

NCC Test Report

Equipment : Wifi and BT Module
Brand Name : realme
Model Name : WB7638G-LT
Applicant : 薩摩亞商新茂環球有限公司台灣分公司
臺北市內湖區新湖一路 133 號 6 樓
Manufacturer : Realme Chongqing Mobile Telecommunications Corp., Ltd.
No.178 Yulong Avenue, Yufengshan, Yubei District,
Chongqing , China.
Standard : LP0002 Section 3.10 (2018-01-10)

The product was received on Jul. 15, 2020, and testing was started from Aug. 07, 2020 and completed on Sep. 04, 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]



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Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	3.10.1.4	Antenna Requirement	PASS	-
3.1	2.3	AC Power-line Conducted Emissions	PASS	-
3.2	3.10.1.6	20dB Bandwidth	PASS	-
3.2	3.10.1.6	Carrier Frequency Separation	PASS	-
3.3	3.10.1.2	Maximum Conducted Output Power	PASS	-
3.4	3.10.1.6	Number of Hopping Frequencies and Hopping Bandedge	PASS	-
3.5	3.10.1.6	Time of Occupancy (Dwell Time)	PASS	-
3.6	3.10.1.5	Emissions in Non-restricted Frequency Bands	PASS	-
3.7	3.10.1.5	Emissions in Restricted Frequency Bands	PASS	-
3.8	2.11	Receiver Radiated Unwanted Emissions	PASS	-
3.9	5.20	Maximum Permissible Exposure	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: Yunha Liou

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	博安通	ADM320G37B1\$ADM320G37A1\$ADM320G37C1	PIFA	I-PEX
2	博安通	ADM320G37B1\$ADM320G37A1\$ADM320G37C1	PIFA	I-PEX

Ant.	Port	Gain (dBi)	
		2.4G	BT
1	1	2.25	-
2	2	-	2.25

Note 1: The EUT has two antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n mode (2TX/2RX)

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

For BT function:

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

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From Test Fixture		
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)	0.575	2.4	2.876m	1k
BT-EDR(2Mbps)	0.576	2.4	2.88m	1k
BT-EDR(3Mbps)	0.576	2.4	2.882m	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:

- ♦ LP0002 (2018-01-10)
- ♦ ANSI C63.10-2013
- ♦ ANSI C63.4-2014

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
☐	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
☐	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 Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO01-HY	Edward	23.6~24.9°C / 52~58%	04/Sep/2020
RF Conducted	TH06-HY	Alan	20.1~26.9°C / 50~60%	10/Aug/2020
Radiated	03CH03-HY	Edward	22.5~26.1°C / 55~63%	07/Aug/2020~ 02/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	110V

2.2 Test Channel Mode

Test Software Version	WVN_Combo_Tool Ver 2.1749.00
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Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	7
2440MHz	7
2480MHz	7
BT-EDR(2Mbps)	-
2402MHz	7
2440MHz	7
2480MHz	7
BT-EDR(3Mbps)	-
2402MHz	7
2440MHz	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/CRX
1	Test fixture mode; TX
2	Test fixture mode; RX

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)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands Receiver Radiated Spurious Emissions
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/CRX
1	Test fixture mode
Operating Mode > 1GHz	CTX/CRX
Orthogonal Planes of EUT	Z Plane
	

2.4 Support Equipment

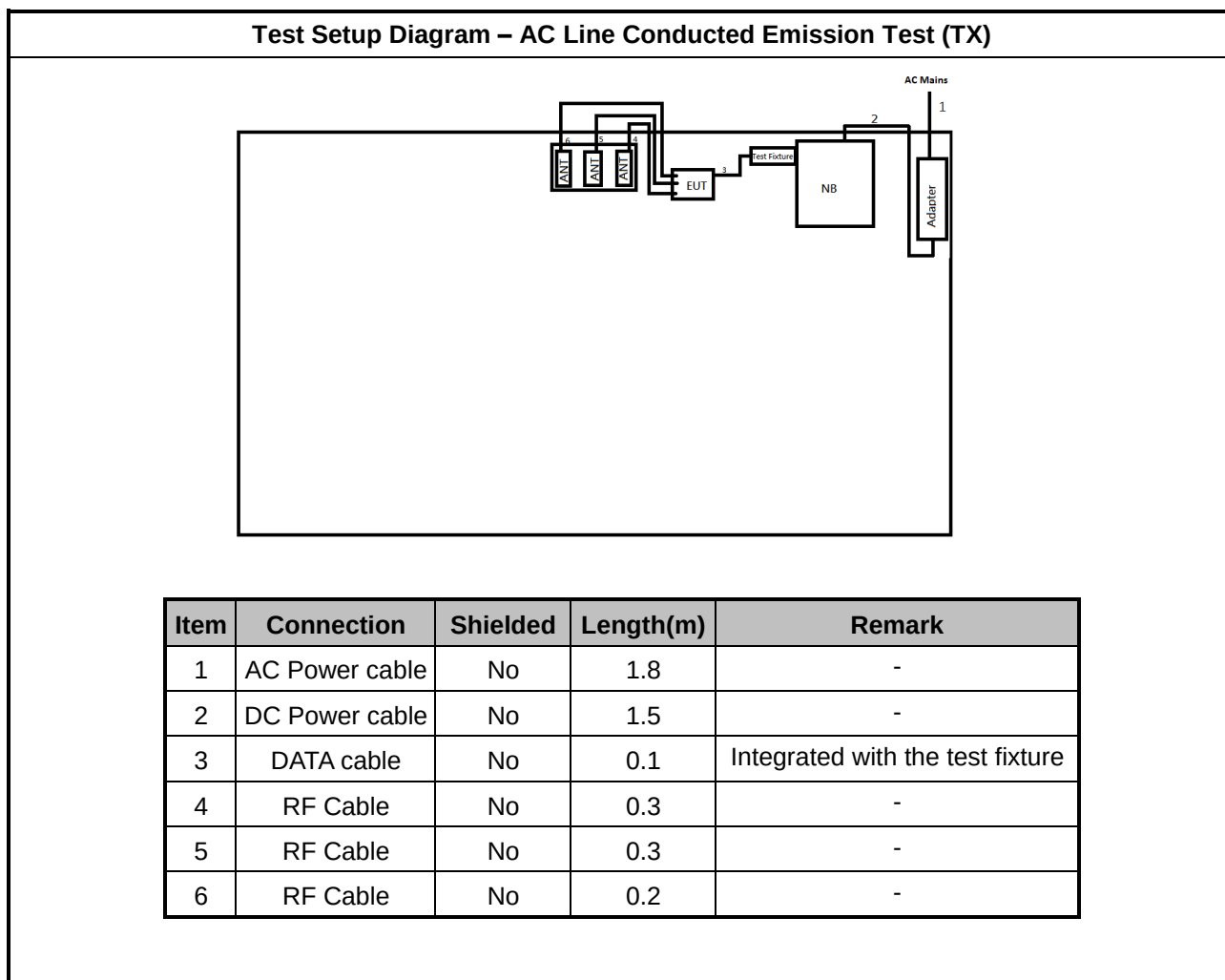
Support Equipment – AC Conduction / Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	P06G	-	-
2	Adapter for NB	DELL	AA90PM111	-	-
3	AC Power Cable for NB	Power sync	PW-GPC180-3	-	-
4	iPod	Apple	A1199	-	-
5	30-pin to USB Original Cable	Apple	MA591GC	-	-
6	Earphone	Apple	MD827FEA	-	-
7	Test Fixture	AI-Link	5VTO3V3	-	Note 1

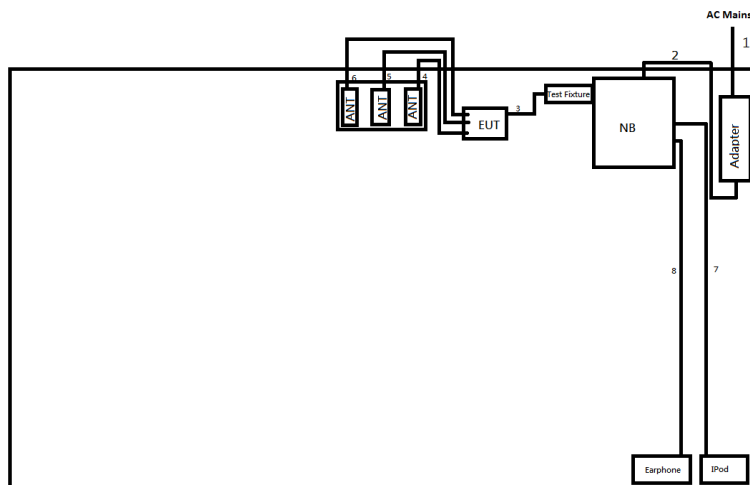
Note: No.7 was provided by customer. The applicant has signed the recognizance that the equipment will not be sold with the accessory.

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	Test Fixture	AI-Link	5VTO3V3	-	Note 1

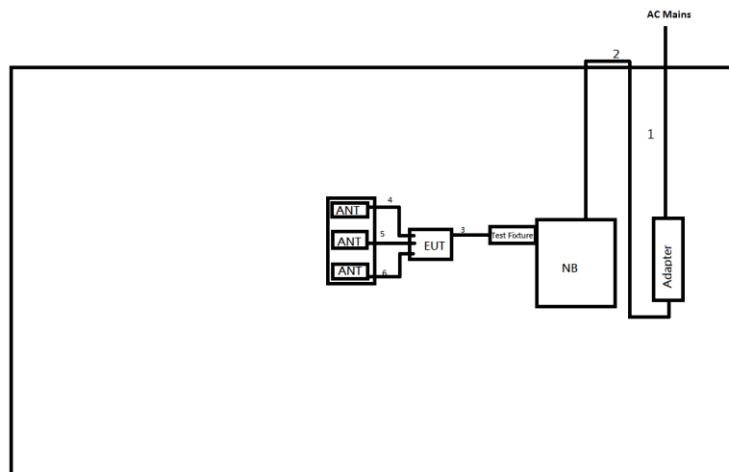
Note: No.3 was provided by customer. The applicant has signed the recognizance that the equipment will not be sold with the accessory.

2.5 Test Setup Diagram

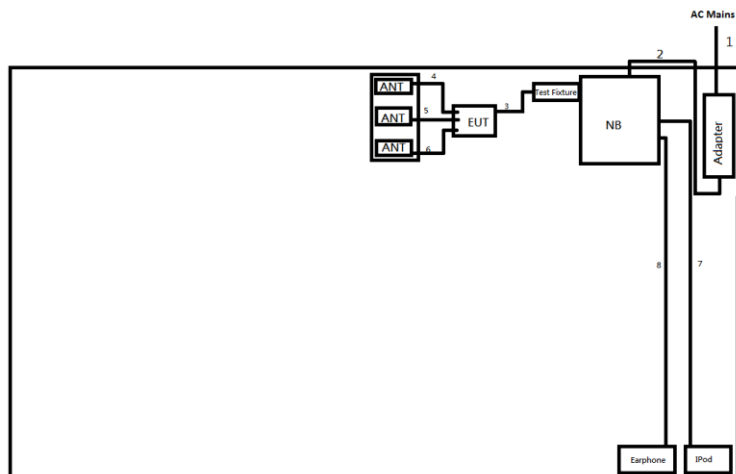


Test Setup Diagram – AC Line Conducted Emission Test (RX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	
2	DC Power cable	No	1.5	
3	DATA cable	No	0.1	Integrated with the test fixture
4	RF Cable	No	0.3	
5	RF Cable	No	0.3	
6	RF Cable	No	0.2	
7	30-pin to USB Original Cable	No	1.0	
8	Audio Cable	No	1.25	

Test Setup Diagram - Radiated Test (TX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.5	-
3	DATA cable	No	0.1	Integrated with the test fixture
4	RF Cable	No	0.3	-
5	RF Cable	No	0.3	-
6	RF Cable	No	0.2	-

Test Setup Diagram - Radiated Test (RX)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.5	-
3	DATA cable	No	0.1	Integrated with the test fixture
4	RF Cable	No	0.3	-
5	RF Cable	No	0.3	-
6	RF Cable	No	0.2	-
7	30-pin to USB Original Cable	No	1.0	-
8	Audio Cable	No	1.25	-

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

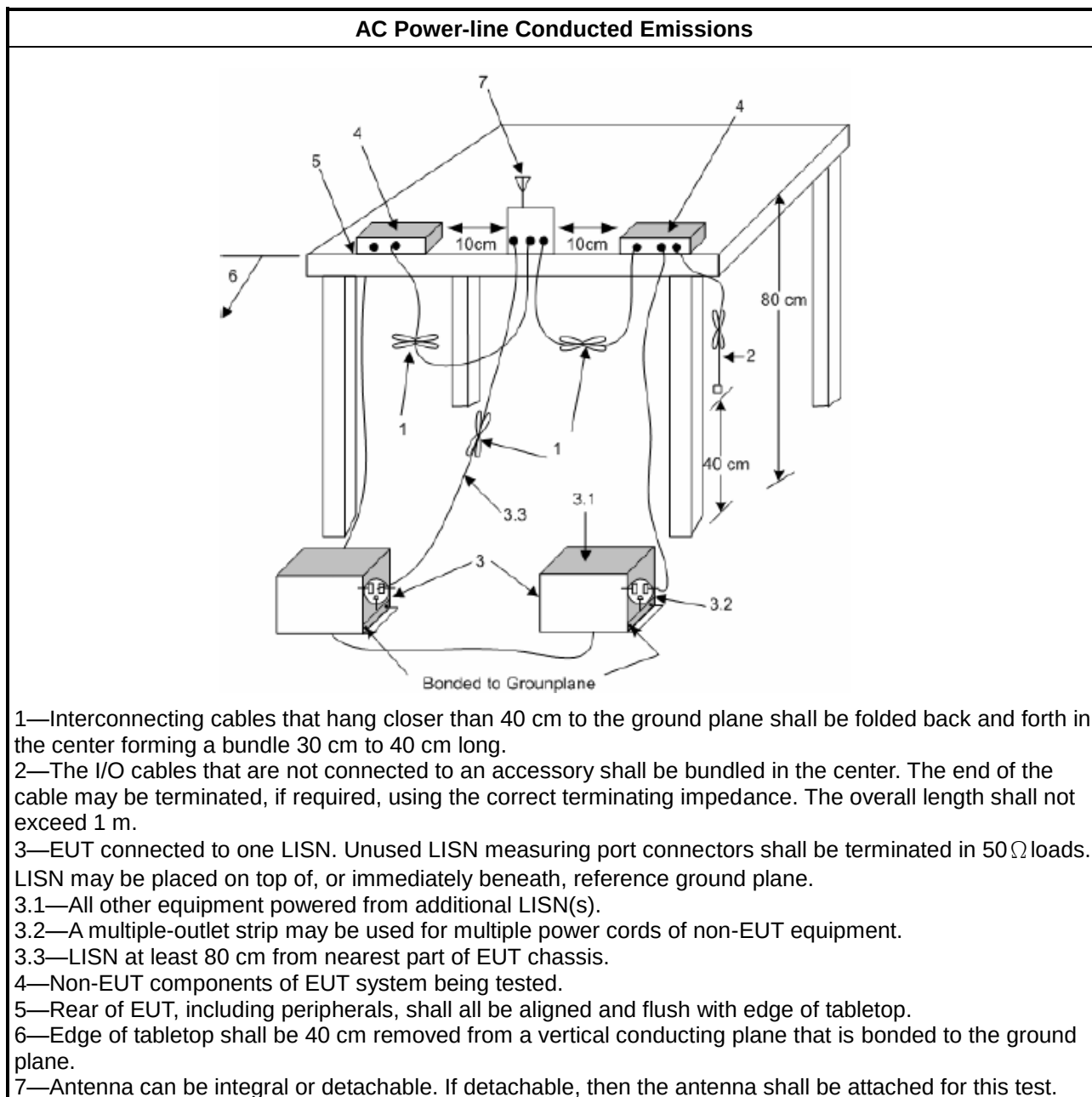
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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	

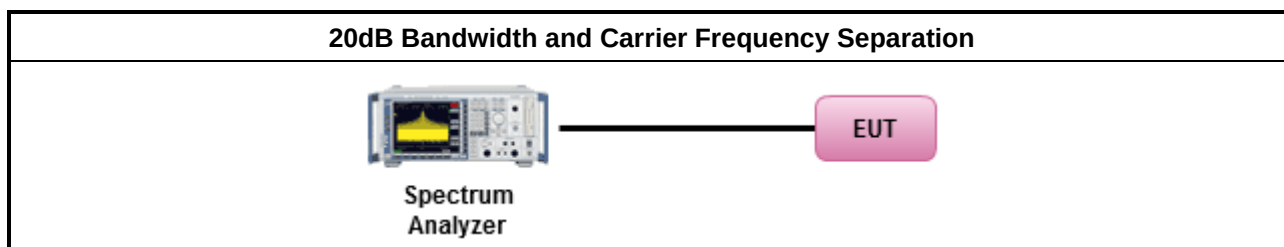
3.2.2 Measuring Instruments

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	

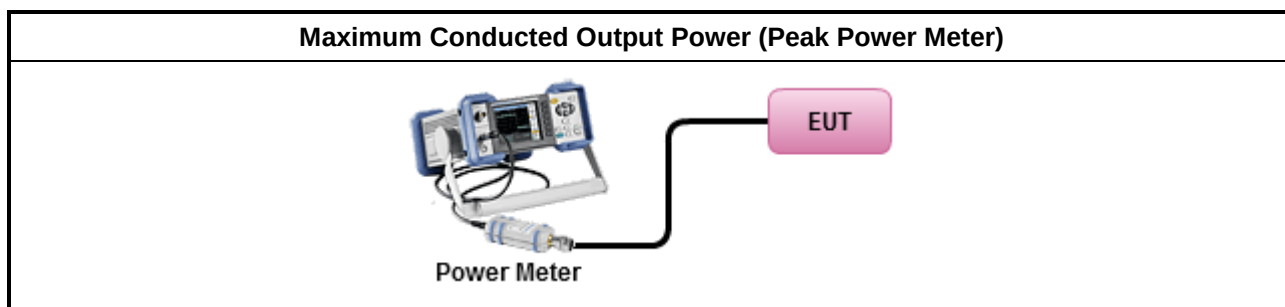
3.3.2 Measuring Instruments

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

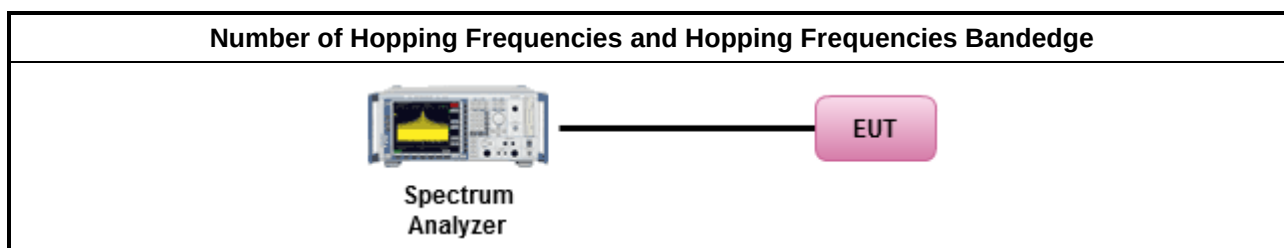
3.4.3 Measuring Instruments

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	

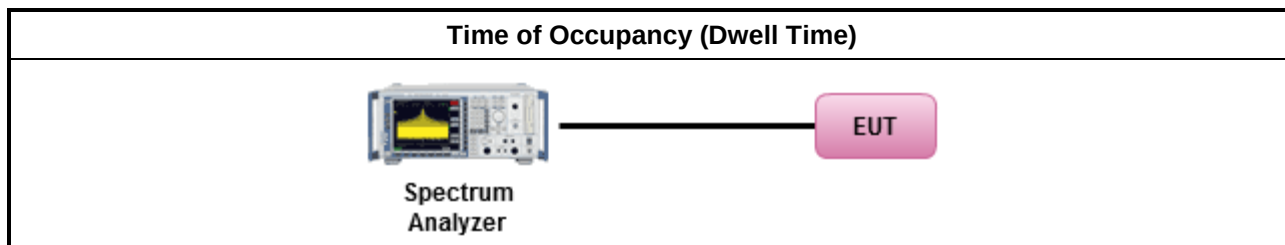
3.5.2 Measuring Instruments

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.	

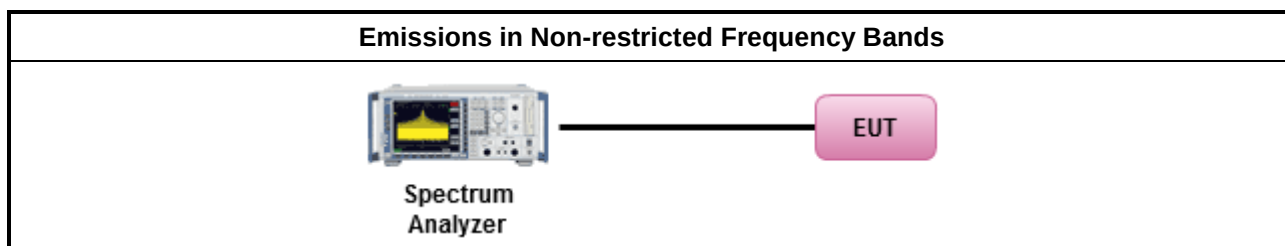
3.6.2 Measuring Instruments

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

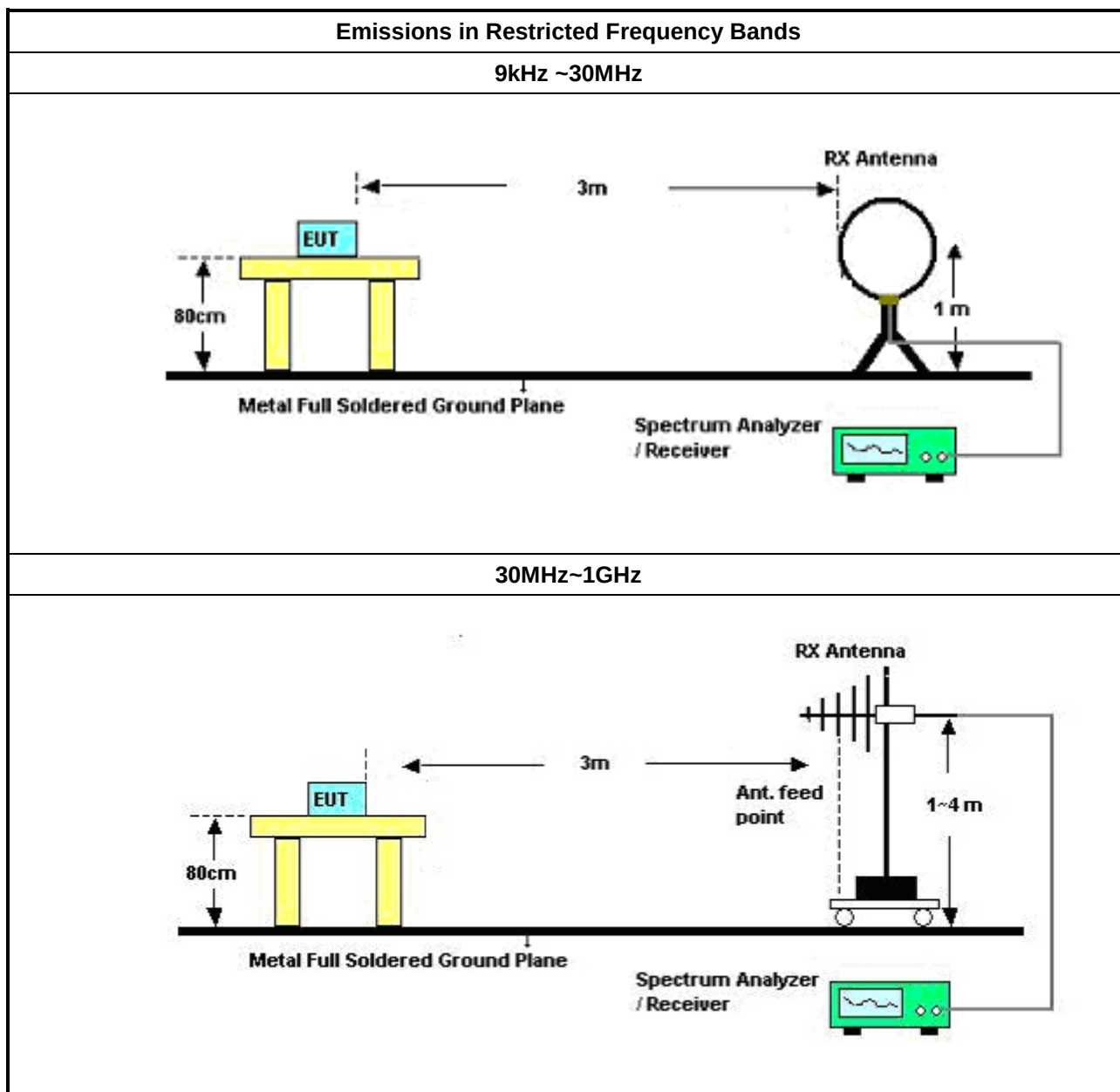
Test Method	
The average emission levels shall be measured in [hopping duty factor].	
Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall 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 LP0002 5.5.2: 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.

