

NCC Test Report

Equipment : 藍牙音箱
Brand Name : MARSHALL
Model Name : UXBRIDGE WITH GOOGLE ASSISTANT
Applicant : 百滋國際股份有限公司
台北市松山區寶清街 17 號 5 樓之 1
Manufacturer : Zound Industries International AB
Room 411-412, 4th Floor, Main Building, No. 99 Qiao Cheng
East Road, Nanshan District, Shenzhen City, China
Standard : LP0002 Section 3.10 (2018-01-10)

The product was received on Apr. 21, 2020, and testing was started from Jun. 09, 2020 and completed on Jun. 13, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

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History of this test report

TEL : 886-3-3273456
FAX : 886-3-3270973
Report Template No.: HE1-C9 Ver3.8

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: Ben Tseng

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	Walsin	RFPCA242312EMLB301	PCB	NA
2	Walsin	RFPCA232011EMLB301	PCB	NA

Ant.	Port	Gain (dBi)					
		2.4G	5G				BT
			Band 1	Band 2	Band 3	Band 4	
1	1	2.46	3.25	3.25	3.64	3.5	2.46
2	2	3.15	3.67	3.67	3.47	2.95	-

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2(port 2) and it was recorded in this test report.

For BT function:

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

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

For 5GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2(port 2) and it was recorded in this test report.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From Switching Power Supply		
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) $\geq 1/T$
BT-BR(1Mbps)	0.78	1.08	2.919m	1k
BT-EDR(2Mbps)	0.78	1.08	2.919m	1k
BT-EDR(3Mbps)	0.774	1.11	2.9m	1k

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

1.1.5 Table for Multiple Listing

Sample	Description
1	There are two samples of EUT, the only difference between samples is the appearance color.
2	

Note: Sample 1 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:

- ♦ 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	CO04-HY	Edward Wang	21.4~23.6°C/57~60%	13/Jun/2020
RF Conducted	TH06-HY	Alan Chien	21.1~26.9°C/50~60%	10/Jun/2020~11/Jun/2020
Radiated	03CH09-HY	Daniel Hsu	21.3~22.8°C/55~58%	09/Jun/2020~12/Jun/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	Dos
---------------	-----

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	default
2440MHz	default
2480MHz	default
BT-EDR(2Mbps)	-
2402MHz	default
2440MHz	default
2480MHz	default
BT-EDR(3Mbps)	-
2402MHz	default
2440MHz	default
2480MHz	default

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	Switching Power Supply Mode; TX
2	Switching Power Supply 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)
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 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	Switching Power Supply Mode
Operating Mode > 1GHz	CTX/CRX
Orthogonal Planes of EUT	Y Plane
	

2.4 Accessories

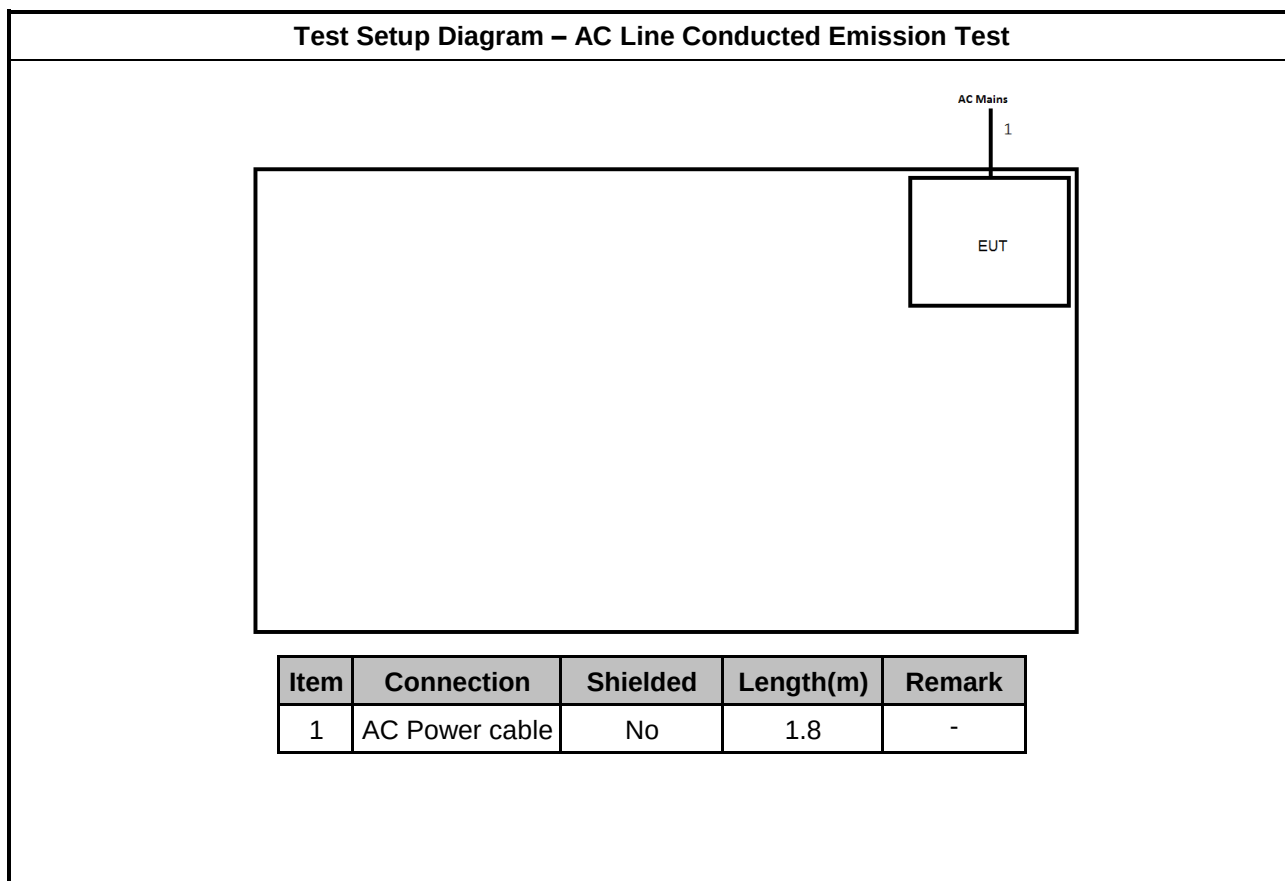
Accessories Information				
AC Power Cord	Brand Name	景盛電線材料股份有限公司	Model Name	EL-403+EL-713
	Signal Line	1.8 meter, non-shielded cable, w/o ferrite core		

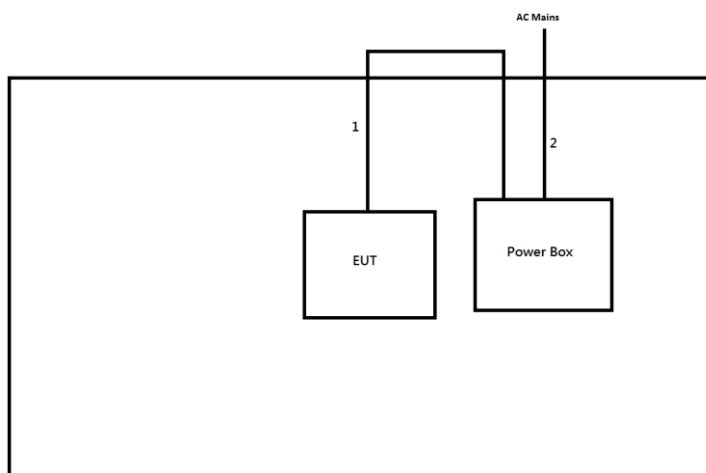
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

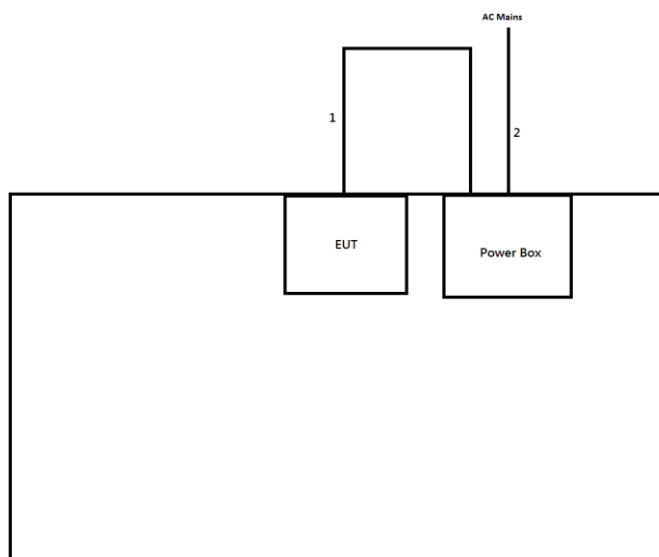
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test (TX)


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

Test Setup Diagram - Radiated Test (RX)


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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

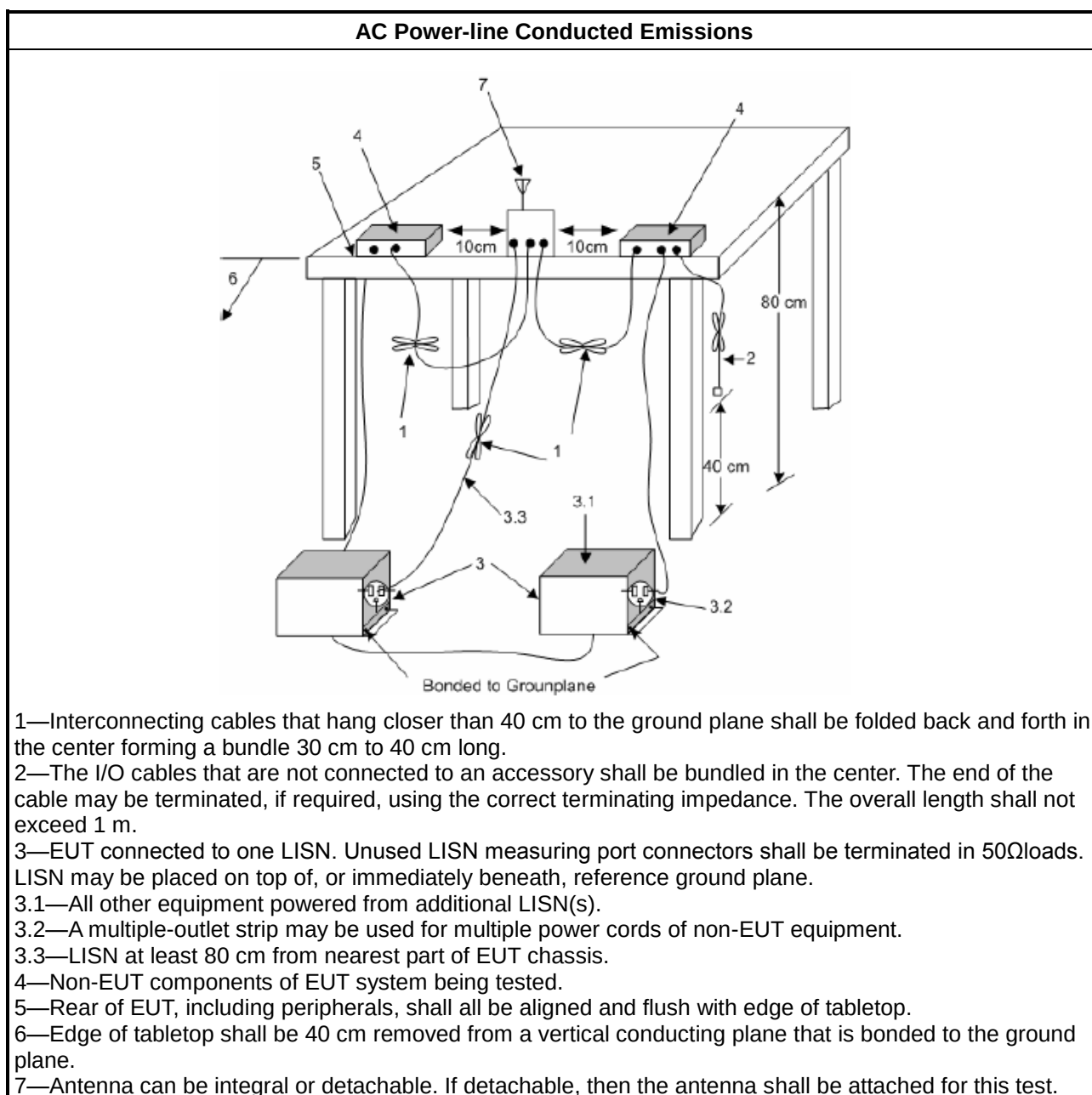
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 20dB Bandwidth and Carrier Frequency Separation

3.2.1 20dB Bandwidth and Carrier Frequency Separation Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems	
2400-2483.5 MHz Band:	
	$N \geq 75$ 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	

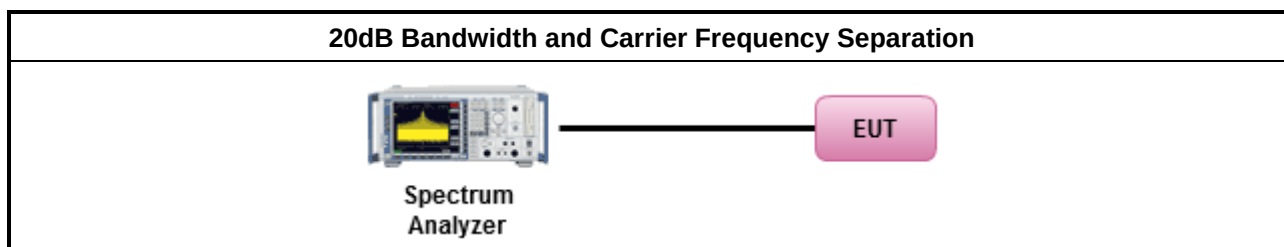
3.2.2 Measuring Instruments

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	

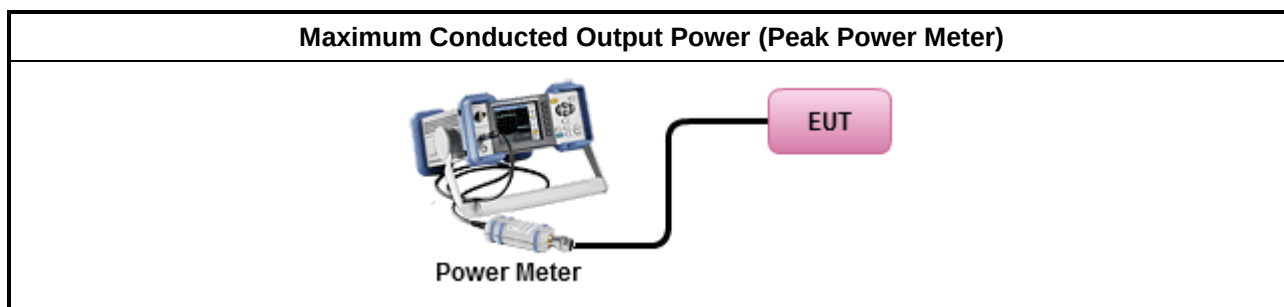
3.3.2 Measuring Instruments

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

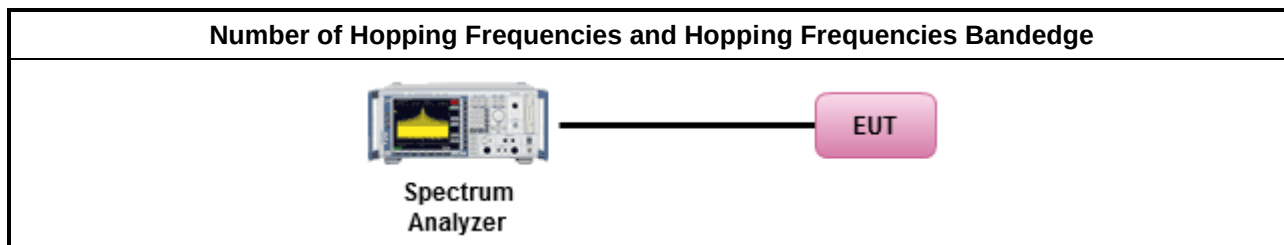
3.4.3 Measuring Instruments

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	

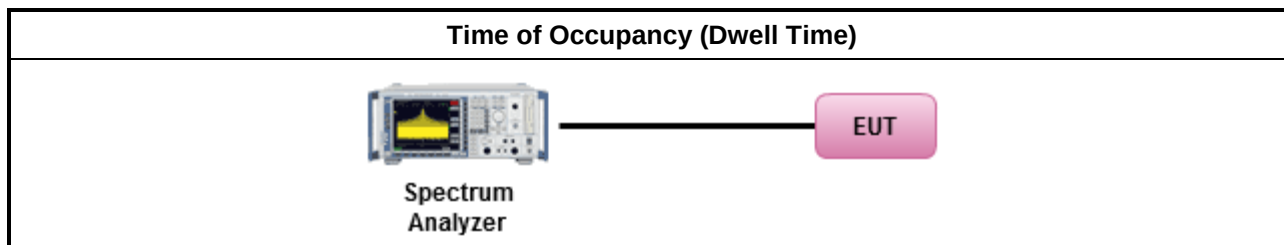
3.5.2 Measuring Instruments

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.	

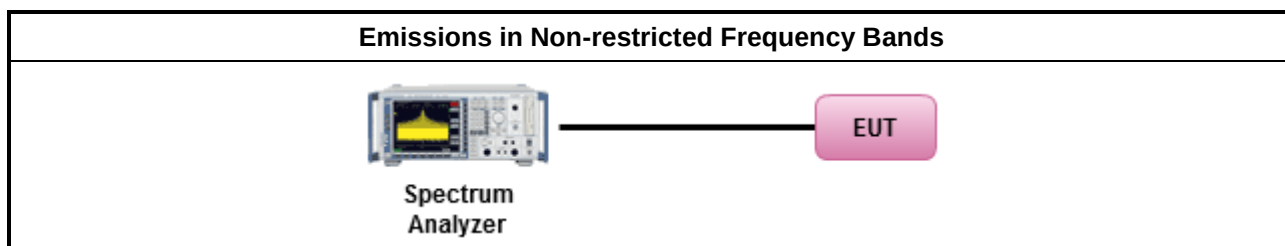
3.6.2 Measuring Instruments

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.

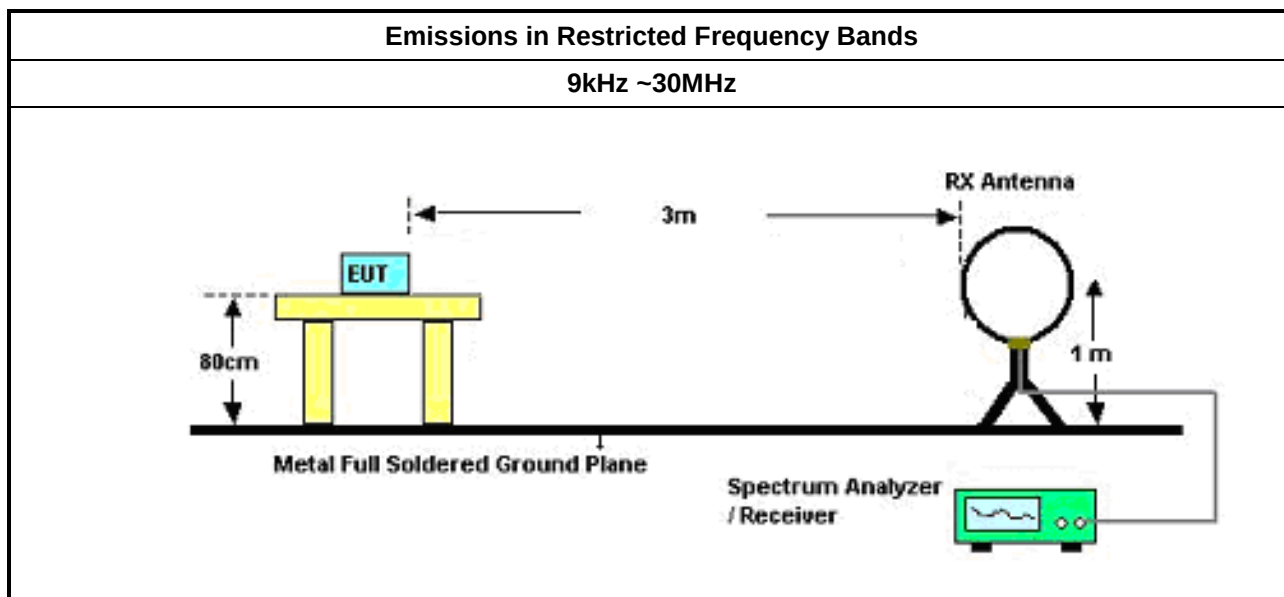
3.7.2 Measuring Instruments

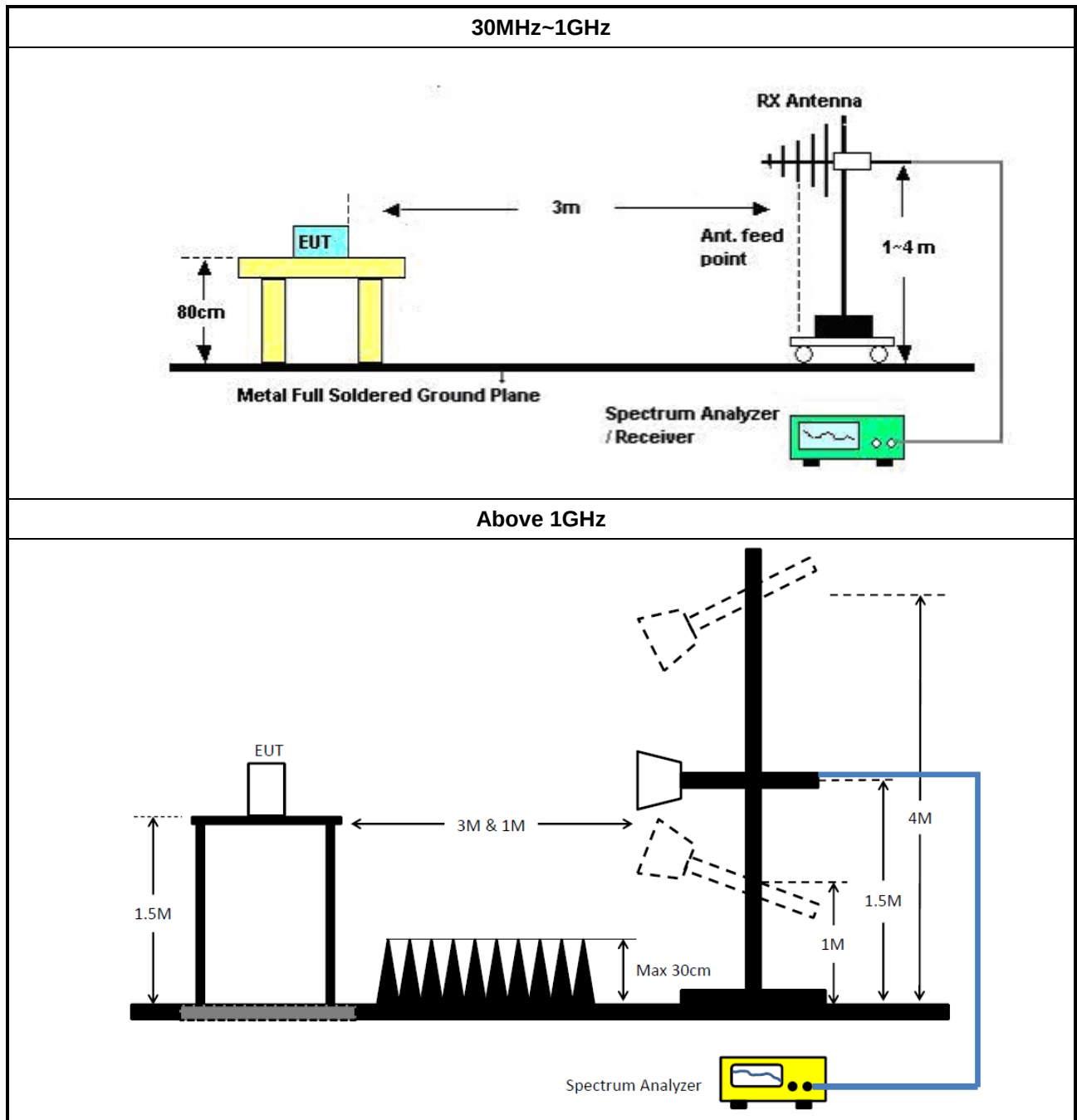
Refer a test equipment and calibration data table in this test report.

