

FCC Test Report

FCC ID : TTUBEOPLAYPL
Equipment : Wireless Gaming Headphones
Brand Name : Bang & Olufse
Model Name : Beoplay Portal
Applicant : Bang & Olufsen A/S
Bang og Olufsen Allé 1, 7600 Struer, Denmark
Manufacturer : Bang & Olufsen A/S
Bang og Olufsen Allé 1, 7600 Struer, Denmark
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 06, 2020, and testing was started from Nov. 18, 2020 and completed on Dec. 12, 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

[illegible]

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: Michelle Tsai

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Version	Ch. Frequency (MHz)	Channel Number
2400-2483.5	BR / EDR	2402-2480	0-78 [79]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-BR(1Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(2Mbps)	1	1TX
2.4-2.4835GHz	BT-EDR(3Mbps)	1	1TX

Note:

- Bluetooth BR uses a GFSK (1Mbps).
- Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).
- Bluetooth BR/EDR uses as a system using FHSS modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	SAGE ELEPHANT	S306300001000-A	Couple Chip	N/A
2	SAGE ELEPHANT	S306300001000-A	Couple Chip	N/A

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	0.72	0.71	-
2	1	-	-	0.73

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

For BT function:

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

Ant. 2 (port 1) could transmit/receive.

For 5GHz function:

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

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From host system / 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) $\geq \frac{1}{T}$
BT-BR(1Mbps)	0.752	1.24	2.892m	1k
BT-EDR(2Mbps)	0.791	1.02	2.898m	1k
BT-EDR(3Mbps)	0.772	1.12	2.899m	1k

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

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Sample	Description
Beoplay Portal	1	There are two samples of EUT, the only difference is the color of appearance.
	2	

Note: Sample 2 configuration was measured during the test.

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	21.0~22.1°C/56~59%	12/Dec/2020
RF Conducted	TH01-HY	Vivi Jiang	20.1~26.9°C/50~60%	18/Nov/2020~19/Nov/2020
Radiated	03CH02-HY	Daniel Lin	20.4~26.3°C/51~64%	20/Nov/2020~25/Nov/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	3.7V

2.2 Test Channel Mode

Test Software Version	Bluetest3
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Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	3
2440MHz	2
2480MHz	2
BT-EDR(2Mbps)	-
2402MHz	3
2440MHz	2
2480MHz	2
BT-EDR(3Mbps)	-
2402MHz	3
2440MHz	2
2480MHz	2

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	USB Mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains ☒ 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	USB Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V

2.4 Accessories

Accessories				
Battery	Brand Name	Synergy	Model Name	AHB723938PCT
	Power Rating	3.7Vdc,1110mAh	Type	Lithium-ion Polymer Battery Pack
USB Cable(1.8M)	Brand Name	Bang & Olufsen	Model Name	4021XW01907ZEU
	Signal Line	1.8 meter, D-shielded cable, w/o ferrite core		
USB Cable(1.2M)	Brand Name	Bang & Olufsen	Model Name	4021XW01907ZAU
	Signal Line	1.2 meter, D-shielded cable, w/o ferrite core		
Audio Cable	Brand Name	Bang & Olufsen	Model Name	4021XW01906ZAS
	Signal Line	1.2 meter, non-shielded cable, w/o ferrite core		

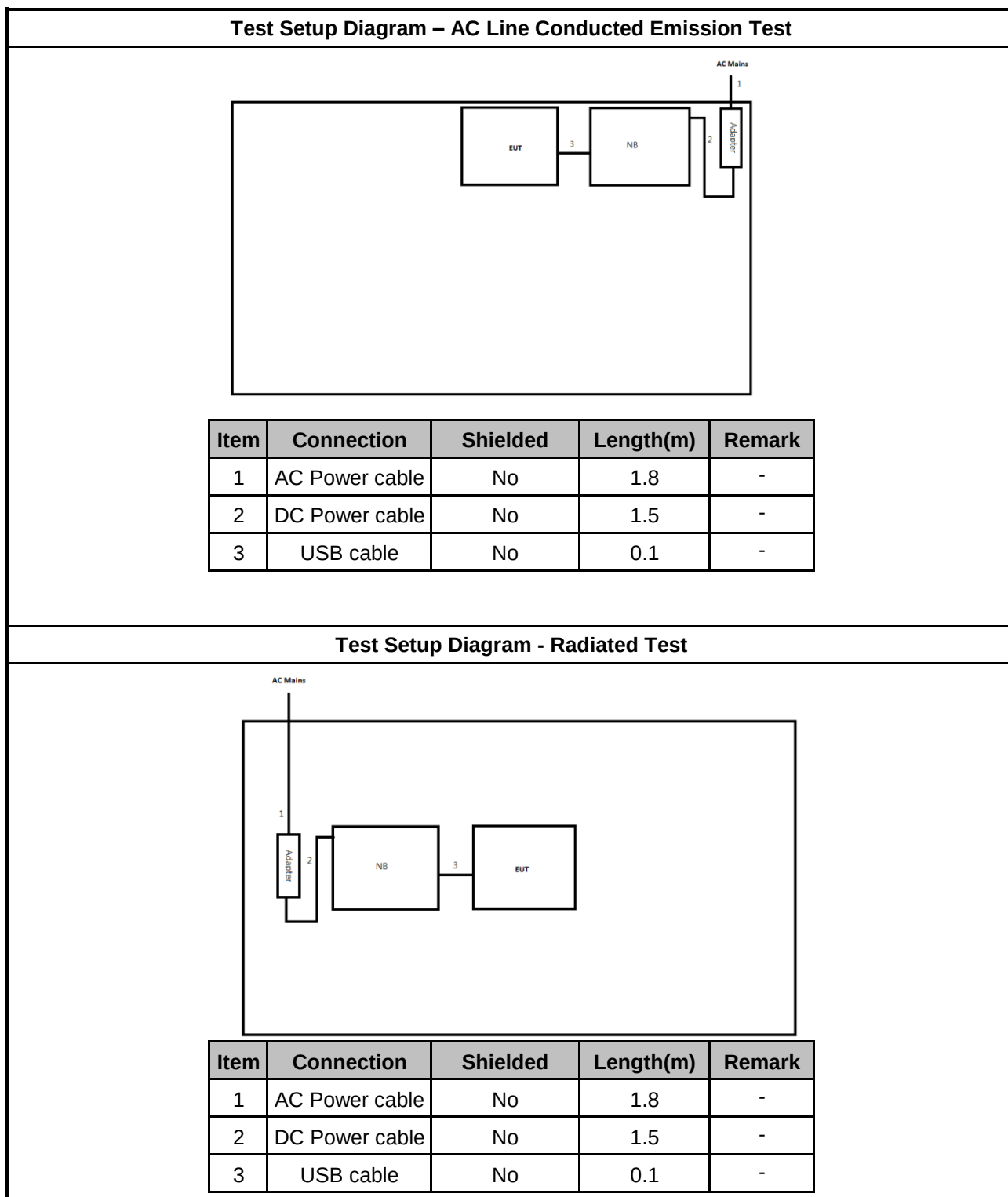
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

Support Equipment – AC Conduction and Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	Acer	ZQS	-	-
2	Adapter for NB	Liteon	PA-1900-32	-	-

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



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

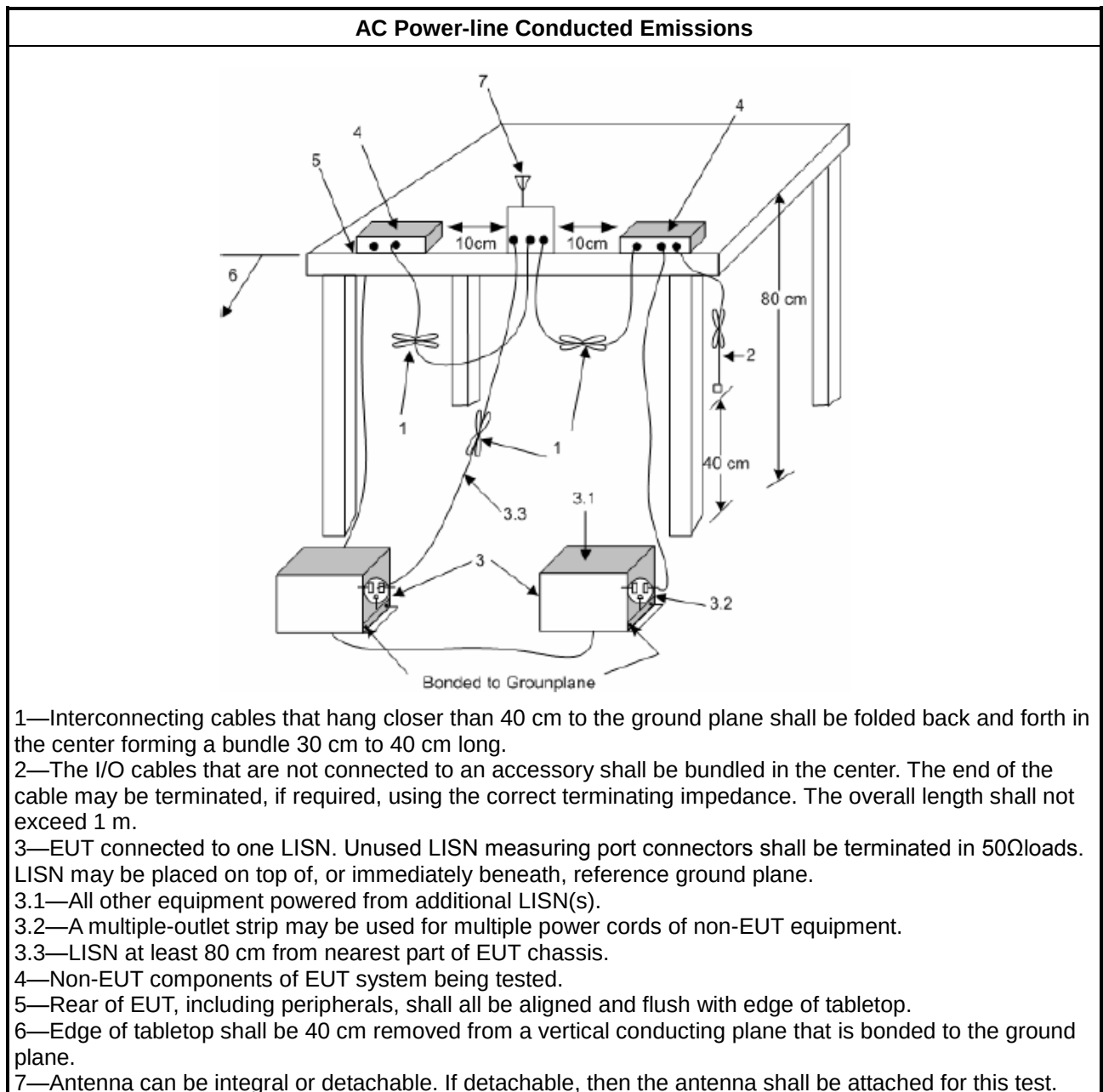
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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



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:	
	$N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	$75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

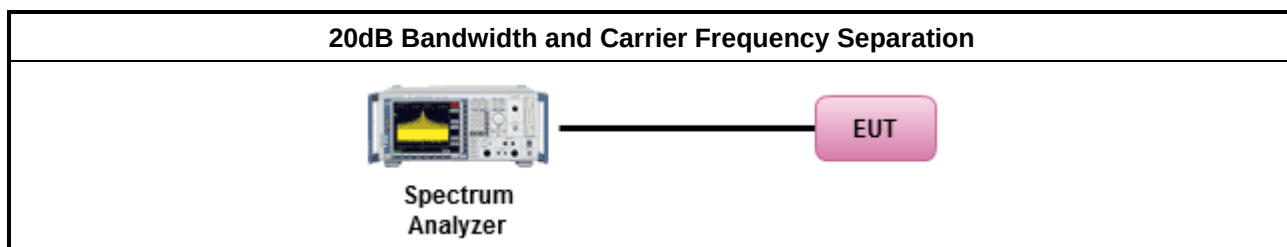
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 6.9.2 for 20 dB bandwidth measurement.
Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup



3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
2400-2483.5 MHz Band:	
	$N \geq 75$; Power 30dBm; EIRP 36dBm
	$75 > N \geq 15$; Power 21dBm; EIRP 27dBm
N: Number of Hopping Frequencies	

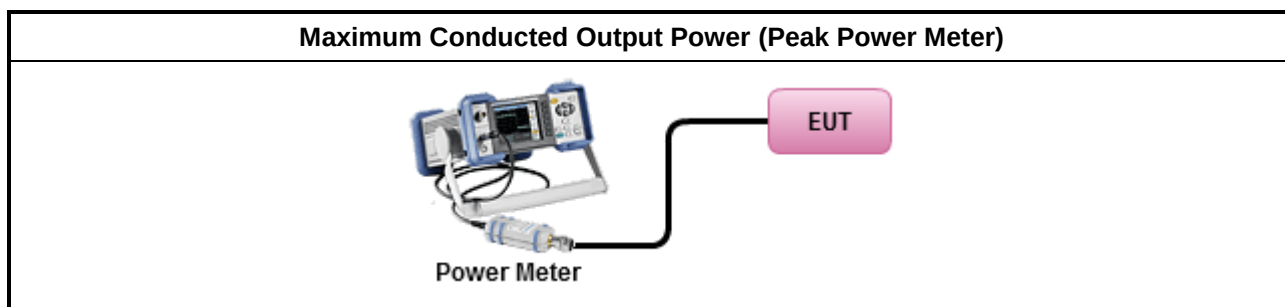
3.3.2 Measuring Instruments

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



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:	
	$N \geq 75$ and $ChS \geq MAX$ (20 dB bandwidth, 25 kHz).
	$75 > N \geq 15$ and $ChS \geq MAX$ (20 dB bandwidth 2/3, 25 kHz).
N: Number of Hopping Frequencies; ChS : Hopping Channel Separation	

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

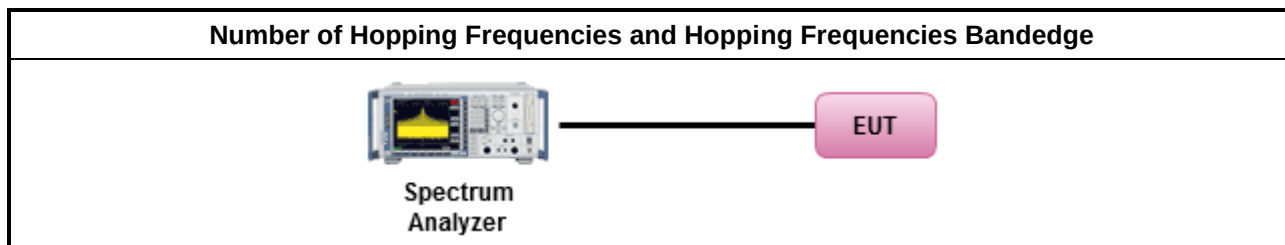
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.3 for number of hopping frequencies measurement.
Refer as ANSI C63.10-2013, clause 7.8.6 for hopping frequencies Bandedge measurement.

3.4.5 Test Setup



3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

Time of Occupancy (Dwell Time) Limit for Frequency Hopping Systems	
2400-2483.5 MHz Band:	
	$N \geq 75$; 0.4s in $N \times 0.4$ period
	$75 > N \geq 15$; 0.4s in $N \times 0.4$ period
N: Number of Hopping Frequencies	

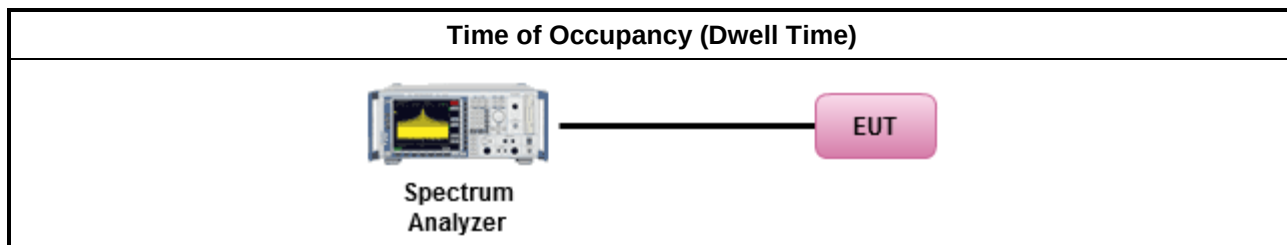
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method	
Refer as ANSI C63.10-2013, clause 7.8.4 for dwell time measurement.	
Bluetooth ACL packets can be 1, 3, or 5 time slots. Following as dwell time. Operate DH5 at maximum dwell time and maximum duty cycle.	
	The DH5 packet can cover up to 5 time slots. Operate DH5 at maximum dwell time and maximum duty cycle. A maximum length packet has duration of 5 time slots. The hopping rate is 1600 hops/second so the maximum dwell time is $5/1600$ seconds, or 3.125ms. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel.

3.5.4 Test Setup



3.5.5 Test Result of Time of Occupancy (Dwell Time)

Refer as Appendix E

3.6 Emissions in Non-restricted Frequency Bands

3.6.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.	

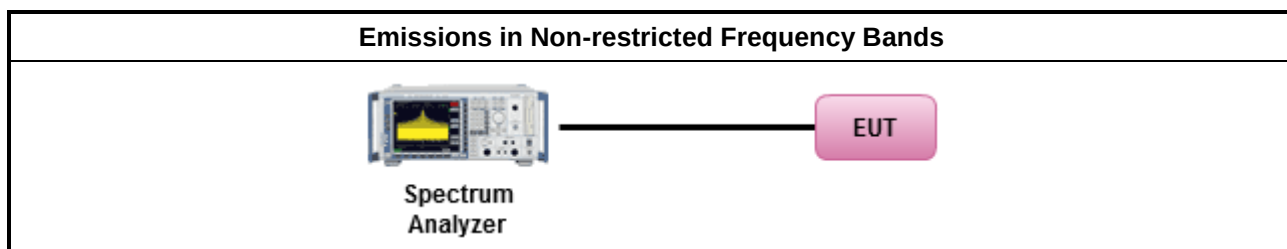
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10-2013, clause 7.8.8 for unwanted emissions into non-restricted bands.

3.6.4 Test Setup



3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

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

3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

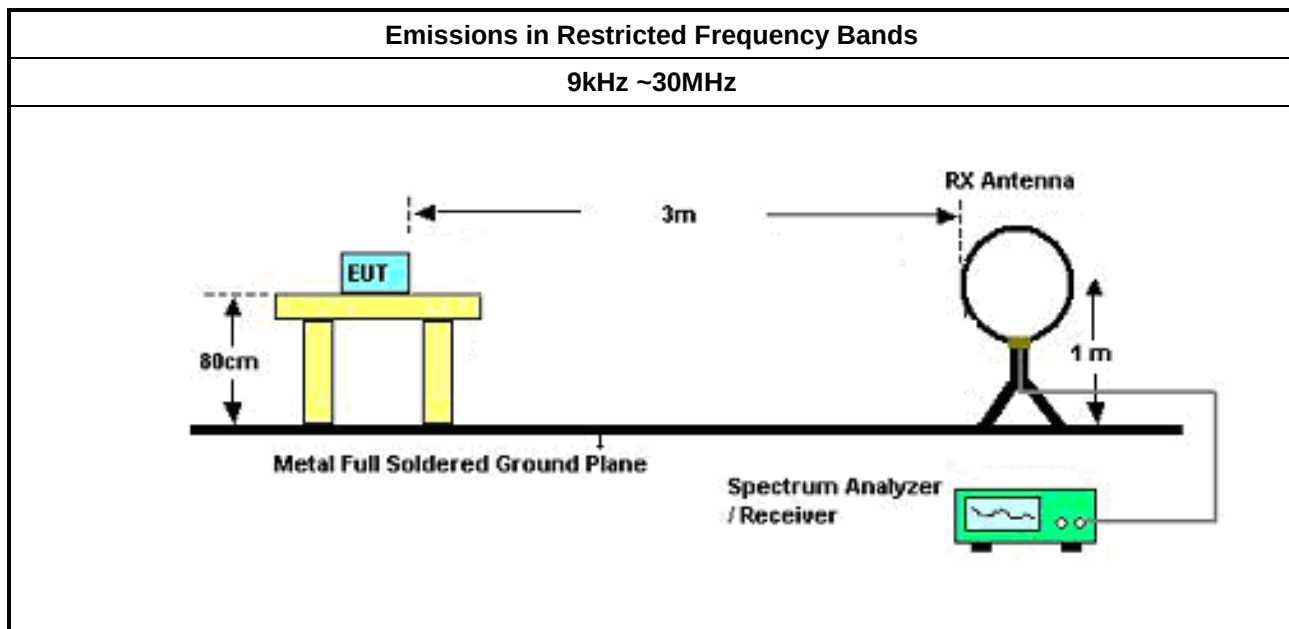
Test Method	
The average emission levels shall be measured in [hopping duty factor].	
Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall 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 : 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.

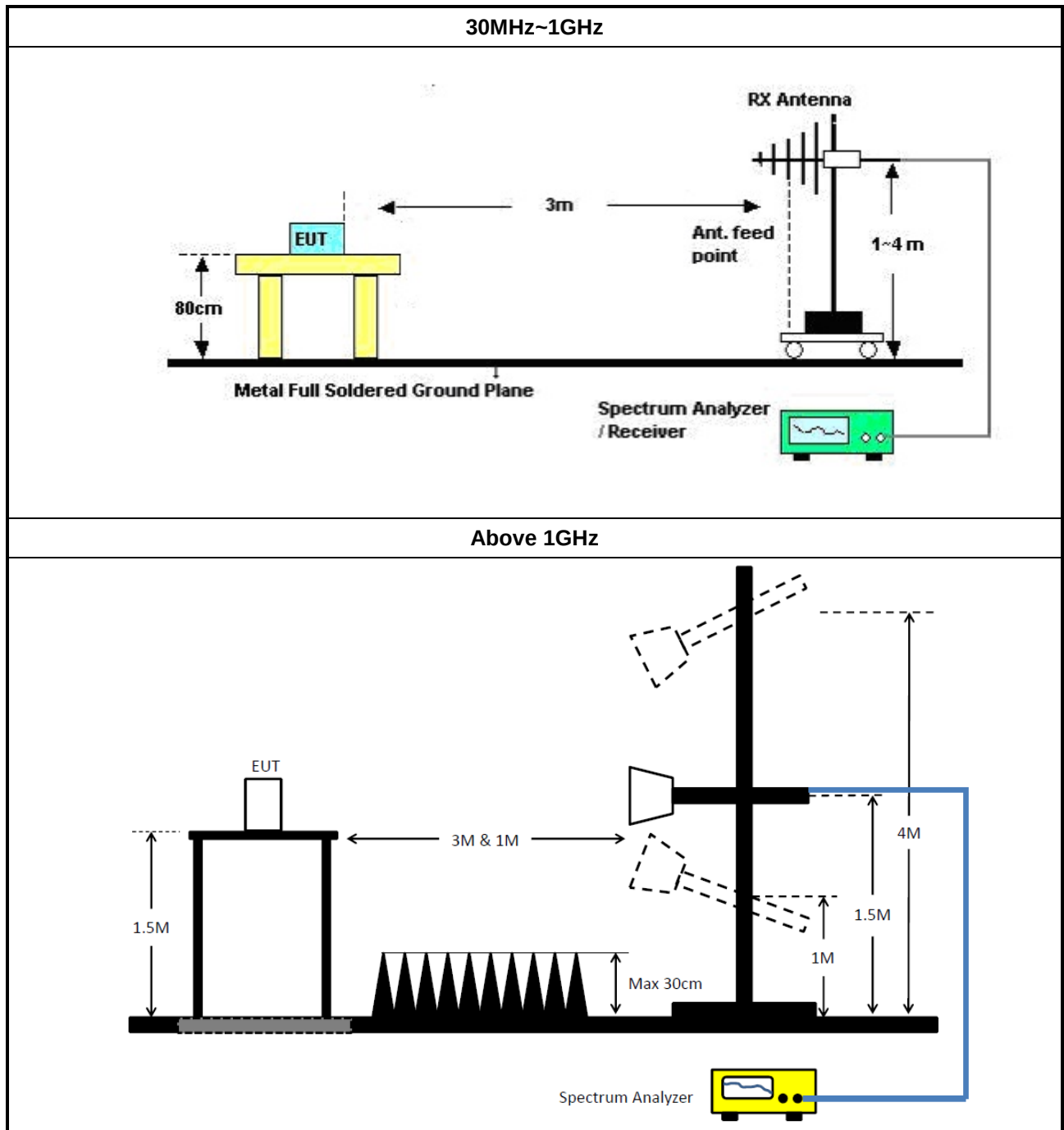
3.7.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.7.5 Test Setup