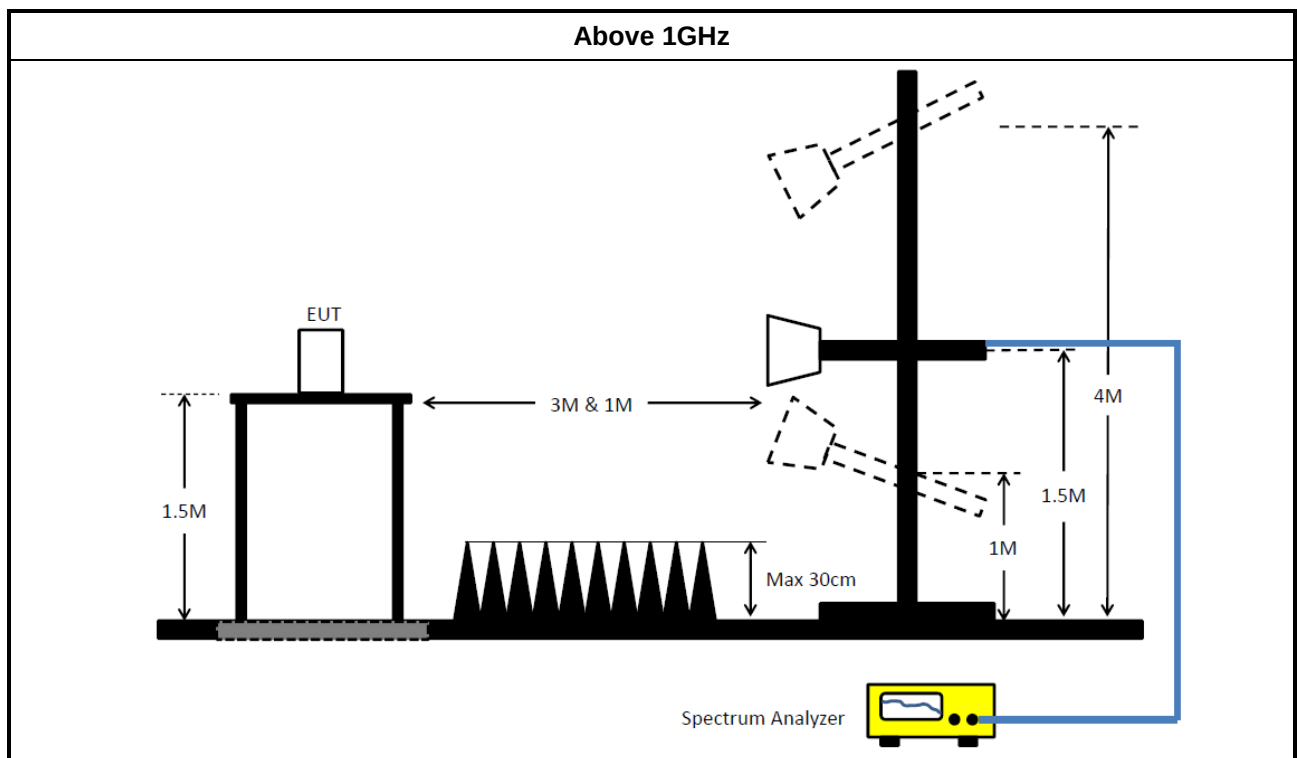
3.7.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.8 Receiver Radiated Spurious Emissions

3.8.1 Receiver in Radiated Spurious Emissions Limit

Restricted Spurious 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.

3.8.2 Measuring Instruments

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

3.8.3 Test Procedures

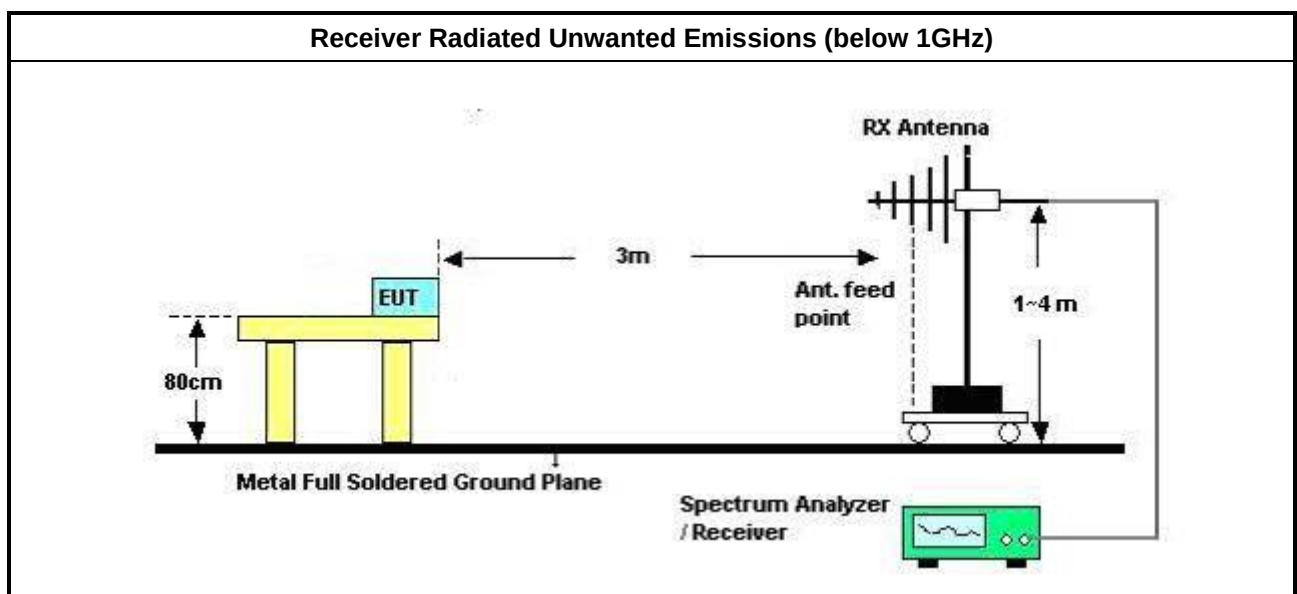
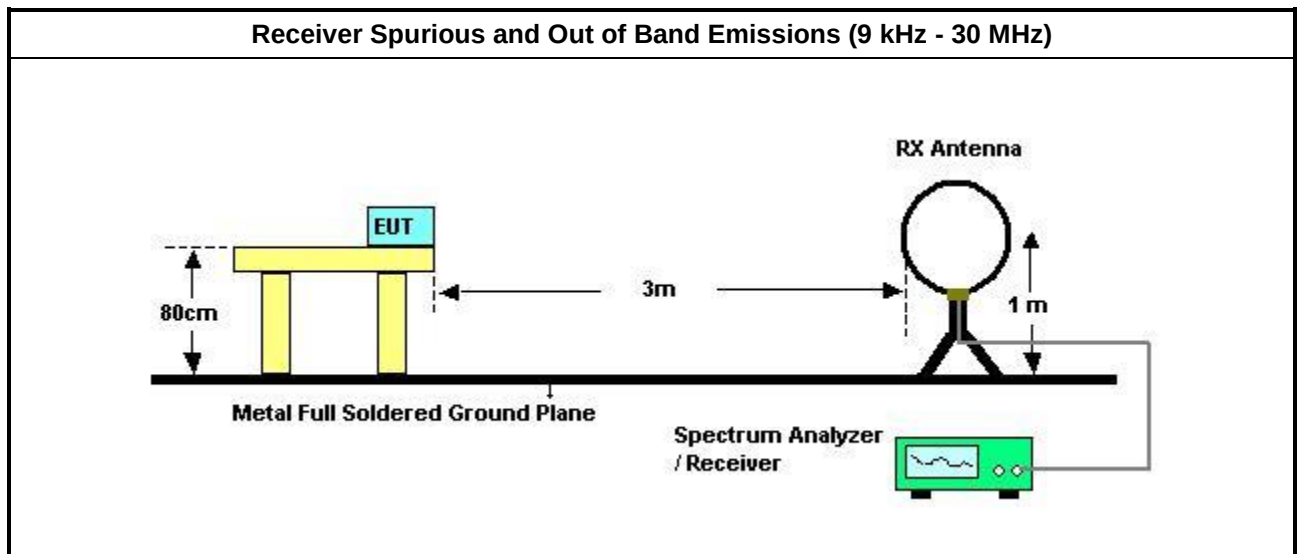
Test Method	
☒	The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.
☒	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).
☒	For radiated measurement, refer as ANSI C63.4, clause 8.3.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.1 for radiated emissions from 30 MHz-1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the QP-Limit so that the QP level does not need to be reported in addition.
☒	Refer as ANSI C63.4, clause 8.3.1.2 and 8.3.2.2 for radiated emissions from above 1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
☒	All amplitude of spurious emissions that are attenuated by more than 30 dB below the permissible value has no need to be reported.

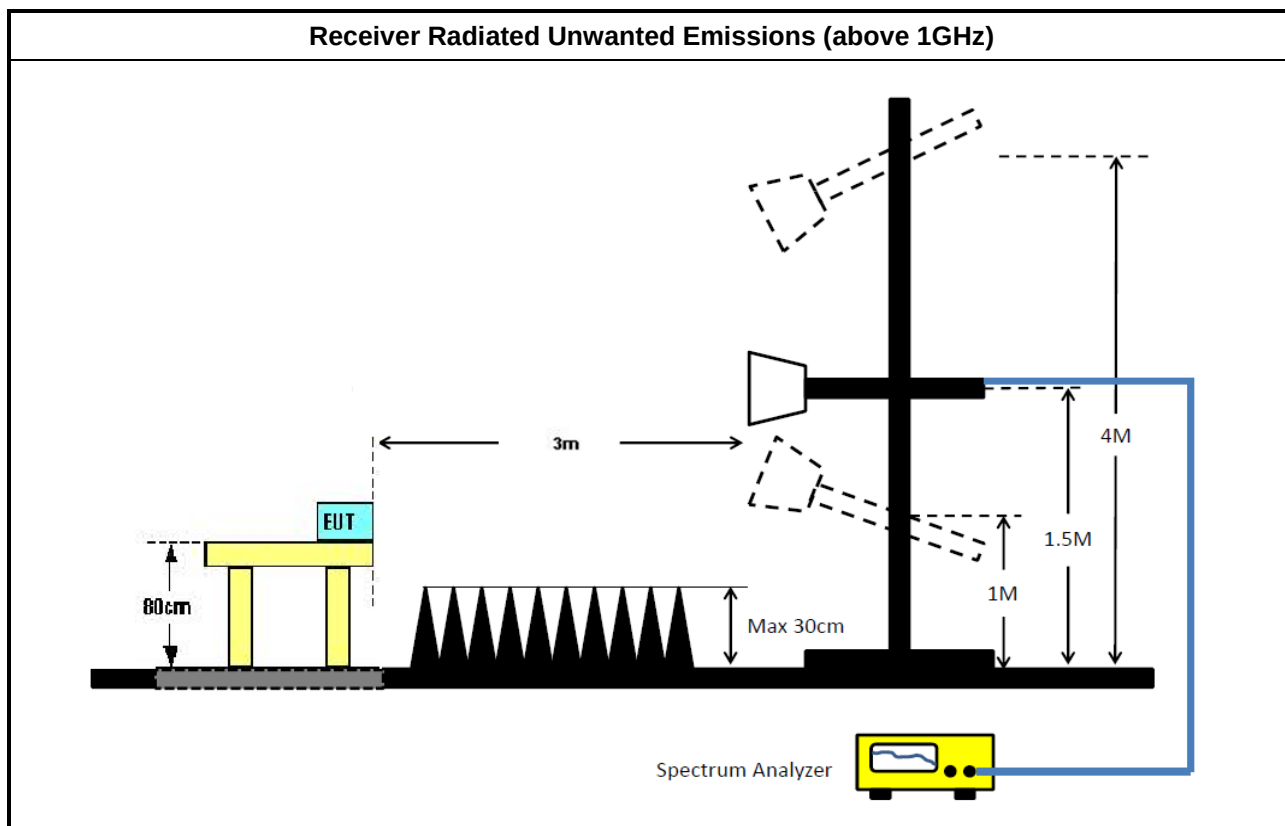
3.8.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.8.5 Test Setup





3.8.6 Receiver Radiated Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.8.7 Test Result of Receiver Radiated Unwanted Emissions

Refer as Appendix H

3.9 Maximum Permissible Exposure

3.9.1 Maximum Permissible Exposure Limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	6
3-30	1842 / f	4.89 / f	*900 / f ²	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5.0	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*100	30
3-30	1842/f	4.89/f	*180/f ²	30
30-300	27.5	0.073	1.0	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

3.9.2 Measuring Instruments

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

3.9.3 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

3.9.4 Test Result of Calculated Result and Limit

Refer as Appendix I

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	102052	9kHz ~ 3.6GHz	09/Apr/2020	08/Apr/2021
Two-Line V Network (LISN)	R&S	ENV 216	101274	9kHz ~ 30MHz	10/Jun/2020	09/Jun/2021
Cable	MTJ	RG 142	CO01-cable-01	100kHz ~ 1GHz	13/Jul/2020	12/Jul/2021
Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	24/Sep/2019	23/Sep/2020

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10kHz ~ 40GHz	01/Oct/2019	30/Sep/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz ~ 40GHz	12/Nov/2018	11/Nov/2020
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	18/Mar/2020	17/Mar/2021

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	06/Aug/2020	05/Aug/2021
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	04/Aug/2020	03/Aug/2021
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	15/Aug/2019	14/Aug/2020
Signal Analyzer	R&S	FSP30	100793	10Hz ~ 30GHz	03/Jun/2020	02/Jun/2021
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	14/Apr/2020	13/Apr/2021
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	09/Sep/2019	08/Sep/2020
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMC	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz ~ 1GHz	19/Apr/2020	18/Apr/2021
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	26/Mar/2020	25/Mar/2021
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 30MHz	19/Jun/2020	18/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz ~ 1GHz	18/Mar/2020	17/Mar/2021
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4+SN 804300/4	1GHz ~ 40GHz	18/Mar/2020	17/Mar/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz ~ 40GHz	13/Mar/2020	12/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	2.066M	33.87	46.00	-12.13	Line
Mode 2	Pass	AV	587.518k	35.43	46.00	-10.57	Line

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	199.949k	43.33	63.61	-20.28	Line	-
Mode 1	Pass	AV	199.949k	39.86	53.61	-13.75	Line	-
Mode 1	Pass	QP	502.813k	39.92	56.00	-16.08	Line	-
Mode 1	Pass	AV	502.813k	30.73	46.00	-15.27	Line	-
Mode 1	Pass	QP	1.007M	36.54	56.00	-19.46	Line	-
Mode 1	Pass	AV	1.007M	27.33	46.00	-18.67	Line	-
Mode 1	Pass	QP	1.397M	38.40	56.00	-17.60	Line	-
Mode 1	Pass	AV	1.397M	30.22	46.00	-15.78	Line	-
Mode 1	Pass	QP	2.066M	39.52	56.00	-16.48	Line	-
Mode 1	Pass	AV	2.066M	33.87	46.00	-12.13	Line	"Worst"
Mode 1	Pass	QP	7.324M	32.65	60.00	-27.35	Line	-
Mode 1	Pass	AV	7.324M	27.35	50.00	-22.65	Line	-
Mode 1	Pass	QP	219.176k	42.96	62.85	-19.89	Neutral	-
Mode 1	Pass	AV	219.176k	28.81	52.85	-24.04	Neutral	-
Mode 1	Pass	QP	296.863k	40.03	60.32	-20.29	Neutral	-
Mode 1	Pass	AV	296.863k	37.36	50.32	-12.96	Neutral	-
Mode 1	Pass	QP	502.813k	36.45	56.00	-19.55	Neutral	-
Mode 1	Pass	AV	502.813k	27.08	46.00	-18.92	Neutral	-
Mode 1	Pass	QP	2.283M	40.61	56.00	-15.39	Neutral	-
Mode 1	Pass	AV	2.283M	33.85	46.00	-12.15	Neutral	"Worst"
Mode 1	Pass	QP	5.672M	30.34	60.00	-29.66	Neutral	-
Mode 1	Pass	AV	5.672M	24.90	50.00	-25.10	Neutral	-
Mode 1	Pass	QP	14.964M	33.59	60.00	-26.41	Neutral	-
Mode 1	Pass	AV	14.964M	26.87	50.00	-23.13	Neutral	-
Mode 2	Pass	QP	201.551k	42.69	63.55	-20.86	Line	-
Mode 2	Pass	AV	201.551k	38.38	53.55	-15.17	Line	-
Mode 2	Pass	QP	587.518k	40.65	56.00	-15.35	Line	-
Mode 2	Pass	AV	587.518k	35.43	46.00	-10.57	Line	"Worst"
Mode 2	Pass	QP	780.036k	39.89	56.00	-16.11	Line	-
Mode 2	Pass	AV	780.036k	32.25	46.00	-13.75	Line	-
Mode 2	Pass	QP	2.159M	38.55	56.00	-17.45	Line	-
Mode 2	Pass	AV	2.159M	32.30	46.00	-13.70	Line	-
Mode 2	Pass	QP	6.218M	31.00	60.00	-29.00	Line	-
Mode 2	Pass	AV	6.218M	25.43	50.00	-24.57	Line	-
Mode 2	Pass	QP	15.888M	34.08	60.00	-25.92	Line	-
Mode 2	Pass	AV	15.888M	27.63	50.00	-22.37	Line	-
Mode 2	Pass	QP	219.176k	42.98	62.85	-19.87	Neutral	-
Mode 2	Pass	AV	219.176k	28.69	52.85	-24.16	Neutral	-
Mode 2	Pass	QP	488.957k	38.20	56.19	-17.99	Neutral	-
Mode 2	Pass	AV	488.957k	33.19	46.19	-13.00	Neutral	"Worst"
Mode 2	Pass	QP	767.679k	33.73	56.00	-22.27	Neutral	-
Mode 2	Pass	AV	767.679k	25.73	46.00	-20.27	Neutral	-
Mode 2	Pass	QP	2.159M	38.75	56.00	-17.25	Neutral	-



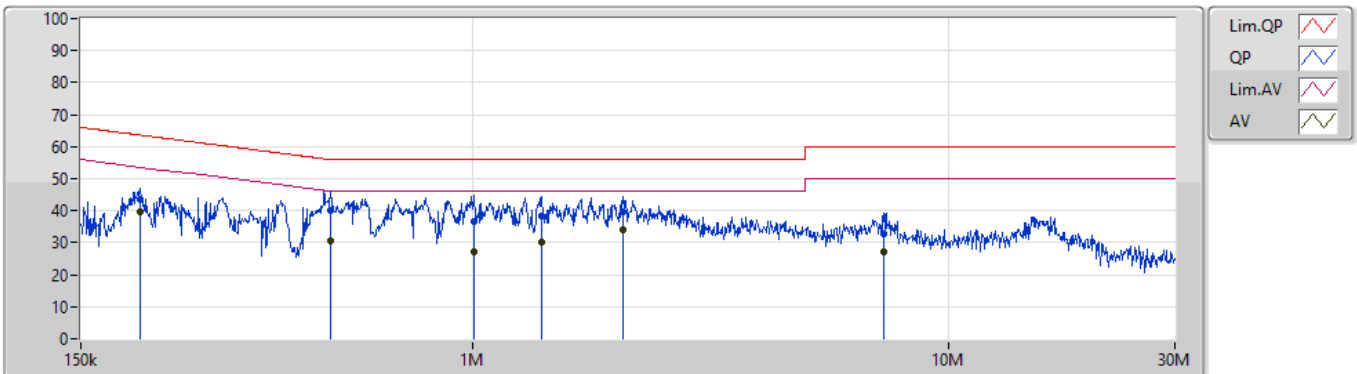
AC Power-line Conducted Emissions

Appendix A

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 2	Pass	AV	2.159M	32.35	46.00	-13.65	Neutral	-
Mode 2	Pass	QP	5.764M	30.08	60.00	-29.92	Neutral	-
Mode 2	Pass	AV	5.764M	24.56	50.00	-25.44	Neutral	-
Mode 2	Pass	QP	15.327M	30.43	60.00	-29.57	Neutral	-
Mode 2	Pass	AV	15.327M	25.14	50.00	-24.86	Neutral	-

Conducted Emissions at Powerline_Mode 1

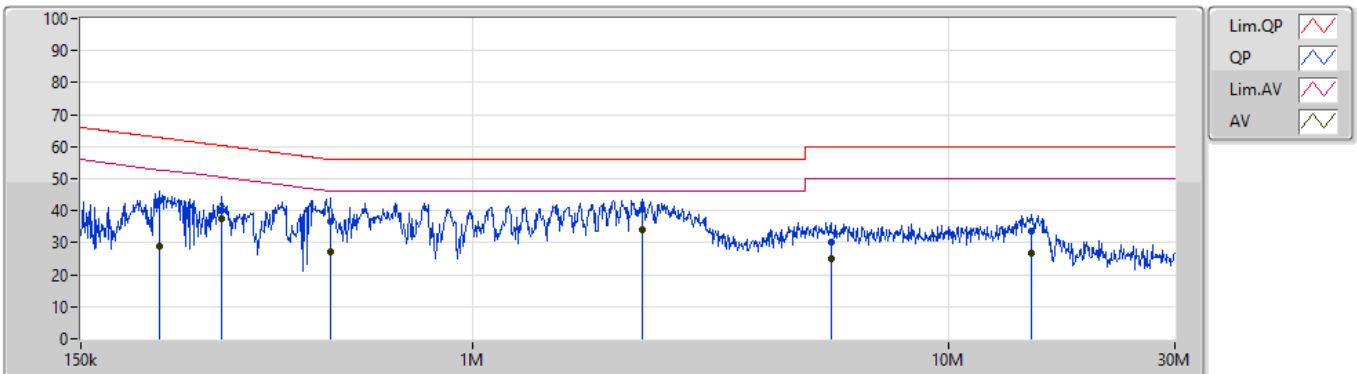
04/09/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	199.949k	43.33	63.61	-20.28	19.45	Line	-	23.88	9.67	0.02	9.76			
AV	199.949k	39.86	53.61	-13.75	19.45	Line	-	20.41	9.67	0.02	9.76			
QP	502.813k	39.92	56.00	-16.08	19.46	Line	-	20.46	9.67	0.03	9.76			
AV	502.813k	30.73	46.00	-15.27	19.46	Line	-	11.27	9.67	0.03	9.76			
QP	1.007M	36.54	56.00	-19.46	19.47	Line	-	17.07	9.67	0.05	9.75			
AV	1.007M	27.33	46.00	-18.67	19.47	Line	-	7.86	9.67	0.05	9.75			
QP	1.397M	38.40	56.00	-17.60	19.48	Line	-	18.92	9.67	0.06	9.75			
AV	1.397M	30.22	46.00	-15.78	19.48	Line	-	10.74	9.67	0.06	9.75			
QP	2.066M	39.52	56.00	-16.48	19.52	Line	-	20.00	9.68	0.08	9.76			
AV	2.066M	33.87	46.00	-12.13	19.52	Line	"Worst"	14.35	9.68	0.08	9.76			
QP	7.324M	32.65	60.00	-27.35	19.63	Line	-	13.02	9.71	0.16	9.76			
AV	7.324M	27.35	50.00	-22.65	19.63	Line	-	7.72	9.71	0.16	9.76			

Conducted Emissions at Powerline_Mode 1

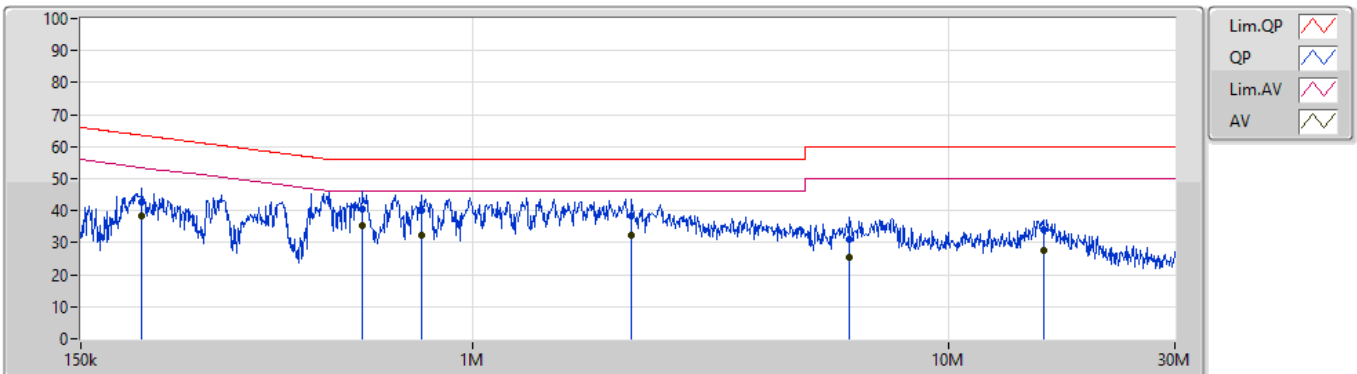
04/09/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	219.176k	42.96	62.85	-19.89	19.44	Neutral	-	23.52	9.66	0.02	9.76			
AV	219.176k	28.81	52.85	-24.04	19.44	Neutral	-	9.37	9.66	0.02	9.76			
QP	296.863k	40.03	60.32	-20.29	19.43	Neutral	-	20.60	9.65	0.02	9.76			
AV	296.863k	37.36	50.32	-12.96	19.43	Neutral	-	17.93	9.65	0.02	9.76			
QP	502.813k	36.45	56.00	-19.55	19.44	Neutral	-	17.01	9.65	0.03	9.76			
AV	502.813k	27.08	46.00	-18.92	19.44	Neutral	-	7.64	9.65	0.03	9.76			
QP	2.283M	40.61	56.00	-15.39	19.51	Neutral	-	21.10	9.66	0.09	9.76			
AV	2.283M	33.85	46.00	-12.15	19.51	Neutral	"Worst"	14.34	9.66	0.09	9.76			
QP	5.672M	30.34	60.00	-29.66	19.59	Neutral	-	10.75	9.69	0.14	9.76			
AV	5.672M	24.90	50.00	-25.10	19.59	Neutral	-	5.31	9.69	0.14	9.76			
QP	14.964M	33.59	60.00	-26.41	19.72	Neutral	-	13.87	9.72	0.23	9.77			
AV	14.964M	26.87	50.00	-23.13	19.72	Neutral	-	7.15	9.72	0.23	9.77			