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 Test Setup





3.7.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.7.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G

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.

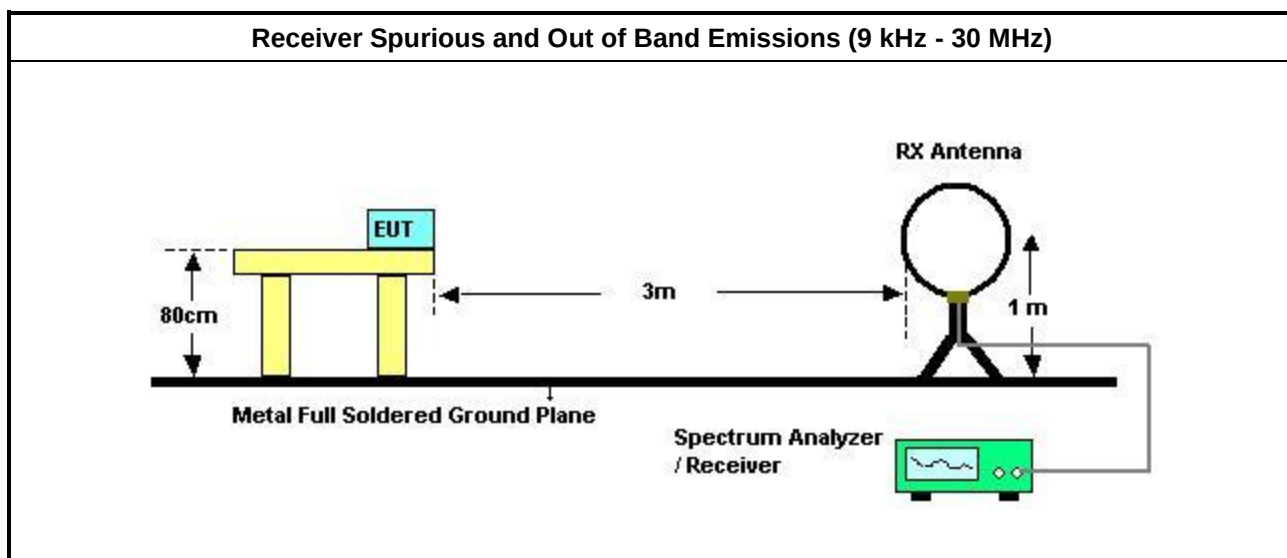
3.8.2 Measuring Instruments

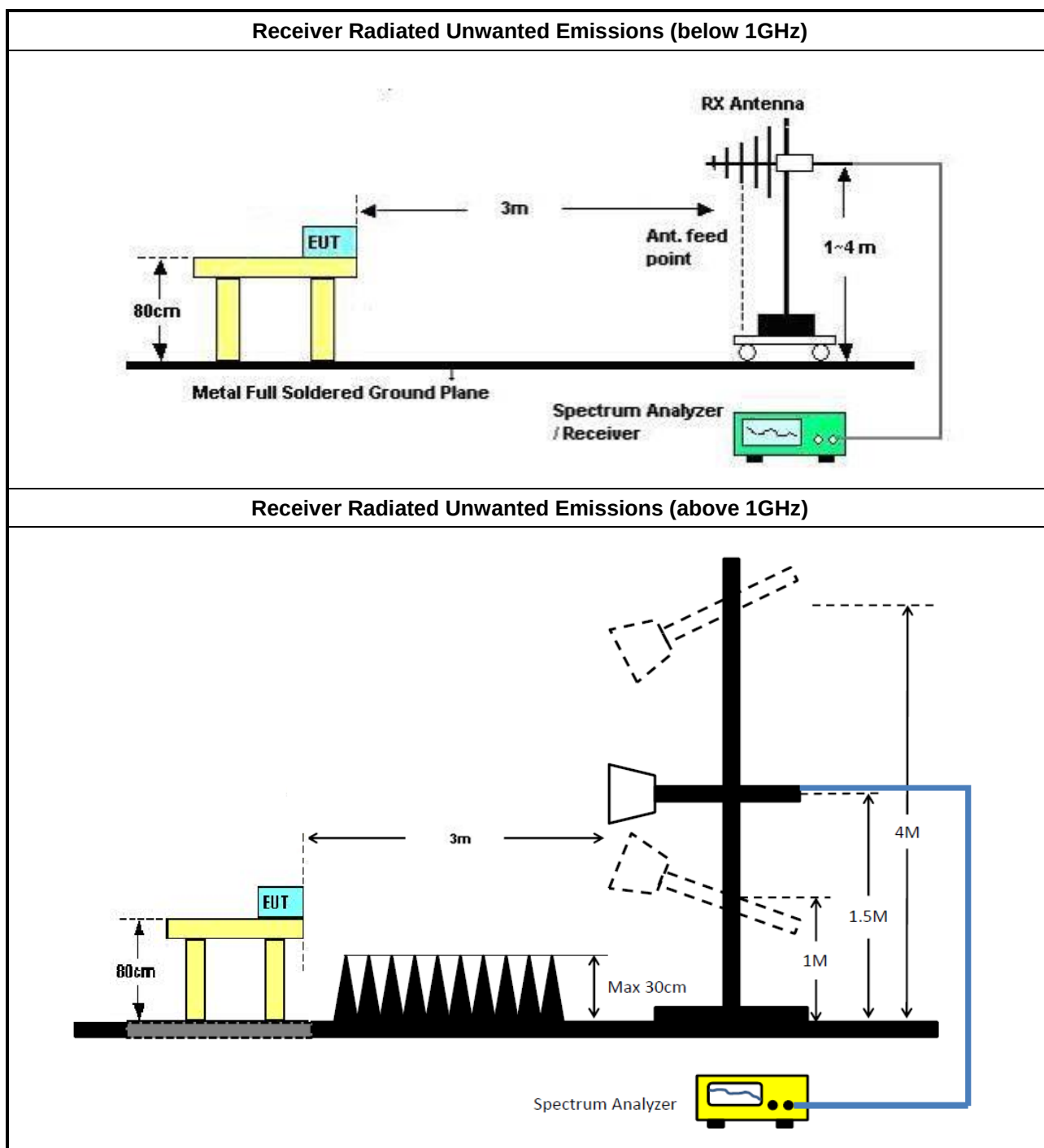
Refer a test equipment and calibration data table in this test report.

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 Test Setup





3.8.5 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.

3.8.6 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
EMC Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	23/Sep/2019	22/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	19/Mar/2020	18/Mar/2021
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz ~ 26.5GHz	15/Jul/2019	14/Jul/2020
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	14/Apr/2020	13/Apr/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	07/Aug/2019	06/Aug/2020
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	11/Oct/2019	10/Oct/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-H G	1864481	18GHz ~ 40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz-30MHz	16/Mar/2020	15/Mar/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz ~ 1GHz	12/Feb/2020	11/Feb/2021
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	324530/4+17173/4	1GHz ~ 40GHz	12/Feb/2020	11/Feb/2021

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101029	10kHz ~ 40GHz	01/Oct/2019	30/Sep/2020
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	18/Mar/2020	17/Mar/2021
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	18/Mar/2020	17/Mar/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	AV	908.364k	34.04	46.00	-11.96	19.63	Line
Mode 2	Pass	AV	908.364k	34.06	46.00	-11.94	19.63	Line

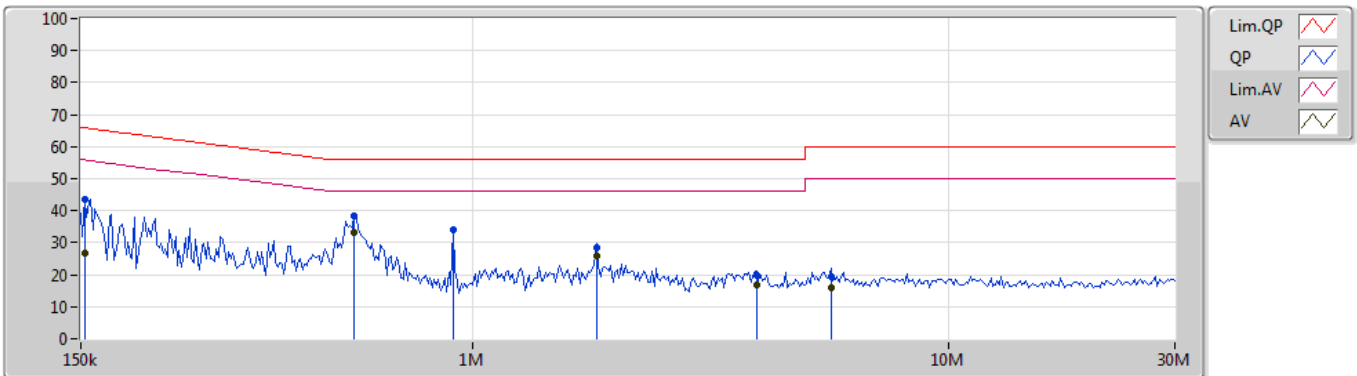
Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comments	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
Mode 1	Pass	QP	153.015k	43.38	65.83	-22.45	19.64	Line	-	23.74	9.66	0.11	9.87
Mode 1	Pass	AV	153.015k	26.78	55.83	-29.05	19.64	Line	-	7.14	9.66	0.11	9.87
Mode 1	Pass	QP	563.422k	38.28	56.00	-17.72	19.64	Line	-	18.64	9.64	0.13	9.87
Mode 1	Pass	AV	563.422k	33.10	46.00	-12.90	19.64	Line	-	13.46	9.64	0.13	9.87
Mode 1	Pass	QP	908.364k	34.16	56.00	-21.84	19.63	Line	-	14.53	9.64	0.11	9.88
Mode 1	Pass	AV	908.364k	34.04	46.00	-11.96	19.63	Line	"Worst"	14.41	9.64	0.11	9.88
Mode 1	Pass	QP	1.823M	28.66	56.00	-27.34	19.66	Line	-	9.00	9.65	0.14	9.87
Mode 1	Pass	AV	1.823M	25.76	46.00	-20.24	19.66	Line	-	6.10	9.65	0.14	9.87
Mode 1	Pass	QP	3.961M	19.96	56.00	-36.04	19.73	Line	-	0.23	9.66	0.19	9.88
Mode 1	Pass	AV	3.961M	16.63	46.00	-29.37	19.73	Line	-	-3.10	9.66	0.19	9.88
Mode 1	Pass	QP	5.668M	19.49	60.00	-40.51	19.76	Line	-	-0.27	9.67	0.21	9.88
Mode 1	Pass	AV	5.668M	16.15	50.00	-33.85	19.76	Line	-	-3.61	9.67	0.21	9.88
Mode 1	Pass	QP	157.652k	42.49	65.58	-23.09	19.63	Neutral	-	22.86	9.65	0.11	9.87
Mode 1	Pass	AV	157.652k	28.36	55.58	-27.22	19.63	Neutral	-	8.73	9.65	0.11	9.87
Mode 1	Pass	QP	563.422k	38.09	56.00	-17.91	19.63	Neutral	-	18.46	9.63	0.13	9.87
Mode 1	Pass	AV	563.422k	32.85	46.00	-13.15	19.63	Neutral	-	13.22	9.63	0.13	9.87
Mode 1	Pass	QP	908.364k	34.66	56.00	-21.34	19.62	Neutral	-	15.04	9.63	0.11	9.88
Mode 1	Pass	AV	908.364k	33.93	46.00	-12.07	19.62	Neutral	"Worst"	14.31	9.63	0.11	9.88
Mode 1	Pass	QP	1.823M	27.91	56.00	-28.09	19.66	Neutral	-	8.25	9.65	0.14	9.87
Mode 1	Pass	AV	1.823M	25.26	46.00	-20.74	19.66	Neutral	-	5.60	9.65	0.14	9.87
Mode 1	Pass	QP	3.412M	22.25	56.00	-33.75	19.72	Neutral	-	2.53	9.66	0.18	9.88
Mode 1	Pass	AV	3.412M	17.16	46.00	-28.84	19.72	Neutral	-	-2.56	9.66	0.18	9.88
Mode 1	Pass	QP	5.286M	21.76	60.00	-38.24	19.76	Neutral	-	2.00	9.67	0.21	9.88
Mode 1	Pass	AV	5.286M	17.99	50.00	-32.01	19.76	Neutral	-	-1.77	9.67	0.21	9.88
Mode 2	Pass	QP	162.429k	40.73	65.33	-24.60	19.64	Line	-	21.09	9.66	0.11	9.87
Mode 2	Pass	AV	162.429k	24.85	55.33	-30.48	19.64	Line	-	5.21	9.66	0.11	9.87
Mode 2	Pass	QP	563.422k	38.32	56.00	-17.68	19.64	Line	-	18.68	9.64	0.13	9.87
Mode 2	Pass	AV	563.422k	33.15	46.00	-12.85	19.64	Line	-	13.51	9.64	0.13	9.87
Mode 2	Pass	QP	908.364k	34.16	56.00	-21.84	19.63	Line	-	14.53	9.64	0.11	9.88
Mode 2	Pass	AV	908.364k	34.06	46.00	-11.94	19.63	Line	"Worst"	14.43	9.64	0.11	9.88
Mode 2	Pass	QP	1.823M	28.95	56.00	-27.05	19.66	Line	-	9.29	9.65	0.14	9.87
Mode 2	Pass	AV	1.823M	26.05	46.00	-19.95	19.66	Line	-	6.39	9.65	0.14	9.87
Mode 2	Pass	QP	3.769M	21.37	56.00	-34.63	19.72	Line	-	1.65	9.66	0.18	9.88
Mode 2	Pass	AV	3.769M	17.69	46.00	-28.31	19.72	Line	-	-2.03	9.66	0.18	9.88
Mode 2	Pass	QP	5.286M	20.50	60.00	-39.50	19.76	Line	-	0.74	9.67	0.21	9.88
Mode 2	Pass	AV	5.286M	17.05	50.00	-32.95	19.76	Line	-	-2.71	9.67	0.21	9.88
Mode 2	Pass	QP	162.429k	42.52	65.33	-22.81	19.63	Neutral	-	22.89	9.65	0.11	9.87
Mode 2	Pass	AV	162.429k	26.38	55.33	-28.95	19.63	Neutral	-	6.75	9.65	0.11	9.87
Mode 2	Pass	QP	569.056k	38.06	56.00	-17.94	19.63	Neutral	-	18.43	9.63	0.13	9.87
Mode 2	Pass	AV	569.056k	32.80	46.00	-13.20	19.63	Neutral	-	13.17	9.63	0.13	9.87
Mode 2	Pass	QP	908.364k	34.72	56.00	-21.28	19.62	Neutral	-	15.10	9.63	0.11	9.88
Mode 2	Pass	AV	908.364k	33.99	46.00	-12.01	19.62	Neutral	"Worst"	14.37	9.63	0.11	9.88
Mode 2	Pass	QP	1.823M	28.09	56.00	-27.91	19.66	Neutral	-	8.43	9.65	0.14	9.87

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comments	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
Mode 2	Pass	AV	1.823M	25.38	46.00	-20.62	19.66	Neutral	-	5.72	9.65	0.14	9.87
Mode 2	Pass	QP	3.515M	22.87	56.00	-33.13	19.72	Neutral	-	3.15	9.66	0.18	9.88
Mode 2	Pass	AV	3.515M	17.08	46.00	-28.92	19.72	Neutral	-	-2.64	9.66	0.18	9.88
Mode 2	Pass	QP	5.392M	21.66	60.00	-38.34	19.76	Neutral	-	1.90	9.67	0.21	9.88
Mode 2	Pass	AV	5.392M	17.86	50.00	-32.14	19.76	Neutral	-	-1.90	9.67	0.21	9.88

Conducted Emissions at Powerline_Mode 1

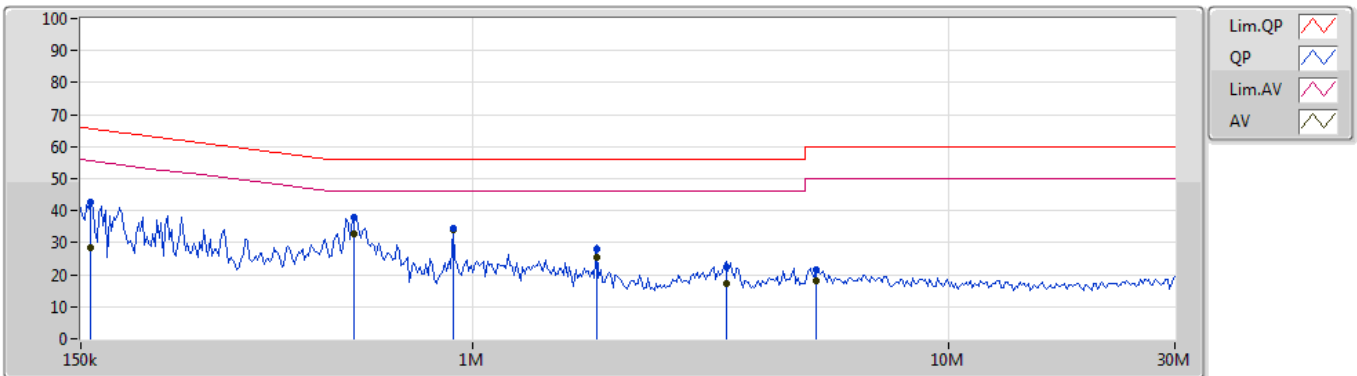
13/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	153.015k	43.38	65.83	-22.45	19.64	Line	-	23.74	9.66	0.11	9.87			
AV	153.015k	26.78	55.83	-29.05	19.64	Line	-	7.14	9.66	0.11	9.87			
QP	563.422k	38.28	56.00	-17.72	19.64	Line	-	18.64	9.64	0.13	9.87			
AV	563.422k	33.10	46.00	-12.90	19.64	Line	-	13.46	9.64	0.13	9.87			
QP	908.364k	34.16	56.00	-21.84	19.63	Line	-	14.53	9.64	0.11	9.88			
AV	908.364k	34.04	46.00	-11.96	19.63	Line	"Worst"	14.41	9.64	0.11	9.88			
QP	1.823M	28.66	56.00	-27.34	19.66	Line	-	9.00	9.65	0.14	9.87			
AV	1.823M	25.76	46.00	-20.24	19.66	Line	-	6.10	9.65	0.14	9.87			
QP	3.961M	19.96	56.00	-36.04	19.73	Line	-	0.23	9.66	0.19	9.88			
AV	3.961M	16.63	46.00	-29.37	19.73	Line	-	-3.10	9.66	0.19	9.88			
QP	5.668M	19.49	60.00	-40.51	19.76	Line	-	-0.27	9.67	0.21	9.88			
AV	5.668M	16.15	50.00	-33.85	19.76	Line	-	-3.61	9.67	0.21	9.88			