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/ Brand	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	11/Nov/2020	10/Nov/2021
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	21/Sep/2020	20/Sep/2021

Instrument for Radiated Test

Instrument	Manufacturer/ Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	04/Aug/2020	03/Aug/2021
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	02/Aug/2020	01/Aug/2021
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	27/Feb/2020	26/Feb/2021
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	30/Jun/2020	29/Jun/2021
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~18GHz	23/Oct/2020	22/Oct/2021
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	06/Sep/2020	05/Sep/2021
Double Ridged Guide Horn Antenna	SCHWARZBEC	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	09/Jun/2020	08/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz~30MHz	20/Jun/2020	19/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB017	30MHz~1GHz	25/Mar/2020	24/Mar/2021
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	805193/4+805192/4	1GHz~40GHz	08/Apr/2020	07/Apr/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

Instrument for Conducted Test

Instrument	Manufacturer/ Brand	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	20/Oct/2020	19/Oct/2022
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

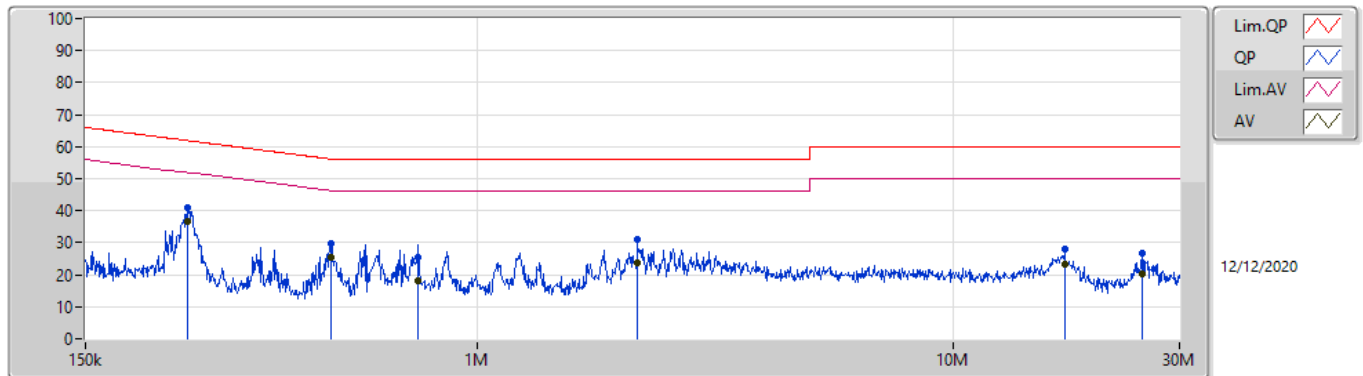
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	246.077k	36.44	51.89	-15.45	Line

Mode Configure

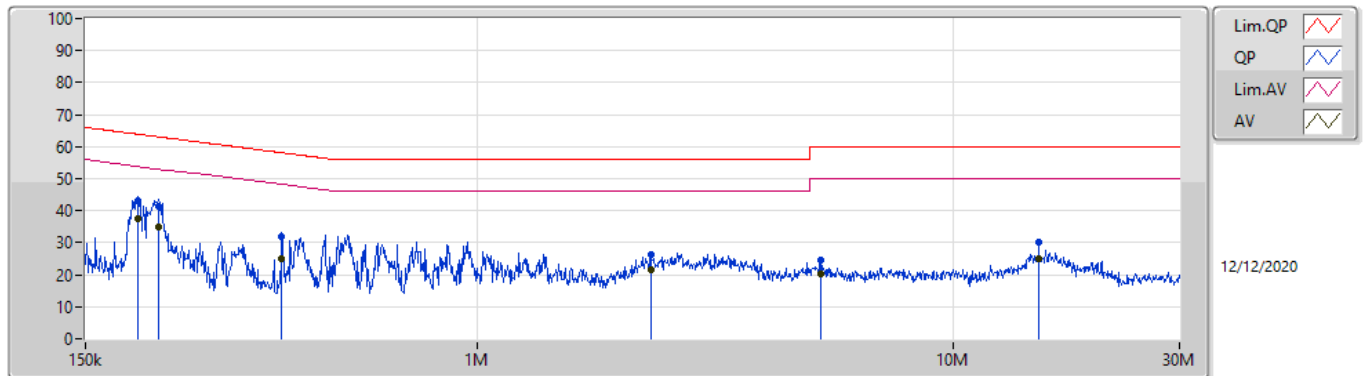
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	246.077k	41.00	61.89	-20.89	Line	-
Mode 1	Pass	AV	246.077k	36.44	51.89	-15.45	Line	"Worst"
Mode 1	Pass	QP	492.876k	29.80	56.11	-26.31	Line	-
Mode 1	Pass	AV	492.876k	25.41	46.11	-20.70	Line	-
Mode 1	Pass	QP	752.508k	25.41	56.00	-30.59	Line	-
Mode 1	Pass	AV	752.508k	18.12	46.00	-27.88	Line	-
Mode 1	Pass	QP	2.176M	30.85	56.00	-25.15	Line	-
Mode 1	Pass	AV	2.176M	23.75	46.00	-22.25	Line	-
Mode 1	Pass	QP	17.208M	28.03	60.00	-31.97	Line	-
Mode 1	Pass	AV	17.208M	23.15	50.00	-26.85	Line	-
Mode 1	Pass	QP	25.044M	26.64	60.00	-33.36	Line	-
Mode 1	Pass	AV	25.044M	20.16	50.00	-29.84	Line	-
Mode 1	Pass	QP	193.664k	43.27	63.88	-20.61	Neutral	-
Mode 1	Pass	AV	193.664k	37.44	53.88	-16.44	Neutral	"Worst"
Mode 1	Pass	QP	213.989k	41.38	63.06	-21.68	Neutral	-
Mode 1	Pass	AV	213.989k	34.99	53.06	-18.07	Neutral	-
Mode 1	Pass	QP	387.896k	31.90	58.10	-26.20	Neutral	-
Mode 1	Pass	AV	387.896k	25.00	48.10	-23.10	Neutral	-
Mode 1	Pass	QP	2.32M	26.08	56.00	-29.92	Neutral	-
Mode 1	Pass	AV	2.32M	21.39	46.00	-24.61	Neutral	-
Mode 1	Pass	QP	5.279M	24.36	60.00	-35.64	Neutral	-
Mode 1	Pass	AV	5.279M	20.19	50.00	-29.81	Neutral	-
Mode 1	Pass	QP	15.145M	30.07	60.00	-29.93	Neutral	-
Mode 1	Pass	AV	15.145M	25.03	50.00	-24.97	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	246.077k	41.00	61.89	-20.89	19.59	Line	-	21.41	9.68	0.01	9.90			
AV	246.077k	36.44	51.89	-15.45	19.59	Line	"Worst"	16.85	9.68	0.01	9.90			
QP	492.876k	29.80	56.11	-26.31	19.58	Line	-	10.22	9.67	0.03	9.88			
AV	492.876k	25.41	46.11	-20.70	19.58	Line	-	5.83	9.67	0.03	9.88			
QP	752.508k	25.41	56.00	-30.59	19.54	Line	-	5.87	9.67	0.04	9.83			
AV	752.508k	18.12	46.00	-27.88	19.54	Line	-	-1.42	9.67	0.04	9.83			
QP	2.176M	30.85	56.00	-25.15	19.57	Line	-	11.28	9.68	0.08	9.81			
AV	2.176M	23.75	46.00	-22.25	19.57	Line	-	4.18	9.68	0.08	9.81			
QP	17.208M	28.03	60.00	-31.97	19.85	Line	-	8.18	9.68	0.27	9.90			
AV	17.208M	23.15	50.00	-26.85	19.85	Line	-	3.30	9.68	0.27	9.90			
QP	25.044M	26.64	60.00	-33.36	19.84	Line	-	6.80	9.59	0.35	9.90			
AV	25.044M	20.16	50.00	-29.84	19.84	Line	-	0.32	9.59	0.35	9.90			

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	193.664k	43.27	63.88	-20.61	19.59	Neutral	-	23.68	9.68	0.01	9.90			
AV	193.664k	37.44	53.88	-16.44	19.59	Neutral	"Worst"	17.85	9.68	0.01	9.90			
QP	213.989k	41.38	63.06	-21.68	19.59	Neutral	-	21.79	9.68	0.01	9.90			
AV	213.989k	34.99	53.06	-18.07	19.59	Neutral	-	15.40	9.68	0.01	9.90			
QP	387.896k	31.90	58.10	-26.20	19.59	Neutral	-	12.31	9.67	0.02	9.90			
AV	387.896k	25.00	48.10	-23.10	19.59	Neutral	-	5.41	9.67	0.02	9.90			
QP	2.32M	26.08	56.00	-29.92	19.59	Neutral	-	6.49	9.68	0.09	9.82			
AV	2.32M	21.39	46.00	-24.61	19.59	Neutral	-	1.80	9.68	0.09	9.82			
QP	5.279M	24.36	60.00	-35.64	19.75	Neutral	-	4.61	9.70	0.15	9.90			
AV	5.279M	20.19	50.00	-29.81	19.75	Neutral	-	0.44	9.70	0.15	9.90			
QP	15.145M	30.07	60.00	-29.93	19.89	Neutral	-	10.18	9.74	0.25	9.90			
AV	15.145M	25.03	50.00	-24.97	19.89	Neutral	-	5.14	9.74	0.25	9.90			

**Summary**

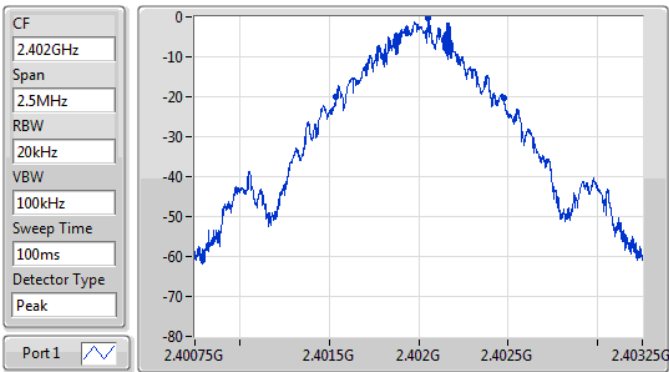
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	936.25k	880.81k	881KF1D	936.25k	877.061k
BT-EDR(2Mbps)	1.333M	1.217M	1M22G1D	1.325M	1.207M
BT-EDR(3Mbps)	1.326M	1.216M	1M22G1D	1.321M	1.211M

Max-N dB = Maximum 20dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 20dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	936.25k	880.81k
2440MHz	Pass	Inf	936.25k	879.56k
2480MHz	Pass	Inf	936.25k	877.061k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.325M	1.207M
2440MHz	Pass	Inf	1.33M	1.216M
2480MHz	Pass	Inf	1.333M	1.217M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.323M	1.213M
2440MHz	Pass	Inf	1.321M	1.216M
2480MHz	Pass	Inf	1.326M	1.211M

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

BT-BR(1Mbps)
2402MHz


20dB(Hz)	FI-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
936.25k	2.40154G	2.402476G	880.81k	2.401556G	2.402437G	Inf	1

EBW-FS

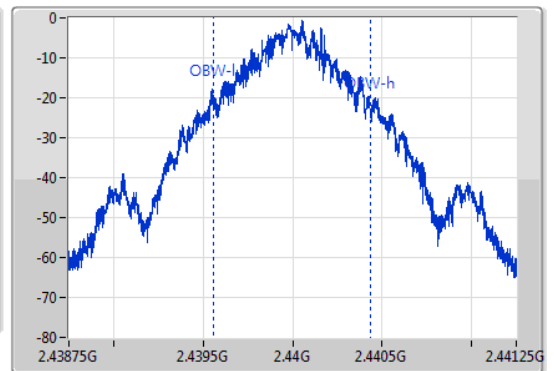
18/11/2020

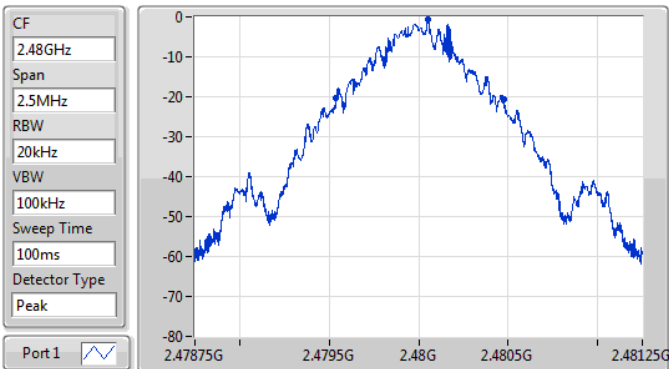

BT-BR(1Mbps)
2440MHz


20dB(Hz)	FI-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
936.25k	2.439539G	2.440475G	879.56k	2.439555G	2.440435G	Inf	1

EBW-FS

18/11/2020

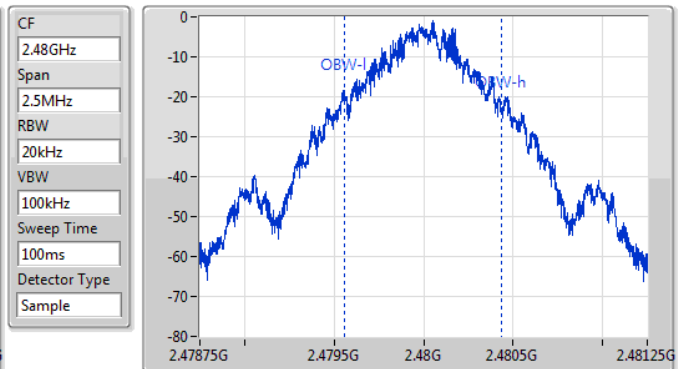


BT-BR(1Mbps)
2480MHz


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
936.25k	2.479539G	2.480475G	877.061k	2.479556G	2.480434G	Inf	1

EBW-FS

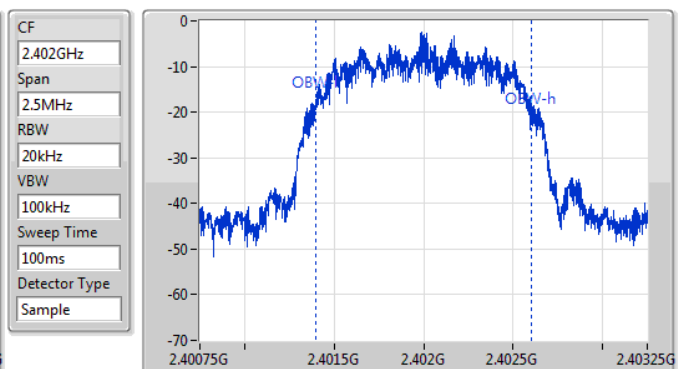
18/11/2020


BT-EDR(2Mbps)
2402MHz


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.325M	2.401336G	2.402661G	1.207M	2.401397G	2.402603G	Inf	1

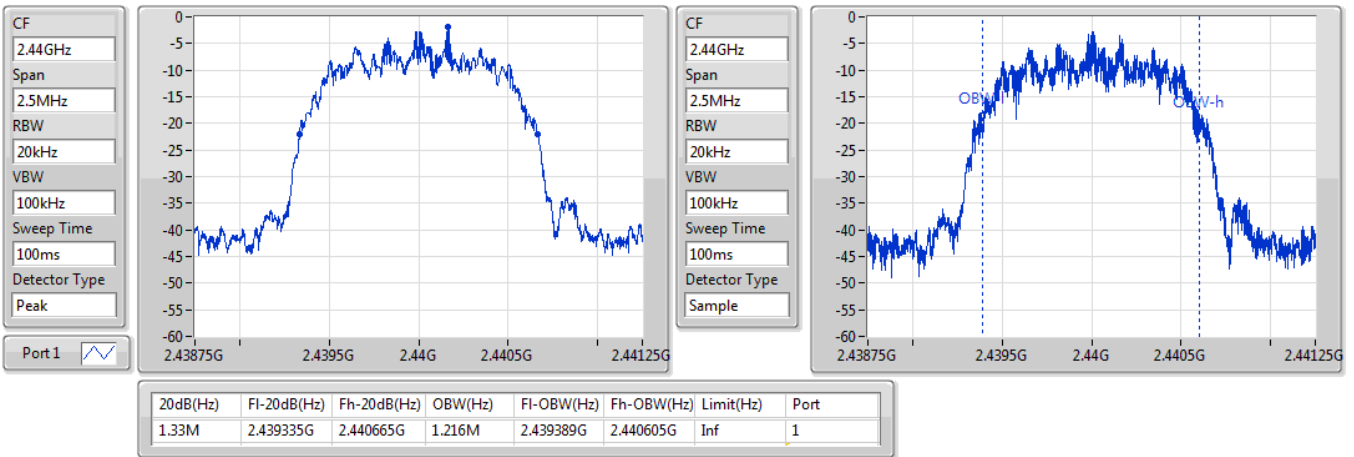
EBW-FS

18/11/2020

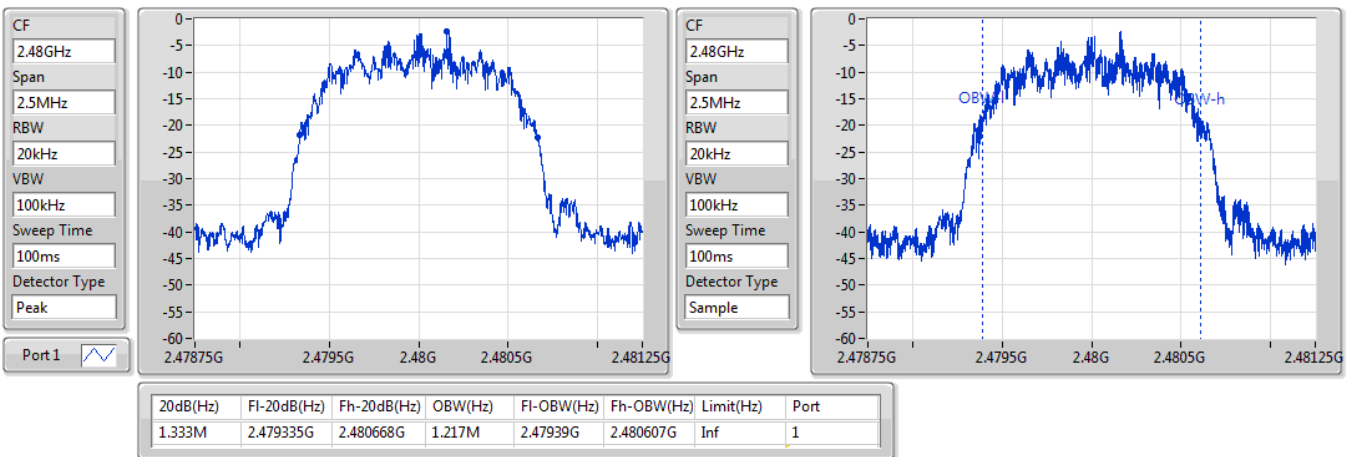


BT-EDR(2Mbps)
EBW-FS
2440MHz

18/11/2020

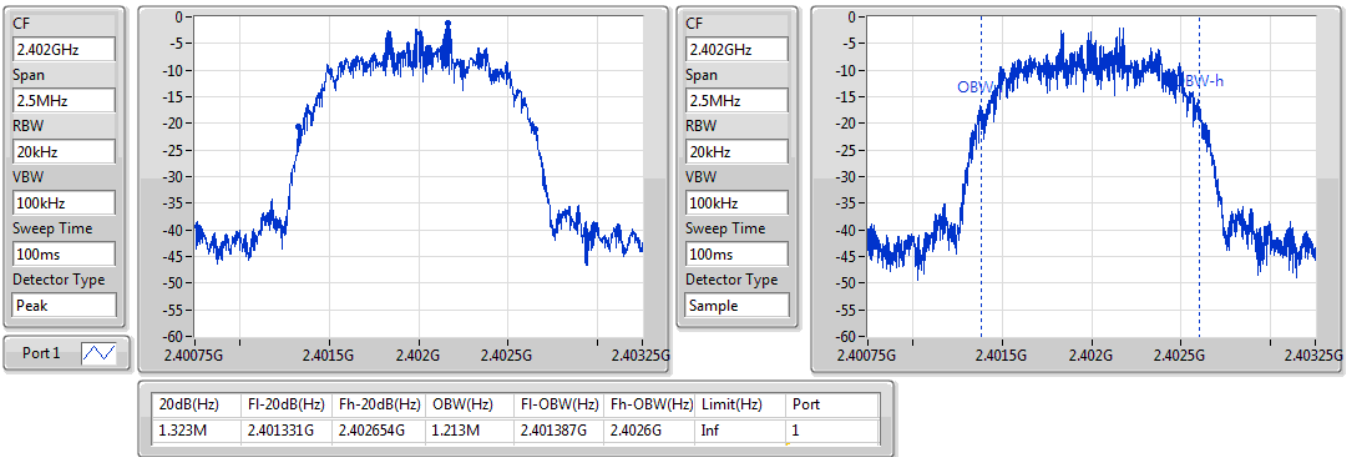

BT-EDR(2Mbps)
EBW-FS
2480MHz

18/11/2020

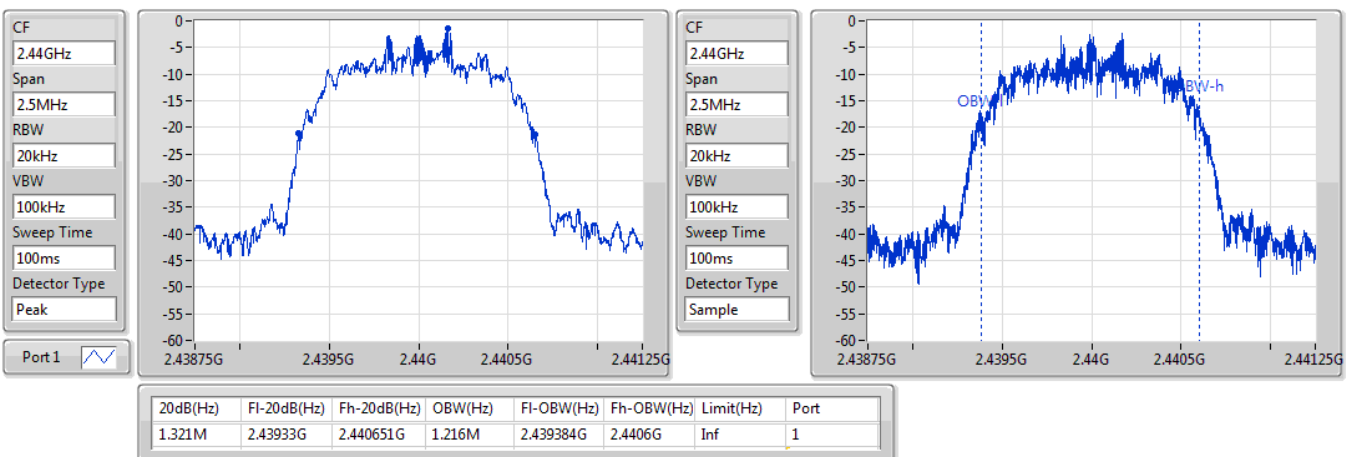


BT-EDR(3Mbps)
EBW-FS
2402MHz

18/11/2020

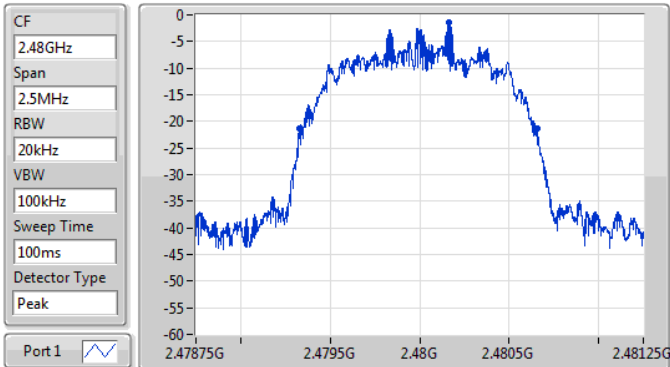

BT-EDR(3Mbps)
EBW-FS
2440MHz

18/11/2020



BT-EDR(3Mbps)

