feb/2019
Signal Generator	Anritsu	MG3694C	163401	10MHz~40GHz	15/Jan/2018	14/Jan/2019
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
RF Cable-1.5m	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

Instrument for Radiated Test

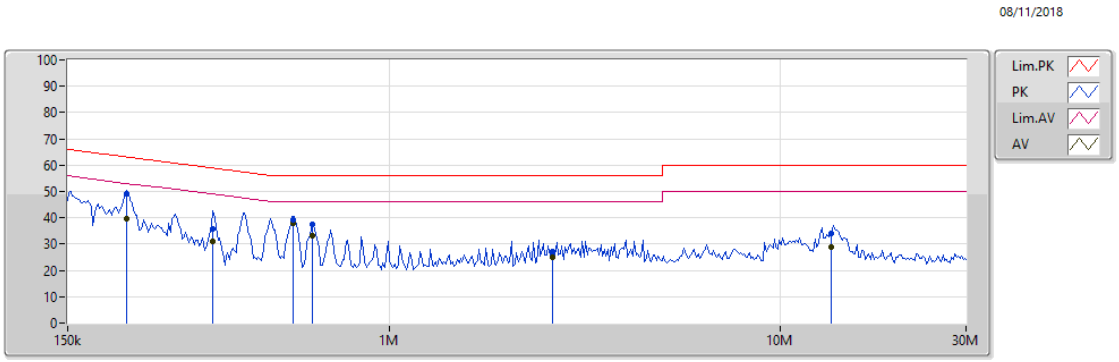
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/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

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



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	211.911k	49.05	63.13	-14.08	19.63	Neutral	-	29.42	9.62	0.01	10.00
AV	211.911k	39.35	53.13	-13.78	19.63	Neutral	-	19.72	9.62	0.01	10.00
QP	349.924k	33.86	58.96	-25.10	19.69	Neutral	-	14.17	9.61	0.08	10.00
AV	349.924k	29.33	48.96	-19.63	19.69	Neutral	-	9.64	9.61	0.08	10.00
QP	424.103k	39.61	57.38	-17.77	19.70	Neutral	-	19.91	9.61	0.09	10.00
AV	424.103k	35.26	47.38	-12.12	19.70	Neutral	-	15.56	9.61	0.09	10.00
QP	565.52k	39.24	56.00	-16.76	19.67	Neutral	-	19.57	9.61	0.06	10.00
AV	565.52k	37.48	46.00	-8.52	19.67	Neutral	"Worst"	17.81	9.61	0.06	10.00
QP	635.891k	38.43	56.00	-17.57	19.67	Neutral	-	18.76	9.62	0.05	10.00
AV	635.891k	34.60	46.00	-11.40	19.67	Neutral	-	14.93	9.62	0.05	10.00
QP	13.142M	36.03	60.00	-23.97	19.76	Neutral	-	16.27	9.70	0.06	10.00
AV	13.142M	30.85	50.00	-19.15	19.76	Neutral	-	11.09	9.70	0.06	10.00

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



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	212.273k	49.00	63.11	-14.11	19.63	Line	-	29.37	9.62	0.01	10.00
AV	212.273k	39.76	53.11	-13.35	19.63	Line	-	20.13	9.62	0.01	10.00
QP	353.397k	35.72	58.89	-23.17	19.69	Line	-	16.03	9.61	0.08	10.00
AV	353.397k	30.90	48.89	-17.99	19.69	Line	-	11.21	9.61	0.08	10.00
QP	566.099k	39.27	56.00	-16.73	19.67	Line	-	19.60	9.61	0.06	10.00
AV	566.099k	37.79	46.00	-8.21	19.67	Line	"Worst"	18.12	9.61	0.06	10.00
QP	637.193k	37.63	56.00	-18.37	19.66	Line	-	17.97	9.61	0.05	10.00
AV	637.193k	33.13	46.00	-12.87	19.66	Line	-	13.47	9.61	0.05	10.00
QP	2.62M	27.21	56.00	-28.79	19.65	Line	-	7.56	9.62	0.03	10.00
AV	2.62M	25.19	46.00	-20.81	19.65	Line	-	5.54	9.62	0.03	10.00
QP	13.516M	34.08	60.00	-25.92	19.69	Line	-	14.39	9.64	0.05	10.00
AV	13.516M	29.07	50.00	-20.93	19.69	Line	-	9.38	9.64	0.05	10.00

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)	920k	909.545k	910KF1D	918.75k	905.797k
BT-EDR(2Mbps)	1.406M	1.254M	1M25G1D	1.336M	1.237M
BT-EDR(3Mbps)	1.304M	1.251M	1M25G1D	1.288M	1.233M

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;

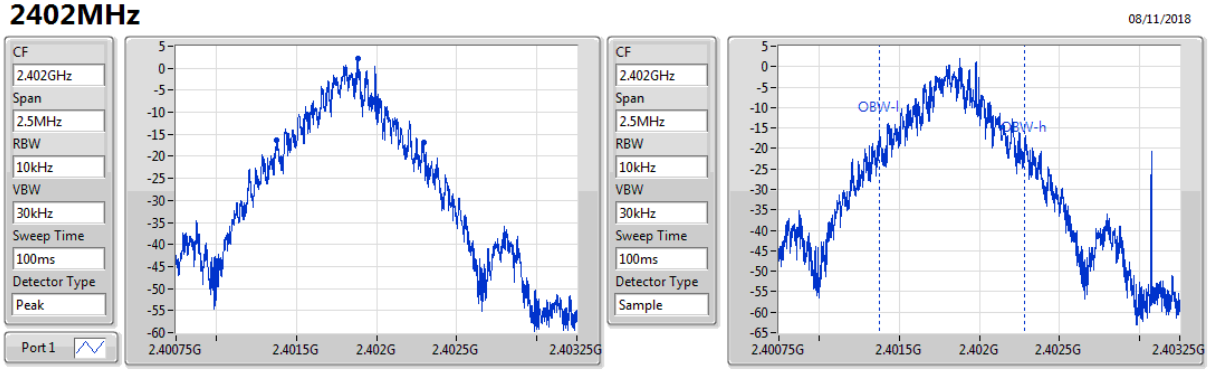
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	918.75k	905.797k
2441MHz_TnomVnom	Pass	Inf	918.75k	905.797k
2480MHz_TnomVnom	Pass	Inf	920k	909.545k
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.344M	1.251M
2441MHz_TnomVnom	Pass	Inf	1.406M	1.254M
2480MHz_TnomVnom	Pass	Inf	1.336M	1.237M
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.294M	1.251M
2441MHz_TnomVnom	Pass	Inf	1.288M	1.239M
2480MHz_TnomVnom	Pass	Inf	1.304M	1.233M

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

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

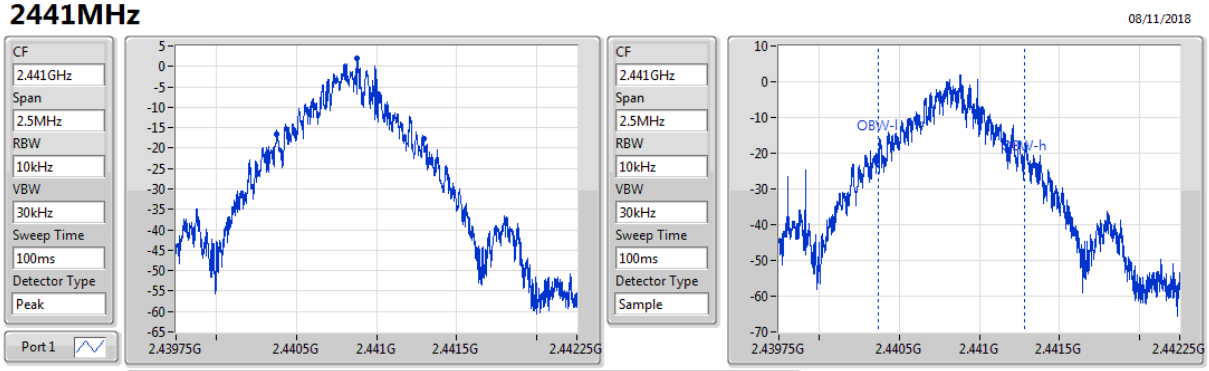
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.75k	2.401374G	2.402293G	905.797k	2.401375G	2.402281G	Inf	1

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

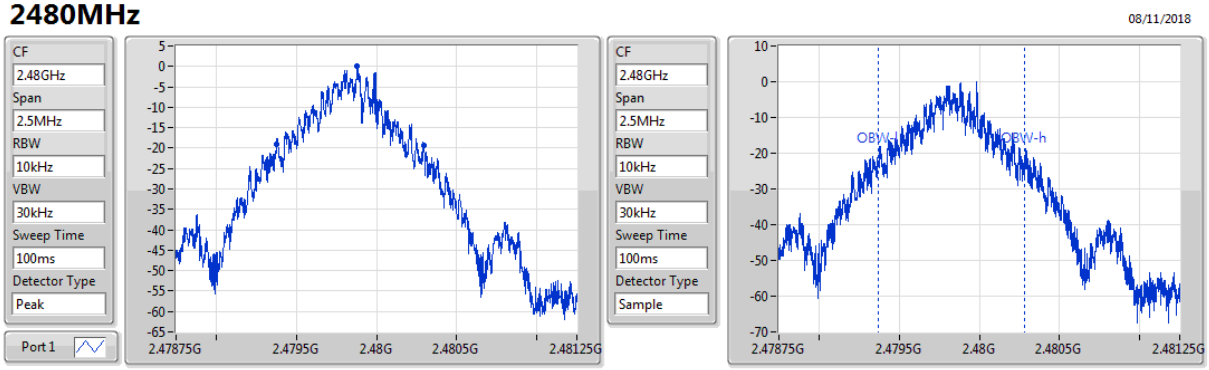
2441MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.75k	2.440375G	2.441294G	905.797k	2.440373G	2.441279G	Inf	1

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

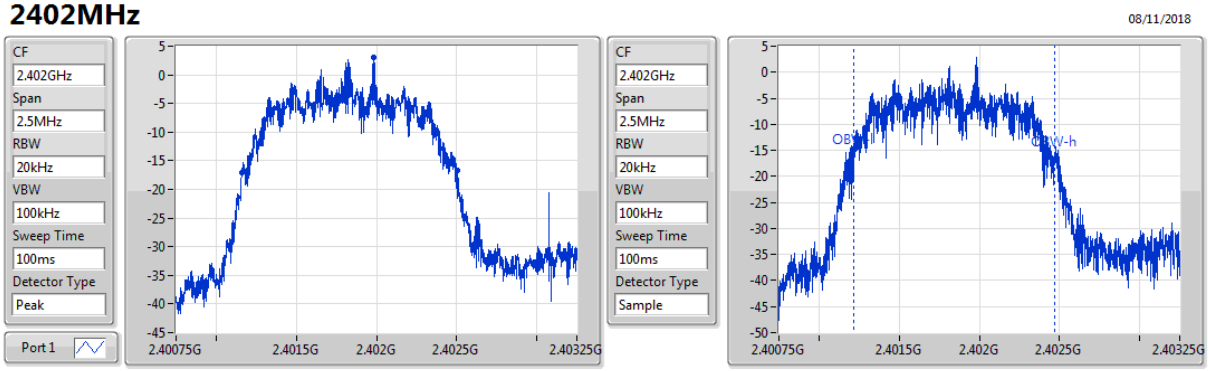
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
920k	2.479375G	2.480295G	909.545k	2.47937G	2.48028G	Inf	1

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

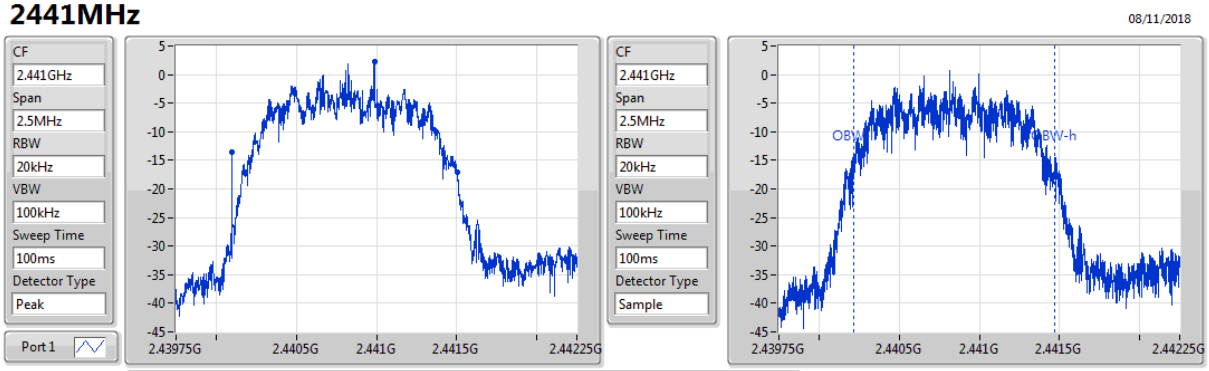
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.344M	2.401159G	2.402503G	1.251M	2.401218G	2.402469G	Inf	1

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

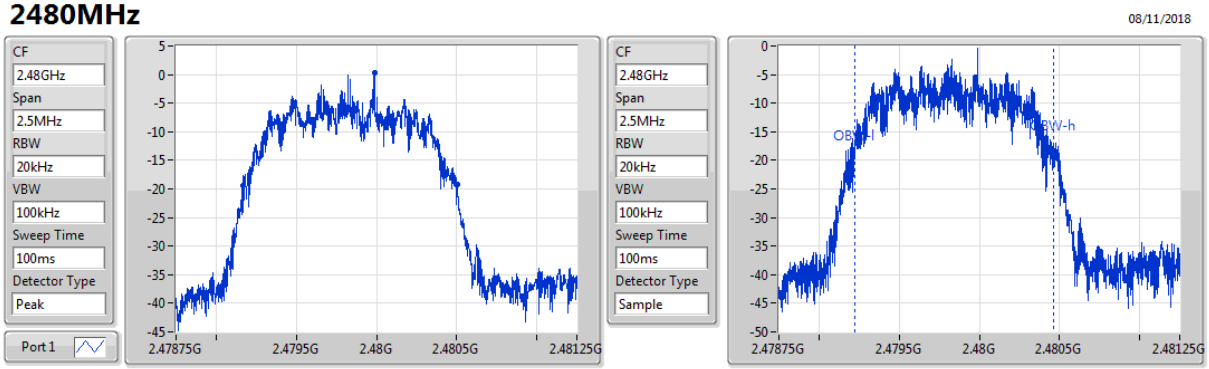
2441MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.406M	2.440096G	2.441503G	1.254M	2.440217G	2.441471G	Inf	1

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

2480MHz

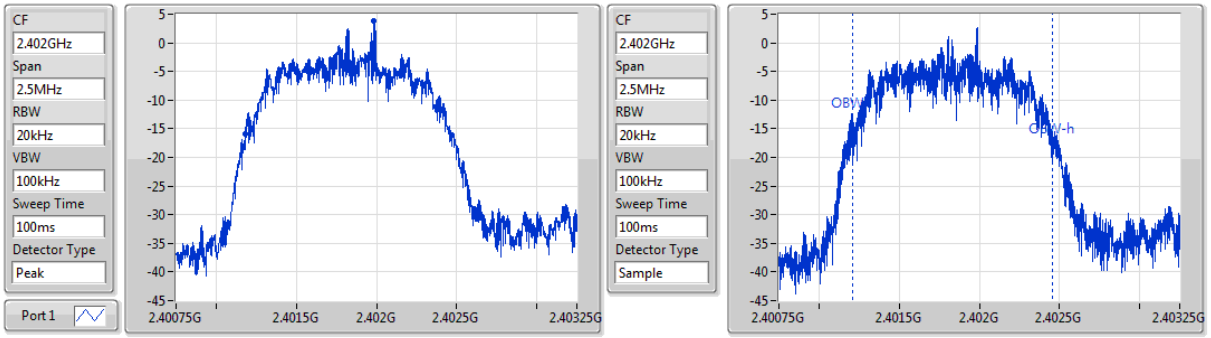


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.336M	2.479166G	2.480503G	1.237M	2.479223G	2.48046G	Inf	1