Conducted Emissions at Powerline_Mode 2

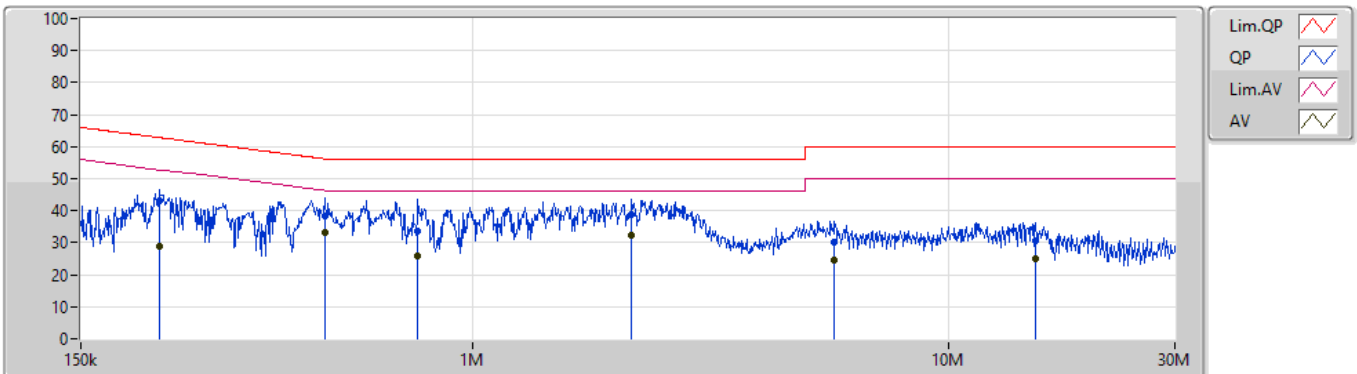
04/09/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	201.551k	42.69	63.55	-20.86	19.45	Line	-	23.24	9.67	0.02	9.76			
AV	201.551k	38.38	53.55	-15.17	19.45	Line	-	18.93	9.67	0.02	9.76			
QP	587.518k	40.65	56.00	-15.35	19.46	Line	-	21.19	9.67	0.03	9.76			
AV	587.518k	35.43	46.00	-10.57	19.46	Line	"Worst"	15.97	9.67	0.03	9.76			
QP	780.036k	39.89	56.00	-16.11	19.46	Line	-	20.43	9.67	0.04	9.75			
AV	780.036k	32.25	46.00	-13.75	19.46	Line	-	12.79	9.67	0.04	9.75			
QP	2.159M	38.55	56.00	-17.45	19.52	Line	-	19.03	9.68	0.08	9.76			
AV	2.159M	32.30	46.00	-13.70	19.52	Line	-	12.78	9.68	0.08	9.76			
QP	6.218M	31.00	60.00	-29.00	19.61	Line	-	11.39	9.70	0.15	9.76			
AV	6.218M	25.43	50.00	-24.57	19.61	Line	-	5.82	9.70	0.15	9.76			
QP	15.888M	34.08	60.00	-25.92	19.70	Line	-	14.38	9.69	0.24	9.77			
AV	15.888M	27.63	50.00	-22.37	19.70	Line	-	7.93	9.69	0.24	9.77			

Conducted Emissions at Powerline_Mode 2

04/09/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	219.176k	42.98	62.85	-19.87	19.44	Neutral	-	23.54	9.66	0.02	9.76			
AV	219.176k	28.69	52.85	-24.16	19.44	Neutral	-	9.25	9.66	0.02	9.76			
QP	488.957k	38.20	56.19	-17.99	19.44	Neutral	-	18.76	9.65	0.03	9.76			
AV	488.957k	33.19	46.19	-13.00	19.44	Neutral	"Worst"	13.75	9.65	0.03	9.76			
QP	767.679k	33.73	56.00	-22.27	19.45	Neutral	-	14.28	9.66	0.04	9.75			
AV	767.679k	25.73	46.00	-20.27	19.45	Neutral	-	6.28	9.66	0.04	9.75			
QP	2.159M	38.75	56.00	-17.25	19.50	Neutral	-	19.25	9.66	0.08	9.76			
AV	2.159M	32.35	46.00	-13.65	19.50	Neutral	-	12.85	9.66	0.08	9.76			
QP	5.764M	30.08	60.00	-29.92	19.59	Neutral	-	10.49	9.69	0.14	9.76			
AV	5.764M	24.56	50.00	-25.44	19.59	Neutral	-	4.97	9.69	0.14	9.76			
QP	15.327M	30.43	60.00	-29.57	19.72	Neutral	-	10.71	9.72	0.23	9.77			
AV	15.327M	25.14	50.00	-24.86	19.72	Neutral	-	5.42	9.72	0.23	9.77			

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)	935k	882.559k	883KF1D	932.5k	879.56k
BT-EDR(2Mbps)	1.315M	1.184M	1M18G1D	1.258M	1.178M
BT-EDR(3Mbps)	1.286M	1.191M	1M19G1D	1.261M	1.188M

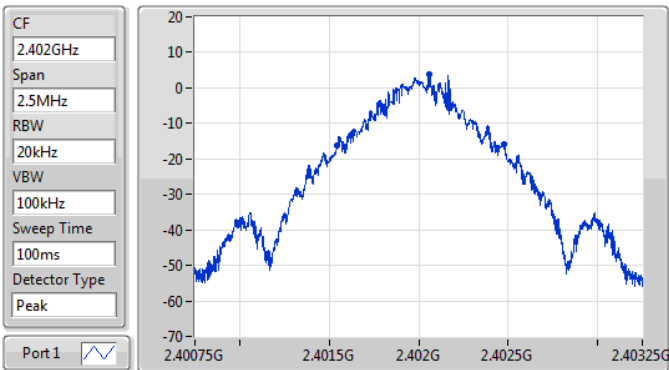
Max-N dB = Maximum 20dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

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	932.5k	882.559k
2440MHz	Pass	Inf	935k	879.56k
2480MHz	Pass	Inf	935k	879.56k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.258M	1.178M
2440MHz	Pass	Inf	1.315M	1.179M
2480MHz	Pass	Inf	1.279M	1.184M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.286M	1.191M
2440MHz	Pass	Inf	1.261M	1.188M
2480MHz	Pass	Inf	1.265M	1.189M

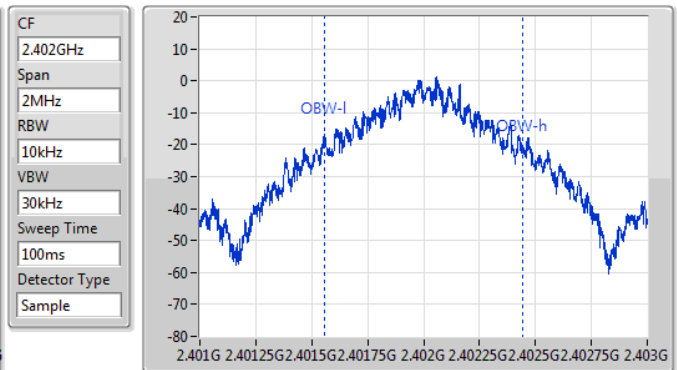
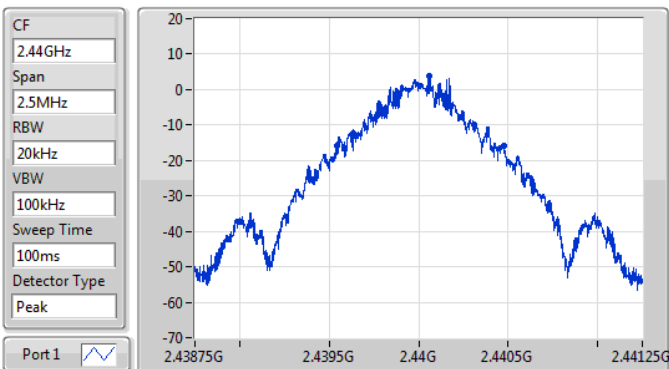
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
2402MHz


20dB(Hz)	FI-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
932.5k	2.401543G	2.402475G	882.559k	2.401558G	2.402441G	Inf	1

EBW-FS

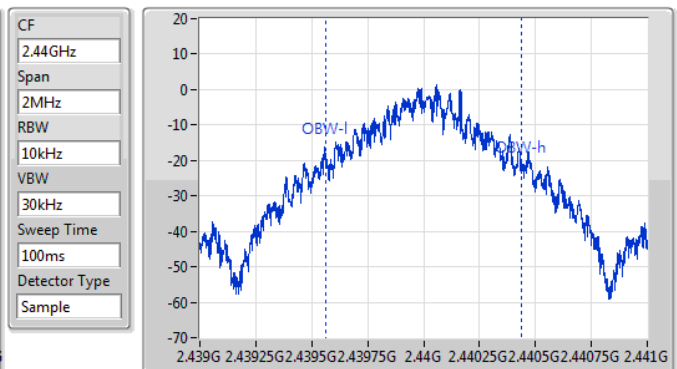
09/08/2020


BT-BR(1Mbps)
2440MHz


20dB(Hz)	FI-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
935k	2.439543G	2.440478G	879.56k	2.43956G	2.44044G	Inf	1

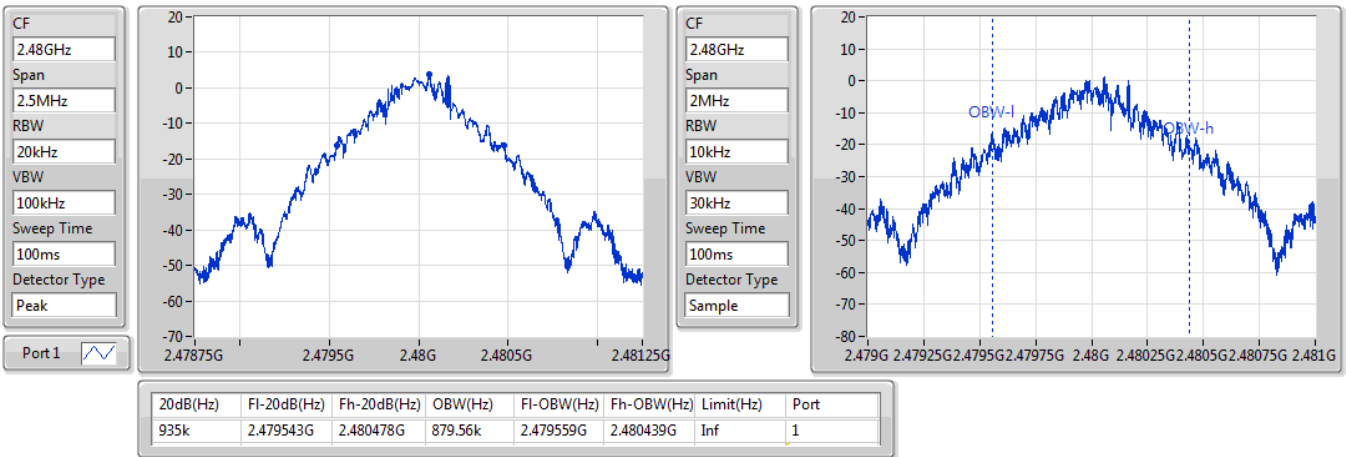
EBW-FS

09/08/2020

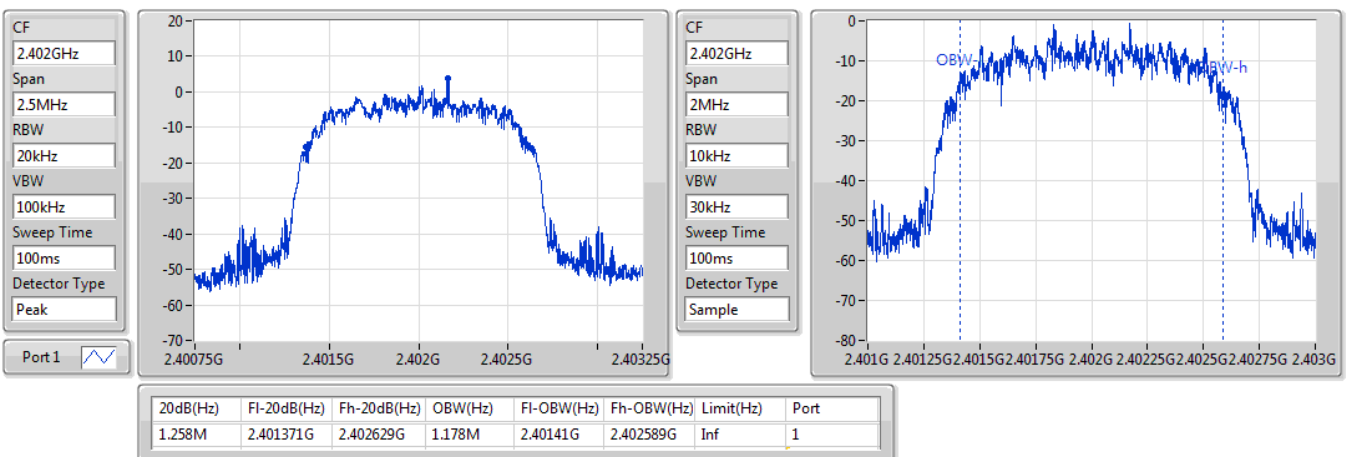


BT-BR(1Mbps)
EBW-FS
2480MHz

09/08/2020

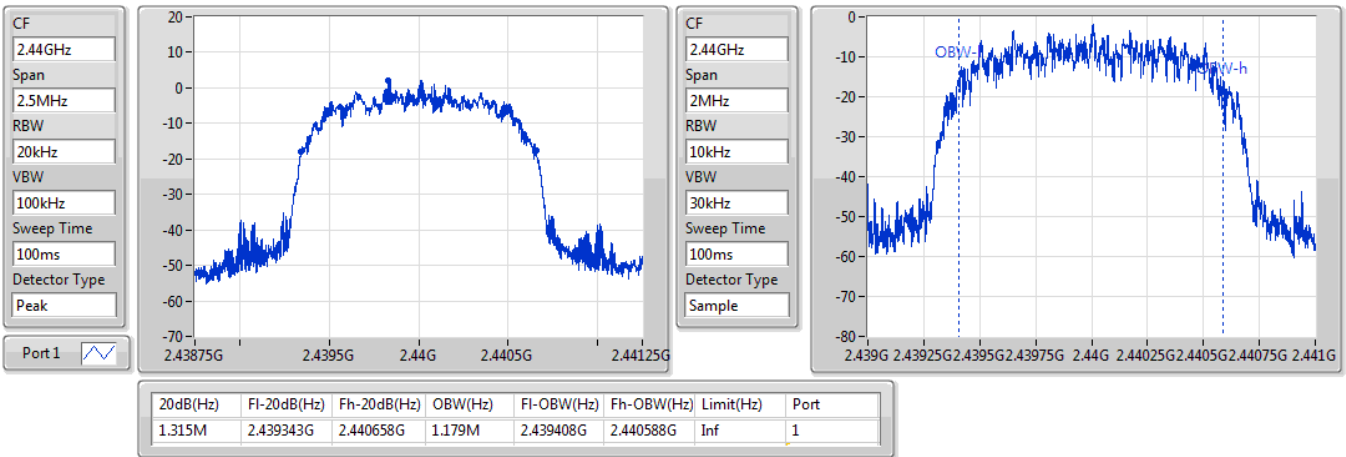

BT-EDR(2Mbps)
EBW-FS
2402MHz

09/08/2020

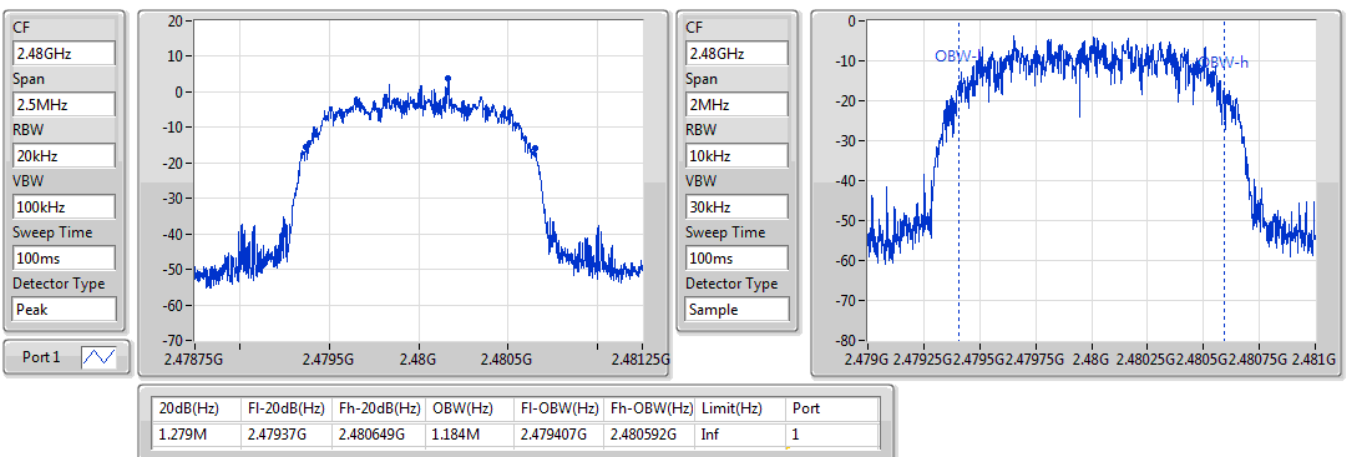


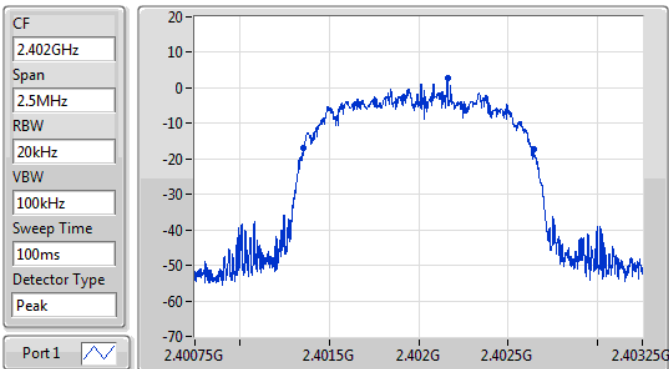
BT-EDR(2Mbps)
EBW-FS
2440MHz

09/08/2020


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

09/08/2020

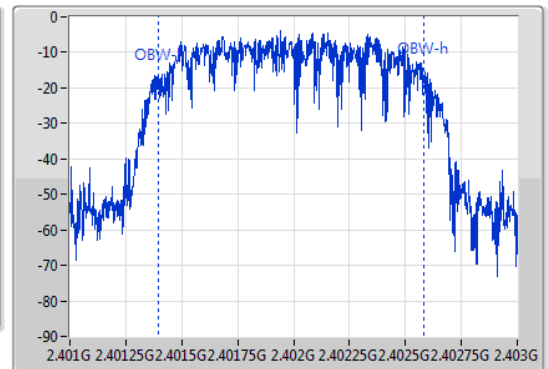
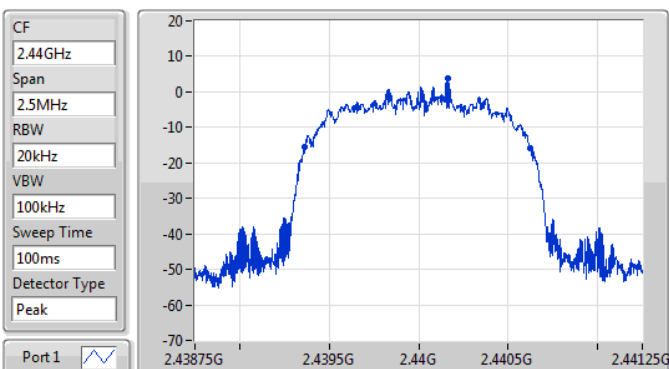


BT-EDR(3Mbps)
2402MHz


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.286M	2.401355G	2.402641G	1.191M	2.401393G	2.402585G	Inf	1

EBW-FS

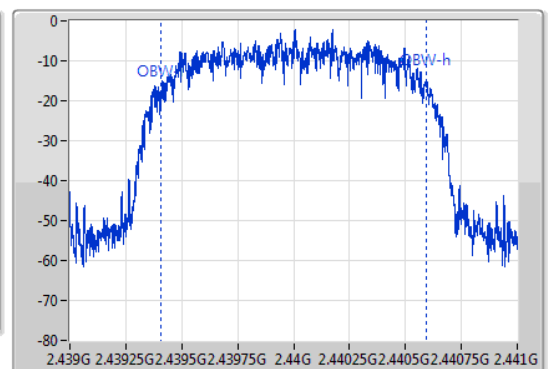
09/08/2020


BT-EDR(3Mbps)
2440MHz


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.261M	2.439361G	2.440623G	1.188M	2.439405G	2.440594G	Inf	1

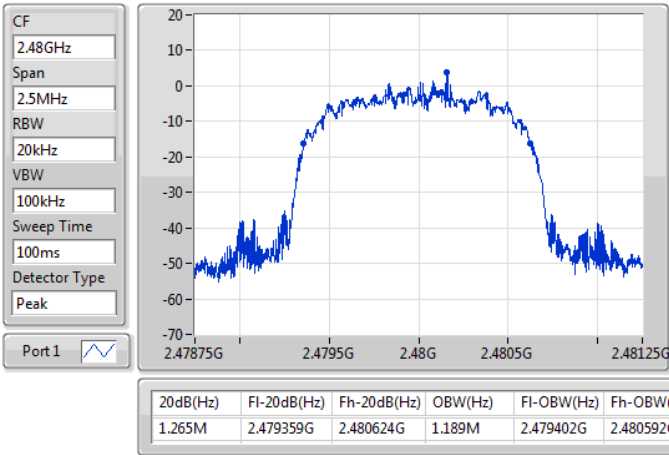
EBW-FS

09/08/2020



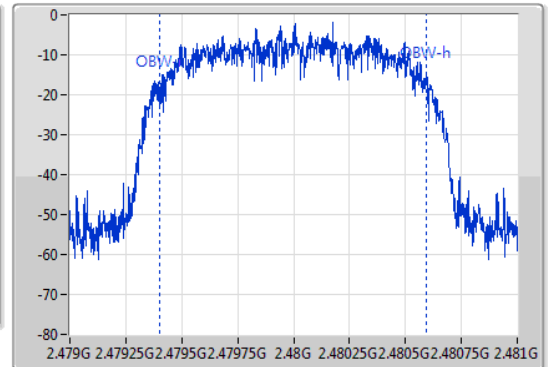
BT-EDR(3Mbps)

2480MHz



EBW-FS

09/08/2020





Summary

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

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.403163G	1.002M	621.045k
2440MHz	Pass	2.440164G	2.441163G	999k	622.71k
2480MHz	Pass	2.479163G	2.480162G	999k	622.71k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402164G	2.403165G	1.0005M	837.828k
2440MHz	Pass	2.440164G	2.441165G	1.0005M	875.79k
2480MHz	Pass	2.479166G	2.480163G	997.5k	851.814k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402161G	2.403162G	1.0005M	856.476k
2440MHz	Pass	2.440163G	2.441162G	999k	839.826k
2480MHz	Pass	2.479163G	2.480162G	999k	842.49k

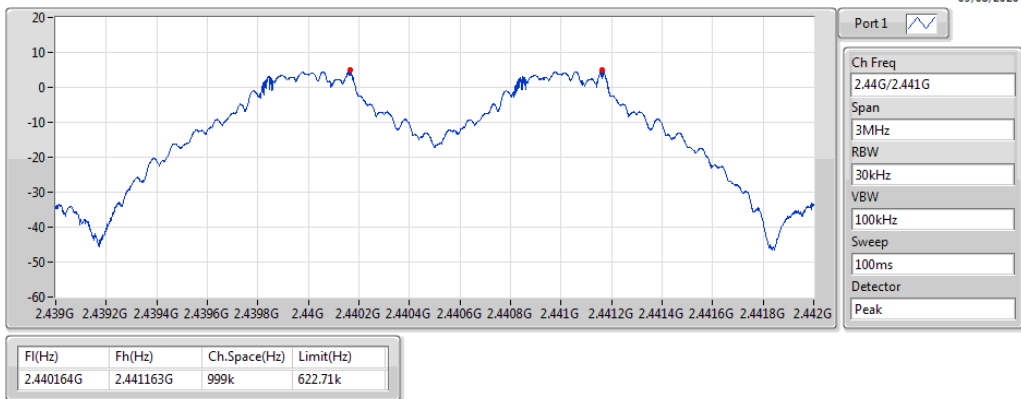
BT-BR(1Mbps)

2.402G/2.403GHz



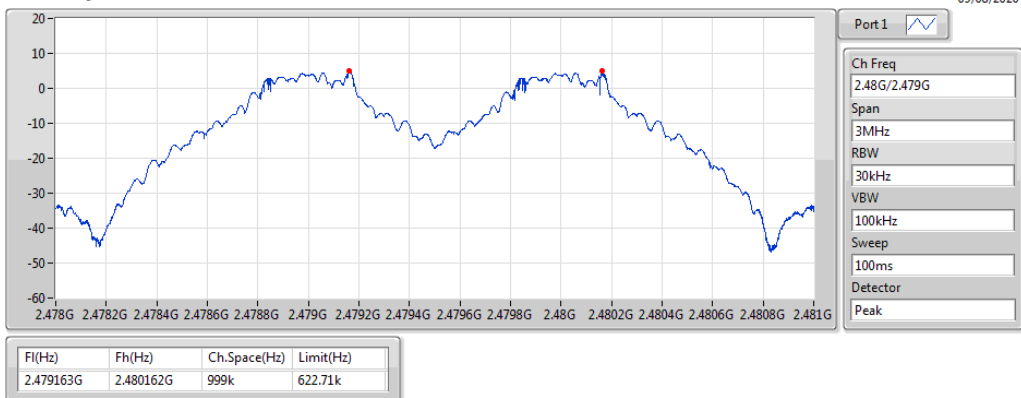
BT-BR(1Mbps)

2.44G/2.441GHz



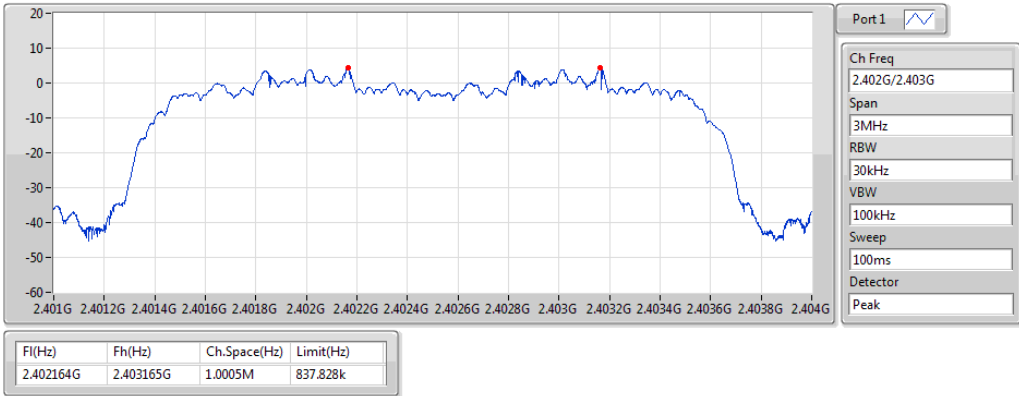
BT-BR(1Mbps)