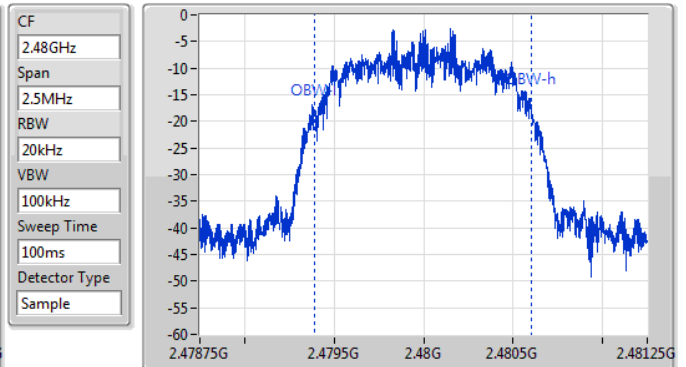
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.326M	2.47933G	2.480656G	1.211M	2.479389G	2.4806G	Inf	1

EBW-FS

18/11/2020





Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	999k
BT-EDR(2Mbps)	1.002M	997.5k
BT-EDR(3Mbps)	1.002M	999k

Result

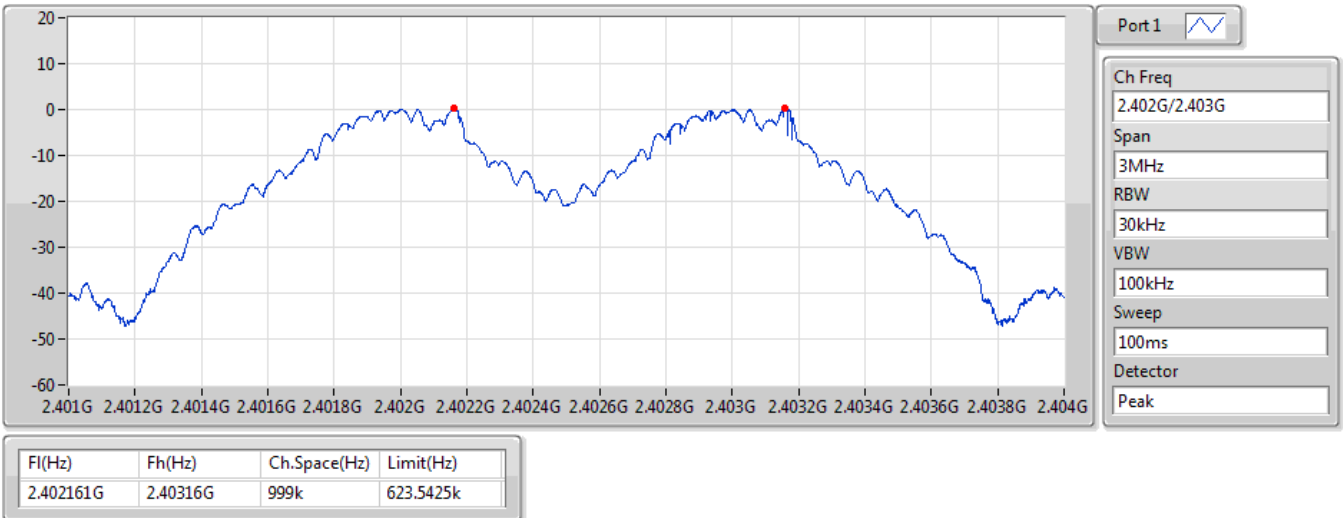
Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.40316G	999k	623.5425k
2440MHz	Pass	2.440161G	2.441162G	1.0005M	623.5425k
2480MHz	Pass	2.479161G	2.48016G	999k	623.5425k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402002G	2.403004G	1.002M	882.45k
2440MHz	Pass	2.440001G	2.441001G	1.0005M	885.78k
2480MHz	Pass	2.479005G	2.480003G	997.5k	887.778k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.403163G	1.002M	881.118k
2440MHz	Pass	2.44016G	2.441162G	1.002M	879.786k
2480MHz	Pass	2.479163G	2.480162G	999k	883.116k

BT-BR(1Mbps)

2.402G/2.403GHz

Channel Separation-FS

18/11/2020

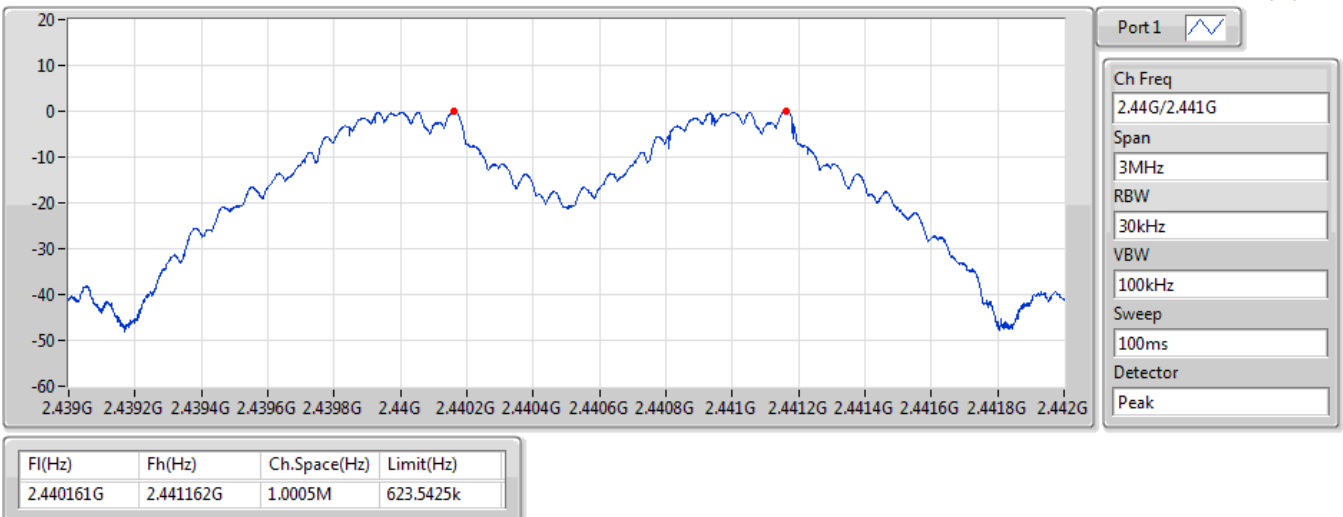


BT-BR(1Mbps)

2.44G/2.441GHz

Channel Separation-FS

18/11/2020



BT-BR(1Mbps)

2.48G/2.479GHz

Channel Separation-FS

18/11/2020



BT-EDR(2Mbps)

2.402G/2.403GHz

Channel Separation-FS



BT-EDR(2Mbps)

2.44G/2.441GHz

Channel Separation-FS

18/11/2020

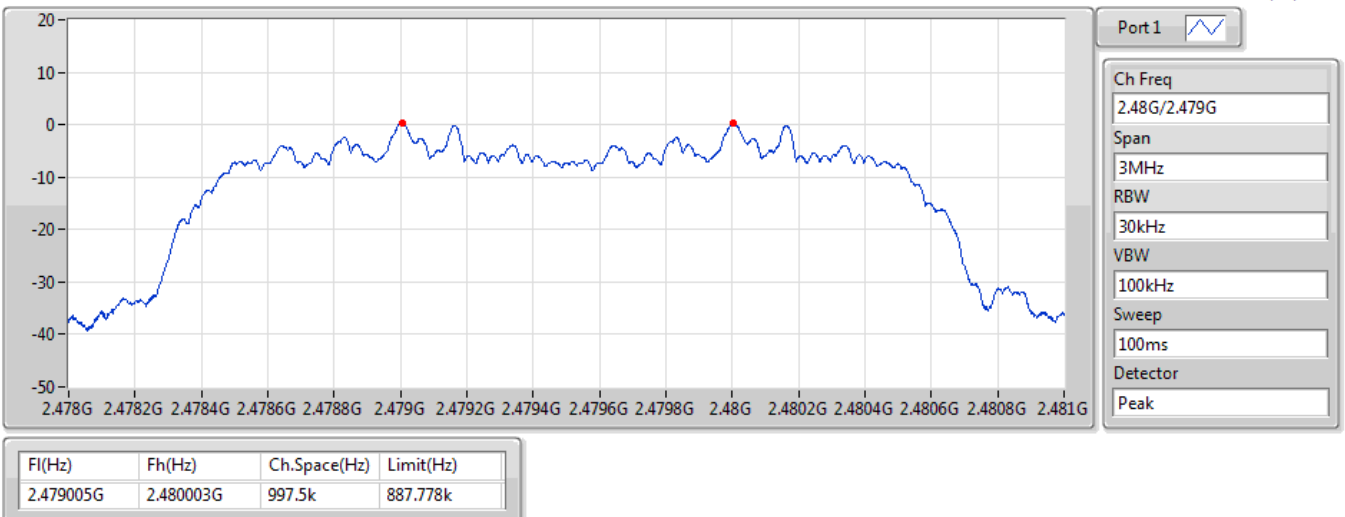


BT-EDR(2Mbps)

2.48G/2.479GHz

Channel Separation-FS

18/11/2020

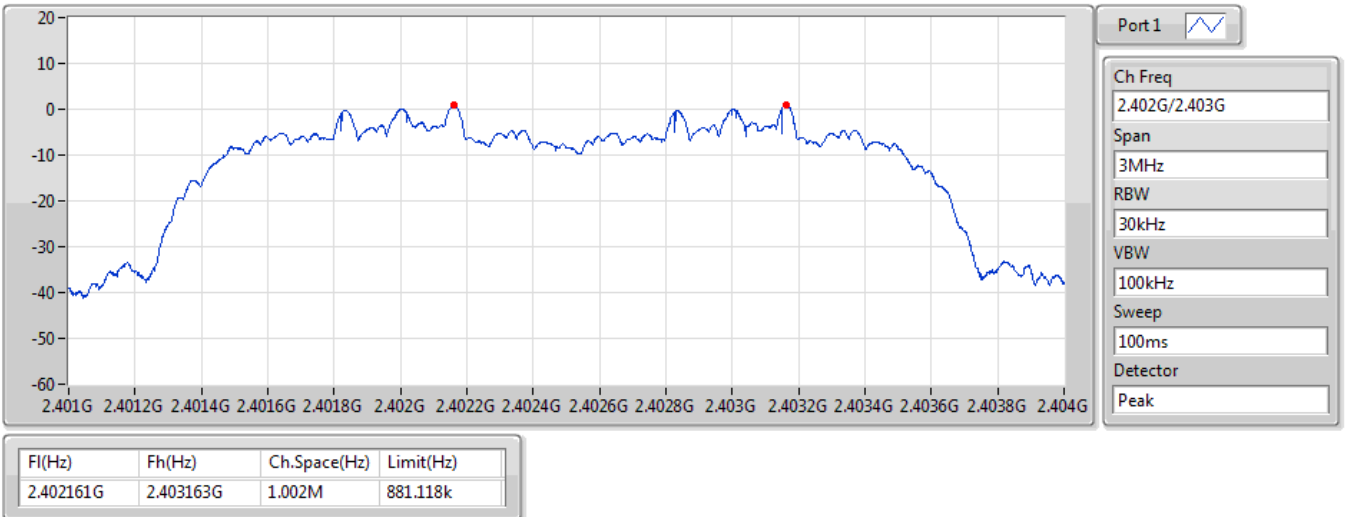


BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation-FS

18/11/2020

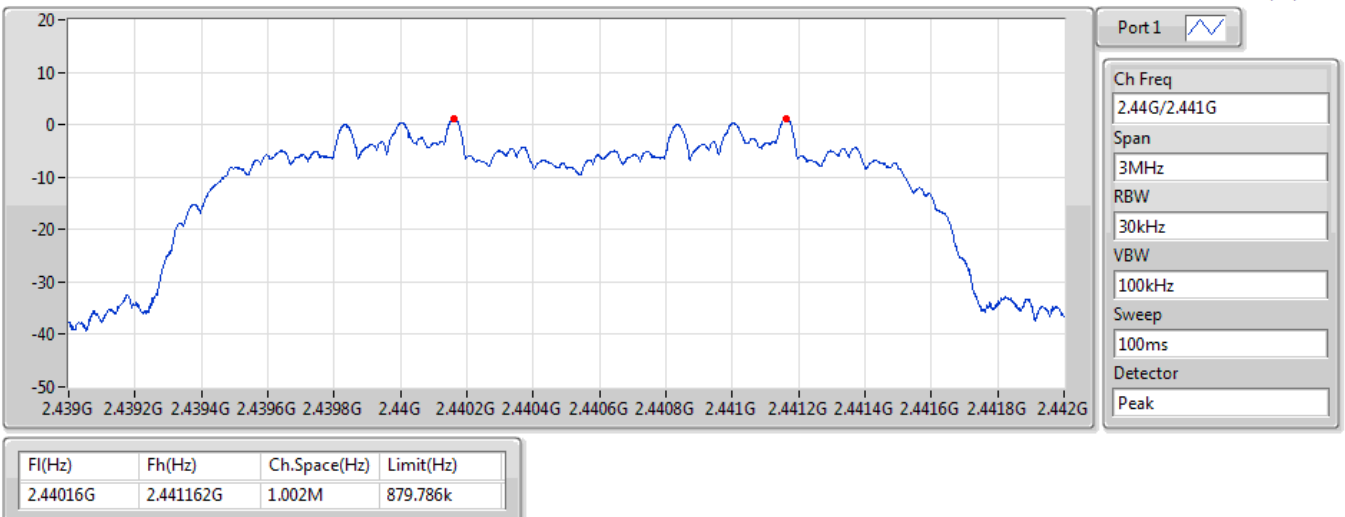


BT-EDR(3Mbps)

2.44G/2.441GHz

Channel Separation-FS

18/11/2020

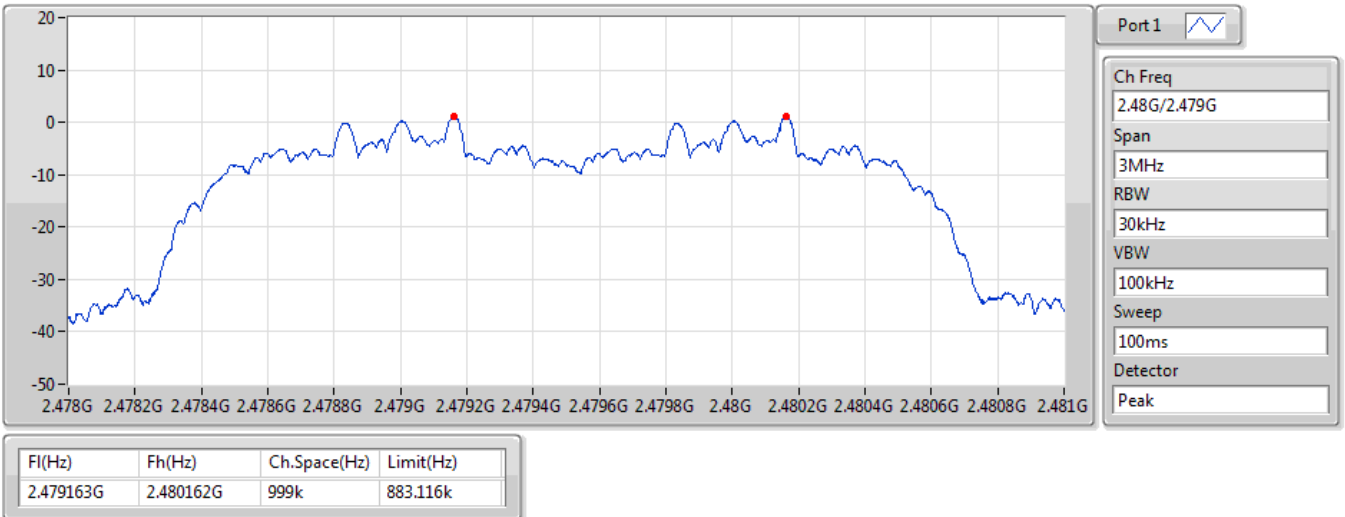


BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation-FS

18/11/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	3.46	0.00222
BT-EDR(2Mbps)	5.75	0.00376
BT-EDR(3Mbps)	6.25	0.00422

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.73	3.46	21.00
2440MHz	Pass	0.73	3.28	21.00
2480MHz	Pass	0.73	3.32	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.73	5.75	21.00
2440MHz	Pass	0.73	5.45	21.00
2480MHz	Pass	0.73	5.44	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.73	6.25	21.00
2440MHz	Pass	0.73	5.90	21.00
2480MHz	Pass	0.73	5.95	21.00

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



Average Power-FHSS

Appendix C.2

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	3.14	0.00206
BT-EDR(2Mbps)	3.11	0.00205
BT-EDR(3Mbps)	3.12	0.00205

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	0.73	3.14	21.00
2440MHz	Pass	0.73	2.93	21.00
2480MHz	Pass	0.73	2.93	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	0.73	3.11	21.00
2440MHz	Pass	0.73	2.86	21.00
2480MHz	Pass	0.73	2.84	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	0.73	3.12	21.00
2440MHz	Pass	0.73	2.84	21.00
2480MHz	Pass	0.73	2.86	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

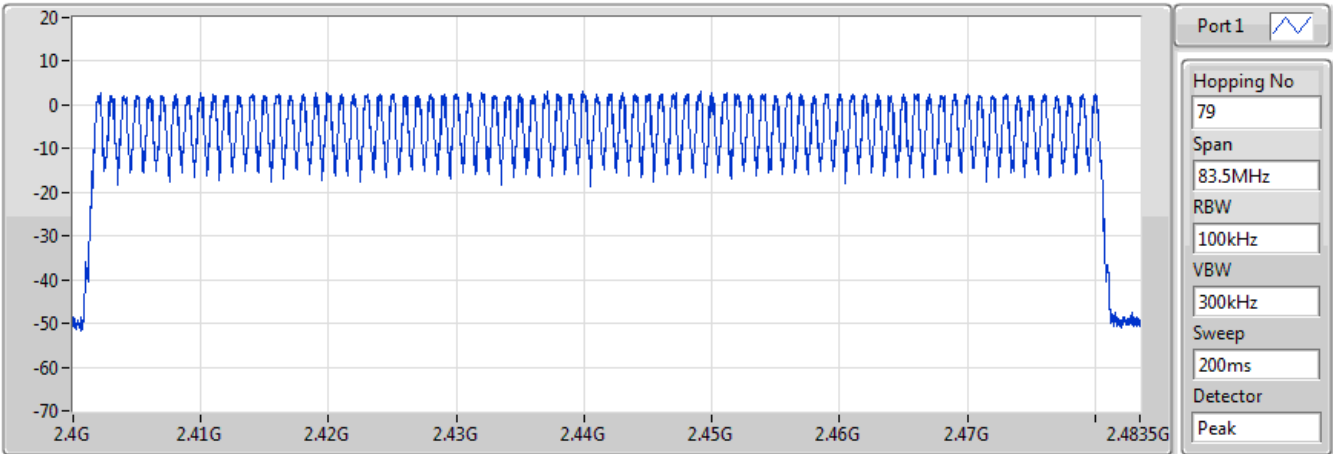
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

BT-BR(1Mbps)

2440MHz

Hopping-FS

18/11/2020



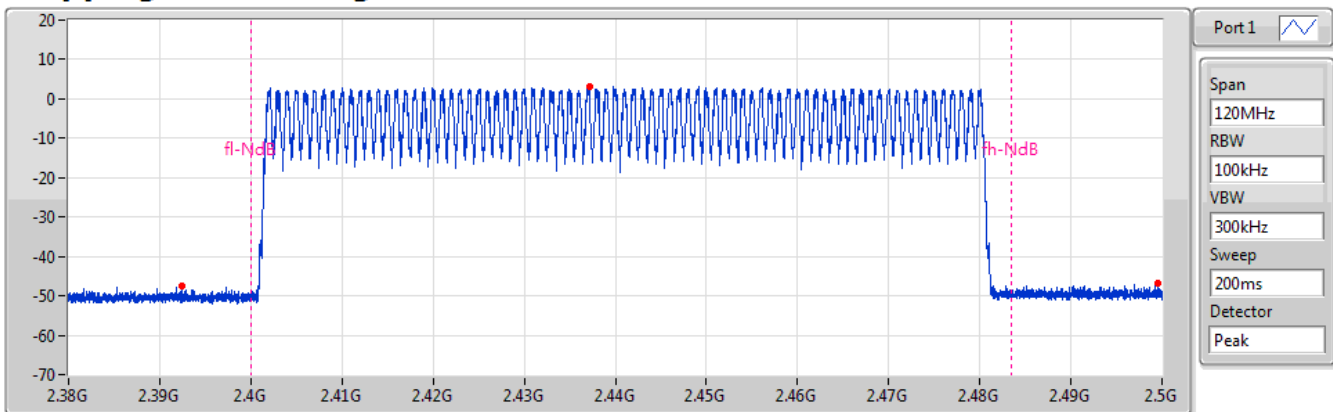
Hopping No	Limit
79	15

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

18/11/2020



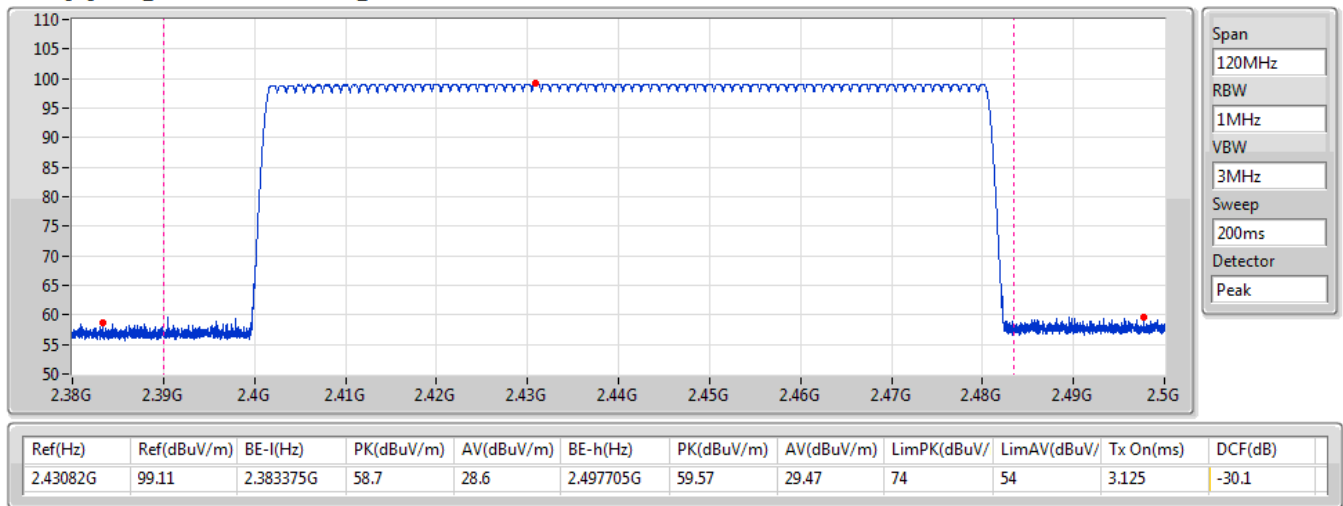
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.91	2.437165G	3.09	2.392465G	-47.61	2.49958G	-46.86

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

18/11/2020

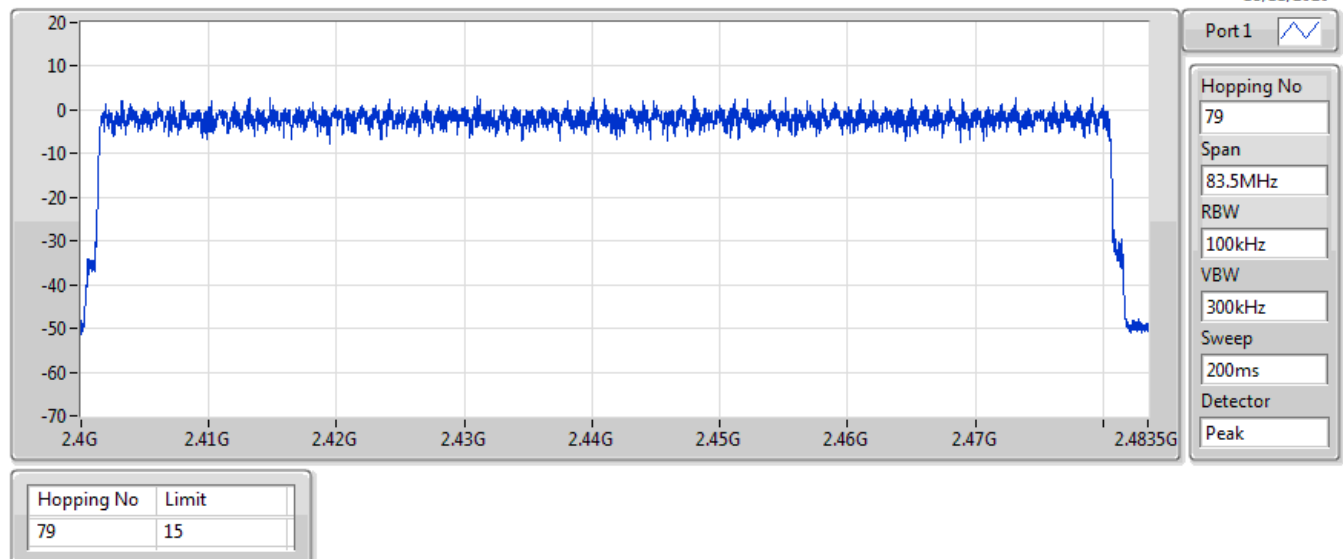


BT-EDR(2Mbps)

