FCC Test Report

FCC ID	:	**AUO-LABQ3**
Equipment	:	**LabQuest 3**
Brand Name	:	**Vernier**
Model Name	:	**LABQ3**
Applicant	:	**Vernier Software & Technology 13979 SW Millikan Way Beaverton, OR 97005, USA**
Manufacturer	:	**Vernier Software & Technology 13979 SW Millikan Way Beaverton, OR 97005, USA**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Aug. 19, 2020, and testing was started from Aug. 26, 2020 and completed on Sep. 15, 2020. 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 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.)

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History of this test report

Report No.	Version	Description	Issued Date
FR081907AD	01	Initial issue of report	Oct. 28, 2020

Summary of Test Result

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

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: Jenny Yang

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	INPAQ	ACA-5036-A2-CC-S	Chip Antenna	N/A

Ant.	Port	Gain (dBi)	
		2.4G	BT
1	1	3	3

Note 1: The EUT has one antenna.

For 2.4GHz function:

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

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

For BT function:

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

Only Ant. 1 (port 1) can be used as transmitting/receiving antenna.

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)	0.79	1.02	2.909m	1k
BT-EDR(2Mbps)	0.79	1.02	2.909m	1k
BT-EDR(3Mbps)	0.79	1.02	2.912m	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
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

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.			
☒	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
		TEL : 886-3-318-0787	FAX : 886-3-318-0287
Test site Designation No. TW1097 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward Wang	23.6~24.9°C / 56~ 60%	10/Sep/2020
RF Conducted	TH01-HY	Vivi Jiang	20.1~26.9°C / 50~60%	26/Aug/2020~ 15/Sep/2020
Radiated	03CH09-HY	Lego Lin	23.2~25.1°C / 56~ 60%	07/Sep/2020~ 08/Sep/2020

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)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	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 Version	Dos1.6

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	7
2441MHz	7
2480MHz	7
BT-EDR(2Mbps)	-
2402MHz	7
2441MHz	7
2480MHz	7
BT-EDR(3Mbps)	-
2402MHz	7
2441MHz	7
2480MHz	7

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 Adapter mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains ☒ Non-adaptive frequency hopping systems (Non-AFH) ☒ adaptive frequency hopping systems (AFH)
Non-AFH Mode configuration was found to be the worst case and measured during the test.	

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

2.4 Accessories

Accessories				
AC Adapter	Brand Name	N/A	Model Name	FJ-SW1260502500DN
	Manufacturer	SHENZHEN FUJIA APPLIANCE CO., LTD.	P/N	S6-052ASP
	Power Rating	I/P: 100 - 240 Vac, 0.4 A, O/P: 5Vdc, 2.5A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		

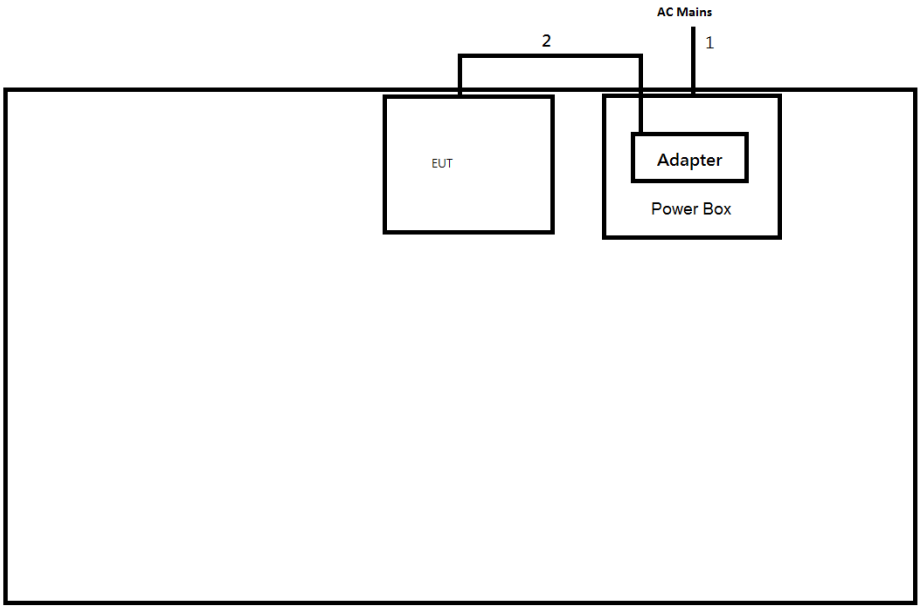
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

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

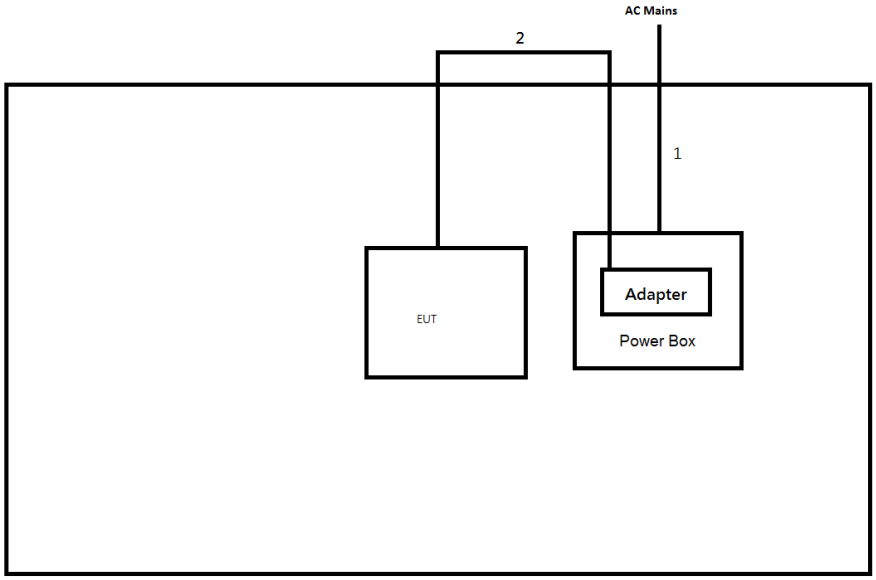
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.45	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.45	-

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

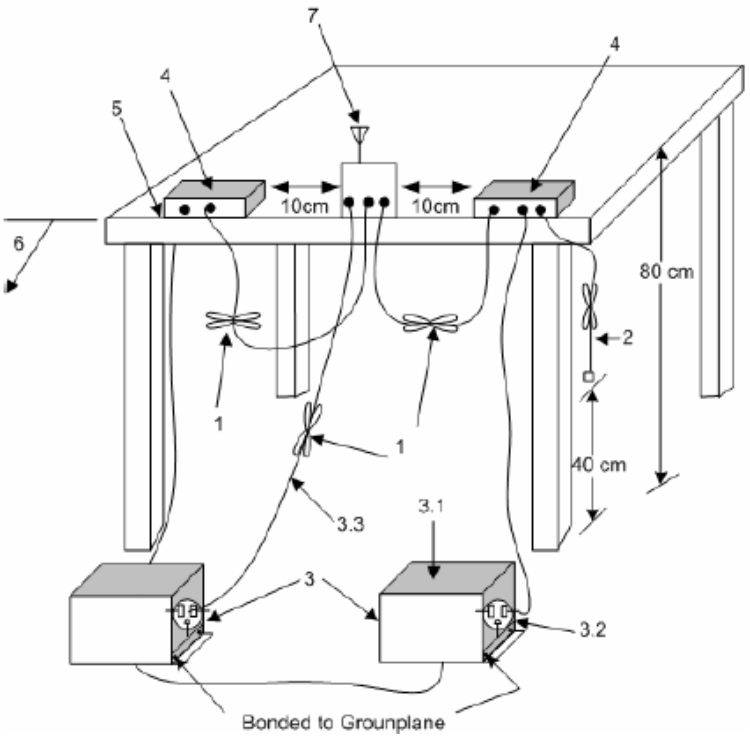
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.6 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	

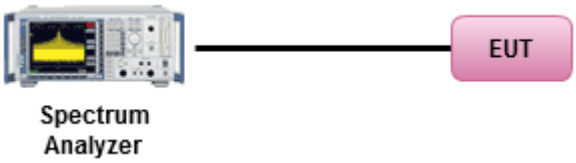
3.2.2 Measuring Instruments

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

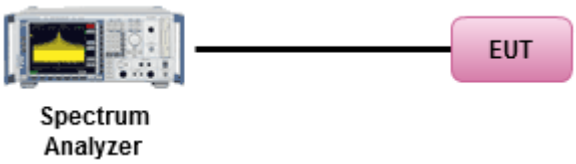
3.4.3 Measuring Instruments

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	

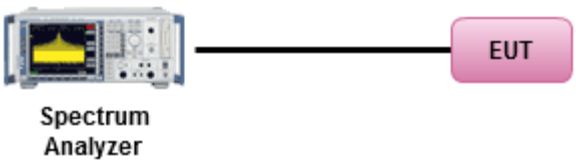
3.5.2 Measuring Instruments

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.	

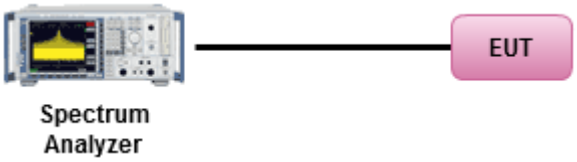
3.6.2 Measuring Instruments

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.

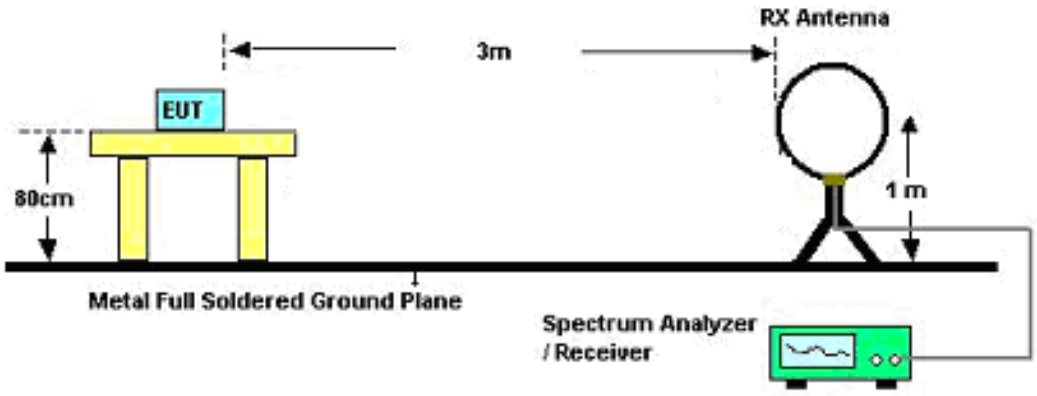
3.7.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.10.3 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.
▪	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
	▪ Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

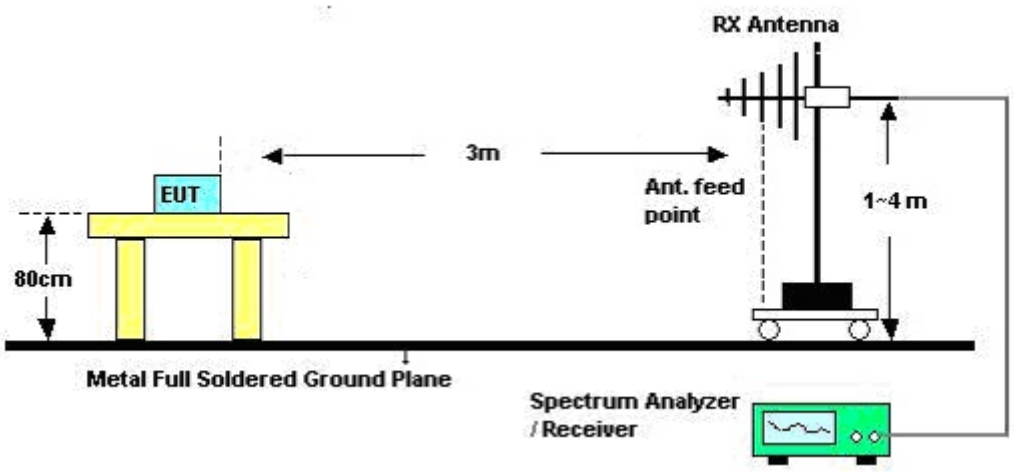
3.7.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

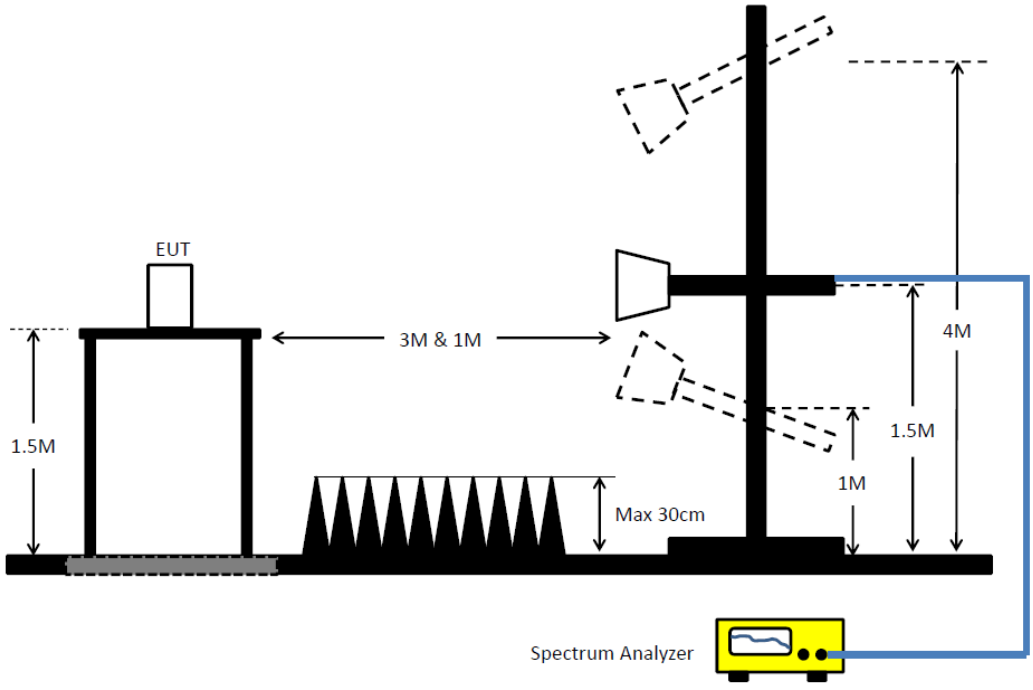
3.7.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz


30MHz~1GHz



Above 1GHz



3.7.6 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.

3.7.7 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
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	31/Aug/2020	30/Aug/2021
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	19/Mar/2020	18/Mar/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	11/Nov/2020
Pulse Sensor	Anritsu	MA2411B	917017	300MHz~40GHz	17/Feb/2020	16/Feb/2021
Power Meter	Anritsu	ML2495A	949003	300MHz~40GHz	17/Feb/2020	16/Feb/2021

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 3m	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	19/Mar/2020	18/Mar/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	17/Aug/2020	16/Aug/2021
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	14/Apr/2020	13/Apr/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	24/Jun/2020	23/Jun/2021
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MTJ6102-05	35418 & 3	30MHz~1GHz	30/Sep/2019	29/Sep/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	03/Sep/2020	02/Sep/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	12/Feb/2020	11/Feb/2021
RF Cable-R03m	HUBER+ SUHNER	SUCOFLEX104	324530/4+17173/4	1GHz~40GHz	12/Feb/2020	11/Feb/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

Summary

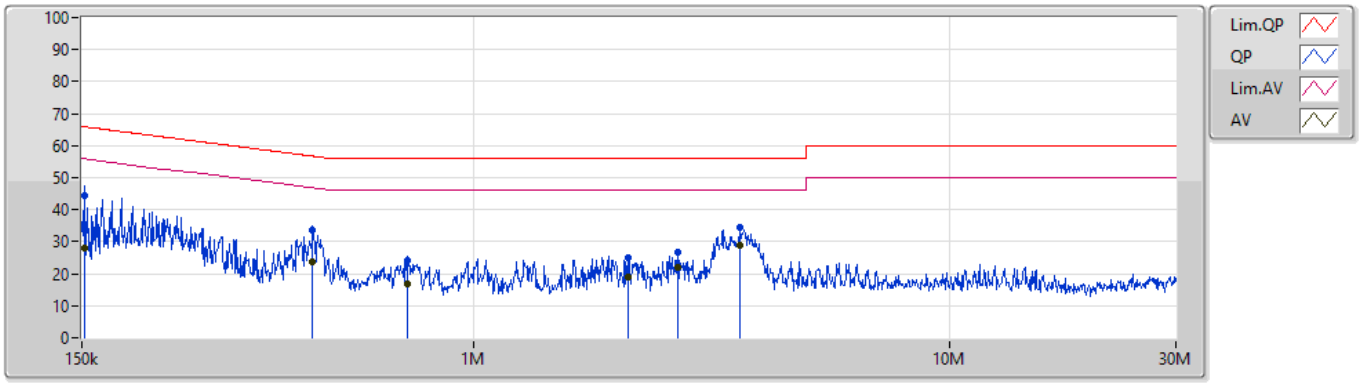
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	3.715M	29.51	46.00	-16.49	Neutral

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	152.414k	44.26	65.87	-21.61	Line	-
Mode 1	Pass	AV	152.414k	27.95	55.87	-27.92	Line	-
Mode 1	Pass	QP	458.702k	33.49	56.71	-23.22	Line	-
Mode 1	Pass	AV	458.702k	23.63	46.71	-23.08	Line	-
Mode 1	Pass	QP	725.952k	24.08	56.00	-31.92	Line	-
Mode 1	Pass	AV	725.952k	16.94	46.00	-29.06	Line	-
Mode 1	Pass	QP	2.116M	25.15	56.00	-30.85	Line	-
Mode 1	Pass	AV	2.116M	18.86	46.00	-27.14	Line	-
Mode 1	Pass	QP	2.689M	26.74	56.00	-29.26	Line	-
Mode 1	Pass	AV	2.689M	22.02	46.00	-23.98	Line	-
Mode 1	Pass	QP	3.642M	34.54	56.00	-21.46	Line	-
Mode 1	Pass	AV	3.642M	28.99	46.00	-17.01	Line	“Worst”
Mode 1	Pass	QP	163.117k	43.53	65.31	-21.78	Neutral	-
Mode 1	Pass	AV	163.117k	29.93	55.31	-25.38	Neutral	-
Mode 1	Pass	QP	462.379k	33.32	56.65	-23.33	Neutral	-
Mode 1	Pass	AV	462.379k	27.26	46.65	-19.39	Neutral	-
Mode 1	Pass	QP	1.044M	24.19	56.00	-31.81	Neutral	-
Mode 1	Pass	AV	1.044M	17.07	46.00	-28.93	Neutral	-
Mode 1	Pass	QP	1.28M	23.79	56.00	-32.21	Neutral	-
Mode 1	Pass	AV	1.28M	16.91	46.00	-29.09	Neutral	-
Mode 1	Pass	QP	2.211M	30.45	56.00	-25.55	Neutral	-
Mode 1	Pass	AV	2.211M	21.93	46.00	-24.07	Neutral	-
Mode 1	Pass	QP	3.715M	34.99	56.00	-21.01	Neutral	-
Mode 1	Pass	AV	3.715M	29.51	46.00	-16.49	Neutral	“Worst”

Conducted Emissions at Powerline_Mode 1

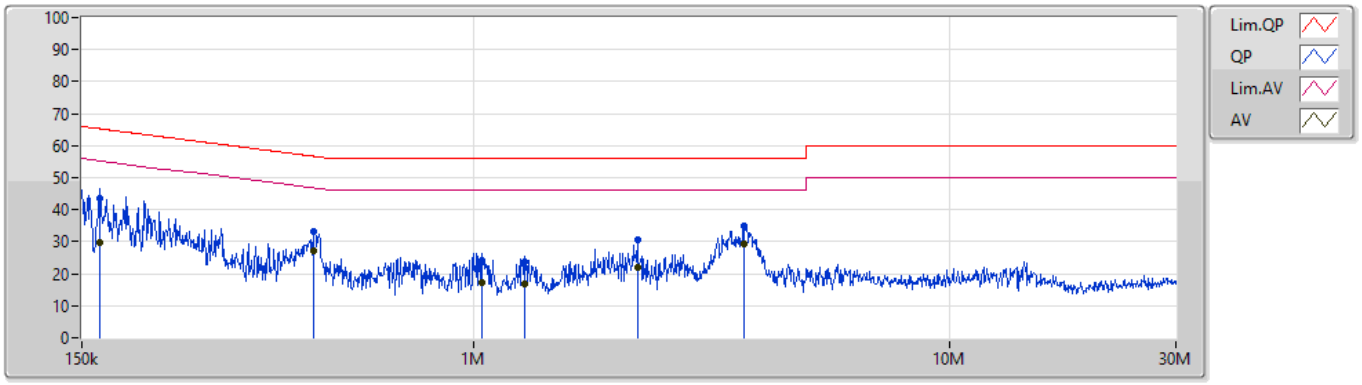
10/09/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	152.414k	44.26	65.87	-21.61	19.54	Line	-	24.72	9.66	0.01	9.87
AV	152.414k	27.95	55.87	-27.92	19.54	Line	-	8.41	9.66	0.01	9.87
QP	458.702k	33.49	56.71	-23.22	19.53	Line	-	13.96	9.64	0.02	9.87
AV	458.702k	23.63	46.71	-23.08	19.53	Line	-	4.10	9.64	0.02	9.87
QP	725.952k	24.08	56.00	-31.92	19.55	Line	-	4.53	9.64	0.04	9.87
AV	725.952k	16.94	46.00	-29.06	19.55	Line	-	-2.61	9.64	0.04	9.87
QP	2.116M	25.15	56.00	-30.85	19.60	Line	-	5.55	9.65	0.08	9.87
AV	2.116M	18.86	46.00	-27.14	19.60	Line	-	-0.74	9.65	0.08	9.87
QP	2.689M	26.74	56.00	-29.26	19.62	Line	-	7.12	9.65	0.10	9.87
AV	2.689M	22.02	46.00	-23.98	19.62	Line	-	2.40	9.65	0.10	9.87
QP	3.642M	34.54	56.00	-21.46	19.65	Line	-	14.89	9.66	0.11	9.88
AV	3.642M	28.99	46.00	-17.01	19.65	Line	"Worst"	9.34	9.66	0.11	9.88