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

2402MHz

08/11/2018

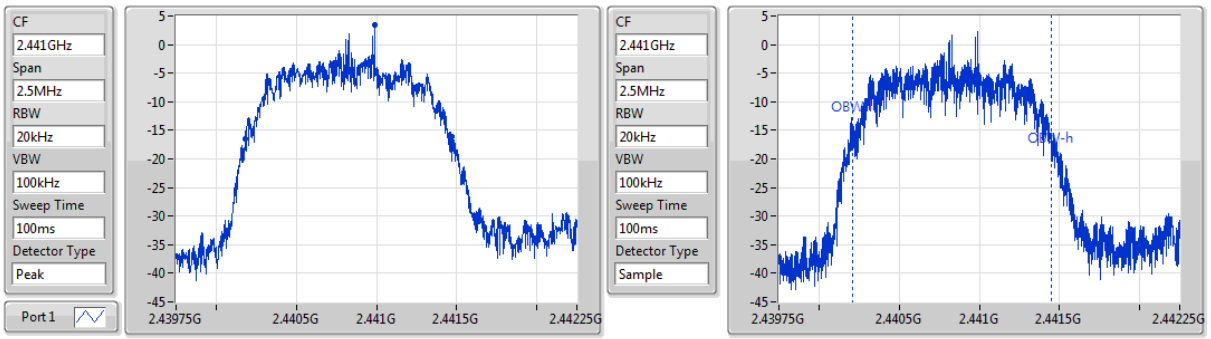


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.294M	2.401179G	2.402473G	1.251M	2.401208G	2.402459G	Inf	1

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

2441MHz

08/11/2018

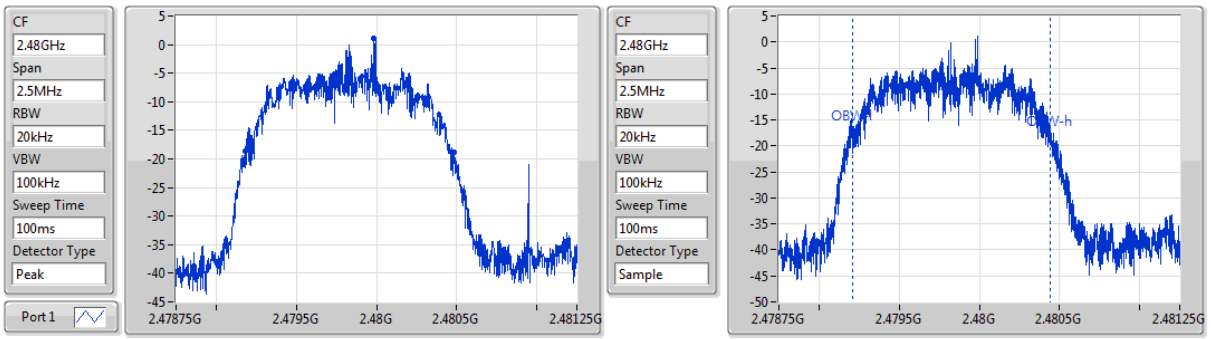


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.288M	2.44018G	2.441468G	1.239M	2.440213G	2.441452G	Inf	1

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

2480MHz

08/11/2018



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.304M	2.47918G	2.480484G	1.233M	2.47921G	2.480444G	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)	1.002M	1.0005M

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401981G	2.402982G	1.0005M	611.8875k
2441MHz_TnomVnom	Pass	2.440981G	2.441983G	1.002M	611.8875k
2480MHz_TnomVnom	Pass	2.478984G	2.479985G	1.0005M	612.72k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401824G	2.402824G	1.0005M	895.104k
2441MHz_TnomVnom	Pass	2.440824G	2.441826G	1.002M	936.396k
2480MHz_TnomVnom	Pass	2.478825G	2.479824G	999k	889.776k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401981G	2.402982G	1.0005M	861.804k
2441MHz_TnomVnom	Pass	2.440981G	2.441983G	1.002M	857.808k
2480MHz_TnomVnom	Pass	2.478984G	2.479985G	1.0005M	868.464k

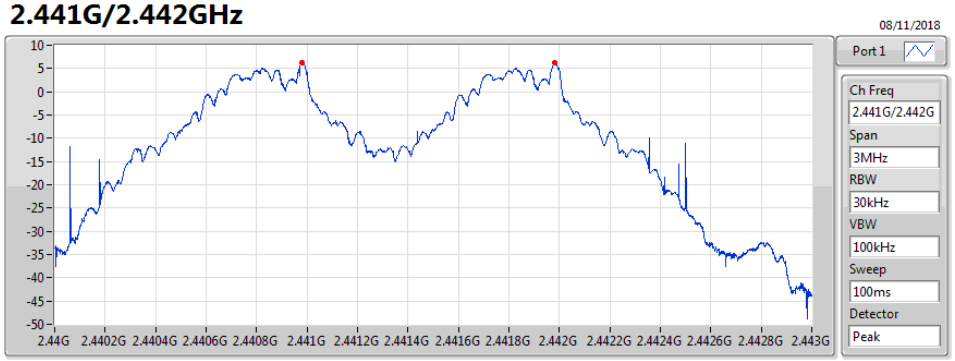
BT-BR(1Mbps) **Channel Separation**

2.402G/2.403GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401981G	2.402982G	1.0005M	611.8875k

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

2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440981G	2.441983G	1.002M	611.8875k

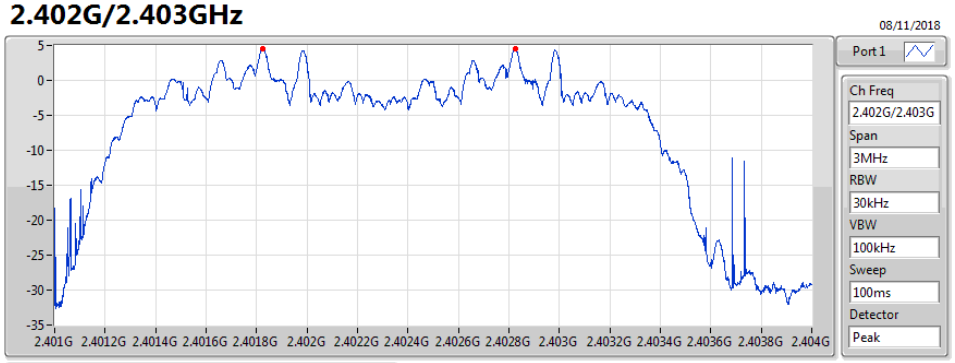
BT-BR(1Mbps) **Channel Separation**

2.48G/2.479GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478984G	2.479985G	1.0005M	612.72k

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

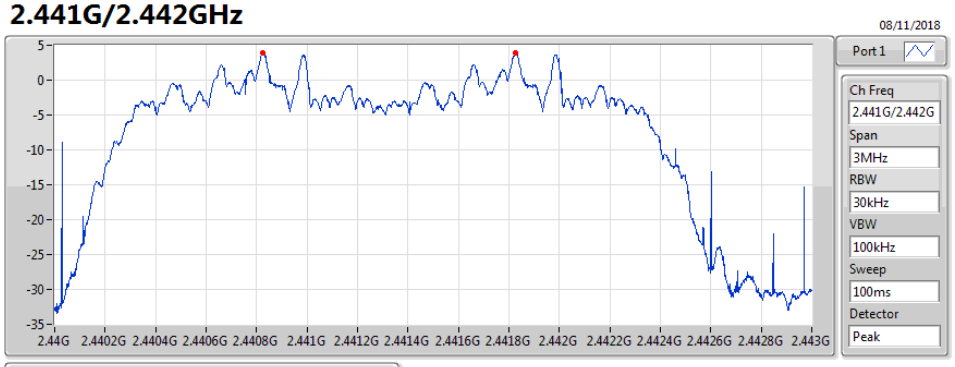
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401824G	2.402824G	1.0005M	895.104k

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

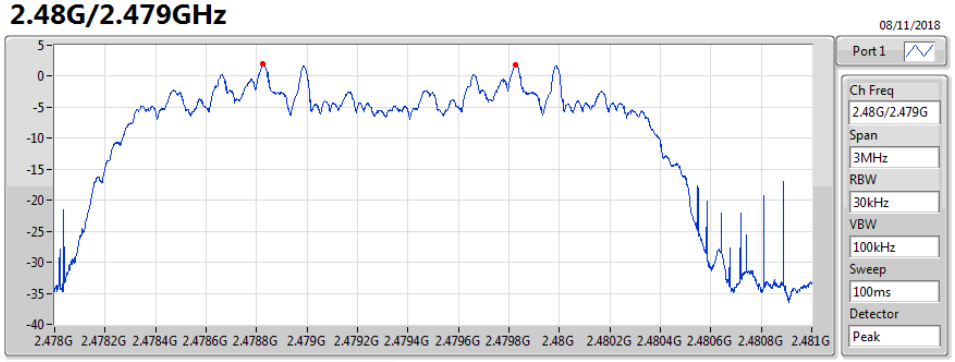
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440824G	2.441826G	1.002M	936.396k

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

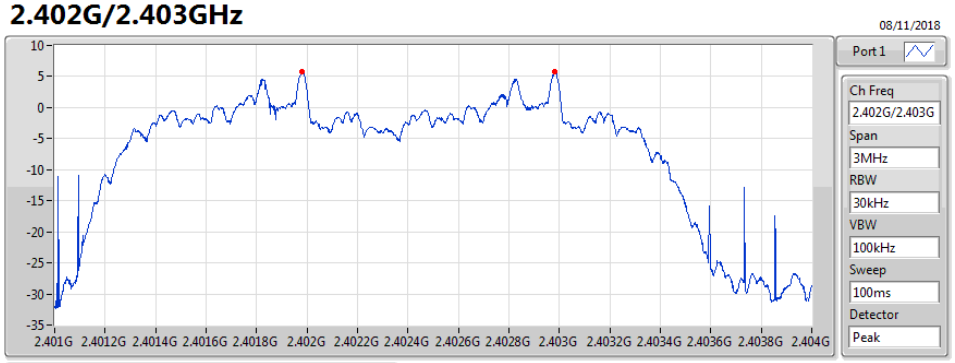
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478825G	2.479824G	999k	889.776k

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

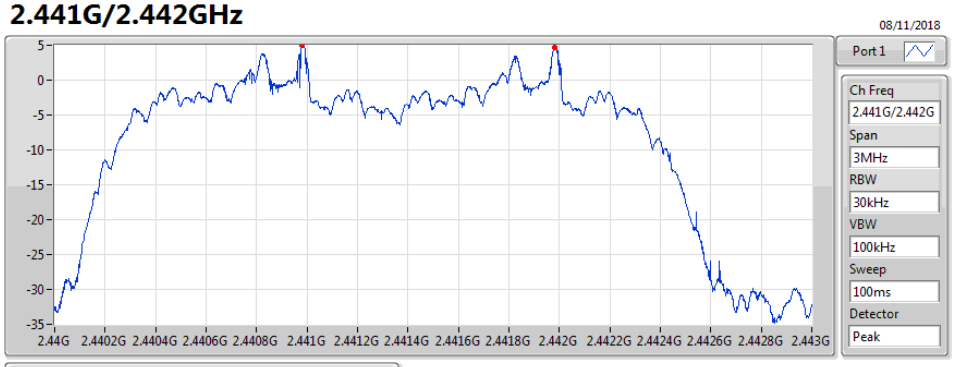
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401981G	2.402982G	1.0005M	861.804k

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

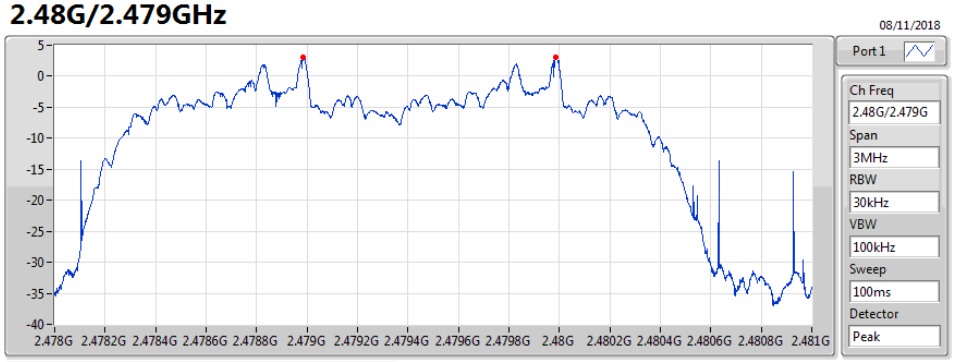
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440981G	2.441983G	1.002M	857.808k

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

2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478984G	2.479985G	1.0005M	868.464k

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.75	0.00596
BT-EDR(2Mbps)	8.79	0.00757
BT-EDR(3Mbps)	8.89	0.00774

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	7.75	21.00
2441MHz_TnomVnom	Pass	0.50	7.50	21.00
2480MHz_TnomVnom	Pass	0.50	5.80	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	8.79	21.00
2441MHz_TnomVnom	Pass	0.50	8.31	21.00
2480MHz_TnomVnom	Pass	0.50	6.73	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	8.89	21.00
2441MHz_TnomVnom	Pass	0.50	8.42	21.00
2480MHz_TnomVnom	Pass	0.50	6.85	21.00

Summary

Mode	Power	Power
	(dBm)	(W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.50	0.00562
BT-EDR(2Mbps)	6.42	0.00439
BT-EDR(3Mbps)	6.59	0.00456

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	7.50	30.00
2441MHz_TnomVnom	Pass	0.50	7.28	30.00
2480MHz_TnomVnom	Pass	0.50	5.52	30.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	6.42	30.00
2441MHz_TnomVnom	Pass	0.50	5.93	30.00
2480MHz_TnomVnom	Pass	0.50	4.09	30.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	0.50	6.59	30.00
2441MHz_TnomVnom	Pass	0.50	5.97	30.00
2480MHz_TnomVnom	Pass	0.50	4.13	30.00

Summary

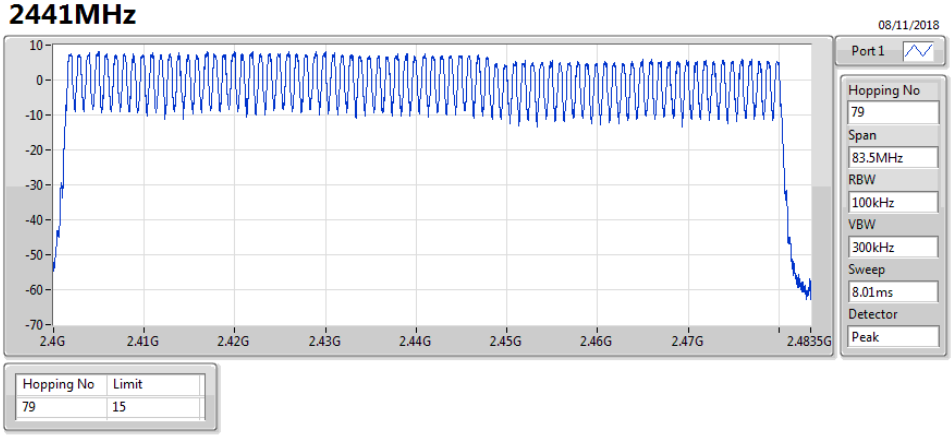
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