2440MHz

Hopping-FS

18/11/2020

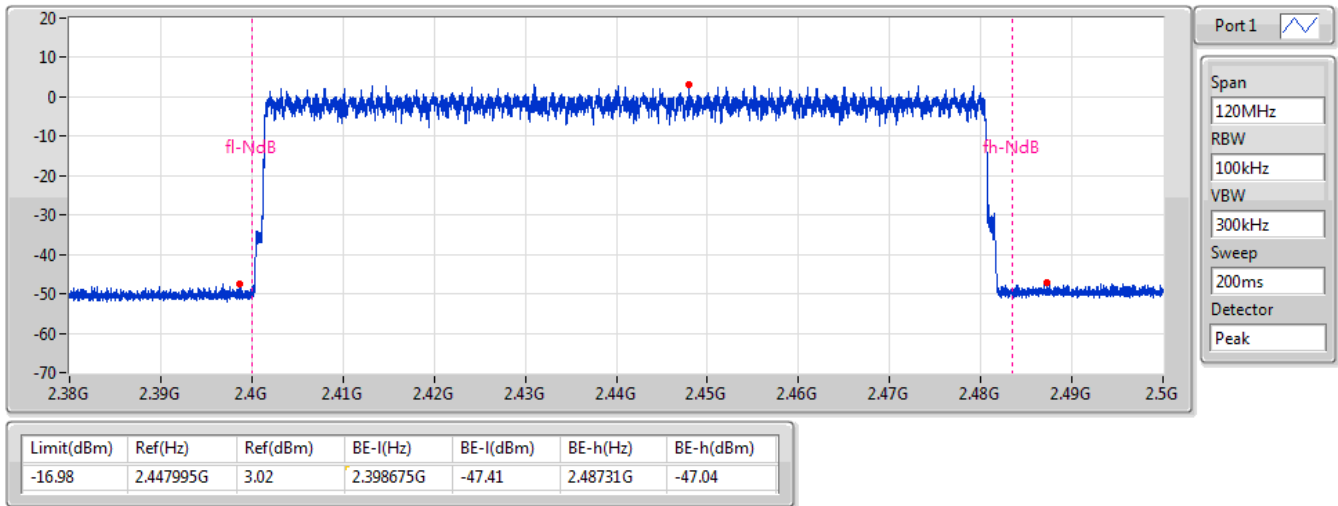


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

18/11/2020

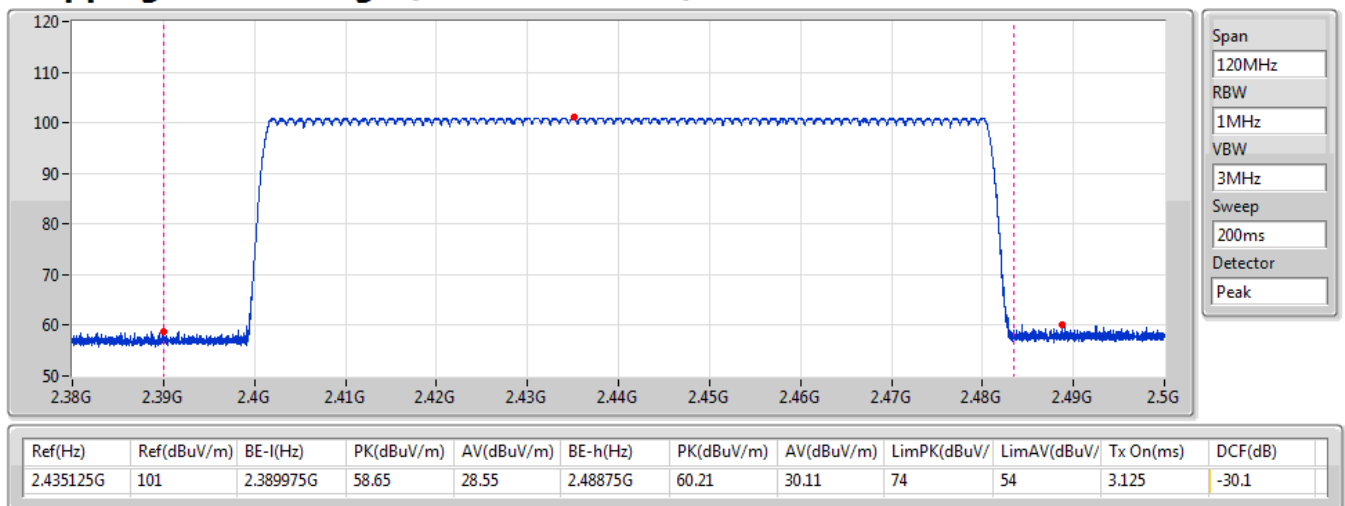


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

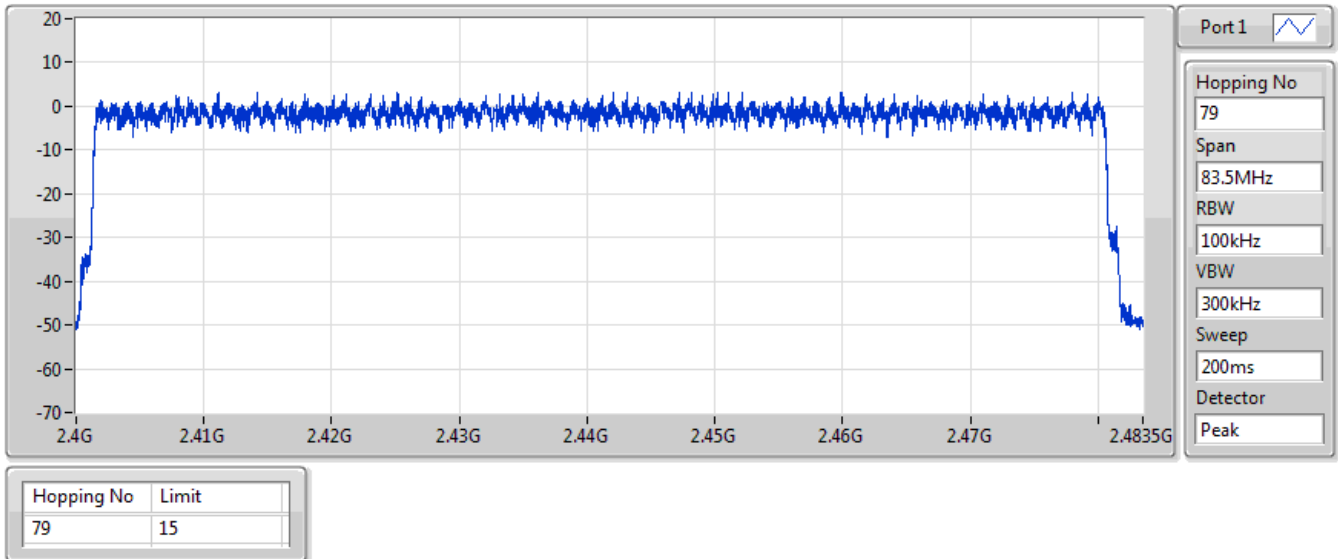
18/11/2020



BT-EDR(3Mbps) 2440MHz

Hopping-FS

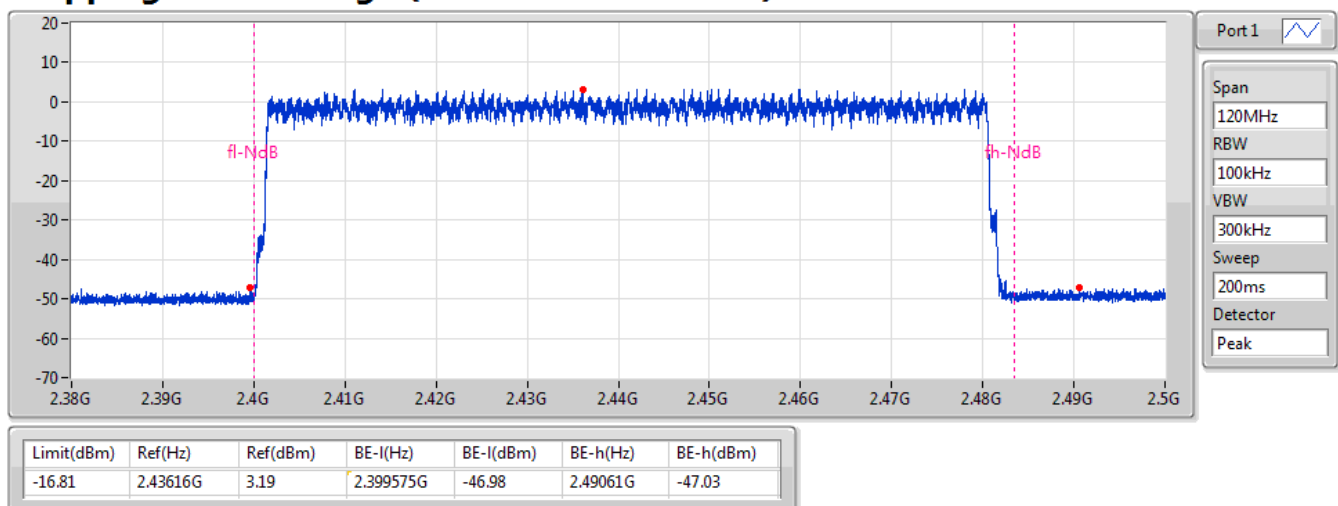
18/11/2020



BT-EDR(3Mbps) 2440MHz

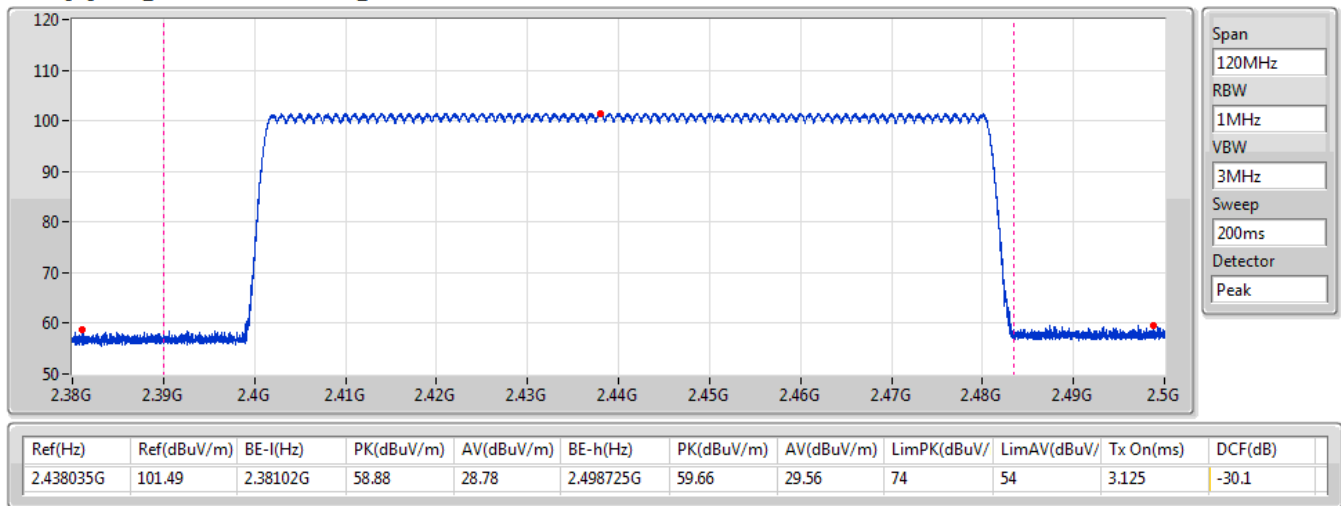
Hopping Ch Bandedge (Non-restricted Band)

18/11/2020



BT-EDR(3Mbps)**2440MHz****Hopping Ch Bandedge (Restricted Band)**

18/11/2020





Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	308.52705m_DH5
BT-EDR(2Mbps)	309.2999m_DH5
BT-EDR(3Mbps)	309.37985m_DH5

Result

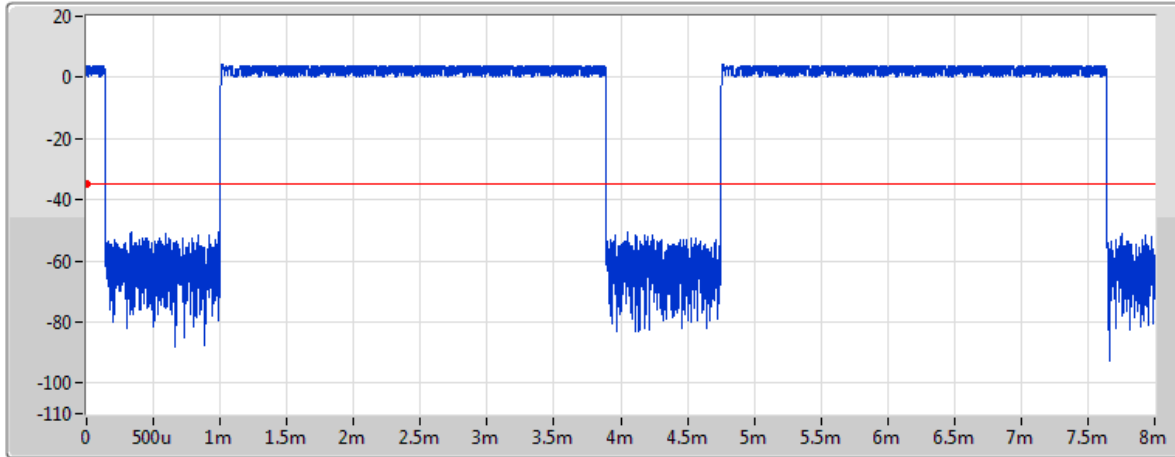
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	308.52705m_DH5	400m	2.89425m
2440MHz	Pass	8	154.2502m_DH5-AFH	400m	2.894m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.2999m_DH5	400m	2.9015m
2440MHz	Pass	8	154.6766m_DH5-AFH	400m	2.902m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.37985m_DH5	400m	2.90225m
2440MHz	Pass	8	154.716575m_DH5-AFH	400m	2.90275m

BT-BR(1Mbps)

2440MHz

Dwell-FS

18/11/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.89425ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	308.52705m_DH5	400m	2.89425m

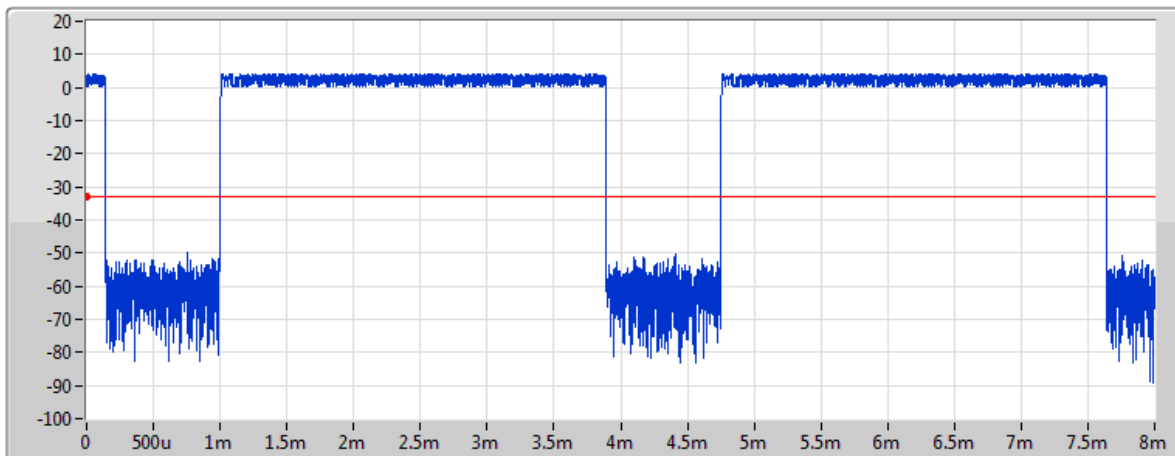
DH5

BT-BR(1Mbps)

2440MHz

Dwell-FS

18/11/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.894ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.2502m_DH5-AFH	400m	2.894m

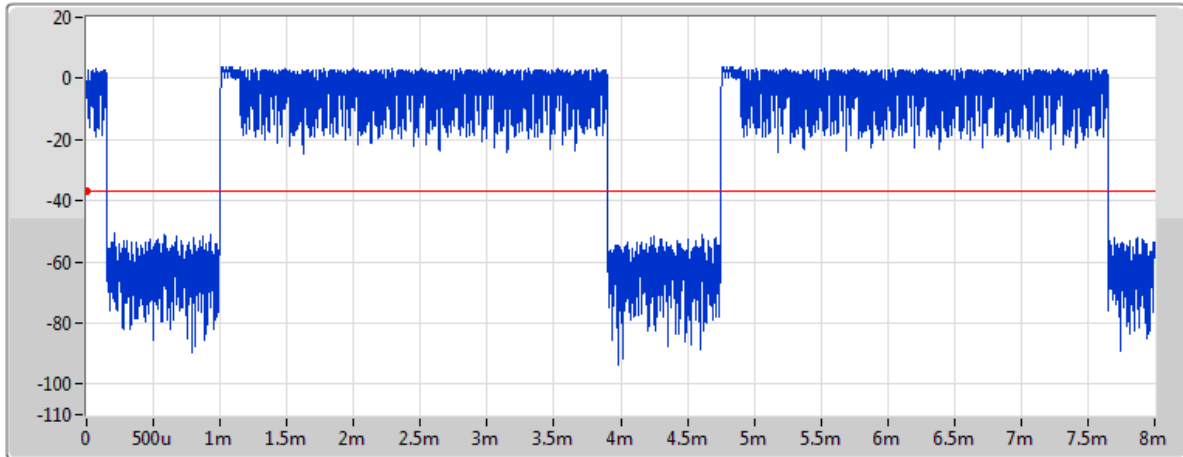
DH5-AFH

BT-EDR(2Mbps)

2440MHz

Dwell-FS

18/11/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.9015ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.2999m_DH5	400m	2.9015m

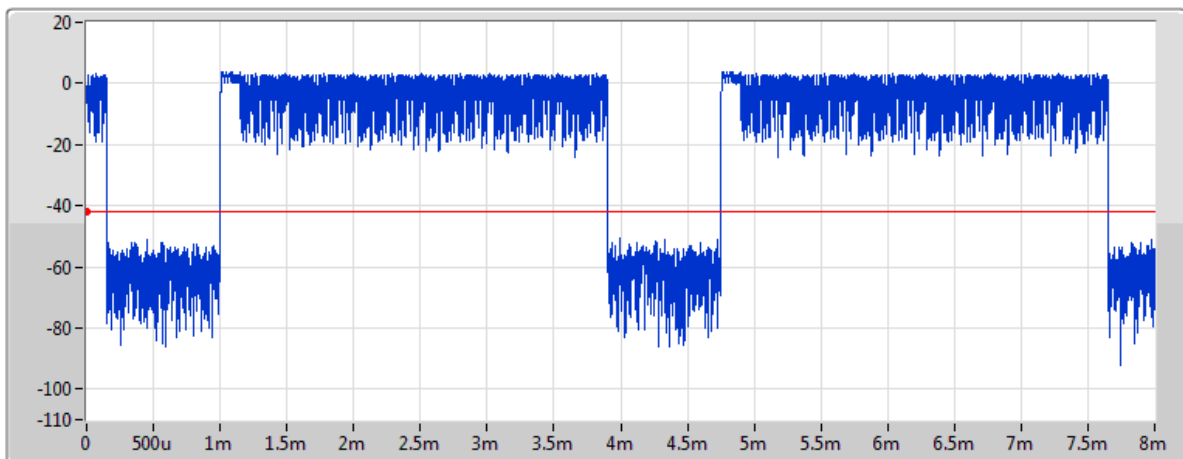
DH5

BT-EDR(2Mbps)

2440MHz

Dwell-FS

18/11/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.902ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.6766m_DH5-AFH	400m	2.902m

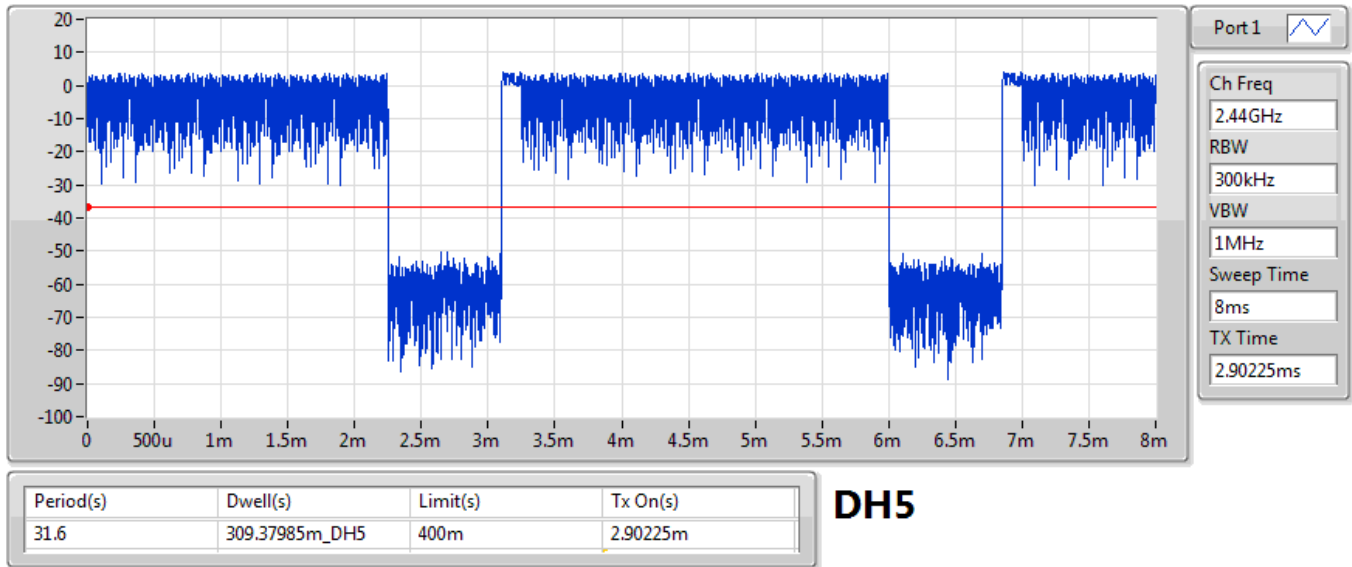
DH5-AFH

BT-EDR(3Mbps)

2440MHz

Dwell-FS

18/11/2020

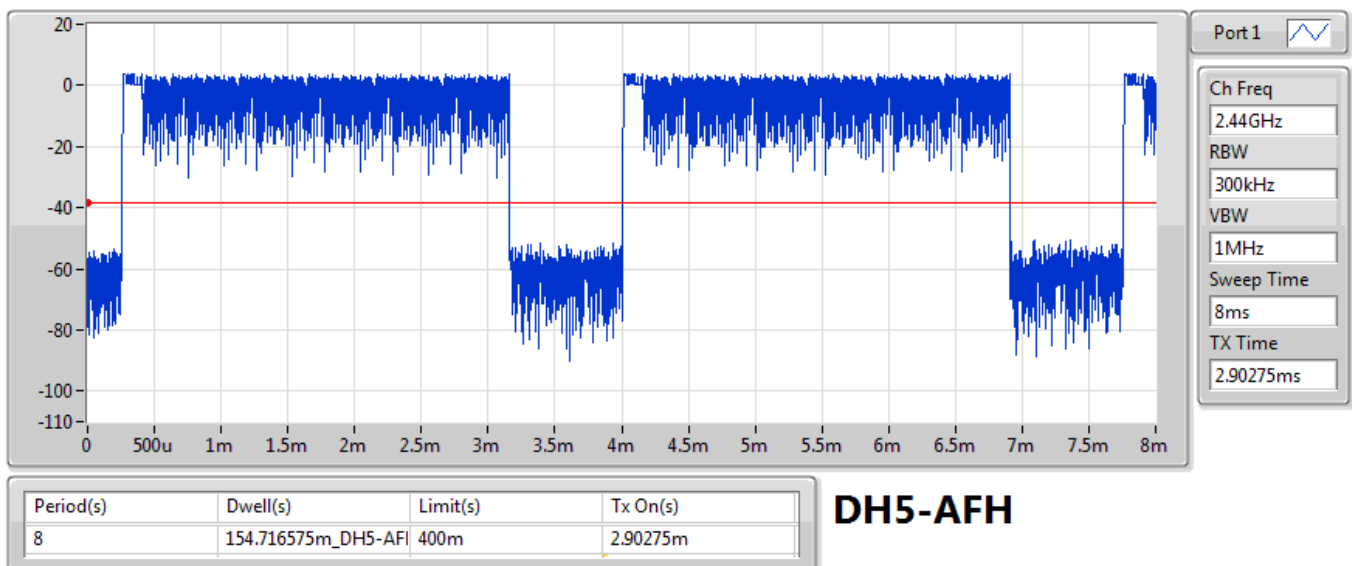


BT-EDR(3Mbps)