2.48G/2.479GHz



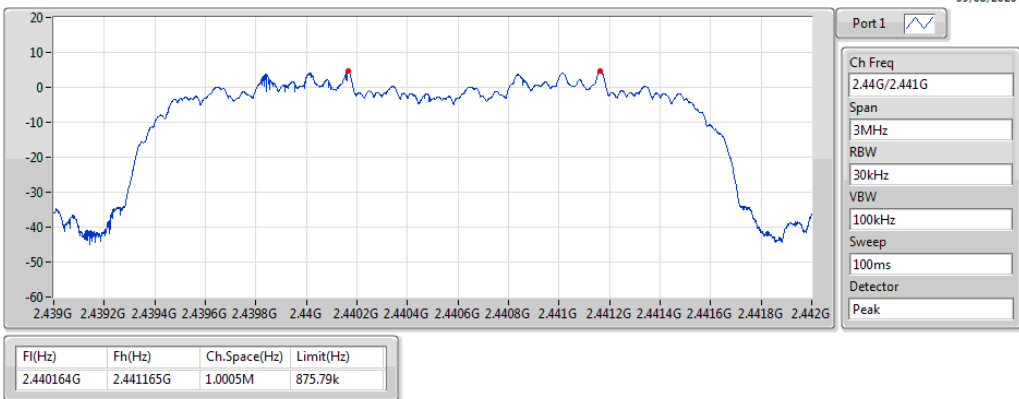
BT-EDR(2Mbps)

2.402G/2.403GHz



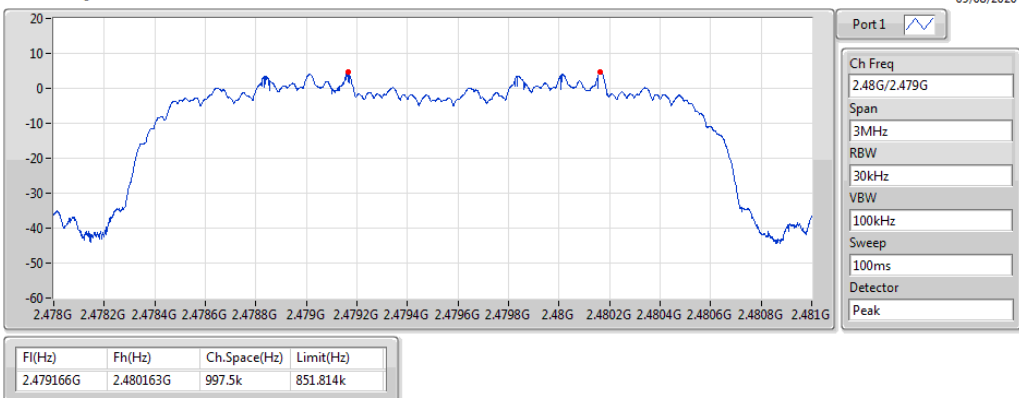
BT-EDR(2Mbps)

2.44G/2.441GHz



BT-EDR(2Mbps)

2.48G/2.479GHz

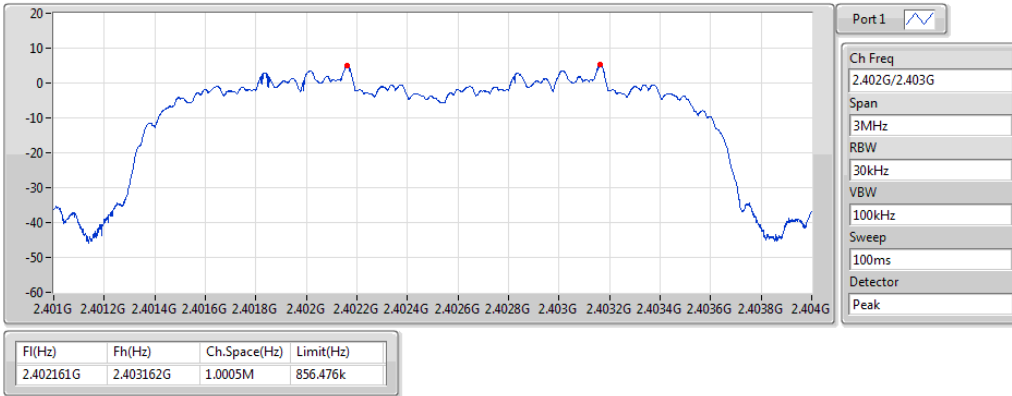


BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation-FS

09/08/2020



BT-EDR(3Mbps)

2.44G/2.441GHz

Channel Separation-FS

09/08/2020



BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation-FS

09/08/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.64	0.00581
BT-EDR(2Mbps)	10.02	0.01005
BT-EDR(3Mbps)	10.47	0.01114

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.25	7.43	21.00
2440MHz	Pass	2.25	7.64	21.00
2480MHz	Pass	2.25	7.53	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.25	9.85	21.00
2440MHz	Pass	2.25	10.02	21.00
2480MHz	Pass	2.25	9.91	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.25	10.30	21.00
2440MHz	Pass	2.25	10.47	21.00
2480MHz	Pass	2.25	10.35	21.00

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



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.53	0.00566
BT-EDR(2Mbps)	7.96	0.00625
BT-EDR(3Mbps)	7.97	0.00627

**Result**

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.25	7.40	21.00
2440MHz	Pass	2.25	7.53	21.00
2480MHz	Pass	2.25	7.41	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.25	7.72	21.00
2440MHz	Pass	2.25	7.96	21.00
2480MHz	Pass	2.25	7.94	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.25	7.78	21.00
2440MHz	Pass	2.25	7.97	21.00
2480MHz	Pass	2.25	7.95	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

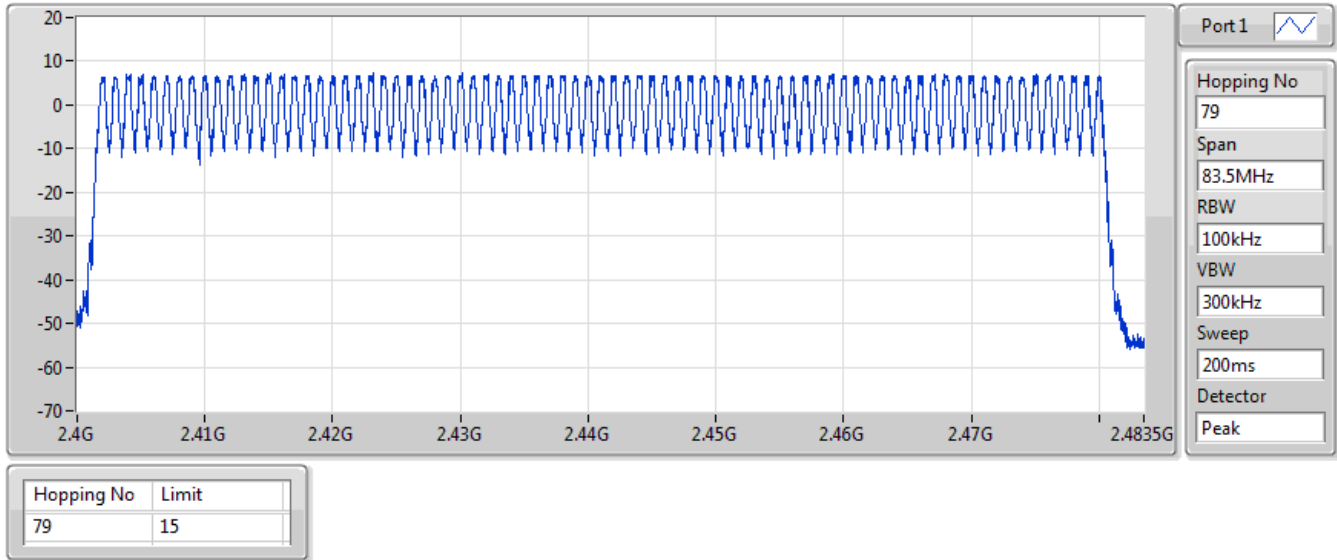
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

BT-BR(1Mbps)

2440MHz

Hopping-FS

09/08/2020

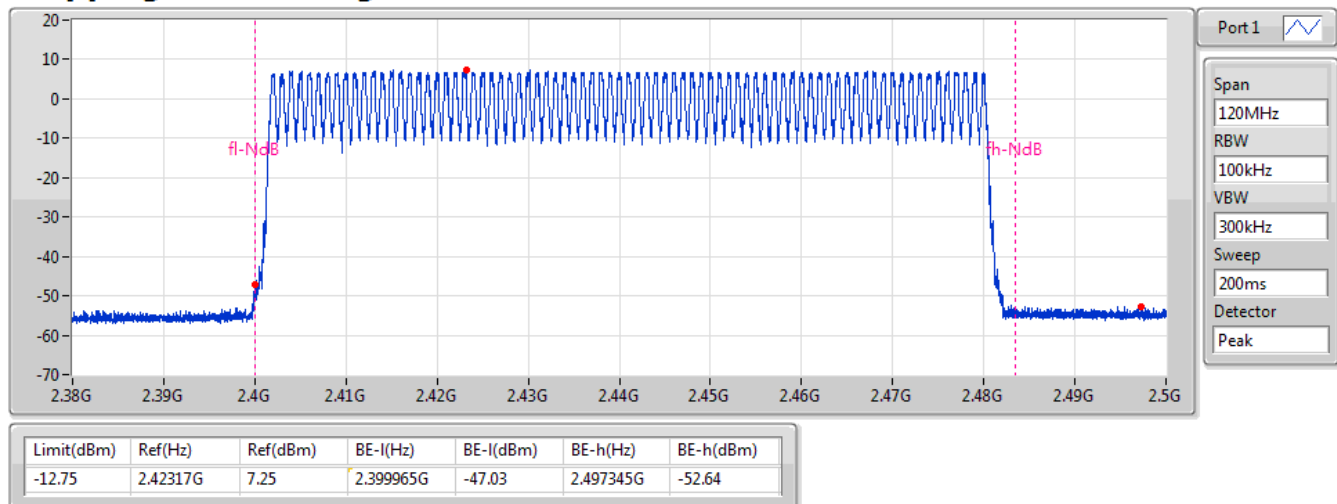


BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

09/08/2020

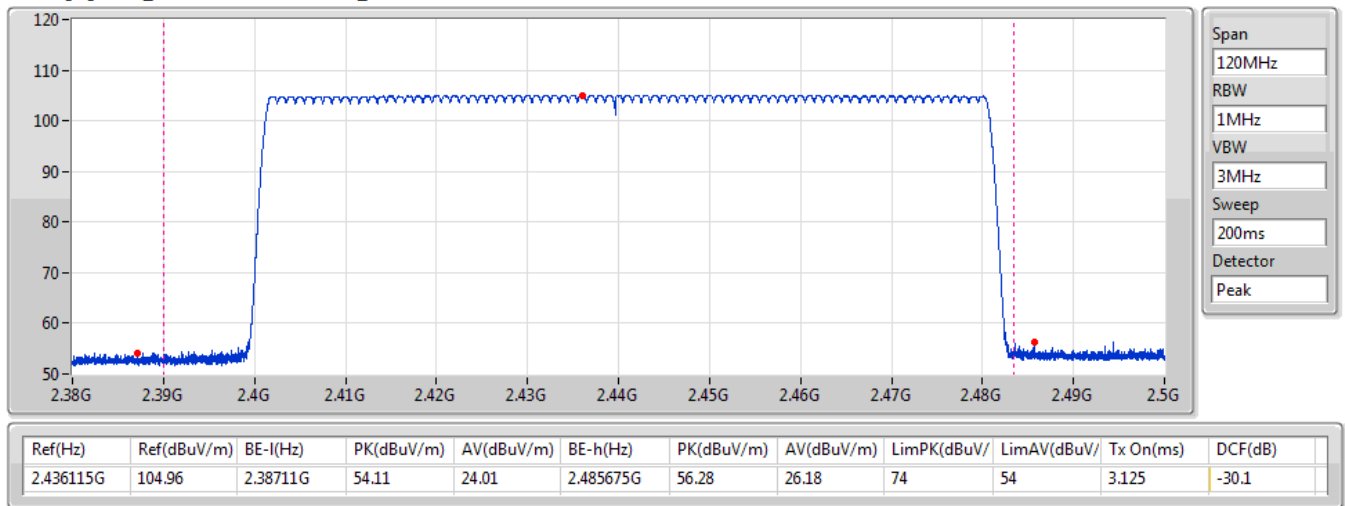


BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

09/08/2020

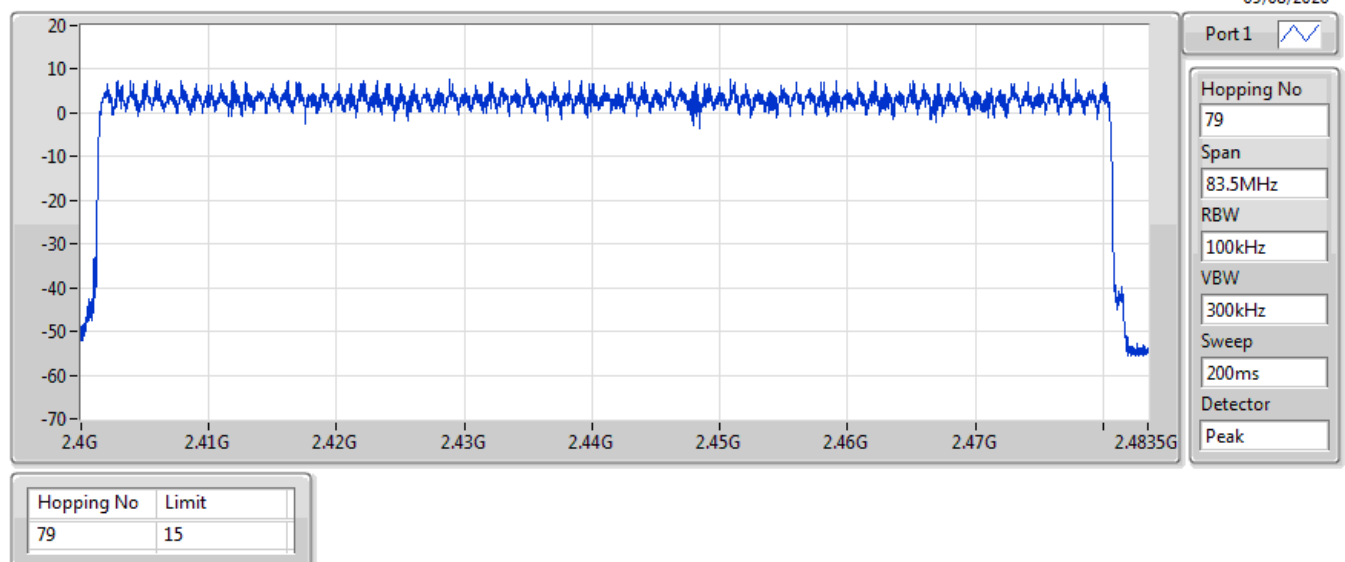


BT-EDR(2Mbps)

2440MHz

Hopping-FS

09/08/2020

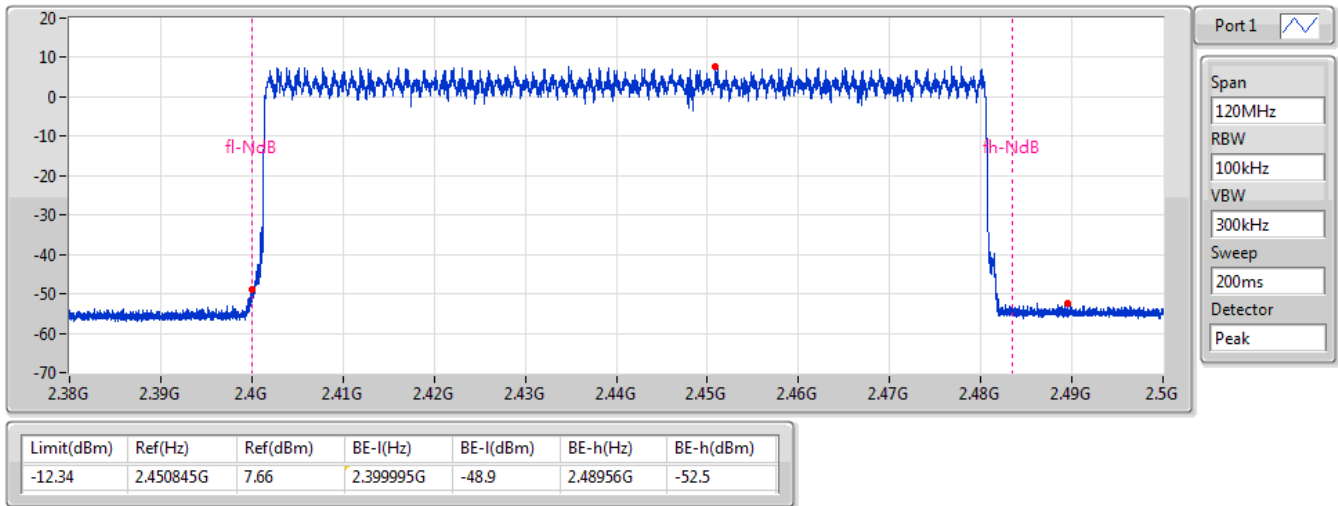


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

09/08/2020

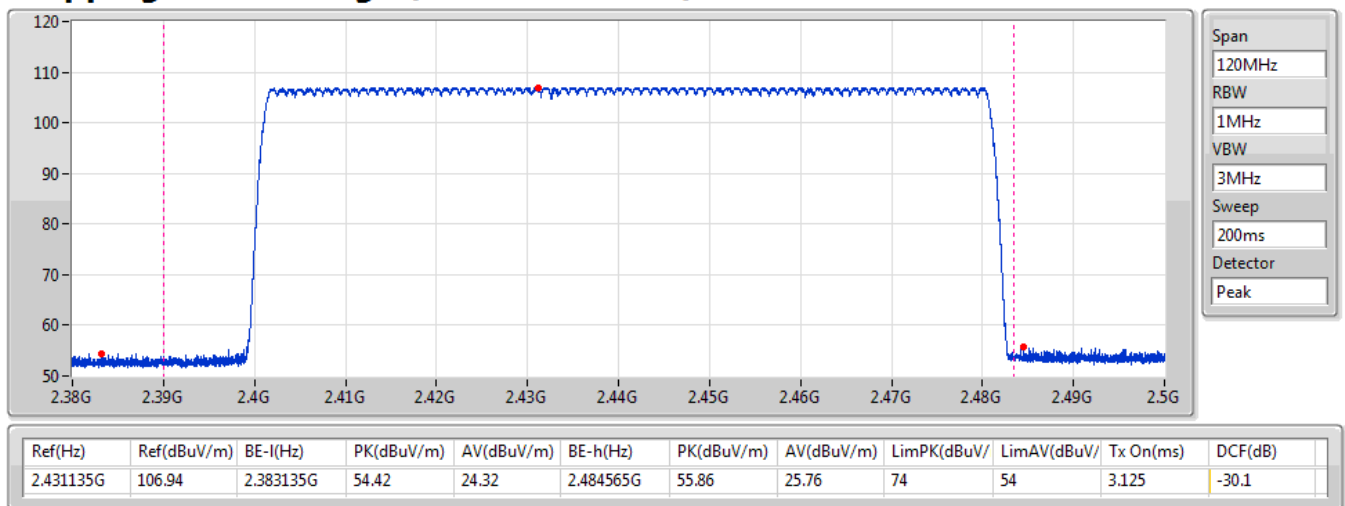


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

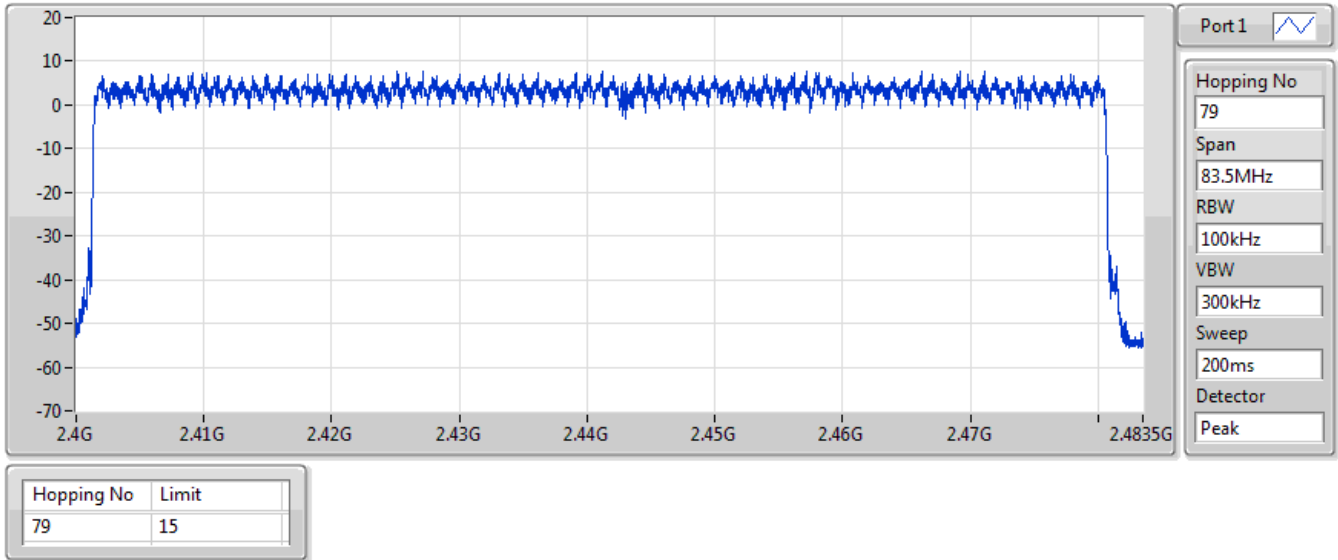
09/08/2020



BT-EDR(3Mbps) 2440MHz

Hopping-FS

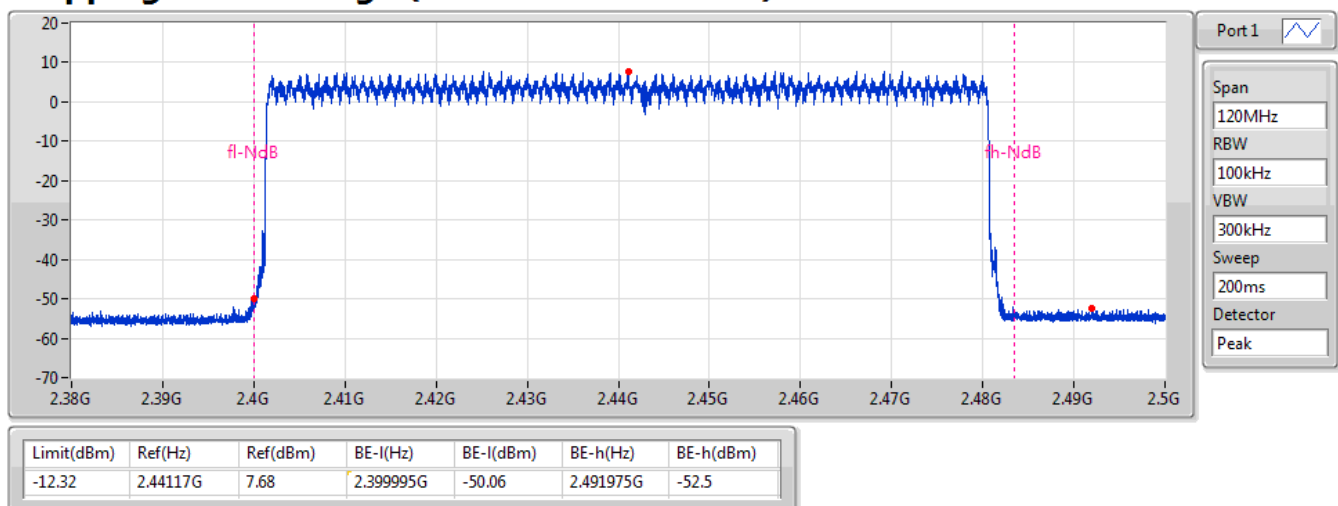
09/08/2020



BT-EDR(3Mbps) 2440MHz

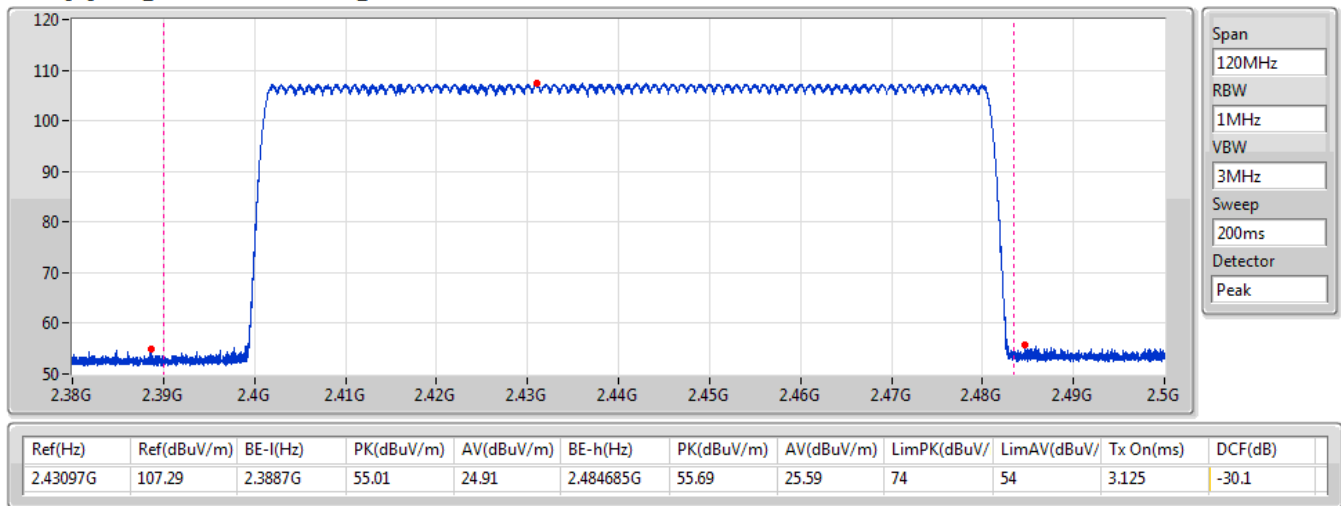
Hopping Ch Bandedge (Non-restricted Band)

09/08/2020



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

09/08/2020





Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	306.9014m_DH5
BT-EDR(2Mbps)	307.30115m_DH5
BT-EDR(3Mbps)	307.4877m_DH5