Result

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

BT-BR(1Mbps) **Hopping Ch**

2441MHz

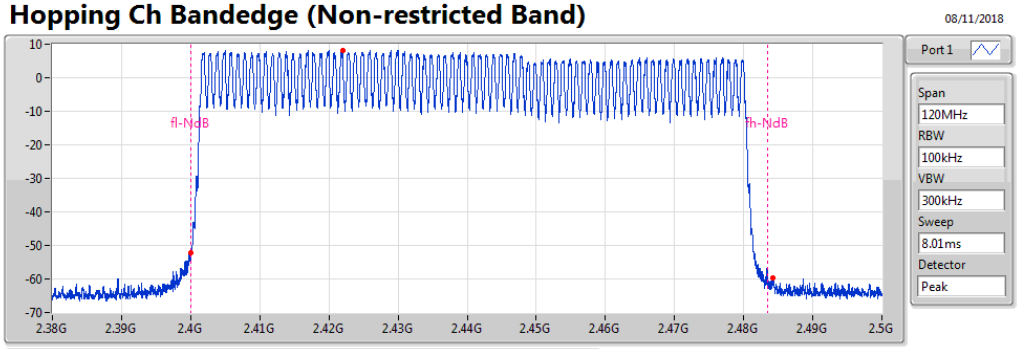


Hopping No	Limit
79	15

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

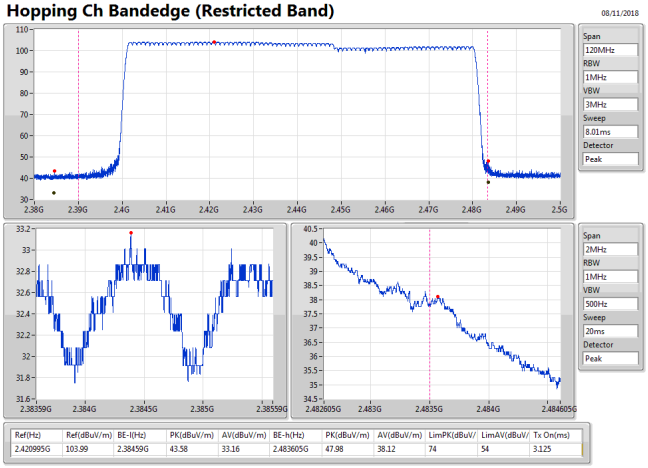


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-11.83	2.421985G	8.17	2.399965G	-52.25	2.48428G	-59.57

BT-BR(1Mbps)

2441MHz

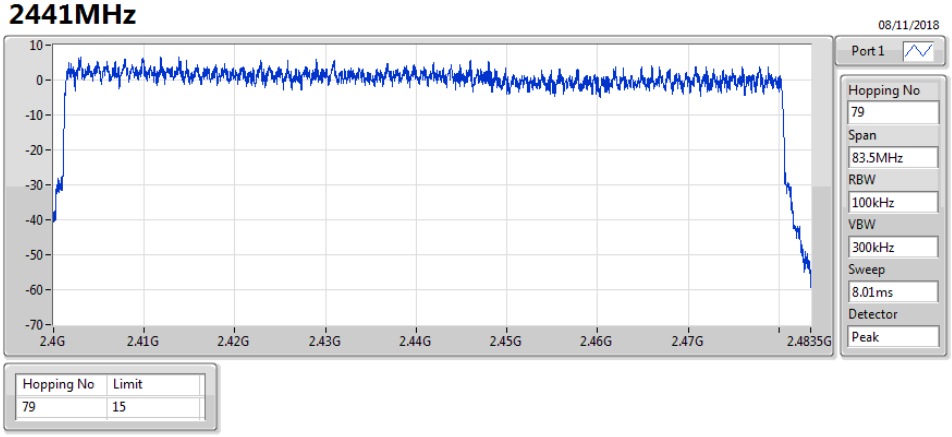
Hopping Ch Bandedge (Restricted Band)



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)
2.420995G	103.99	2.38459G	43.58	33.16	2.483605G	47.98	38.12	74	54	3.125

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

2441MHz

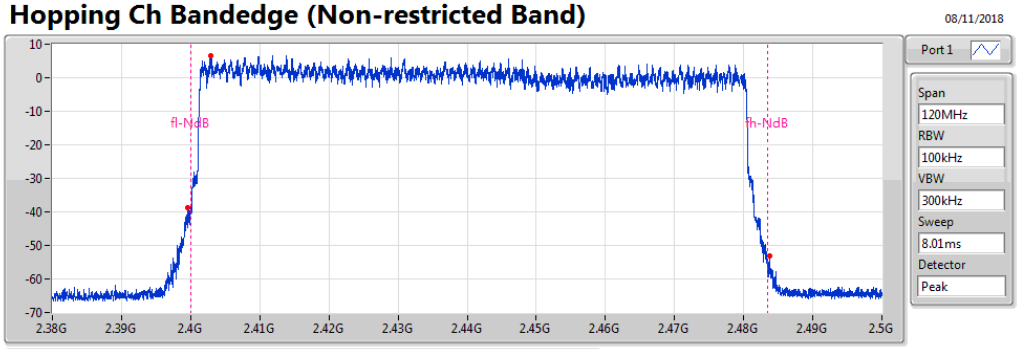


Hopping No	Limit
79	15

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

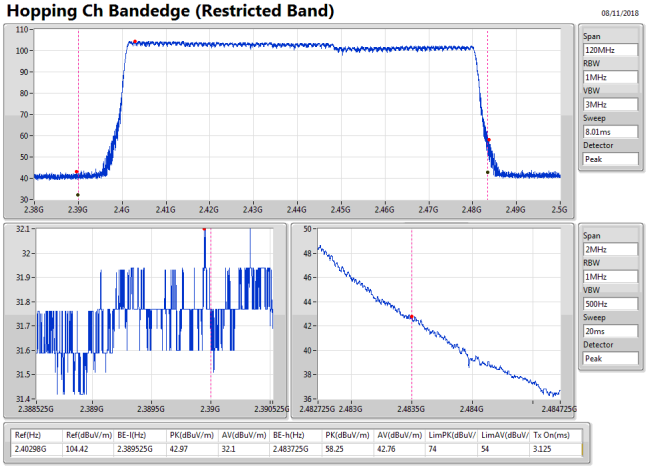


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-13.4	2.402965G	6.6	2.399635G	-38.82	2.483755G	-53.02

BT-EDR(2Mbps)

2441MHz

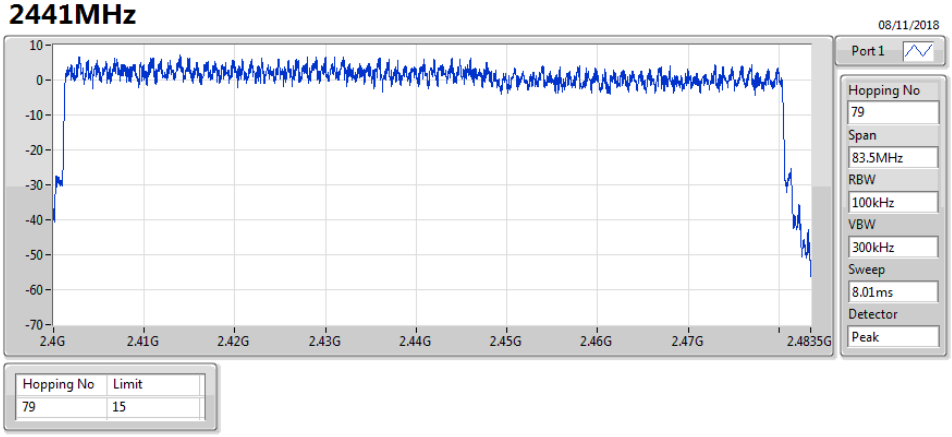
Hopping Ch Bandedge (Restricted Band)



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)
2.40298G	104.42	2.389525G	42.97	32.1	2.483725G	58.25	42.76	74	54	3.125

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

2441MHz

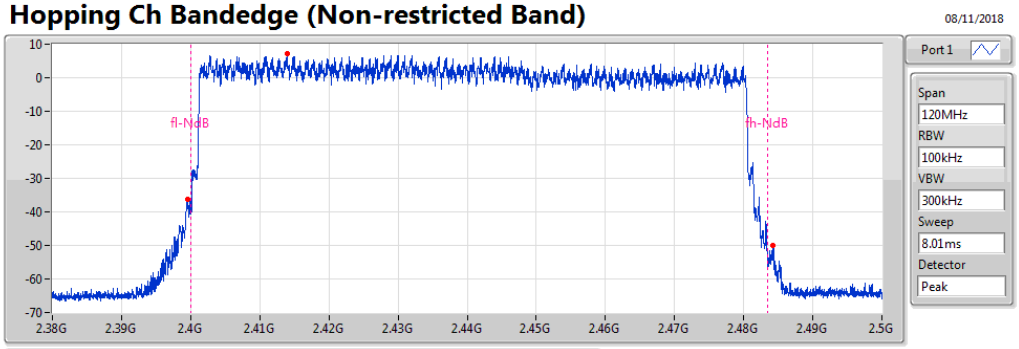


Hopping No	Limit
79	15

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

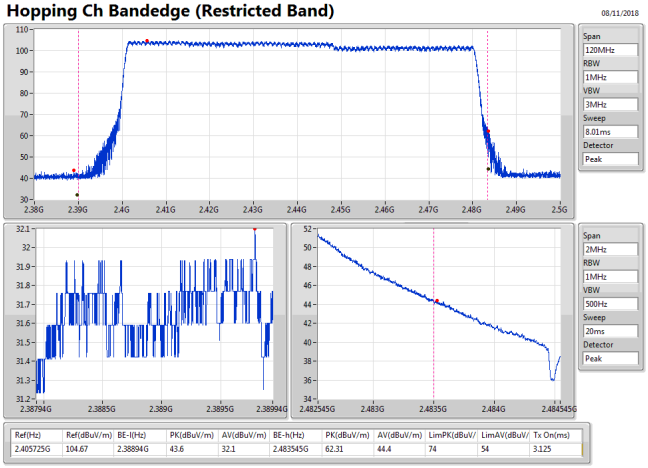


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.96	2.41399G	7.04	2.3995G	-36.15	2.48422G	-49.87

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)
2.405725G	104.67	2.38894G	43.6	32.1	2.483545G	62.31	44.4	74	54	3.125

Summary

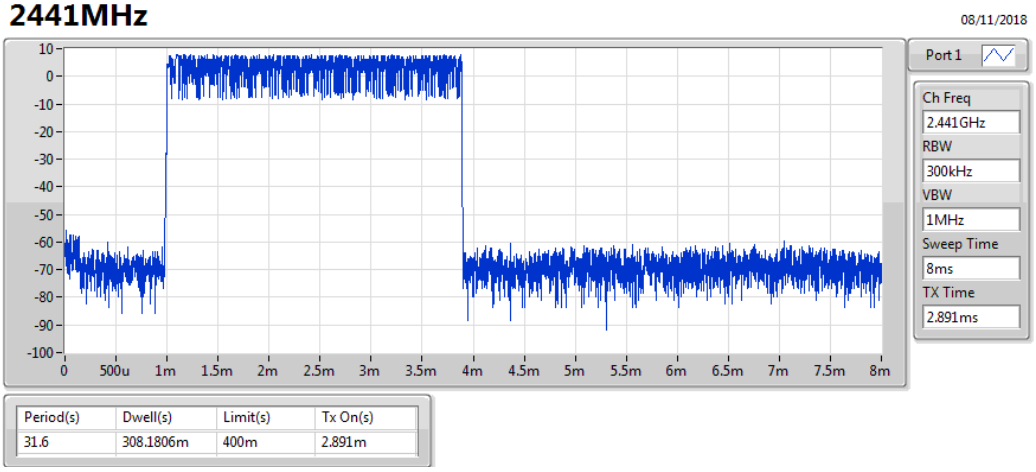
Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.1806m
BT-EDR(2Mbps)	293.683m
BT-EDR(3Mbps)	308.7136m

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	308.1806m	400m	2.891m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	293.683m	400m	2.755m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	308.7136m	400m	2.896m

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

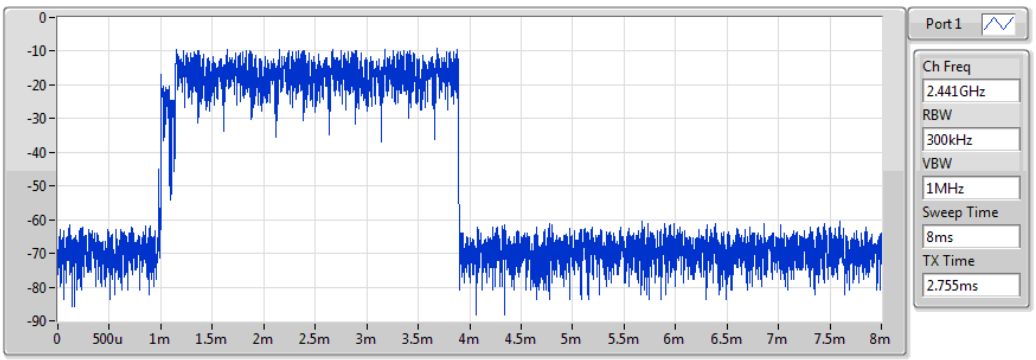
2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.1806m	400m	2.891m

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

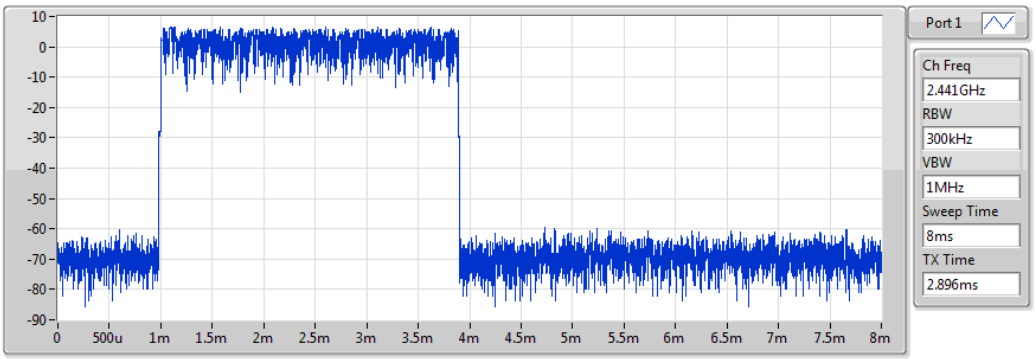
2441MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	293.683m	400m	2.755m

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

2441MHz



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

Summary

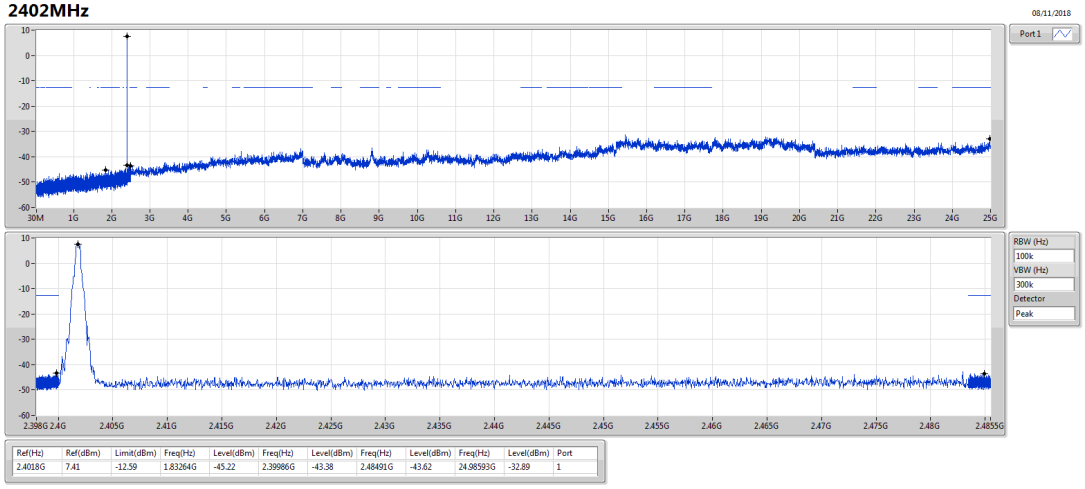
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.47991G	5.27	-14.73	1.95104G	-45.28	2.39828G	-43.80	2.48369G	-42.35	17.17058G	-32.53	1
BT-EDR(2Mbps)	Pass	2.47987G	2.54	-17.46	2.09845G	-44.57	2.39834G	-44.08	2.48491G	-43.42	15.28218G	-32.77	1
BT-EDR(3Mbps)	Pass	2.47983G	2.71	-17.29	2.16771G	-45.08	2.3996G	-44.21	2.48391G	-42.62	15.33284G	-32.79	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	2.4018G	7.41	-12.59	1.83264G	-45.22	2.39986G	-43.38	2.48491G	-43.62	24.98593G	-32.89	1
2441MHz_TnomVnom	Pass	2.441G	7.40	-12.60	2.1615G	-44.23	2.39874G	-43.66	2.48379G	-42.48	15.34972G	-32.93	1
2480MHz_TnomVnom	Pass	2.47991G	5.27	-14.73	1.95104G	-45.28	2.39828G	-43.80	2.48369G	-42.35	17.17058G	-32.53	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.40167G	4.21	-15.79	2.13752G	-44.99	2.39931G	-35.66	2.48435G	-42.21	15.33002G	-32.47	1
2441MHz_TnomVnom	Pass	2.44079G	5.46	-14.54	2.17126G	-44.65	2.39956G	-44.06	2.48534G	-43.10	16.4276G	-32.26	1
2480MHz_TnomVnom	Pass	2.47987G	2.54	-17.46	2.09845G	-44.57	2.39834G	-44.08	2.48491G	-43.42	15.28218G	-32.77	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.4018G	6.36	-13.64	2.398G	-44.08	2.39954G	-34.48	2.48394G	-42.99	15.33002G	-32.89	1
2441MHz_TnomVnom	Pass	2.44066G	4.22	-15.78	1.76604G	-45.28	2.39836G	-43.51	2.48505G	-42.81	16.77658G	-32.97	1
2480MHz_TnomVnom	Pass	2.47983G	2.71	-17.29	2.16771G	-45.08	2.3996G	-44.21	2.48391G	-42.62	15.33284G	-32.79	1