Conducted Emissions at Powerline_Mode 1

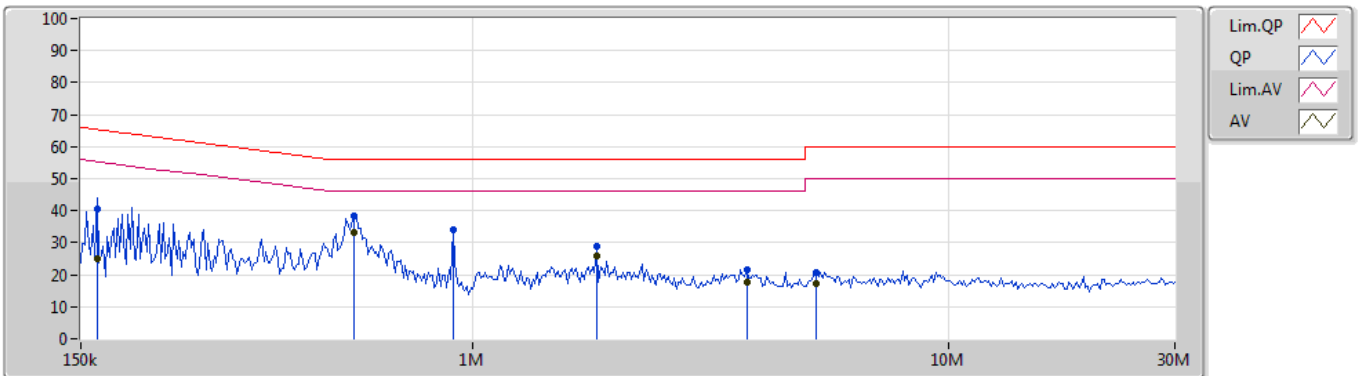
13/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT			
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)			
QP	157.652k	42.49	65.58	-23.09	19.63	Neutral	-	22.86	9.65	0.11	9.87			
AV	157.652k	28.36	55.58	-27.22	19.63	Neutral	-	8.73	9.65	0.11	9.87			
QP	563.422k	38.09	56.00	-17.91	19.63	Neutral	-	18.46	9.63	0.13	9.87			
AV	563.422k	32.85	46.00	-13.15	19.63	Neutral	-	13.22	9.63	0.13	9.87			
QP	908.364k	34.66	56.00	-21.34	19.62	Neutral	-	15.04	9.63	0.11	9.88			
AV	908.364k	33.93	46.00	-12.07	19.62	Neutral	"Worst"	14.31	9.63	0.11	9.88			
QP	1.823M	27.91	56.00	-28.09	19.66	Neutral	-	8.25	9.65	0.14	9.87			
AV	1.823M	25.26	46.00	-20.74	19.66	Neutral	-	5.60	9.65	0.14	9.87			
QP	3.412M	22.25	56.00	-33.75	19.72	Neutral	-	2.53	9.66	0.18	9.88			
AV	3.412M	17.16	46.00	-28.84	19.72	Neutral	-	-2.56	9.66	0.18	9.88			
QP	5.286M	21.76	60.00	-38.24	19.76	Neutral	-	2.00	9.67	0.21	9.88			
AV	5.286M	17.99	50.00	-32.01	19.76	Neutral	-	-1.77	9.67	0.21	9.88			

Conducted Emissions at Powerline_Mode 2

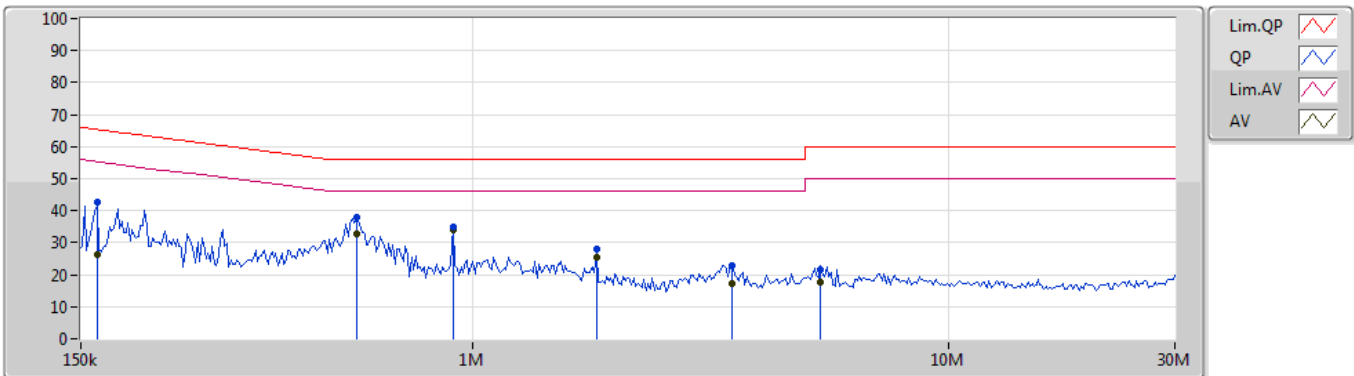
13/06/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT			
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)			
QP	162.429k	40.73	65.33	-24.60	19.64	Line	-	21.09	9.66	0.11	9.87			
AV	162.429k	24.85	55.33	-30.48	19.64	Line	-	5.21	9.66	0.11	9.87			
QP	563.422k	38.32	56.00	-17.68	19.64	Line	-	18.68	9.64	0.13	9.87			
AV	563.422k	33.15	46.00	-12.85	19.64	Line	-	13.51	9.64	0.13	9.87			
QP	908.364k	34.16	56.00	-21.84	19.63	Line	-	14.53	9.64	0.11	9.88			
AV	908.364k	34.06	46.00	-11.94	19.63	Line	"Worst"	14.43	9.64	0.11	9.88			
QP	1.823M	28.95	56.00	-27.05	19.66	Line	-	9.29	9.65	0.14	9.87			
AV	1.823M	26.05	46.00	-19.95	19.66	Line	-	6.39	9.65	0.14	9.87			
QP	3.769M	21.37	56.00	-34.63	19.72	Line	-	1.65	9.66	0.18	9.88			
AV	3.769M	17.69	46.00	-28.31	19.72	Line	-	-2.03	9.66	0.18	9.88			
QP	5.286M	20.50	60.00	-39.50	19.76	Line	-	0.74	9.67	0.21	9.88			
AV	5.286M	17.05	50.00	-32.95	19.76	Line	-	-2.71	9.67	0.21	9.88			

Conducted Emissions at Powerline_Mode 2

13/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	162.429k	42.52	65.33	-22.81	19.63	Neutral	-	22.89	9.65	0.11	9.87			
AV	162.429k	26.38	55.33	-28.95	19.63	Neutral	-	6.75	9.65	0.11	9.87			
QP	569.056k	38.06	56.00	-17.94	19.63	Neutral	-	18.43	9.63	0.13	9.87			
AV	569.056k	32.80	46.00	-13.20	19.63	Neutral	-	13.17	9.63	0.13	9.87			
QP	908.364k	34.72	56.00	-21.28	19.62	Neutral	-	15.10	9.63	0.11	9.88			
AV	908.364k	33.99	46.00	-12.01	19.62	Neutral	"Worst"	14.37	9.63	0.11	9.88			
QP	1.823M	28.09	56.00	-27.91	19.66	Neutral	-	8.43	9.65	0.14	9.87			
AV	1.823M	25.38	46.00	-20.62	19.66	Neutral	-	5.72	9.65	0.14	9.87			
QP	3.515M	22.87	56.00	-33.13	19.72	Neutral	-	3.15	9.66	0.18	9.88			
AV	3.515M	17.08	46.00	-28.92	19.72	Neutral	-	-2.64	9.66	0.18	9.88			
QP	5.392M	21.66	60.00	-38.34	19.76	Neutral	-	1.90	9.67	0.21	9.88			
AV	5.392M	17.86	50.00	-32.14	19.76	Neutral	-	-1.90	9.67	0.21	9.88			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	955k	903.548k	904KF1D	940k	899.55k
BT-EDR(2Mbps)	1.344M	1.221M	1M22G1D	1.335M	1.218M
BT-EDR(3Mbps)	1.318M	1.225M	1M23G1D	1.31M	1.224M

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;

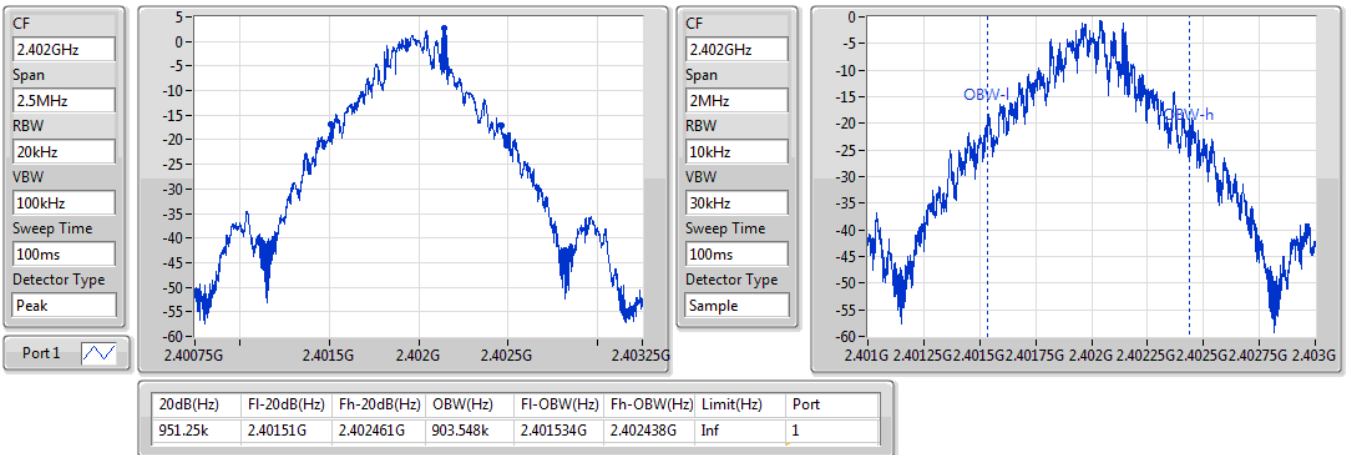
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	951.25k	903.548k
2440MHz	Pass	Inf	940k	899.55k
2480MHz	Pass	Inf	955k	902.549k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.335M	1.221M
2440MHz	Pass	Inf	1.344M	1.218M
2480MHz	Pass	Inf	1.338M	1.219M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.31M	1.224M
2440MHz	Pass	Inf	1.31M	1.224M
2480MHz	Pass	Inf	1.318M	1.225M

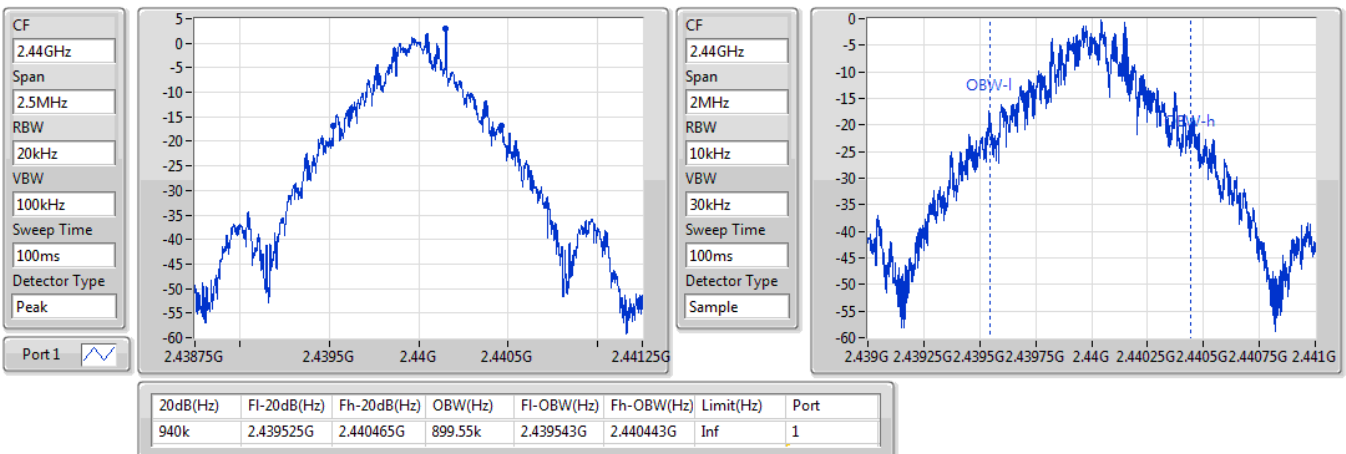
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
EBW
2402MHz