Conducted Emissions at Powerline_Mode 1

10/09/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	163.117k	43.53	65.31	-21.78	19.53	Neutral	-	24.00	9.65	0.01	9.87
AV	163.117k	29.93	55.31	-25.38	19.53	Neutral	-	10.40	9.65	0.01	9.87
QP	462.379k	33.32	56.65	-23.33	19.52	Neutral	-	13.80	9.63	0.02	9.87
AV	462.379k	27.26	46.65	-19.39	19.52	Neutral	-	7.74	9.63	0.02	9.87
QP	1.044M	24.19	56.00	-31.81	19.56	Neutral	-	4.63	9.63	0.05	9.88
AV	1.044M	17.07	46.00	-28.93	19.56	Neutral	-	-2.49	9.63	0.05	9.88
QP	1.28M	23.79	56.00	-32.21	19.58	Neutral	-	4.21	9.64	0.06	9.88
AV	1.28M	16.91	46.00	-29.09	19.58	Neutral	-	-2.67	9.64	0.06	9.88
QP	2.211M	30.45	56.00	-25.55	19.61	Neutral	-	10.84	9.65	0.09	9.87
AV	2.211M	21.93	46.00	-24.07	19.61	Neutral	-	2.32	9.65	0.09	9.87
QP	3.715M	34.99	56.00	-21.01	19.66	Neutral	-	15.33	9.66	0.12	9.88
AV	3.715M	29.51	46.00	-16.49	19.66	Neutral	"Worst"	9.85	9.66	0.12	9.88

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)	853.75k	854.573k	855KF1D	852.5k	849.575k
BT-EDR(2Mbps)	1.253M	1.19M	1M19G1D	1.249M	1.188M
BT-EDR(3Mbps)	1.253M	1.201M	1M20G1D	1.249M	1.199M

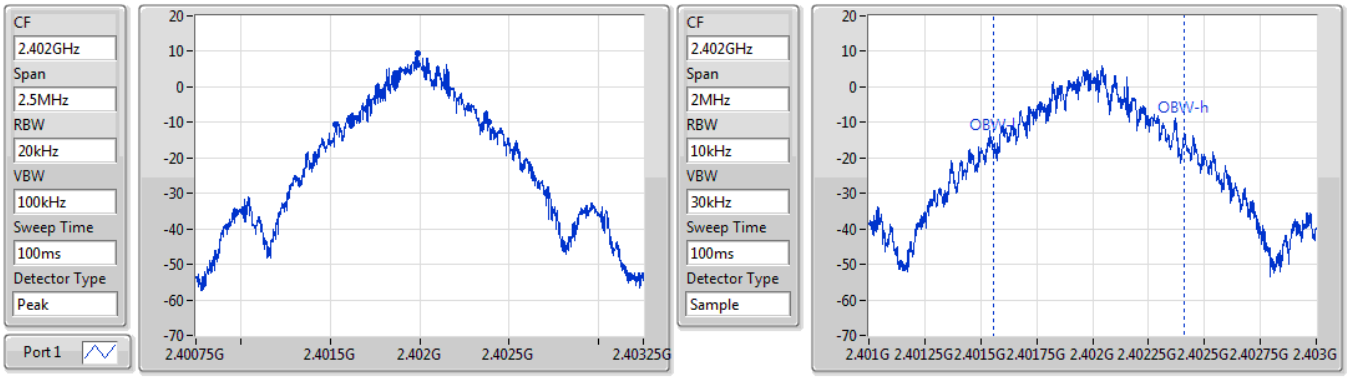
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	853.75k	849.575k
2441MHz	Pass	Inf	852.5k	854.573k
2480MHz	Pass	Inf	852.5k	852.574k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.253M	1.188M
2441MHz	Pass	Inf	1.251M	1.19M
2480MHz	Pass	Inf	1.249M	1.189M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.249M	1.199M
2441MHz	Pass	Inf	1.249M	1.201M
2480MHz	Pass	Inf	1.253M	1.2M

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

2402MHz

11/09/2020

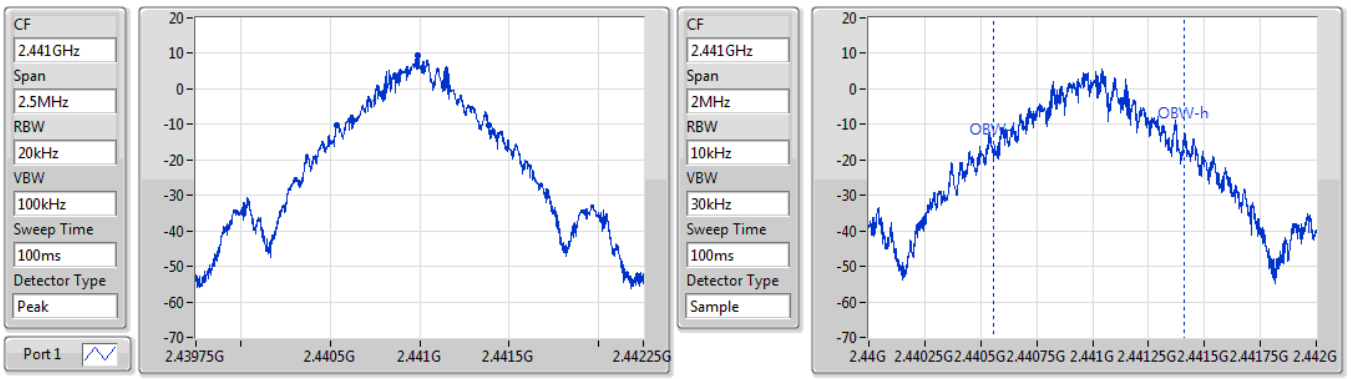


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
853.75k	2.401533G	2.402386G	849.575k	2.401559G	2.402409G	Inf	1

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

2441MHz

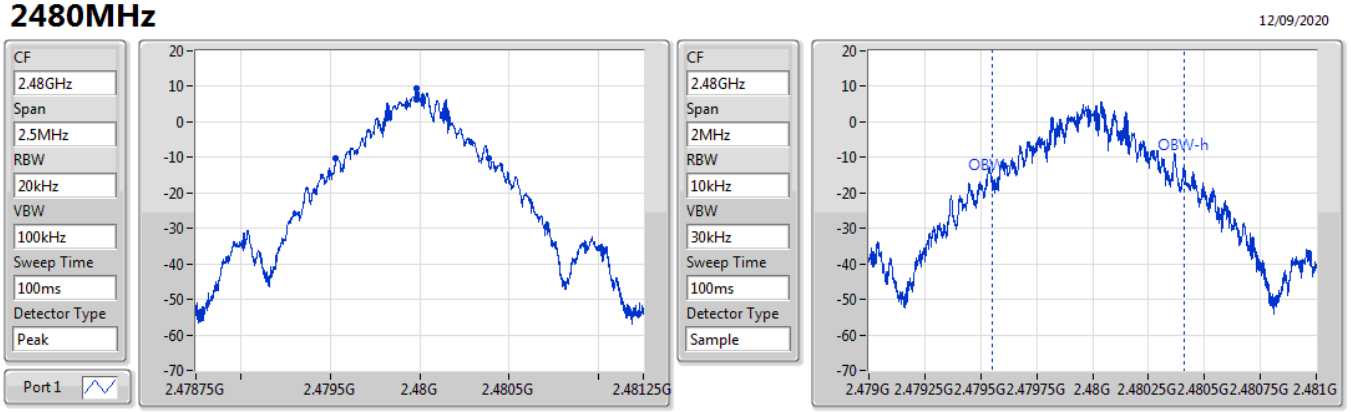
11/09/2020



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
852.5k	2.440534G	2.441386G	854.573k	2.440555G	2.44141G	Inf	1

BT-BR(1Mbps) EBW-FS

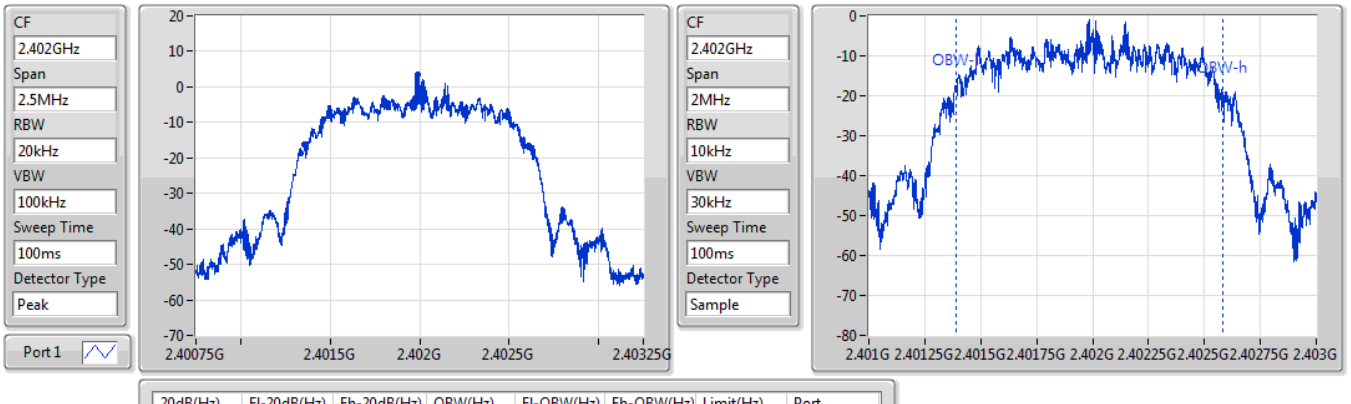
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
852.5k	2.479531G	2.480384G	852.574k	2.479554G	2.480407G	Inf	1

BT-EDR(2Mbps) EBW-FS

2402MHz

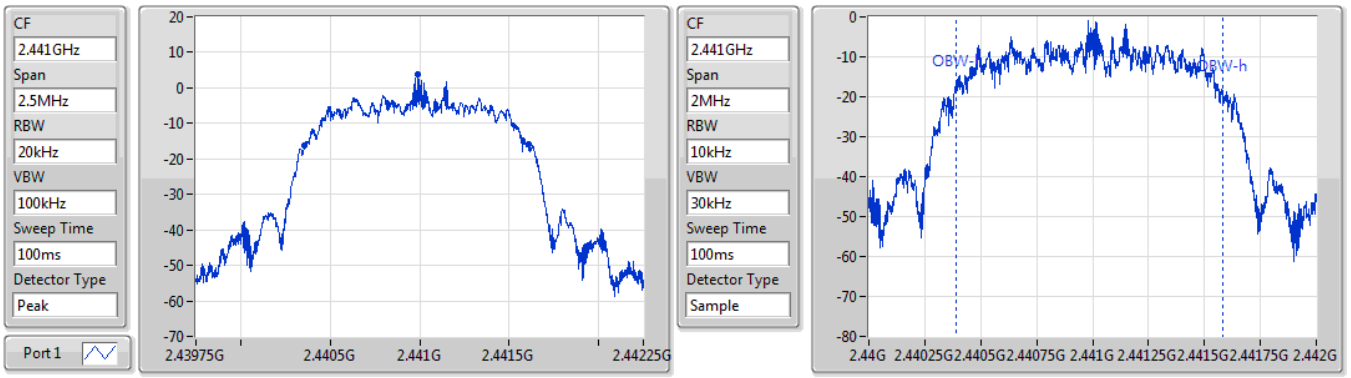


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.253M	2.401358G	2.40261G	1.188M	2.401391G	2.40258G	Inf	1

BT-EDR(2Mbps) EBW-FS

2441MHz

12/09/2020

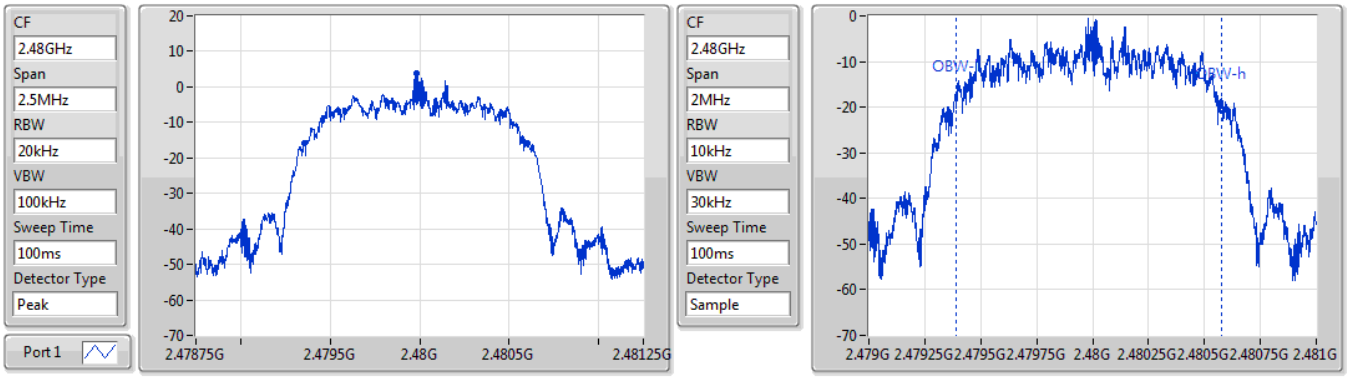


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.251M	2.440356G	2.441608G	1.19M	2.44039G	2.441581G	Inf	1

BT-EDR(2Mbps) EBW-FS

2480MHz

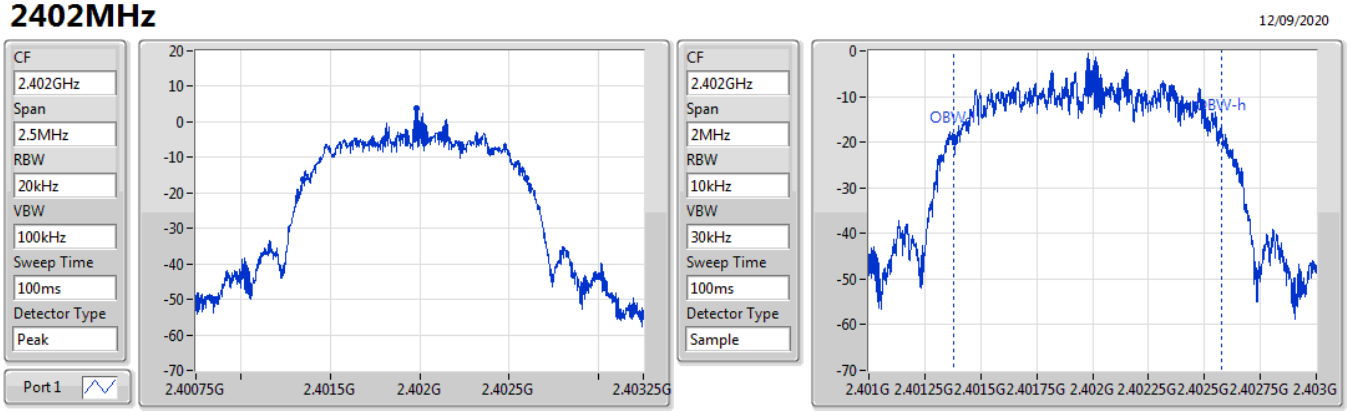
12/09/2020



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.249M	2.479354G	2.480603G	1.189M	2.479388G	2.480578G	Inf	1

BT-EDR(3Mbps) EBW-FS

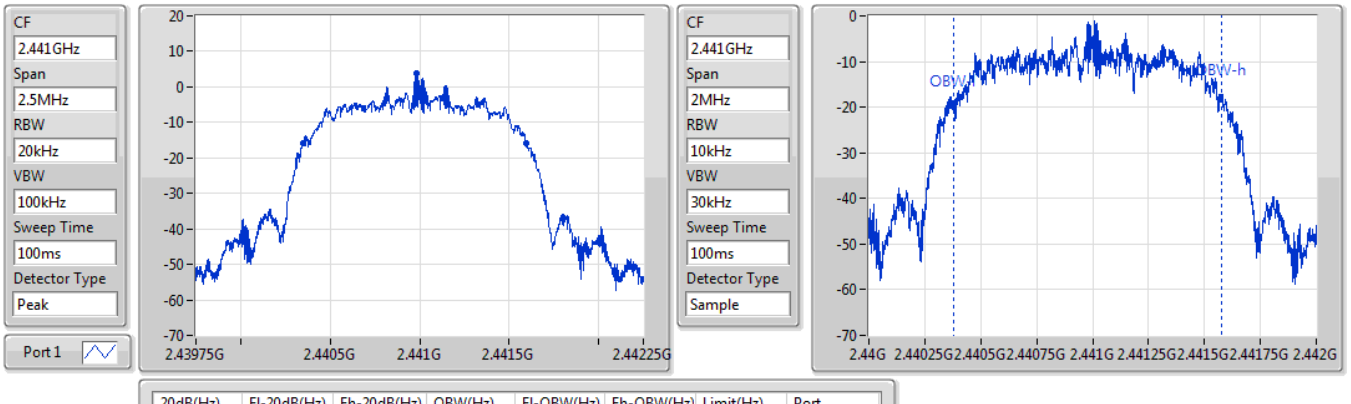
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.249M	2.401346G	2.402595G	1.199M	2.401376G	2.402576G	Inf	1

BT-EDR(3Mbps) EBW-FS

2441MHz

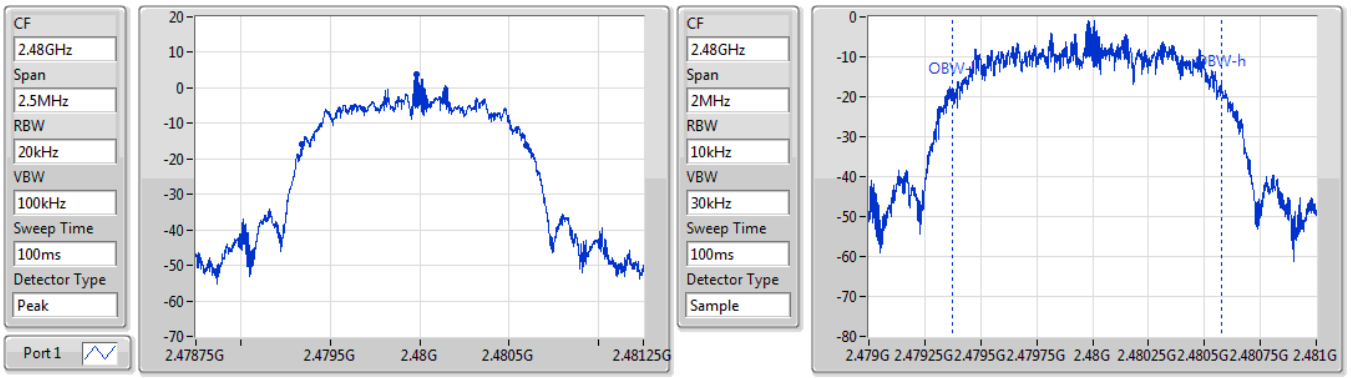


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.249M	2.440346G	2.441595G	1.201M	2.440376G	2.441578G	Inf	1

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

2480MHz

12/09/2020



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.253M	2.479344G	2.480596G	1.2M	2.479375G	2.480576G	Inf	1

Summary

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

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.401984G	2.402983G	999k	568.5975k
2441MHz	Pass	2.44098G	2.44198G	1.0005M	567.765k
2480MHz	Pass	2.47898G	2.47998G	1.0005M	567.765k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402356G	2.403357G	1.0005M	834.498k
2441MHz	Pass	2.441356G	2.442357G	1.0005M	833.166k
2480MHz	Pass	2.479356G	2.480358G	1.002M	831.834k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.401981G	2.402983G	1.002M	831.834k
2441MHz	Pass	2.44098G	2.441982G	1.002M	831.834k
2480MHz	Pass	2.478981G	2.479983G	1.002M	834.498k

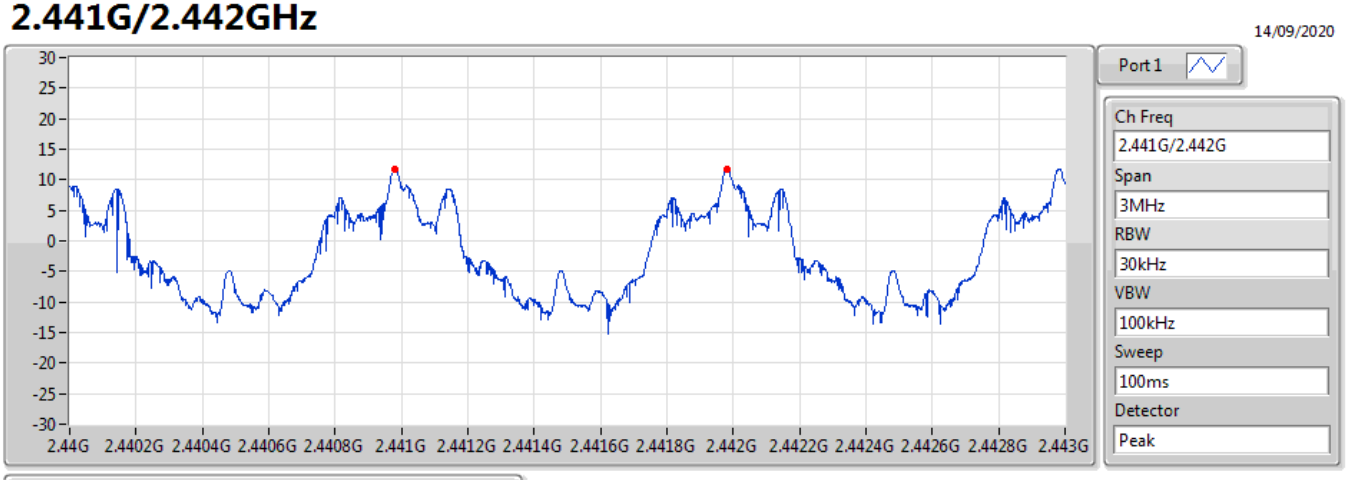
BT-BR(1Mbps) **Channel Separation-FS**

2.402G/2.403GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401984G	2.402983G	999k	568.5975k

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

2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.44098G	2.44198G	1.0005M	567.765k