2440MHz

Dwell-FS

18/11/2020



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	2.47999G	2.12	-17.88	2.30568G	-55.33	2.39592G	-53.88	2.4835G	-54.12	2.49414G	-52.00	14.97219G	-39.74	1
BT-EDR(2Mbps)	Pass	2.44004G	0.72	-19.28	1.96053G	-54.56	2.39481G	-54.95	2.4G	-56.74	2.50249G	-53.04	24.12545G	-40.40	1
BT-EDR(3Mbps)	Pass	2.40213G	3.01	-16.99	2.15323G	-55.28	2.39997G	-48.72	2.4G	-48.68	2.5032G	-54.00	23.44212G	-40.81	1

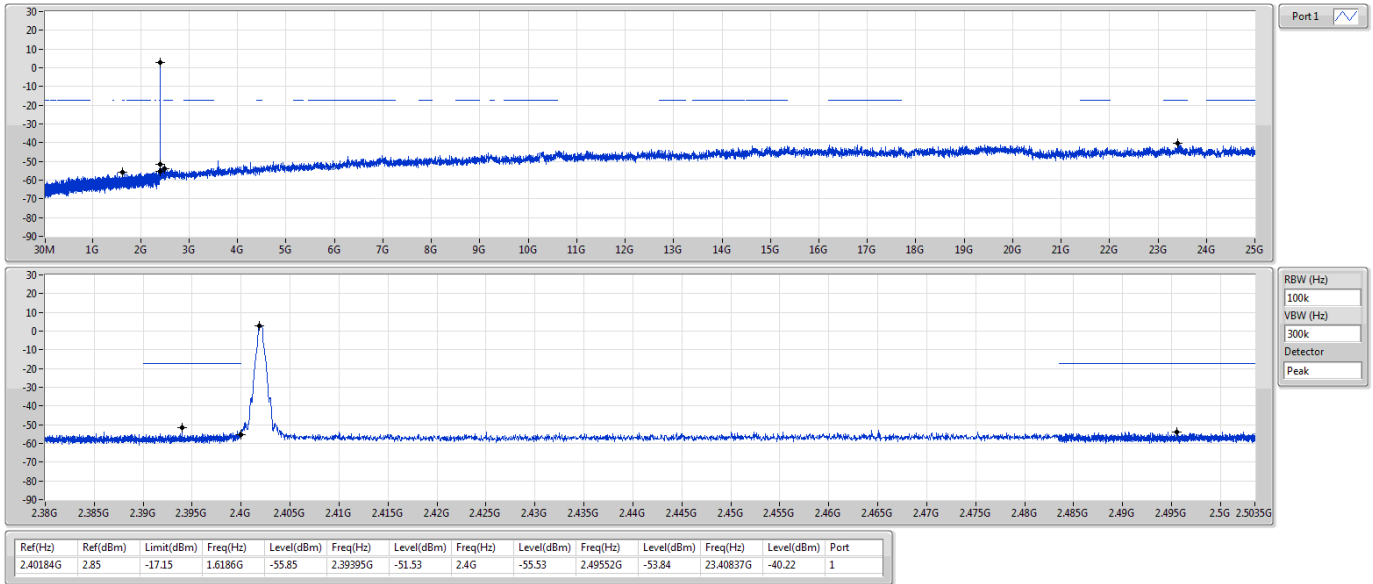
Result

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	2.40184G	2.85	-17.15	1.6186G	-55.85	2.39395G	-51.53	2.4G	-55.53	2.49552G	-53.84	23.40837G	-40.22	1
2440MHz	Pass	2.44004G	2.18	-17.82	2.15969G	-54.76	2.3975G	-54.65	2.4835G	-54.34	2.48429G	-53.55	23.12154G	-41.17	1
2480MHz	Pass	2.47999G	2.12	-17.88	2.30568G	-55.33	2.39592G	-53.88	2.4835G	-54.12	2.49414G	-52.00	14.97219G	-39.74	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	2.86	-17.14	2.10828G	-55.53	2.39994G	-52.17	2.4G	-52.21	2.50117G	-53.47	24.0214G	-41.18	1
2440MHz	Pass	2.44004G	0.72	-19.28	1.96053G	-54.56	2.39481G	-54.95	2.4G	-56.74	2.50249G	-53.04	24.12545G	-40.40	1
2480MHz	Pass	2.48003G	2.51	-17.49	2.18613G	-54.59	2.3945G	-55.06	2.4835G	-54.31	2.48802G	-51.82	16.27979G	-41.69	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	3.01	-16.99	2.15323G	-55.28	2.39997G	-48.72	2.4G	-48.68	2.5032G	-54.00	23.44212G	-40.81	1
2440MHz	Pass	2.44012G	1.87	-18.13	2.11739G	-55.31	2.39522G	-55.22	2.4835G	-55.83	2.49587G	-53.78	16.61443G	-41.13	1
2480MHz	Pass	2.4802G	2.76	-17.24	2.15117G	-55.80	2.39623G	-54.84	2.4835G	-55.23	2.48802G	-49.14	15.31526G	-41.21	1

BT-BR(1Mbps)

CSENdB-FS

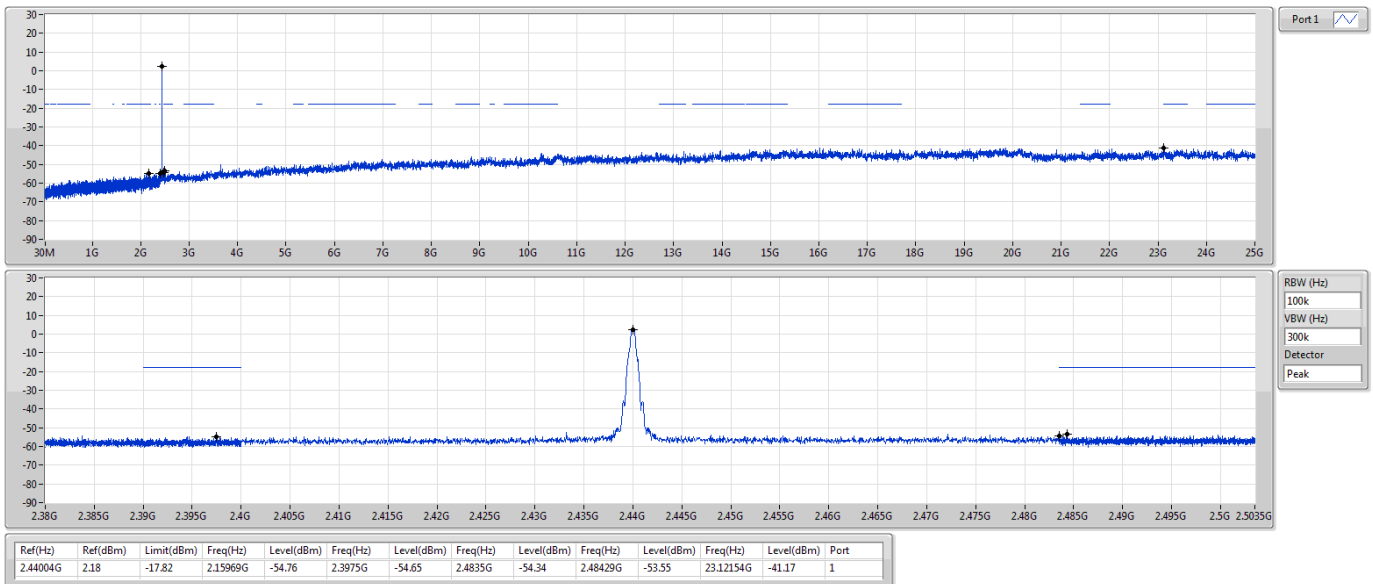
2402MHz



BT-BR(1Mbps)

CSENdB-FS

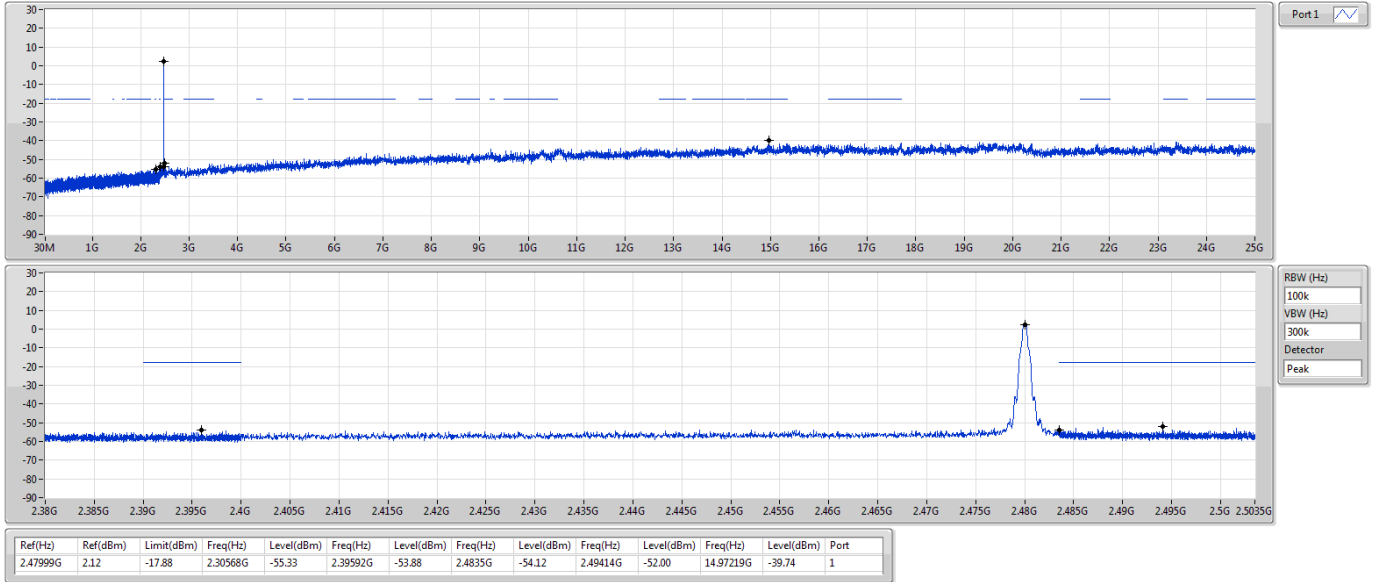
2440MHz



BT-BR(1Mbps)

CSEndB-FS

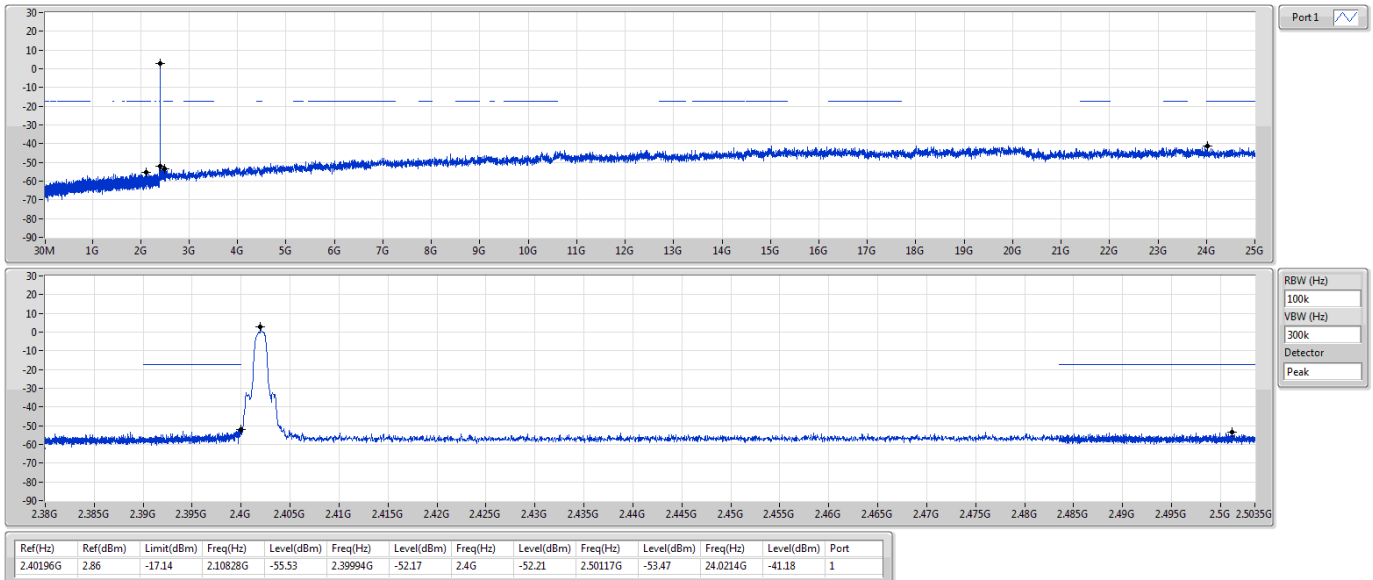
2480MHz



BT-EDR(2Mbps)

CSEndB-FS

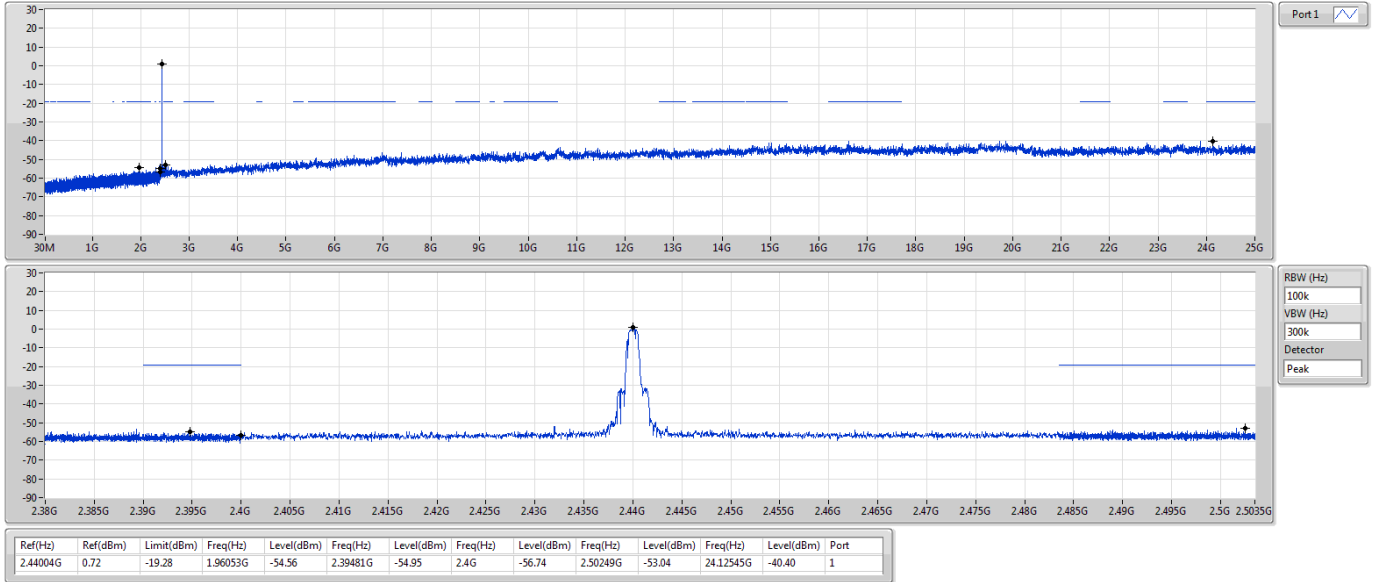
2402MHz



BT-EDR(2Mbps)

CSEndB-FS

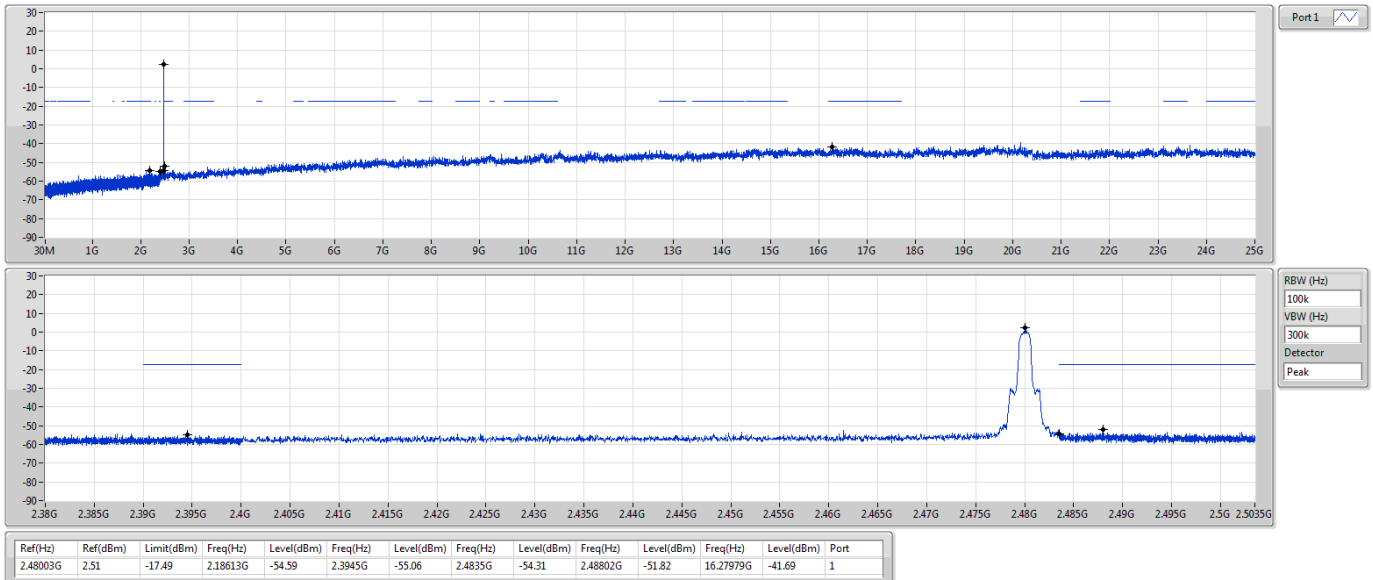
2440MHz



BT-EDR(2Mbps)

CSEndB-FS

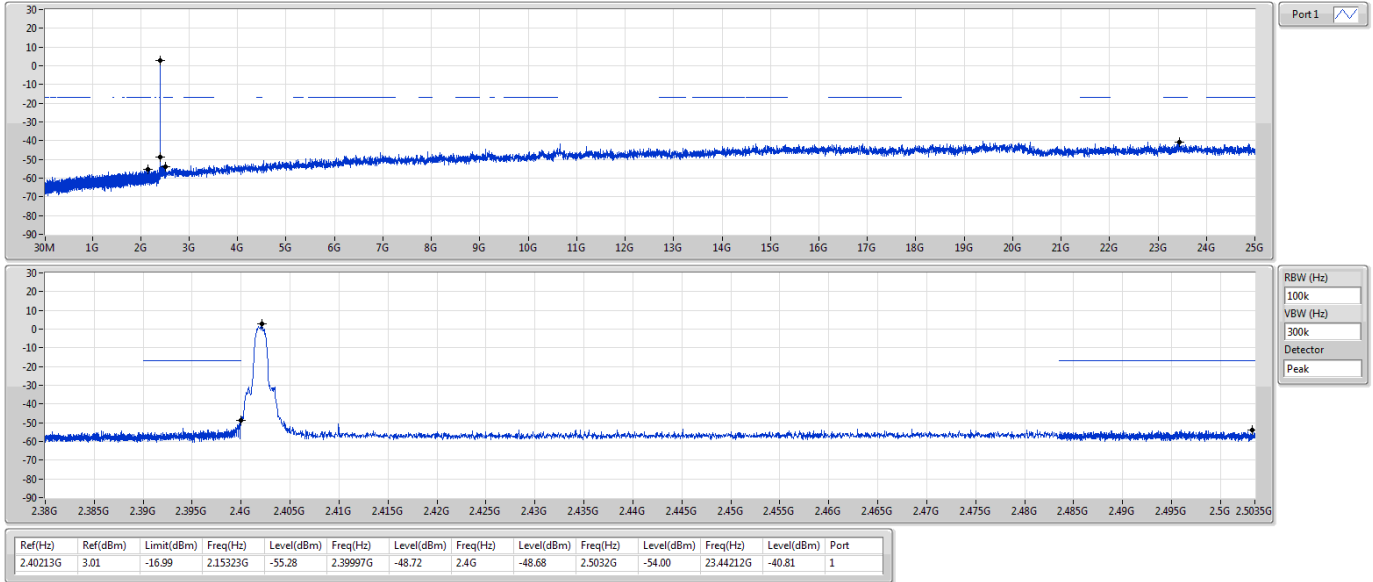
2480MHz



BT-EDR(3Mbps)

CSEndB-FS

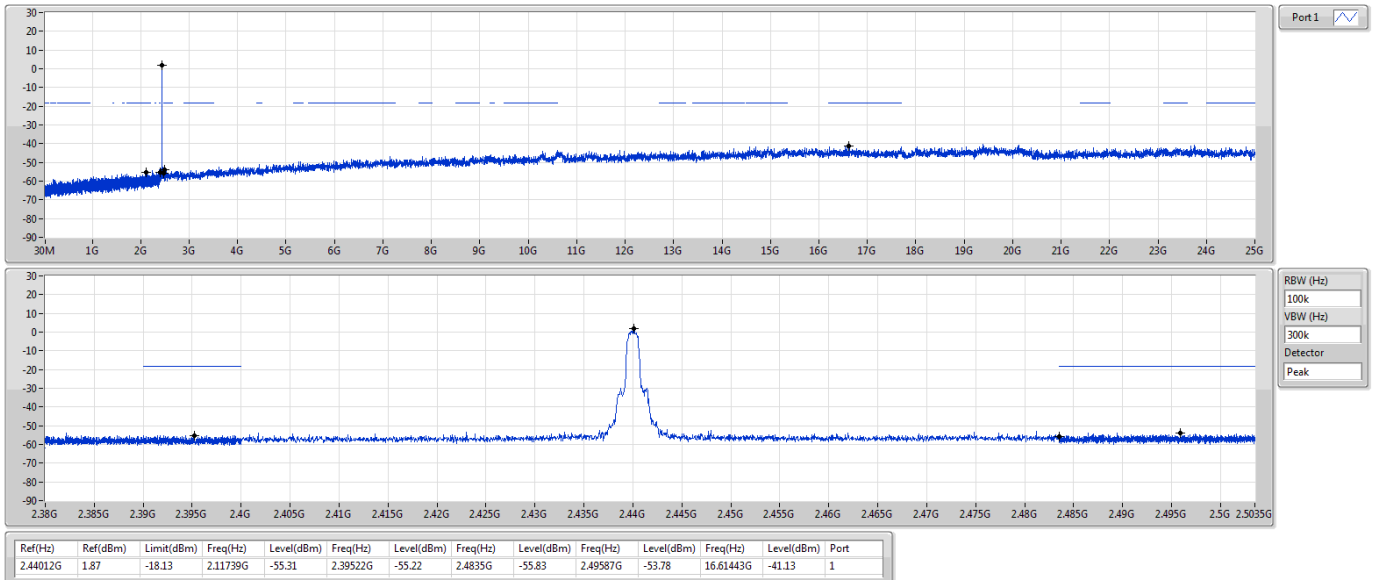
2402MHz



BT-EDR(3Mbps)