10/06/2020

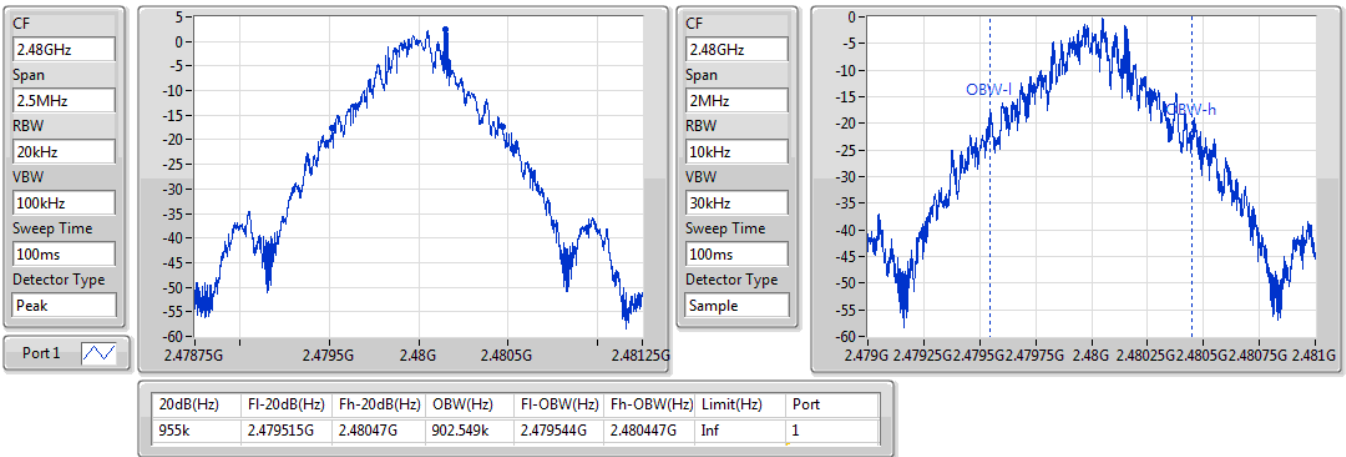

BT-BR(1Mbps)
EBW
2440MHz

10/06/2020

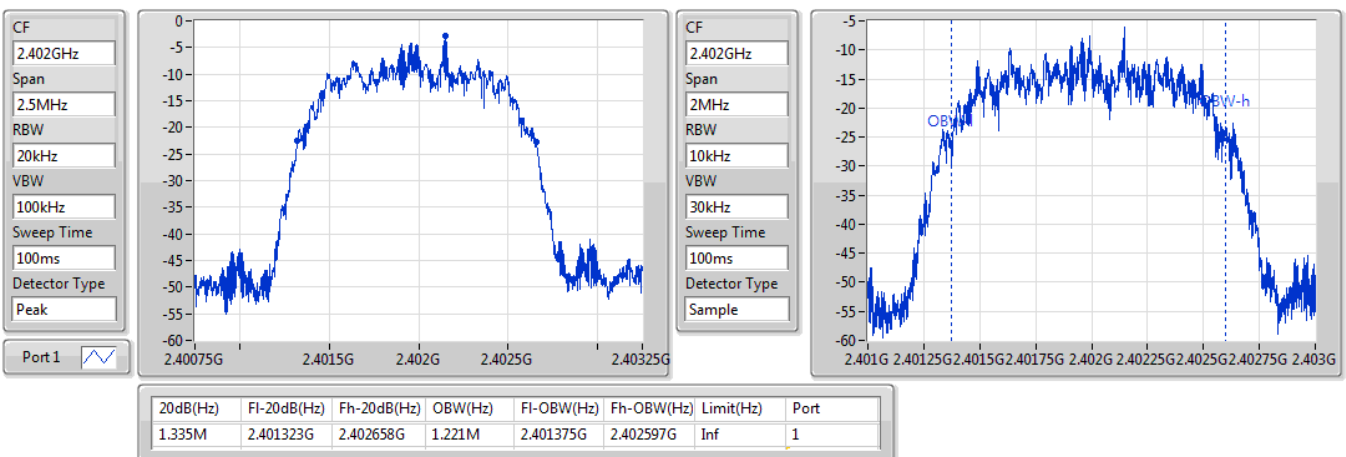


BT-BR(1Mbps)
EBW
2480MHz

10/06/2020

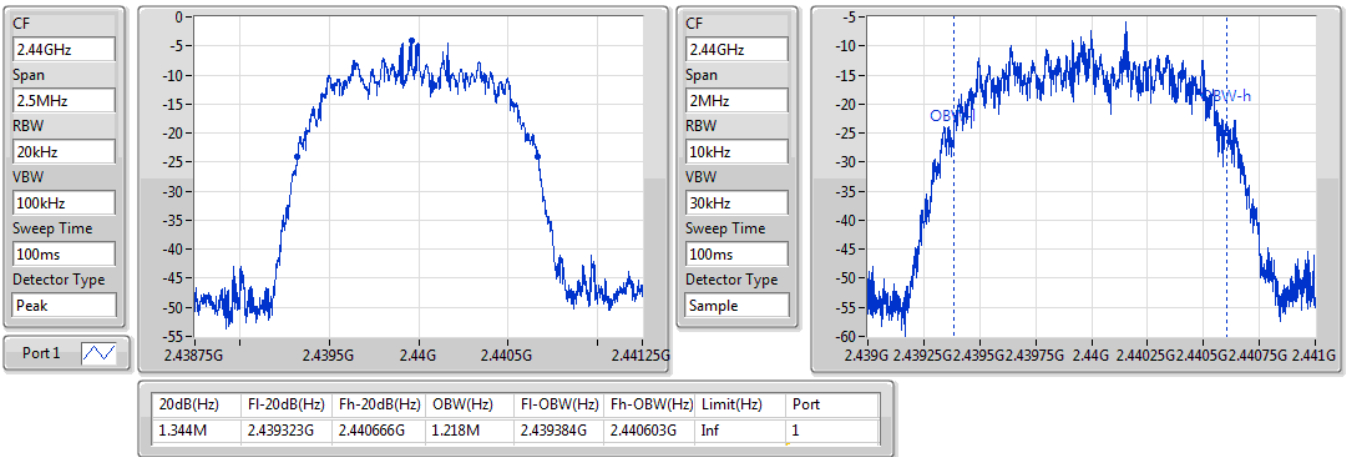

BT-EDR(2Mbps)
EBW
2402MHz

10/06/2020

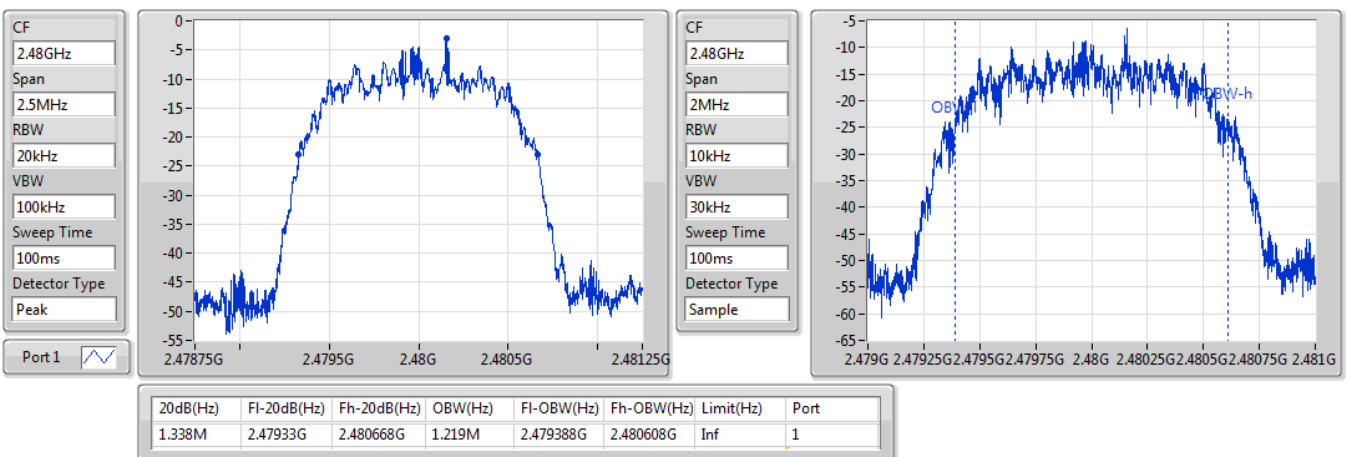


BT-EDR(2Mbps)
EBW
2440MHz

10/06/2020

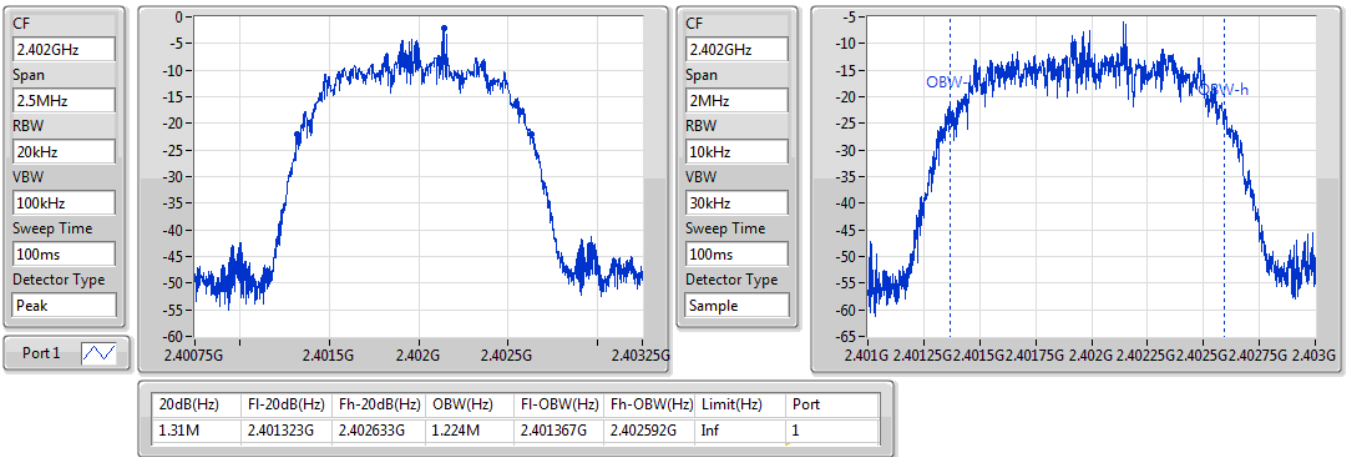

BT-EDR(2Mbps)
EBW
2480MHz

10/06/2020

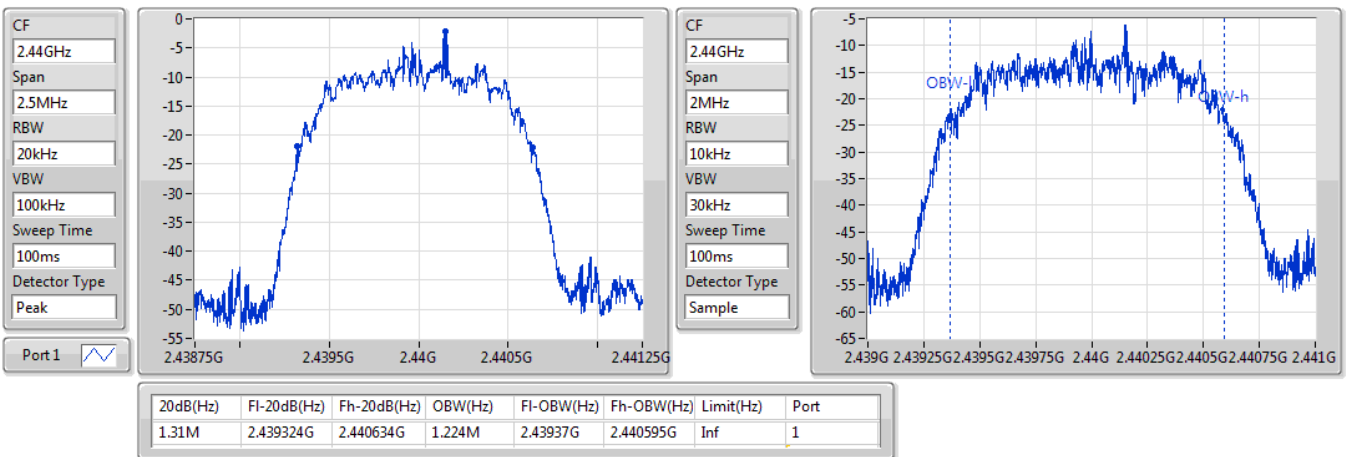


BT-EDR(3Mbps)
EBW
2402MHz

10/06/2020


BT-EDR(3Mbps)
EBW
2440MHz

10/06/2020

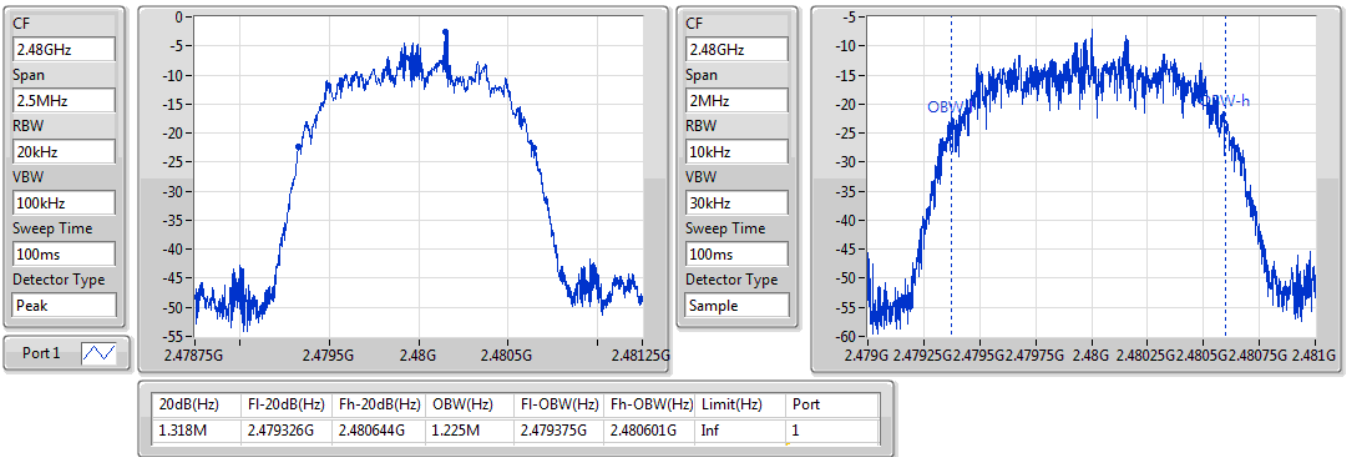


BT-EDR(3Mbps)

2480MHz

EBW

10/06/2020





Summary

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

Result

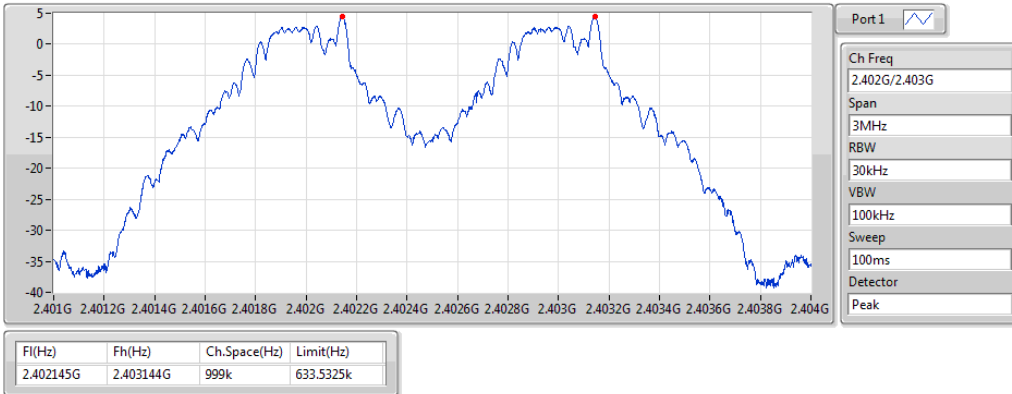
Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402145G	2.403144G	999k	633.5325k
2440MHz	Pass	2.440149G	2.441148G	999k	626.04k
2480MHz	Pass	2.479152G	2.480151G	999k	636.03k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402146G	2.403148G	1.002M	889.11k
2440MHz	Pass	2.440151G	2.44115G	999k	895.104k
2480MHz	Pass	2.479155G	2.480156G	1.0005M	891.108k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402143G	2.403144G	1.0005M	872.46k
2440MHz	Pass	2.440148G	2.44115G	1.002M	872.46k
2480MHz	Pass	2.479152G	2.480153G	1.0005M	877.788k

BT-BR(1Mbps)

2.402G/2.403GHz

Channel Separation

10/06/2020



BT-BR(1Mbps)

2.44G/2.441GHz

Channel Separation

10/06/2020



BT-BR(1Mbps)

2.48G/2.479GHz

Channel Separation

10/06/2020

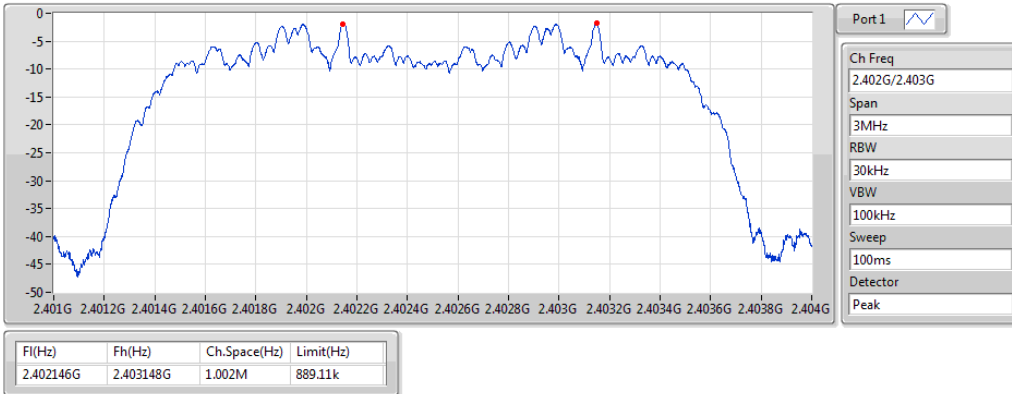


BT-EDR(2Mbps)

2.402G/2.403GHz

Channel Separation

10/06/2020

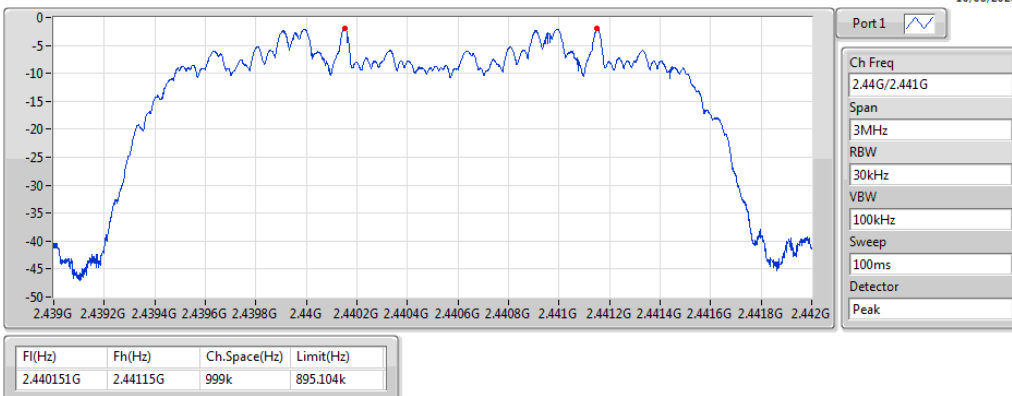


BT-EDR(2Mbps)

2.44G/2.441GHz

Channel Separation

10/06/2020

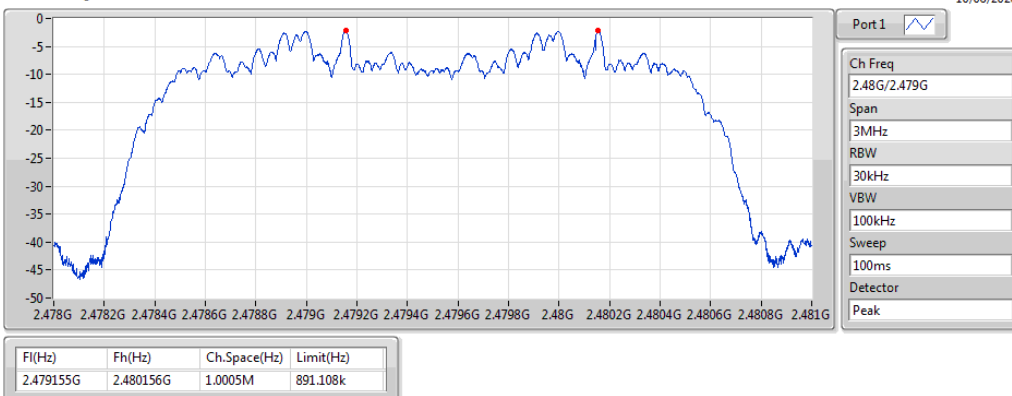


BT-EDR(2Mbps)

2.48G/2.479GHz

Channel Separation

10/06/2020

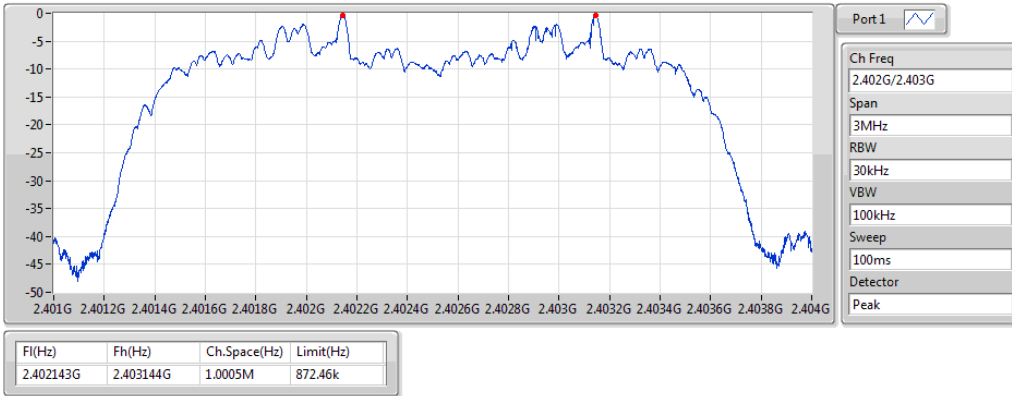


BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation

10/06/2020

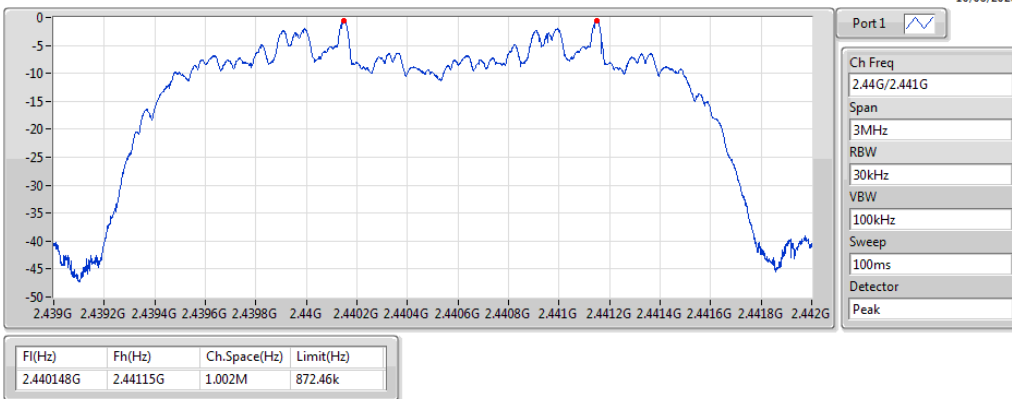


BT-EDR(3Mbps)

2.44G/2.441GHz

Channel Separation

10/06/2020

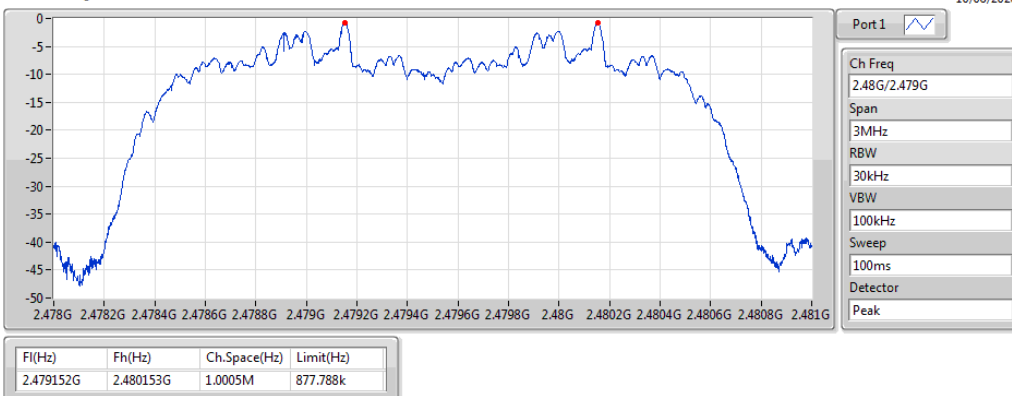


BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation

10/06/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	6.00	0.00398
BT-EDR(2Mbps)	3.30	0.00214
BT-EDR(3Mbps)	3.73	0.00236

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.46	5.82	21.00
2440MHz	Pass	2.46	6.00	21.00
2480MHz	Pass	2.46	5.72	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.46	3.30	21.00
2440MHz	Pass	2.46	3.26	21.00
2480MHz	Pass	2.46	3.02	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.46	3.73	21.00
2440MHz	Pass	2.46	3.67	21.00
2480MHz	Pass	2.46	3.41	21.00

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



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.69	0.00371
BT-EDR(2Mbps)	1.96	0.00157
BT-EDR(3Mbps)	1.99	0.00158

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.46	5.66	21.00
2440MHz	Pass	2.46	5.69	21.00
2480MHz	Pass	2.46	5.32	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.46	1.96	21.00
2440MHz	Pass	2.46	1.82	21.00
2480MHz	Pass	2.46	1.68	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.46	1.99	21.00
2440MHz	Pass	2.46	1.82	21.00
2480MHz	Pass	2.46	1.69	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

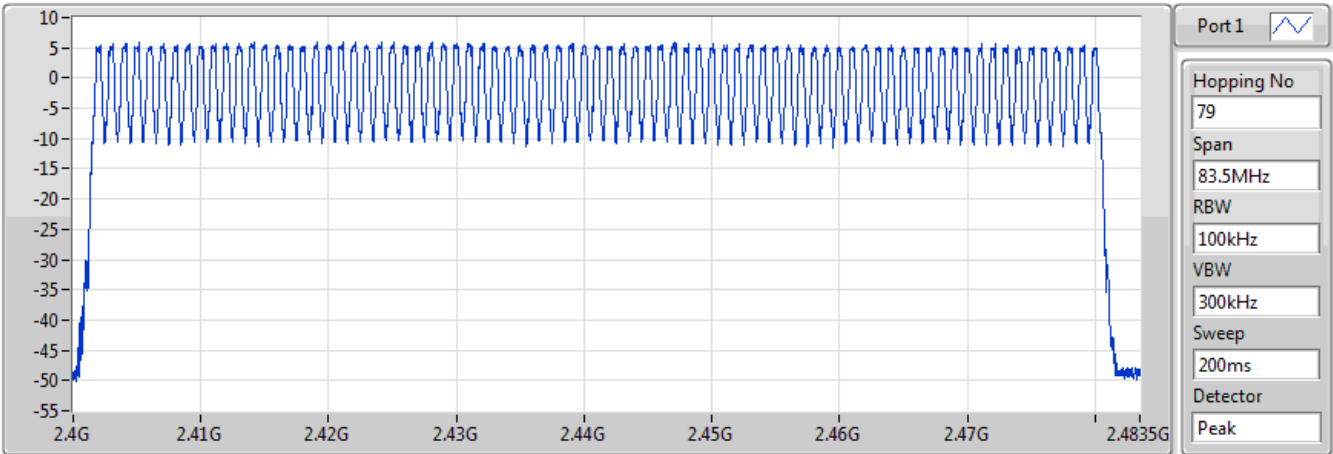
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2440MHz	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2440MHz	Pass	79	15

BT-BR(1Mbps)