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

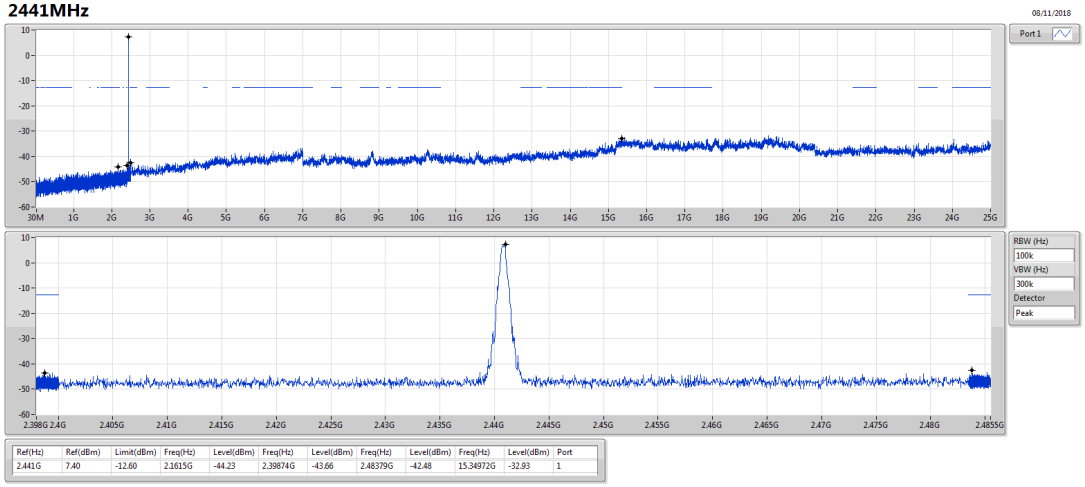
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4018G	7.41	-12.59	1.83264G	-45.22	2.39986G	-43.38	2.48491G	-43.62	24.98593G	-32.89	1

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

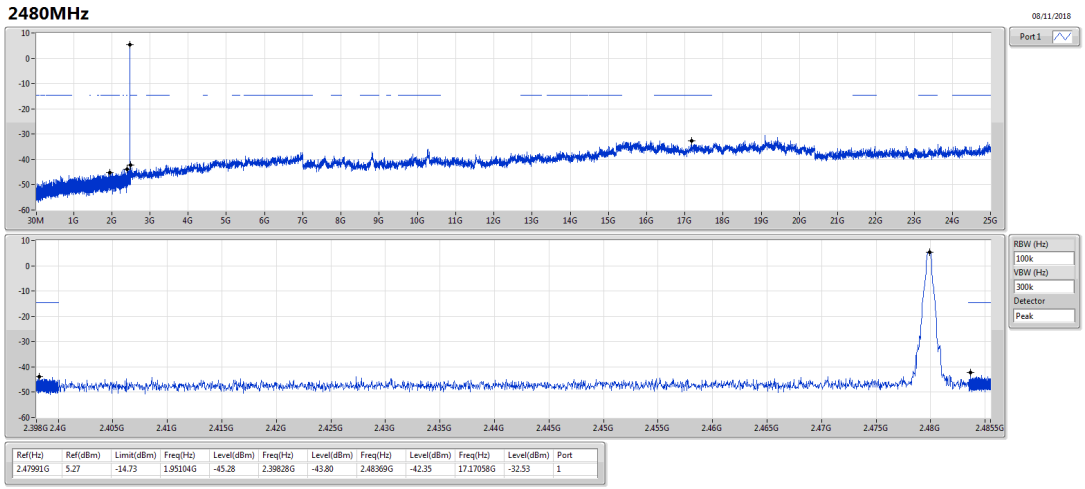
2441MHz



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	7.40	-12.60	2.1615G	-44.23	2.39874G	-43.66	2.48379G	-42.48	15.34972G	-32.93	1

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

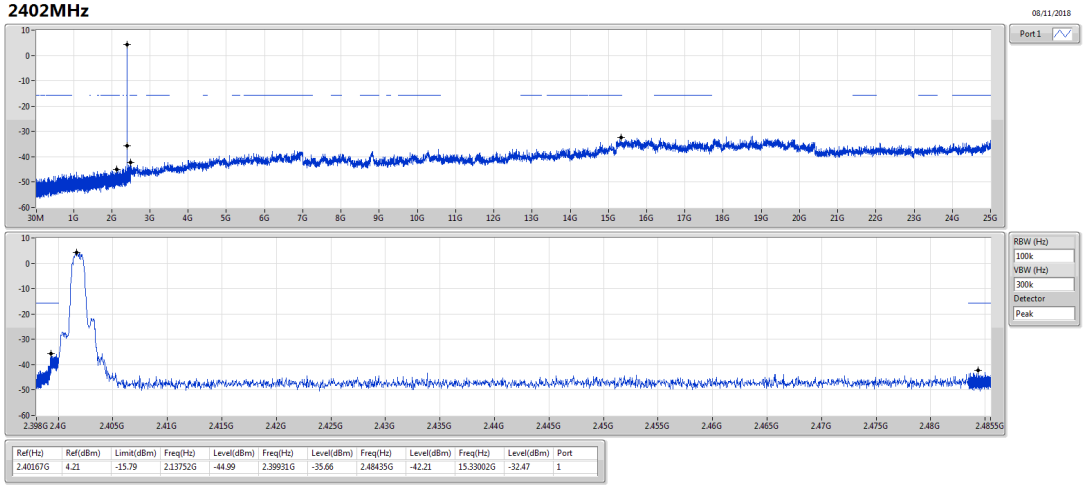
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47991G	5.27	-14.73	1.95104G	-45.28	2.39828G	-43.80	2.48369G	-42.35	17.17058G	-32.53	1

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

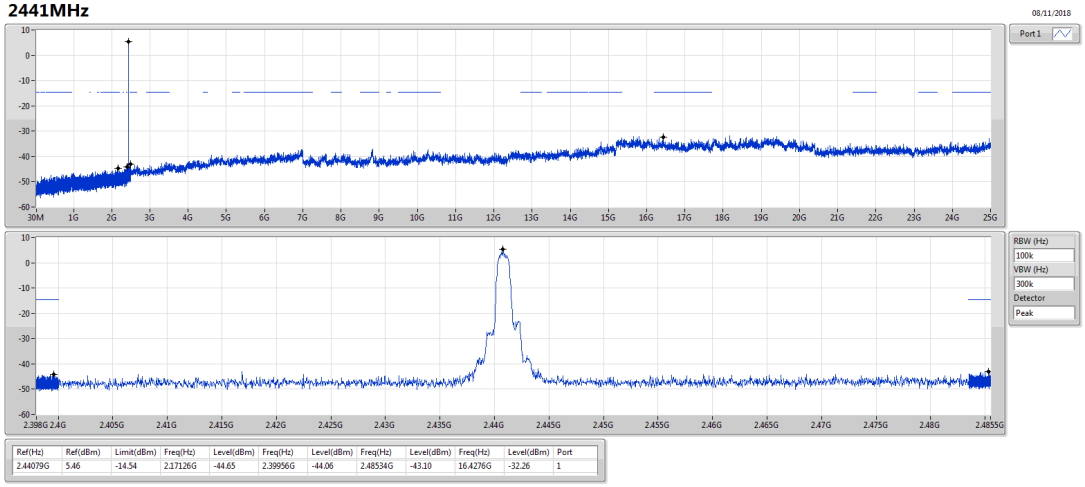
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40167G	4.21	-15.79	2.13752G	-44.99	2.39931G	-35.66	2.48435G	-42.21	15.33002G	-32.47	1

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

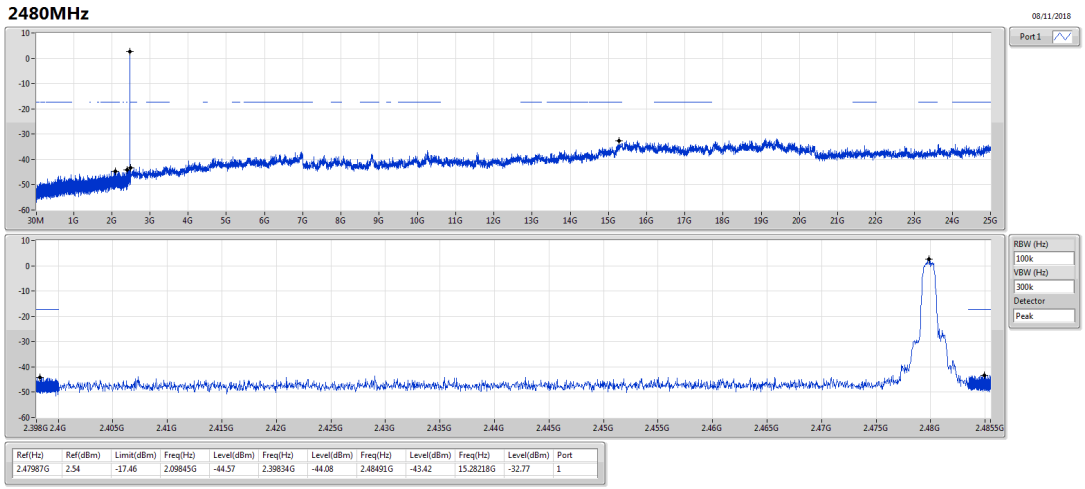
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44079G	5.46	-14.54	2.17126G	-44.65	2.39956G	-44.06	2.48534G	-43.10	16.4276G	-32.26	1

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

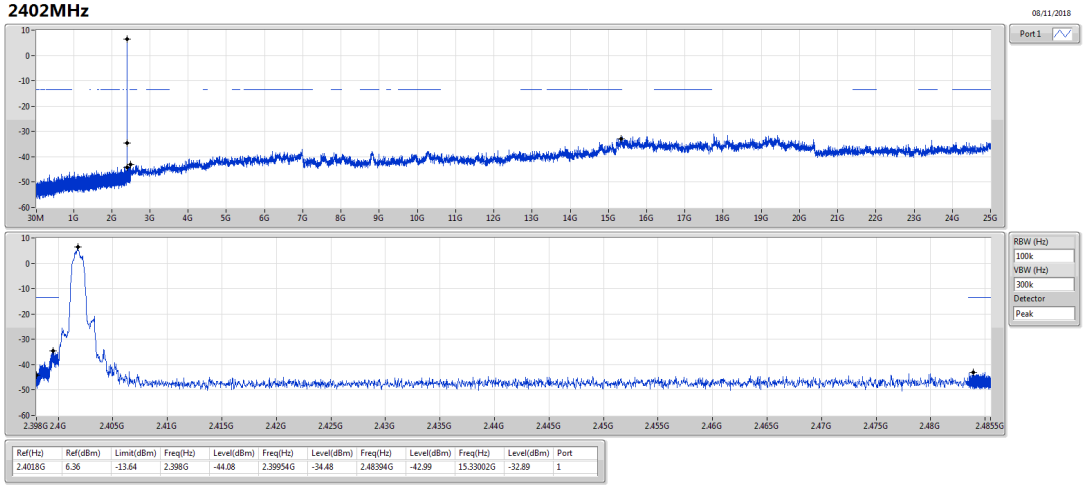
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47987G	2.54	-17.46	2.09845G	-44.57	2.39834G	-44.08	2.48491G	-43.42	15.28218G	-32.77	1

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

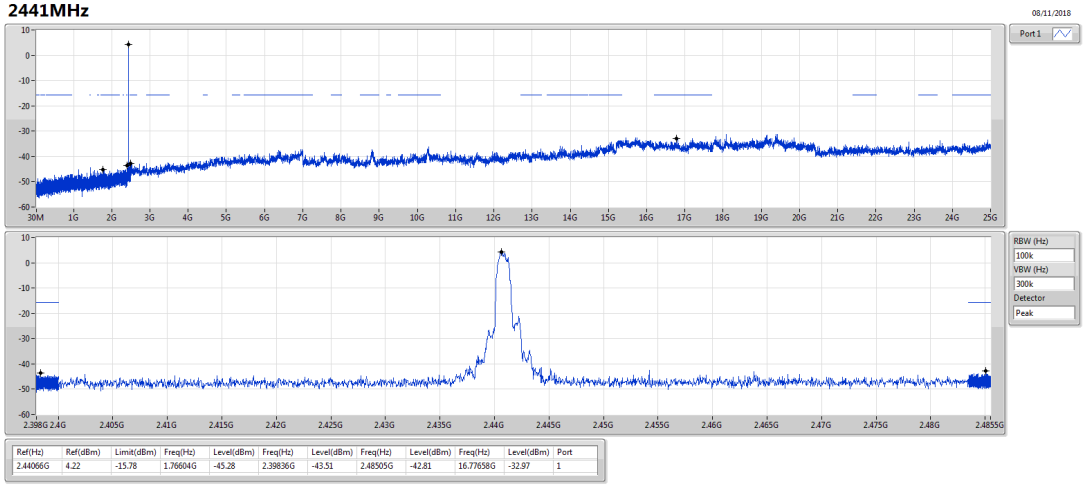
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4018G	6.36	-13.64	2.398G	-44.08	2.39954G	-34.48	2.48394G	-42.99	15.33002G	-32.89	1

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

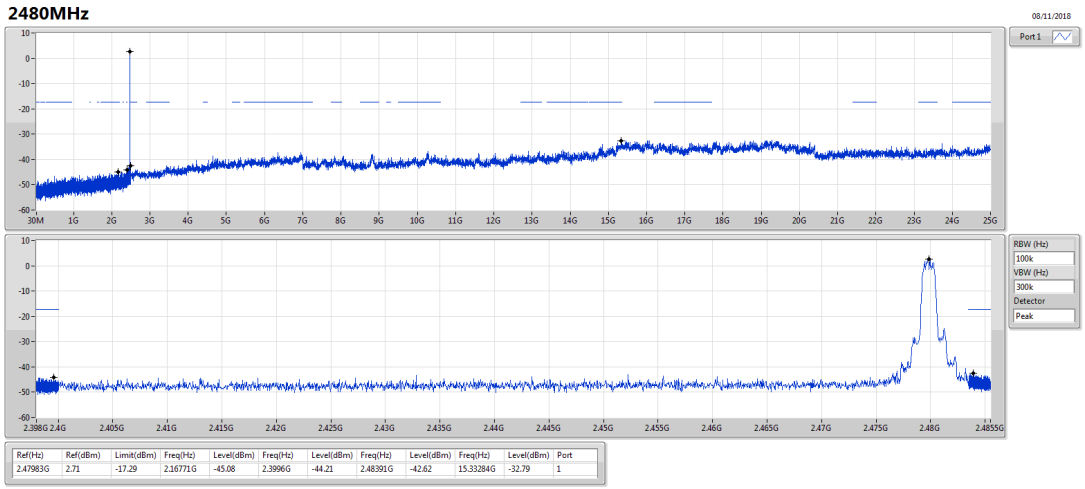
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44066G	4.22	-15.78	1.76604G	-45.28	2.39836G	-43.51	2.48505G	-42.81	16.77658G	-32.97	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
2.47983G	2.71	-17.29	2.16771G	-45.08	2.3996G	-44.21	2.48391G	-42.62	15.33284G	-32.79	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	274.44M	41.22	46.00	-4.78	-16.69	3	Horizontal	360	1.00	-