CSEndB-FS

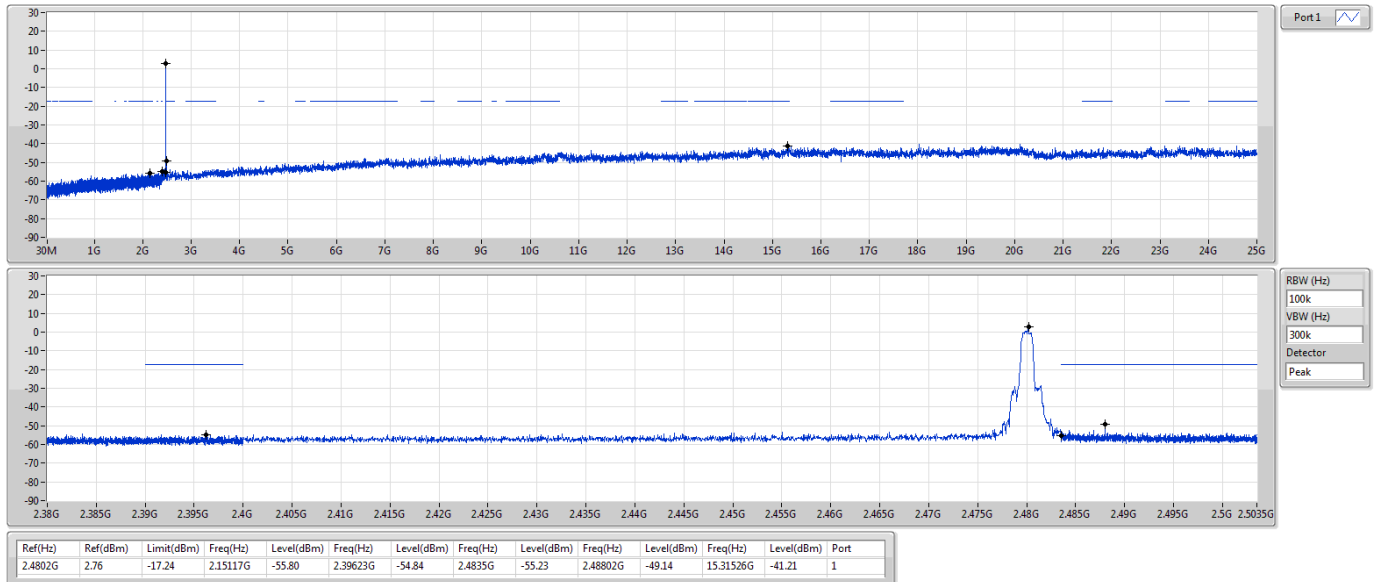
2440MHz



BT-EDR(3Mbps)

CSEndB-FS

2480MHz





Summary

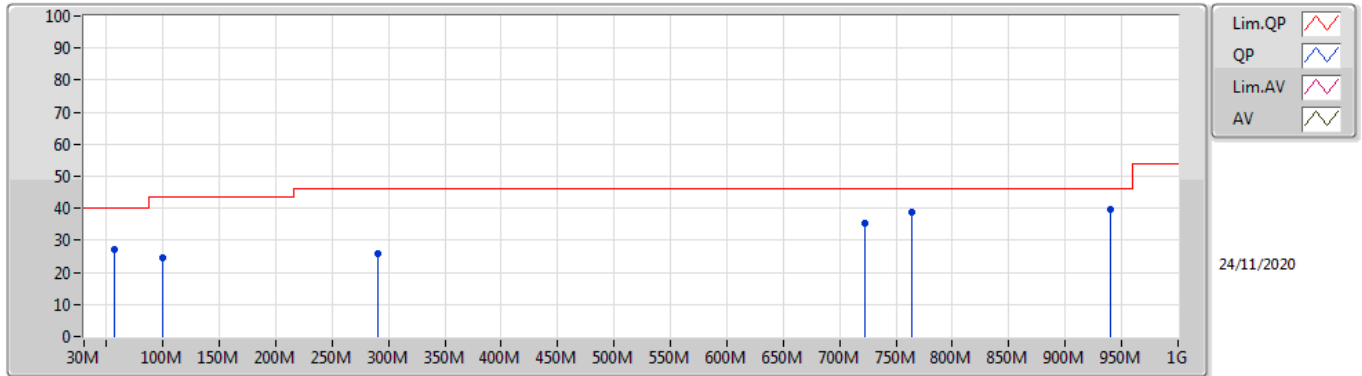
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	PK	932.1M	40.69	46.00	-5.31	3	Horizontal	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	57.16M	27.05	40.00	-12.95	3	Vertical	360	1.00	-
2440MHz	Pass	PK	99.84M	24.61	43.50	-18.89	3	Vertical	360	1.00	-
2440MHz	Pass	PK	289.96M	25.68	46.00	-20.32	3	Vertical	360	1.00	-
2440MHz	Pass	PK	722.58M	35.29	46.00	-10.71	3	Vertical	360	1.00	-
2440MHz	Pass	PK	763.32M	38.70	46.00	-7.30	3	Vertical	360	1.00	-
2440MHz	Pass	PK	939.86M	39.65	46.00	-6.35	3	Vertical	360	1.00	-
2440MHz	Pass	PK	173.56M	27.54	43.50	-15.96	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	282.2M	34.90	46.00	-11.10	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	293.84M	34.64	46.00	-11.36	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	313.24M	34.92	46.00	-11.08	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	745.86M	38.35	46.00	-7.65	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	932.1M	40.69	46.00	-5.31	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)

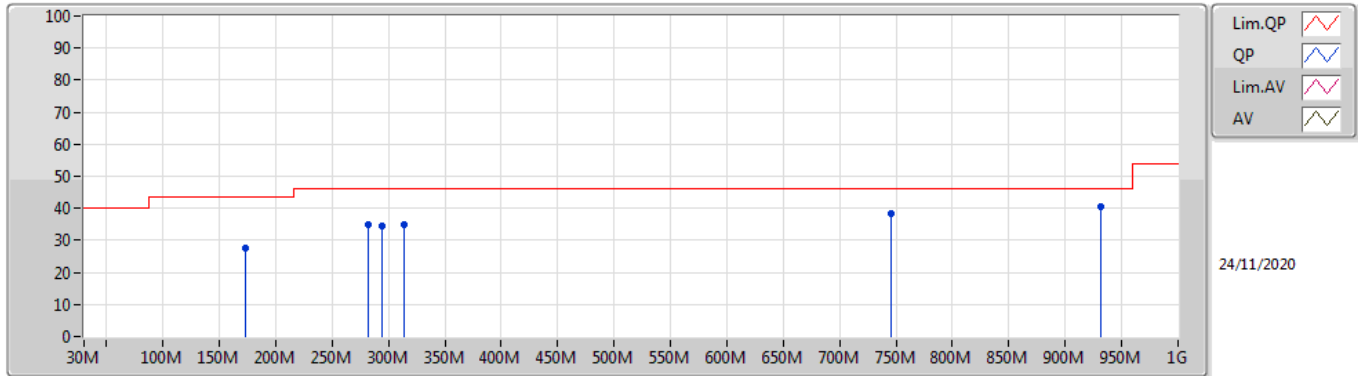
2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	57.16M	27.05	40.00	-12.95	-14.91	3	Vertical	360	1.00	-	41.96	11.84	1.04	27.79
PK	99.84M	24.61	43.50	-18.89	-10.28	3	Vertical	360	1.00	-	34.89	16.09	1.40	27.77
PK	289.96M	25.68	46.00	-20.32	-6.28	3	Vertical	360	1.00	-	31.96	18.20	2.56	27.04
PK	722.58M	35.29	46.00	-10.71	0.65	3	Vertical	360	1.00	-	34.64	24.46	4.25	28.06
PK	763.32M	38.70	46.00	-7.30	1.41	3	Vertical	360	1.00	-	37.29	25.00	4.35	27.94
PK	939.86M	39.65	46.00	-6.35	3.45	3	Vertical	360	1.00	-	36.20	25.85	4.88	27.28

BT-EDR(3Mbps)

2440MHz_USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	173.56M	27.54	43.50	-15.96	-10.80	3	Horizontal	0	1.00	-	38.34	14.73	1.94	27.47
PK	282.2M	34.90	46.00	-11.10	-6.42	3	Horizontal	0	1.00	-	41.32	18.09	2.53	27.04
PK	293.84M	34.64	46.00	-11.36	-6.18	3	Horizontal	0	1.00	-	40.82	18.28	2.58	27.04
PK	313.24M	34.92	46.00	-11.08	-5.69	3	Horizontal	0	1.00	-	40.61	18.77	2.65	27.11
PK	745.86M	38.35	46.00	-7.65	1.18	3	Horizontal	0	1.00	-	37.17	24.90	4.29	28.01
PK	932.1M	40.69	46.00	-5.31	3.39	3	Horizontal	0	1.00	-	37.30	25.83	4.86	27.30



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	2.363G	58.27	74.00	-15.73	3	Vertical	31	1.06	-
BT-EDR(3Mbps)	Pass	PK	2.4835G	58.51	74.00	-15.49	3	Horizontal	221	2.62	-

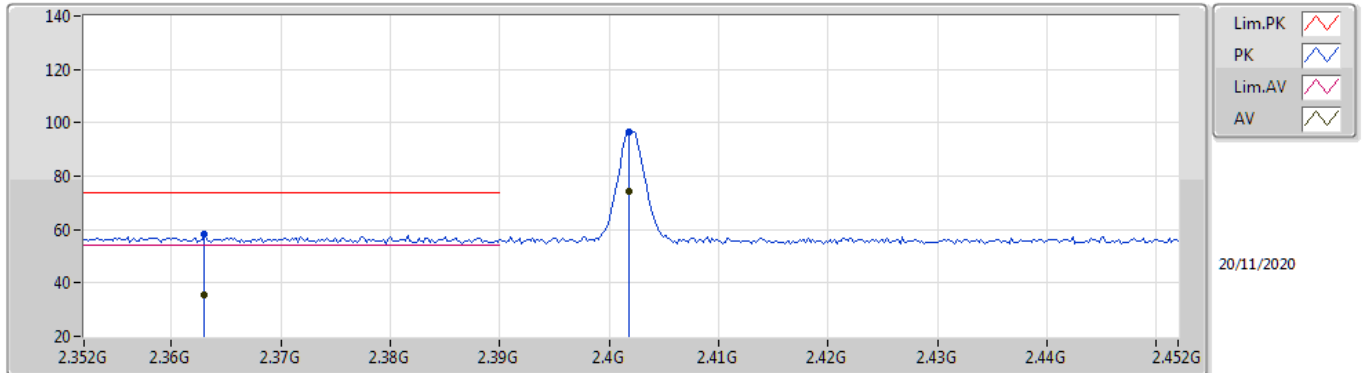
Result

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	2.363G	35.77	54.00	-18.23	3	Vertical	31	1.06	-
2402MHz	Pass	AV	2.4018G	74.25	Inf	-Inf	3	Vertical	31	1.06	-
2402MHz	Pass	PK	2.363G	58.27	74.00	-15.73	3	Vertical	31	1.06	-
2402MHz	Pass	PK	2.4018G	96.75	Inf	-Inf	3	Vertical	31	1.06	-
2402MHz	Pass	AV	2.3568G	35.47	54.00	-18.53	3	Horizontal	257	1.30	-
2402MHz	Pass	AV	2.4018G	77.22	Inf	-Inf	3	Horizontal	257	1.30	-
2402MHz	Pass	PK	2.3568G	57.97	74.00	-16.03	3	Horizontal	257	1.30	-
2402MHz	Pass	PK	2.4018G	99.72	Inf	-Inf	3	Horizontal	257	1.30	-
2402MHz	Pass	AV	4.80414G	23.46	54.00	-30.54	3	Vertical	280	1.00	-
2402MHz	Pass	PK	4.80414G	45.96	74.00	-28.04	3	Vertical	280	1.00	-
2402MHz	Pass	AV	4.80366G	25.95	54.00	-28.05	3	Horizontal	282	1.00	-
2402MHz	Pass	PK	4.80366G	48.45	74.00	-25.55	3	Horizontal	282	1.00	-
2440MHz	Pass	AV	2.344G	35.11	54.00	-18.89	3	Vertical	33	1.48	-
2440MHz	Pass	AV	2.44G	73.28	Inf	-Inf	3	Vertical	33	1.48	-
2440MHz	Pass	AV	2.4944G	34.38	54.00	-19.62	3	Vertical	33	1.48	-
2440MHz	Pass	PK	2.344G	57.61	74.00	-16.39	3	Vertical	33	1.48	-
2440MHz	Pass	PK	2.44G	95.78	Inf	-Inf	3	Vertical	33	1.48	-
2440MHz	Pass	PK	2.4944G	56.88	74.00	-17.12	3	Vertical	33	1.48	-
2440MHz	Pass	AV	2.3492G	35.23	54.00	-18.77	3	Horizontal	255	1.00	-
2440MHz	Pass	AV	2.44G	75.27	Inf	-Inf	3	Horizontal	255	1.00	-
2440MHz	Pass	AV	2.4896G	34.96	54.00	-19.04	3	Horizontal	255	1.00	-
2440MHz	Pass	PK	2.3492G	57.73	74.00	-16.27	3	Horizontal	255	1.00	-
2440MHz	Pass	PK	2.44G	97.77	Inf	-Inf	3	Horizontal	255	1.00	-
2440MHz	Pass	PK	2.4896G	57.46	74.00	-16.54	3	Horizontal	255	1.00	-
2440MHz	Pass	AV	4.87964G	23.02	54.00	-30.98	3	Vertical	287	1.12	-
2440MHz	Pass	AV	7.32036G	31.60	54.00	-22.40	3	Vertical	283	2.93	-
2440MHz	Pass	PK	4.87964G	45.52	74.00	-28.48	3	Vertical	287	1.12	-
2440MHz	Pass	PK	7.32036G	54.10	74.00	-19.90	3	Vertical	283	2.93	-
2440MHz	Pass	AV	4.87992G	23.77	54.00	-30.23	3	Horizontal	285	1.00	-
2440MHz	Pass	AV	7.32017G	29.22	54.00	-24.78	3	Horizontal	315	2.36	-
2440MHz	Pass	PK	4.87992G	46.27	74.00	-27.73	3	Horizontal	285	1.00	-
2440MHz	Pass	PK	7.32017G	51.72	74.00	-22.28	3	Horizontal	315	2.36	-
2480MHz	Pass	AV	2.4798G	74.37	Inf	-Inf	3	Vertical	35	1.23	-
2480MHz	Pass	AV	2.4992G	34.67	54.00	-19.33	3	Vertical	35	1.23	-
2480MHz	Pass	PK	2.4798G	96.87	Inf	-Inf	3	Vertical	35	1.23	-
2480MHz	Pass	PK	2.4992G	57.17	74.00	-16.83	3	Vertical	35	1.23	-
2480MHz	Pass	AV	2.4802G	76.74	Inf	-Inf	3	Horizontal	224	2.62	-
2480MHz	Pass	AV	2.491G	35.23	54.00	-18.77	3	Horizontal	224	2.62	-
2480MHz	Pass	PK	2.4802G	99.24	Inf	-Inf	3	Horizontal	224	2.62	-
2480MHz	Pass	PK	2.491G	57.73	74.00	-16.27	3	Horizontal	224	2.62	-
2480MHz	Pass	AV	4.95975G	24.27	54.00	-29.73	3	Vertical	286	1.02	-
2480MHz	Pass	AV	7.44042G	30.69	54.00	-23.31	3	Vertical	286	2.94	-
2480MHz	Pass	PK	4.95975G	46.77	74.00	-27.23	3	Vertical	286	1.02	-
2480MHz	Pass	PK	7.44042G	53.19	74.00	-20.81	3	Vertical	286	2.94	-
2480MHz	Pass	AV	4.96015G	23.66	54.00	-30.34	3	Horizontal	224	2.54	-
2480MHz	Pass	AV	7.44025G	29.57	54.00	-24.43	3	Horizontal	310	2.23	-
2480MHz	Pass	PK	4.96015G	46.16	74.00	-27.84	3	Horizontal	224	2.54	-
2480MHz	Pass	PK	7.44025G	52.07	74.00	-21.93	3	Horizontal	310	2.23	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3888G	35.46	54.00	-18.54	3	Vertical	30	1.09	-
2402MHz	Pass	AV	2.4018G	73.59	Inf	-Inf	3	Vertical	30	1.09	-
2402MHz	Pass	PK	2.3888G	57.96	74.00	-16.04	3	Vertical	30	1.09	-
2402MHz	Pass	PK	2.4018G	96.09	Inf	-Inf	3	Vertical	30	1.09	-
2402MHz	Pass	AV	2.3692G	35.32	54.00	-18.68	3	Horizontal	257	1.12	-
2402MHz	Pass	AV	2.4018G	75.58	Inf	-Inf	3	Horizontal	257	1.12	-
2402MHz	Pass	PK	2.3692G	57.82	74.00	-16.18	3	Horizontal	257	1.12	-
2402MHz	Pass	PK	2.4018G	98.08	Inf	-Inf	3	Horizontal	257	1.12	-
2402MHz	Pass	AV	4.8041G	22.26	54.00	-31.74	3	Vertical	215	1.00	-
2402MHz	Pass	PK	4.8041G	44.76	74.00	-29.24	3	Vertical	215	1.00	-
2402MHz	Pass	AV	4.80416G	25.43	54.00	-28.57	3	Horizontal	101	1.07	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	4.80416G	47.93	74.00	-26.07	3	Horizontal	101	1.07	-
2440MHz	Pass	AV	2.3432G	35.40	54.00	-18.60	3	Vertical	34	1.48	-
2440MHz	Pass	AV	2.44G	74.48	Inf	-Inf	3	Vertical	34	1.48	-
2440MHz	Pass	AV	2.4976G	34.35	54.00	-19.65	3	Vertical	34	1.48	-
2440MHz	Pass	PK	2.3432G	57.90	74.00	-16.10	3	Vertical	34	1.48	-
2440MHz	Pass	PK	2.44G	96.98	Inf	-Inf	3	Vertical	34	1.48	-
2440MHz	Pass	PK	2.4976G	56.85	74.00	-17.15	3	Vertical	34	1.48	-
2440MHz	Pass	AV	2.3888G	35.08	54.00	-18.92	3	Horizontal	254	1.00	-
2440MHz	Pass	AV	2.4396G	77.08	Inf	-Inf	3	Horizontal	254	1.00	-
2440MHz	Pass	AV	2.494G	34.85	54.00	-19.15	3	Horizontal	254	1.00	-
2440MHz	Pass	PK	2.3888G	57.58	74.00	-16.42	3	Horizontal	254	1.00	-
2440MHz	Pass	PK	2.4396G	99.58	Inf	-Inf	3	Horizontal	254	1.00	-
2440MHz	Pass	PK	2.494G	57.35	74.00	-16.65	3	Horizontal	254	1.00	-
2440MHz	Pass	AV	4.87995G	22.02	54.00	-31.98	3	Vertical	102	1.03	-
2440MHz	Pass	AV	7.31909G	30.85	54.00	-23.15	3	Vertical	98	2.74	-
2440MHz	Pass	PK	4.87995G	44.52	74.00	-29.48	3	Vertical	102	1.03	-
2440MHz	Pass	PK	7.31909G	53.35	74.00	-20.65	3	Vertical	98	2.74	-
2440MHz	Pass	AV	4.87948G	22.46	54.00	-31.54	3	Horizontal	117	1.15	-
2440MHz	Pass	AV	7.32005G	28.19	54.00	-25.81	3	Horizontal	51	1.94	-
2440MHz	Pass	PK	4.87948G	44.96	74.00	-29.04	3	Horizontal	117	1.15	-
2440MHz	Pass	PK	7.32005G	50.69	74.00	-23.31	3	Horizontal	51	1.94	-
2480MHz	Pass	AV	2.4798G	75.33	Inf	-Inf	3	Vertical	35	1.25	-
2480MHz	Pass	AV	2.4838G	35.17	54.00	-18.83	3	Vertical	35	1.25	-
2480MHz	Pass	PK	2.4798G	97.83	Inf	-Inf	3	Vertical	35	1.25	-
2480MHz	Pass	PK	2.4838G	57.67	74.00	-16.33	3	Vertical	35	1.25	-
2480MHz	Pass	AV	2.48G	77.49	Inf	-Inf	3	Horizontal	221	2.62	-
2480MHz	Pass	AV	2.4835G	36.01	54.00	-17.99	3	Horizontal	221	2.62	-
2480MHz	Pass	PK	2.48G	99.99	Inf	-Inf	3	Horizontal	221	2.62	-
2480MHz	Pass	PK	2.4835G	58.51	74.00	-15.49	3	Horizontal	221	2.62	-
2480MHz	Pass	AV	4.95973G	23.25	54.00	-30.75	3	Vertical	131	1.00	-
2480MHz	Pass	AV	7.4396G	31.22	54.00	-22.78	3	Vertical	101	2.77	-
2480MHz	Pass	PK	4.95973G	45.75	74.00	-28.25	3	Vertical	131	1.00	-
2480MHz	Pass	PK	7.4396G	53.72	74.00	-20.28	3	Vertical	101	2.77	-
2480MHz	Pass	AV	4.96G	24.16	54.00	-29.84	3	Horizontal	154	1.00	-
2480MHz	Pass	AV	7.43962G	27.59	54.00	-26.41	3	Horizontal	146	1.49	-
2480MHz	Pass	PK	4.96G	46.66	74.00	-27.34	3	Horizontal	154	1.00	-
2480MHz	Pass	PK	7.43962G	50.09	74.00	-23.91	3	Horizontal	146	1.49	-

BT-BR(1Mbps)

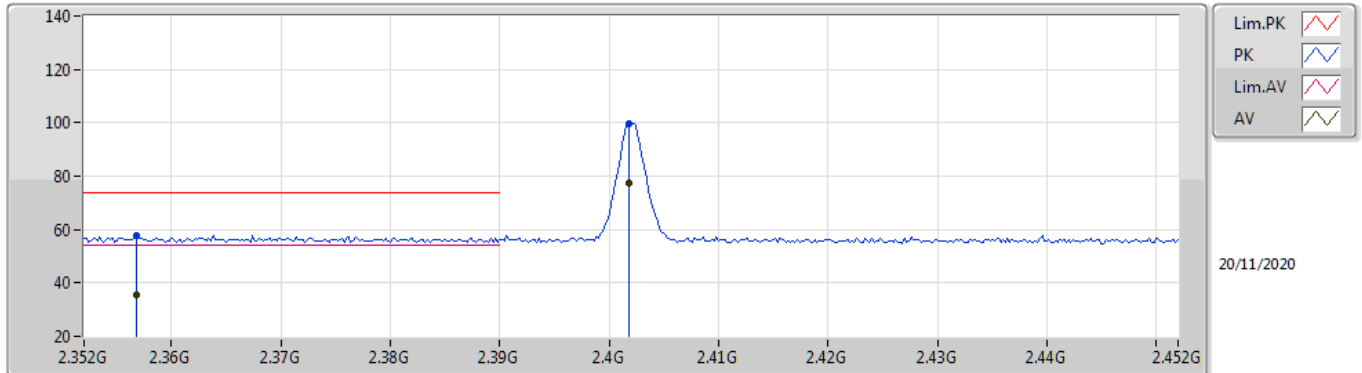
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.363G	35.77	54.00	-18.23	33.60	3	Vertical	31	1.06	-	2.17	27.67	5.93	-
AV	2.4018G	74.25	Inf	-Inf	33.55	3	Vertical	31	1.06	-	40.70	27.59	5.96	-
PK	2.363G	58.27	74.00	-15.73	33.60	3	Vertical	31	1.06	-	24.67	27.67	5.93	-
PK	2.4018G	96.75	Inf	-Inf	33.55	3	Vertical	31	1.06	-	63.20	27.59	5.96	-

BT-BR(1Mbps)