2440MHz

Hopping Ch

10/06/2020



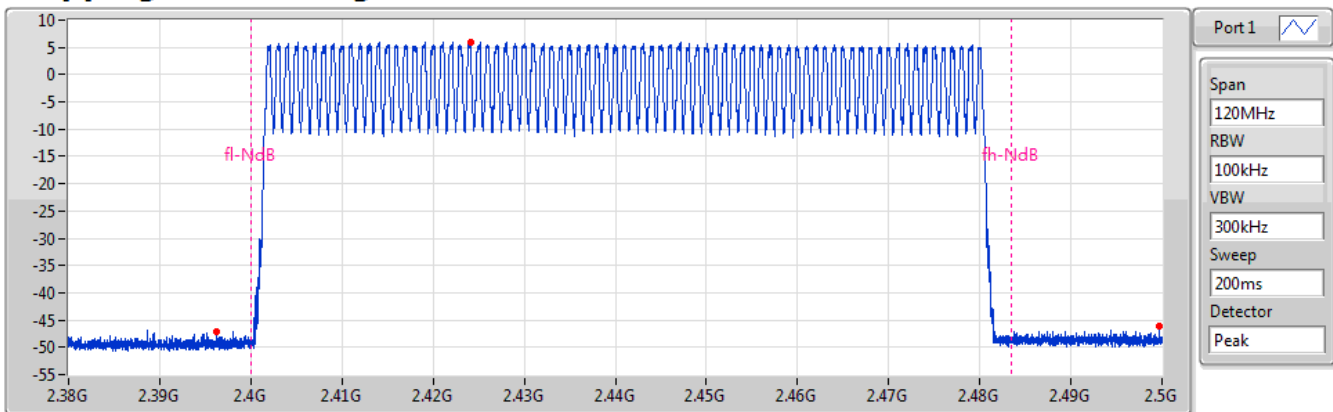
Hopping No	Limit
79	15

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

10/06/2020



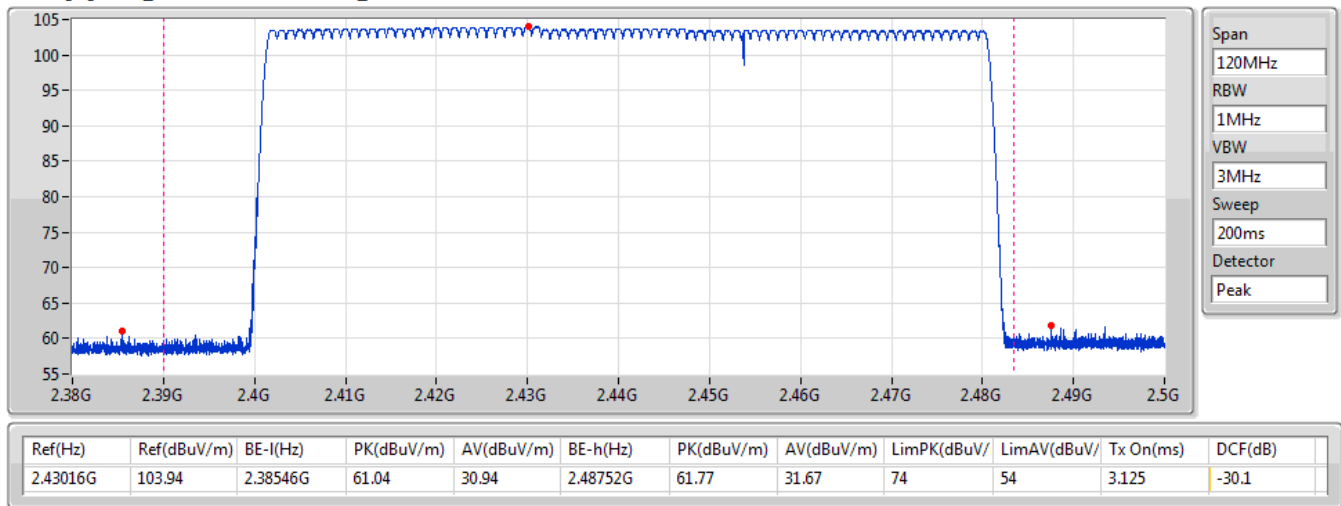
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-13.97	2.424145G	6.03	2.396275G	-47.09	2.49967G	-46.23

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

10/06/2020

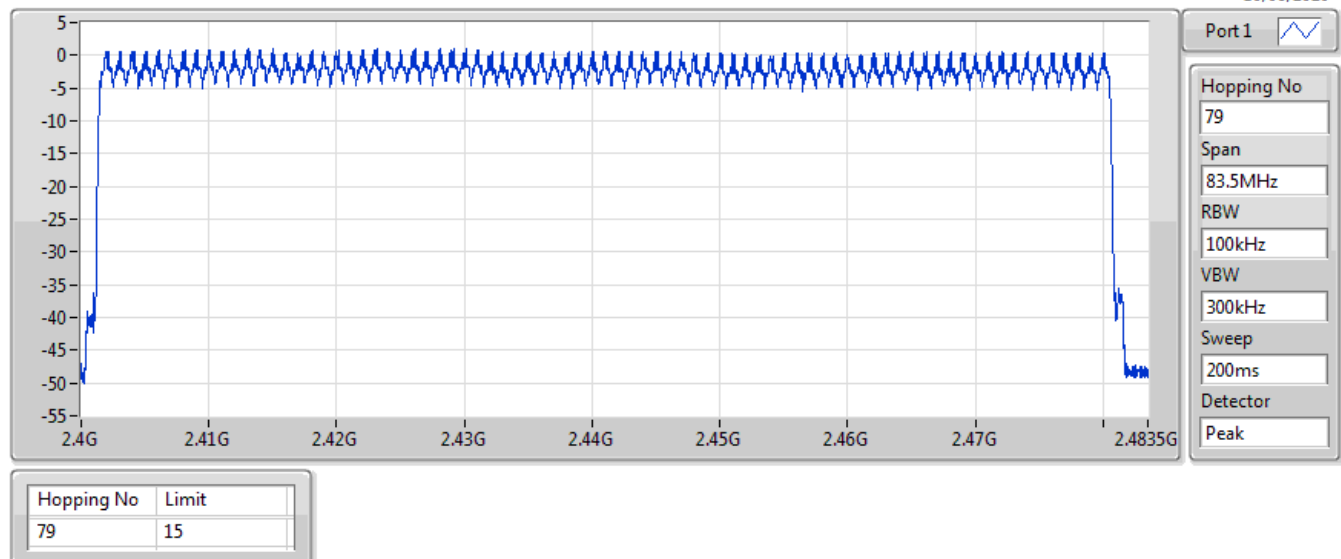


BT-EDR(2Mbps)

2440MHz

Hopping Ch

10/06/2020

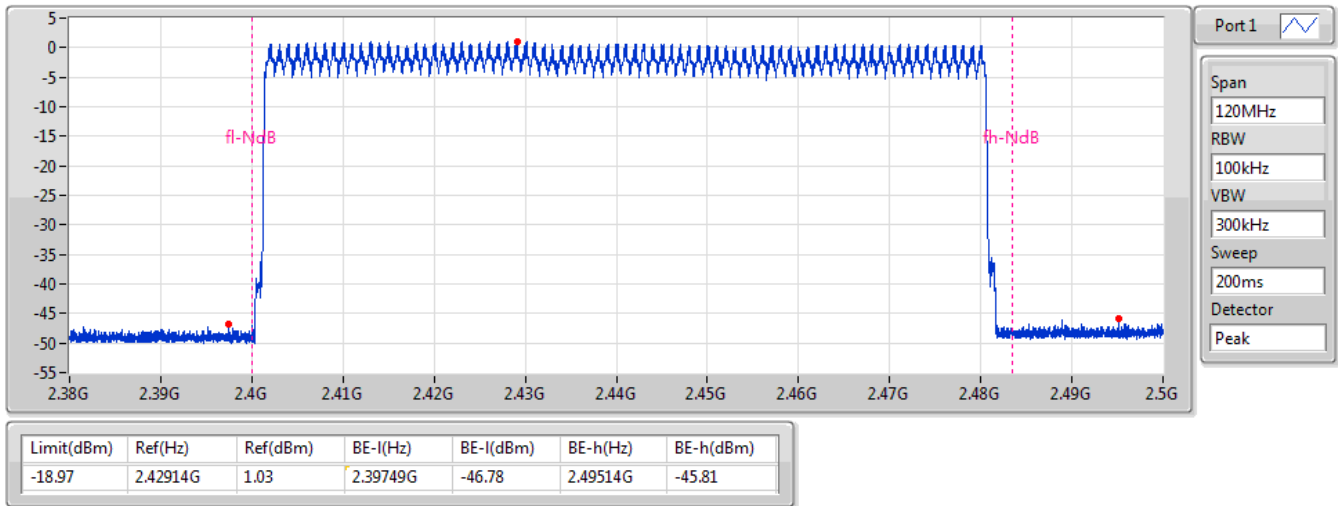


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

10/06/2020

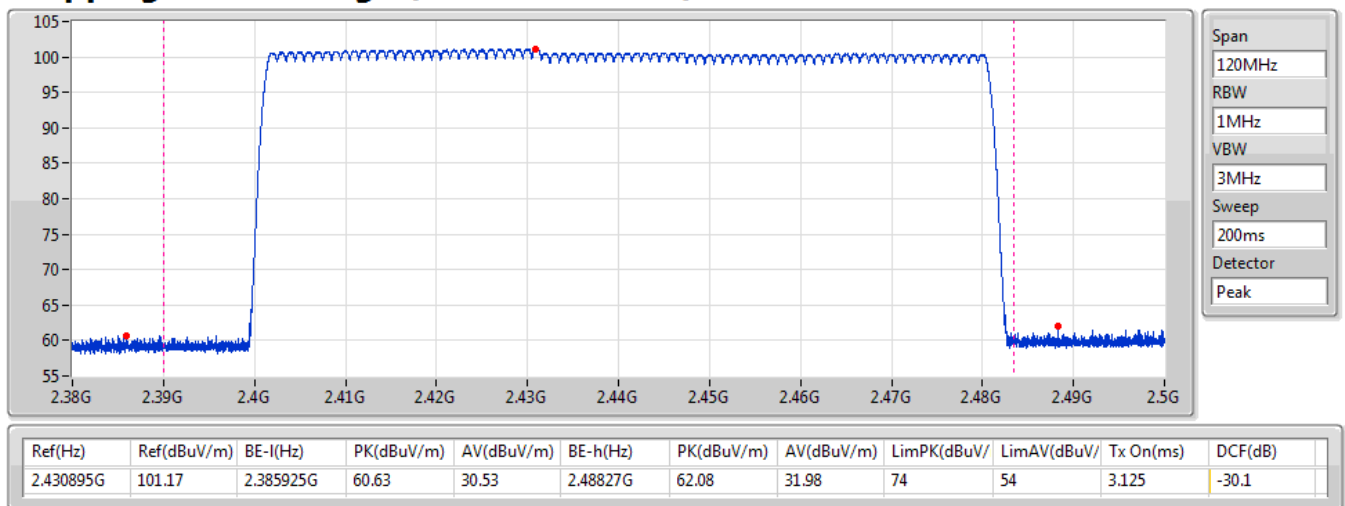


BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

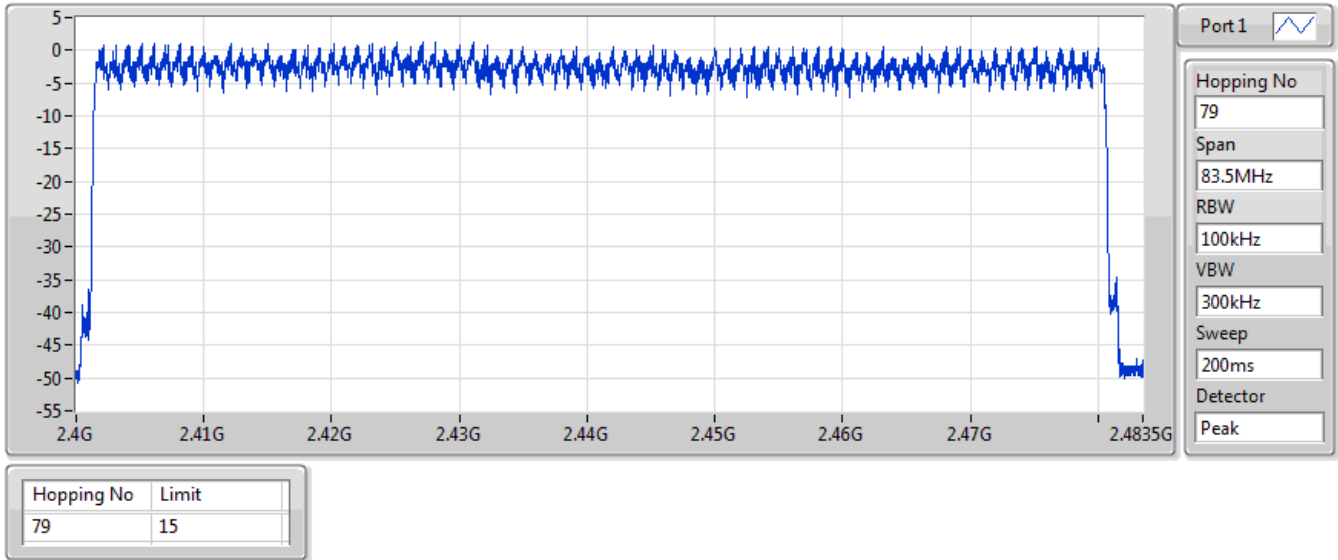
10/06/2020



BT-EDR(3Mbps) 2440MHz

Hopping Ch

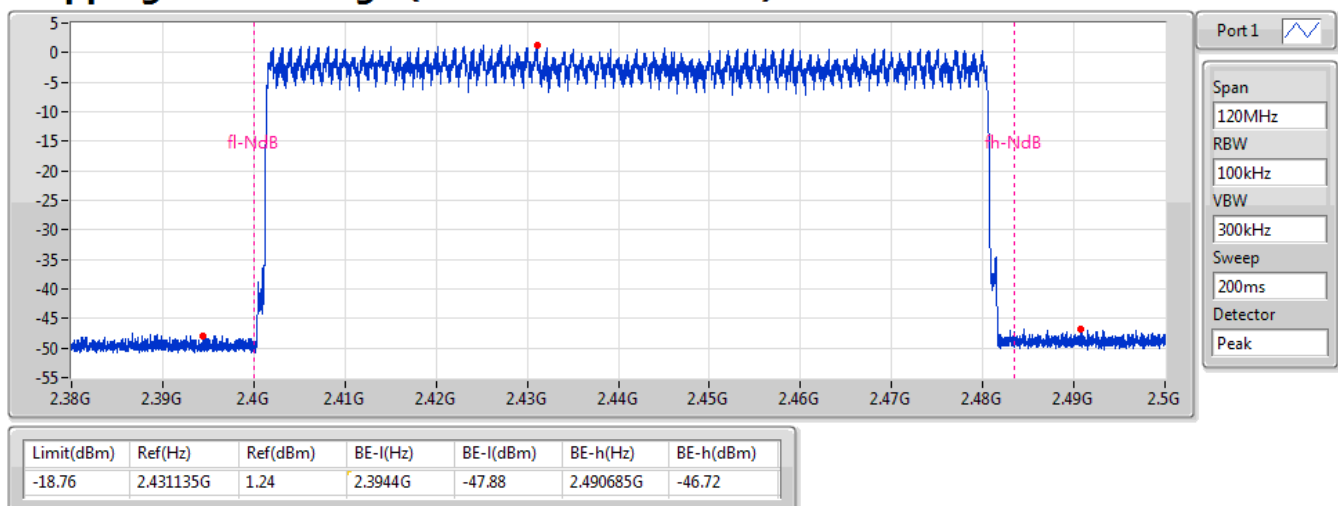
10/06/2020



BT-EDR(3Mbps) 2440MHz

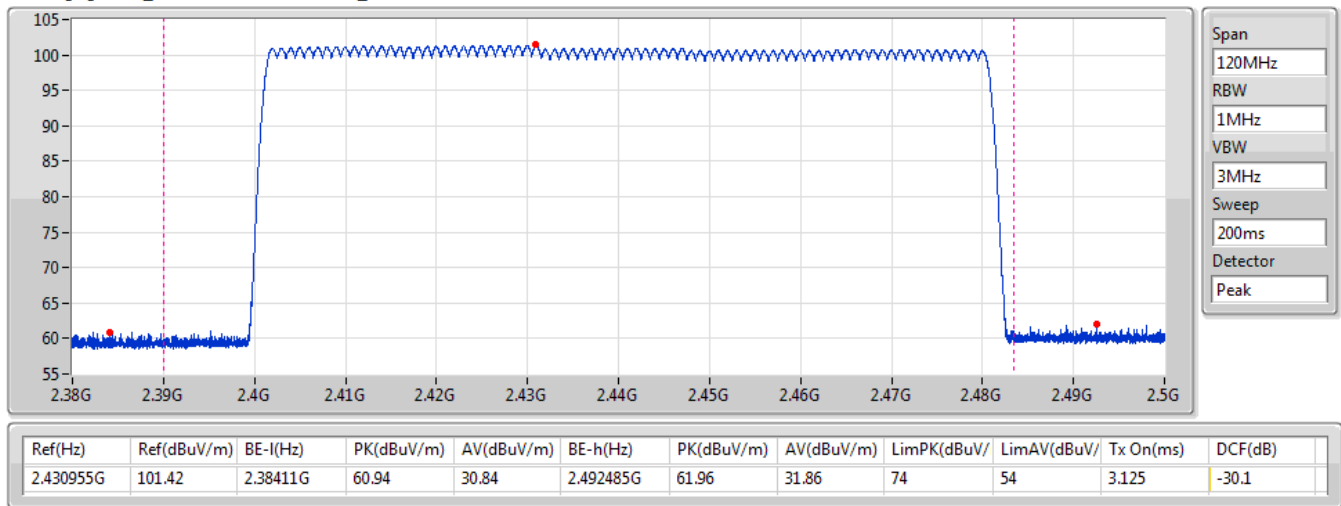
Hopping Ch Bandedge (Non-restricted Band)

10/06/2020



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

10/06/2020





Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	311.3786m
BT-EDR(2Mbps)	311.5918m
BT-EDR(3Mbps)	312.09815m

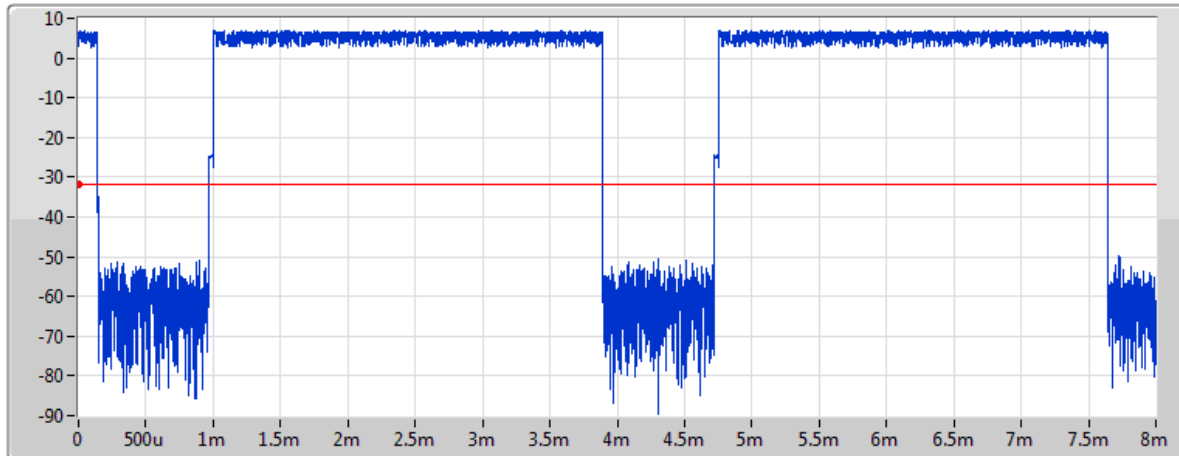
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	311.3786m	400m	2.921m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	311.5918m	400m	2.923m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	312.09815m	400m	2.92775m

BT-BR(1Mbps)

2440MHz

10/06/2020



Port1

Ch Freq

2.44GHz

RBW

300kHz

VBW

1MHz

Sweep Time

8ms

TX Time

2.921ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.3786m	400m	2.921m

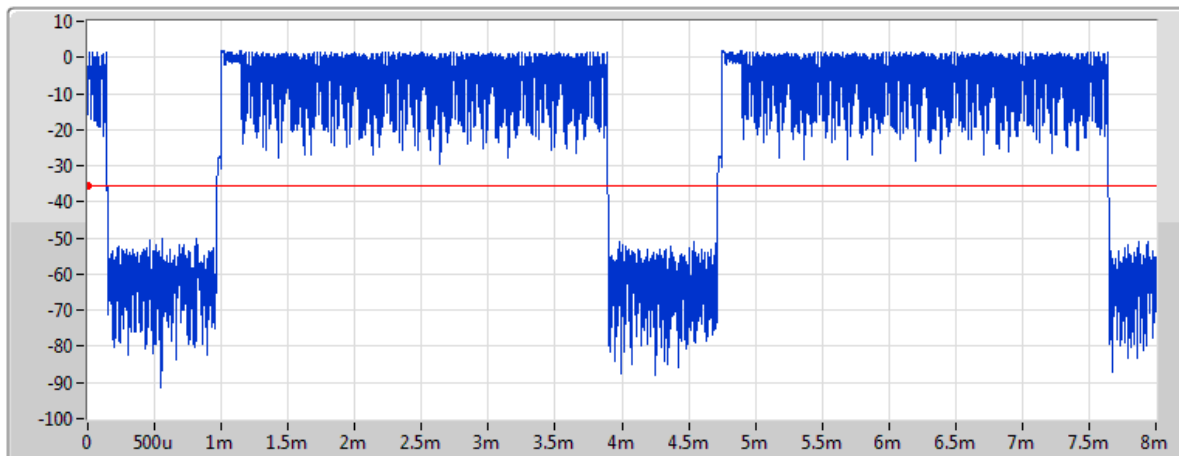
AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.6893m	400m	2.921m

BT-EDR(2Mbps)

2440MHz

10/06/2020



Port1

Ch Freq

2.44GHz

RBW

300kHz

VBW

1MHz

Sweep Time

8ms

TX Time

2.923ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.5918m	400m	2.923m

AFH Mode

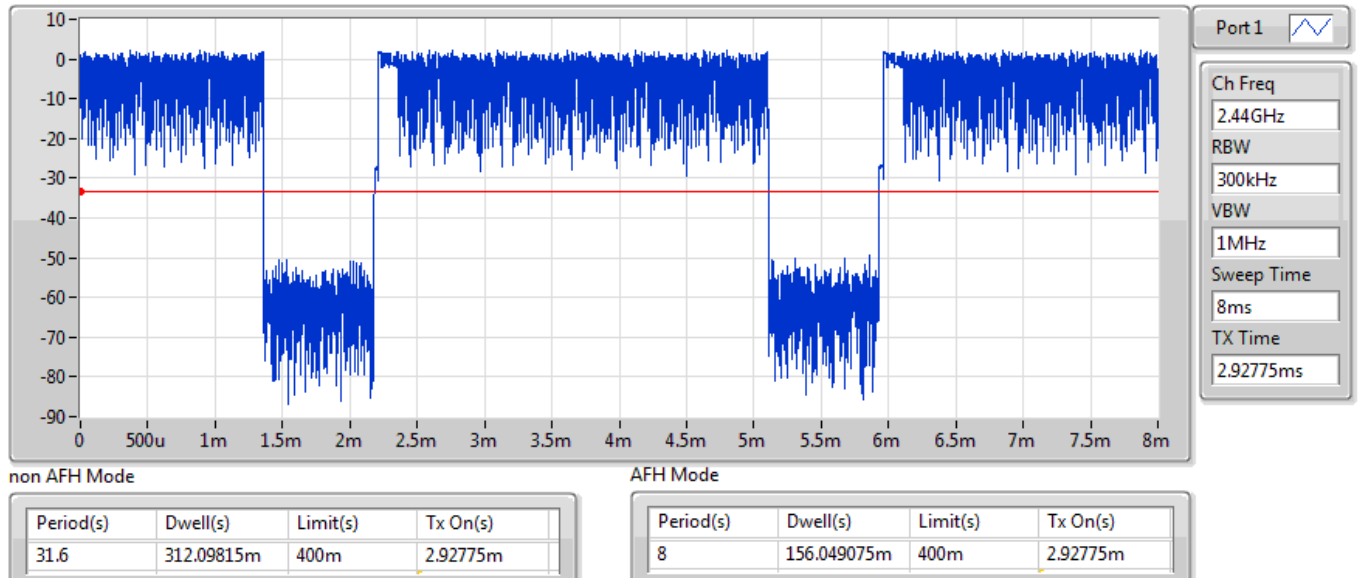
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.7959m	400m	2.923m