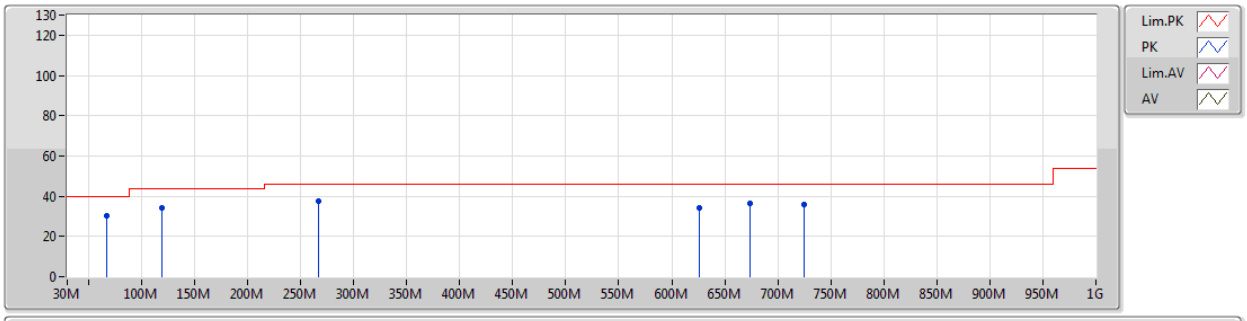
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	PK	66.86M	30.29	40.00	-9.71	-25.38	3	Vertical	0	1.00	-
2441MHz	Pass	PK	119.24M	34.41	43.50	-9.09	-19.33	3	Vertical	0	1.00	-
2441MHz	Pass	PK	266.68M	37.29	46.00	-8.71	-16.12	3	Vertical	0	1.00	-
2441MHz	Pass	PK	625.58M	34.30	46.00	-11.70	-10.19	3	Vertical	0	1.00	-
2441MHz	Pass	PK	674.08M	36.19	46.00	-9.81	-9.99	3	Vertical	0	1.00	-
2441MHz	Pass	PK	724.52M	35.71	46.00	-10.29	-9.09	3	Vertical	0	1.00	-
2441MHz	Pass	PK	61.04M	34.96	40.00	-5.04	-25.64	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	125.06M	34.30	43.50	-9.20	-19.21	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	225.94M	39.51	46.00	-6.49	-20.24	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	274.44M	41.22	46.00	-4.78	-16.69	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	625.58M	37.80	46.00	-8.20	-10.19	3	Horizontal	360	1.00	-
2441MHz	Pass	PK	674.08M	38.81	46.00	-7.19	-9.99	3	Horizontal	360	1.00	-

BT-BR(1Mbps)

2441MHz_AC

11/12/2018

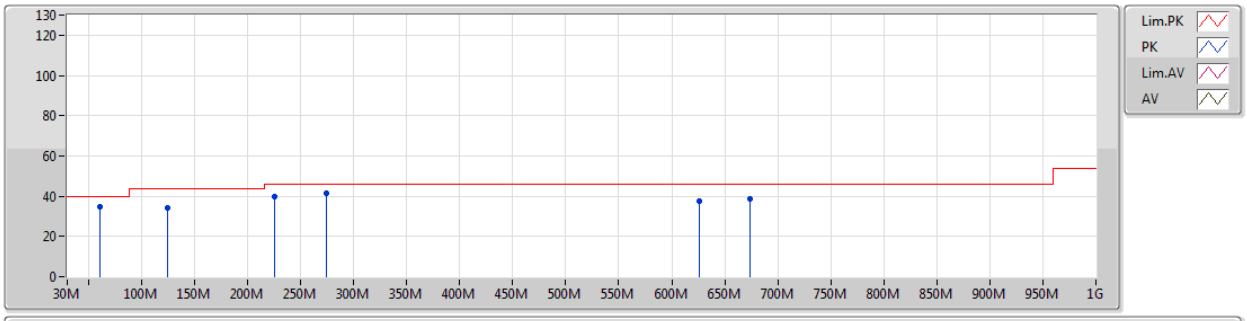


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	66.86M	30.29	40.00	-9.71	-25.38	3	Vertical	0	1.00	-
PK	119.24M	34.41	43.50	-9.09	-19.33	3	Vertical	0	1.00	-
PK	266.68M	37.29	46.00	-8.71	-16.12	3	Vertical	0	1.00	-
PK	625.58M	34.30	46.00	-11.70	-10.19	3	Vertical	0	1.00	-
PK	674.08M	36.19	46.00	-9.81	-9.99	3	Vertical	0	1.00	-
PK	724.52M	35.71	46.00	-10.29	-9.09	3	Vertical	0	1.00	-

BT-BR(1Mbps)

2441MHz_AC

11/12/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	61.04M	34.96	40.00	-5.04	-25.64	3	Horizontal	360	1.00	-
PK	125.06M	34.30	43.50	-9.20	-19.21	3	Horizontal	360	1.00	-
PK	225.94M	39.51	46.00	-6.49	-20.24	3	Horizontal	360	1.00	-
PK	274.44M	41.22	46.00	-4.78	-16.69	3	Horizontal	360	1.00	-
PK	625.58M	37.80	46.00	-8.20	-10.19	3	Horizontal	360	1.00	-
PK	674.08M	38.81	46.00	-7.19	-9.99	3	Horizontal	360	1.00	-

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	2.4836G	44.38	54.00	-9.62	31.11	3	Horizontal	46	2.90	-
BT-2EDR_Nss1_1TX	Pass	AV	2.4835G	45.92	54.00	-8.08	31.11	3	Horizontal	47	2.90	-
BT-3EDR_Nss1_1TX	Pass	AV	2.4835G	46.70	54.00	-7.30	31.11	3	Horizontal	50	2.89	-

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	2.3644G	43.20	54.00	-10.80	30.69	3	Vertical	178	2.76	-
2402MHz	Pass	AV	2.4018G	95.28	Inf	-Inf	30.82	3	Vertical	178	2.76	-
2402MHz	Pass	PK	2.3554G	55.60	74.00	-18.40	30.66	3	Vertical	178	2.76	-
2402MHz	Pass	PK	2.402G	95.73	Inf	-Inf	30.82	3	Vertical	178	2.76	-
2402MHz	Pass	AV	2.3868G	43.20	54.00	-10.80	30.76	3	Horizontal	43	2.77	-
2402MHz	Pass	AV	2.4018G	101.36	Inf	-Inf	30.82	3	Horizontal	43	2.77	-
2402MHz	Pass	PK	2.3712G	55.54	74.00	-18.46	30.71	3	Horizontal	43	2.77	-
2402MHz	Pass	PK	2.402G	101.80	Inf	-Inf	30.82	3	Horizontal	43	2.77	-
2402MHz	Pass	AV	4.80358G	31.77	54.00	-22.23	2.08	3	Vertical	4	2.74	-
2402MHz	Pass	PK	4.8043G	43.92	74.00	-30.08	2.08	3	Vertical	4	2.74	-
2402MHz	Pass	AV	4.80364G	34.84	54.00	-19.16	2.08	3	Horizontal	21	2.30	-
2402MHz	Pass	PK	4.8043G	44.46	74.00	-29.54	2.08	3	Horizontal	21	2.30	-
2441MHz	Pass	AV	2.3782G	43.27	54.00	-10.73	30.73	3	Vertical	173	2.99	-
2441MHz	Pass	AV	2.441G	97.34	Inf	-Inf	30.95	3	Vertical	173	2.99	-
2441MHz	Pass	AV	2.4998G	43.95	54.00	-10.05	31.17	3	Vertical	173	2.99	-
2441MHz	Pass	PK	2.361G	55.62	74.00	-18.38	30.67	3	Vertical	173	2.99	-
2441MHz	Pass	PK	2.441G	97.80	Inf	-Inf	30.95	3	Vertical	173	2.99	-
2441MHz	Pass	PK	2.4962G	57.37	74.00	-16.63	31.16	3	Vertical	173	2.99	-
2441MHz	Pass	AV	2.389G	43.33	54.00	-10.67	30.77	3	Horizontal	43	2.68	-
2441MHz	Pass	AV	2.441G	103.55	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
2441MHz	Pass	AV	2.4922G	43.98	54.00	-10.02	31.14	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.3826G	56.19	74.00	-17.81	30.75	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.441G	104.03	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.4902G	56.63	74.00	-17.37	31.13	3	Horizontal	43	2.68	-
2441MHz	Pass	AV	4.88182G	32.96	54.00	-21.04	2.27	3	Vertical	69	2.45	-
2441MHz	Pass	PK	4.88086G	43.17	74.00	-30.83	2.27	3	Vertical	69	2.45	-
2441MHz	Pass	AV	4.88164G	35.01	54.00	-18.99	2.27	3	Horizontal	24	2.49	-
2441MHz	Pass	PK	4.88188G	44.77	74.00	-29.23	2.27	3	Horizontal	24	2.49	-
2480MHz	Pass	AV	2.4798G	96.73	Inf	-Inf	31.09	3	Vertical	175	2.61	-
2480MHz	Pass	AV	2.4898G	43.92	54.00	-10.08	31.13	3	Vertical	175	2.61	-
2480MHz	Pass	PK	2.48G	97.23	Inf	-Inf	31.09	3	Vertical	175	2.61	-
2480MHz	Pass	PK	2.4922G	56.49	74.00	-17.51	31.14	3	Vertical	175	2.61	-
2480MHz	Pass	AV	2.4798G	103.32	Inf	-Inf	31.09	3	Horizontal	46	2.90	-
2480MHz	Pass	AV	2.4836G	44.38	54.00	-9.62	31.11	3	Horizontal	46	2.90	-
2480MHz	Pass	PK	2.48G	103.78	Inf	-Inf	31.09	3	Horizontal	46	2.90	-
2480MHz	Pass	PK	2.4836G	56.87	74.00	-17.13	31.11	3	Horizontal	46	2.90	-
2480MHz	Pass	AV	4.9597G	31.79	54.00	-22.21	2.47	3	Vertical	64	2.34	-
2480MHz	Pass	PK	4.9594G	42.82	74.00	-31.18	2.47	3	Vertical	64	2.34	-
2480MHz	Pass	AV	4.95964G	34.10	54.00	-19.90	2.47	3	Horizontal	59	1.03	-
2480MHz	Pass	PK	4.97416G	45.02	74.00	-28.98	2.50	3	Horizontal	59	1.03	-
BT-2EDR_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3716G	43.21	54.00	-10.79	30.71	3	Vertical	179	2.77	-
2402MHz	Pass	AV	2.4018G	92.49	Inf	-Inf	30.82	3	Vertical	179	2.77	-
2402MHz	Pass	PK	2.3654G	56.58	74.00	-17.42	30.69	3	Vertical	179	2.77	-
2402MHz	Pass	PK	2.402G	95.82	Inf	-Inf	30.82	3	Vertical	179	2.77	-
2402MHz	Pass	AV	2.359G	43.19	54.00	-10.81	30.67	3	Horizontal	50	2.77	-
2402MHz	Pass	AV	2.4018G	98.78	Inf	-Inf	30.82	3	Horizontal	50	2.77	-

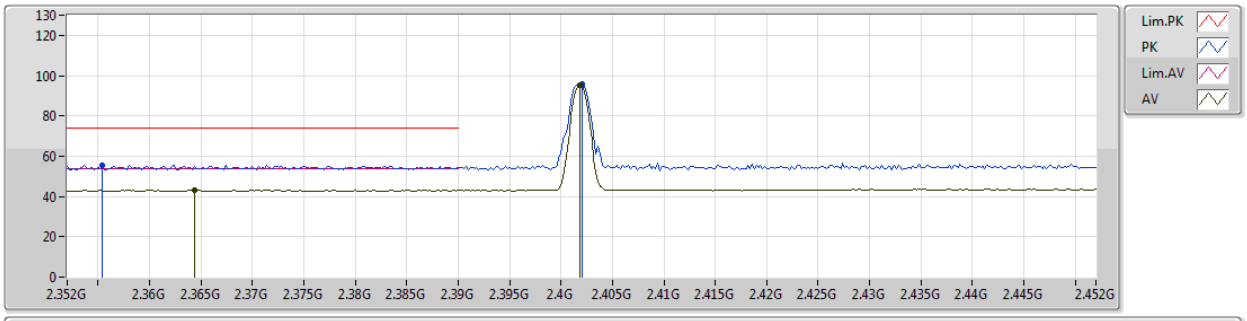
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3532G	55.54	74.00	-18.46	30.65	3	Horizontal	50	2.77	-
2402MHz	Pass	PK	2.402G	102.08	Inf	-Inf	30.82	3	Horizontal	50	2.77	-
2441MHz	Pass	AV	2.3758G	43.10	54.00	-10.90	30.72	3	Vertical	175	2.99	-
2441MHz	Pass	AV	2.441G	93.69	Inf	-Inf	30.95	3	Vertical	175	2.99	-
2441MHz	Pass	AV	2.4954G	43.78	54.00	-10.22	31.16	3	Vertical	175	2.99	-
2441MHz	Pass	PK	2.367G	55.26	74.00	-18.74	30.70	3	Vertical	175	2.99	-
2441MHz	Pass	PK	2.441G	97.21	Inf	-Inf	30.95	3	Vertical	175	2.99	-
2441MHz	Pass	PK	2.4874G	56.66	74.00	-17.34	31.12	3	Vertical	175	2.99	-
2441MHz	Pass	AV	2.3642G	43.11	54.00	-10.89	30.68	3	Horizontal	43	2.68	-
2441MHz	Pass	AV	2.441G	100.12	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
2441MHz	Pass	AV	2.495G	43.88	54.00	-10.12	31.16	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.3566G	56.14	74.00	-17.86	30.66	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.441G	103.72	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
2441MHz	Pass	PK	2.4866G	55.96	74.00	-18.04	31.12	3	Horizontal	43	2.68	-
2480MHz	Pass	AV	2.4798G	93.29	Inf	-Inf	31.09	3	Vertical	174	2.61	-
2480MHz	Pass	AV	2.4835G	44.43	54.00	-9.57	31.11	3	Vertical	174	2.61	-
2480MHz	Pass	PK	2.4798G	96.93	Inf	-Inf	31.09	3	Vertical	174	2.61	-
2480MHz	Pass	PK	2.488G	56.11	74.00	-17.89	31.13	3	Vertical	174	2.61	-
2480MHz	Pass	AV	2.4798G	99.95	Inf	-Inf	31.09	3	Horizontal	47	2.90	-
2480MHz	Pass	AV	2.4835G	45.92	54.00	-8.08	31.11	3	Horizontal	47	2.90	-
2480MHz	Pass	PK	2.48G	103.59	Inf	-Inf	31.09	3	Horizontal	47	2.90	-
2480MHz	Pass	PK	2.4835G	59.08	74.00	-14.92	31.11	3	Horizontal	47	2.90	-
BT-3EDR_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3644G	43.09	54.00	-10.91	30.69	3	Vertical	181	2.75	-
2402MHz	Pass	AV	2.4018G	92.28	Inf	-Inf	30.82	3	Vertical	181	2.75	-
2402MHz	Pass	PK	2.3766G	55.66	74.00	-18.34	30.72	3	Vertical	181	2.75	-
2402MHz	Pass	PK	2.4018G	95.65	Inf	-Inf	30.82	3	Vertical	181	2.75	-
2402MHz	Pass	AV	2.3796G	43.31	54.00	-10.69	30.74	3	Horizontal	42	2.78	-
2402MHz	Pass	AV	2.4018G	98.67	Inf	-Inf	30.82	3	Horizontal	42	2.78	-
2402MHz	Pass	PK	2.3878G	55.39	74.00	-18.61	30.77	3	Horizontal	42	2.78	-
2402MHz	Pass	PK	2.4018G	102.00	Inf	-Inf	30.82	3	Horizontal	42	2.78	-
2441MHz	Pass	AV	2.3898G	43.33	54.00	-10.67	30.77	3	Vertical	176	2.99	-
2441MHz	Pass	AV	2.441G	93.54	Inf	-Inf	30.95	3	Vertical	176	2.99	-
2441MHz	Pass	AV	2.485G	43.92	54.00	-10.08	31.12	3	Vertical	176	2.99	-
2441MHz	Pass	PK	2.379G	55.61	74.00	-18.39	30.74	3	Vertical	176	2.99	-
2441MHz	Pass	PK	2.4406G	97.16	Inf	-Inf	30.95	3	Vertical	176	2.99	-
2441MHz	Pass	PK	2.497G	57.20	74.00	-16.80	31.16	3	Vertical	176	2.99	-
2441MHz	Pass	AV	2.385G	43.19	54.00	-10.81	30.76	3	Horizontal	49	2.68	-
2441MHz	Pass	AV	2.441G	99.98	Inf	-Inf	30.95	3	Horizontal	49	2.68	-
2441MHz	Pass	AV	2.4914G	44.00	54.00	-10.00	31.14	3	Horizontal	49	2.68	-
2441MHz	Pass	PK	2.373G	55.28	74.00	-18.72	30.71	3	Horizontal	49	2.68	-
2441MHz	Pass	PK	2.441G	103.54	Inf	-Inf	30.95	3	Horizontal	49	2.68	-
2441MHz	Pass	PK	2.485G	56.34	74.00	-17.66	31.12	3	Horizontal	49	2.68	-
2480MHz	Pass	AV	2.4798G	92.74	Inf	-Inf	31.09	3	Vertical	180	2.62	-
2480MHz	Pass	AV	2.4835G	44.48	54.00	-9.52	31.11	3	Vertical	180	2.62	-
2480MHz	Pass	PK	2.4798G	96.51	Inf	-Inf	31.09	3	Vertical	180	2.62	-
2480MHz	Pass	PK	2.4836G	57.84	74.00	-16.16	31.11	3	Vertical	180	2.62	-
2480MHz	Pass	AV	2.4798G	99.97	Inf	-Inf	31.09	3	Horizontal	50	2.89	-
2480MHz	Pass	AV	2.4835G	46.70	54.00	-7.30	31.11	3	Horizontal	50	2.89	-