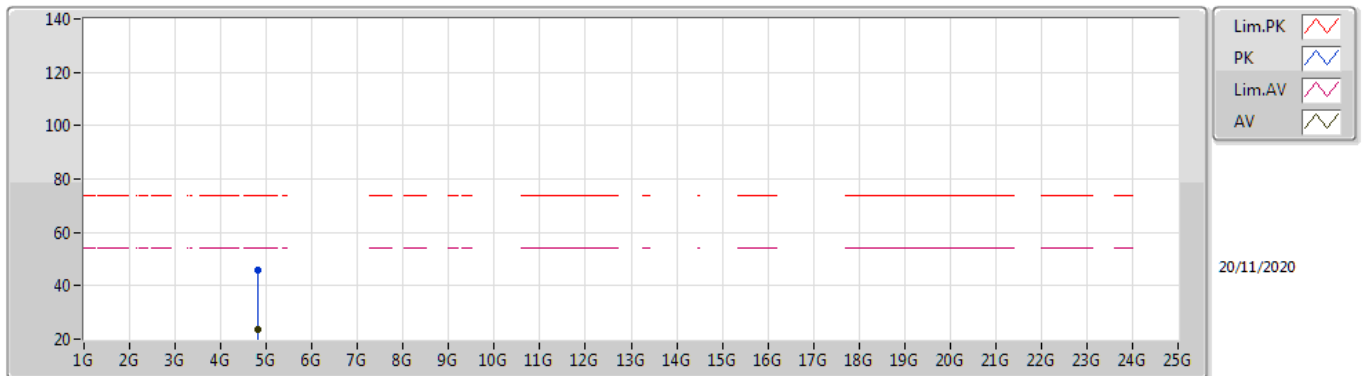
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3568G	35.47	54.00	-18.53	33.62	3	Horizontal	257	1.30	-	1.85	27.69	5.93	-
AV	2.4018G	77.22	Inf	-Inf	33.55	3	Horizontal	257	1.30	-	43.67	27.59	5.96	-
PK	2.3568G	57.97	74.00	-16.03	33.62	3	Horizontal	257	1.30	-	24.35	27.69	5.93	-
PK	2.4018G	99.72	Inf	-Inf	33.55	3	Horizontal	257	1.30	-	66.17	27.59	5.96	-

BT-BR(1Mbps)

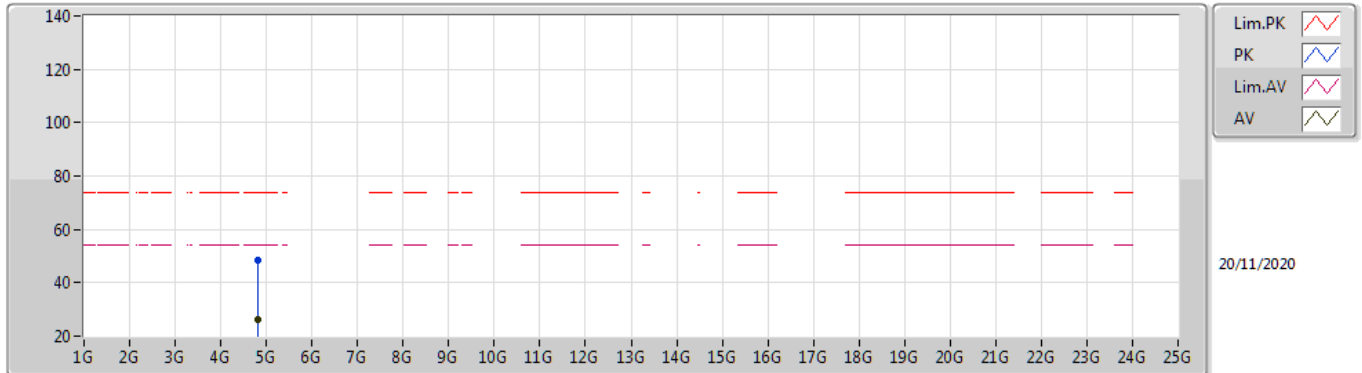
2402MHz_TX



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	4.80414G	23.46	54.00	-30.54	4.88	3	Vertical	280	1.00	-	18.58	30.92	8.25	34.29
PK	4.80414G	45.96	74.00	-28.04	4.88	3	Vertical	280	1.00	-	41.08	30.92	8.25	34.29

BT-BR(1Mbps)

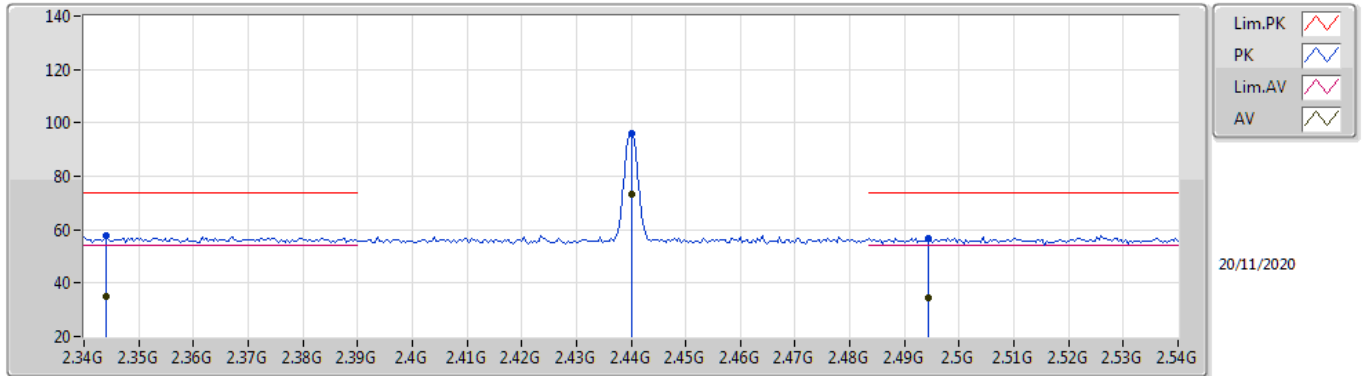
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80366G	25.95	54.00	-28.05	4.87	3	Horizontal	282	1.00	-	21.08	30.91	8.25	34.29
PK	4.80366G	48.45	74.00	-25.55	4.87	3	Horizontal	282	1.00	-	43.58	30.91	8.25	34.29

BT-BR(1Mbps)

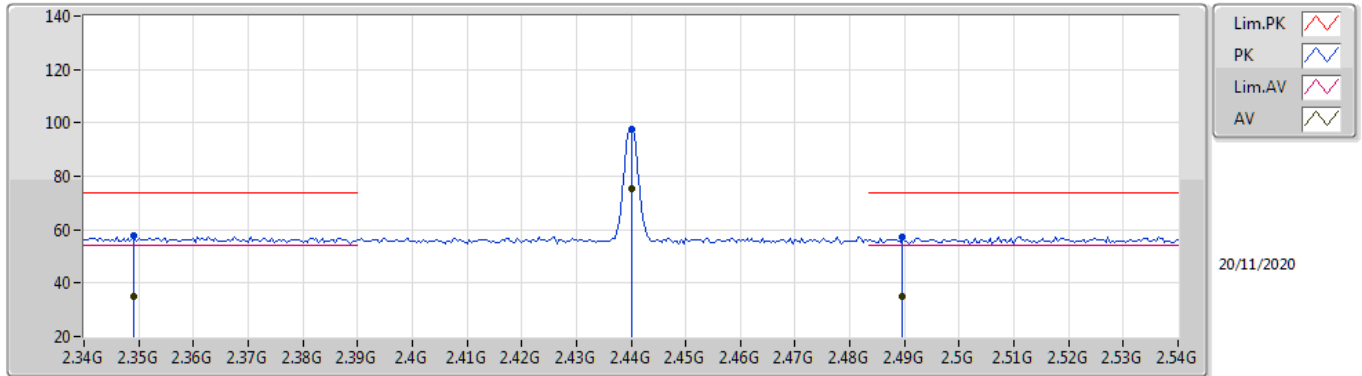
2440MHz_TX



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	2.344G	35.11	54.00	-18.89	33.64	3	Vertical	33	1.48	-	1.47	27.72	5.92	-
AV	2.44G	73.28	Inf	-Inf	33.45	3	Vertical	33	1.48	-	39.83	27.44	6.01	-
AV	2.4944G	34.38	54.00	-19.62	33.47	3	Vertical	33	1.48	-	0.91	27.40	6.07	-
PK	2.344G	57.61	74.00	-16.39	33.64	3	Vertical	33	1.48	-	23.97	27.72	5.92	-
PK	2.44G	95.78	Inf	-Inf	33.45	3	Vertical	33	1.48	-	62.33	27.44	6.01	-
PK	2.4944G	56.88	74.00	-17.12	33.47	3	Vertical	33	1.48	-	23.41	27.40	6.07	-

BT-BR(1Mbps)

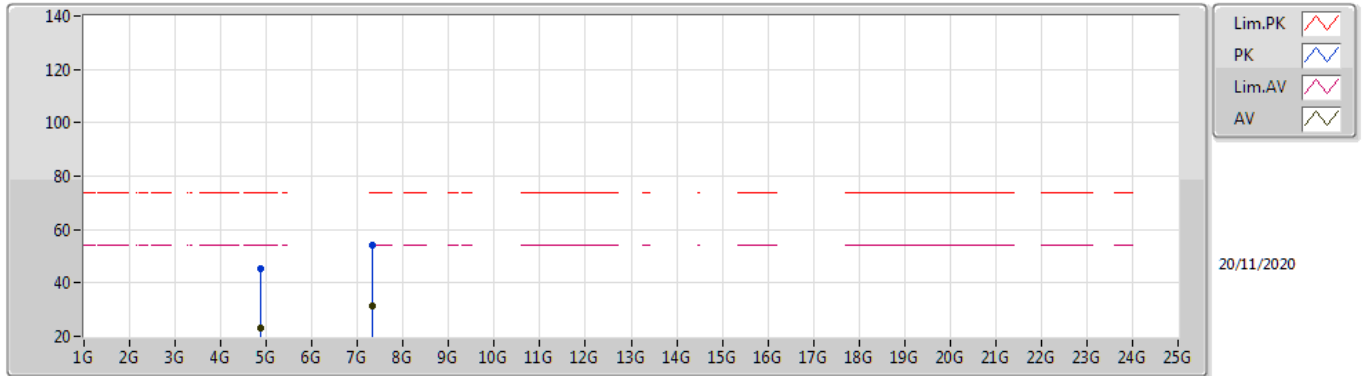
2440MHz_TX



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	2.3492G	35.23	54.00	-18.77	33.62	3	Horizontal	255	1.00	-	1.61	27.70	5.92	-
AV	2.44G	75.27	Inf	-Inf	33.45	3	Horizontal	255	1.00	-	41.82	27.44	6.01	-
AV	2.4896G	34.96	54.00	-19.04	33.47	3	Horizontal	255	1.00	-	1.49	27.40	6.07	-
PK	2.3492G	57.73	74.00	-16.27	33.62	3	Horizontal	255	1.00	-	24.11	27.70	5.92	-
PK	2.44G	97.77	Inf	-Inf	33.45	3	Horizontal	255	1.00	-	64.32	27.44	6.01	-
PK	2.4896G	57.46	74.00	-16.54	33.47	3	Horizontal	255	1.00	-	23.99	27.40	6.07	-

BT-BR(1Mbps)

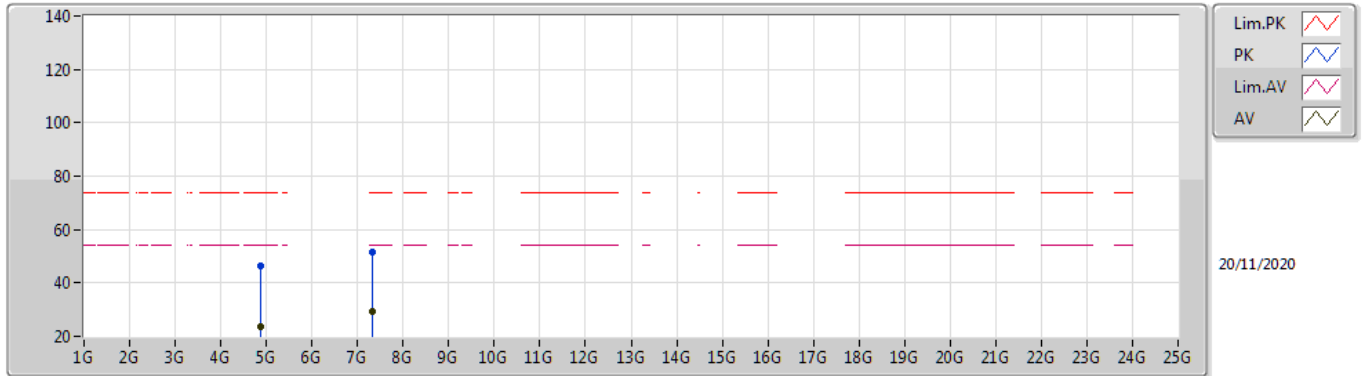
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87964G	23.02	54.00	-30.98	5.08	3	Vertical	287	1.12	-	17.94	31.04	8.30	34.26
AV	7.32036G	31.60	54.00	-22.40	11.78	3	Vertical	283	2.93	-	19.82	36.32	10.03	34.57
PK	4.87964G	45.52	74.00	-28.48	5.08	3	Vertical	287	1.12	-	40.44	31.04	8.30	34.26
PK	7.32036G	54.10	74.00	-19.90	11.78	3	Vertical	283	2.93	-	42.32	36.32	10.03	34.57

BT-BR(1Mbps)

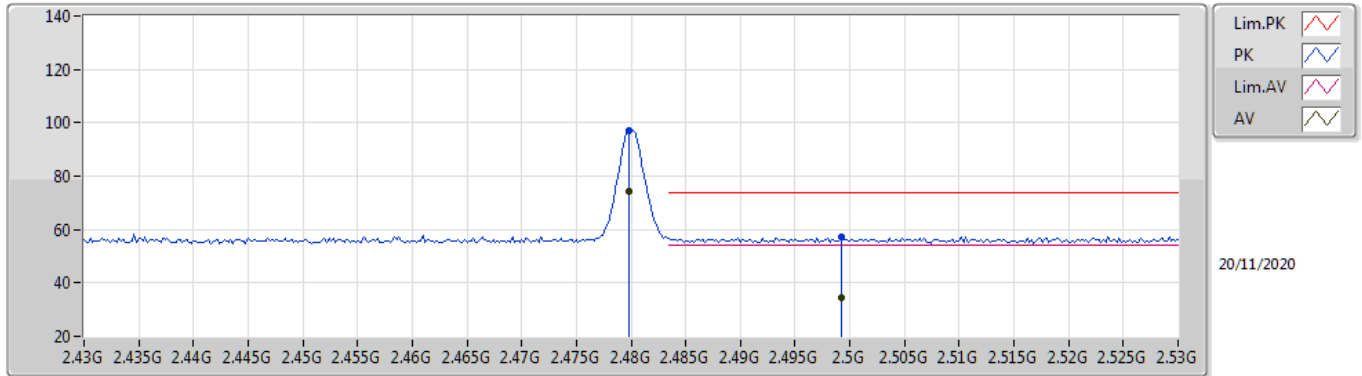
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87992G	23.77	54.00	-30.23	5.08	3	Horizontal	285	1.00	-	18.69	31.04	8.30	34.26
AV	7.32017G	29.22	54.00	-24.78	11.78	3	Horizontal	315	2.36	-	17.44	36.32	10.03	34.57
PK	4.87992G	46.27	74.00	-27.73	5.08	3	Horizontal	285	1.00	-	41.19	31.04	8.30	34.26
PK	7.32017G	51.72	74.00	-22.28	11.78	3	Horizontal	315	2.36	-	39.94	36.32	10.03	34.57

BT-BR(1Mbps)

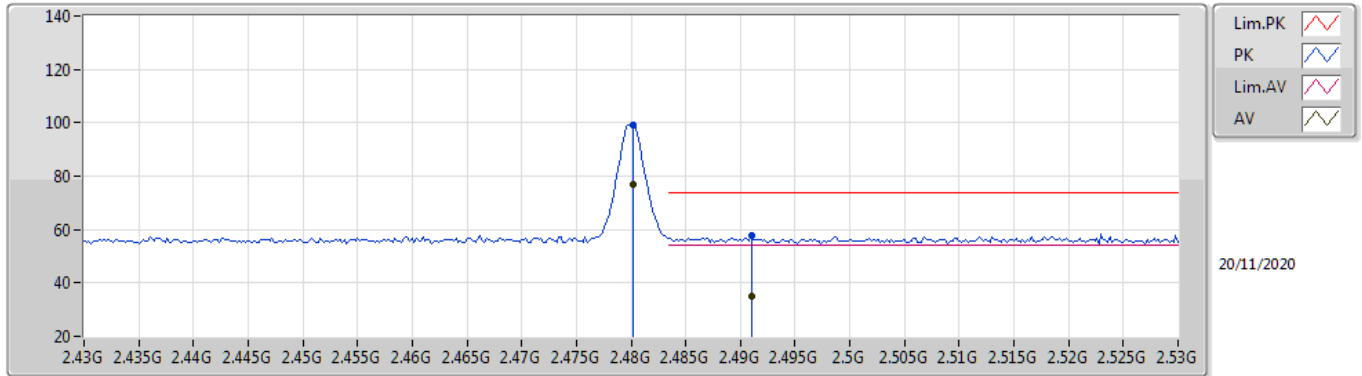
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	74.37	Inf	-Inf	33.46	3	Vertical	35	1.23	-	40.91	27.40	6.06	-
AV	2.4992G	34.67	54.00	-19.33	33.48	3	Vertical	35	1.23	-	1.19	27.40	6.08	-
PK	2.4798G	96.87	Inf	-Inf	33.46	3	Vertical	35	1.23	-	63.41	27.40	6.06	-
PK	2.4992G	57.17	74.00	-16.83	33.48	3	Vertical	35	1.23	-	23.69	27.40	6.08	-

BT-BR(1Mbps)

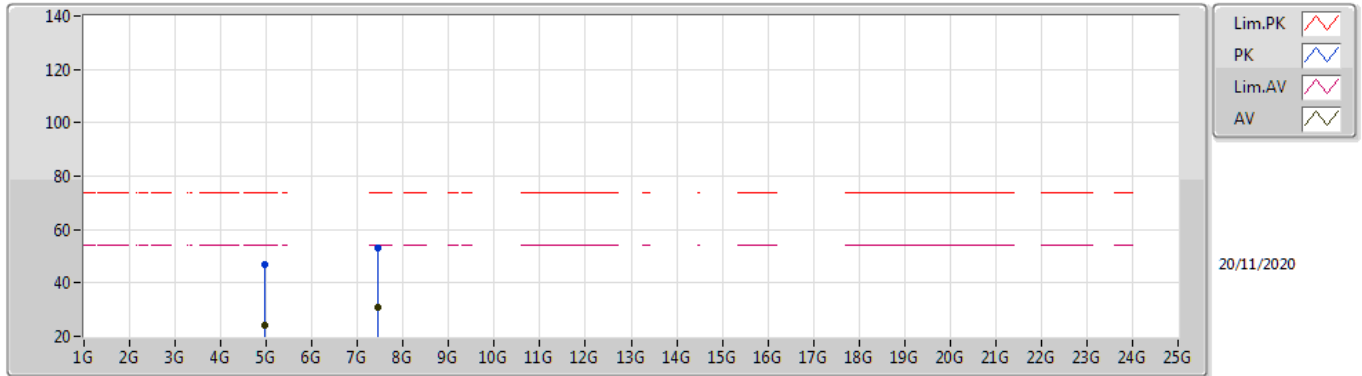
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	76.74	Inf	-Inf	33.46	3	Horizontal	224	2.62	-	43.28	27.40	6.06	-
AV	2.491G	35.23	54.00	-18.77	33.47	3	Horizontal	224	2.62	-	1.76	27.40	6.07	-
PK	2.4802G	99.24	Inf	-Inf	33.46	3	Horizontal	224	2.62	-	65.78	27.40	6.06	-
PK	2.491G	57.73	74.00	-16.27	33.47	3	Horizontal	224	2.62	-	24.26	27.40	6.07	-

BT-BR(1Mbps)

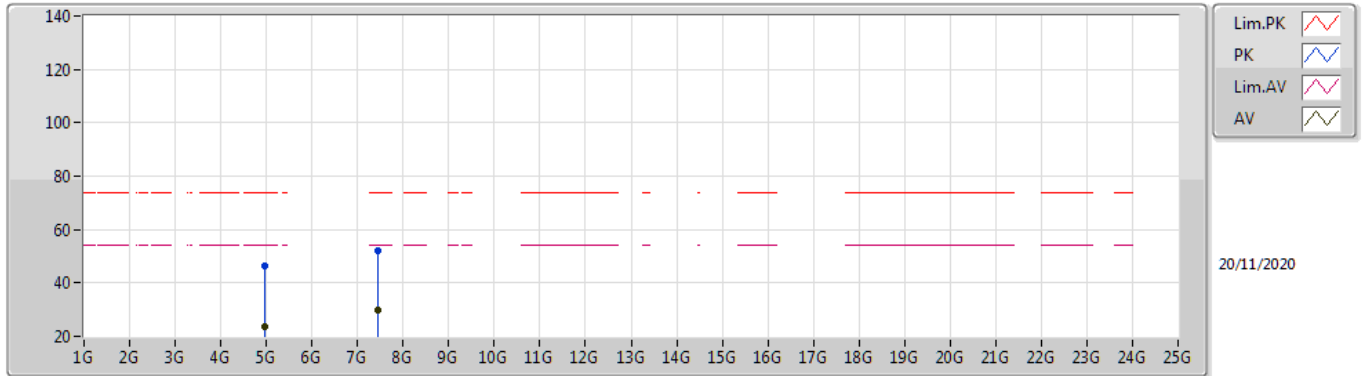
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95975G	24.27	54.00	-29.73	5.34	3	Vertical	286	1.02	-	18.93	31.22	8.35	34.23
AV	7.44042G	30.69	54.00	-23.31	11.69	3	Vertical	286	2.94	-	19.00	36.18	10.10	34.59
PK	4.95975G	46.77	74.00	-27.23	5.34	3	Vertical	286	1.02	-	41.43	31.22	8.35	34.23
PK	7.44042G	53.19	74.00	-20.81	11.69	3	Vertical	286	2.94	-	41.50	36.18	10.10	34.59

BT-BR(1Mbps)

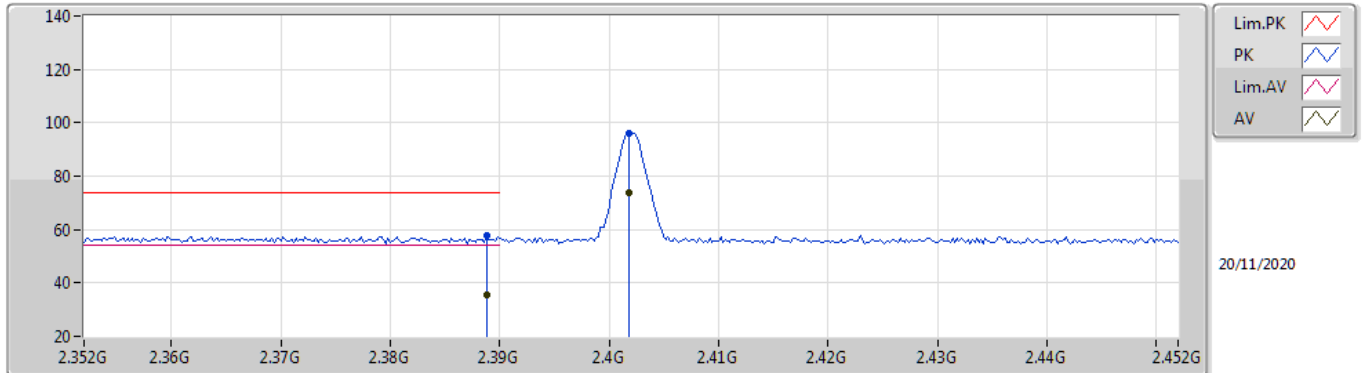
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96015G	23.66	54.00	-30.34	5.34	3	Horizontal	224	2.54	-	18.32	31.22	8.35	34.23
AV	7.44025G	29.57	54.00	-24.43	11.69	3	Horizontal	310	2.23	-	17.88	36.18	10.10	34.59
PK	4.96015G	46.16	74.00	-27.84	5.34	3	Horizontal	224	2.54	-	40.82	31.22	8.35	34.23
PK	7.44025G	52.07	74.00	-21.93	11.69	3	Horizontal	310	2.23	-	40.38	36.18	10.10	34.59

BT-EDR(3Mbps)