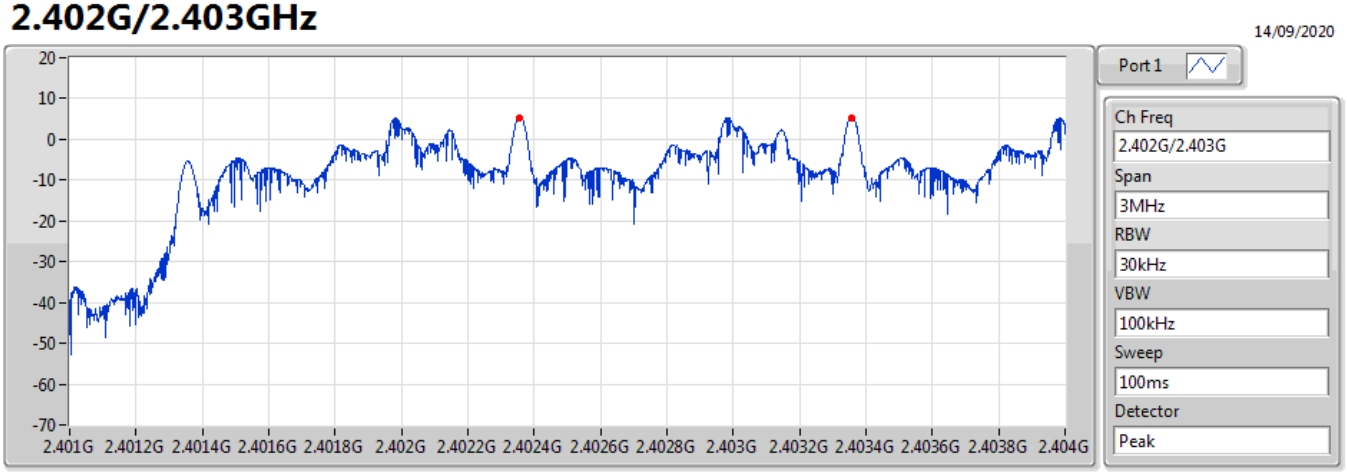
BT-BR(1Mbps) Channel Separation-FS

2.48G/2.479GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.47898G	2.47998G	1.0005M	567.765k

BT-EDR(2Mbps) Channel Separation-FS

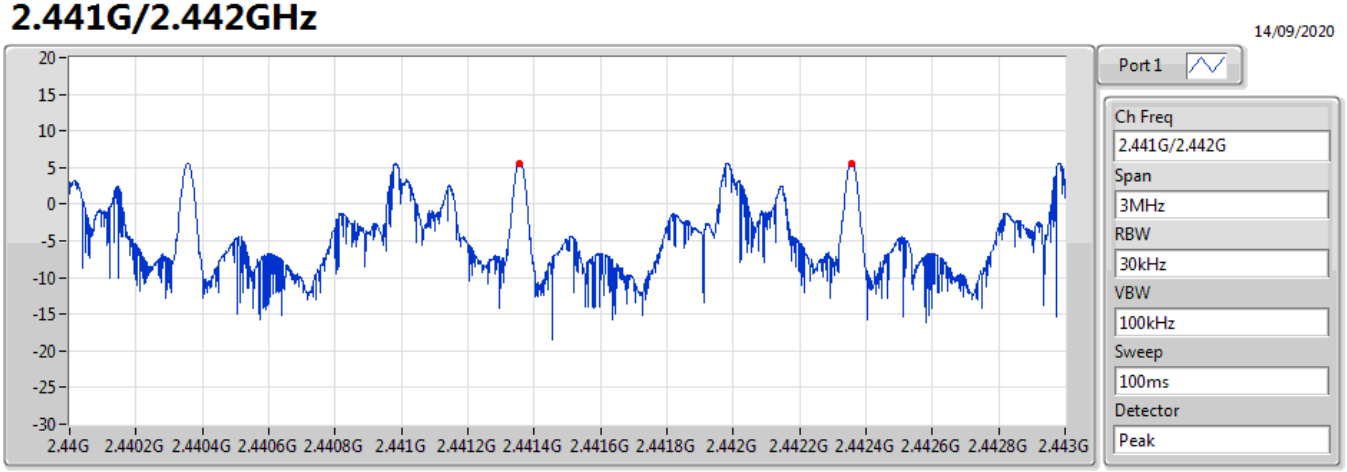
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402356G	2.403357G	1.0005M	834.498k

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

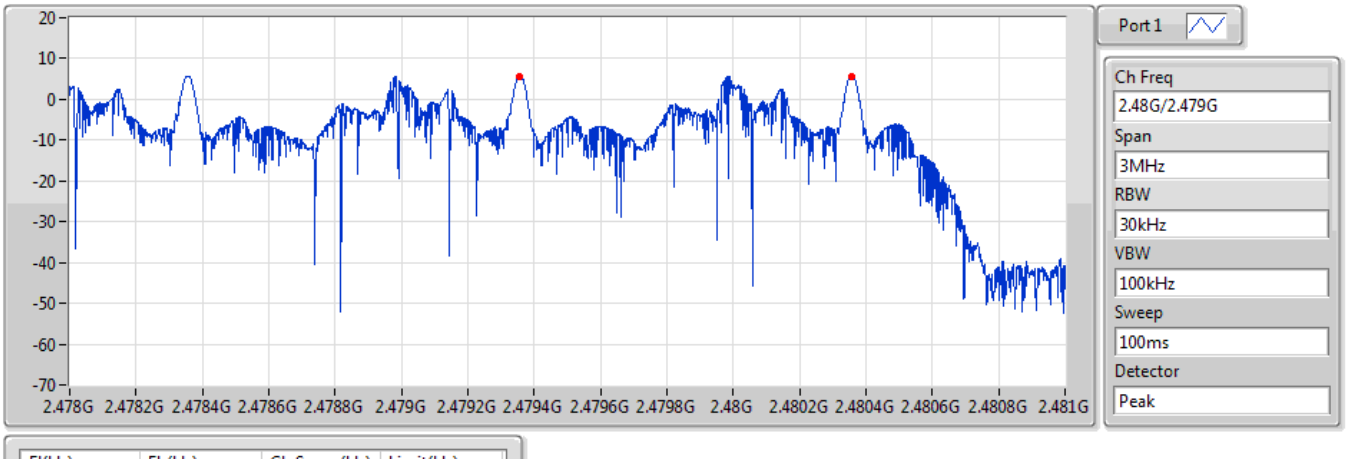
2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441356G	2.442357G	1.0005M	833.166k

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

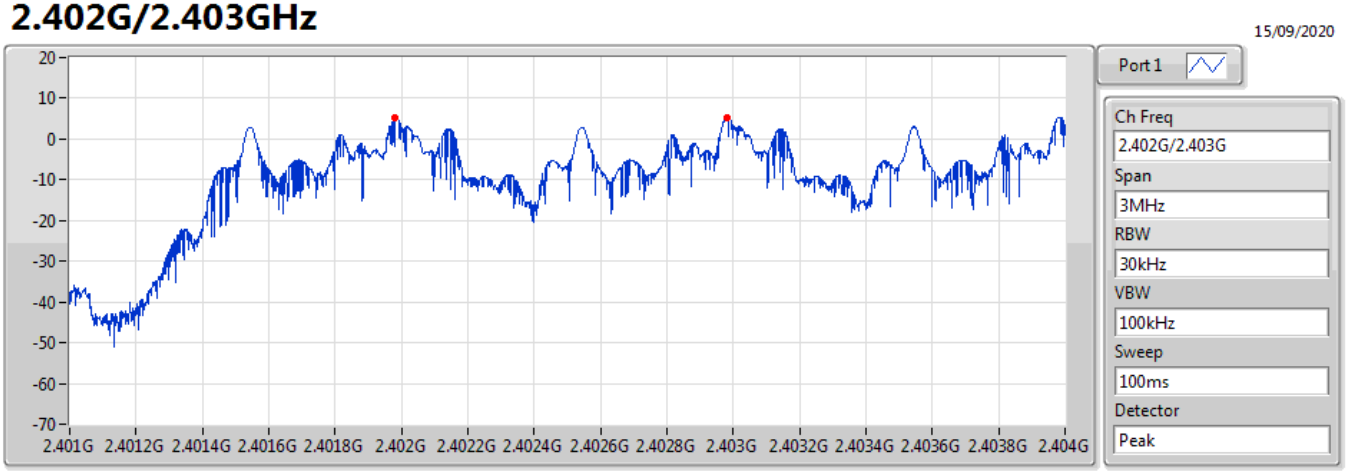
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479356G	2.480358G	1.002M	831.834k

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

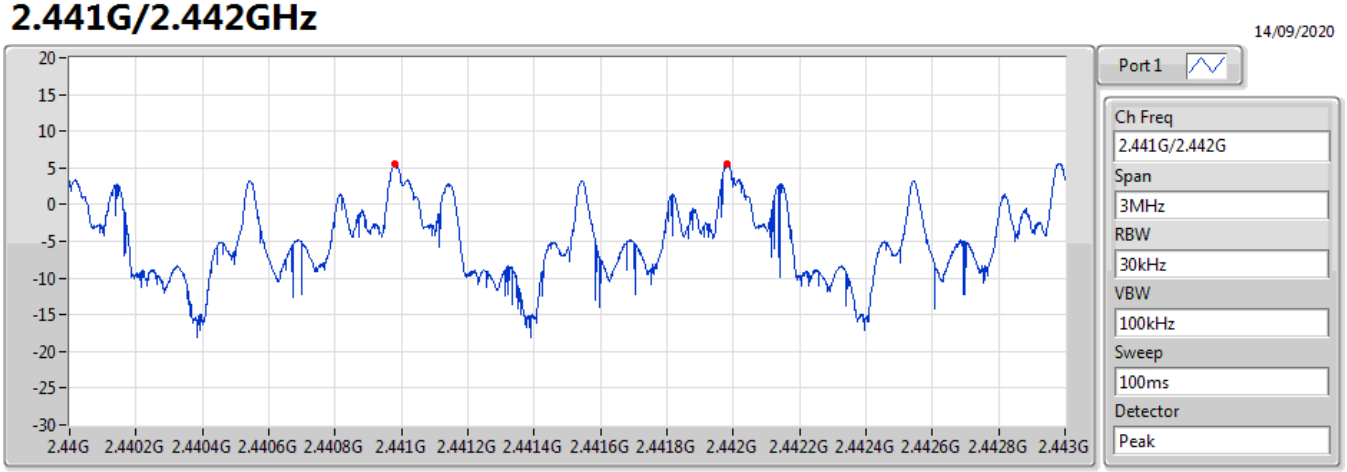
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401981G	2.402983G	1.002M	831.834k

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

2.441G/2.442GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.44098G	2.441982G	1.002M	831.834k

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

2.48G/2.479GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478981G	2.479983G	1.002M	834.498k

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	12.57	0.01807
BT-EDR(2Mbps)	8.99	0.00793
BT-EDR(3Mbps)	9.64	0.00920

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.00	12.57	21.00
2441MHz	Pass	3.00	12.47	21.00
2480MHz	Pass	3.00	12.57	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.00	8.99	21.00
2441MHz	Pass	3.00	8.94	21.00
2480MHz	Pass	3.00	8.98	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.00	9.64	21.00
2441MHz	Pass	3.00	9.57	21.00
2480MHz	Pass	3.00	9.62	21.00

DG = Directional Gain; Port X = Port X output power

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	12.37	0.01726
BT-EDR(2Mbps)	6.32	0.00429
BT-EDR(3Mbps)	6.35	0.00432

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.00	12.37	21.00
2441MHz	Pass	3.00	12.26	21.00
2480MHz	Pass	3.00	12.34	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.22	21.00
2441MHz	Pass	3.00	6.24	21.00
2480MHz	Pass	3.00	6.32	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.28	21.00
2441MHz	Pass	3.00	6.28	21.00
2480MHz	Pass	3.00	6.35	21.00

DG = Directional Gain; Port X = Port X output power

Summary

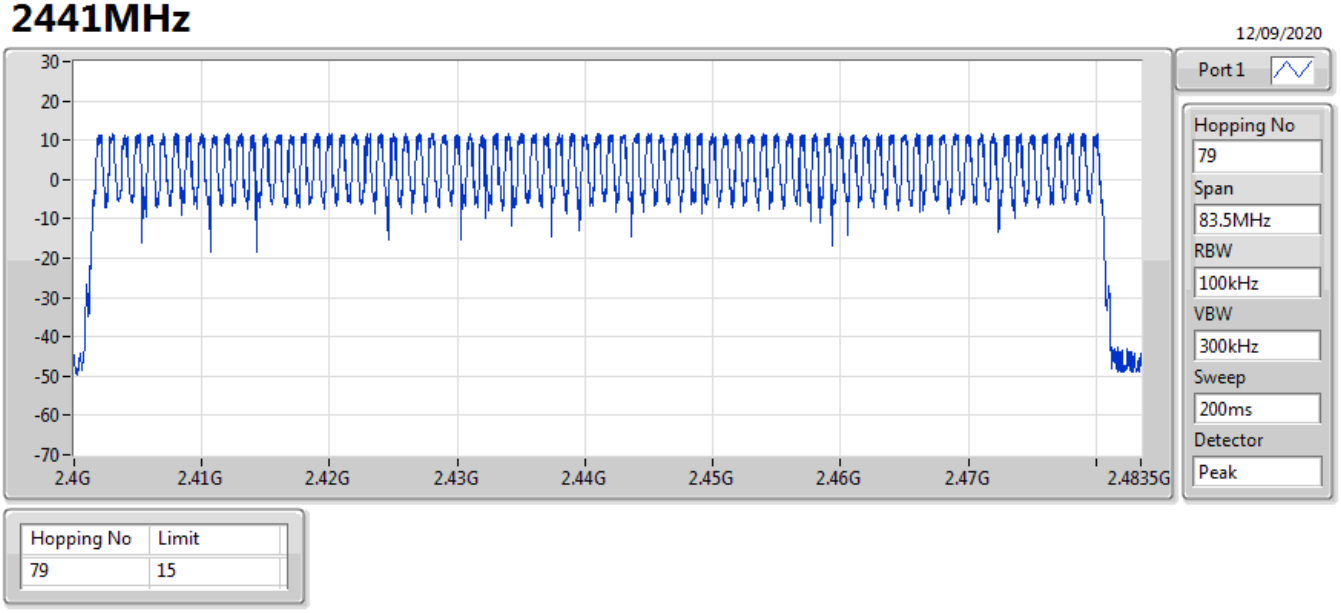
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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-FS**

2441MHz

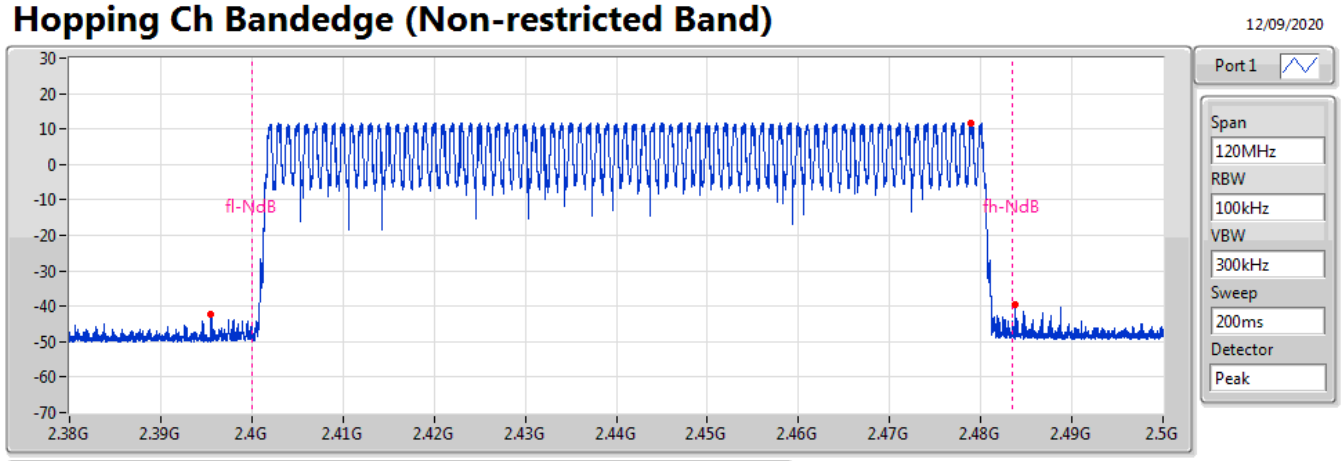


Hopping No	Limit
79	15

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

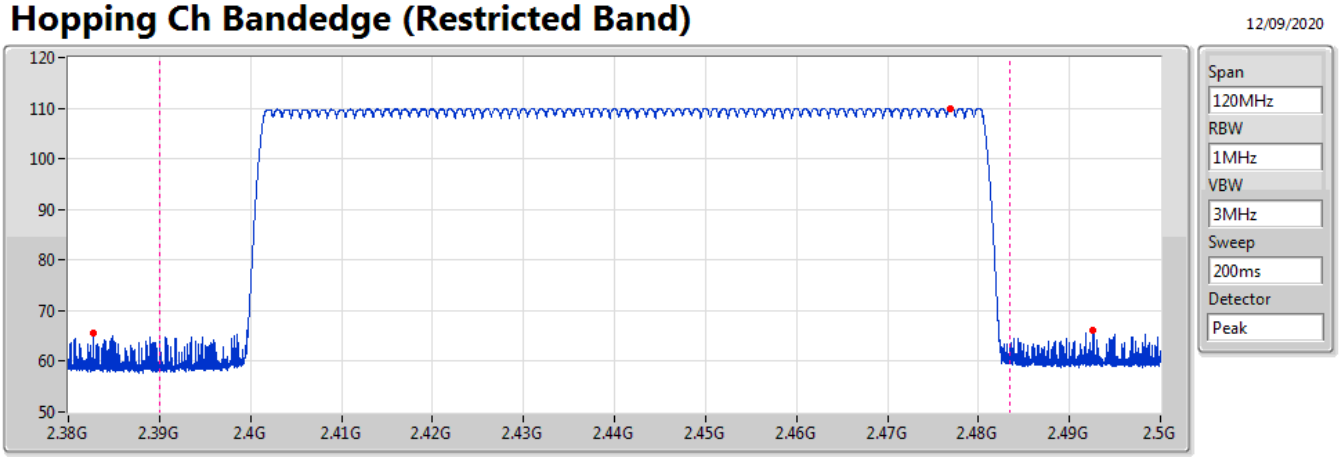


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-8.37	2.478985G	11.63	2.39554G	-42.3	2.48371G	-39.48

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

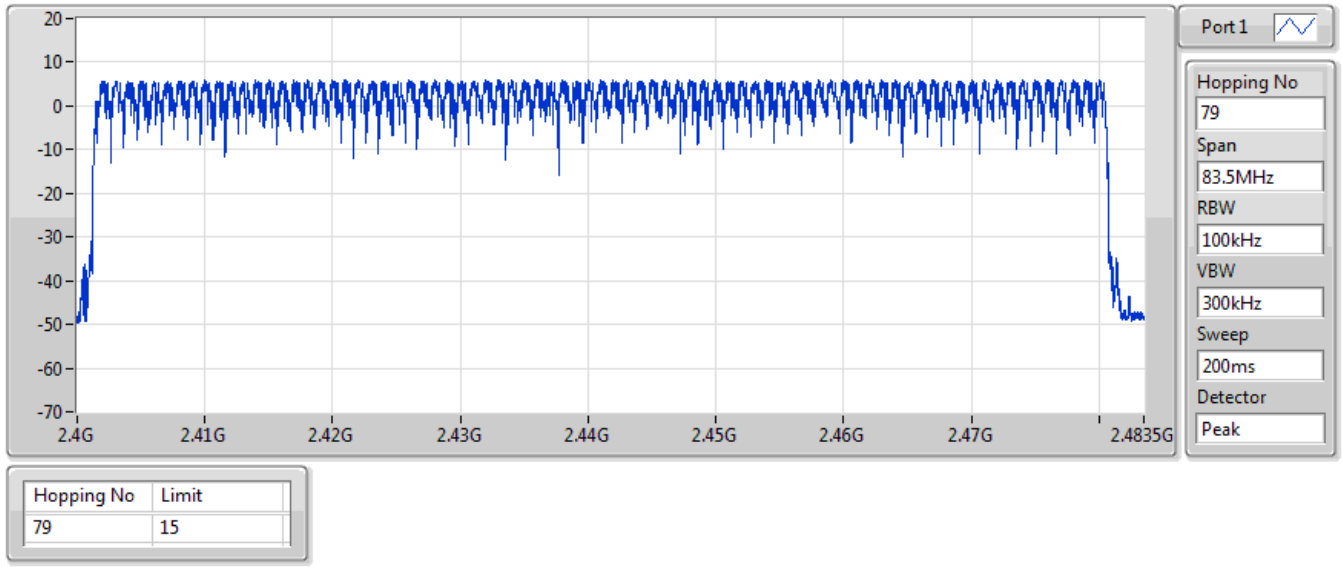


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.47696G	109.85	2.3827G	65.62	35.52	2.49253G	66.01	35.91	74	54	3.125	-30.1

BT-EDR(2Mbps)