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	2.4798G	103.73	Inf	-Inf	31.09	3	Horizontal	50	2.89	-
2480MHz	Pass	PK	2.4835G	63.83	74.00	-10.17	31.11	3	Horizontal	50	2.89	-

BT-BR(1Mbps)

2402MHz_TX

06/11/2018

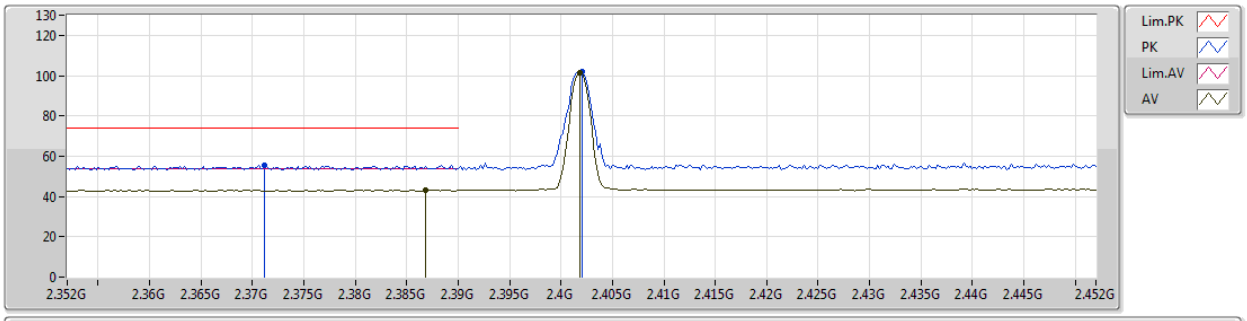


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3644G	43.20	54.00	-10.80	30.69	3	Vertical	178	2.76	-
AV	2.4018G	95.28	Inf	-Inf	30.82	3	Vertical	178	2.76	-
PK	2.3554G	55.60	74.00	-18.40	30.66	3	Vertical	178	2.76	-
PK	2.402G	95.73	Inf	-Inf	30.82	3	Vertical	178	2.76	-

BT-BR(1Mbps)

2402MHz_TX

06/11/2018

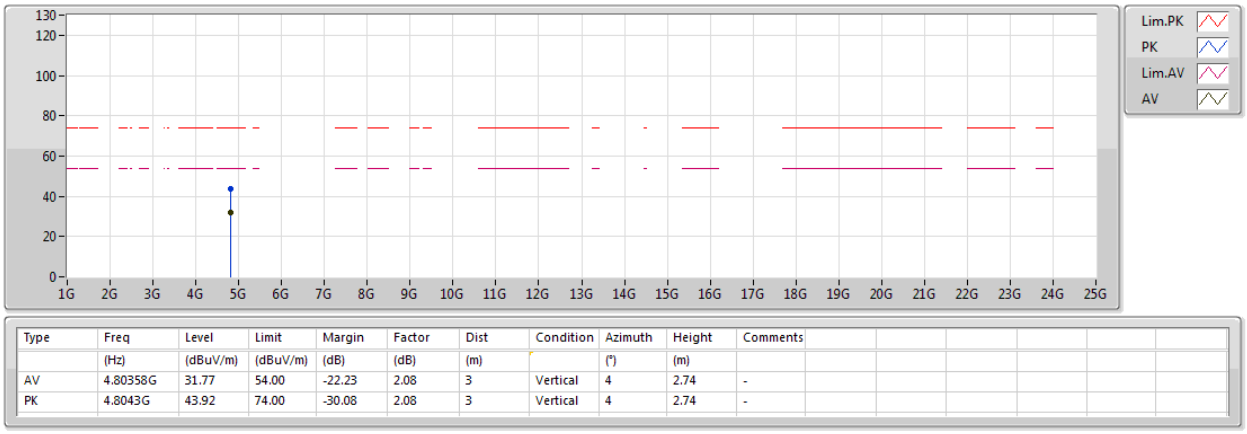


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3868G	43.20	54.00	-10.80	30.76	3	Horizontal	43	2.77	-
AV	2.4018G	101.36	Inf	-Inf	30.82	3	Horizontal	43	2.77	-
PK	2.3712G	55.54	74.00	-18.46	30.71	3	Horizontal	43	2.77	-
PK	2.402G	101.80	Inf	-Inf	30.82	3	Horizontal	43	2.77	-

BT-BR(1Mbps)

2402MHz_TX

06/11/2018

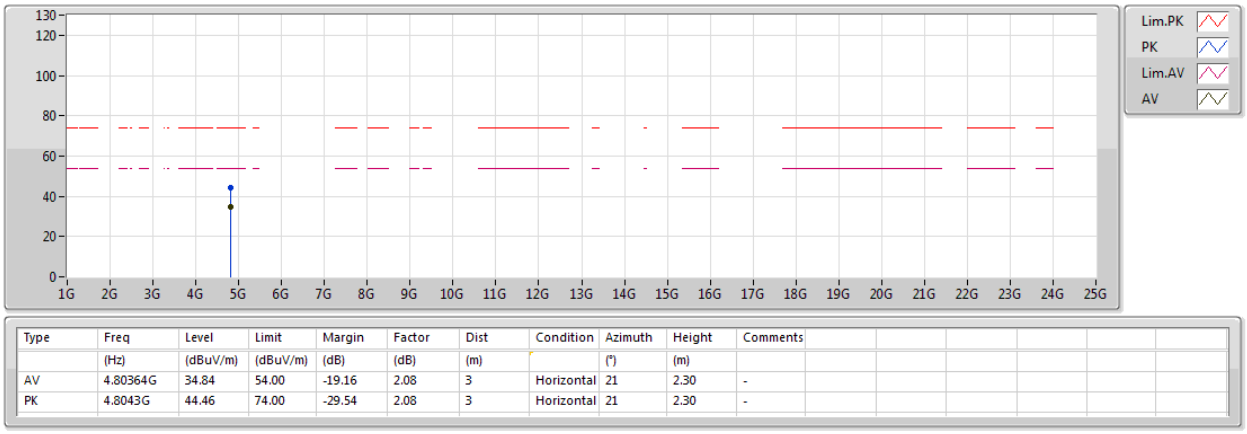


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80358G	31.77	54.00	-22.23	2.08	3	Vertical	4	2.74	-
PK	4.8043G	43.92	74.00	-30.08	2.08	3	Vertical	4	2.74	-

BT-BR(1Mbps)

2402MHz_TX

06/11/2018

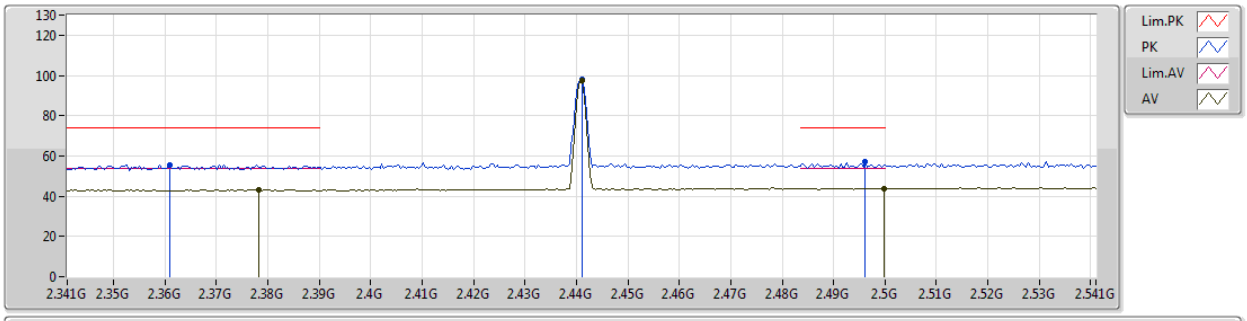


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80364G	34.84	54.00	-19.16	2.08	3	Horizontal	21	2.30	-
PK	4.8043G	44.46	74.00	-29.54	2.08	3	Horizontal	21	2.30	-

BT-BR(1Mbps)

2441MHz_TX

07/11/2018

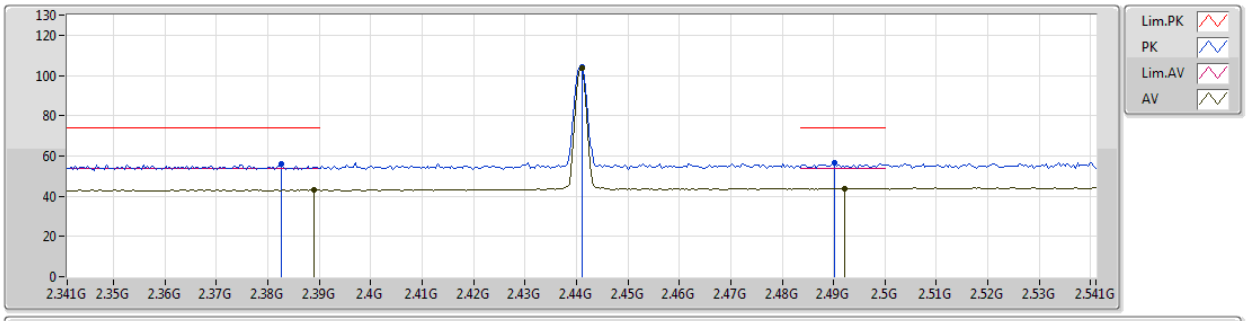


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3782G	43.27	54.00	-10.73	30.73	3	Vertical	173	2.99	-
AV	2.441G	97.34	Inf	-Inf	30.95	3	Vertical	173	2.99	-
AV	2.4998G	43.95	54.00	-10.05	31.17	3	Vertical	173	2.99	-
PK	2.361G	55.62	74.00	-18.38	30.67	3	Vertical	173	2.99	-
PK	2.441G	97.80	Inf	-Inf	30.95	3	Vertical	173	2.99	-
PK	2.4962G	57.37	74.00	-16.63	31.16	3	Vertical	173	2.99	-

BT-BR(1Mbps)

2441MHz_TX

07/11/2018

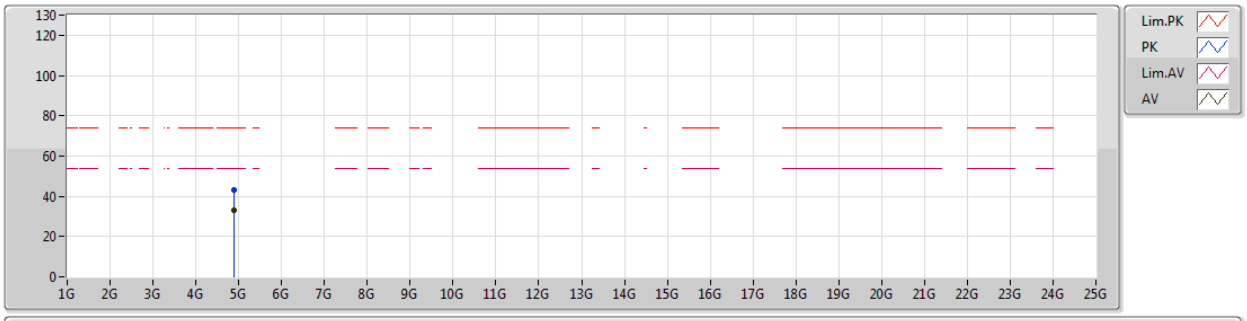


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.389G	43.33	54.00	-10.67	30.77	3	Horizontal	43	2.68	-
AV	2.441G	103.55	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
AV	2.4922G	43.98	54.00	-10.02	31.14	3	Horizontal	43	2.68	-
PK	2.3826G	56.19	74.00	-17.81	30.75	3	Horizontal	43	2.68	-
PK	2.441G	104.03	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
PK	2.4902G	56.63	74.00	-17.37	31.13	3	Horizontal	43	2.68	-

BT-BR(1Mbps)

2441MHz_TX

07/11/2018

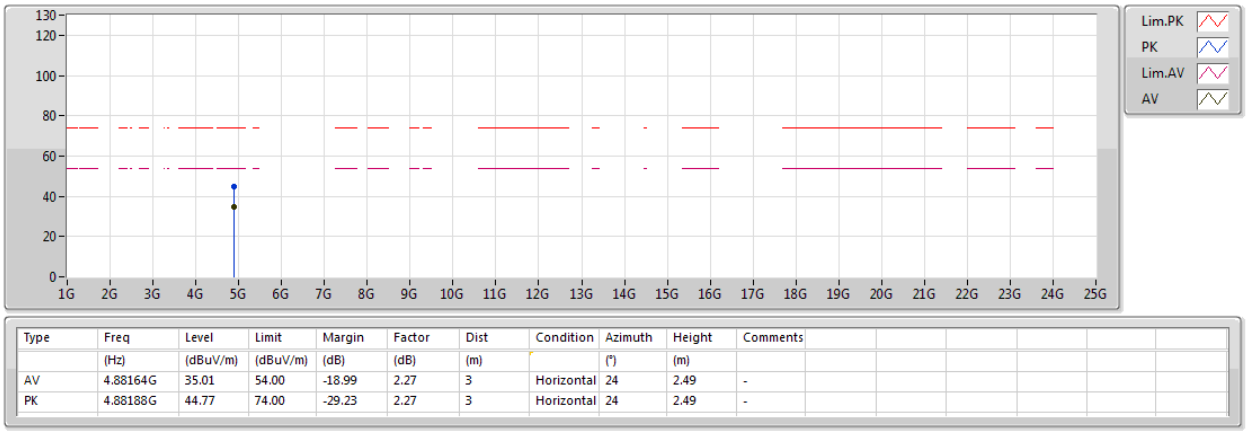


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88182G	32.96	54.00	-21.04	2.27	3	Vertical	69	2.45	-
PK	4.88086G	43.17	74.00	-30.83	2.27	3	Vertical	69	2.45	-

BT-BR(1Mbps)

2441MHz_TX

07/11/2018

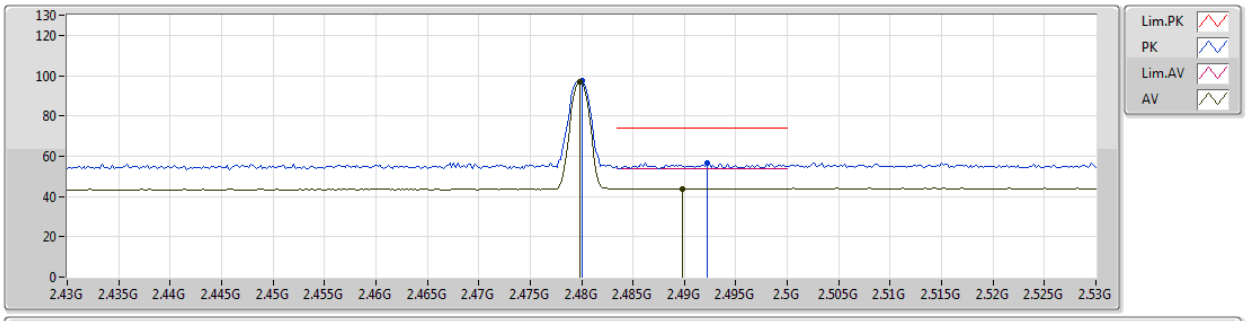


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.88164G	35.01	54.00	-18.99	2.27	3	Horizontal	24	2.49	-
PK	4.88188G	44.77	74.00	-29.23	2.27	3	Horizontal	24	2.49	-