BT-EDR(3Mbps)

2440MHz

Dwell

10/06/2020



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	2.40184G	5.05	-14.95	909.19M	-55.32	2.39988G	-51.09	2.4G	-51.97	2.48685G	-53.06	15.21121G	-42.56	1
BT-EDR(2Mbps)	Pass	2.40213G	0.28	-19.72	2.17996G	-55.82	2.39973G	-52.48	2.4G	-55.25	2.48766G	-53.30	24.96063G	-42.38	1
BT-EDR(3Mbps)	Pass	2.40188G	-0.12	-20.12	1.83186G	-55.36	2.39967G	-51.42	2.4G	-53.70	2.49711G	-53.30	15.16341G	-42.97	1

Result

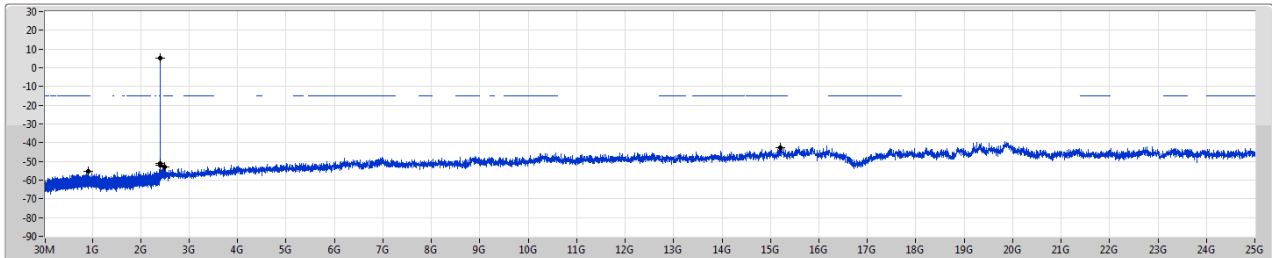
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	5.05	-14.95	909.19M	-55.32	2.39988G	-51.09	2.4G	-51.97	2.48685G	-53.06	15.21121G	-42.56	1
2440MHz	Pass	2.44004G	5.09	-14.91	2.15616G	-55.75	2.3902G	-54.75	2.4835G	-55.61	2.48463G	-53.15	23.29027G	-41.38	1
2480MHz	Pass	2.48016G	5.23	-14.77	2.11856G	-55.56	2.3936G	-54.24	2.4835G	-54.90	2.49905G	-53.19	23.29589G	-40.28	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40213G	0.28	-19.72	2.17996G	-55.82	2.39973G	-52.48	2.4G	-55.25	2.48766G	-53.30	24.96063G	-42.38	1
2440MHz	Pass	2.44012G	0.50	-19.50	2.09859G	-55.79	2.39823G	-54.82	2.4G	-57.65	2.49269G	-53.36	23.35776G	-41.93	1
2480MHz	Pass	2.48003G	0.36	-19.64	2.06569G	-55.07	2.39012G	-54.39	2.4835G	-57.47	2.49661G	-53.56	15.25058G	-41.67	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40188G	-0.12	-20.12	1.83186G	-55.36	2.39967G	-51.42	2.4G	-53.70	2.49711G	-53.30	15.16341G	-42.97	1
2440MHz	Pass	2.44016G	-0.03	-20.03	2.14324G	-55.08	2.39662G	-54.48	2.4835G	-56.18	2.49523G	-53.26	14.975G	-42.63	1
2480MHz	Pass	2.47995G	-0.27	-20.27	2.12121G	-56.28	2.39377G	-54.59	2.4835G	-56.26	2.50041G	-53.31	23.36057G	-41.94	1

BT-BR(1Mbps)

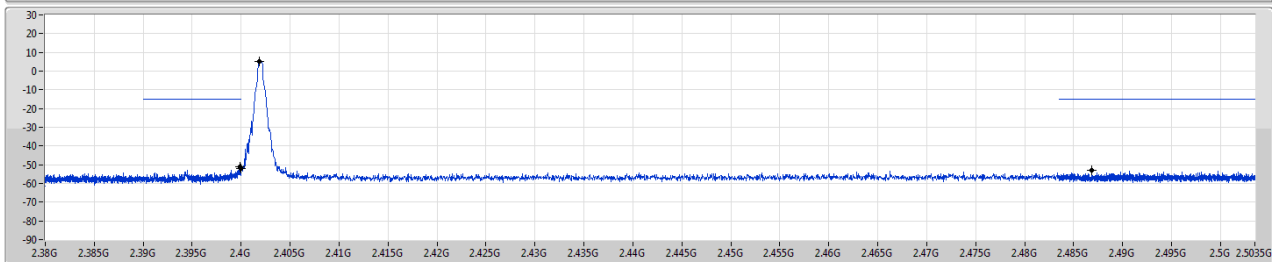
CSE NdB

2402MHz

10/06/2020



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

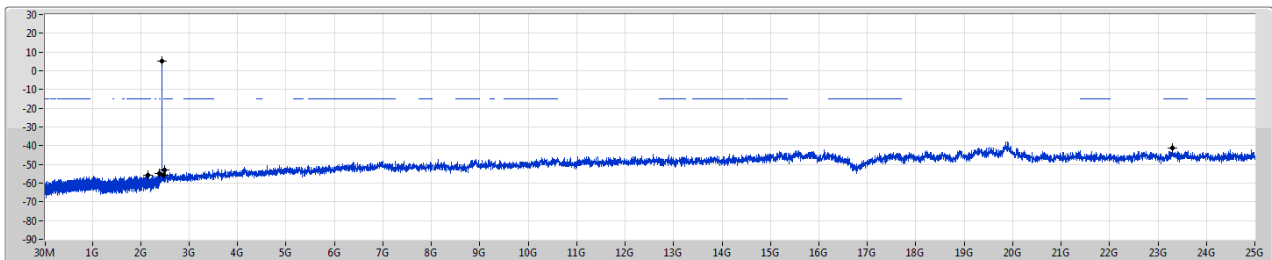
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40184G	5.05	-14.95	909.19M	-55.32	2.39988G	-51.09	2.4G	-51.97	2.48685G	-53.06	15.21121G	-42.56	1

BT-BR(1Mbps)

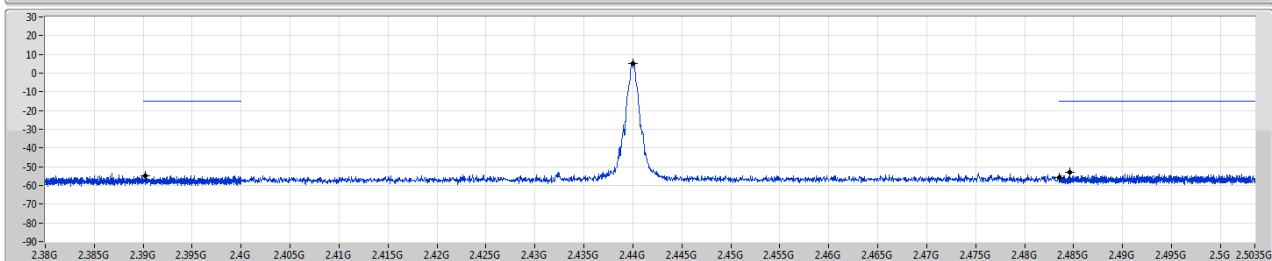
CSE NdB

2440MHz

10/06/2020



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

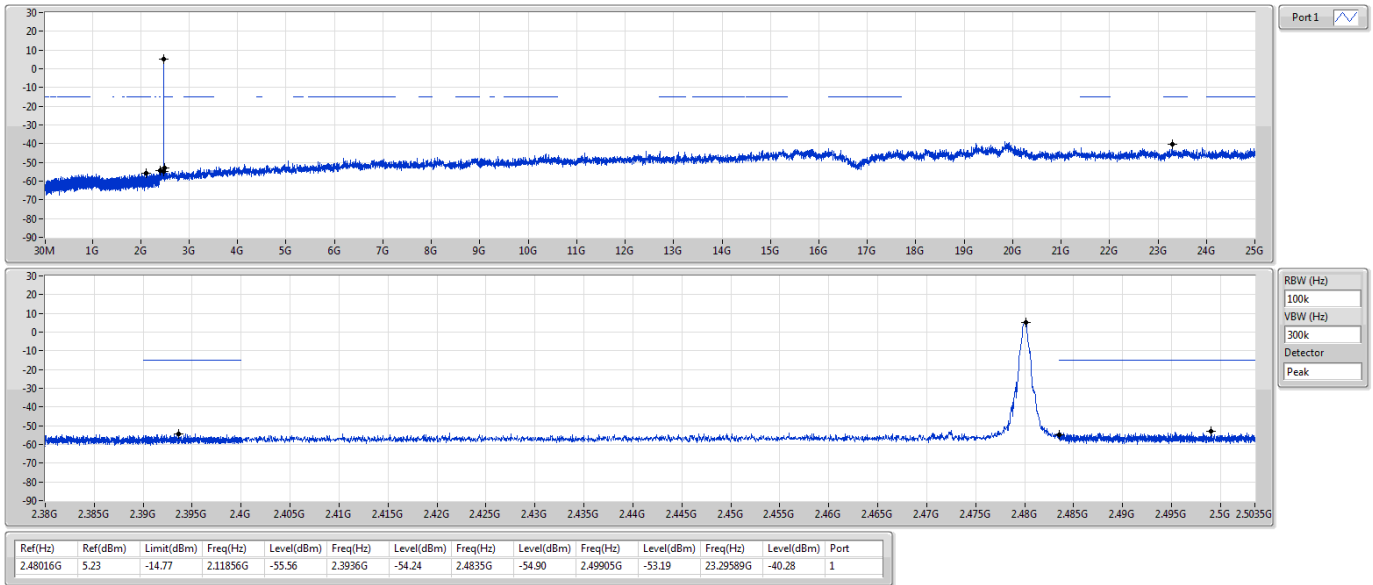
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44004G	5.09	-14.91	2.15616G	-55.75	2.3902G	-54.75	2.4835G	-55.61	2.48463G	-53.15	23.29027G	-41.38	1

BT-BR(1Mbps)

2480MHz

CSE NdB

10/06/2020

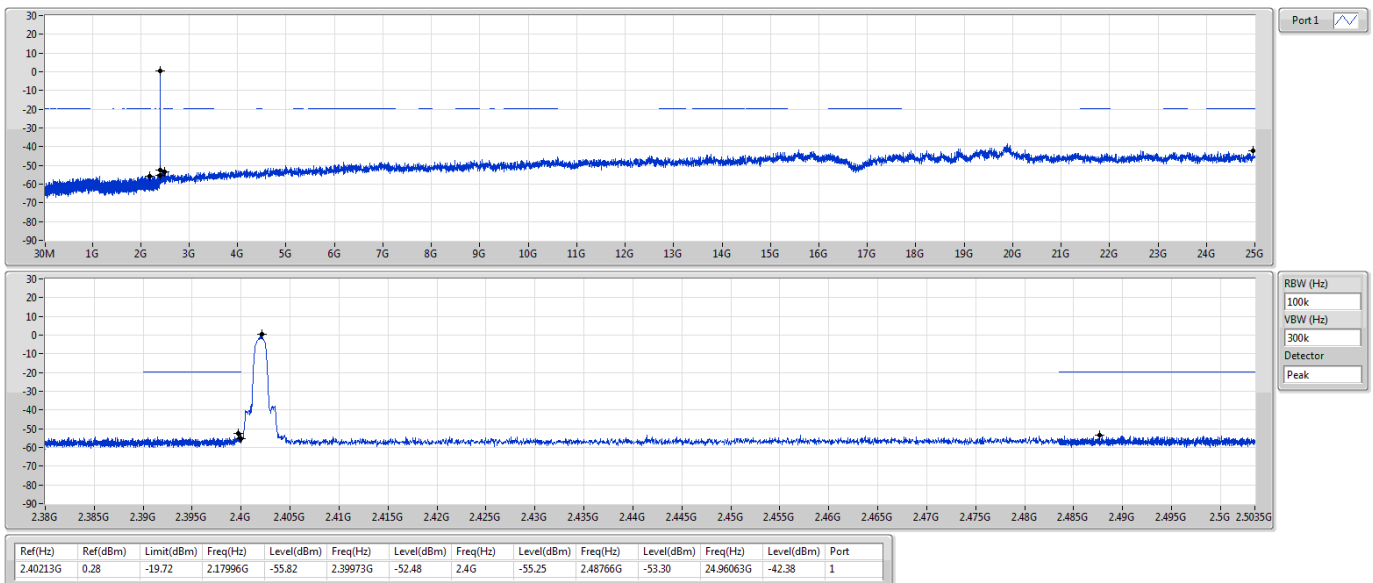


BT-EDR(2Mbps)

2402MHz

CSE NdB

10/06/2020

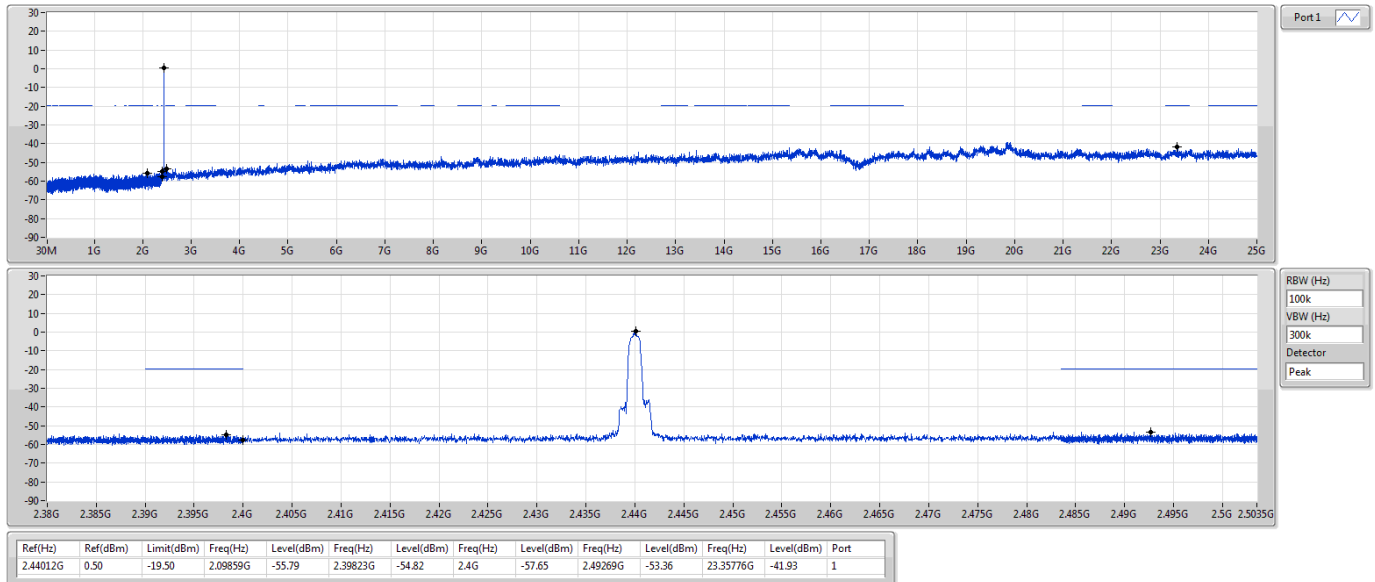


BT-EDR(2Mbps)

2440MHz

CSE NdB

10/06/2020

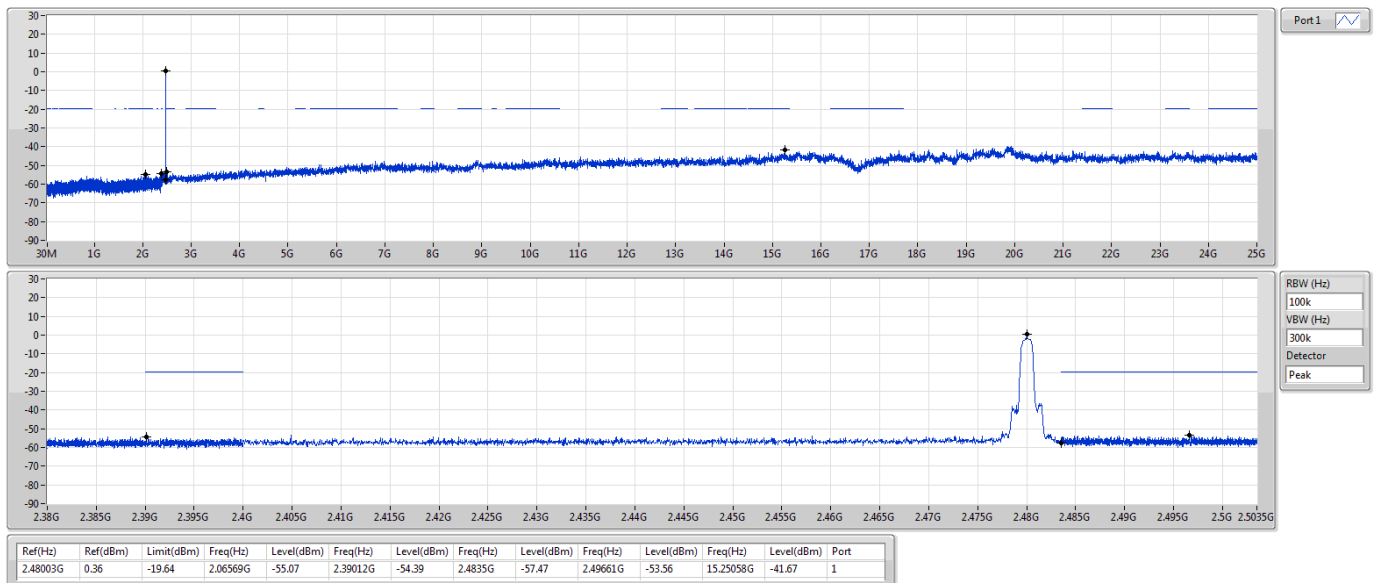


BT-EDR(2Mbps)

2480MHz

CSE NdB

10/06/2020



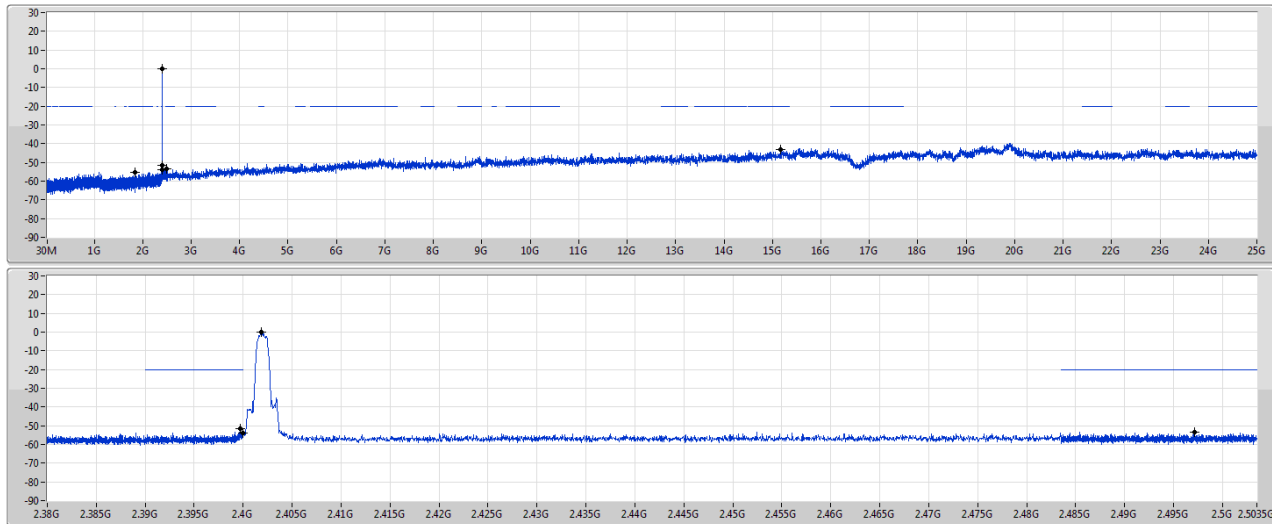
BT-EDR(3Mbps)

2402MHz

CSE NdB

10/06/2020

Port 1



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
240188G	-0.12	-20.12	1.83186G	-55.36	2.39967G	-51.42	2.4G	-53.70	2.49711G	-53.30	15.16341G	-42.97	1