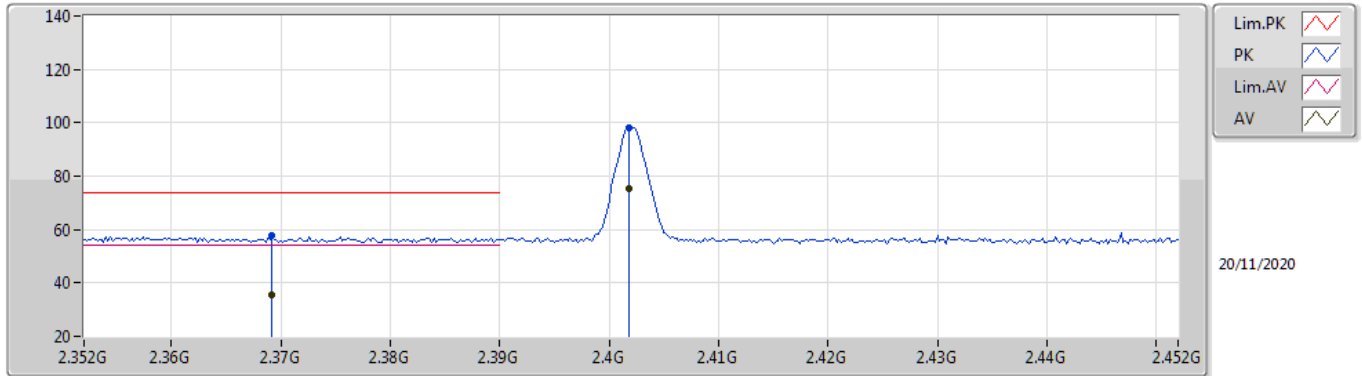
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3888G	35.46	54.00	-18.54	33.57	3	Vertical	30	1.09	-	1.89	27.62	5.95	-
AV	2.4018G	73.59	Inf	-Inf	33.55	3	Vertical	30	1.09	-	40.04	27.59	5.96	-
PK	2.3888G	57.96	74.00	-16.04	33.57	3	Vertical	30	1.09	-	24.39	27.62	5.95	-
PK	2.4018G	96.09	Inf	-Inf	33.55	3	Vertical	30	1.09	-	62.54	27.59	5.96	-

BT-EDR(3Mbps)

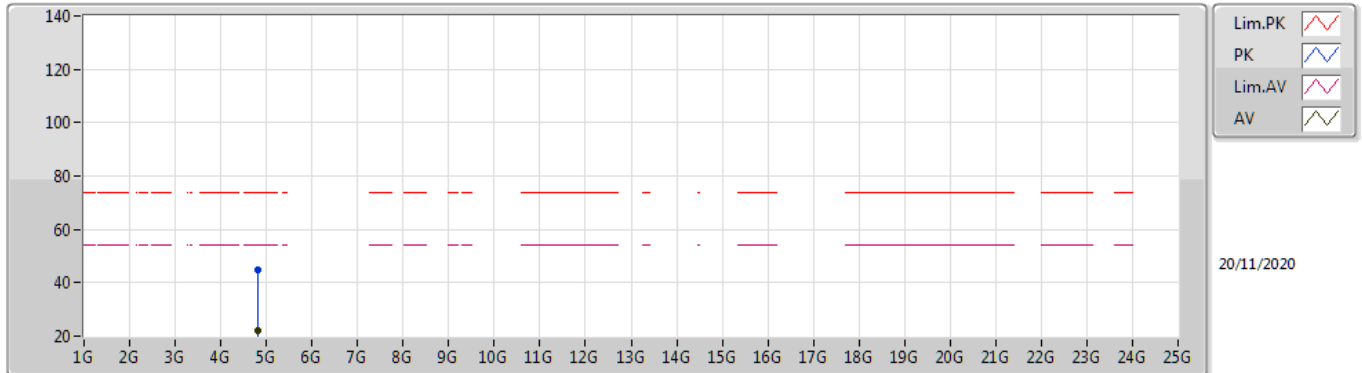
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3692G	35.32	54.00	-18.68	33.60	3	Horizontal	257	1.12	-	1.72	27.66	5.94	-
AV	2.4018G	75.58	Inf	-Inf	33.55	3	Horizontal	257	1.12	-	42.03	27.59	5.96	-
PK	2.3692G	57.82	74.00	-16.18	33.60	3	Horizontal	257	1.12	-	24.22	27.66	5.94	-
PK	2.4018G	98.08	Inf	-Inf	33.55	3	Horizontal	257	1.12	-	64.53	27.59	5.96	-

BT-EDR(3Mbps)

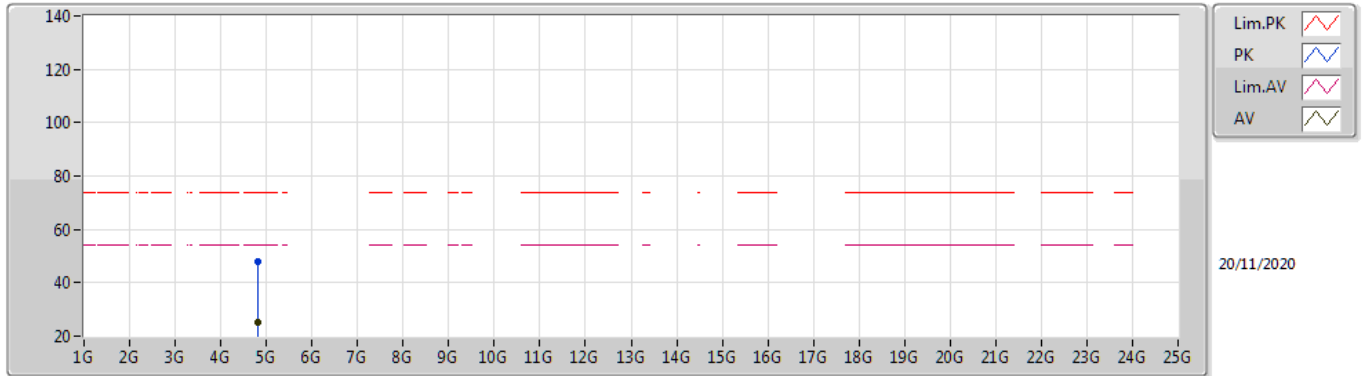
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8041G	22.26	54.00	-31.74	4.88	3	Vertical	215	1.00	-	17.38	30.92	8.25	34.29
PK	4.8041G	44.76	74.00	-29.24	4.88	3	Vertical	215	1.00	-	39.88	30.92	8.25	34.29

BT-EDR(3Mbps)

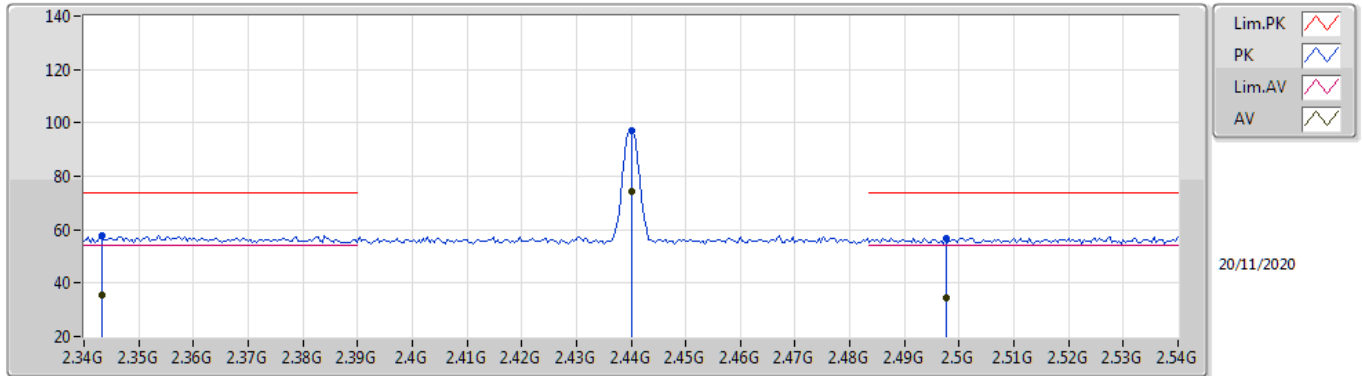
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80416G	25.43	54.00	-28.57	4.88	3	Horizontal	101	1.07	-	20.55	30.92	8.25	34.29
PK	4.80416G	47.93	74.00	-26.07	4.88	3	Horizontal	101	1.07	-	43.05	30.92	8.25	34.29

BT-EDR(3Mbps)

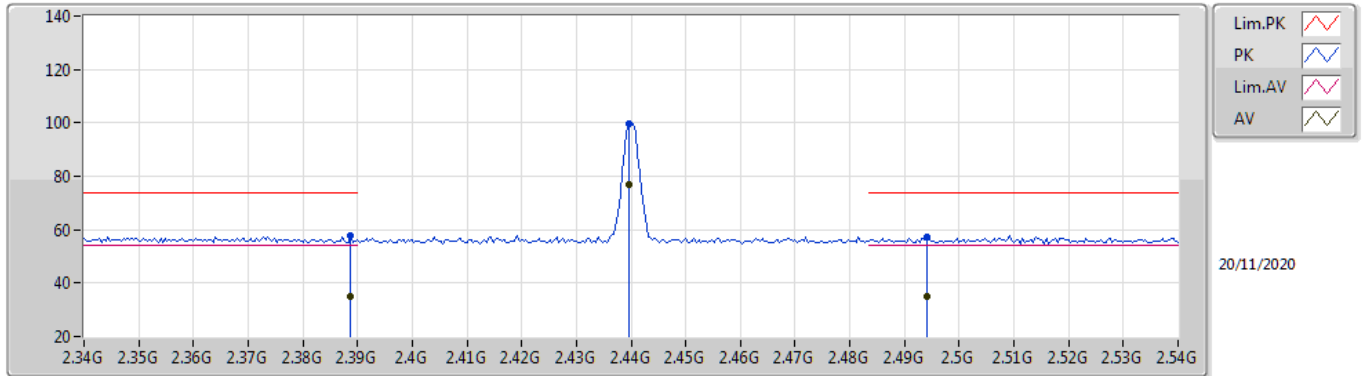
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3432G	35.40	54.00	-18.60	33.65	3	Vertical	34	1.48	-	1.75	27.73	5.92	-
AV	2.44G	74.48	Inf	-Inf	33.45	3	Vertical	34	1.48	-	41.03	27.44	6.01	-
AV	2.4976G	34.35	54.00	-19.65	33.48	3	Vertical	34	1.48	-	0.87	27.40	6.08	-
PK	2.3432G	57.90	74.00	-16.10	33.65	3	Vertical	34	1.48	-	24.25	27.73	5.92	-
PK	2.44G	96.98	Inf	-Inf	33.45	3	Vertical	34	1.48	-	63.53	27.44	6.01	-
PK	2.4976G	56.85	74.00	-17.15	33.48	3	Vertical	34	1.48	-	23.37	27.40	6.08	-

BT-EDR(3Mbps)

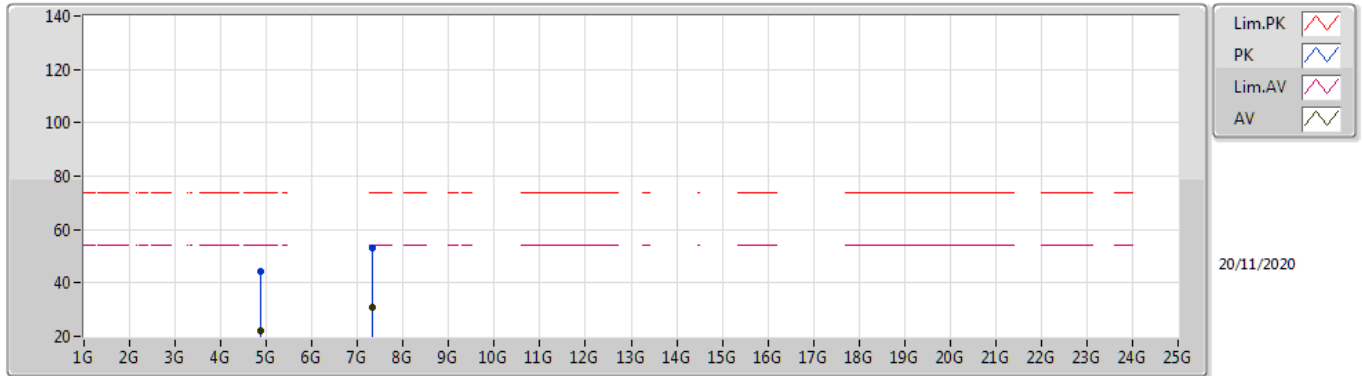
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3888G	35.08	54.00	-18.92	33.57	3	Horizontal	254	1.00	-	1.51	27.62	5.95	-
AV	2.4396G	77.08	Inf	-Inf	33.45	3	Horizontal	254	1.00	-	43.63	27.44	6.01	-
AV	2.494G	34.85	54.00	-19.15	33.47	3	Horizontal	254	1.00	-	1.38	27.40	6.07	-
PK	2.3888G	57.58	74.00	-16.42	33.57	3	Horizontal	254	1.00	-	24.01	27.62	5.95	-
PK	2.4396G	99.58	Inf	-Inf	33.45	3	Horizontal	254	1.00	-	66.13	27.44	6.01	-
PK	2.494G	57.35	74.00	-16.65	33.47	3	Horizontal	254	1.00	-	23.88	27.40	6.07	-

BT-EDR(3Mbps)

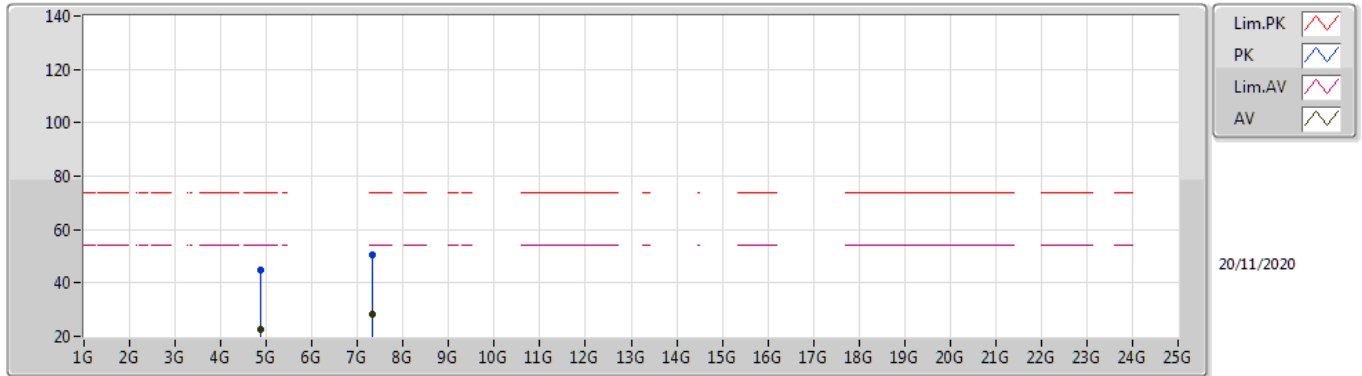
2440MHz_TX



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	4.87995G	22.02	54.00	-31.98	5.08	3	Vertical	102	1.03	-	16.94	31.04	8.30	34.26
AV	7.31909G	30.85	54.00	-23.15	11.78	3	Vertical	98	2.74	-	19.07	36.32	10.03	34.57
PK	4.87995G	44.52	74.00	-29.48	5.08	3	Vertical	102	1.03	-	39.44	31.04	8.30	34.26
PK	7.31909G	53.35	74.00	-20.65	11.78	3	Vertical	98	2.74	-	41.57	36.32	10.03	34.57

BT-EDR(3Mbps)

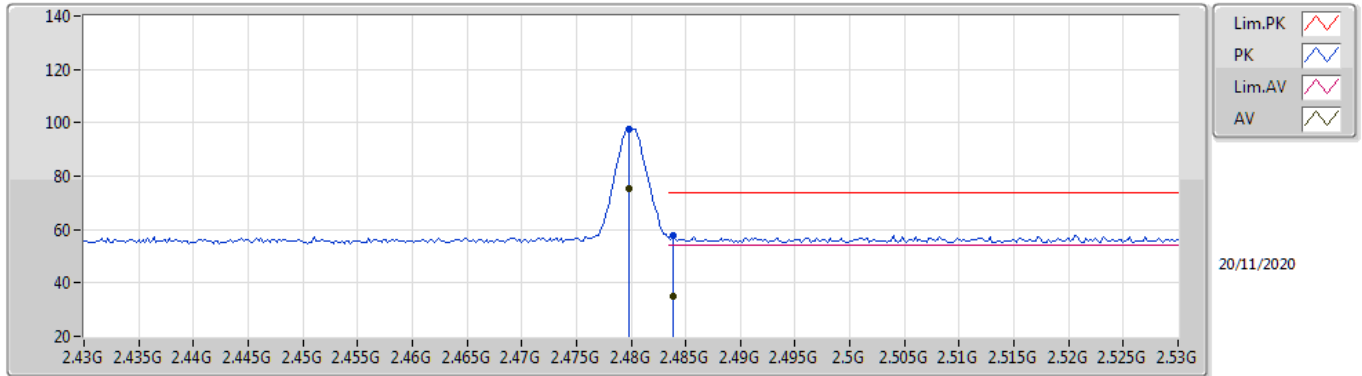
2440MHz_TX



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	4.87948G	22.46	54.00	-31.54	5.08	3	Horizontal	117	1.15	-	17.38	31.04	8.30	34.26
AV	7.32005G	28.19	54.00	-25.81	11.78	3	Horizontal	51	1.94	-	16.41	36.32	10.03	34.57
PK	4.87948G	44.96	74.00	-29.04	5.08	3	Horizontal	117	1.15	-	39.88	31.04	8.30	34.26
PK	7.32005G	50.69	74.00	-23.31	11.78	3	Horizontal	51	1.94	-	38.91	36.32	10.03	34.57

BT-EDR(3Mbps)

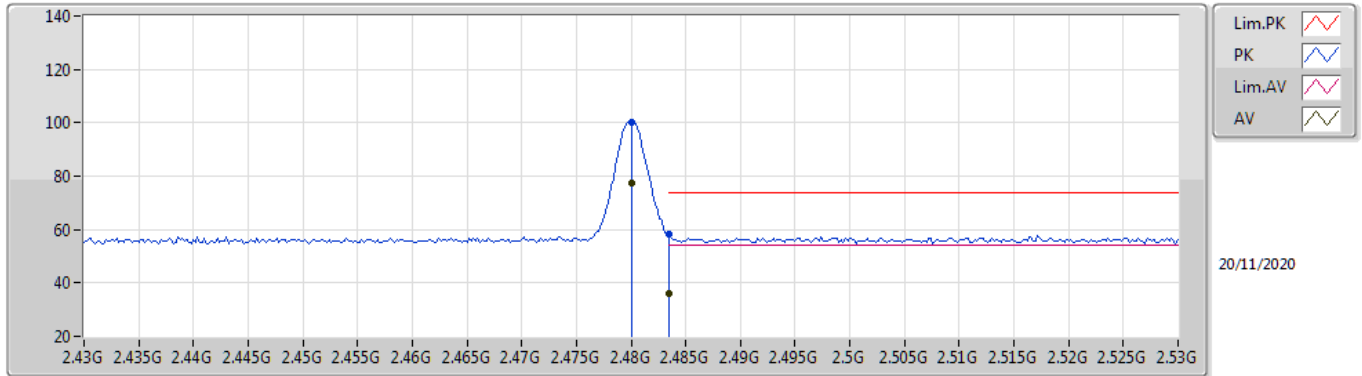
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	75.33	Inf	-Inf	33.46	3	Vertical	35	1.25	-	41.87	27.40	6.06	-
AV	2.4838G	35.17	54.00	-18.83	33.46	3	Vertical	35	1.25	-	1.71	27.40	6.06	-
PK	2.4798G	97.83	Inf	-Inf	33.46	3	Vertical	35	1.25	-	64.37	27.40	6.06	-
PK	2.4838G	57.67	74.00	-16.33	33.46	3	Vertical	35	1.25	-	24.21	27.40	6.06	-

BT-EDR(3Mbps)

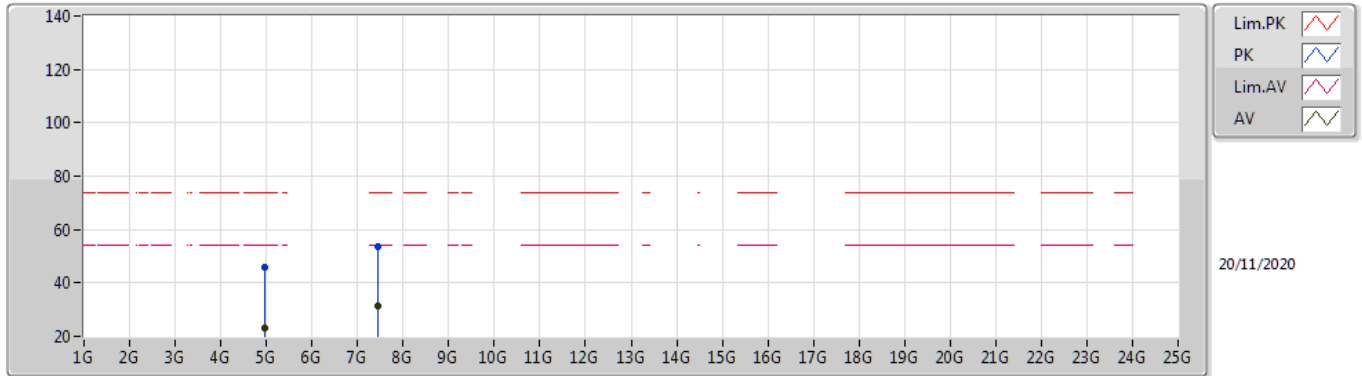
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	77.49	Inf	-Inf	33.46	3	Horizontal	221	2.62	-	44.03	27.40	6.06	-
AV	2.4835G	36.01	54.00	-17.99	33.46	3	Horizontal	221	2.62	-	2.55	27.40	6.06	-
PK	2.48G	99.99	Inf	-Inf	33.46	3	Horizontal	221	2.62	-	66.53	27.40	6.06	-
PK	2.4835G	58.51	74.00	-15.49	33.46	3	Horizontal	221	2.62	-	25.05	27.40	6.06	-

BT-EDR(3Mbps)

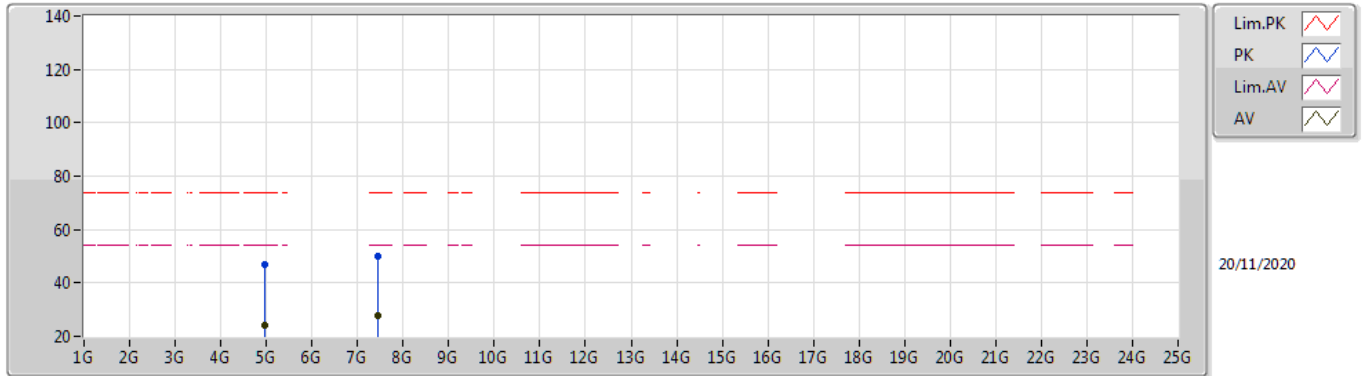
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95973G	23.25	54.00	-30.75	5.34	3	Vertical	131	1.00	-	17.91	31.22	8.35	34.23
AV	7.4396G	31.22	54.00	-22.78	11.69	3	Vertical	101	2.77	-	19.53	36.18	10.10	34.59
PK	4.95973G	45.75	74.00	-28.25	5.34	3	Vertical	131	1.00	-	40.41	31.22	8.35	34.23
PK	7.4396G	53.72	74.00	-20.28	11.69	3	Vertical	101	2.77	-	42.03	36.18	10.10	34.59

BT-EDR(3Mbps)

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96G	24.16	54.00	-29.84	5.34	3	Horizontal	154	1.00	-	18.82	31.22	8.35	34.23
AV	7.43962G	27.59	54.00	-26.41	11.69	3	Horizontal	146	1.49	-	15.90	36.18	10.10	34.59
PK	4.96G	46.66	74.00	-27.34	5.34	3	Horizontal	154	1.00	-	41.32	31.22	8.35	34.23
PK	7.43962G	50.09	74.00	-23.91	11.69	3	Horizontal	146	1.49	-	38.40	36.18	10.10	34.59