Result

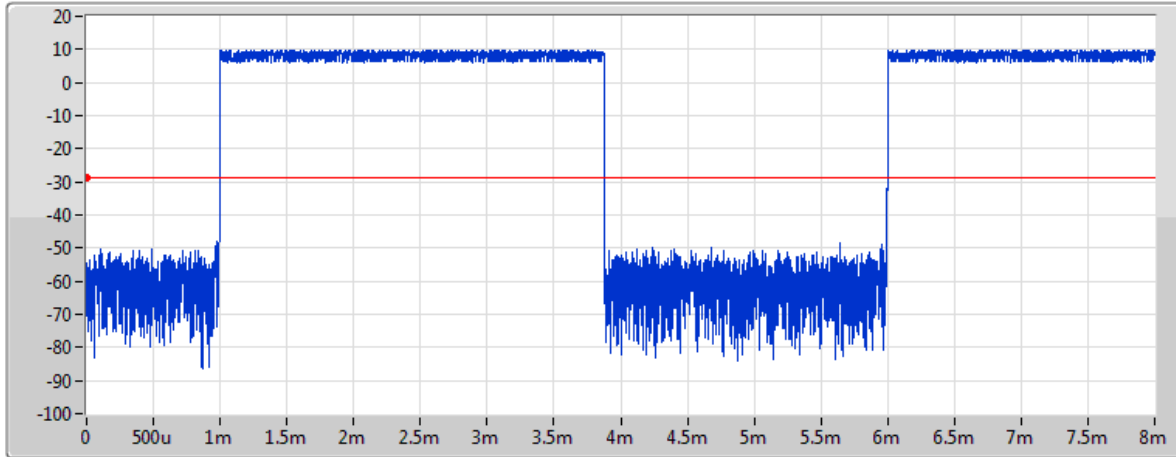
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	306.9014m_DH5	400m	2.879m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.30115m_DH5	400m	2.88275m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.4877m_DH5	400m	2.8845m

BT-BR(1Mbps)

2440MHz

Dwell-FS

09/08/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.879ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	306.9014m_DH5	400m	2.879m

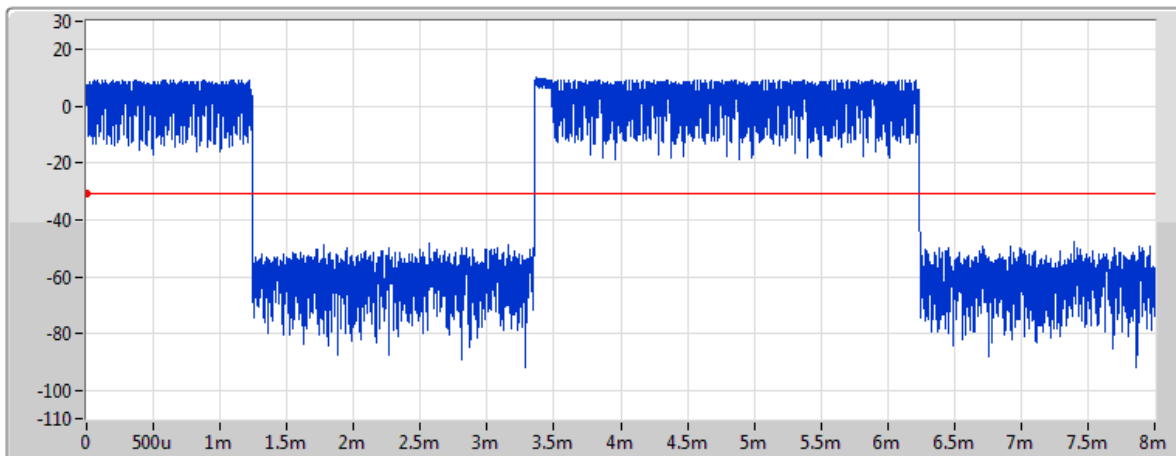
DH5

BT-EDR(2Mbps)

2440MHz

Dwell-FS

09/08/2020



Port 1 

Ch Freq
2.44GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
2.88275ms

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.30115m_DH5	400m	2.88275m

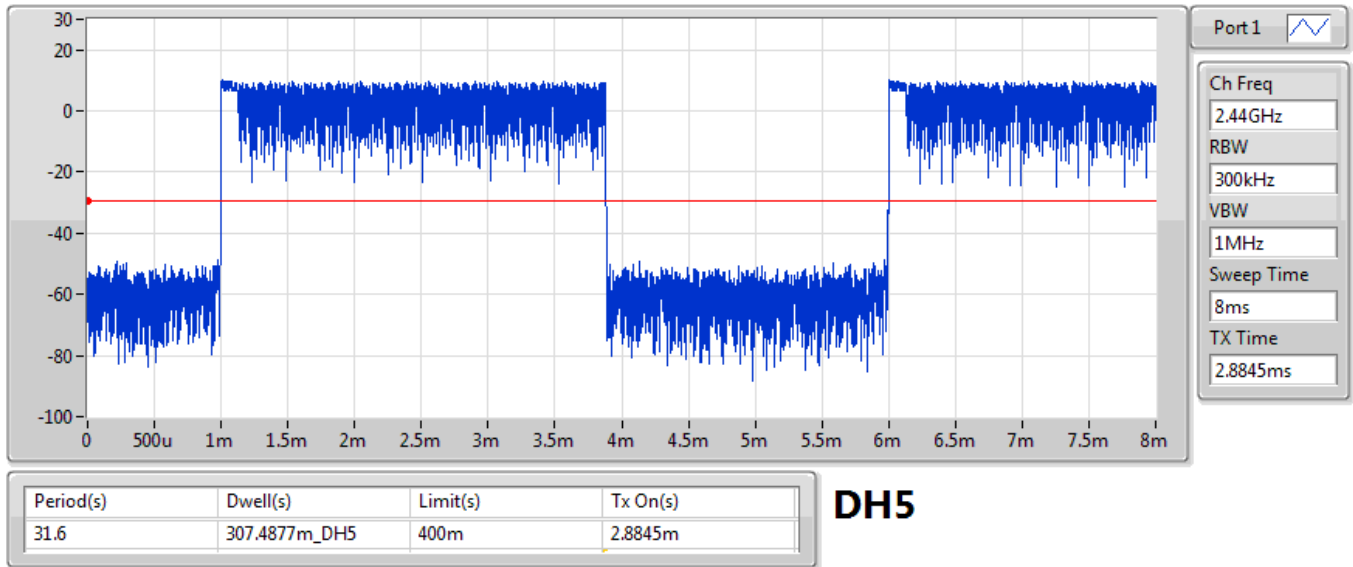
DH5

BT-EDR(3Mbps)

2440MHz

Dwell-FS

09/08/2020



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	2.40305G	6.48	-13.52	1.9523G	-55.49	2.39895G	-52.00	2.4835G	-54.85	2.48443G	-54.06	3.33025G	-33.73	1
BT-EDR(2Mbps)	Pass	2.47895G	5.45	-14.55	2.17496G	-55.37	2.39406G	-54.39	2.4835G	-54.62	2.48509G	-52.62	3.33025G	-33.73	1
BT-EDR(3Mbps)	Pass	2.40313G	7.06	-12.94	2.17085G	-55.19	2.39935G	-52.65	2.4G	-56.05	2.49351G	-54.04	3.33025G	-33.70	1

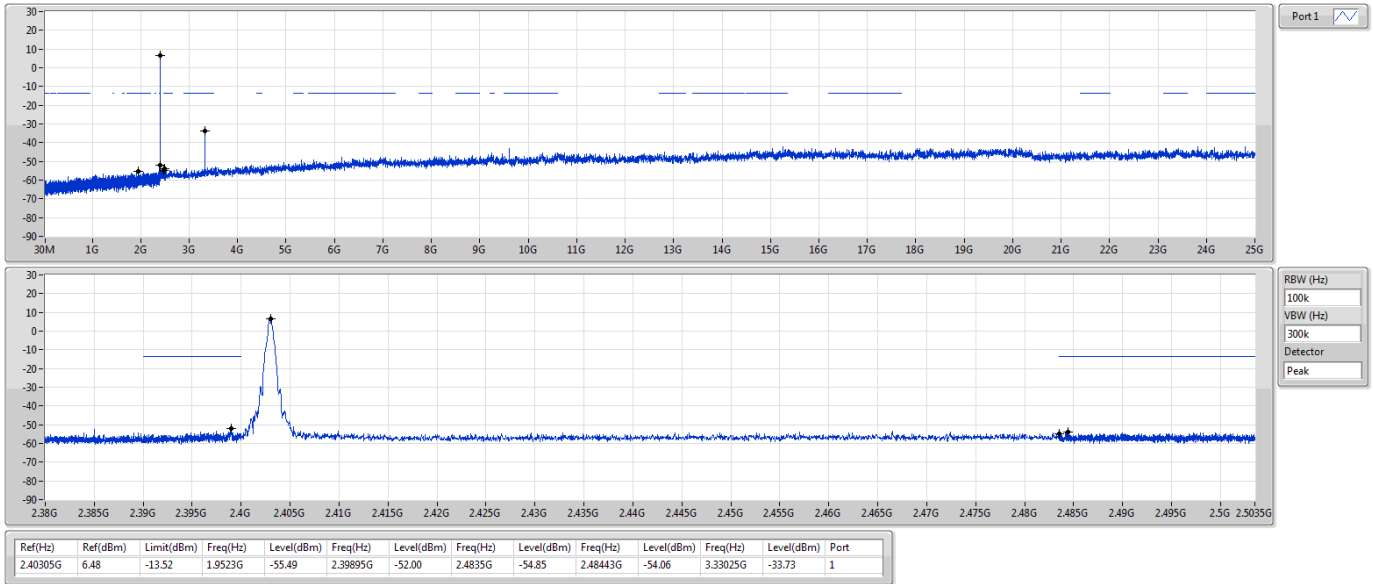
Result

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	2.40305G	6.48	-13.52	1.9523G	-55.49	2.39895G	-52.00	2.4835G	-54.85	2.48443G	-54.06	3.33025G	-33.73	1
2440MHz	Pass	2.44117G	7.26	-12.74	1.78927G	-55.88	2.39094G	-54.52	2.4835G	-57.69	2.50114G	-53.24	3.33025G	-33.60	1
2480MHz	Pass	2.48008G	6.67	-13.33	2.08067G	-55.20	2.39249G	-54.71	2.4835G	-55.85	2.48569G	-53.00	3.33025G	-33.64	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.4028G	5.82	-14.18	2.08831G	-55.45	2.39953G	-53.78	2.4G	-56.10	2.4998G	-53.36	3.33025G	-33.53	1
2440MHz	Pass	2.44117G	7.42	-12.58	1.95935G	-55.29	2.39006G	-54.88	2.4835G	-56.99	2.48508G	-53.61	3.33025G	-33.48	1
2480MHz	Pass	2.47895G	5.45	-14.55	2.17496G	-55.37	2.39406G	-54.39	2.4835G	-54.62	2.48509G	-52.62	3.33025G	-33.73	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40313G	7.06	-12.94	2.17085G	-55.19	2.39935G	-52.65	2.4G	-56.05	2.49351G	-54.04	3.33025G	-33.70	1
2440MHz	Pass	2.441G	6.87	-13.13	1.98403G	-55.60	2.39962G	-53.68	2.4835G	-56.28	2.4872G	-53.44	3.33025G	-33.62	1
2480MHz	Pass	2.47887G	7.32	-12.68	2.15058G	-54.64	2.39456G	-54.84	2.4835G	-55.36	2.48378G	-53.12	3.33025G	-33.61	1

BT-BR(1Mbps)

CSENdB-FS

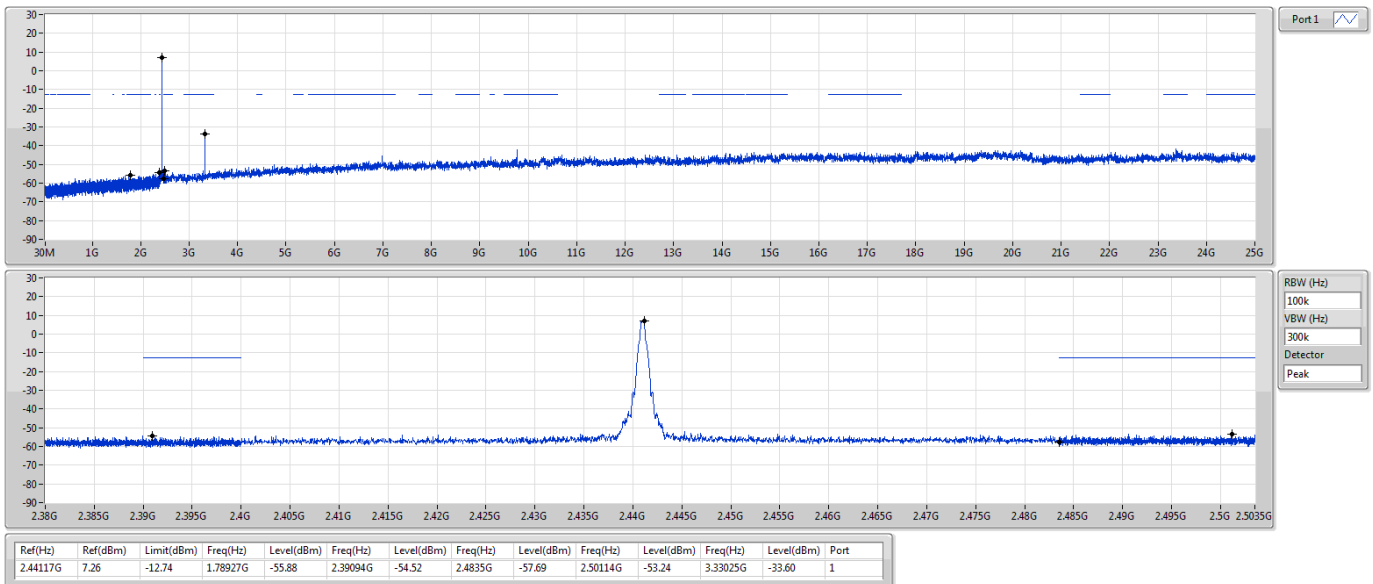
2402MHz



BT-BR(1Mbps)

CSENdB-FS

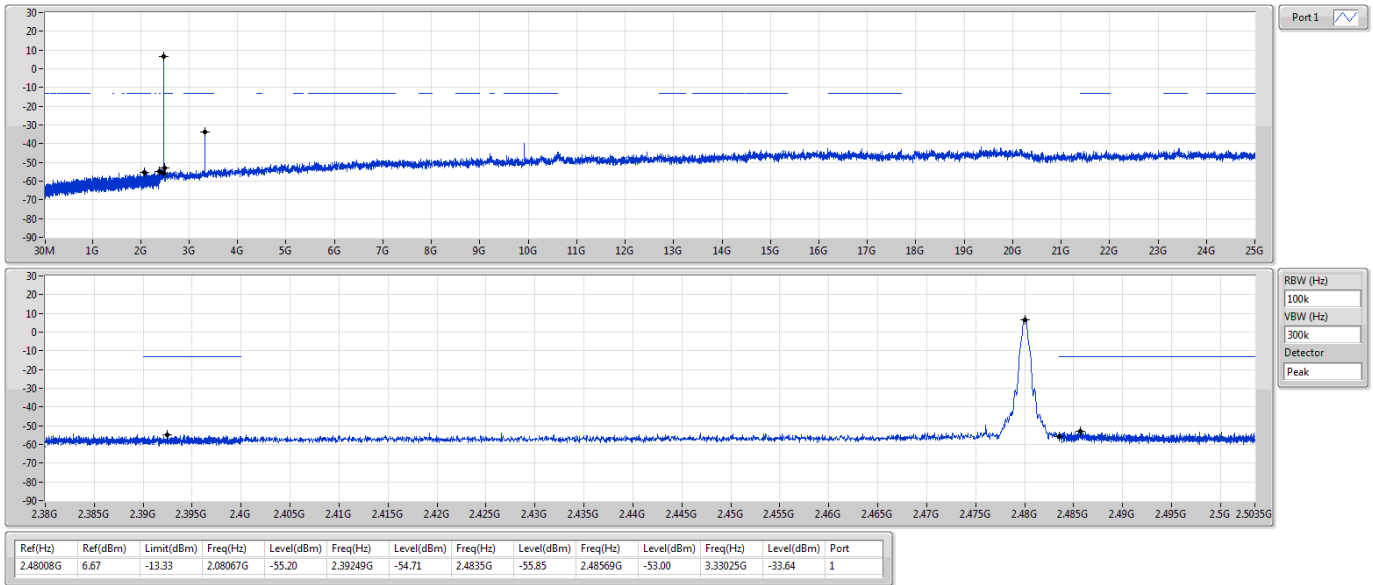
2440MHz



BT-BR(1Mbps)

CSEndB-FS

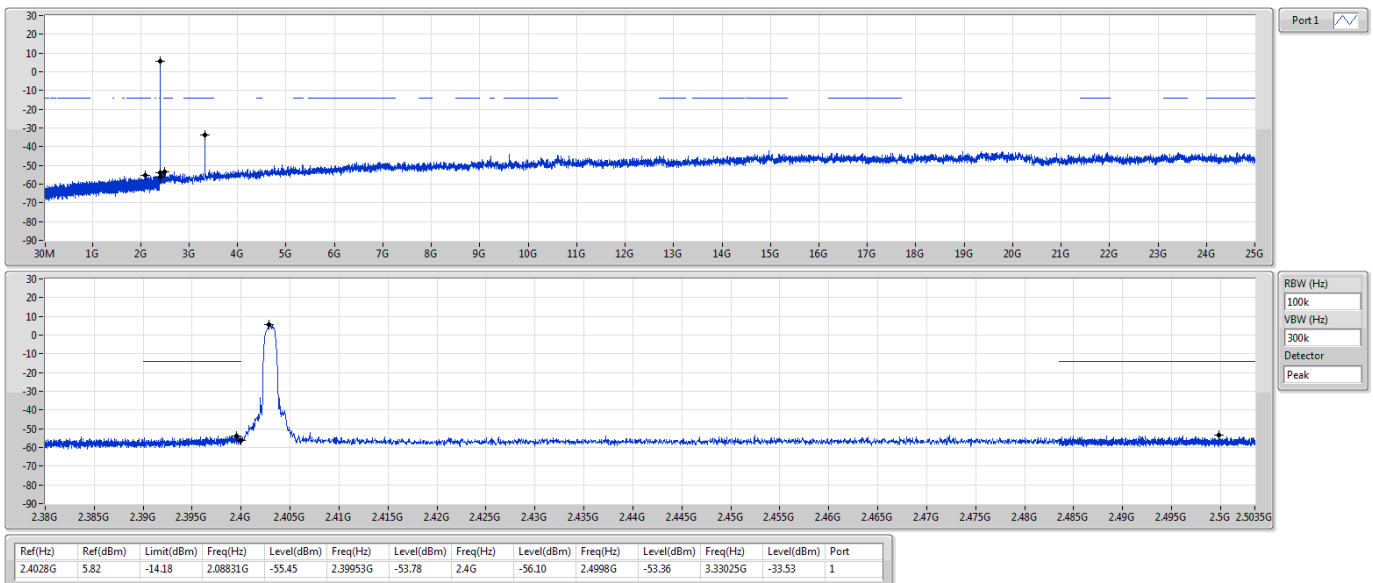
2480MHz



BT-EDR(2Mbps)

CSEndB-FS

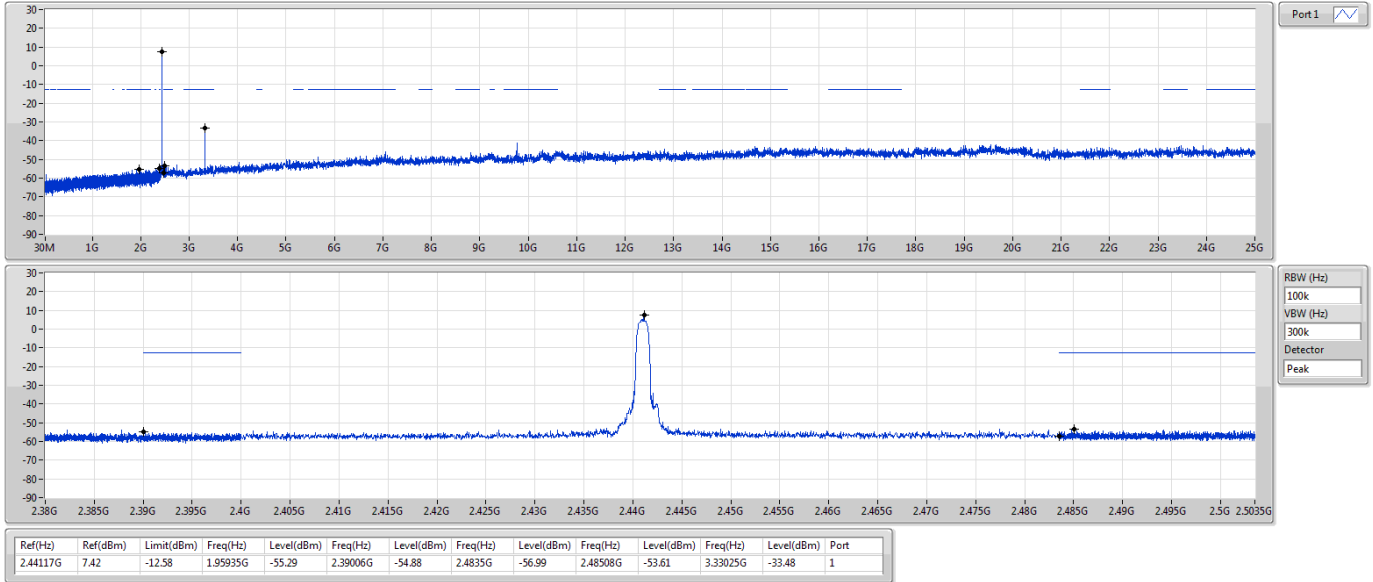
2402MHz



BT-EDR(2Mbps)

CSEndB-FS

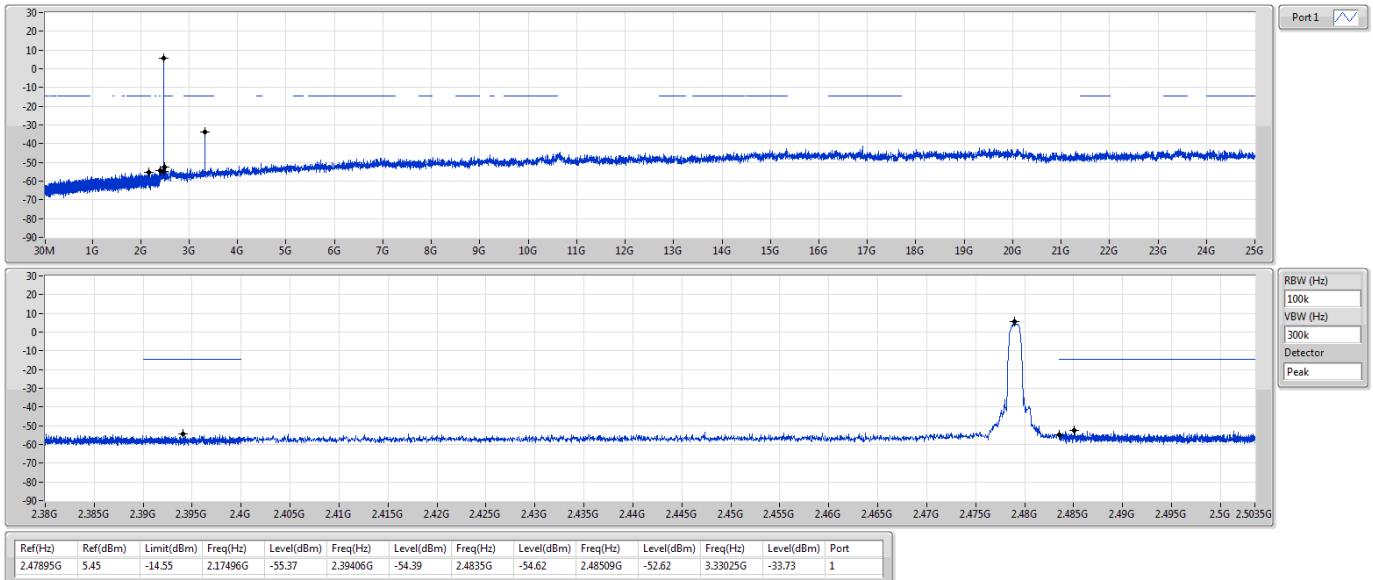
2440MHz



BT-EDR(2Mbps)

CSEndB-FS

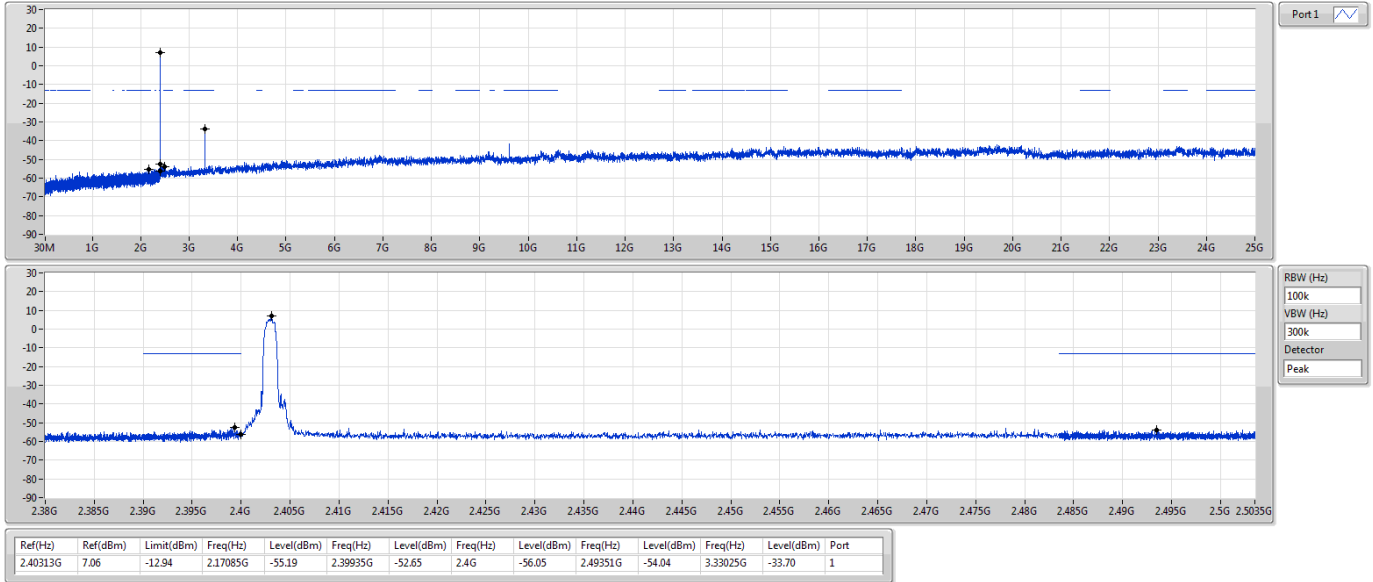
2480MHz



BT-EDR(3Mbps)