Hopping-FS

2441MHz

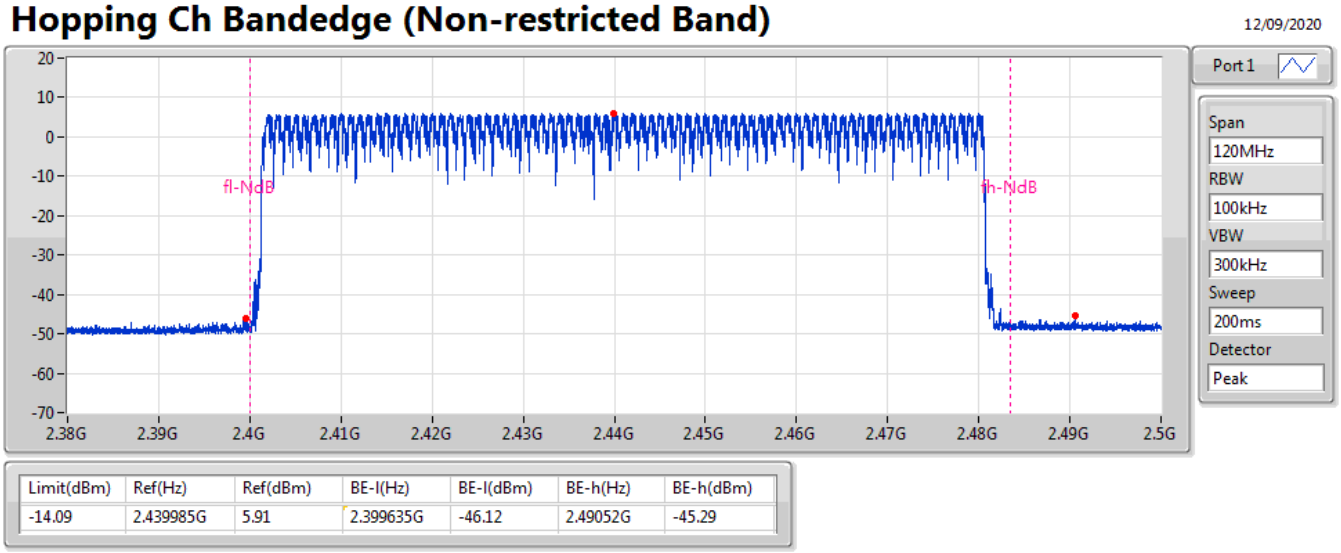


Hopping No	Limit
79	15

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

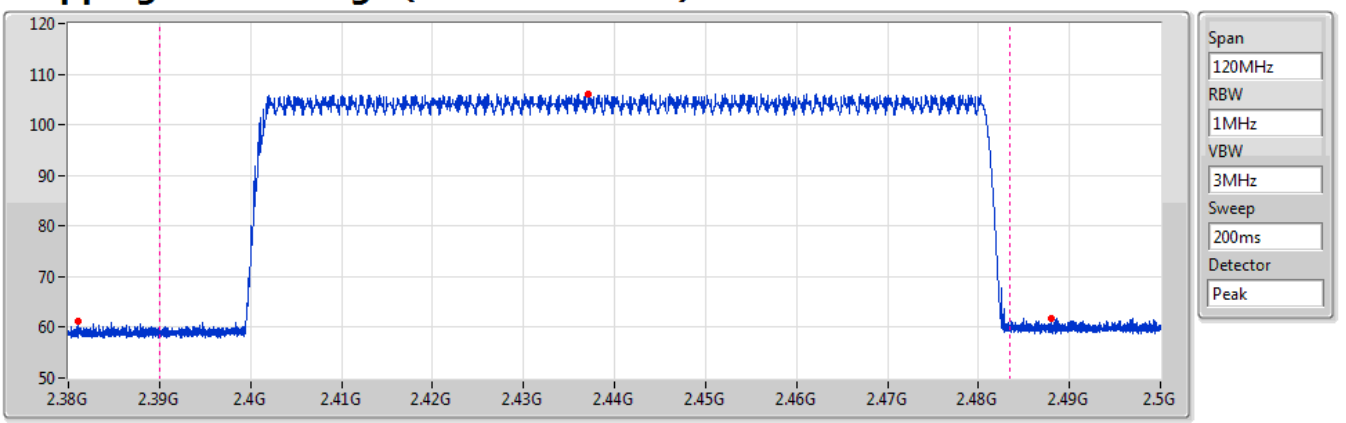


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.09	2.439985G	5.91	2.399635G	-46.12	2.49052G	-45.29

BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

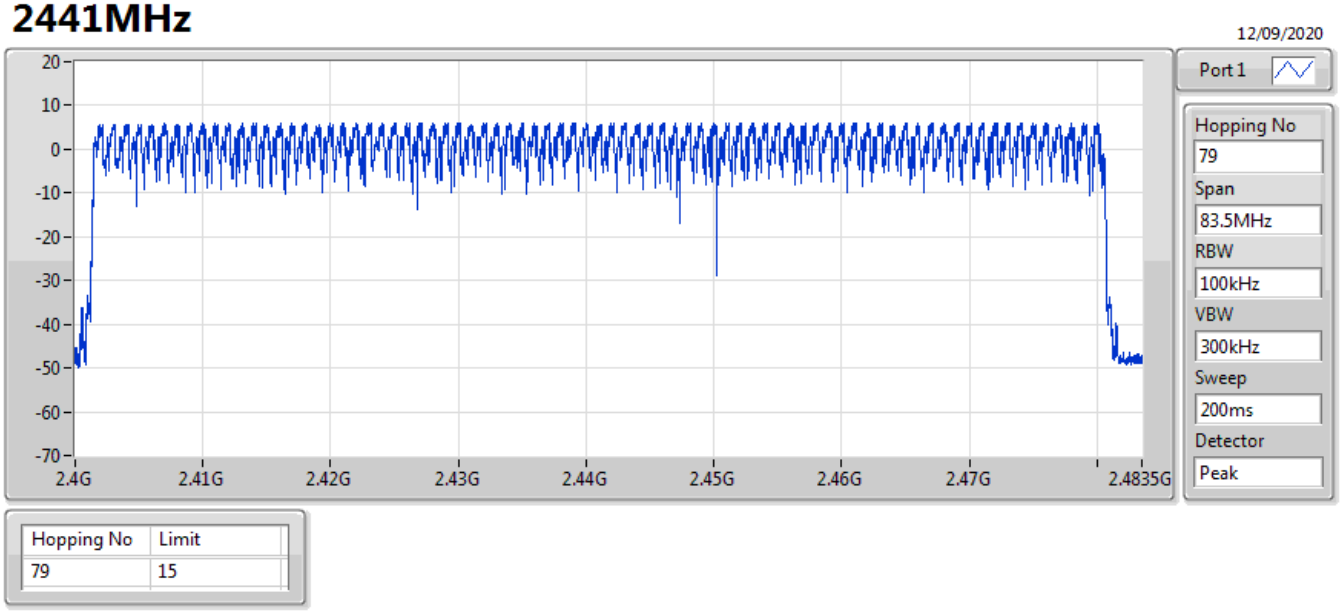


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.43709G	105.95	2.38099G	61.09	30.99	2.48797G	61.8	31.7	74	54	3.125	-30.1

BT-EDR(3Mbps)

Hopping-FS

2441MHz

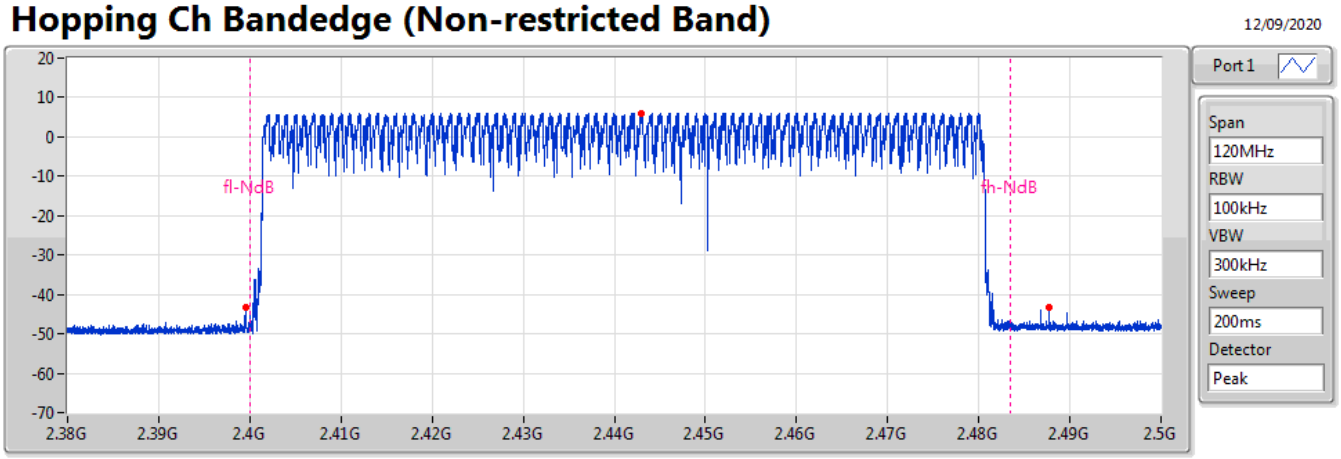


Hopping No	Limit
79	15

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

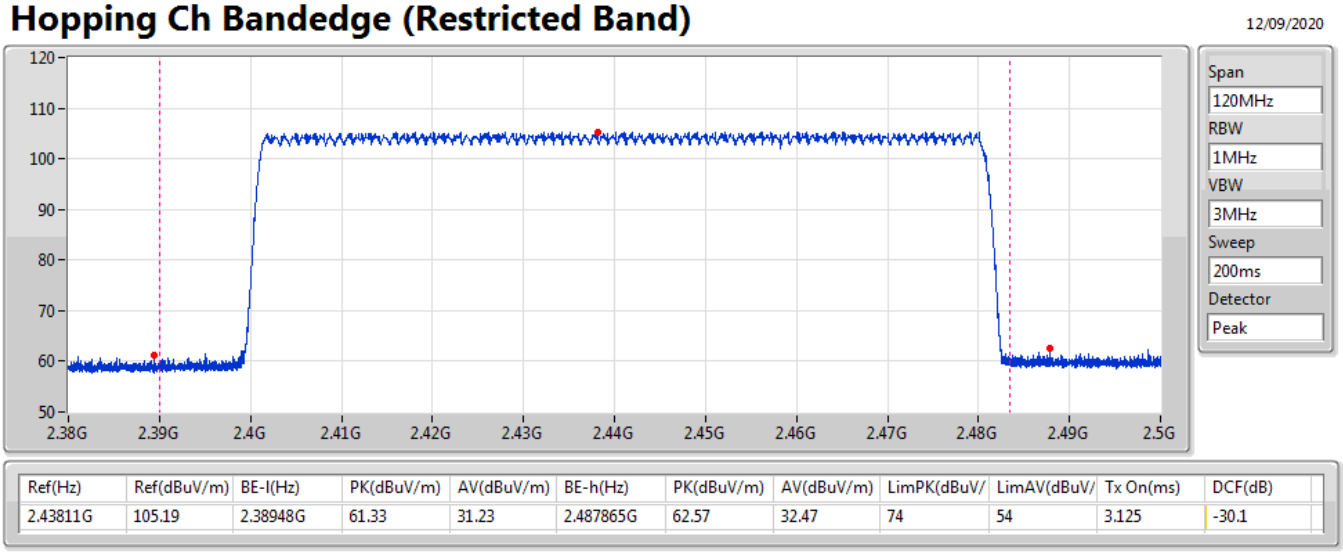


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.06	2.442985G	5.94	2.399545G	-43.28	2.48773G	-43.21

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)	DCF(dB)
2.43811G	105.19	2.38948G	61.33	31.23	2.487865G	62.57	32.47	74	54	3.125	-30.1

Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	310.39255m_DH5
BT-EDR(2Mbps)	310.4725m_DH5
BT-EDR(3Mbps)	310.65905m_DH5

Result

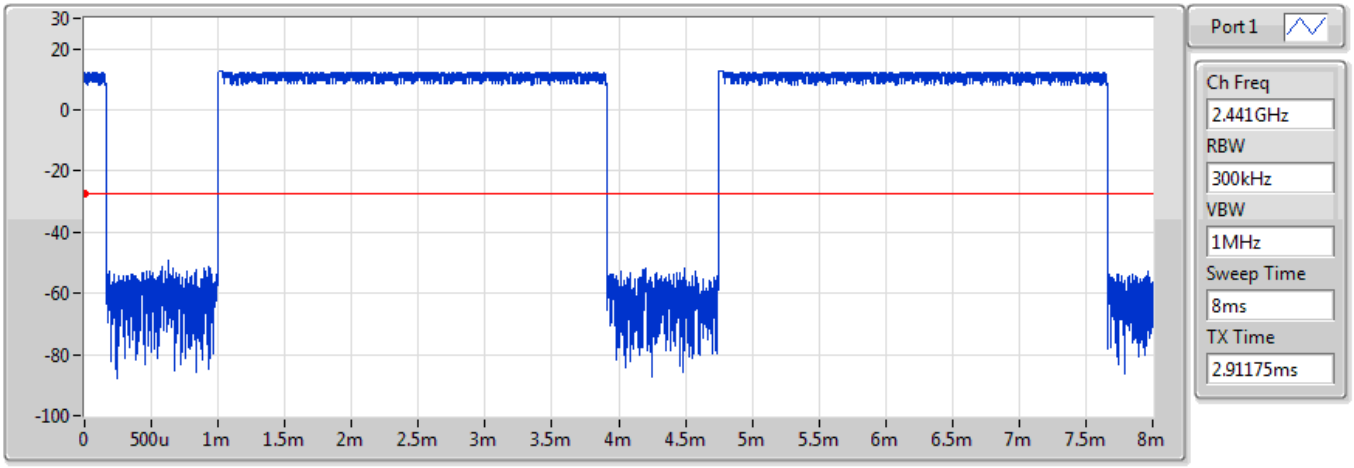
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	310.39255m_DH5	400m	2.91175m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	310.4725m_DH5	400m	2.9125m
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz	Pass	31.6	310.65905m_DH5	400m	2.91425m

BT-BR(1Mbps)

Dwell-FS

2441MHz

11/09/2020



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	310.39255m_DH5	400m	2.91175m

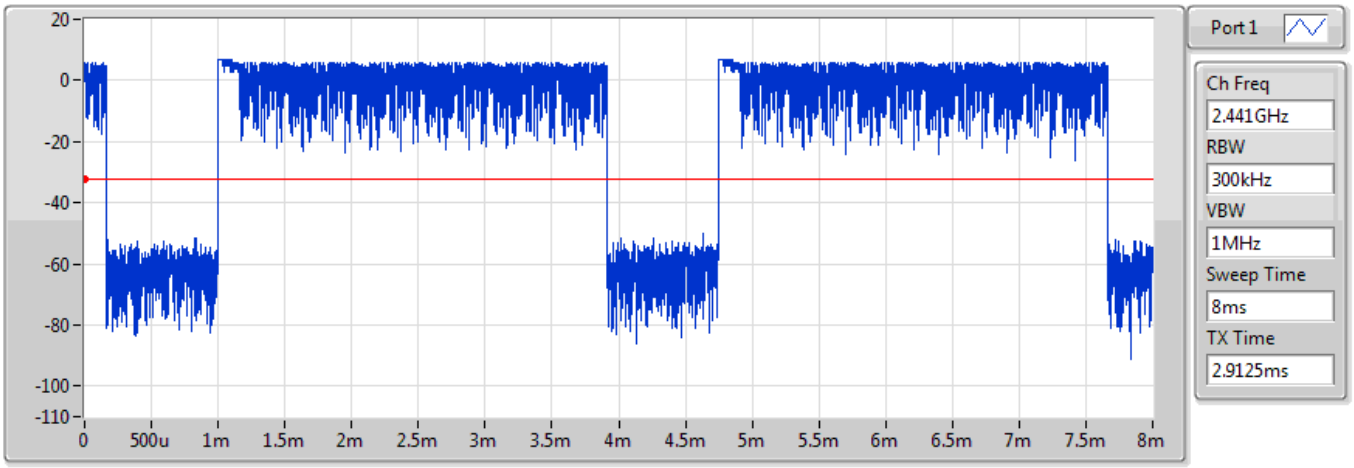
DH5

BT-EDR(2Mbps)

Dwell-FS

2441MHz

12/09/2020



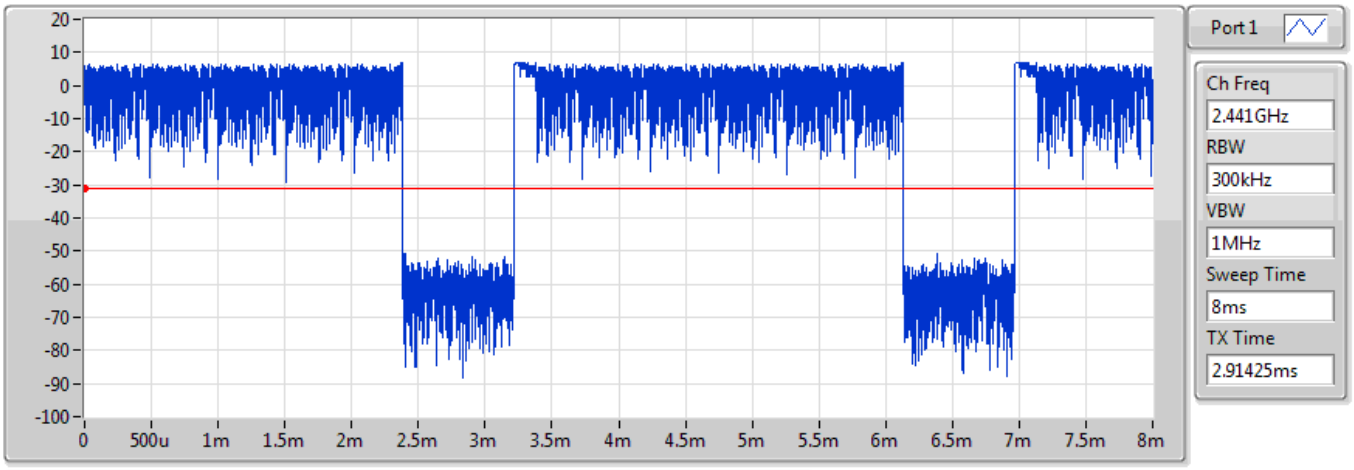
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	310.4725m_DH5	400m	2.9125m

DH5

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

2441MHz

12/09/2020



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	310.65905m_DH5	400m	2.91425m

DH5

Summary

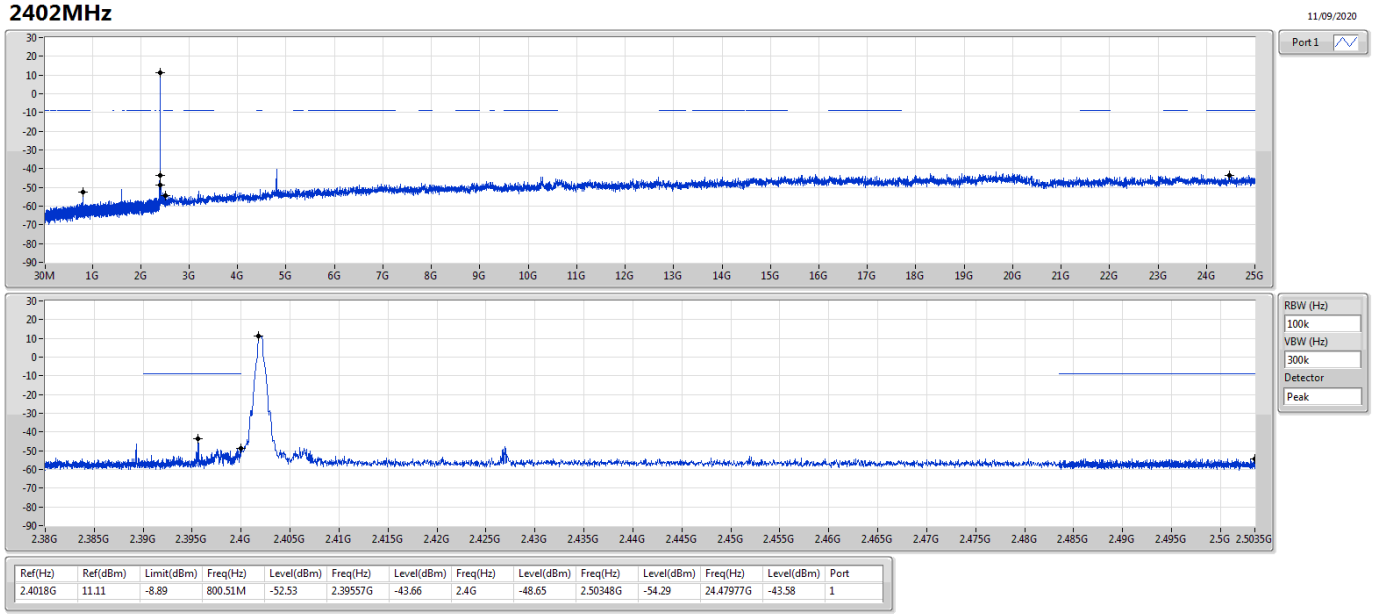
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.4018G	11.11	-8.89	800.51M	-52.53	2.39557G	-43.66	2.4G	-48.65	2.50348G	-54.29	24.47977G	-43.58	1
BT-EDR(2Mbps)	Pass	2.4018G	4.86	-15.14	2.10946G	-55.75	2.39969G	-46.67	2.4G	-47.94	2.49503G	-53.90	16.56662G	-43.09	1
BT-EDR(3Mbps)	Pass	2.40184G	5.13	-14.87	2.17966G	-55.79	2.39953G	-47.30	2.4G	-48.27	2.49726G	-53.91	16.66223G	-42.53	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)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.4018G	11.11	-8.89	800.51M	-52.53	2.39557G	-43.66	2.4G	-48.65	2.50348G	-54.29	24.47977G	-43.58	1
2441MHz	Pass	2.44112G	11.47	-8.53	1.62741G	-50.66	2.39011G	-52.43	2.4835G	-55.99	2.4918G	-52.98	23.45055G	-43.23	1
2480MHz	Pass	2.48003G	10.94	-9.06	1.65326G	-50.32	2.39527G	-54.87	2.4835G	-50.91	2.48369G	-48.93	16.80284G	-42.81	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.4018G	4.86	-15.14	2.10946G	-55.75	2.39969G	-46.67	2.4G	-47.94	2.49503G	-53.90	16.56662G	-43.09	1
2441MHz	Pass	2.441G	5.49	-14.51	1.96669G	-55.39	2.39395G	-54.25	2.4835G	-56.70	2.49238G	-52.72	23.36619G	-43.47	1
2480MHz	Pass	2.47999G	5.92	-14.08	1.71466G	-55.71	2.39974G	-54.78	2.4835G	-55.02	2.48385G	-52.10	14.75284G	-43.22	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	5.13	-14.87	2.17966G	-55.79	2.39953G	-47.30	2.4G	-48.27	2.49726G	-53.91	16.66223G	-42.53	1
2441MHz	Pass	2.441G	5.94	-14.06	2.12062G	-56.20	2.39764G	-53.79	2.4835G	-55.73	2.50065G	-53.71	16.62287G	-43.01	1
2480MHz	Pass	2.47983G	4.86	-15.14	2.3095G	-54.87	2.39037G	-55.14	2.4835G	-54.15	2.48414G	-50.27	24.15357G	-42.97	1