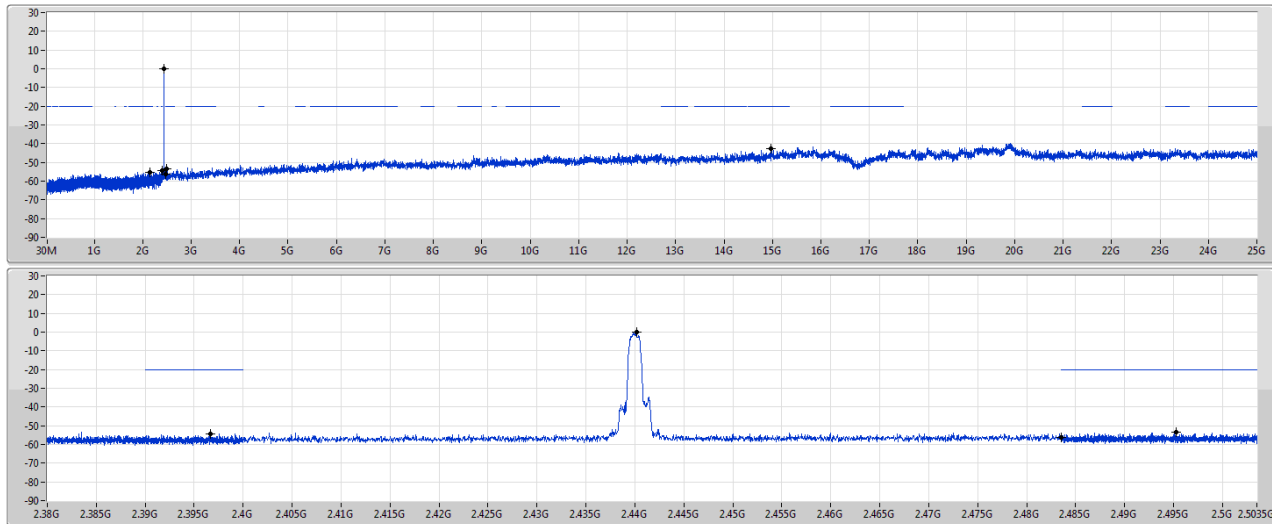
BT-EDR(3Mbps)

2440MHz

CSE NdB

10/06/2020

Port 1



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
244016G	-0.03	-20.03	2.14324G	-55.08	2.39662G	-54.48	2.4835G	-56.18	2.49523G	-53.26	14.975G	-42.63	1

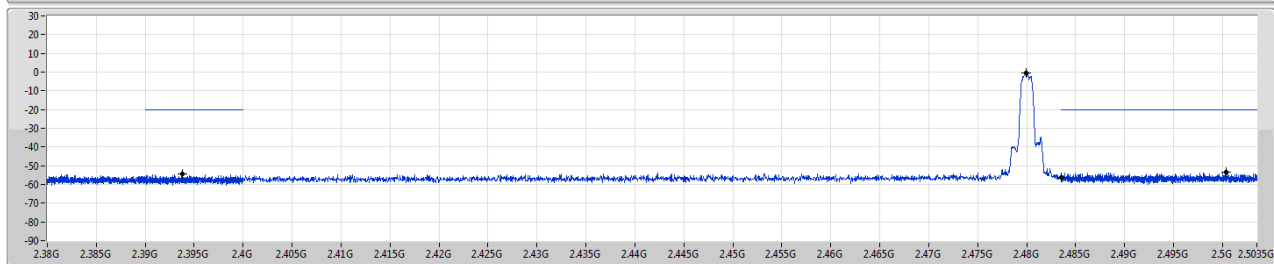
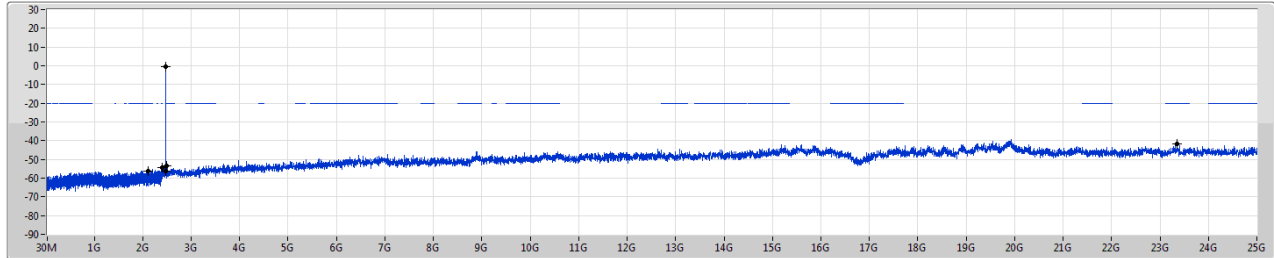
BT-EDR(3Mbps)

2480MHz

CSE NdB

10/06/2020

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

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
2.47995G	-0.27	-20.27	2.12121G	-56.28	2.39377G	-54.59	2.4835G	-56.26	2.50041G	-53.31	23.36057G	-41.94	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-EDR(3Mbps)	Pass	PK	353.98M	36.27	46.00	-9.73	3	Horizontal	0	1.00	-

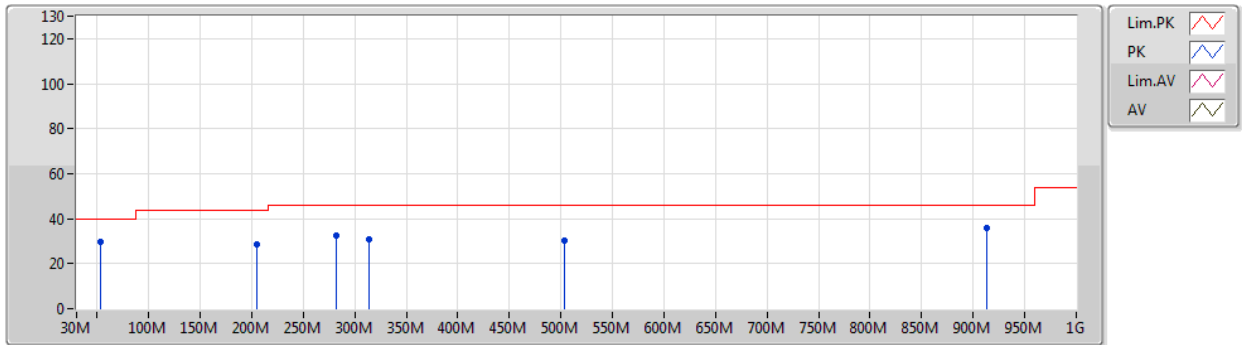
Result

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	912.7M	35.87	46.00	-10.13	3	Vertical	360	1.00	-
2440MHz	Pass	PK	53.28M	29.53	40.00	-10.47	3	Vertical	360	1.00	-
2440MHz	Pass	PK	282.2M	32.27	46.00	-13.73	3	Vertical	360	1.00	-
2440MHz	Pass	PK	204.6M	28.65	43.50	-14.85	3	Vertical	360	1.00	-
2440MHz	Pass	PK	313.24M	31.03	46.00	-14.97	3	Vertical	360	1.00	-
2440MHz	Pass	PK	503.36M	30.47	46.00	-15.53	3	Vertical	360	1.00	-
2440MHz	Pass	PK	55.22M	28.47	40.00	-11.53	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	94.02M	24.22	43.50	-19.28	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	181.32M	26.68	43.50	-16.82	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	307.42M	31.16	46.00	-14.84	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	332.64M	33.47	46.00	-12.53	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	353.98M	36.27	46.00	-9.73	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)

2440MHz_Switching power supply

12/06/2020

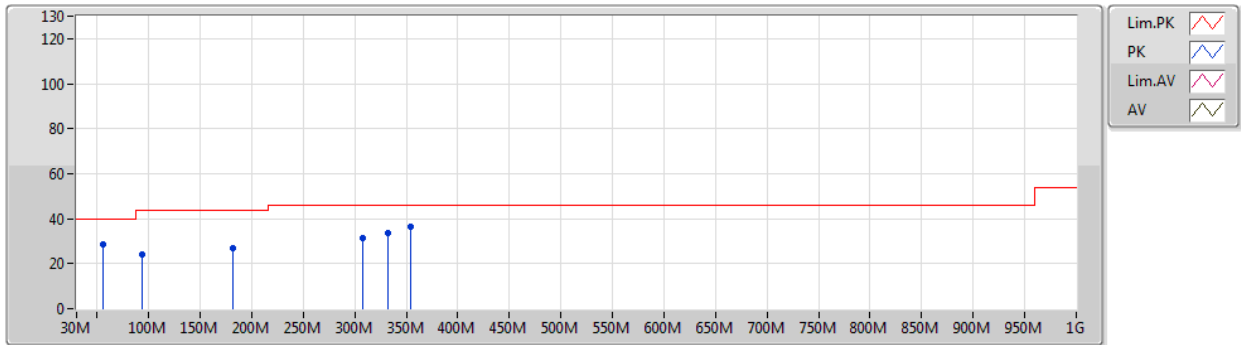


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	912.7M	35.87	46.00	-10.13	-6.53	3	Vertical	360	1.00	-	42.40	28.09	2.83	37.45
PK	53.28M	29.53	40.00	-10.47	-24.58	3	Vertical	360	1.00	-	54.11	11.99	0.57	37.14
PK	282.2M	32.27	46.00	-13.73	-17.18	3	Vertical	360	1.00	-	49.45	17.92	1.36	36.46
PK	204.6M	28.65	43.50	-14.85	-21.05	3	Vertical	360	1.00	-	49.70	14.10	1.12	36.27
PK	313.24M	31.03	46.00	-14.97	-16.68	3	Vertical	360	1.00	-	47.71	18.39	1.43	36.50
PK	503.36M	30.47	46.00	-15.53	-12.11	3	Vertical	360	1.00	-	42.58	22.96	1.91	36.98

BT-EDR(3Mbps)

2440MHz_Switching power supply

12/06/2020



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	55.22M	28.47	40.00	-11.53	-25.08	3	Horizontal	0	1.00	-	53.55	11.41	0.60	37.09
PK	94.02M	24.22	43.50	-19.28	-21.65	3	Horizontal	0	1.00	-	45.87	14.47	0.70	36.82
PK	181.32M	26.68	43.50	-16.82	-21.24	3	Horizontal	0	1.00	-	47.92	14.06	1.10	36.40
PK	307.42M	31.16	46.00	-14.84	-16.73	3	Horizontal	0	1.00	-	47.89	18.31	1.41	36.45
PK	332.64M	33.47	46.00	-12.53	-16.21	3	Horizontal	0	1.00	-	49.68	18.85	1.47	36.53
PK	353.98M	36.27	46.00	-9.73	-15.46	3	Horizontal	0	1.00	-	51.73	19.55	1.52	36.53

**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	2.353G	58.50	74.00	-15.50	3	Vertical	42	1.61	-
BT-EDR(3Mbps)	Pass	PK	2.4888G	58.52	74.00	-15.48	3	Horizontal	101	2.41	-

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	2.353G	36.00	54.00	-18.00	3	Vertical	42	1.61	-
2402MHz	Pass	AV	2.4022G	78.20	Inf	-Inf	3	Vertical	42	1.61	-
2402MHz	Pass	PK	2.353G	58.50	74.00	-15.50	3	Vertical	42	1.61	-
2402MHz	Pass	PK	2.4022G	100.70	Inf	-Inf	3	Vertical	42	1.61	-
2402MHz	Pass	AV	2.3798G	35.68	54.00	-18.32	3	Horizontal	101	1.98	-
2402MHz	Pass	AV	2.4022G	79.75	Inf	-Inf	3	Horizontal	101	1.98	-
2402MHz	Pass	PK	2.3798G	58.18	74.00	-15.82	3	Horizontal	101	1.98	-
2402MHz	Pass	PK	2.4022G	102.25	Inf	-Inf	3	Horizontal	101	1.98	-
2402MHz	Pass	AV	4.80366G	23.49	54.00	-30.51	3	Vertical	327	1.60	-
2402MHz	Pass	PK	4.80366G	45.99	74.00	-28.01	3	Vertical	327	1.60	-
2402MHz	Pass	AV	4.80395G	23.92	54.00	-30.08	3	Horizontal	97	1.06	-
2402MHz	Pass	PK	4.80395G	46.42	74.00	-27.58	3	Horizontal	97	1.06	-
2440MHz	Pass	AV	2.3592G	35.65	54.00	-18.35	3	Vertical	61	2.10	-
2440MHz	Pass	AV	2.44G	79.18	Inf	-Inf	3	Vertical	61	2.10	-
2440MHz	Pass	AV	2.4884G	35.41	54.00	-18.59	3	Vertical	61	2.10	-
2440MHz	Pass	PK	2.3592G	58.15	74.00	-15.85	3	Vertical	61	2.10	-
2440MHz	Pass	PK	2.44G	101.68	Inf	-Inf	3	Vertical	61	2.10	-
2440MHz	Pass	PK	2.4884G	57.91	74.00	-16.09	3	Vertical	61	2.10	-
2440MHz	Pass	AV	2.3748G	35.26	54.00	-18.74	3	Horizontal	100	2.41	-
2440MHz	Pass	AV	2.44G	80.83	Inf	-Inf	3	Horizontal	100	2.41	-
2440MHz	Pass	AV	2.4944G	35.31	54.00	-18.69	3	Horizontal	100	2.41	-
2440MHz	Pass	PK	2.3748G	57.76	74.00	-16.24	3	Horizontal	100	2.41	-
2440MHz	Pass	PK	2.44G	103.33	Inf	-Inf	3	Horizontal	100	2.41	-
2440MHz	Pass	PK	2.4944G	57.81	74.00	-16.19	3	Horizontal	100	2.41	-
2440MHz	Pass	AV	4.87914G	23.81	54.00	-30.19	3	Vertical	324	1.52	-
2440MHz	Pass	PK	4.87914G	46.31	74.00	-27.69	3	Vertical	324	1.52	-
2440MHz	Pass	AV	4.88042G	23.61	54.00	-30.39	3	Horizontal	119	1.63	-
2440MHz	Pass	PK	4.88042G	46.11	74.00	-27.89	3	Horizontal	119	1.63	-
2480MHz	Pass	AV	2.4798G	77.47	Inf	-Inf	3	Vertical	34	1.61	-
2480MHz	Pass	AV	2.4986G	35.22	54.00	-18.78	3	Vertical	34	1.61	-
2480MHz	Pass	PK	2.4798G	99.97	Inf	-Inf	3	Vertical	34	1.61	-
2480MHz	Pass	PK	2.4986G	57.72	74.00	-16.28	3	Vertical	34	1.61	-
2480MHz	Pass	AV	2.4802G	79.16	Inf	-Inf	3	Horizontal	94	1.24	-
2480MHz	Pass	AV	2.4984G	35.55	54.00	-18.45	3	Horizontal	94	1.24	-
2480MHz	Pass	PK	2.4802G	101.66	Inf	-Inf	3	Horizontal	94	1.24	-
2480MHz	Pass	PK	2.4984G	58.05	74.00	-15.95	3	Horizontal	94	1.24	-
2480MHz	Pass	AV	4.96052G	24.30	54.00	-29.70	3	Vertical	323	1.60	-
2480MHz	Pass	PK	4.96052G	46.80	74.00	-27.20	3	Vertical	323	1.60	-
2480MHz	Pass	AV	4.9592G	24.20	54.00	-29.80	3	Horizontal	122	1.50	-
2480MHz	Pass	PK	4.9592G	46.70	74.00	-27.30	3	Horizontal	122	1.50	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3544G	35.80	54.00	-18.20	3	Vertical	42	1.46	-
2402MHz	Pass	AV	2.402G	74.19	Inf	-Inf	3	Vertical	42	1.46	-
2402MHz	Pass	PK	2.3544G	58.30	74.00	-15.70	3	Vertical	42	1.46	-
2402MHz	Pass	PK	2.402G	96.69	Inf	-Inf	3	Vertical	42	1.46	-
2402MHz	Pass	AV	2.3548G	35.49	54.00	-18.51	3	Horizontal	102	1.96	-
2402MHz	Pass	AV	2.402G	75.66	Inf	-Inf	3	Horizontal	102	1.96	-

Remark :

Page No. : G2 of G27

$$\text{Level (dBuV/m)} = \text{Raw(Read Level)} + \text{AF(Antenna Factor)} + \text{CL(Cable Loss)} - \text{PA(Preamp Factor)}$$

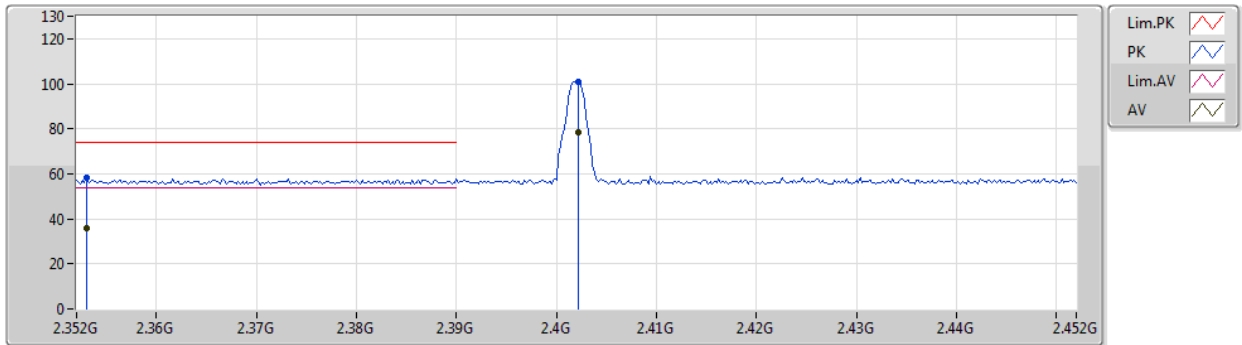
042149

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3548G	57.99	74.00	-16.01	3	Horizontal	102	1.96	-
2402MHz	Pass	PK	2.402G	98.16	Inf	-Inf	3	Horizontal	102	1.96	-
2402MHz	Pass	AV	4.80321G	23.79	54.00	-30.21	3	Vertical	259	1.57	-
2402MHz	Pass	PK	4.80321G	46.29	74.00	-27.71	3	Vertical	259	1.57	-
2402MHz	Pass	AV	4.80321G	23.69	54.00	-30.31	3	Horizontal	51	1.50	-
2402MHz	Pass	PK	4.80321G	46.19	74.00	-27.81	3	Horizontal	51	1.50	-
2440MHz	Pass	AV	2.3436G	35.46	54.00	-18.54	3	Vertical	58	2.09	-
2440MHz	Pass	AV	2.44G	75.18	Inf	-Inf	3	Vertical	58	2.09	-
2440MHz	Pass	AV	2.4896G	35.60	54.00	-18.40	3	Vertical	58	2.09	-
2440MHz	Pass	PK	2.3436G	57.96	74.00	-16.04	3	Vertical	58	2.09	-
2440MHz	Pass	PK	2.44G	97.68	Inf	-Inf	3	Vertical	58	2.09	-
2440MHz	Pass	PK	2.4896G	58.10	74.00	-15.90	3	Vertical	58	2.09	-
2440MHz	Pass	AV	2.3736G	35.46	54.00	-18.54	3	Horizontal	101	2.41	-
2440MHz	Pass	AV	2.44G	76.74	Inf	-Inf	3	Horizontal	101	2.41	-
2440MHz	Pass	AV	2.4888G	36.02	54.00	-17.98	3	Horizontal	101	2.41	-
2440MHz	Pass	PK	2.3736G	57.96	74.00	-16.04	3	Horizontal	101	2.41	-
2440MHz	Pass	PK	2.44G	99.24	Inf	-Inf	3	Horizontal	101	2.41	-
2440MHz	Pass	PK	2.4888G	58.52	74.00	-15.48	3	Horizontal	101	2.41	-
2440MHz	Pass	AV	4.88022G	23.72	54.00	-30.28	3	Vertical	142	1.50	-
2440MHz	Pass	PK	4.88022G	46.22	74.00	-27.78	3	Vertical	142	1.50	-
2440MHz	Pass	AV	4.87941G	23.91	54.00	-30.09	3	Horizontal	236	1.83	-
2440MHz	Pass	PK	4.87941G	46.41	74.00	-27.59	3	Horizontal	236	1.83	-
2480MHz	Pass	AV	2.48G	73.09	Inf	-Inf	3	Vertical	34	1.60	-
2480MHz	Pass	AV	2.491G	35.72	54.00	-18.28	3	Vertical	34	1.60	-
2480MHz	Pass	PK	2.48G	95.59	Inf	-Inf	3	Vertical	34	1.60	-
2480MHz	Pass	PK	2.491G	58.22	74.00	-15.78	3	Vertical	34	1.60	-
2480MHz	Pass	AV	2.48G	75.61	Inf	-Inf	3	Horizontal	100	2.12	-
2480MHz	Pass	AV	2.5G	35.41	54.00	-18.59	3	Horizontal	100	2.12	-
2480MHz	Pass	PK	2.48G	98.11	Inf	-Inf	3	Horizontal	100	2.12	-
2480MHz	Pass	PK	2.5G	57.91	74.00	-16.09	3	Horizontal	100	2.12	-
2480MHz	Pass	AV	4.95918G	23.73	54.00	-30.27	3	Vertical	129	1.46	-
2480MHz	Pass	PK	4.95918G	46.23	74.00	-27.77	3	Vertical	129	1.46	-
2480MHz	Pass	AV	4.96016G	24.02	54.00	-29.98	3	Horizontal	187	1.40	-
2480MHz	Pass	PK	4.96016G	46.52	74.00	-27.48	3	Horizontal	187	1.40	-