CSEndB-FS

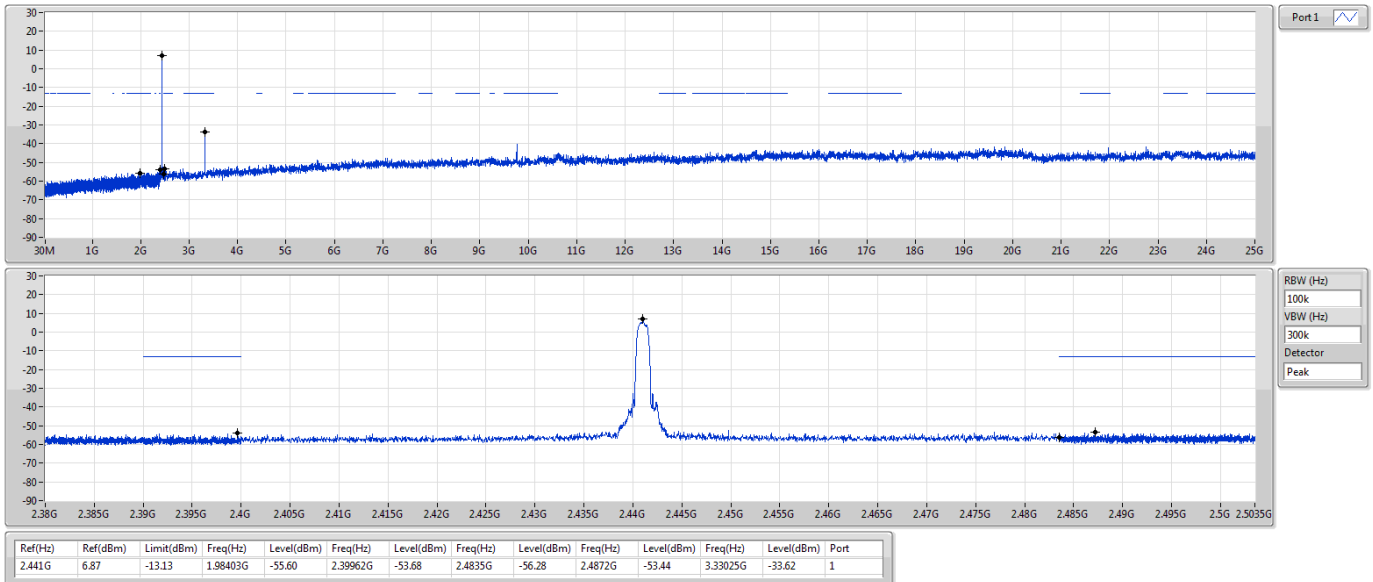
2402MHz



BT-EDR(3Mbps)

CSEndB-FS

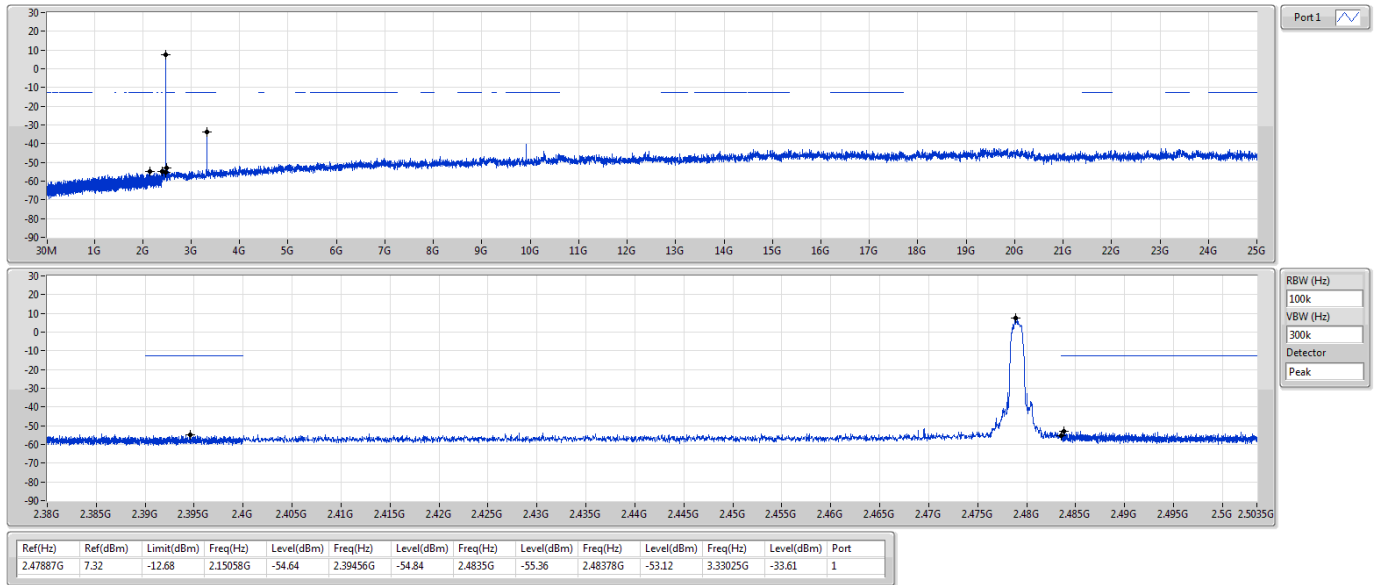
2440MHz



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-BR(1Mbps)	Pass	QP	148.34M	42.97	43.50	-0.53	3	Horizontal	360	2.20	-

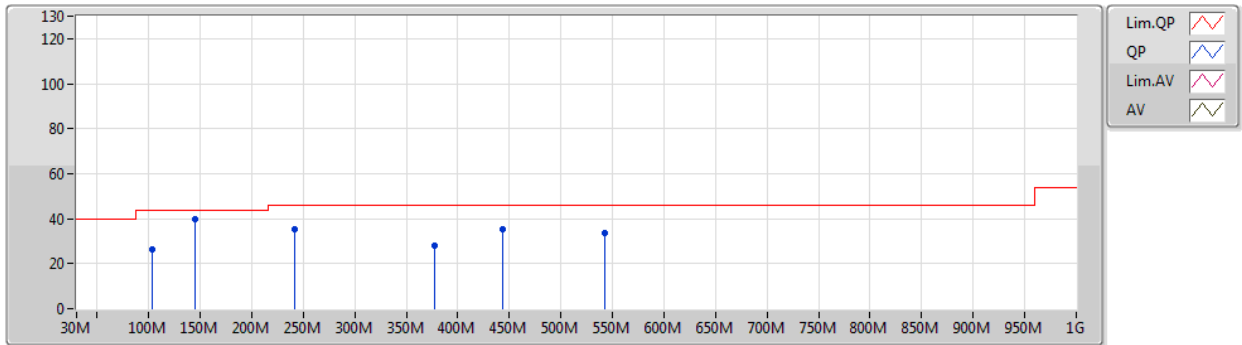
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	103.72M	26.50	43.50	-17.00	3	Vertical	0	1.00	-
2440MHz	Pass	PK	144.46M	39.98	43.50	-3.52	3	Vertical	0	1.00	-
2440MHz	Pass	PK	241.46M	35.34	46.00	-10.66	3	Vertical	0	1.00	-
2440MHz	Pass	PK	377.26M	27.92	46.00	-18.08	3	Vertical	0	1.00	-
2440MHz	Pass	PK	443.22M	35.17	46.00	-10.83	3	Vertical	0	1.00	-
2440MHz	Pass	PK	542.16M	33.66	46.00	-12.34	3	Vertical	0	1.00	-
2440MHz	Pass	PK	249.22M	40.82	46.00	-5.18	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	313.24M	35.12	46.00	-10.88	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	441.28M	37.79	46.00	-8.21	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	478.14M	35.27	46.00	-10.73	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	600.36M	32.06	46.00	-13.94	3	Horizontal	360	1.00	-
2440MHz	Pass	QP	148.34M	42.97	43.50	-0.53	3	Horizontal	360	2.20	-

BT-BR(1Mbps)

2440MHz_Test Fixture

02/09/2020

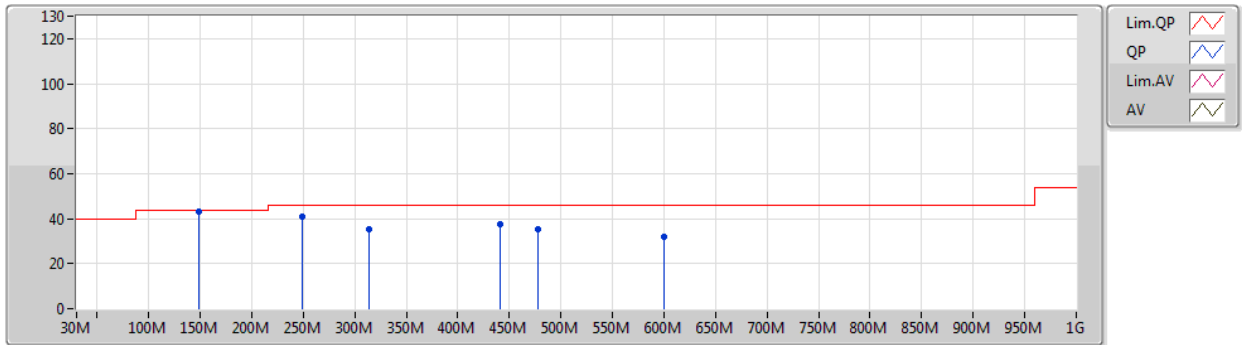


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	103.72M	26.50	43.50	-17.00	-9.35	3	Vertical	0	1.00	-	35.85	16.38	1.64	27.37
PK	144.46M	39.98	43.50	-3.52	-9.56	3	Vertical	0	1.00	-	49.54	15.73	1.92	27.21
PK	241.46M	35.34	46.00	-10.66	-7.63	3	Vertical	0	1.00	-	42.97	16.57	2.55	26.75
PK	377.26M	27.92	46.00	-18.08	-3.77	3	Vertical	0	1.00	-	31.69	20.13	3.21	27.11
PK	443.22M	35.17	46.00	-10.83	-2.35	3	Vertical	0	1.00	-	37.52	21.89	3.39	27.63
PK	542.16M	33.66	46.00	-12.34	-0.21	3	Vertical	0	1.00	-	33.87	23.90	3.87	27.98

BT-BR(1Mbps)

2440MHz_Test Fixture

02/09/2020



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	249.22M	40.82	46.00	-5.18	-6.58	3	Horizontal	360	1.00	-	47.40	17.53	2.60	26.71
PK	313.24M	35.12	46.00	-10.88	-5.11	3	Horizontal	360	1.00	-	40.23	18.67	2.95	26.73
PK	441.28M	37.79	46.00	-8.21	-2.34	3	Horizontal	360	1.00	-	40.13	21.89	3.38	27.61
PK	478.14M	35.27	46.00	-10.73	-1.71	3	Horizontal	360	1.00	-	36.98	22.47	3.57	27.75
PK	600.36M	32.06	46.00	-13.94	-0.37	3	Horizontal	360	1.00	-	32.43	23.54	4.10	28.01
QP	148.34M	42.97	43.50	-0.53	-9.77	3	Horizontal	360	2.20	-	52.74	15.48	1.94	27.19

**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	2.492G	60.47	74.00	-13.53	3	Horizontal	289	1.67	-
BT-EDR(3Mbps)	Pass	PK	2.4835G	61.70	74.00	-12.30	3	Horizontal	286	2.36	-

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	2.3538G	36.34	54.00	-17.66	3	Vertical	145	1.53	-
2402MHz	Pass	AV	2.4022G	72.71	Inf	-Inf	3	Vertical	145	1.53	-
2402MHz	Pass	PK	2.3538G	58.84	74.00	-15.16	3	Vertical	145	1.53	-
2402MHz	Pass	PK	2.4022G	95.21	Inf	-Inf	3	Vertical	145	1.53	-
2402MHz	Pass	AV	2.3784G	37.44	54.00	-16.56	3	Horizontal	296	1.51	-
2402MHz	Pass	AV	2.4022G	84.31	Inf	-Inf	3	Horizontal	296	1.51	-
2402MHz	Pass	PK	2.3784G	59.94	74.00	-14.06	3	Horizontal	296	1.51	-
2402MHz	Pass	PK	2.4022G	106.81	Inf	-Inf	3	Horizontal	296	1.51	-
2402MHz	Pass	AV	4.80444G	26.98	54.00	-27.02	3	Vertical	180	2.80	-
2402MHz	Pass	PK	4.80444G	49.48	74.00	-24.52	3	Vertical	180	2.80	-
2402MHz	Pass	AV	4.80383G	27.83	54.00	-26.17	3	Horizontal	349	1.93	-
2402MHz	Pass	PK	4.80383G	50.33	74.00	-23.67	3	Horizontal	349	1.93	-
2440MHz	Pass	AV	2.3428G	37.14	54.00	-16.86	3	Vertical	213	1.25	-
2440MHz	Pass	AV	2.44G	79.14	Inf	-Inf	3	Vertical	213	1.25	-
2440MHz	Pass	AV	2.4904G	37.53	54.00	-16.47	3	Vertical	213	1.25	-
2440MHz	Pass	PK	2.3428G	59.64	74.00	-14.36	3	Vertical	213	1.25	-
2440MHz	Pass	PK	2.44G	101.64	Inf	-Inf	3	Vertical	213	1.25	-
2440MHz	Pass	PK	2.4904G	60.03	74.00	-13.97	3	Vertical	213	1.25	-
2440MHz	Pass	AV	2.3772G	36.65	54.00	-17.35	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	2.44G	87.31	Inf	-Inf	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	2.492G	37.97	54.00	-16.03	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.3772G	59.15	74.00	-14.85	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.44G	109.81	Inf	-Inf	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.492G	60.47	74.00	-13.53	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	4.88002G	25.42	54.00	-28.58	3	Vertical	264	1.08	-
2440MHz	Pass	PK	4.88002G	47.92	74.00	-26.08	3	Vertical	264	1.08	-
2440MHz	Pass	AV	4.88029G	26.04	54.00	-27.96	3	Horizontal	25	1.31	-
2440MHz	Pass	PK	4.88029G	48.54	74.00	-25.46	3	Horizontal	25	1.31	-
2480MHz	Pass	AV	2.48G	79.45	Inf	-Inf	3	Vertical	100	1.27	-
2480MHz	Pass	AV	2.4852G	37.47	54.00	-16.53	3	Vertical	100	1.27	-
2480MHz	Pass	PK	2.48G	101.95	Inf	-Inf	3	Vertical	100	1.27	-
2480MHz	Pass	PK	2.4852G	59.97	74.00	-14.03	3	Vertical	100	1.27	-
2480MHz	Pass	AV	2.4802G	68.06	Inf	-Inf	3	Horizontal	328	1.85	-
2480MHz	Pass	AV	2.4872G	37.83	54.00	-16.17	3	Horizontal	328	1.85	-
2480MHz	Pass	PK	2.4802G	106.48	Inf	-Inf	3	Horizontal	328	1.85	-
2480MHz	Pass	PK	2.4872G	60.33	74.00	-13.67	3	Horizontal	328	1.85	-
2480MHz	Pass	AV	4.95991G	25.13	54.00	-28.87	3	Vertical	263	1.05	-
2480MHz	Pass	PK	4.95991G	47.63	74.00	-26.37	3	Vertical	263	1.05	-
2480MHz	Pass	AV	4.9599G	24.05	54.00	-29.95	3	Horizontal	0	1.50	-
2480MHz	Pass	PK	4.9599G	46.55	74.00	-27.45	3	Horizontal	0	1.50	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3846G	36.81	54.00	-17.19	3	Vertical	243	2.76	-
2402MHz	Pass	AV	2.402G	79.05	Inf	-Inf	3	Vertical	243	2.76	-
2402MHz	Pass	PK	2.3846G	59.31	74.00	-14.69	3	Vertical	243	2.76	-
2402MHz	Pass	PK	2.402G	101.55	Inf	-Inf	3	Vertical	243	2.76	-
2402MHz	Pass	AV	2.3704G	36.78	54.00	-17.22	3	Horizontal	295	1.51	-
2402MHz	Pass	AV	2.402G	86.10	Inf	-Inf	3	Horizontal	295	1.51	-

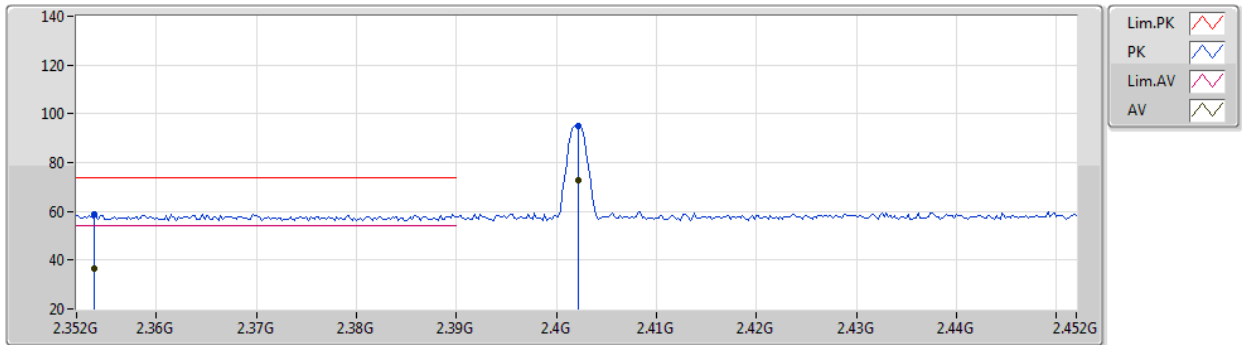


Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3704G	59.28	74.00	-14.72	3	Horizontal	295	1.51	-
2402MHz	Pass	PK	2.402G	108.60	Inf	-Inf	3	Horizontal	295	1.51	-
2402MHz	Pass	AV	4.80406G	26.48	54.00	-27.52	3	Vertical	180	2.81	-
2402MHz	Pass	PK	4.80406G	48.98	74.00	-25.02	3	Vertical	180	2.81	-
2402MHz	Pass	AV	4.80384G	28.03	54.00	-25.97	3	Horizontal	350	1.72	-
2402MHz	Pass	PK	4.80384G	50.53	74.00	-23.47	3	Horizontal	350	1.72	-
2440MHz	Pass	AV	2.3824G	36.43	54.00	-17.57	3	Vertical	212	3.00	-
2440MHz	Pass	AV	2.44G	80.50	Inf	-Inf	3	Vertical	212	3.00	-
2440MHz	Pass	AV	2.4844G	36.92	54.00	-17.08	3	Vertical	212	3.00	-
2440MHz	Pass	PK	2.3824G	58.93	74.00	-15.07	3	Vertical	212	3.00	-
2440MHz	Pass	PK	2.44G	103.00	Inf	-Inf	3	Vertical	212	3.00	-
2440MHz	Pass	PK	2.4844G	59.42	74.00	-14.58	3	Vertical	212	3.00	-
2440MHz	Pass	AV	2.364G	37.05	54.00	-16.95	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	2.44G	88.44	Inf	-Inf	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	2.4932G	36.26	54.00	-17.74	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.364G	59.55	74.00	-14.45	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.44G	110.94	Inf	-Inf	3	Horizontal	289	1.67	-
2440MHz	Pass	PK	2.4932G	58.76	74.00	-15.24	3	Horizontal	289	1.67	-
2440MHz	Pass	AV	4.87973G	24.46	54.00	-29.54	3	Vertical	263	1.15	-
2440MHz	Pass	PK	4.87973G	46.96	74.00	-27.04	3	Vertical	263	1.15	-
2440MHz	Pass	AV	4.87932G	26.04	54.00	-27.96	3	Horizontal	26	1.34	-
2440MHz	Pass	PK	4.87932G	48.54	74.00	-25.46	3	Horizontal	26	1.34	-
2480MHz	Pass	AV	2.48G	80.48	Inf	-Inf	3	Vertical	100	1.27	-
2480MHz	Pass	AV	2.4932G	22.20	54.00	-31.80	3	Vertical	100	1.27	-
2480MHz	Pass	PK	2.48G	102.98	Inf	-Inf	3	Vertical	100	1.27	-
2480MHz	Pass	PK	2.4932G	60.60	74.00	-13.40	3	Vertical	100	1.27	-
2480MHz	Pass	AV	2.48G	89.00	Inf	-Inf	3	Horizontal	286	2.36	-
2480MHz	Pass	AV	2.4835G	39.20	54.00	-14.80	3	Horizontal	286	2.36	-
2480MHz	Pass	PK	2.48G	111.50	Inf	-Inf	3	Horizontal	286	2.36	-
2480MHz	Pass	PK	2.4835G	61.70	74.00	-12.30	3	Horizontal	286	2.36	-
2480MHz	Pass	AV	4.95981G	24.64	54.00	-29.36	3	Vertical	65	1.34	-
2480MHz	Pass	PK	4.95981G	47.14	74.00	-26.86	3	Vertical	65	1.34	-
2480MHz	Pass	AV	4.96001G	24.24	54.00	-29.76	3	Horizontal	0	1.50	-
2480MHz	Pass	PK	4.96001G	46.74	74.00	-27.26	3	Horizontal	0	1.50	-

BT-BR(1Mbps)

2402MHz_TX

07/08/2020

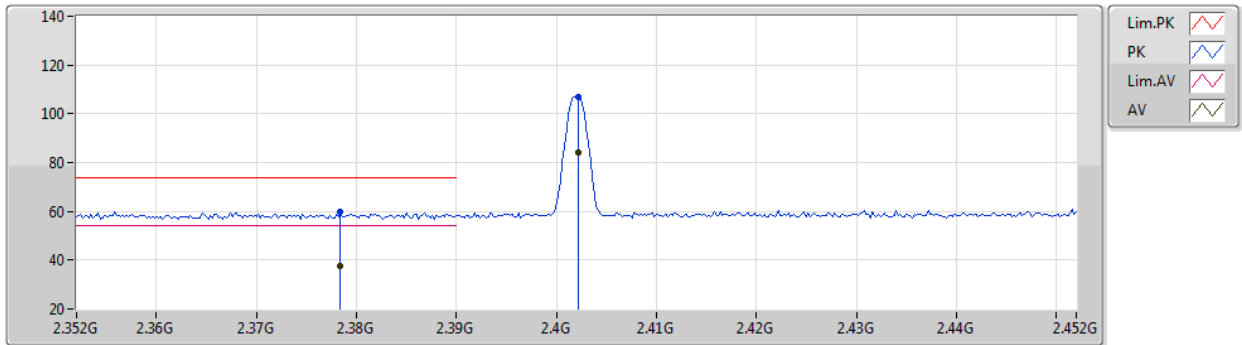


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3538G	36.34	54.00	-17.66	31.94	3	Vertical	145	1.53	-	4.40	27.69	4.25	-
AV	2.4022G	72.71	Inf	-Inf	31.90	3	Vertical	145	1.53	-	40.81	27.60	4.30	-
PK	2.3538G	58.84	74.00	-15.16	31.94	3	Vertical	145	1.53	-	26.90	27.69	4.25	-
PK	2.4022G	95.21	Inf	-Inf	31.90	3	Vertical	145	1.53	-	63.31	27.60	4.30	-

BT-BR(1Mbps)

2402MHz_TX

07/08/2020

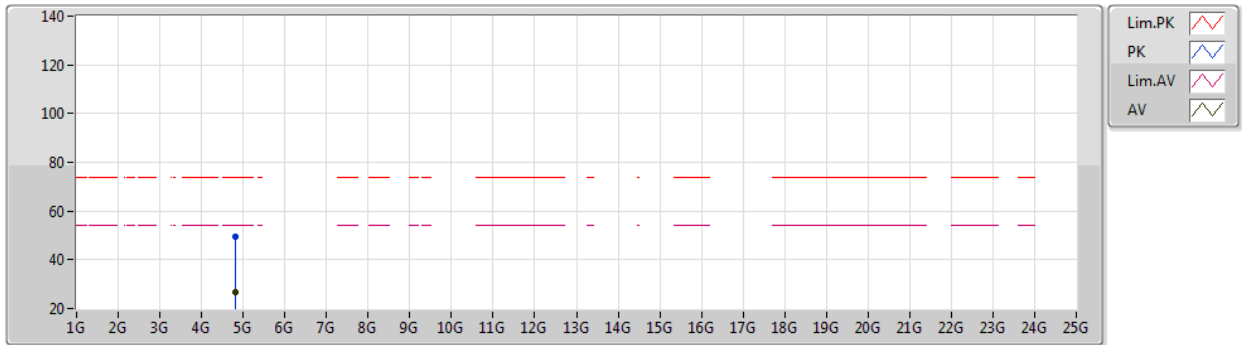


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3784G	37.44	54.00	-16.56	31.92	3	Horizontal	296	1.51	-	5.52	27.64	4.28	-
AV	2.4022G	84.31	Inf	-Inf	31.90	3	Horizontal	296	1.51	-	52.41	27.60	4.30	-
PK	2.3784G	59.94	74.00	-14.06	31.92	3	Horizontal	296	1.51	-	28.02	27.64	4.28	-
PK	2.4022G	106.81	Inf	-Inf	31.90	3	Horizontal	296	1.51	-	74.91	27.60	4.30	-

BT-BR(1Mbps)