BT-BR(1Mbps) **CSENdB-FS**

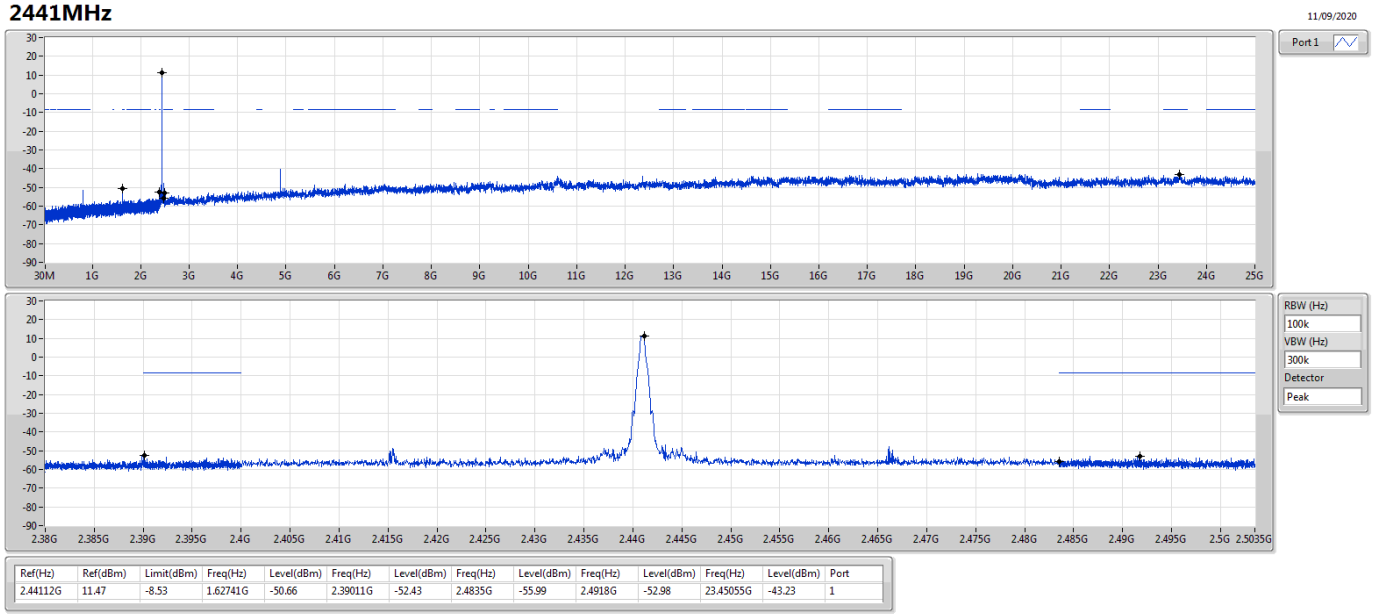
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4018G	11.11	-8.89	800.51M	-52.53	2.39557G	-43.66	2.4G	-48.65	2.50348G	-54.29	24.47977G	-43.58	1

BT-BR(1Mbps) **CSENdB-FS**

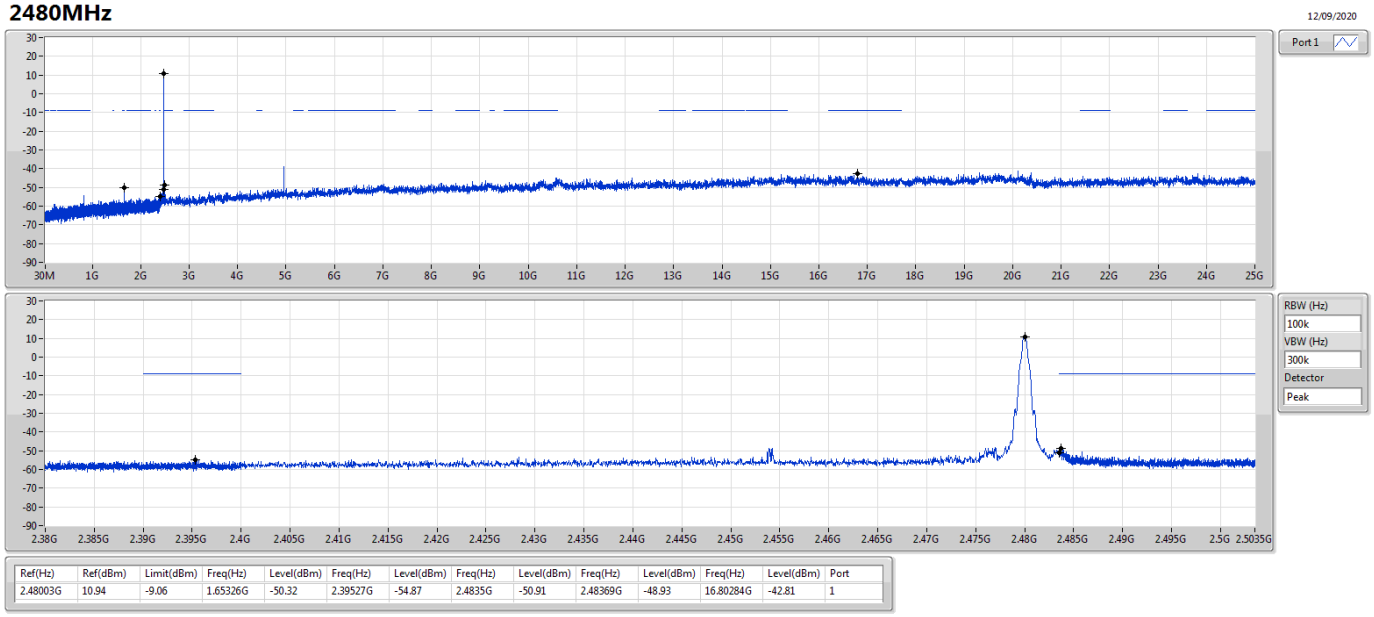
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44112G	11.47	-8.53	1.62741G	-50.66	2.39011G	-52.43	2.4835G	-55.99	2.4918G	-52.98	23.45055G	-43.23	1

BT-BR(1Mbps) **CSENdB-FS**

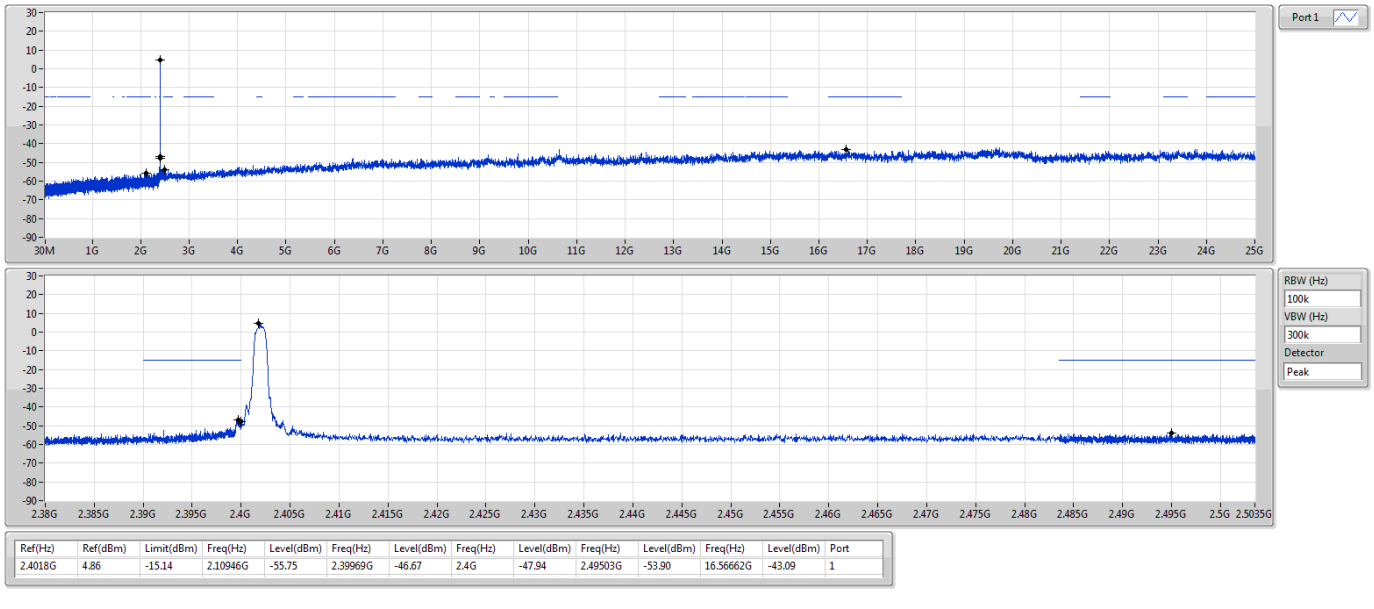
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48003G	10.94	-9.06	1.65326G	-50.32	2.39527G	-54.87	2.4835G	-50.91	2.48369G	-48.93	16.80284G	-42.81	1

BT-EDR(2Mbps) **CSENdB-FS**

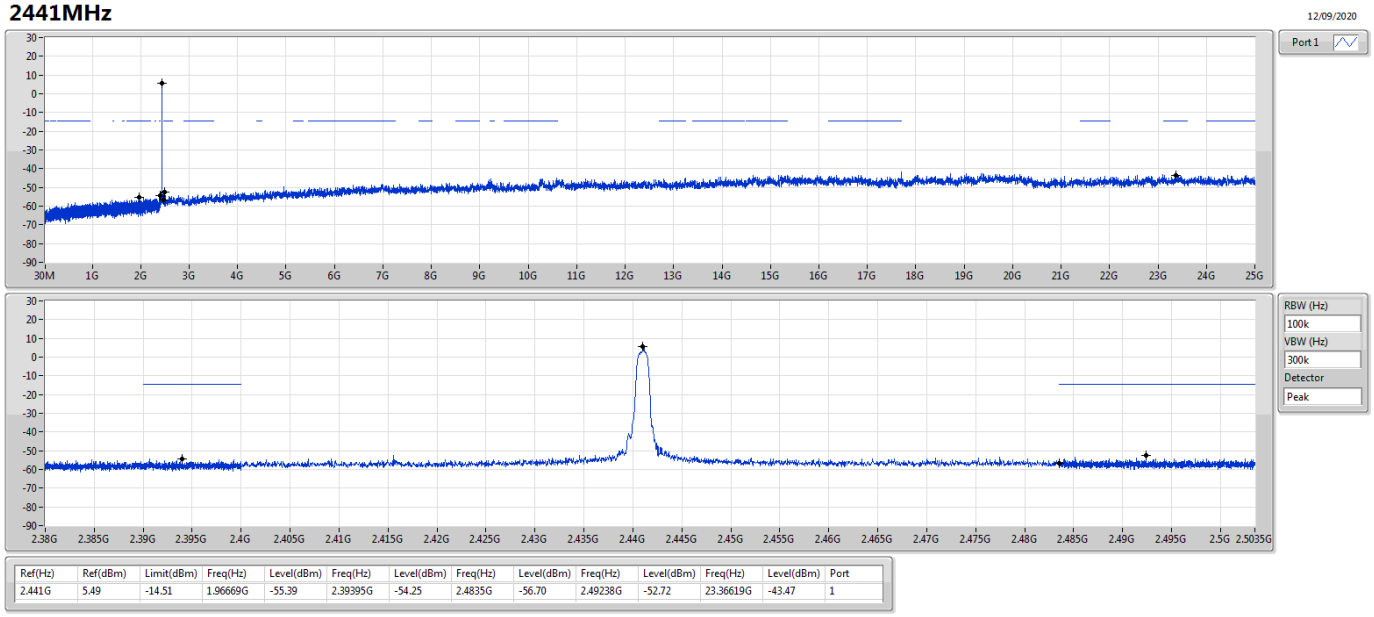
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4018G	4.86	-15.14	2.10946G	-55.75	2.39969G	-46.67	2.4G	-47.94	2.49503G	-53.90	16.56662G	-43.09	1

BT-EDR(2Mbps) **CSENdB-FS**

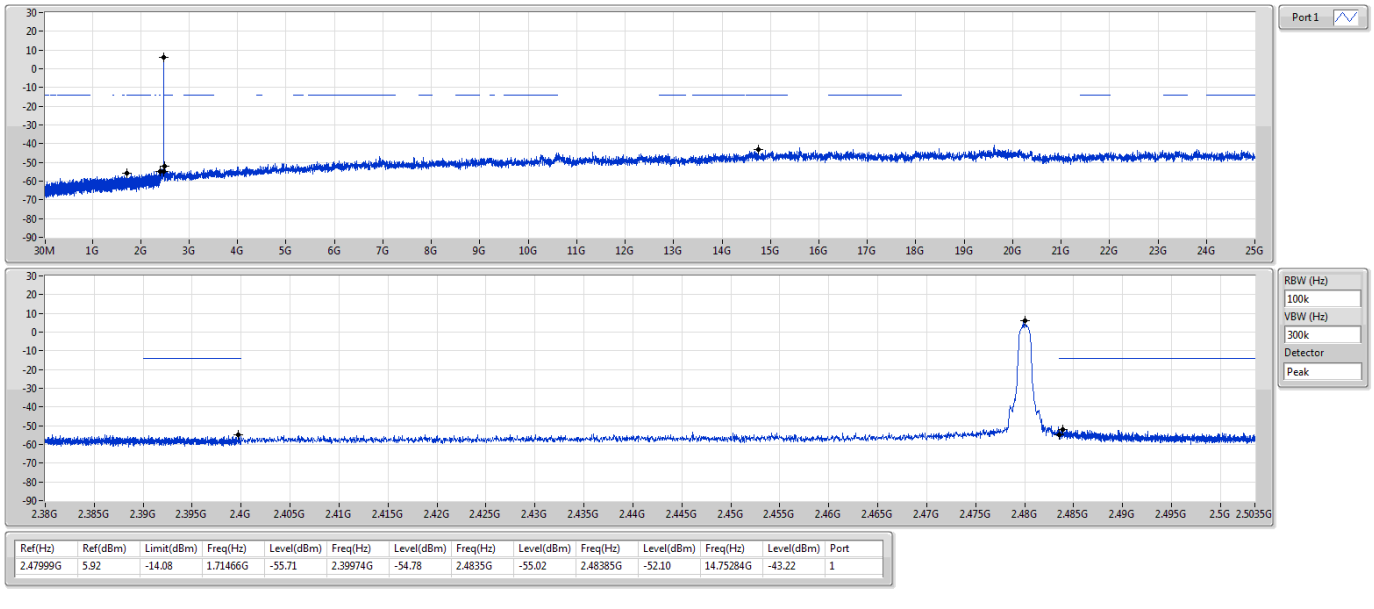
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441G	5.49	-14.51	1.96669G	-55.39	2.39395G	-54.25	2.4835G	-56.70	2.49238G	-52.72	23.36619G	-43.47	1

BT-EDR(2Mbps) **CSENdB-FS**

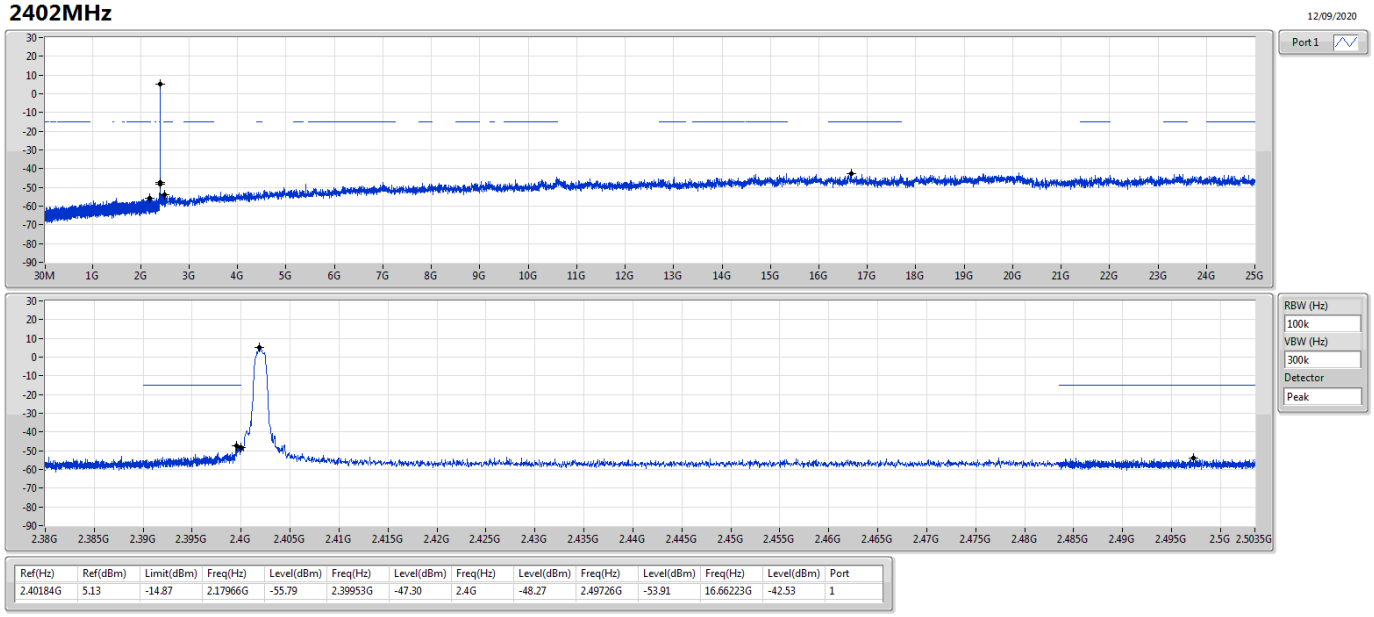
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	5.92	-14.08	1.71466G	-55.71	2.39974G	-54.78	2.4835G	-55.02	2.48385G	-52.10	14.75284G	-43.22	1

BT-EDR(3Mbps) **CSENdB-FS**

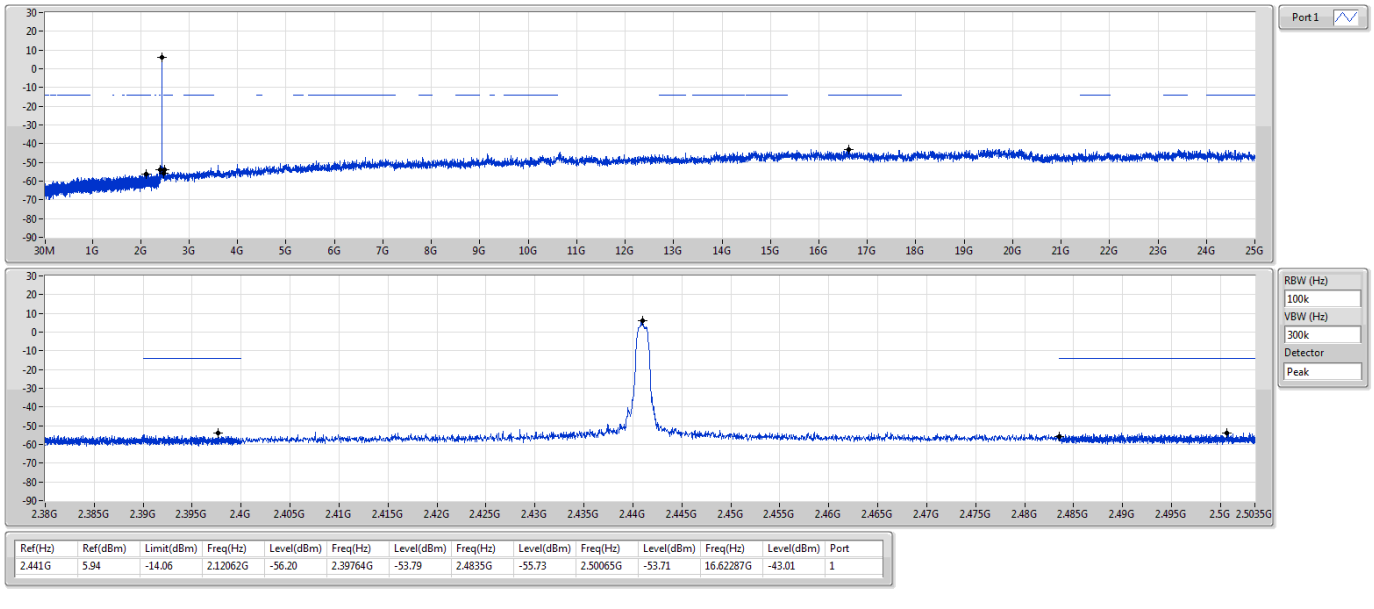
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40184G	5.13	-14.87	2.17966G	-55.79	2.39953G	-47.30	2.4G	-48.27	2.49726G	-53.91	16.66223G	-42.53	1