BT-BR(1Mbps)

2480MHz_TX

07/11/2018

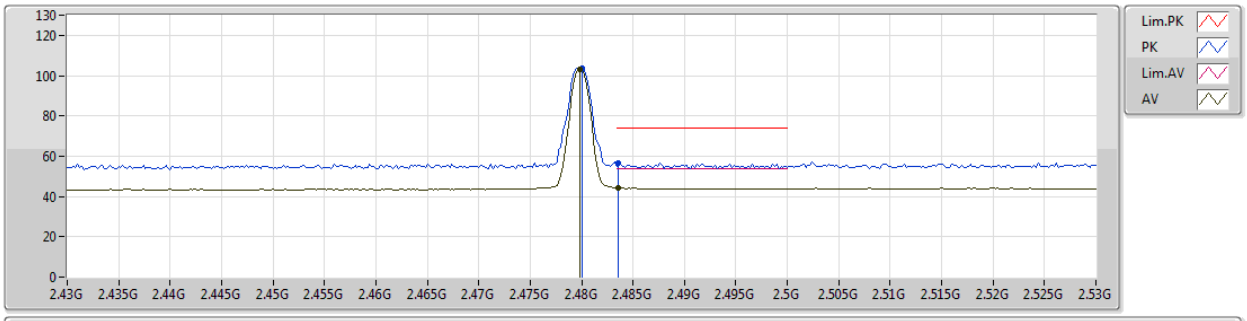


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	96.73	Inf	-Inf	31.09	3	Vertical	175	2.61	-
AV	2.4898G	43.92	54.00	-10.08	31.13	3	Vertical	175	2.61	-
PK	2.48G	97.23	Inf	-Inf	31.09	3	Vertical	175	2.61	-
PK	2.4922G	56.49	74.00	-17.51	31.14	3	Vertical	175	2.61	-

BT-BR(1Mbps)

2480MHz_TX

07/11/2018

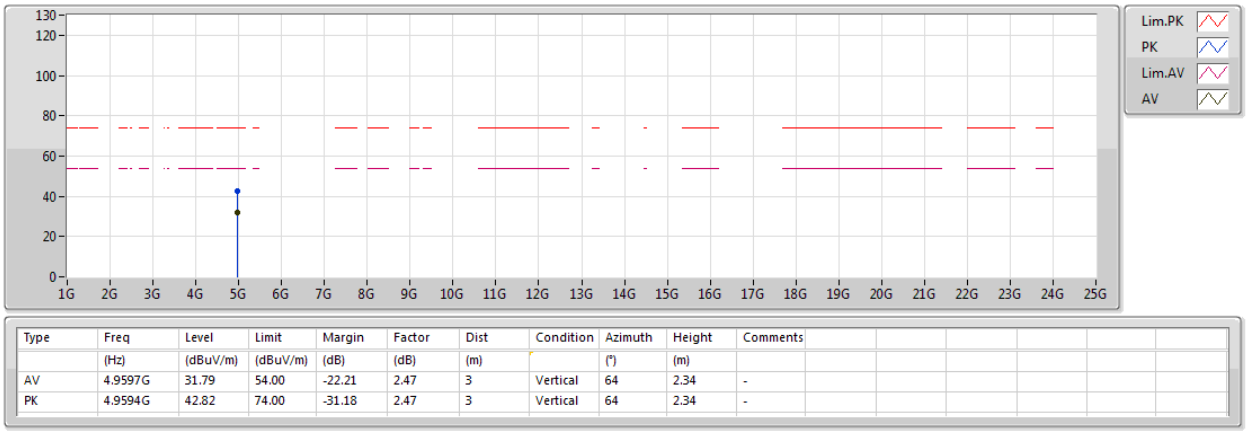


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	103.32	Inf	-Inf	31.09	3	Horizontal	46	2.90	-
AV	2.4836G	44.38	54.00	-9.62	31.11	3	Horizontal	46	2.90	-
PK	2.48G	103.78	Inf	-Inf	31.09	3	Horizontal	46	2.90	-
PK	2.4836G	56.87	74.00	-17.13	31.11	3	Horizontal	46	2.90	-

BT-BR(1Mbps)

2480MHz_TX

07/11/2018

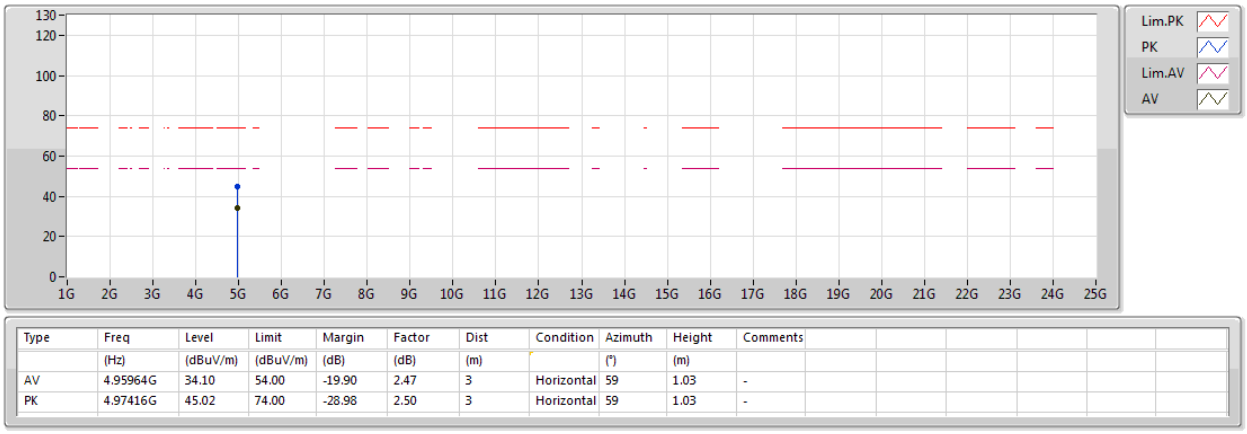


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.9597G	31.79	54.00	-22.21	2.47	3	Vertical	64	2.34	-
PK	4.9594G	42.82	74.00	-31.18	2.47	3	Vertical	64	2.34	-

BT-BR(1Mbps)

2480MHz_TX

07/11/2018

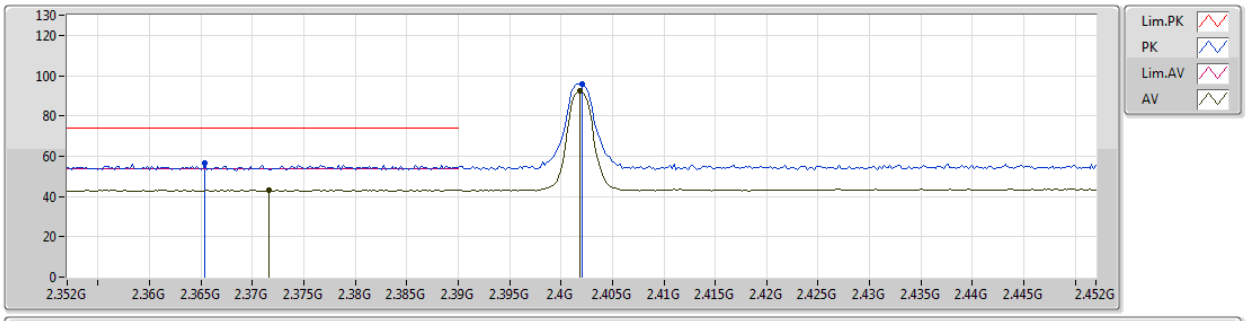


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.95964G	34.10	54.00	-19.90	2.47	3	Horizontal	59	1.03	-
PK	4.97416G	45.02	74.00	-28.98	2.50	3	Horizontal	59	1.03	-

BT-2EDR_Nss1_1TX

2402MHz_TX

06/11/2018

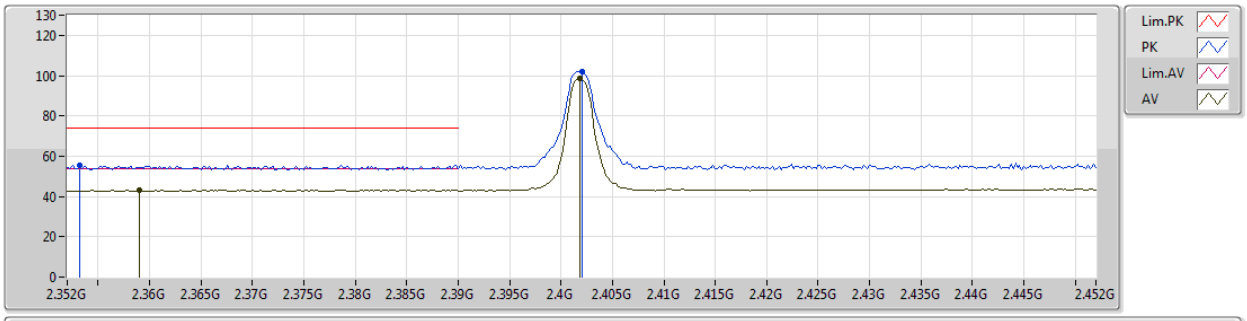


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3716G	43.21	54.00	-10.79	30.71	3	Vertical	179	2.77	-
AV	2.4018G	92.49	Inf	-Inf	30.82	3	Vertical	179	2.77	-
PK	2.3654G	56.58	74.00	-17.42	30.69	3	Vertical	179	2.77	-
PK	2.402G	95.82	Inf	-Inf	30.82	3	Vertical	179	2.77	-

BT-2EDR_Nss1_1TX

2402MHz_TX

06/11/2018

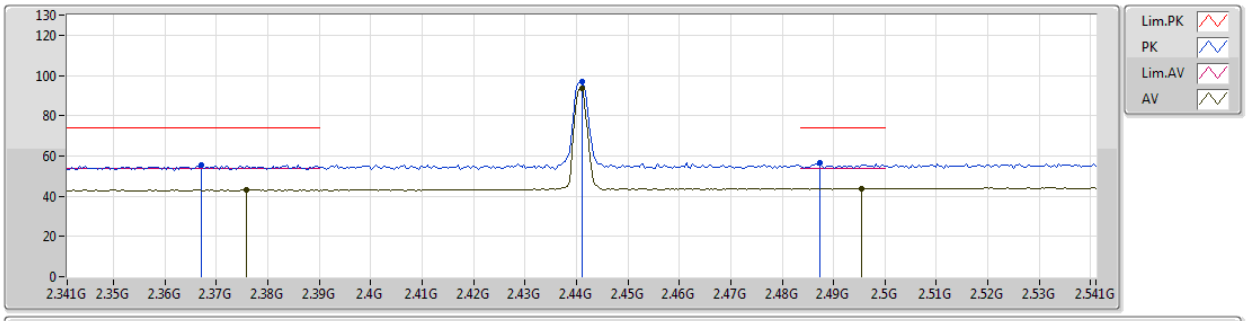


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.359G	43.19	54.00	-10.81	30.67	3	Horizontal	50	2.77	-
AV	2.4018G	98.78	Inf	-Inf	30.82	3	Horizontal	50	2.77	-
PK	2.3532G	55.54	74.00	-18.46	30.65	3	Horizontal	50	2.77	-
PK	2.402G	102.08	Inf	-Inf	30.82	3	Horizontal	50	2.77	-

BT-2EDR_Nss1_1TX

2441MHz_TX

07/11/2018

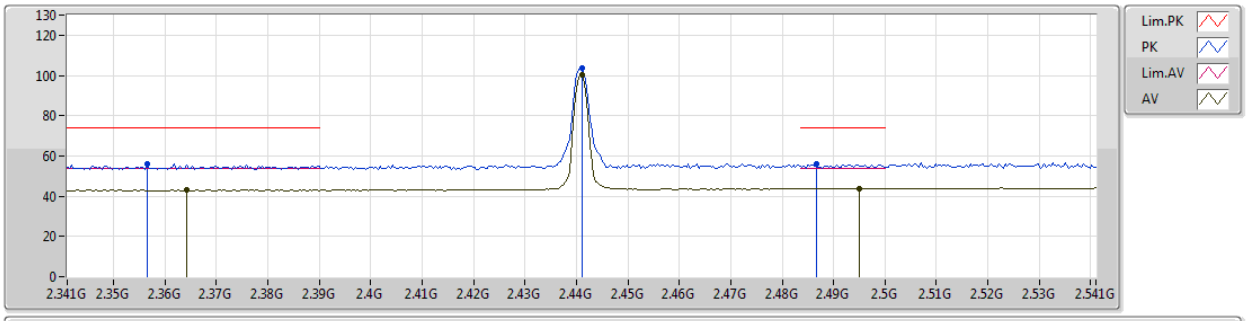


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3758G	43.10	54.00	-10.90	30.72	3	Vertical	175	2.99	-
AV	2.441G	93.69	Inf	-Inf	30.95	3	Vertical	175	2.99	-
AV	2.4954G	43.78	54.00	-10.22	31.16	3	Vertical	175	2.99	-
PK	2.367G	55.26	74.00	-18.74	30.70	3	Vertical	175	2.99	-
PK	2.441G	97.21	Inf	-Inf	30.95	3	Vertical	175	2.99	-
PK	2.4874G	56.66	74.00	-17.34	31.12	3	Vertical	175	2.99	-

BT-2EDR_Nss1_1TX

2441MHz_TX

07/11/2018

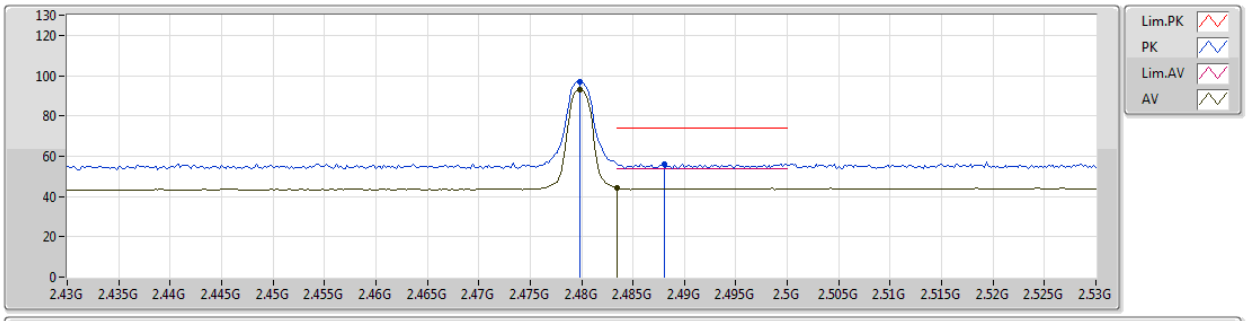


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3642G	43.11	54.00	-10.89	30.68	3	Horizontal	43	2.68	-
AV	2.441G	100.12	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
AV	2.495G	43.88	54.00	-10.12	31.16	3	Horizontal	43	2.68	-
PK	2.3566G	56.14	74.00	-17.86	30.66	3	Horizontal	43	2.68	-
PK	2.441G	103.72	Inf	-Inf	30.95	3	Horizontal	43	2.68	-
PK	2.4866G	55.96	74.00	-18.04	31.12	3	Horizontal	43	2.68	-