2402MHz_TX

07/08/2020

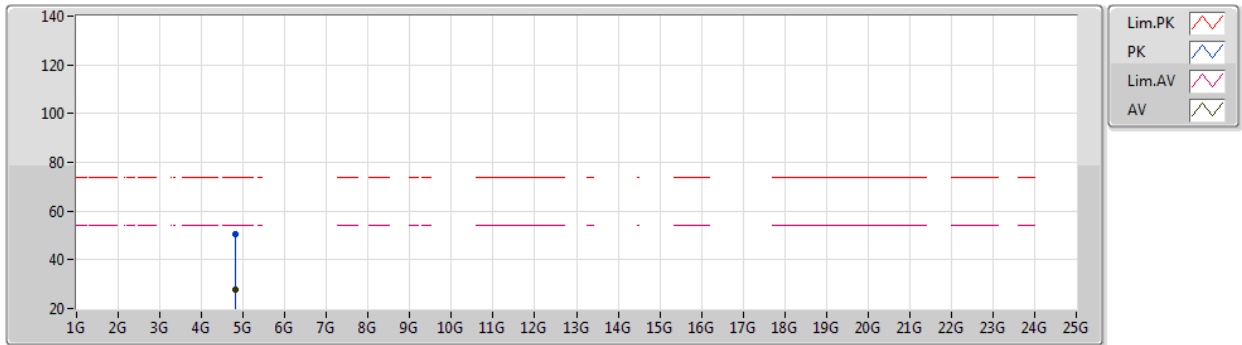


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80444G	26.98	54.00	-27.02	8.19	3	Vertical	180	2.80	-	18.79	31.10	6.50	29.41
PK	4.80444G	49.48	74.00	-24.52	8.19	3	Vertical	180	2.80	-	41.29	31.10	6.50	29.41

BT-BR(1Mbps)

2402MHz_TX

07/08/2020

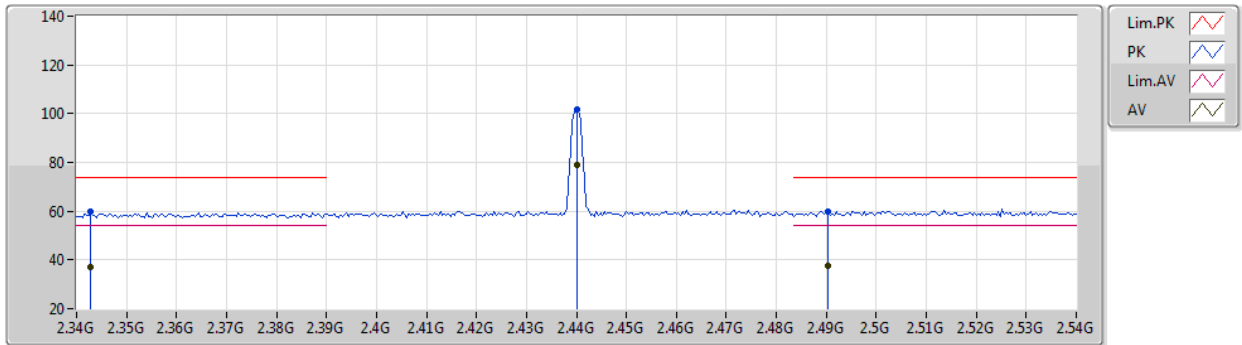


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80383G	27.83	54.00	-26.17	8.19	3	Horizontal	349	1.93	-	19.64	31.10	6.50	29.41
PK	4.80383G	50.33	74.00	-23.67	8.19	3	Horizontal	349	1.93	-	42.14	31.10	6.50	29.41

BT-BR(1Mbps)

2440MHz_TX

07/08/2020

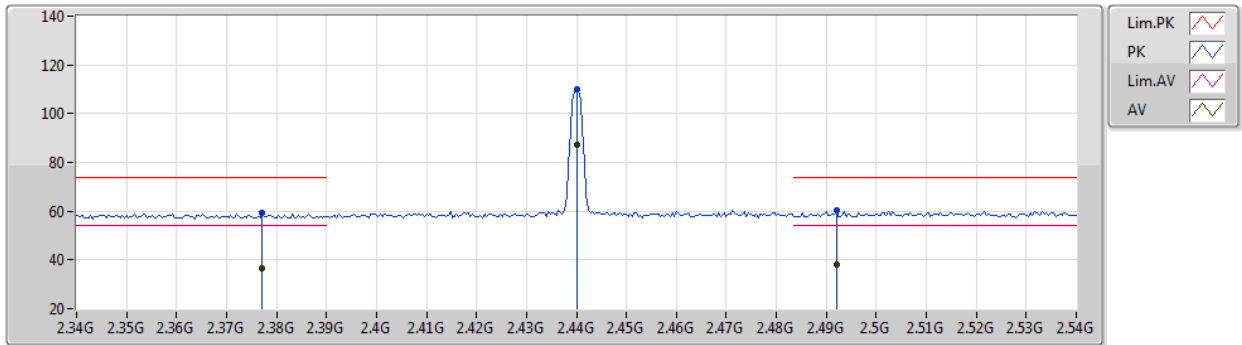


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3428G	37.14	54.00	-16.86	31.97	3	Vertical	213	1.25	-	5.17	27.73	4.24	-
AV	2.44G	79.14	Inf	-Inf	31.86	3	Vertical	213	1.25	-	47.28	27.52	4.34	-
AV	2.4904G	37.53	54.00	-16.47	31.81	3	Vertical	213	1.25	-	5.72	27.42	4.39	-
PK	2.3428G	59.64	74.00	-14.36	31.97	3	Vertical	213	1.25	-	27.67	27.73	4.24	-
PK	2.44G	101.64	Inf	-Inf	31.86	3	Vertical	213	1.25	-	69.78	27.52	4.34	-
PK	2.4904G	60.03	74.00	-13.97	31.81	3	Vertical	213	1.25	-	28.22	27.42	4.39	-

BT-BR(1Mbps)

2440MHz_TX

07/08/2020

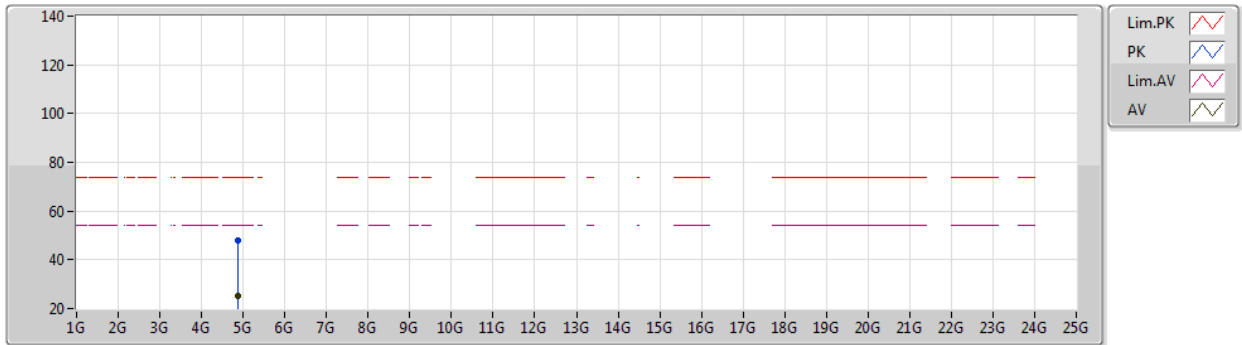


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3772G	36.65	54.00	-17.35	31.93	3	Horizontal	289	1.67	-	4.72	27.65	4.28	-
AV	2.44G	87.31	Inf	-Inf	31.86	3	Horizontal	289	1.67	-	55.45	27.52	4.34	-
AV	2.492G	37.97	54.00	-16.03	31.81	3	Horizontal	289	1.67	-	6.16	27.42	4.39	-
PK	2.3772G	59.15	74.00	-14.85	31.93	3	Horizontal	289	1.67	-	27.22	27.65	4.28	-
PK	2.44G	109.81	Inf	-Inf	31.86	3	Horizontal	289	1.67	-	77.95	27.52	4.34	-
PK	2.492G	60.47	74.00	-13.53	31.81	3	Horizontal	289	1.67	-	28.66	27.42	4.39	-

BT-BR(1Mbps)

2440MHz_TX

07/08/2020

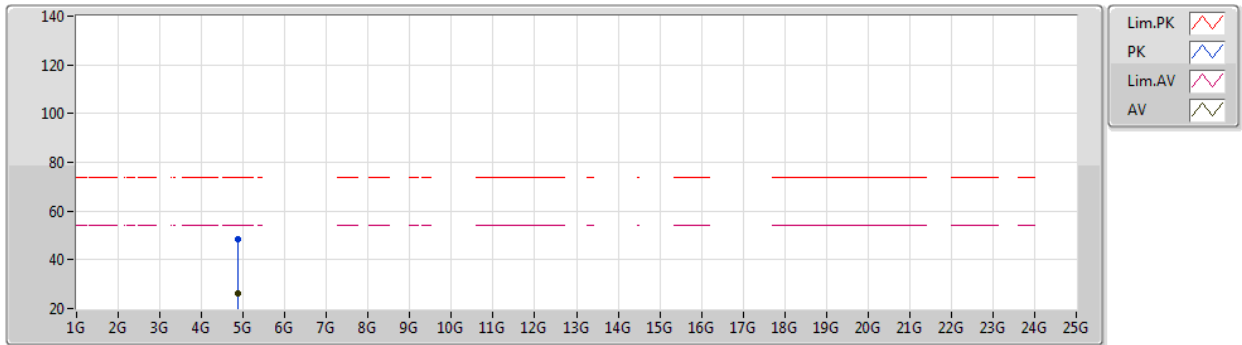


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88002G	25.42	54.00	-28.58	8.30	3	Vertical	264	1.08	-	17.12	31.10	6.58	29.38
PK	4.88002G	47.92	74.00	-26.08	8.30	3	Vertical	264	1.08	-	39.62	31.10	6.58	29.38

BT-BR(1Mbps)

2440MHz_TX

07/08/2020

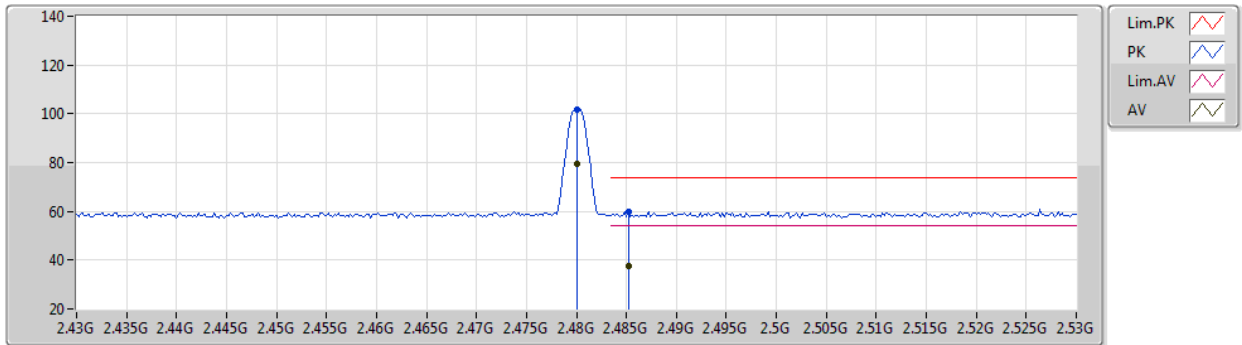


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88029G	26.04	54.00	-27.96	8.30	3	Horizontal	25	1.31	-	17.74	31.10	6.58	29.38
PK	4.88029G	48.54	74.00	-25.46	8.30	3	Horizontal	25	1.31	-	40.24	31.10	6.58	29.38

BT-BR(1Mbps)

2480MHz_TX

07/08/2020

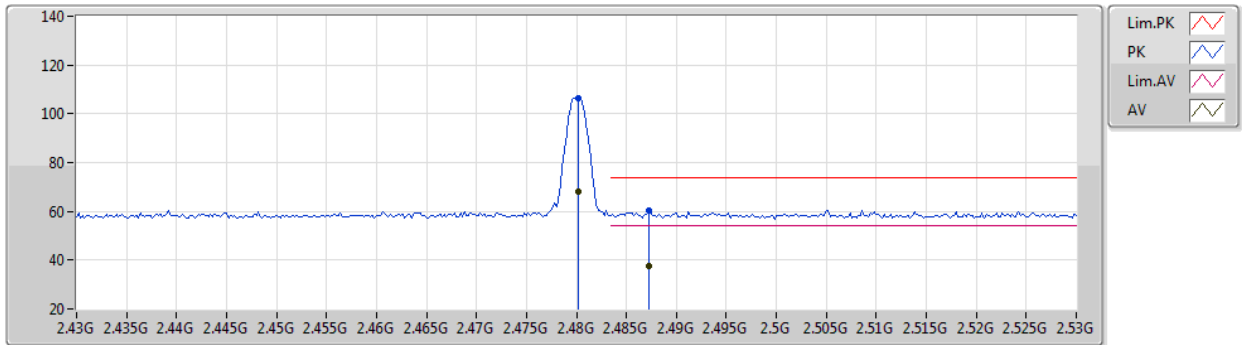


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	79.45	Inf	-Inf	31.82	3	Vertical	100	1.27	-	47.63	27.44	4.38	-
AV	2.4852G	37.47	54.00	-16.53	31.82	3	Vertical	100	1.27	-	5.65	27.43	4.39	-
PK	2.48G	101.95	Inf	-Inf	31.82	3	Vertical	100	1.27	-	70.13	27.44	4.38	-
PK	2.4852G	59.97	74.00	-14.03	31.82	3	Vertical	100	1.27	-	28.15	27.43	4.39	-

BT-BR(1Mbps)

2480MHz_TX

08/08/2020

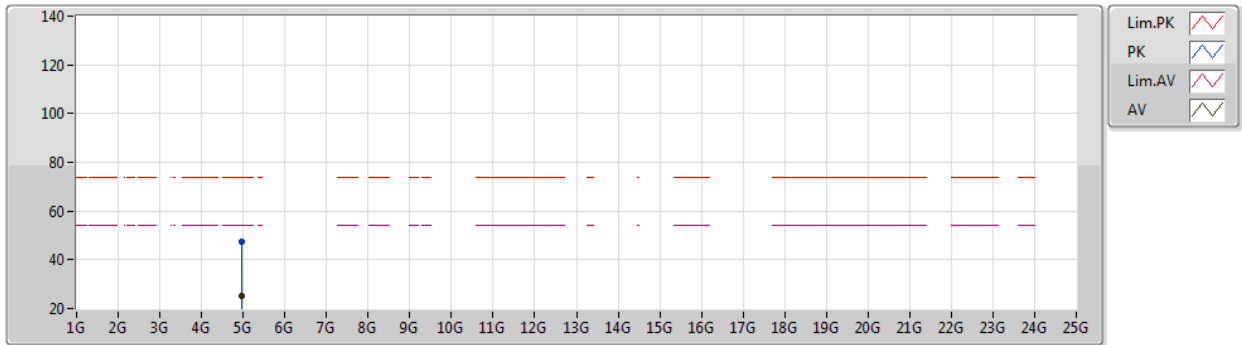


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	68.06	Inf	-Inf	15.90	3	Horizontal	328	1.85	-	52.16	14.20	1.70	-
AV	2.4872G	37.83	54.00	-16.17	31.82	3	Horizontal	328	1.85	-	6.01	27.43	4.39	-
PK	2.4802G	106.48	Inf	-Inf	31.82	3	Horizontal	328	1.85	-	74.66	27.44	4.38	-
PK	2.4872G	60.33	74.00	-13.67	31.82	3	Horizontal	328	1.85	-	28.51	27.43	4.39	-

BT-BR(1Mbps)

2480MHz_TX

07/08/2020

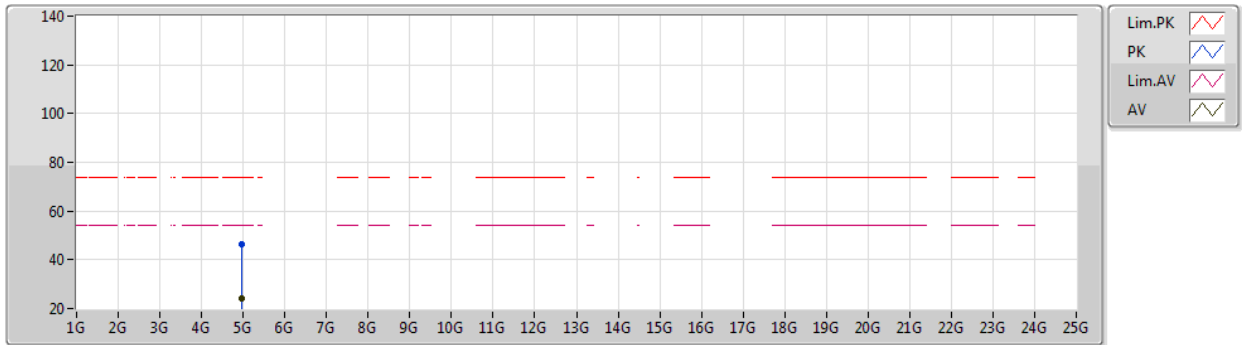


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95991G	25.13	54.00	-28.87	8.52	3	Vertical	263	1.05	-	16.61	31.20	6.66	29.34
PK	4.95991G	47.63	74.00	-26.37	8.52	3	Vertical	263	1.05	-	39.11	31.20	6.66	29.34

BT-BR(1Mbps)

2480MHz_TX

07/08/2020

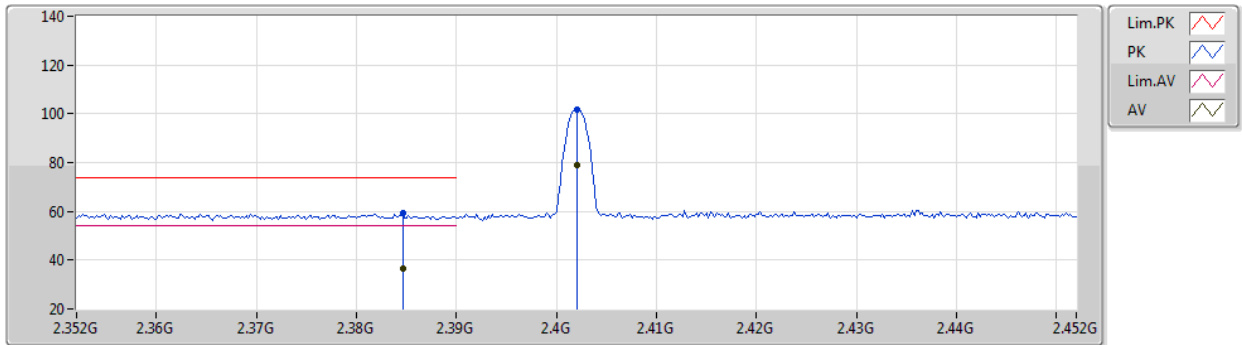


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9599G	24.05	54.00	-29.95	8.52	3	Horizontal	0	1.50	-	15.53	31.20	6.66	29.34
PK	4.9599G	46.55	74.00	-27.45	8.52	3	Horizontal	0	1.50	-	38.03	31.20	6.66	29.34

BT-EDR(3Mbps)

2402MHz_TX

07/08/2020

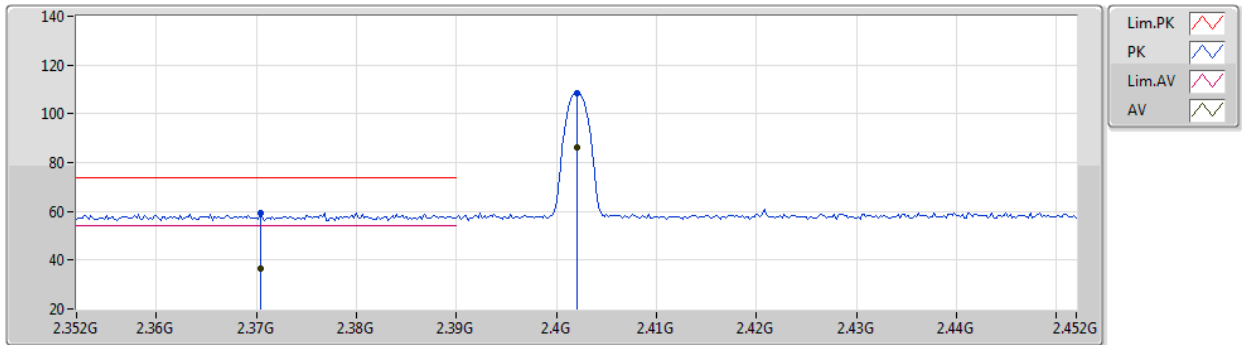


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3846G	36.81	54.00	-17.19	31.91	3	Vertical	243	2.76	-	4.90	27.63	4.28	-
AV	2.402G	79.05	Inf	-Inf	31.90	3	Vertical	243	2.76	-	47.15	27.60	4.30	-
PK	2.3846G	59.31	74.00	-14.69	31.91	3	Vertical	243	2.76	-	27.40	27.63	4.28	-
PK	2.402G	101.55	Inf	-Inf	31.90	3	Vertical	243	2.76	-	69.65	27.60	4.30	-

BT-EDR(3Mbps)

07/08/2020

2402MHz_TX

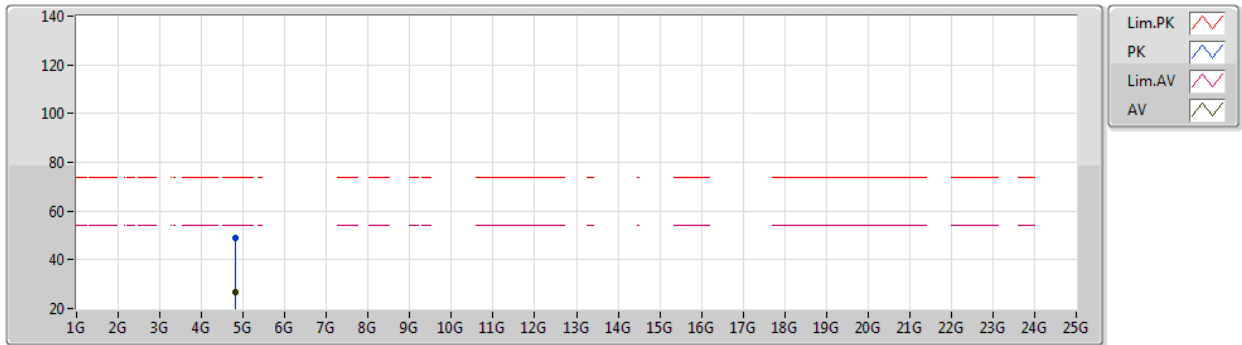


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3704G	36.78	54.00	-17.22	31.93	3	Horizontal	295	1.51	-	4.85	27.66	4.27	-
AV	2.402G	86.10	Inf	-Inf	31.90	3	Horizontal	295	1.51	-	54.20	27.60	4.30	-
PK	2.3704G	59.28	74.00	-14.72	31.93	3	Horizontal	295	1.51	-	27.35	27.66	4.27	-
PK	2.402G	108.60	Inf	-Inf	31.90	3	Horizontal	295	1.51	-	76.70	27.60	4.30	-

BT-EDR(3Mbps)

07/08/2020

2402MHz_TX

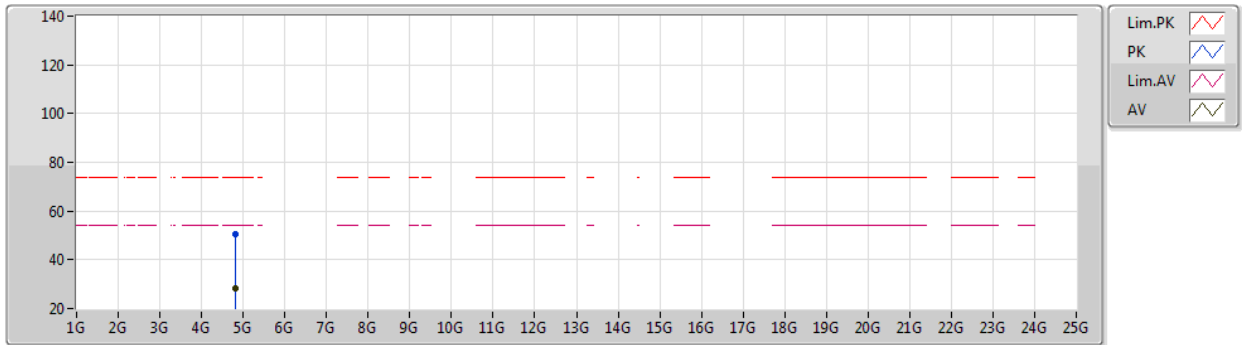


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80406G	26.48	54.00	-27.52	8.19	3	Vertical	180	2.81	-	18.29	31.10	6.50	29.41
PK	4.80406G	48.98	74.00	-25.02	8.19	3	Vertical	180	2.81	-	40.79	31.10	6.50	29.41

BT-EDR(3Mbps)

07/08/2020

2402MHz_TX

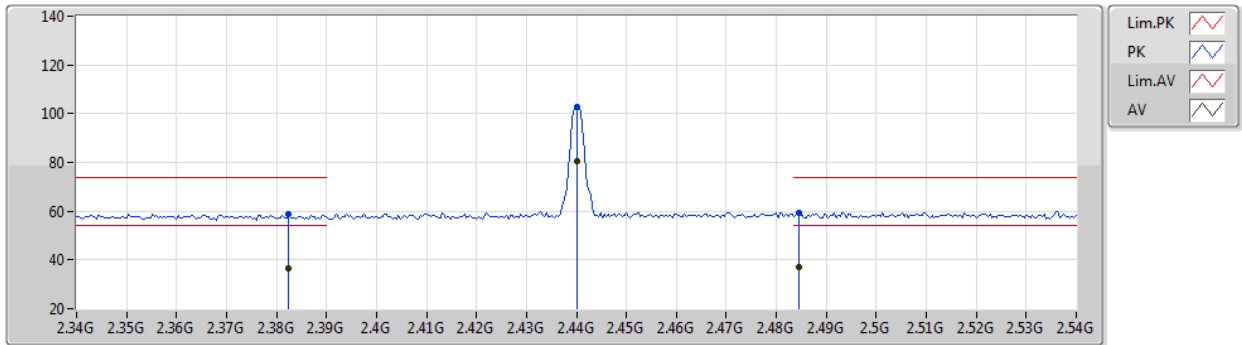


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80384G	28.03	54.00	-25.97	8.19	3	Horizontal	350	1.72	-	19.84	31.10	6.50	29.41
PK	4.80384G	50.53	74.00	-23.47	8.19	3	Horizontal	350	1.72	-	42.34	31.10	6.50	29.41