BT-EDR(3Mbps) **CSENdB-FS**

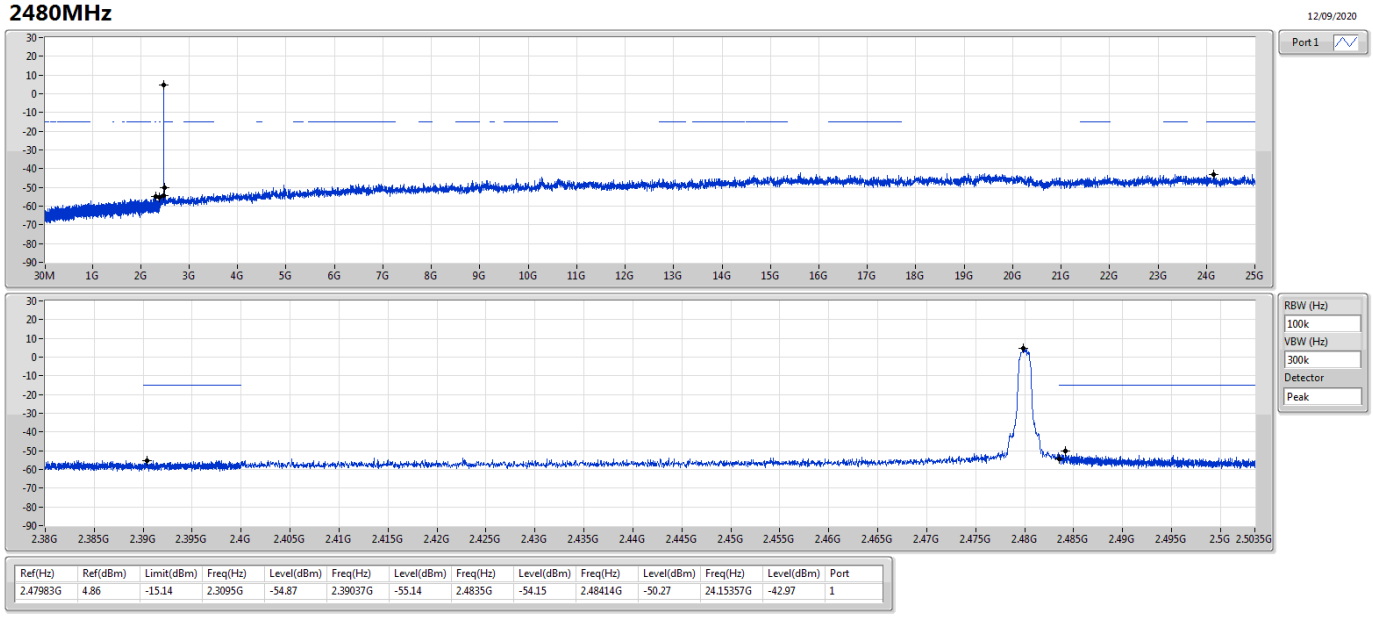
2441MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441G	5.94	-14.06	2.12062G	-56.20	2.39764G	-53.79	2.4835G	-55.73	2.50065G	-53.71	16.62287G	-43.01	1

BT-EDR(3Mbps) **CSENdB-FS**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47983G	4.86	-15.14	2.3095G	-54.87	2.39037G	-55.14	2.4835G	-54.15	2.48414G	-50.27	24.15357G	-42.97	1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	295.78M	38.52	46.00	-7.48	3	Vertical	360	1.00	-

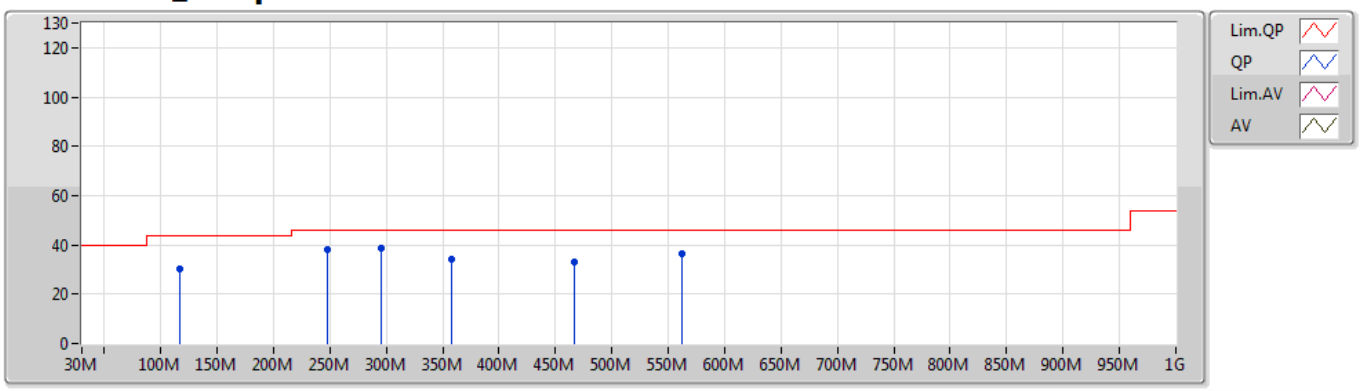
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2441MHz_Adapter	Pass	PK	117.3M	30.28	43.50	-13.22	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	247.28M	38.30	46.00	-7.70	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	295.78M	38.52	46.00	-7.48	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	357.86M	34.09	46.00	-11.91	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	466.5M	32.99	46.00	-13.01	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	561.56M	36.38	46.00	-9.62	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	66.86M	28.42	40.00	-11.58	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	123.12M	27.22	43.50	-16.28	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	268.62M	31.37	46.00	-14.63	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	344.28M	31.45	46.00	-14.55	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	429.64M	34.89	46.00	-11.11	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	627.52M	31.89	46.00	-14.11	3	Horizontal	0	1.00	-

BT-BR(1Mbps)

08/09/2020

2441MHz_Adapter

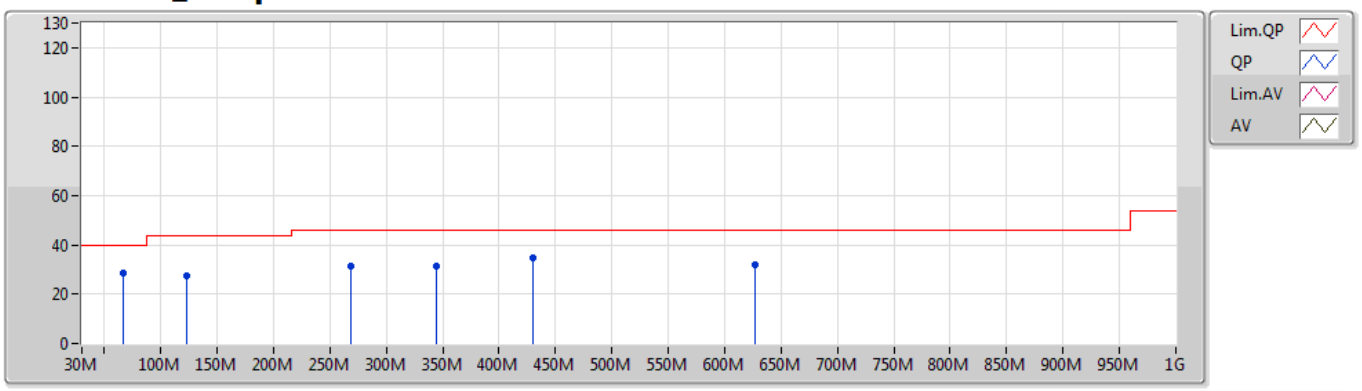


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	117.3M	30.28	43.50	-13.22	-19.07	3	Vertical	360	1.00	-	49.35	16.63	0.80	36.50
PK	247.28M	38.30	46.00	-7.70	-17.82	3	Vertical	360	1.00	-	56.12	17.31	1.29	36.42
PK	295.78M	38.52	46.00	-7.48	-16.71	3	Vertical	360	1.00	-	55.23	18.26	1.39	36.36
PK	357.86M	34.09	46.00	-11.91	-15.17	3	Vertical	360	1.00	-	49.26	19.79	1.53	36.49
PK	466.5M	32.99	46.00	-13.01	-12.16	3	Vertical	360	1.00	-	45.15	22.75	1.83	36.74
PK	561.56M	36.38	46.00	-9.62	-9.67	3	Vertical	360	1.00	-	46.05	25.39	2.05	37.11

BT-BR(1Mbps)

08/09/2020

2441MHz_Adapter



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	66.86M	28.42	40.00	-11.58	-25.18	3	Horizontal	0	1.00	-	53.60	11.12	0.60	36.90
PK	123.12M	27.22	43.50	-16.28	-18.76	3	Horizontal	0	1.00	-	45.98	16.89	0.82	36.47
PK	268.62M	31.37	46.00	-14.63	-16.69	3	Horizontal	0	1.00	-	48.06	18.37	1.34	36.40
PK	344.28M	31.45	46.00	-14.55	-15.56	3	Horizontal	0	1.00	-	47.01	19.43	1.49	36.48
PK	429.64M	34.89	46.00	-11.11	-12.63	3	Horizontal	0	1.00	-	47.52	22.14	1.76	36.53
PK	627.52M	31.89	46.00	-14.11	-9.42	3	Horizontal	0	1.00	-	41.31	25.45	2.20	37.07

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	PK	2.4866G	61.42	74.00	-12.58	3	Vertical	147	1.26	-
BT-EDR(3Mbps)	Pass	PK	2.4835G	59.29	74.00	-14.71	3	Vertical	146	1.26	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3772G	37.93	54.00	-16.07	3	Vertical	141	1.50	-
2402MHz	Pass	AV	2.4022G	86.23	Inf	-Inf	3	Vertical	141	1.50	-
2402MHz	Pass	PK	2.3772G	60.43	74.00	-13.57	3	Vertical	141	1.50	-
2402MHz	Pass	PK	2.4022G	108.73	Inf	-Inf	3	Vertical	141	1.50	-
2402MHz	Pass	AV	2.3768G	36.36	54.00	-17.64	3	Horizontal	193	2.74	-
2402MHz	Pass	AV	2.402G	81.84	Inf	-Inf	3	Horizontal	193	2.74	-
2402MHz	Pass	PK	2.3768G	58.86	74.00	-15.14	3	Horizontal	193	2.74	-
2402MHz	Pass	PK	2.402G	104.34	Inf	-Inf	3	Horizontal	193	2.74	-
2402MHz	Pass	AV	4.81204G	28.43	54.00	-25.57	3	Vertical	305	1.13	-
2402MHz	Pass	PK	4.81204G	50.93	74.00	-23.07	3	Vertical	305	1.13	-
2402MHz	Pass	AV	4.8043G	32.09	54.00	-21.91	3	Horizontal	225	2.86	-
2402MHz	Pass	PK	4.8043G	54.59	74.00	-19.41	3	Horizontal	225	2.86	-
2441MHz	Pass	AV	2.3578G	34.84	54.00	-19.16	3	Vertical	146	1.17	-
2441MHz	Pass	AV	2.441G	87.49	Inf	-Inf	3	Vertical	146	1.17	-
2441MHz	Pass	AV	2.4918G	35.77	54.00	-18.23	3	Vertical	146	1.17	-
2441MHz	Pass	PK	2.3578G	57.34	74.00	-16.66	3	Vertical	146	1.17	-
2441MHz	Pass	PK	2.441G	109.99	Inf	-Inf	3	Vertical	146	1.17	-
2441MHz	Pass	PK	2.4918G	58.27	74.00	-15.73	3	Vertical	146	1.17	-
2441MHz	Pass	AV	2.379G	35.06	54.00	-18.94	3	Horizontal	115	1.47	-
2441MHz	Pass	AV	2.441G	80.75	Inf	-Inf	3	Horizontal	115	1.47	-
2441MHz	Pass	AV	2.4882G	34.94	54.00	-19.06	3	Horizontal	115	1.47	-
2441MHz	Pass	PK	2.379G	57.56	74.00	-16.44	3	Horizontal	115	1.47	-
2441MHz	Pass	PK	2.441G	103.25	Inf	-Inf	3	Horizontal	115	1.47	-
2441MHz	Pass	PK	2.4882G	57.44	74.00	-16.56	3	Horizontal	115	1.47	-
2441MHz	Pass	AV	4.88212G	29.29	54.00	-24.71	3	Vertical	130	2.93	-
2441MHz	Pass	AV	7.3227G	29.13	54.00	-24.87	3	Vertical	344	1.50	-
2441MHz	Pass	PK	4.88212G	51.79	74.00	-22.21	3	Vertical	130	2.93	-
2441MHz	Pass	PK	7.3227G	51.63	74.00	-22.37	3	Vertical	344	1.50	-
2441MHz	Pass	AV	4.88164G	32.40	54.00	-21.60	3	Horizontal	181	3.00	-
2441MHz	Pass	AV	7.32342G	31.72	54.00	-22.28	3	Horizontal	212	2.07	-
2441MHz	Pass	PK	4.88164G	54.90	74.00	-19.10	3	Horizontal	181	3.00	-
2441MHz	Pass	PK	7.32342G	54.22	74.00	-19.78	3	Horizontal	212	2.07	-
2480MHz	Pass	AV	2.4798G	88.18	Inf	-Inf	3	Vertical	147	1.26	-
2480MHz	Pass	AV	2.4866G	38.92	54.00	-15.08	3	Vertical	147	1.26	-
2480MHz	Pass	PK	2.4798G	110.68	Inf	-Inf	3	Vertical	147	1.26	-
2480MHz	Pass	PK	2.4866G	61.42	74.00	-12.58	3	Vertical	147	1.26	-
2480MHz	Pass	AV	2.4798G	81.80	Inf	-Inf	3	Horizontal	346	1.52	-
2480MHz	Pass	AV	2.4896G	35.41	54.00	-18.59	3	Horizontal	346	1.52	-
2480MHz	Pass	PK	2.4798G	104.30	Inf	-Inf	3	Horizontal	346	1.52	-
2480MHz	Pass	PK	2.4896G	57.91	74.00	-16.09	3	Horizontal	346	1.52	-
2480MHz	Pass	AV	4.96036G	30.62	54.00	-23.38	3	Vertical	172	1.00	-
2480MHz	Pass	AV	7.44G	29.20	54.00	-24.80	3	Vertical	212	2.19	-
2480MHz	Pass	PK	4.96036G	53.12	74.00	-20.88	3	Vertical	172	1.00	-
2480MHz	Pass	PK	7.44G	51.70	74.00	-22.30	3	Vertical	212	2.19	-
2480MHz	Pass	AV	4.96024G	32.66	54.00	-21.34	3	Horizontal	183	2.87	-
2480MHz	Pass	AV	7.43958G	30.77	54.00	-23.23	3	Horizontal	208	2.00	-
2480MHz	Pass	PK	4.96024G	55.16	74.00	-18.84	3	Horizontal	183	2.87	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.43958G	53.27	74.00	-20.73	3	Horizontal	208	2.00	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.388G	36.69	54.00	-17.31	3	Vertical	144	1.50	-
2402MHz	Pass	AV	2.402G	81.51	Inf	-Inf	3	Vertical	144	1.50	-
2402MHz	Pass	PK	2.388G	59.19	74.00	-14.81	3	Vertical	144	1.50	-
2402MHz	Pass	PK	2.402G	104.01	Inf	-Inf	3	Vertical	144	1.50	-
2402MHz	Pass	AV	2.3836G	34.86	54.00	-19.14	3	Horizontal	196	2.73	-
2402MHz	Pass	AV	2.402G	77.21	Inf	-Inf	3	Horizontal	196	2.73	-
2402MHz	Pass	PK	2.3836G	57.36	74.00	-16.64	3	Horizontal	196	2.73	-
2402MHz	Pass	PK	2.402G	99.71	Inf	-Inf	3	Horizontal	196	2.73	-
2402MHz	Pass	AV	4.8037G	25.09	54.00	-28.91	3	Vertical	201	2.48	-
2402MHz	Pass	PK	4.8037G	47.59	74.00	-26.41	3	Vertical	201	2.48	-
2402MHz	Pass	AV	4.80388G	25.92	54.00	-28.08	3	Horizontal	128	2.93	-
2402MHz	Pass	PK	4.80388G	48.42	74.00	-25.58	3	Horizontal	128	2.93	-
2441MHz	Pass	AV	2.3526G	34.23	54.00	-19.77	3	Vertical	145	1.16	-
2441MHz	Pass	AV	2.441G	83.10	Inf	-Inf	3	Vertical	145	1.16	-
2441MHz	Pass	AV	2.493G	34.85	54.00	-19.15	3	Vertical	145	1.16	-
2441MHz	Pass	PK	2.3526G	56.73	74.00	-17.27	3	Vertical	145	1.16	-
2441MHz	Pass	PK	2.441G	105.60	Inf	-Inf	3	Vertical	145	1.16	-
2441MHz	Pass	PK	2.493G	57.35	74.00	-16.65	3	Vertical	145	1.16	-
2441MHz	Pass	AV	2.3598G	34.39	54.00	-19.61	3	Horizontal	196	3.00	-
2441MHz	Pass	AV	2.441G	77.74	Inf	-Inf	3	Horizontal	196	3.00	-
2441MHz	Pass	AV	2.4906G	34.86	54.00	-19.14	3	Horizontal	196	3.00	-
2441MHz	Pass	PK	2.3598G	56.89	74.00	-17.11	3	Horizontal	196	3.00	-
2441MHz	Pass	PK	2.441G	100.24	Inf	-Inf	3	Horizontal	196	3.00	-
2441MHz	Pass	PK	2.4906G	57.36	74.00	-16.64	3	Horizontal	196	3.00	-
2441MHz	Pass	AV	4.88176G	23.45	54.00	-30.55	3	Vertical	126	3.00	-
2441MHz	Pass	AV	7.33746G	27.19	54.00	-26.81	3	Vertical	294	1.27	-
2441MHz	Pass	PK	4.88176G	45.95	74.00	-28.05	3	Vertical	126	3.00	-
2441MHz	Pass	PK	7.33746G	49.69	74.00	-24.31	3	Vertical	294	1.27	-
2441MHz	Pass	AV	4.882G	25.47	54.00	-28.53	3	Horizontal	180	2.97	-
2441MHz	Pass	AV	7.32342G	28.45	54.00	-25.55	3	Horizontal	214	2.01	-
2441MHz	Pass	PK	4.882G	47.97	74.00	-26.03	3	Horizontal	180	2.97	-
2441MHz	Pass	PK	7.32342G	50.95	74.00	-23.05	3	Horizontal	214	2.01	-
2480MHz	Pass	AV	2.48G	83.67	Inf	-Inf	3	Vertical	146	1.26	-
2480MHz	Pass	AV	2.4835G	36.79	Inf	-Inf	3	Vertical	146	1.26	-
2480MHz	Pass	PK	2.48G	106.17	Inf	-Inf	3	Vertical	146	1.26	-
2480MHz	Pass	PK	2.4835G	59.29	74.00	-14.71	3	Vertical	146	1.26	-
2480MHz	Pass	AV	2.48G	77.41	Inf	-Inf	3	Horizontal	344	1.71	-
2480MHz	Pass	AV	2.4835G	35.25	Inf	-Inf	3	Horizontal	344	1.71	-
2480MHz	Pass	PK	2.48G	99.91	Inf	-Inf	3	Horizontal	344	1.71	-
2480MHz	Pass	PK	2.4835G	57.75	74.00	-16.25	3	Horizontal	344	1.71	-
2480MHz	Pass	AV	4.95982G	23.74	54.00	-30.26	3	Vertical	167	1.16	-
2480MHz	Pass	AV	7.4532G	27.37	54.00	-26.63	3	Vertical	48	1.80	-
2480MHz	Pass	PK	4.95982G	46.24	74.00	-27.76	3	Vertical	167	1.16	-
2480MHz	Pass	PK	7.4532G	49.87	74.00	-24.13	3	Vertical	48	1.80	-
2480MHz	Pass	AV	4.96006G	25.05	54.00	-28.95	3	Horizontal	184	1.50	-
2480MHz	Pass	AV	7.44342G	27.04	54.00	-26.96	3	Horizontal	137	1.95	-
2480MHz	Pass	PK	4.96006G	47.55	74.00	-26.45	3	Horizontal	184	1.50	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

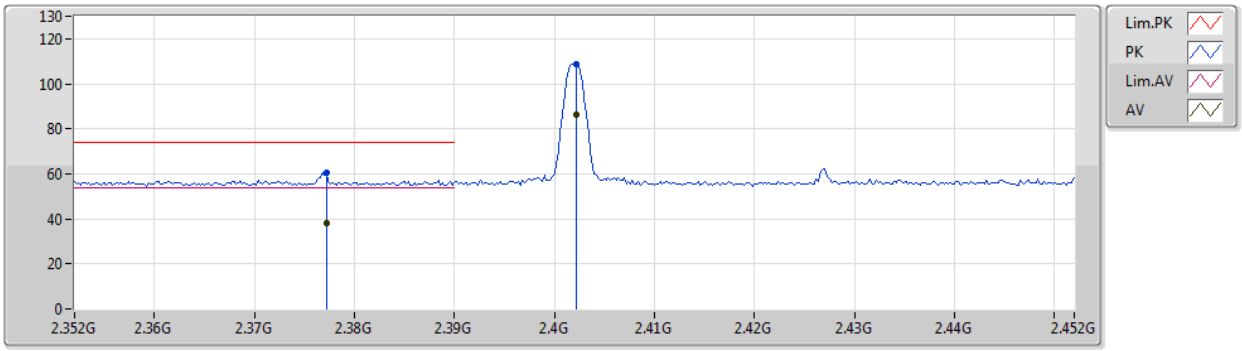
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.44342G	49.54	74.00	-24.46	3	Horizontal	137	1.95	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2402MHz_TX

31/08/2020



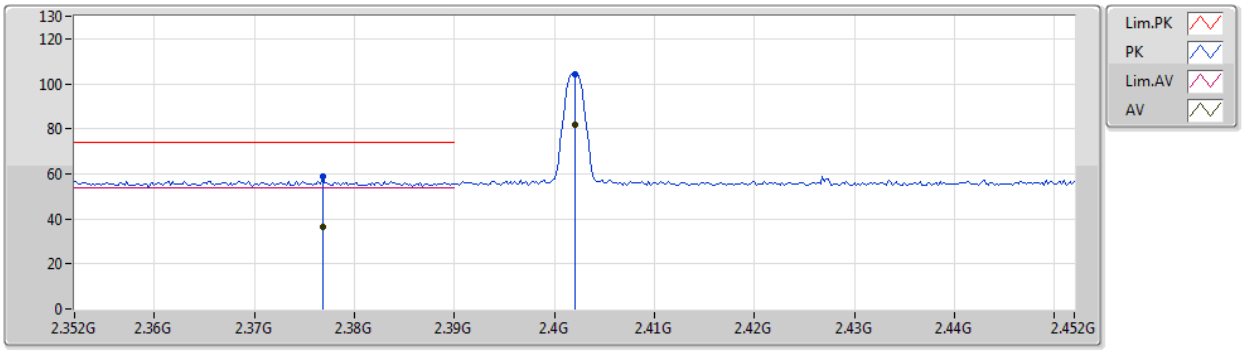
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3772G	37.93	54.00	-16.07	31.56	3	Vertical	141	1.50	-	6.37	27.69	3.87	-
AV	2.4022G	86.23	Inf	-Inf	31.50	3	Vertical	141	1.50	-	54.73	27.60	3.90	-
PK	2.3772G	60.43	74.00	-13.57	31.56	3	Vertical	141	1.50	-	28.87	27.69	3.87	-
PK	2.4022G	108.73	Inf	-Inf	31.50	3	Vertical	141	1.50	-	77.23	27.60	3.90	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2402MHz_TX