BT-2EDR_Nss1_1TX

2480MHz_TX

07/11/2018

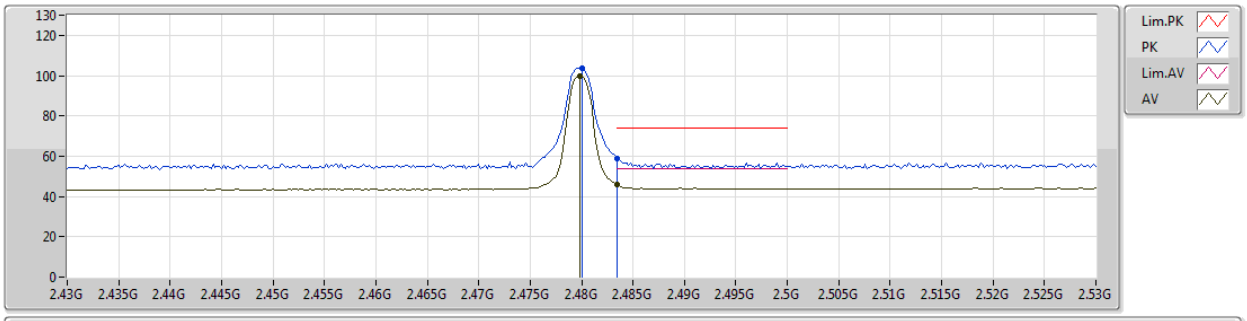


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	93.29	Inf	-Inf	31.09	3	Vertical	174	2.61	-
AV	2.4835G	44.43	54.00	-9.57	31.11	3	Vertical	174	2.61	-
PK	2.4798G	96.93	Inf	-Inf	31.09	3	Vertical	174	2.61	-
PK	2.488G	56.11	74.00	-17.89	31.13	3	Vertical	174	2.61	-

BT-2EDR_Nss1_1TX

2480MHz_TX

07/11/2018

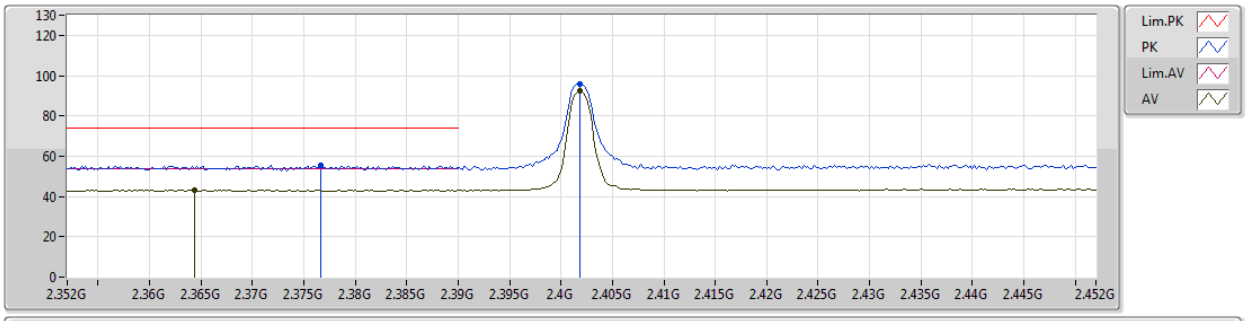


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	99.95	Inf	-Inf	31.09	3	Horizontal	47	2.90	-
AV	2.4835G	45.92	54.00	-8.08	31.11	3	Horizontal	47	2.90	-
PK	2.48G	103.59	Inf	-Inf	31.09	3	Horizontal	47	2.90	-
PK	2.4835G	59.08	74.00	-14.92	31.11	3	Horizontal	47	2.90	-

BT-3EDR_Nss1_1TX

2402MHz_TX

06/11/2018

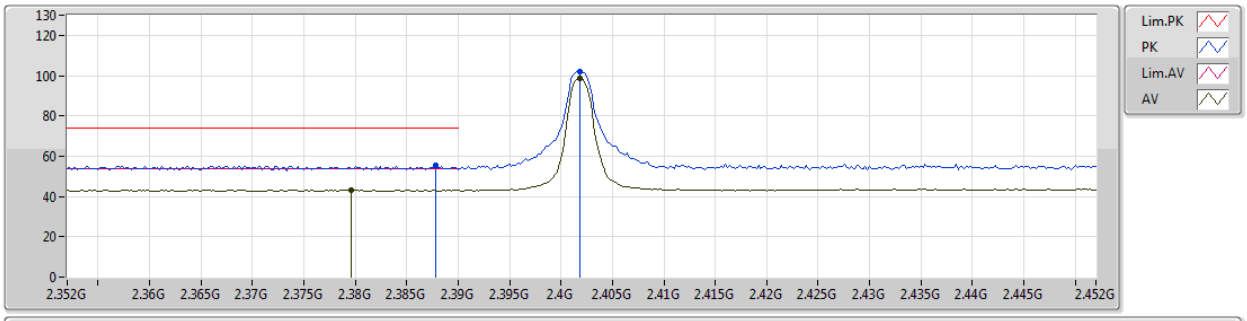


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3644G	43.09	54.00	-10.91	30.69	3	Vertical	181	2.75	-
AV	2.4018G	92.28	Inf	-Inf	30.82	3	Vertical	181	2.75	-
PK	2.3766G	55.66	74.00	-18.34	30.72	3	Vertical	181	2.75	-
PK	2.4018G	95.65	Inf	-Inf	30.82	3	Vertical	181	2.75	-

BT-3EDR_Nss1_1TX

2402MHz_TX

06/11/2018

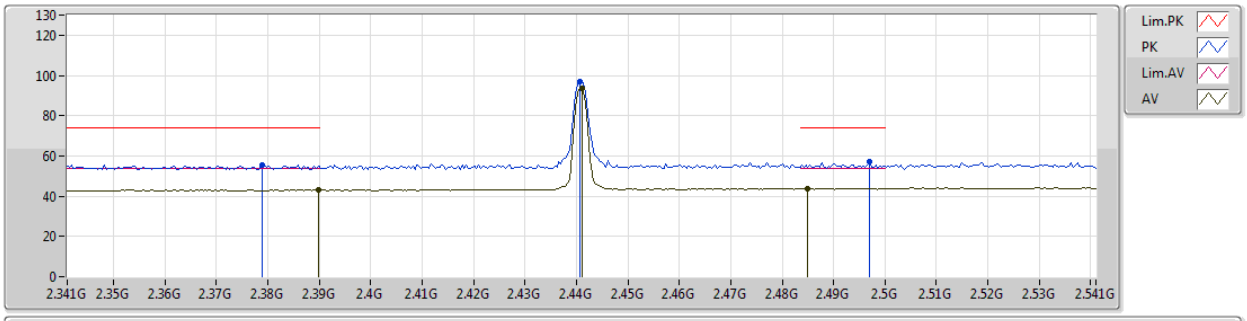


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3796G	43.31	54.00	-10.69	30.74	3	Horizontal	42	2.78	-
AV	2.4018G	98.67	Inf	-Inf	30.82	3	Horizontal	42	2.78	-
PK	2.3878G	55.39	74.00	-18.61	30.77	3	Horizontal	42	2.78	-
PK	2.4018G	102.00	Inf	-Inf	30.82	3	Horizontal	42	2.78	-

BT-3EDR_Nss1_1TX

2441MHz_TX

06/11/2018

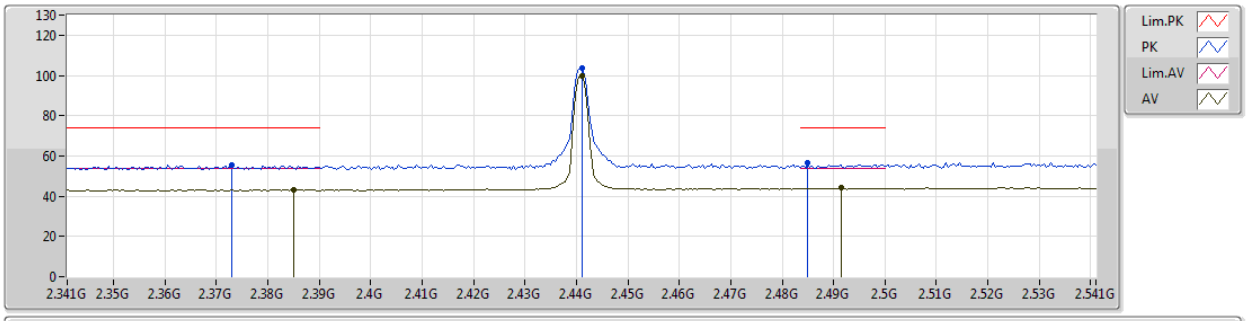


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	43.33	54.00	-10.67	30.77	3	Vertical	176	2.99	-
AV	2.441G	93.54	Inf	-Inf	30.95	3	Vertical	176	2.99	-
AV	2.485G	43.92	54.00	-10.08	31.12	3	Vertical	176	2.99	-
PK	2.379G	55.61	74.00	-18.39	30.74	3	Vertical	176	2.99	-
PK	2.4406G	97.16	Inf	-Inf	30.95	3	Vertical	176	2.99	-
PK	2.497G	57.20	74.00	-16.80	31.16	3	Vertical	176	2.99	-

BT-3EDR_Nss1_1TX

2441MHz_TX

06/11/2018

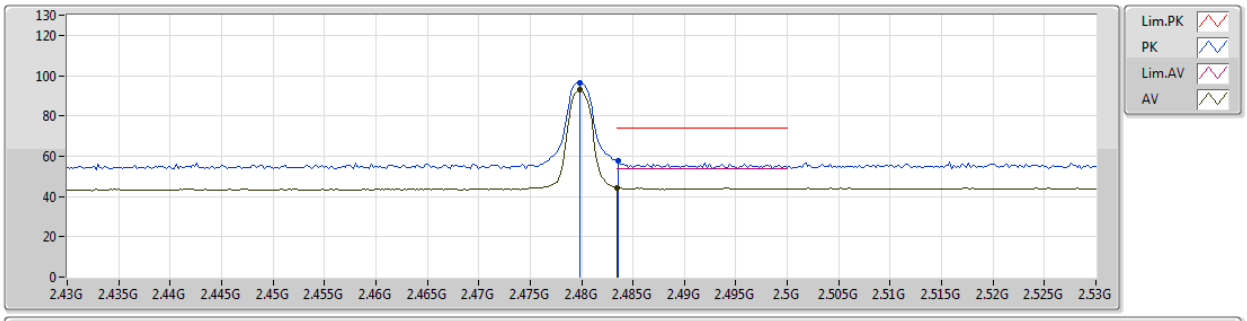


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.385G	43.19	54.00	-10.81	30.76	3	Horizontal	49	2.68	-
AV	2.441G	99.98	Inf	-Inf	30.95	3	Horizontal	49	2.68	-
AV	2.4914G	44.00	54.00	-10.00	31.14	3	Horizontal	49	2.68	-
PK	2.373G	55.28	74.00	-18.72	30.71	3	Horizontal	49	2.68	-
PK	2.441G	103.54	Inf	-Inf	30.95	3	Horizontal	49	2.68	-
PK	2.485G	56.34	74.00	-17.66	31.12	3	Horizontal	49	2.68	-

BT-3EDR_Nss1_1TX

2480MHz_TX

06/11/2018

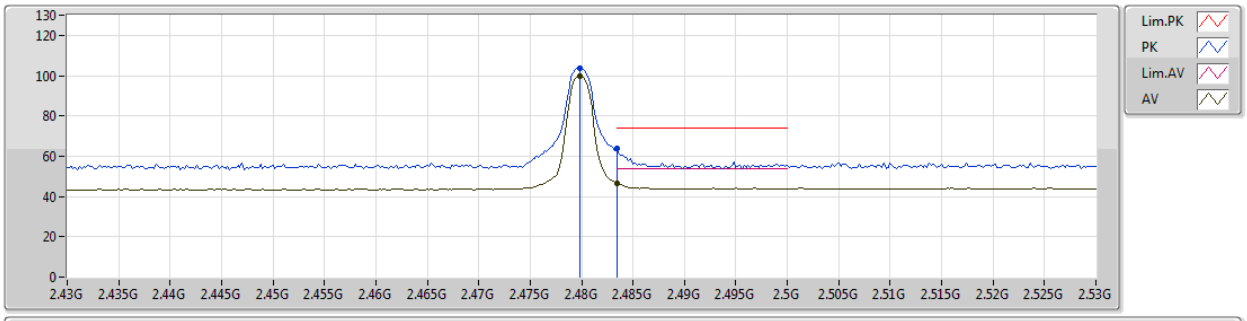


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	92.74	Inf	-Inf	31.09	3	Vertical	180	2.62	-
AV	2.4835G	44.48	54.00	-9.52	31.11	3	Vertical	180	2.62	-
PK	2.4798G	96.51	Inf	-Inf	31.09	3	Vertical	180	2.62	-
PK	2.4836G	57.84	74.00	-16.16	31.11	3	Vertical	180	2.62	-

BT-3EDR_Nss1_1TX

2480MHz_TX

06/11/2018



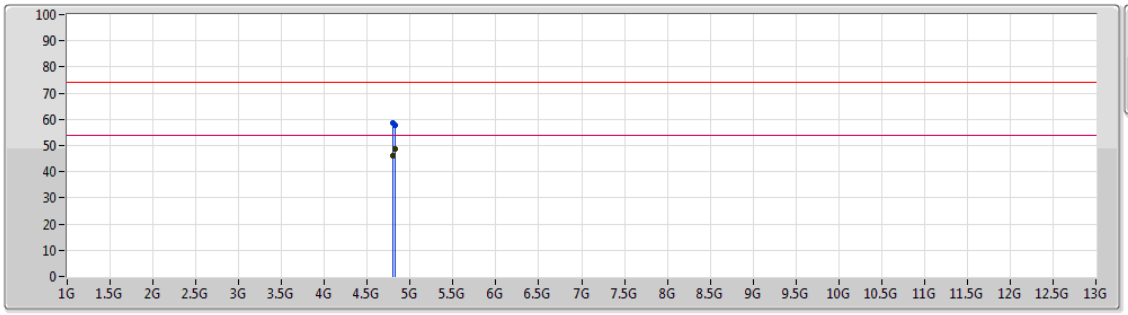
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4798G	99.97	Inf	-Inf	31.09	3	Horizontal	50	2.89	-
AV	2.4835G	46.70	54.00	-7.30	31.11	3	Horizontal	50	2.89	-
PK	2.4798G	103.73	Inf	-Inf	31.09	3	Horizontal	50	2.89	-
PK	2.4835G	63.83	74.00	-10.17	31.11	3	Horizontal	50	2.89	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	4.82405G	51.25	54.00	-2.75	2.13	3	Horizontal	341	2.55	-

Mode 1

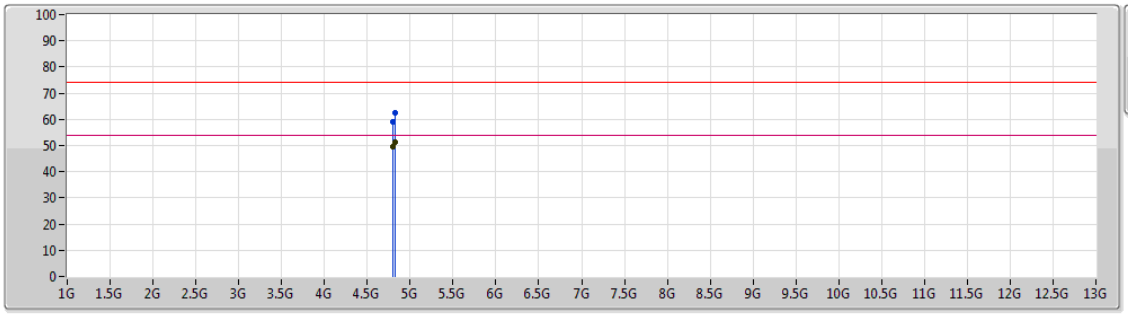
29/12/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80432G	46.27	54.00	-7.73	2.08	3	Vertical	12	2.51	-
AV	4.82379G	48.65	54.00	-5.35	2.13	3	Vertical	159	2.19	-
PK	4.80416G	58.43	74.00	-15.57	2.08	3	Vertical	12	2.51	-
PK	4.82379G	57.57	74.00	-16.43	2.13	3	Vertical	159	2.19	-

Mode 1

29/12/2018



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80401G	49.67	54.00	-4.33	2.08	3	Horizontal	38	2.12	-
AV	4.82405G	51.25	54.00	-2.75	2.13	3	Horizontal	341	2.55	-
PK	4.80421G	59.24	74.00	-14.76	2.08	3	Horizontal	38	2.12	-
PK	4.82405G	62.57	74.00	-11.43	2.13	3	Horizontal	341	2.55	-