BT-EDR(3Mbps)

2440MHz_TX

07/08/2020

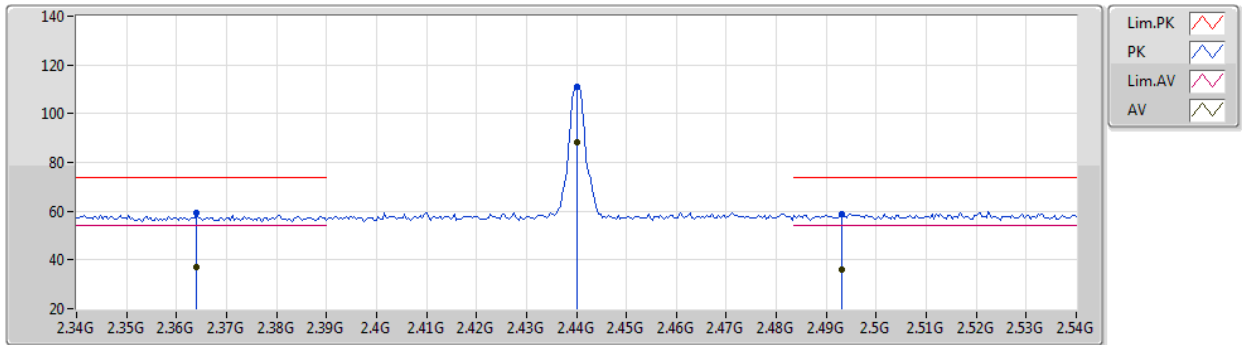


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3824G	36.43	54.00	-17.57	31.92	3	Vertical	212	3.00	-	4.51	27.64	4.28	-
AV	2.44G	80.50	Inf	-Inf	31.86	3	Vertical	212	3.00	-	48.64	27.52	4.34	-
AV	2.4844G	36.92	54.00	-17.08	31.81	3	Vertical	212	3.00	-	5.11	27.43	4.38	-
PK	2.3824G	58.93	74.00	-15.07	31.92	3	Vertical	212	3.00	-	27.01	27.64	4.28	-
PK	2.44G	103.00	Inf	-Inf	31.86	3	Vertical	212	3.00	-	71.14	27.52	4.34	-
PK	2.4844G	59.42	74.00	-14.58	31.81	3	Vertical	212	3.00	-	27.61	27.43	4.38	-

BT-EDR(3Mbps)

2440MHz_TX

07/08/2020

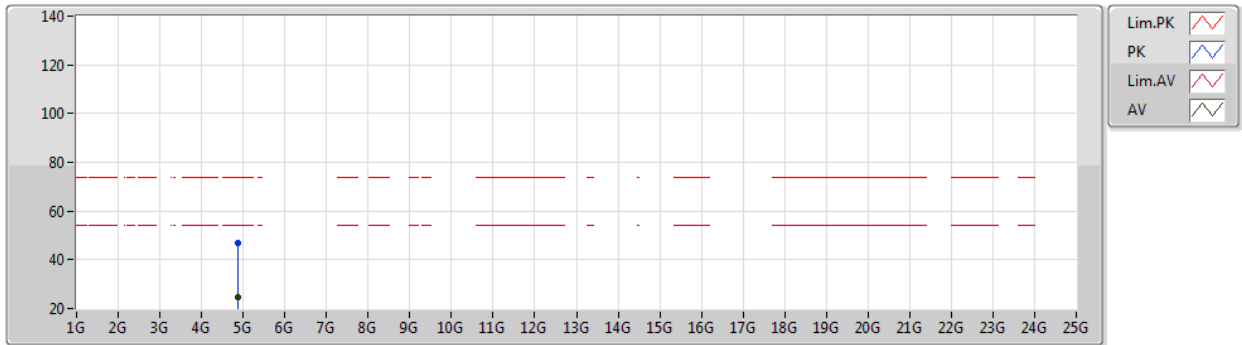


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.364G	37.05	54.00	-16.95	31.93	3	Horizontal	289	1.67	-	5.12	27.67	4.26	-
AV	2.44G	88.44	Inf	-Inf	31.86	3	Horizontal	289	1.67	-	56.58	27.52	4.34	-
AV	2.4932G	36.26	54.00	-17.74	31.80	3	Horizontal	289	1.67	-	4.46	27.41	4.39	-
PK	2.364G	59.55	74.00	-14.45	31.93	3	Horizontal	289	1.67	-	27.62	27.67	4.26	-
PK	2.44G	110.94	Inf	-Inf	31.86	3	Horizontal	289	1.67	-	79.08	27.52	4.34	-
PK	2.4932G	58.76	74.00	-15.24	31.80	3	Horizontal	289	1.67	-	26.96	27.41	4.39	-

BT-EDR(3Mbps)

07/08/2020

2440MHz_TX

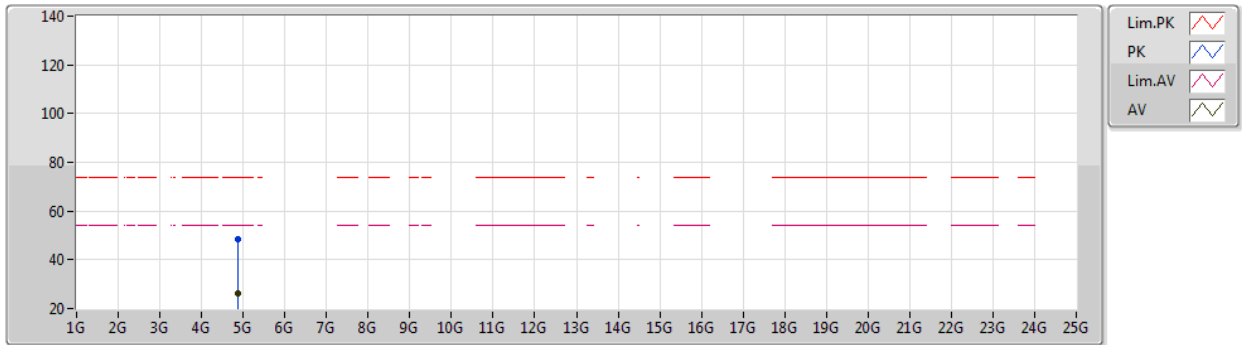


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87973G	24.46	54.00	-29.54	8.30	3	Vertical	263	1.15	-	16.16	31.10	6.58	29.38
PK	4.87973G	46.96	74.00	-27.04	8.30	3	Vertical	263	1.15	-	38.66	31.10	6.58	29.38

BT-EDR(3Mbps)

07/08/2020

2440MHz_TX

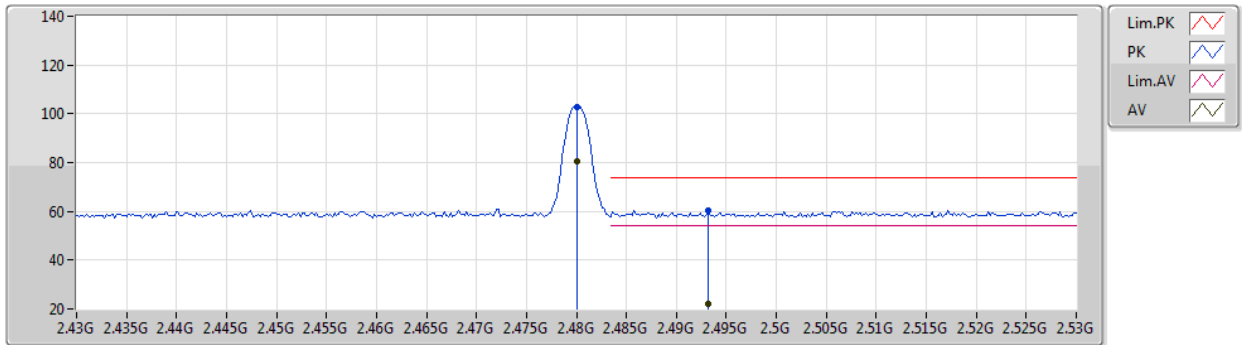


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87932G	26.04	54.00	-27.96	8.30	3	Horizontal	26	1.34	-	17.74	31.10	6.58	29.38
PK	4.87932G	48.54	74.00	-25.46	8.30	3	Horizontal	26	1.34	-	40.24	31.10	6.58	29.38

BT-EDR(3Mbps)

2480MHz_TX

07/08/2020

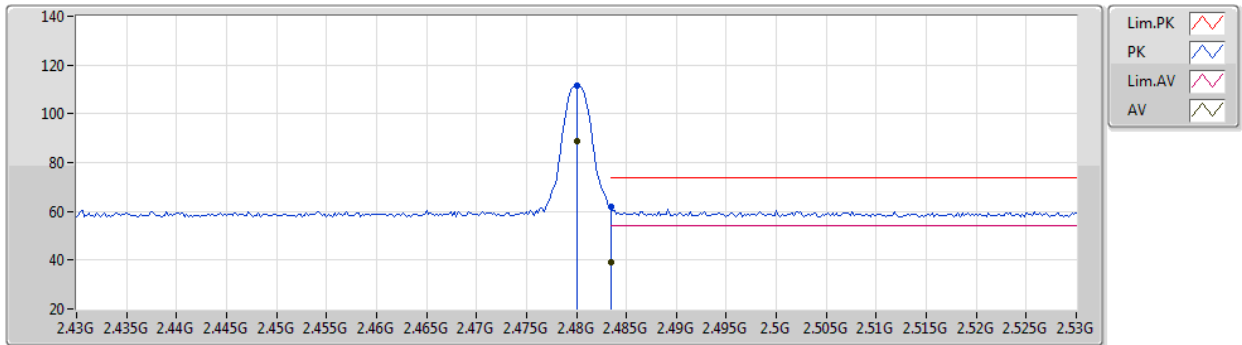


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	80.48	Inf	-Inf	31.82	3	Vertical	100	1.27	-	48.66	27.44	4.38	-
AV	2.4932G	22.20	54.00	-31.80	31.80	3	Vertical	100	1.27	-	-9.60	27.41	4.39	-
PK	2.48G	102.98	Inf	-Inf	31.82	3	Vertical	100	1.27	-	71.16	27.44	4.38	-
PK	2.4932G	60.60	74.00	-13.40	31.80	3	Vertical	100	1.27	-	28.80	27.41	4.39	-

BT-EDR(3Mbps)

2480MHz_TX

07/08/2020

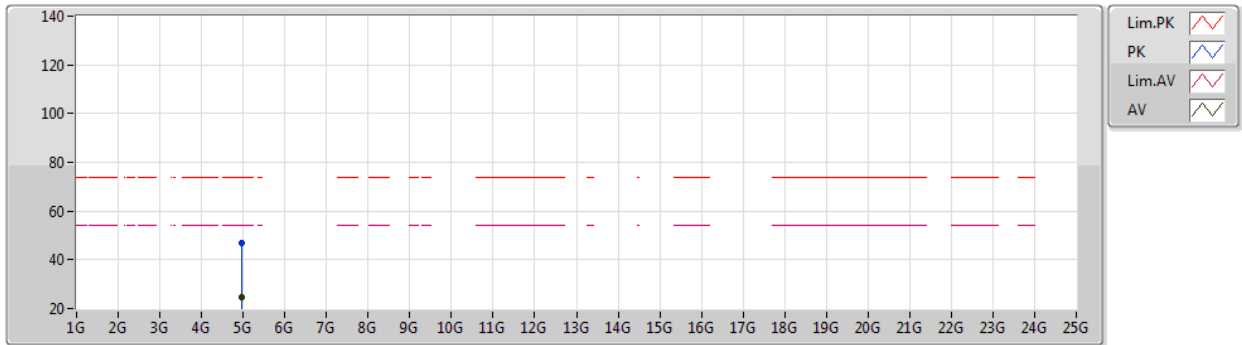


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	89.00	Inf	-Inf	31.82	3	Horizontal	286	2.36	-	57.18	27.44	4.38	-
AV	2.4835G	39.20	54.00	-14.80	31.81	3	Horizontal	286	2.36	-	7.39	27.43	4.38	-
PK	2.48G	111.50	Inf	-Inf	31.82	3	Horizontal	286	2.36	-	79.68	27.44	4.38	-
PK	2.4835G	61.70	74.00	-12.30	31.81	3	Horizontal	286	2.36	-	29.89	27.43	4.38	-

BT-EDR(3Mbps)

07/08/2020

2480MHz_TX

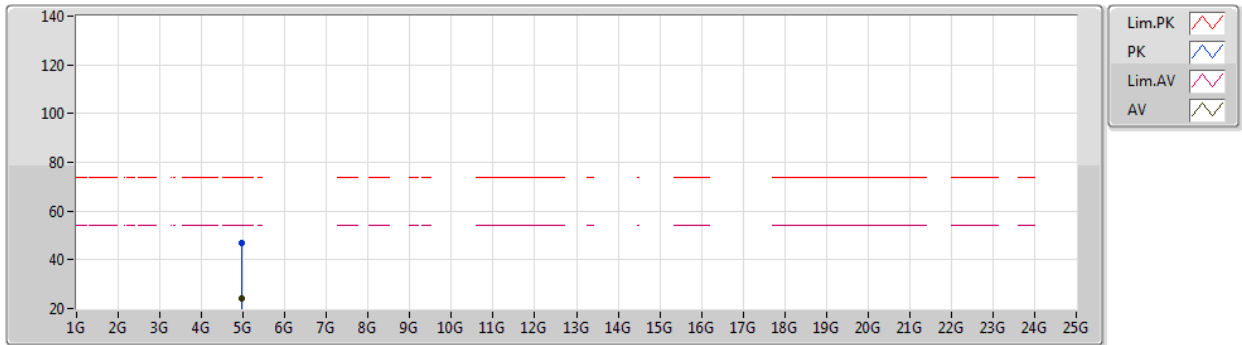


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95981G	24.64	54.00	-29.36	8.52	3	Vertical	65	1.34	-	16.12	31.20	6.66	29.34
PK	4.95981G	47.14	74.00	-26.86	8.52	3	Vertical	65	1.34	-	38.62	31.20	6.66	29.34

BT-EDR(3Mbps)

07/08/2020

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	4.96001G	24.24	54.00	-29.76	8.52	3	Horizontal	0	1.50	-	15.72	31.20	6.66	29.34
PK	4.96001G	46.74	74.00	-27.26	8.52	3	Horizontal	0	1.50	-	38.22	31.20	6.66	29.34



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	QP	148.34M	41.67	43.50	-1.83	3	Horizontal	170	1.63	-

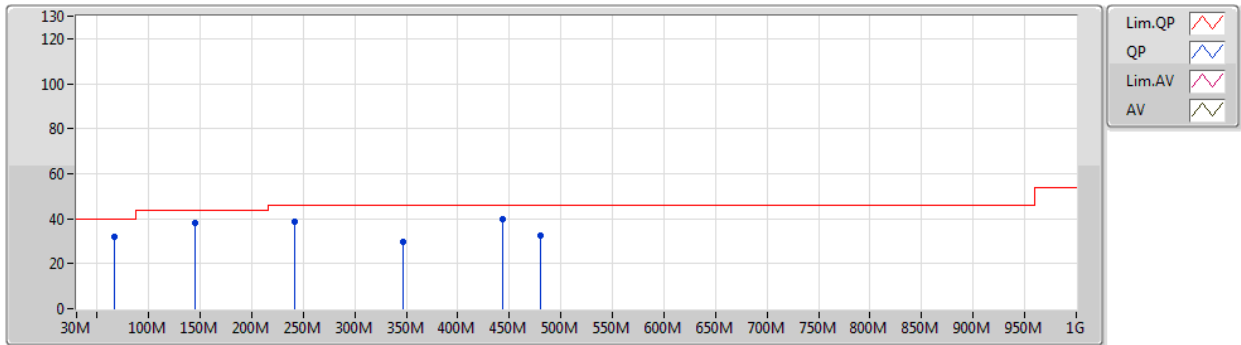
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	66.86M	32.14	40.00	-7.86	3	Vertical	0	1.00	-
2440MHz	Pass	PK	144.46M	37.83	43.50	-5.67	3	Vertical	0	1.00	-
2440MHz	Pass	PK	241.46M	38.48	46.00	-7.52	3	Vertical	0	1.00	-
2440MHz	Pass	PK	346.22M	29.55	46.00	-16.45	3	Vertical	0	1.00	-
2440MHz	Pass	PK	443.22M	39.72	46.00	-6.28	3	Vertical	0	1.00	-
2440MHz	Pass	PK	480.08M	32.72	46.00	-13.28	3	Vertical	0	1.00	-
2440MHz	Pass	PK	68.8M	33.24	40.00	-6.76	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	243.4M	39.30	46.00	-6.70	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	336.52M	32.99	46.00	-13.01	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	443.22M	40.26	46.00	-5.74	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	480.08M	36.58	46.00	-9.42	3	Horizontal	360	1.00	-
2440MHz	Pass	QP	148.34M	41.67	43.50	-1.83	3	Horizontal	170	1.63	-

BT-BR(1Mbps)RX

2440MHz_Test Fixture

02/09/2020

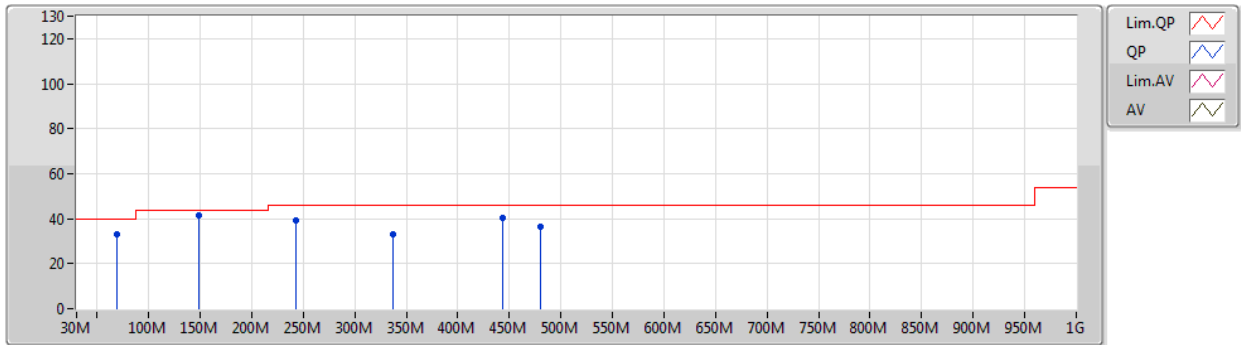


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	66.86M	32.14	40.00	-7.86	-14.90	3	Vertical	0	1.00	-	47.04	11.26	1.30	27.46
PK	144.46M	37.83	43.50	-5.67	-9.56	3	Vertical	0	1.00	-	47.39	15.73	1.92	27.21
PK	241.46M	38.48	46.00	-7.52	-7.63	3	Vertical	0	1.00	-	46.11	16.57	2.55	26.75
PK	346.22M	29.55	46.00	-16.45	-4.52	3	Vertical	0	1.00	-	34.07	19.32	3.08	26.92
PK	443.22M	39.72	46.00	-6.28	-2.35	3	Vertical	0	1.00	-	42.07	21.89	3.39	27.63
PK	480.08M	32.72	46.00	-13.28	-1.72	3	Vertical	0	1.00	-	34.44	22.45	3.58	27.75

BT-BR(1Mbps)RX

2440MHz_Test Fixture

02/09/2020



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	68.8M	33.24	40.00	-6.76	-14.82	3	Horizontal	360	1.00	-	48.06	11.33	1.30	27.45
PK	243.4M	39.30	46.00	-6.70	-7.39	3	Horizontal	360	1.00	-	46.69	16.79	2.56	26.74
PK	336.52M	32.99	46.00	-13.01	-4.79	3	Horizontal	360	1.00	-	37.78	19.02	3.05	26.86
PK	443.22M	40.26	46.00	-5.74	-2.35	3	Horizontal	360	1.00	-	42.61	21.89	3.39	27.63
PK	480.08M	36.58	46.00	-9.42	-1.72	3	Horizontal	360	1.00	-	38.30	22.45	3.58	27.75
QP	148.34M	41.67	43.50	-1.83	-9.77	3	Horizontal	170	1.63	-	51.44	15.48	1.94	27.19



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	AV	4.928G	34.55	54.00	-19.45	3	Horizontal	0	1.00	-

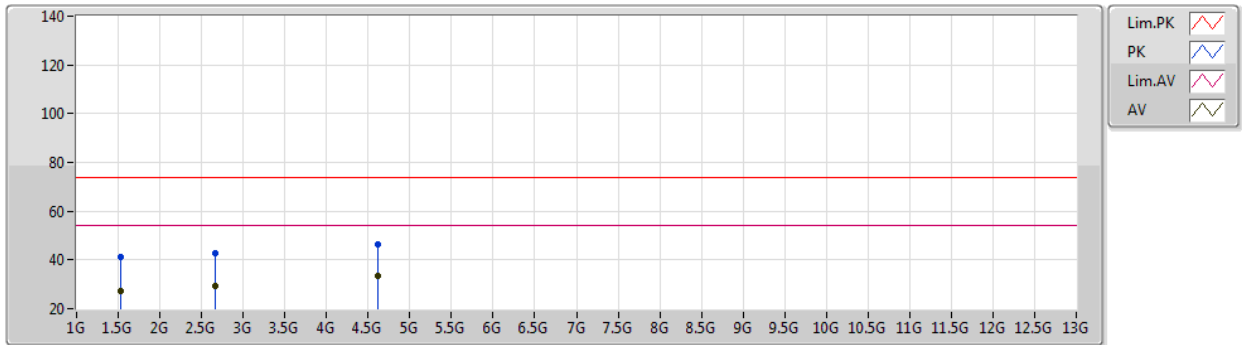
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	AV	1.536G	27.23	54.00	-26.77	3	Vertical	360	1.00	-
2440MHz	Pass	AV	2.664G	29.52	54.00	-24.48	3	Vertical	360	1.00	-
2440MHz	Pass	AV	4.624G	33.65	54.00	-20.35	3	Vertical	360	1.00	-
2440MHz	Pass	PK	1.536G	41.14	74.00	-32.86	3	Vertical	360	1.00	-
2440MHz	Pass	PK	2.664G	42.64	74.00	-31.36	3	Vertical	360	1.00	-
2440MHz	Pass	PK	4.624G	46.58	74.00	-27.42	3	Vertical	360	1.00	-
2440MHz	Pass	AV	1.6G	26.42	54.00	-27.58	3	Horizontal	0	1.00	-
2440MHz	Pass	AV	1.752G	25.61	54.00	-28.39	3	Horizontal	0	1.00	-
2440MHz	Pass	AV	4.928G	34.55	54.00	-19.45	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	1.6G	43.52	74.00	-30.48	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	1.752G	43.77	74.00	-30.23	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	4.928G	47.91	74.00	-26.09	3	Horizontal	0	1.00	-

BT-BR(1Mbps)RX

2440MHz_RX

08/08/2020

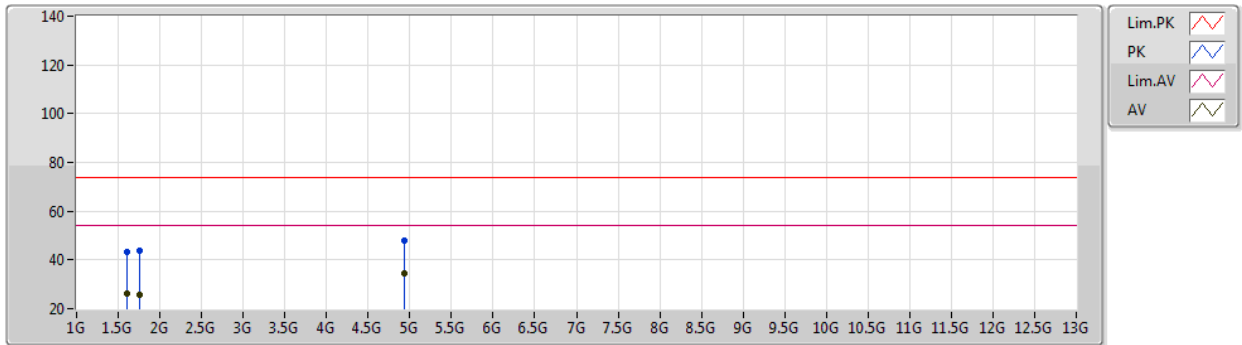


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.536G	27.23	54.00	-26.77	-2.21	3	Vertical	360	1.00	-	29.44	25.53	3.34	31.08
AV	2.664G	29.52	54.00	-24.48	2.28	3	Vertical	360	1.00	-	27.24	27.83	4.56	30.11
AV	4.624G	33.65	54.00	-20.35	7.72	3	Vertical	360	1.00	-	25.93	30.80	6.41	29.49
PK	1.536G	41.14	74.00	-32.86	-2.21	3	Vertical	360	1.00	-	43.35	25.53	3.34	31.08
PK	2.664G	42.64	74.00	-31.36	2.28	3	Vertical	360	1.00	-	40.36	27.83	4.56	30.11
PK	4.624G	46.58	74.00	-27.42	7.72	3	Vertical	360	1.00	-	38.86	30.80	6.41	29.49

BT-BR(1Mbps)RX

2440MHz_RX

08/08/2020



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	1.6G	26.42	54.00	-27.58	-2.29	3	Horizontal	0	1.00	-	28.71	25.30	3.40	30.99
AV	1.752G	25.61	54.00	-28.39	-2.04	3	Horizontal	0	1.00	-	27.65	25.11	3.63	30.78
AV	4.928G	34.55	54.00	-19.45	8.44	3	Horizontal	0	1.00	-	26.11	31.16	6.63	29.35
PK	1.6G	43.52	74.00	-30.48	-2.29	3	Horizontal	0	1.00	-	45.81	25.30	3.40	30.99
PK	1.752G	43.77	74.00	-30.23	-2.04	3	Horizontal	0	1.00	-	45.81	25.11	3.63	30.78
PK	4.928G	47.91	74.00	-26.09	8.44	3	Horizontal	0	1.00	-	39.47	31.16	6.63	29.35



Exposure Environment: General Population / Uncontrolled Exposure

For Bluetooth

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
2.4G;BT-LE	2.25	8.30	10.55	0.50	11.05	0.01274	20	0.00253	1.00000
2.4G;BT-BR	2.25	7.53	9.78	0.50	10.28	0.01067	20	0.00212	1.00000
2.4G;BT-EDR	2.25	7.97	10.22	0.50	10.72	0.01180	20	0.00235	1.00000