31/08/2020



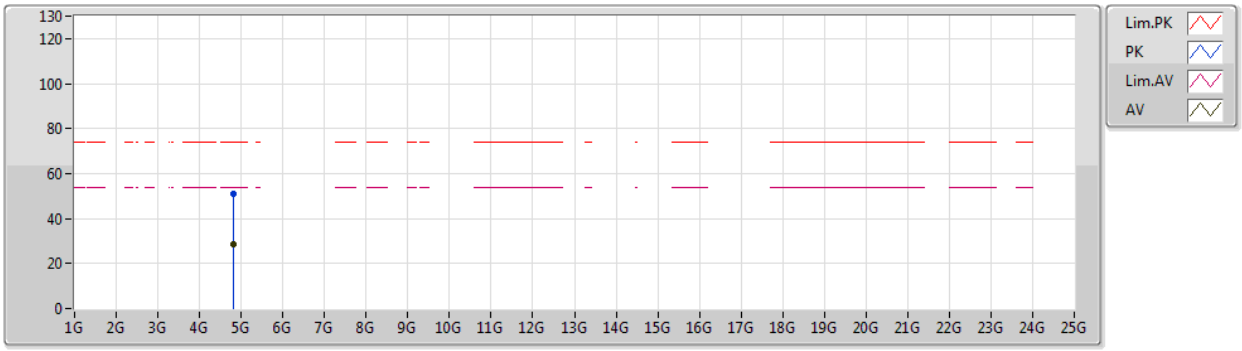
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3768G	36.36	54.00	-17.64	31.56	3	Horizontal	193	2.74	-	4.80	27.69	3.87	-
AV	2.402G	81.84	Inf	-Inf	31.50	3	Horizontal	193	2.74	-	50.34	27.60	3.90	-
PK	2.3768G	58.86	74.00	-15.14	31.56	3	Horizontal	193	2.74	-	27.30	27.69	3.87	-
PK	2.402G	104.34	Inf	-Inf	31.50	3	Horizontal	193	2.74	-	72.84	27.60	3.90	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2402MHz_TX

31/08/2020



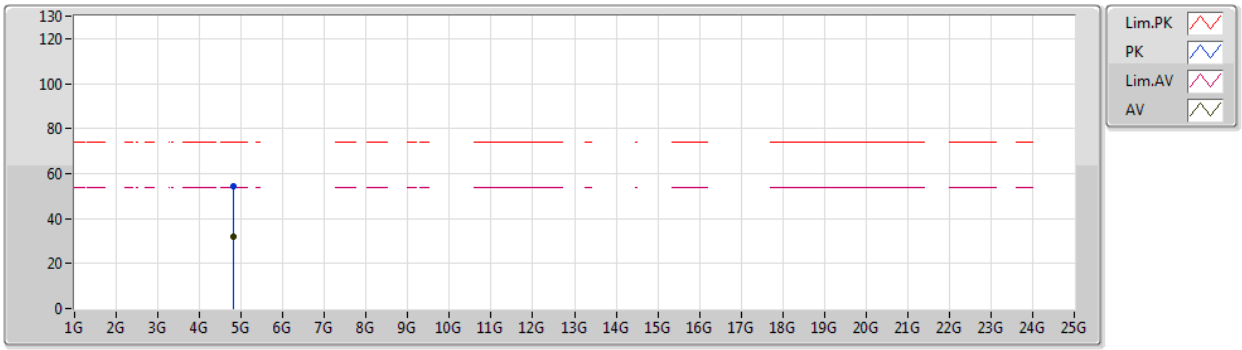
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.81204G	28.43	54.00	-25.57	1.53	3	Vertical	305	1.13	-	26.90	31.15	5.31	34.93
PK	4.81204G	50.93	74.00	-23.07	1.53	3	Vertical	305	1.13	-	49.40	31.15	5.31	34.93

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2402MHz_TX

31/08/2020



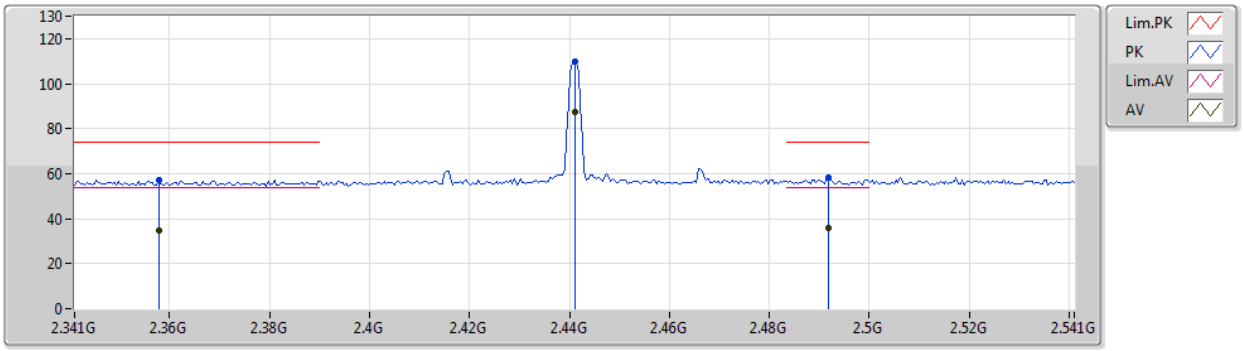
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.8043G	32.09	54.00	-21.91	1.49	3	Horizontal	225	2.86	-	30.60	31.12	5.30	34.93
PK	4.8043G	54.59	74.00	-19.41	1.49	3	Horizontal	225	2.86	-	53.10	31.12	5.30	34.93

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2441MHz_TX

31/08/2020



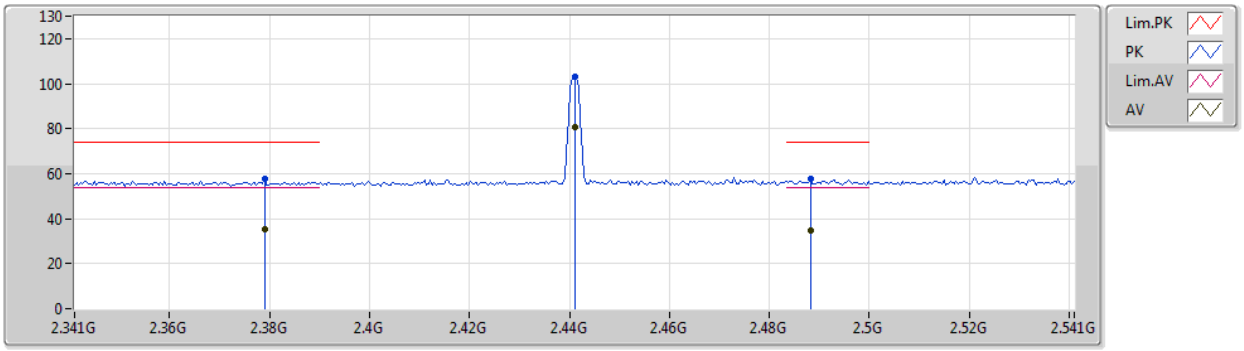
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3578G	34.84	54.00	-19.16	31.61	3	Vertical	146	1.17	-	3.23	27.77	3.84	-
AV	2.441G	87.49	Inf	-Inf	31.56	3	Vertical	146	1.17	-	55.93	27.60	3.96	-
AV	2.4918G	35.77	54.00	-18.23	31.64	3	Vertical	146	1.17	-	4.13	27.60	4.04	-
PK	2.3578G	57.34	74.00	-16.66	31.61	3	Vertical	146	1.17	-	25.73	27.77	3.84	-
PK	2.441G	109.99	Inf	-Inf	31.56	3	Vertical	146	1.17	-	78.43	27.60	3.96	-
PK	2.4918G	58.27	74.00	-15.73	31.64	3	Vertical	146	1.17	-	26.63	27.60	4.04	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2441MHz_TX

31/08/2020



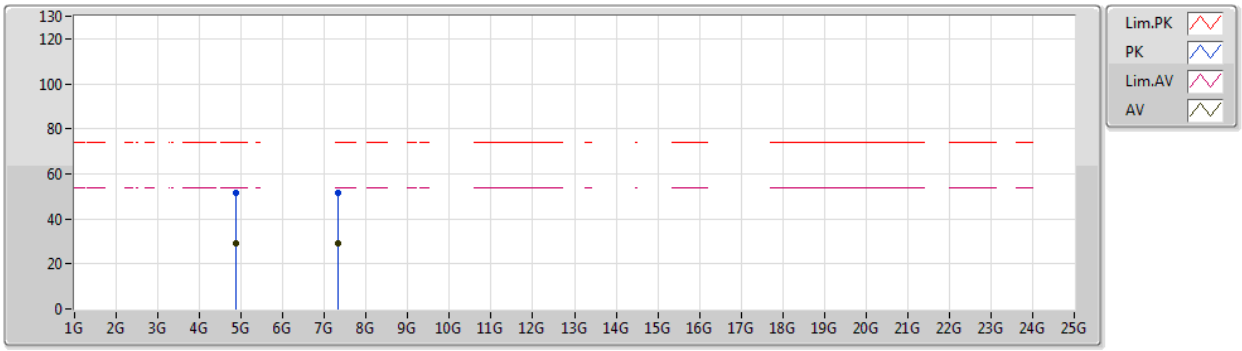
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.379G	35.06	54.00	-18.94	31.55	3	Horizontal	115	1.47	-	3.51	27.68	3.87	-
AV	2.441G	80.75	Inf	-Inf	31.56	3	Horizontal	115	1.47	-	49.19	27.60	3.96	-
AV	2.4882G	34.94	54.00	-19.06	31.63	3	Horizontal	115	1.47	-	3.31	27.60	4.03	-
PK	2.379G	57.56	74.00	-16.44	31.55	3	Horizontal	115	1.47	-	26.01	27.68	3.87	-
PK	2.441G	103.25	Inf	-Inf	31.56	3	Horizontal	115	1.47	-	71.69	27.60	3.96	-
PK	2.4882G	57.44	74.00	-16.56	31.63	3	Horizontal	115	1.47	-	25.81	27.60	4.03	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2441MHz_TX

31/08/2020



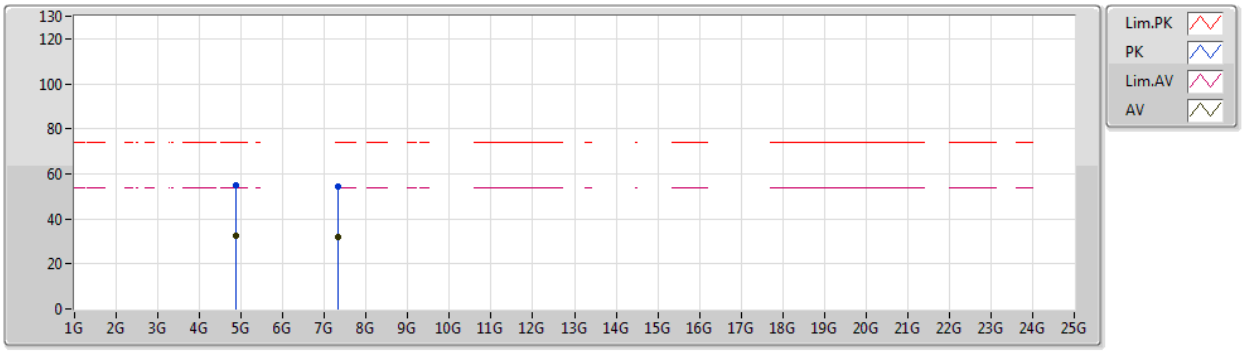
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88212G	29.29	54.00	-24.71	1.65	3	Vertical	130	2.93	-	27.64	31.24	5.34	34.93
AV	7.3227G	29.13	54.00	-24.87	8.17	3	Vertical	344	1.50	-	20.96	36.55	6.80	35.18
PK	4.88212G	51.79	74.00	-22.21	1.65	3	Vertical	130	2.93	-	50.14	31.24	5.34	34.93
PK	7.3227G	51.63	74.00	-22.37	8.17	3	Vertical	344	1.50	-	43.46	36.55	6.80	35.18

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2441MHz_TX

31/08/2020



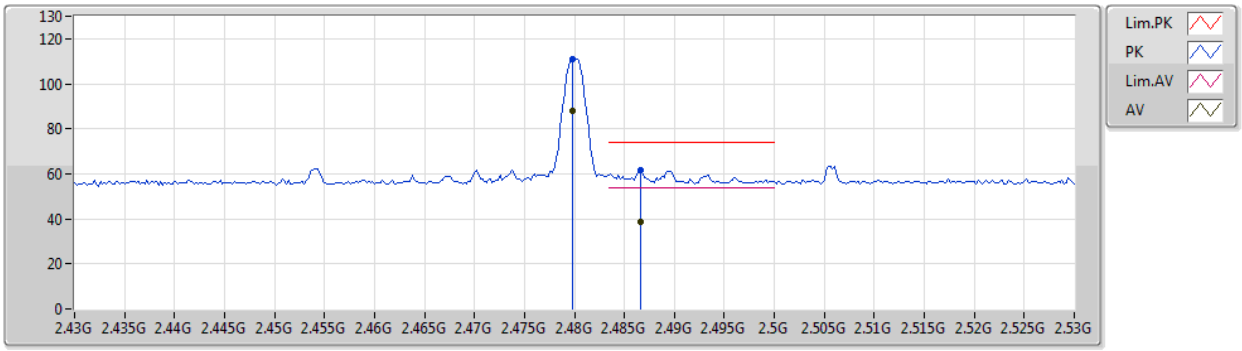
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88164G	32.40	54.00	-21.60	1.65	3	Horizontal	181	3.00	-	30.75	31.24	5.34	34.93
AV	7.32342G	31.72	54.00	-22.28	8.17	3	Horizontal	212	2.07	-	23.55	36.55	6.80	35.18
PK	4.88164G	54.90	74.00	-19.10	1.65	3	Horizontal	181	3.00	-	53.25	31.24	5.34	34.93
PK	7.32342G	54.22	74.00	-19.78	8.17	3	Horizontal	212	2.07	-	46.05	36.55	6.80	35.18

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2480MHz_TX

31/08/2020



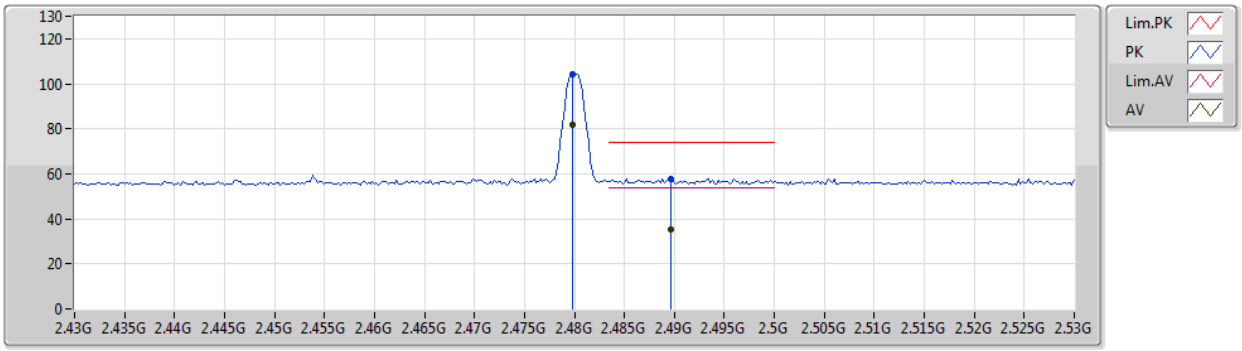
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	88.18	Inf	-Inf	31.62	3	Vertical	147	1.26	-	56.56	27.60	4.02	-
AV	2.4866G	38.92	54.00	-15.08	31.63	3	Vertical	147	1.26	-	7.29	27.60	4.03	-
PK	2.4798G	110.68	Inf	-Inf	31.62	3	Vertical	147	1.26	-	79.06	27.60	4.02	-
PK	2.4866G	61.42	74.00	-12.58	31.63	3	Vertical	147	1.26	-	29.79	27.60	4.03	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2480MHz_TX

31/08/2020



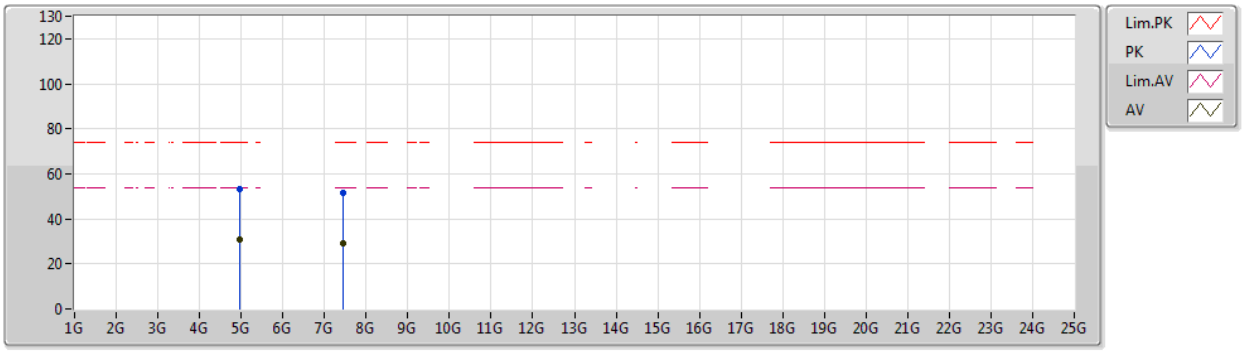
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	81.80	Inf	-Inf	31.62	3	Horizontal	346	1.52	-	50.18	27.60	4.02	-
AV	2.4896G	35.41	54.00	-18.59	31.63	3	Horizontal	346	1.52	-	3.78	27.60	4.03	-
PK	2.4798G	104.30	Inf	-Inf	31.62	3	Horizontal	346	1.52	-	72.68	27.60	4.02	-
PK	2.4896G	57.91	74.00	-16.09	31.63	3	Horizontal	346	1.52	-	26.28	27.60	4.03	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2480MHz_TX

31/08/2020



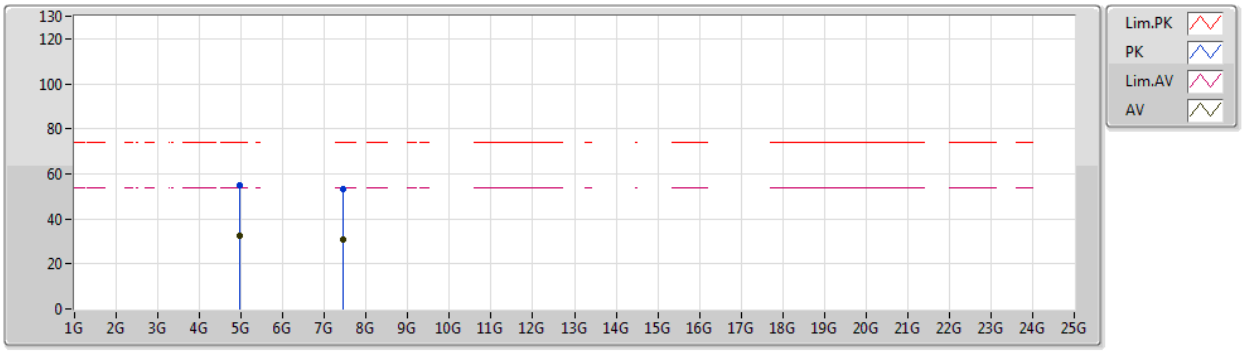
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.96036G	30.62	54.00	-23.38	1.86	3	Vertical	172	1.00	-	28.76	31.42	5.38	34.94
AV	7.44G	29.20	54.00	-24.80	8.21	3	Vertical	212	2.19	-	20.99	36.56	6.82	35.17
PK	4.96036G	53.12	74.00	-20.88	1.86	3	Vertical	172	1.00	-	51.26	31.42	5.38	34.94
PK	7.44G	51.70	74.00	-22.30	8.21	3	Vertical	212	2.19	-	43.49	36.56	6.82	35.17

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-BR(1Mbps)

2480MHz_TX

31/08/2020



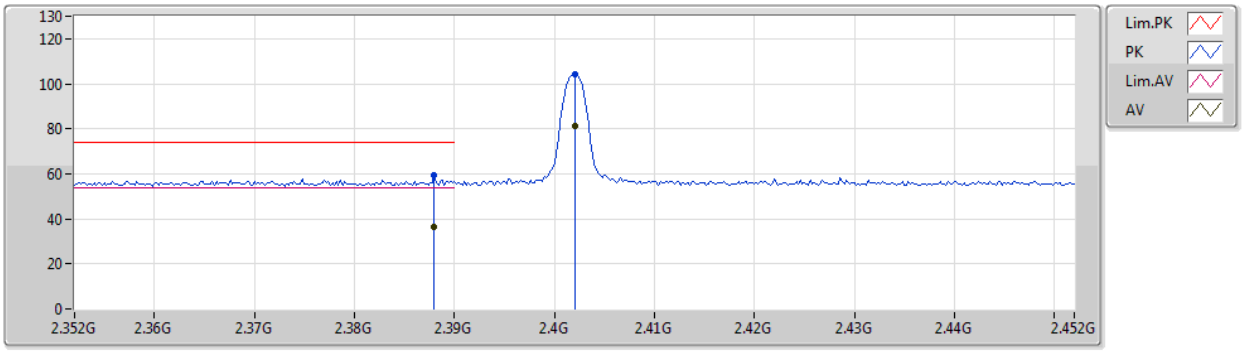
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.96024G	32.66	54.00	-21.34	1.86	3	Horizontal	183	2.87	-	30.80	31.42	5.38	34.94
AV	7.43958G	30.77	54.00	-23.23	8.21	3	Horizontal	208	2.00	-	22.56	36.56	6.82	35.17
PK	4.96024G	55.16	74.00	-18.84	1.86	3	Horizontal	183	2.87	-	53.30	31.42	5.38	34.94
PK	7.43958G	53.27	74.00	-20.73	8.21	3	Horizontal	208	2.00	-	45.06	36.56	6.82	35.17

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2402MHz_TX

31/08/2020



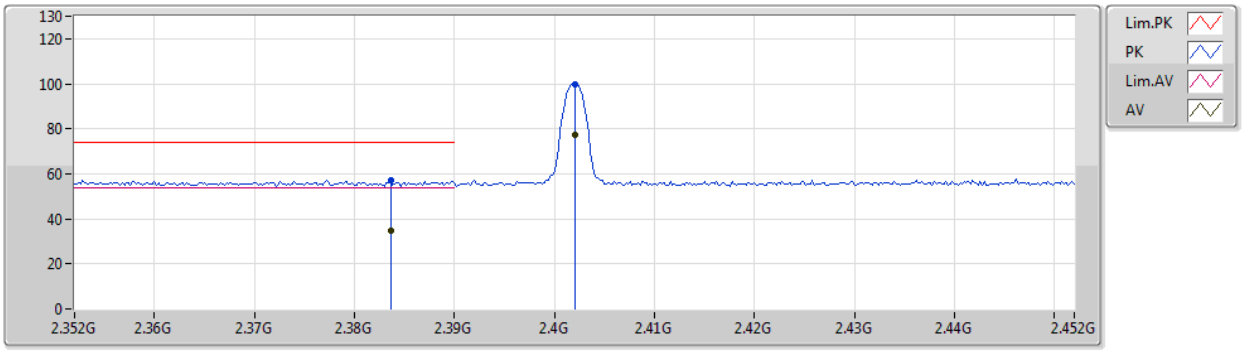
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.388G	36.69	54.00	-17.31	31.53	3	Vertical	144	1.50	-	5.16	27.65	3.88	-
AV	2.402G	81.51	Inf	-Inf	31.50	3	Vertical	144	1.50	-	50.01	27.60	3.90	-
PK	2.388G	59.19	74.00	-14.81	31.53	3	Vertical	144	1.50	-	27.66	27.65	3.88	-
PK	2.402G	104.01	Inf	-Inf	31.50	3	Vertical	144	1.50	-	72.51	27.60	3.90	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2402MHz_TX

31/08/2020



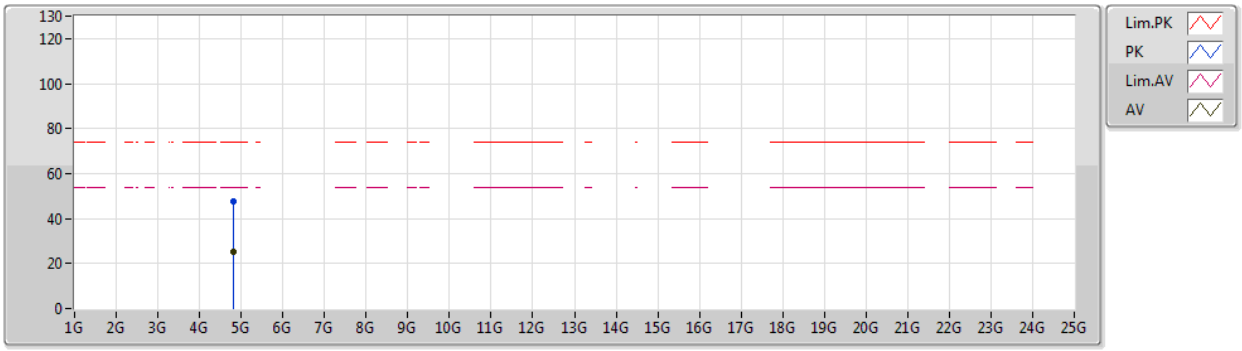
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3836G	34.86	54.00	-19.14	31.55	3	Horizontal	196	2.73	-	3.31	27.67	3.88	-
AV	2.402G	77.21	Inf	-Inf	31.50	3	Horizontal	196	2.73	-	45.71	27.60	3.90	-
PK	2.3836G	57.36	74.00	-16.64	31.55	3	Horizontal	196	2.73	-	25.81	27.67	3.88	-
PK	2.402G	99.71	Inf	-Inf	31.50	3	Horizontal	196	2.73	-	68.21	27.60	3.90	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2402MHz_TX

31/08/2020



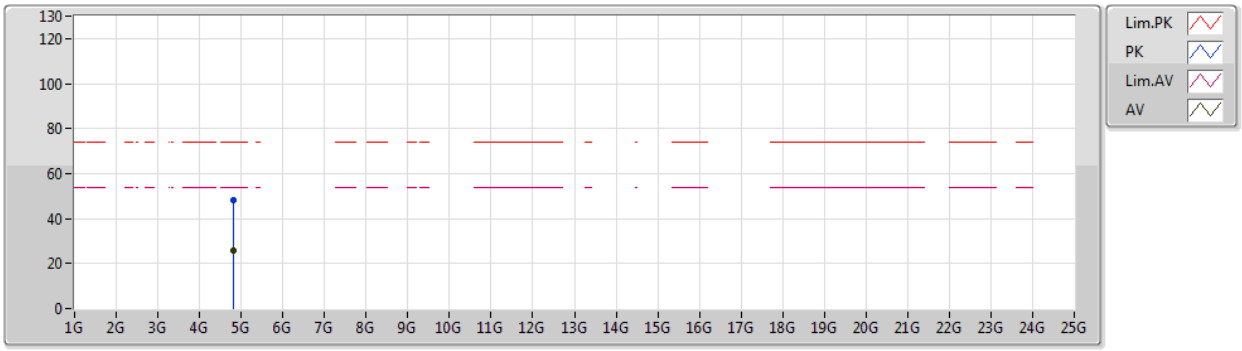
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.8037G	25.09	54.00	-28.91	1.48	3	Vertical	201	2.48	-	23.61	31.11	5.30	34.93
PK	4.8037G	47.59	74.00	-26.41	1.48	3	Vertical	201	2.48	-	46.11	31.11	5.30	34.93

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2402MHz_TX

31/08/2020



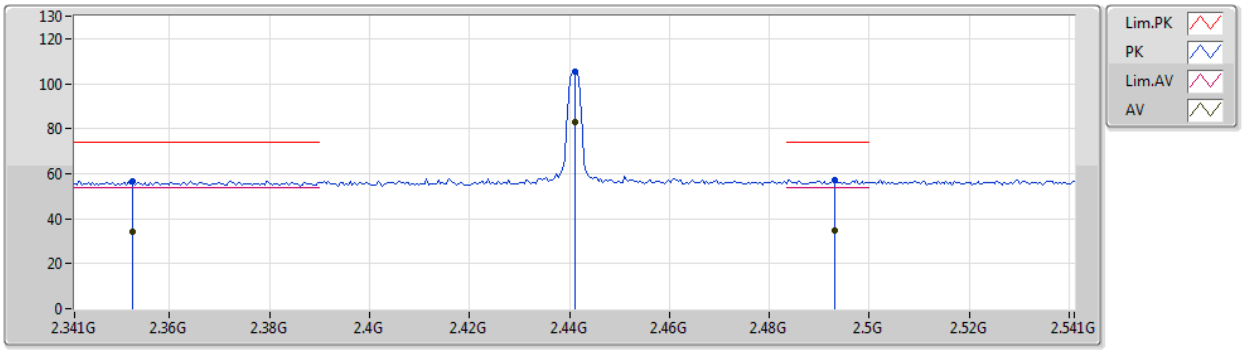
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80388G	25.92	54.00	-28.08	1.49	3	Horizontal	128	2.93	-	24.43	31.12	5.30	34.93
PK	4.80388G	48.42	74.00	-25.58	1.49	3	Horizontal	128	2.93	-	46.93	31.12	5.30	34.93

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2441MHz_TX

31/08/2020



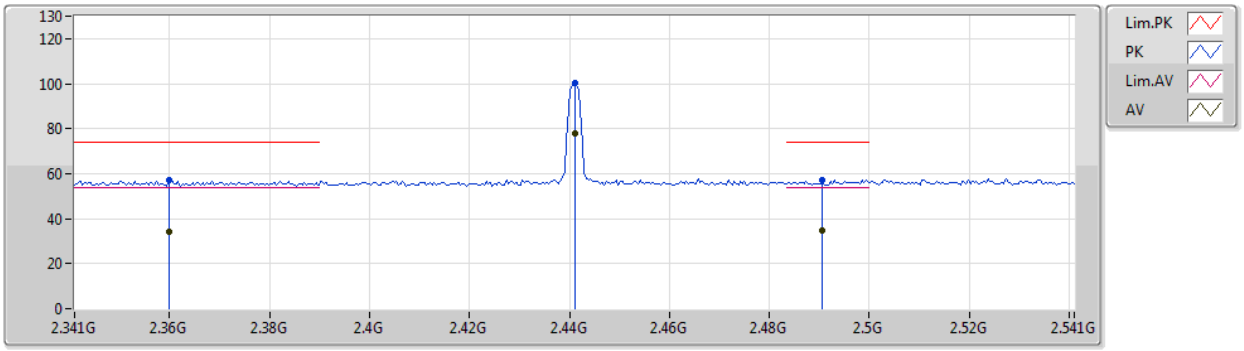
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3526G	34.23	54.00	-19.77	31.62	3	Vertical	145	1.16	-	2.61	27.79	3.83	-
AV	2.441G	83.10	Inf	-Inf	31.56	3	Vertical	145	1.16	-	51.54	27.60	3.96	-
AV	2.493G	34.85	54.00	-19.15	31.64	3	Vertical	145	1.16	-	3.21	27.60	4.04	-
PK	2.3526G	56.73	74.00	-17.27	31.62	3	Vertical	145	1.16	-	25.11	27.79	3.83	-
PK	2.441G	105.60	Inf	-Inf	31.56	3	Vertical	145	1.16	-	74.04	27.60	3.96	-
PK	2.493G	57.35	74.00	-16.65	31.64	3	Vertical	145	1.16	-	25.71	27.60	4.04	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2441MHz_TX

31/08/2020



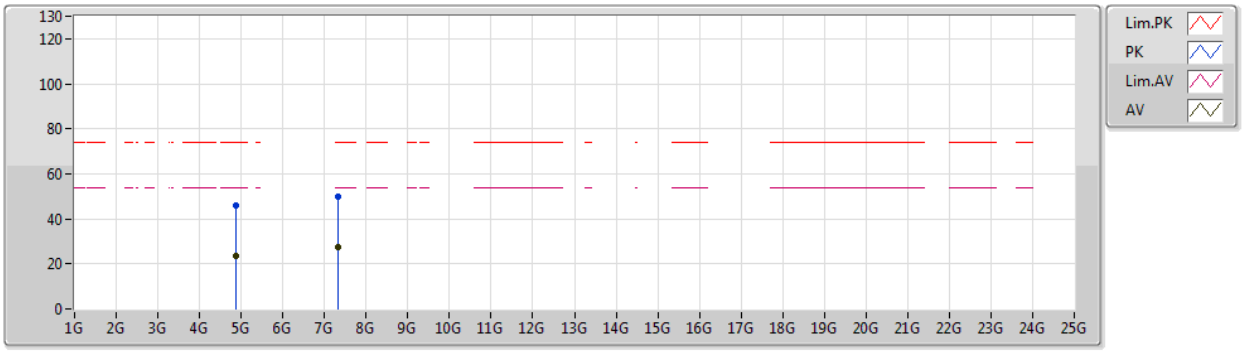
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3598G	34.39	54.00	-19.61	31.60	3	Horizontal	196	3.00	-	2.79	27.76	3.84	-
AV	2.441G	77.74	Inf	-Inf	31.56	3	Horizontal	196	3.00	-	46.18	27.60	3.96	-
AV	2.4906G	34.86	54.00	-19.14	31.64	3	Horizontal	196	3.00	-	3.22	27.60	4.04	-
PK	2.3598G	56.89	74.00	-17.11	31.60	3	Horizontal	196	3.00	-	25.29	27.76	3.84	-
PK	2.441G	100.24	Inf	-Inf	31.56	3	Horizontal	196	3.00	-	68.68	27.60	3.96	-
PK	2.4906G	57.36	74.00	-16.64	31.64	3	Horizontal	196	3.00	-	25.72	27.60	4.04	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2441MHz_TX

31/08/2020

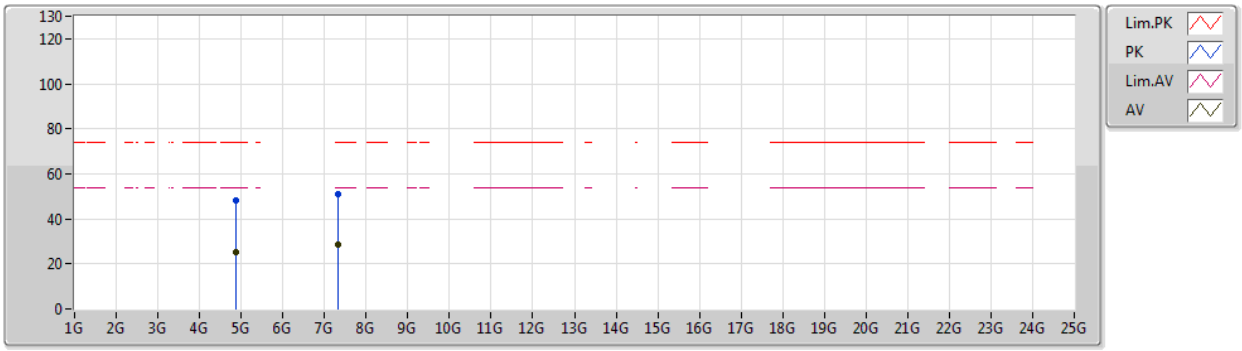


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88176G	23.45	54.00	-30.55	1.65	3	Vertical	126	3.00	-	21.80	31.24	5.34	34.93
AV	7.33746G	27.19	54.00	-26.81	8.15	3	Vertical	294	1.27	-	19.04	36.53	6.80	35.18
PK	4.88176G	45.95	74.00	-28.05	1.65	3	Vertical	126	3.00	-	44.30	31.24	5.34	34.93
PK	7.33746G	49.69	74.00	-24.31	8.15	3	Vertical	294	1.27	-	41.54	36.53	6.80	35.18

BT-EDR(3Mbps)

2441MHz_TX

31/08/2020



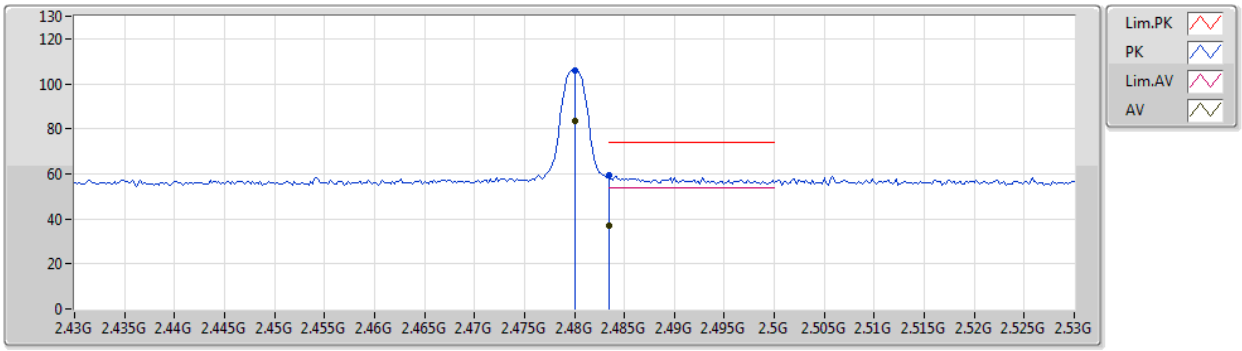
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.882G	25.47	54.00	-28.53	1.65	3	Horizontal	180	2.97	-	23.82	31.24	5.34	34.93
AV	7.32342G	28.45	54.00	-25.55	8.17	3	Horizontal	214	2.01	-	20.28	36.55	6.80	35.18
PK	4.882G	47.97	74.00	-26.03	1.65	3	Horizontal	180	2.97	-	46.32	31.24	5.34	34.93
PK	7.32342G	50.95	74.00	-23.05	8.17	3	Horizontal	214	2.01	-	42.78	36.55	6.80	35.18

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2480MHz_TX

31/08/2020



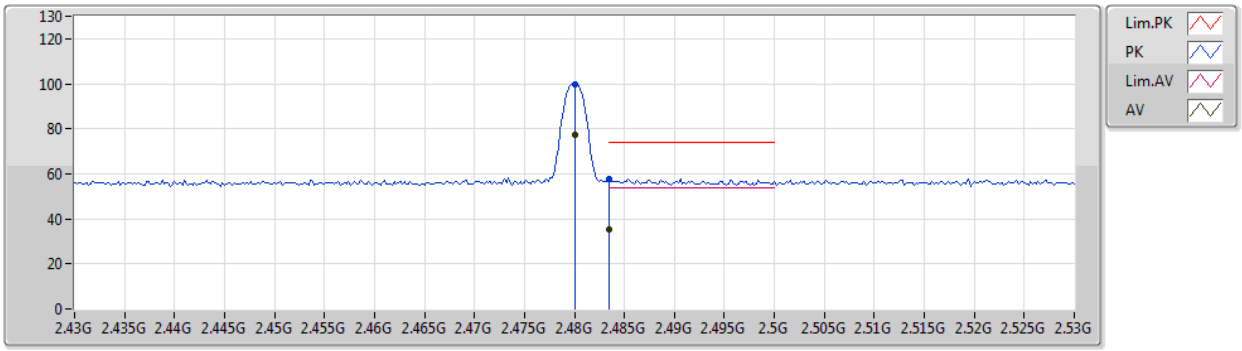
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	83.67	Inf	-Inf	31.62	3	Vertical	146	1.26	-	52.05	27.60	4.02	-
AV	2.4835G	36.79	Inf	-Inf	31.63	3	Vertical	146	1.26	-	5.16	27.60	4.03	-
PK	2.48G	106.17	Inf	-Inf	31.62	3	Vertical	146	1.26	-	74.55	27.60	4.02	-
PK	2.4835G	59.29	74.00	-14.71	31.63	3	Vertical	146	1.26	-	27.66	27.60	4.03	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2480MHz_TX

31/08/2020



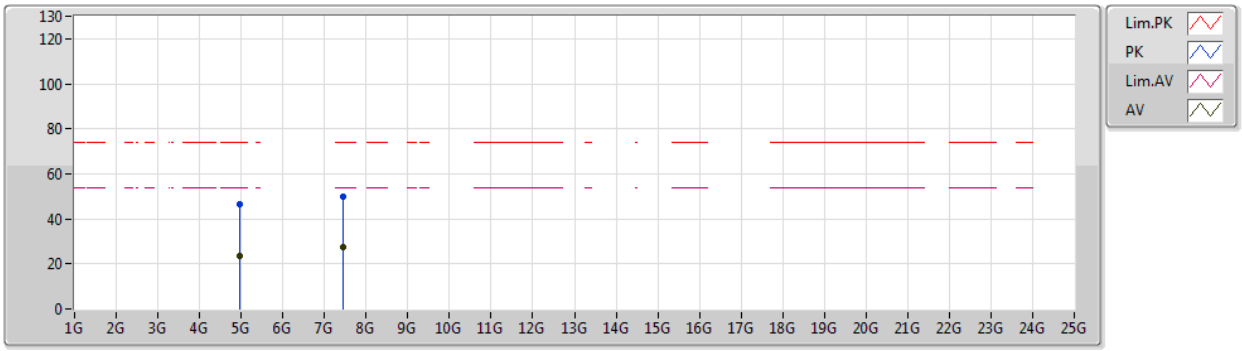
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	77.41	Inf	-Inf	31.62	3	Horizontal	344	1.71	-	45.79	27.60	4.02	-
AV	2.4835G	35.25	Inf	-Inf	31.63	3	Horizontal	344	1.71	-	3.62	27.60	4.03	-
PK	2.48G	99.91	Inf	-Inf	31.62	3	Horizontal	344	1.71	-	68.29	27.60	4.02	-
PK	2.4835G	57.75	74.00	-16.25	31.63	3	Horizontal	344	1.71	-	26.12	27.60	4.03	-

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2480MHz_TX

31/08/2020



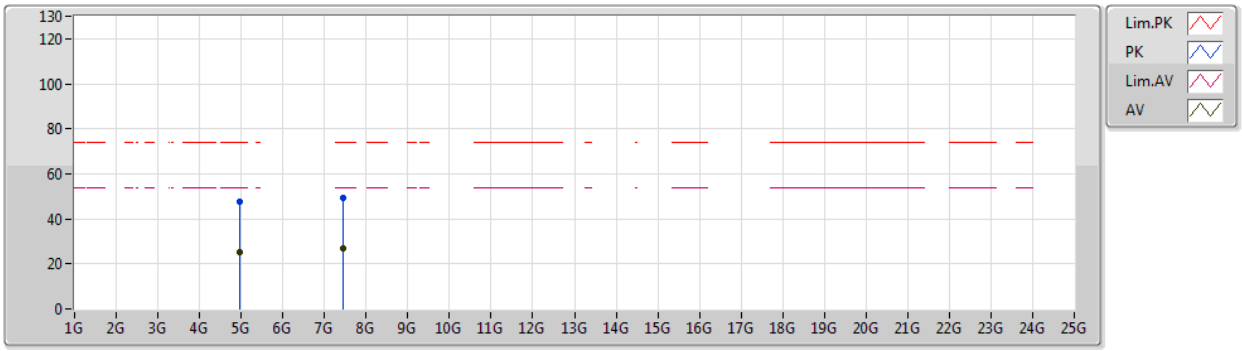
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95982G	23.74	54.00	-30.26	1.86	3	Vertical	167	1.16	-	21.88	31.42	5.38	34.94
AV	7.4532G	27.37	54.00	-26.63	8.26	3	Vertical	48	1.80	-	19.11	36.60	6.83	35.17
PK	4.95982G	46.24	74.00	-27.76	1.86	3	Vertical	167	1.16	-	44.38	31.42	5.38	34.94
PK	7.4532G	49.87	74.00	-24.13	8.26	3	Vertical	48	1.80	-	41.61	36.60	6.83	35.17

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-EDR(3Mbps)

2480MHz_TX

31/08/2020



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.96006G	25.05	54.00	-28.95	1.86	3	Horizontal	184	1.50	-	23.19	31.42	5.38	34.94
AV	7.44342G	27.04	54.00	-26.96	8.22	3	Horizontal	137	1.95	-	18.82	36.57	6.82	35.17
PK	4.96006G	47.55	74.00	-26.45	1.86	3	Horizontal	184	1.50	-	45.69	31.42	5.38	34.94
PK	7.44342G	49.54	74.00	-24.46	8.22	3	Horizontal	137	1.95	-	41.32	36.57	6.82	35.17

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)