BT-BR(1Mbps)

2402MHz_TX

10/06/2020

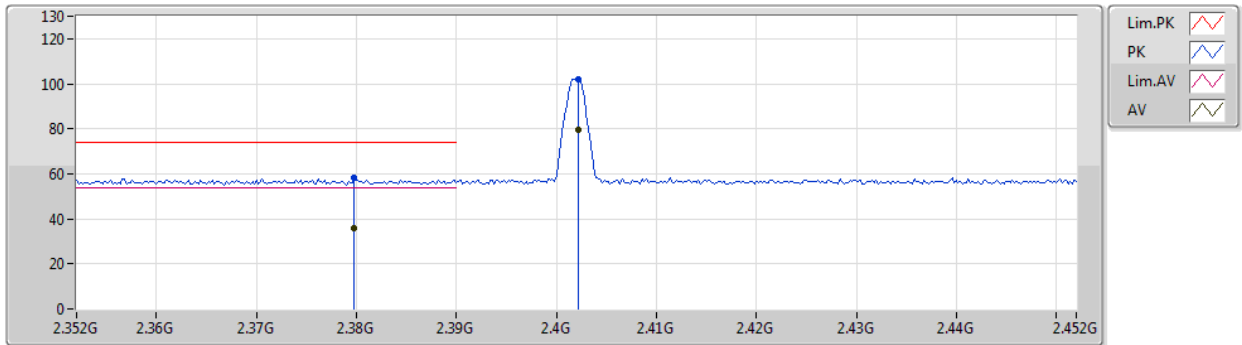


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.353G	36.00	54.00	-18.00	32.75	3	Vertical	42	1.61	-	3.25	27.74	5.01	-
AV	2.4022G	78.20	Inf	-Inf	32.70	3	Vertical	42	1.61	-	45.50	27.60	5.10	-
PK	2.353G	58.50	74.00	-15.50	32.75	3	Vertical	42	1.61	-	25.75	27.74	5.01	-
PK	2.4022G	100.70	Inf	-Inf	32.70	3	Vertical	42	1.61	-	68.00	27.60	5.10	-

BT-BR(1Mbps)

2402MHz_TX

10/06/2020

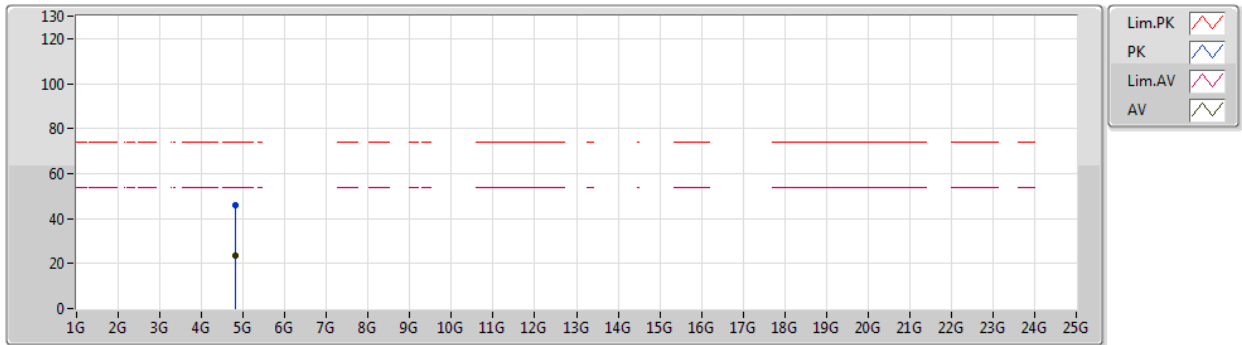


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3798G	35.68	54.00	-18.32	32.72	3	Horizontal	101	1.98	-	2.96	27.66	5.06	-
AV	2.4022G	79.75	Inf	-Inf	32.70	3	Horizontal	101	1.98	-	47.05	27.60	5.10	-
PK	2.3798G	58.18	74.00	-15.82	32.72	3	Horizontal	101	1.98	-	25.46	27.66	5.06	-
PK	2.4022G	102.25	Inf	-Inf	32.70	3	Horizontal	101	1.98	-	69.55	27.60	5.10	-

BT-BR(1Mbps)

2402MHz_TX

10/06/2020

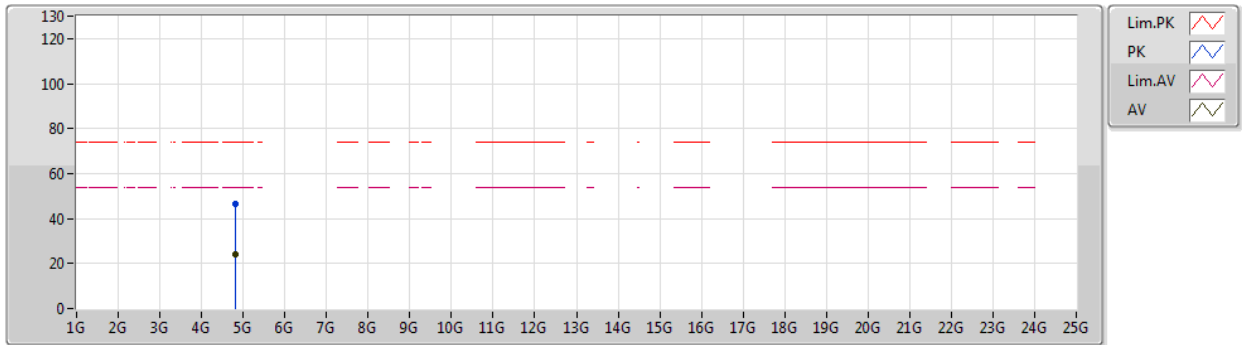


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80366G	23.49	54.00	-30.51	4.10	3	Vertical	327	1.60	-	19.39	31.10	7.30	34.30
PK	4.80366G	45.99	74.00	-28.01	4.10	3	Vertical	327	1.60	-	41.89	31.10	7.30	34.30

BT-BR(1Mbps)

2402MHz_TX

10/06/2020

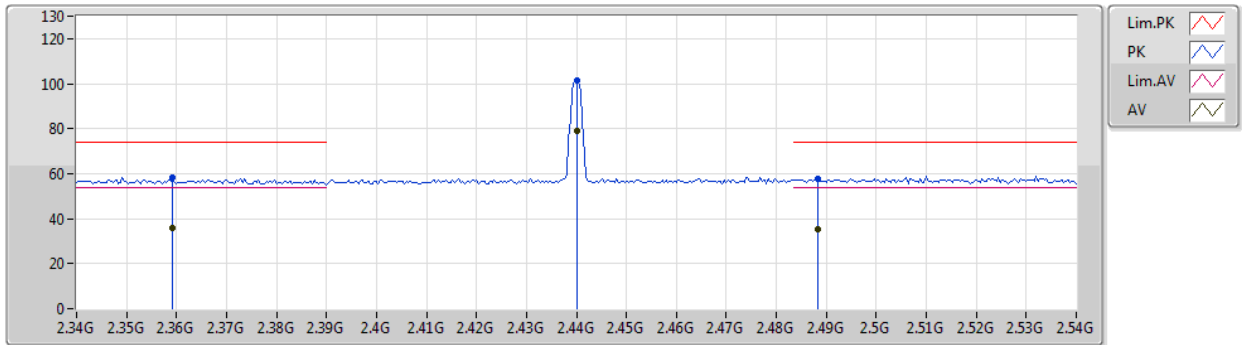


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80395G	23.92	54.00	-30.08	4.10	3	Horizontal	97	1.06	-	19.82	31.10	7.30	34.30
PK	4.80395G	46.42	74.00	-27.58	4.10	3	Horizontal	97	1.06	-	42.32	31.10	7.30	34.30

BT-BR(1Mbps)

2440MHz_TX

10/06/2020

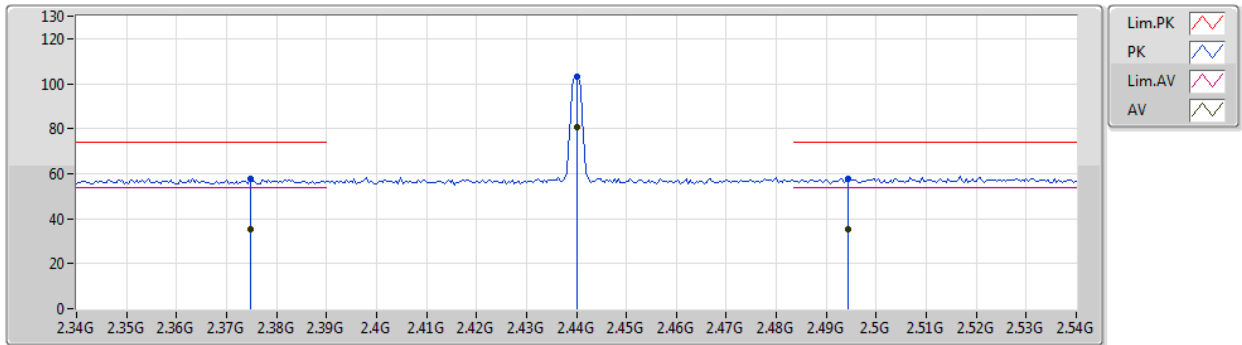


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3592G	35.65	54.00	-18.35	32.74	3	Vertical	61	2.10	-	2.91	27.72	5.02	-
AV	2.44G	79.18	Inf	-Inf	32.76	3	Vertical	61	2.10	-	46.42	27.60	5.16	-
AV	2.4884G	35.41	54.00	-18.59	32.83	3	Vertical	61	2.10	-	2.58	27.60	5.23	-
PK	2.3592G	58.15	74.00	-15.85	32.74	3	Vertical	61	2.10	-	25.41	27.72	5.02	-
PK	2.44G	101.68	Inf	-Inf	32.76	3	Vertical	61	2.10	-	68.92	27.60	5.16	-
PK	2.4884G	57.91	74.00	-16.09	32.83	3	Vertical	61	2.10	-	25.08	27.60	5.23	-

BT-BR(1Mbps)

2440MHz_TX

10/06/2020

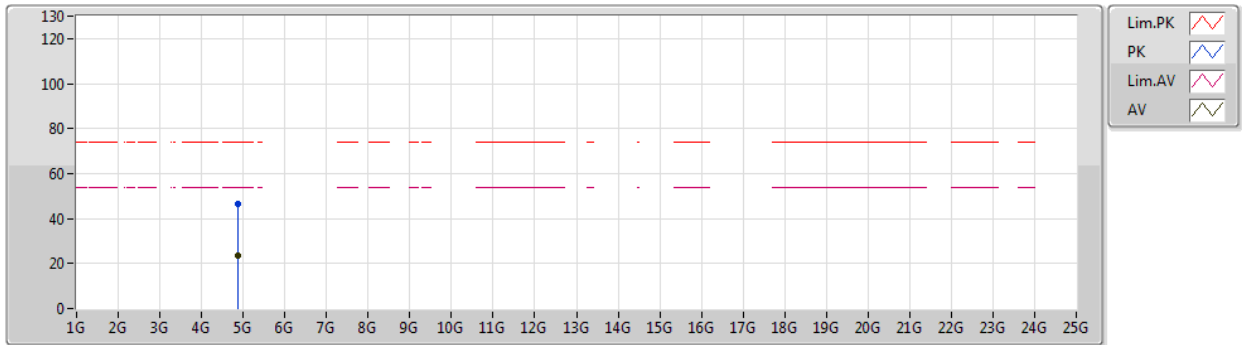


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3748G	35.26	54.00	-18.74	32.73	3	Horizontal	100	2.41	-	2.53	27.68	5.05	-
AV	2.44G	80.83	Inf	-Inf	32.76	3	Horizontal	100	2.41	-	48.07	27.60	5.16	-
AV	2.4944G	35.31	54.00	-18.69	32.84	3	Horizontal	100	2.41	-	2.47	27.60	5.24	-
PK	2.3748G	57.76	74.00	-16.24	32.73	3	Horizontal	100	2.41	-	25.03	27.68	5.05	-
PK	2.44G	103.33	Inf	-Inf	32.76	3	Horizontal	100	2.41	-	70.57	27.60	5.16	-
PK	2.4944G	57.81	74.00	-16.19	32.84	3	Horizontal	100	2.41	-	24.97	27.60	5.24	-

BT-BR(1Mbps)

10/06/2020

2440MHz_TX

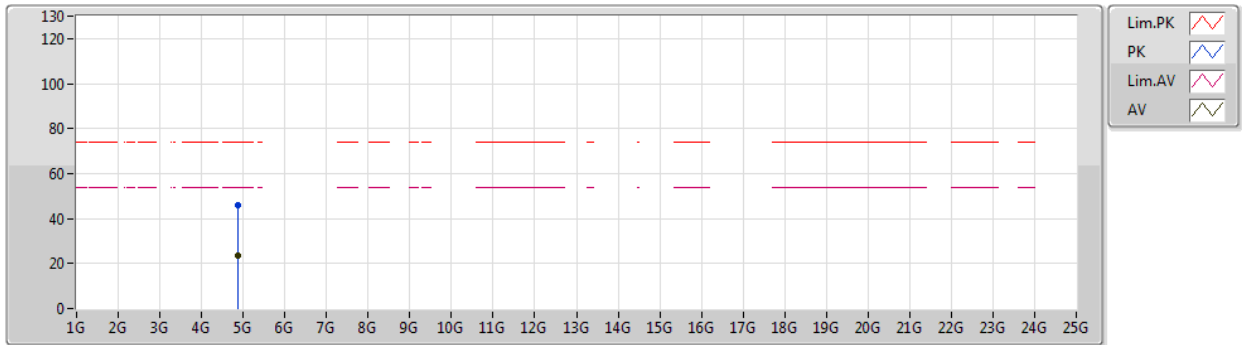


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87914G	23.81	54.00	-30.19	4.28	3	Vertical	324	1.52	-	19.53	31.18	7.38	34.28
PK	4.87914G	46.31	74.00	-27.69	4.28	3	Vertical	324	1.52	-	42.03	31.18	7.38	34.28

BT-BR(1Mbps)

10/06/2020

2440MHz_TX

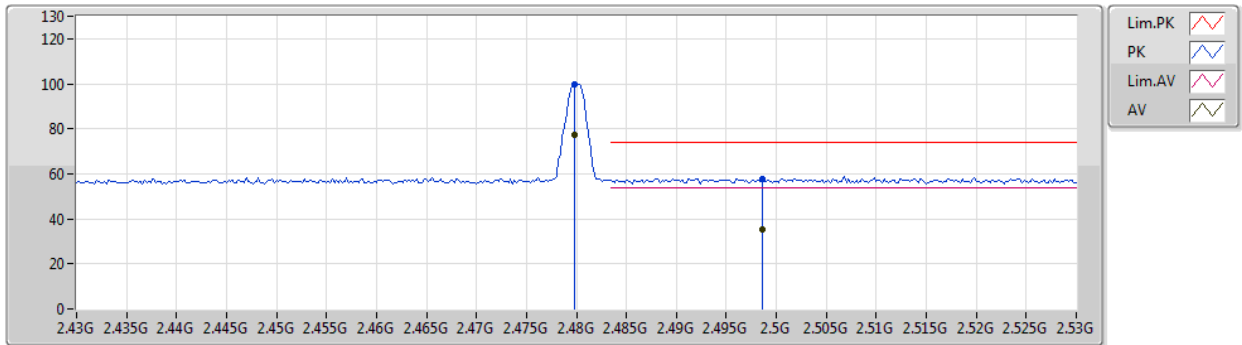


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88042G	23.61	54.00	-30.39	4.28	3	Horizontal	119	1.63	-	19.33	31.18	7.38	34.28
PK	4.88042G	46.11	74.00	-27.89	4.28	3	Horizontal	119	1.63	-	41.83	31.18	7.38	34.28

BT-BR(1Mbps)

2480MHz_TX

10/06/2020

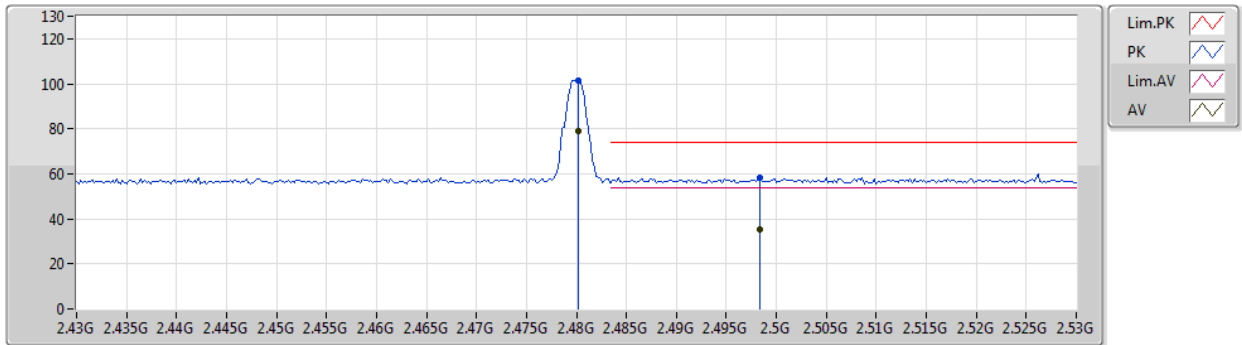


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4798G	77.47	Inf	-Inf	32.82	3	Vertical	34	1.61	-	44.65	27.60	5.22	-
AV	2.4986G	35.22	54.00	-18.78	32.85	3	Vertical	34	1.61	-	2.37	27.60	5.25	-
PK	2.4798G	99.97	Inf	-Inf	32.82	3	Vertical	34	1.61	-	67.15	27.60	5.22	-
PK	2.4986G	57.72	74.00	-16.28	32.85	3	Vertical	34	1.61	-	24.87	27.60	5.25	-

BT-BR(1Mbps)

2480MHz_TX

10/06/2020

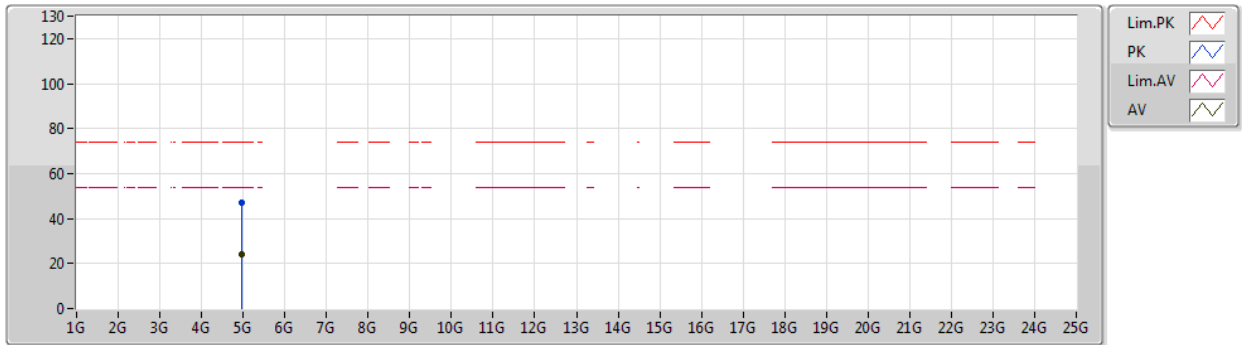


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	79.16	Inf	-Inf	32.82	3	Horizontal	94	1.24	-	46.34	27.60	5.22	-
AV	2.4984G	35.55	54.00	-18.45	32.85	3	Horizontal	94	1.24	-	2.70	27.60	5.25	-
PK	2.4802G	101.66	Inf	-Inf	32.82	3	Horizontal	94	1.24	-	68.84	27.60	5.22	-
PK	2.4984G	58.05	74.00	-15.95	32.85	3	Horizontal	94	1.24	-	25.20	27.60	5.25	-

BT-BR(1Mbps)

2480MHz_TX

10/06/2020

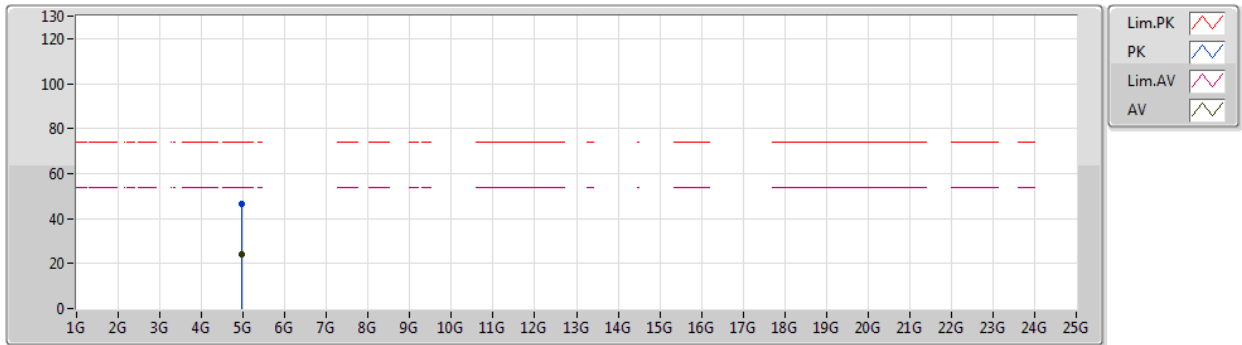


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96052G	24.30	54.00	-29.70	4.68	3	Vertical	323	1.60	-	19.62	31.38	7.46	34.16
PK	4.96052G	46.80	74.00	-27.20	4.68	3	Vertical	323	1.60	-	42.12	31.38	7.46	34.16

BT-BR(1Mbps)

2480MHz_TX

10/06/2020

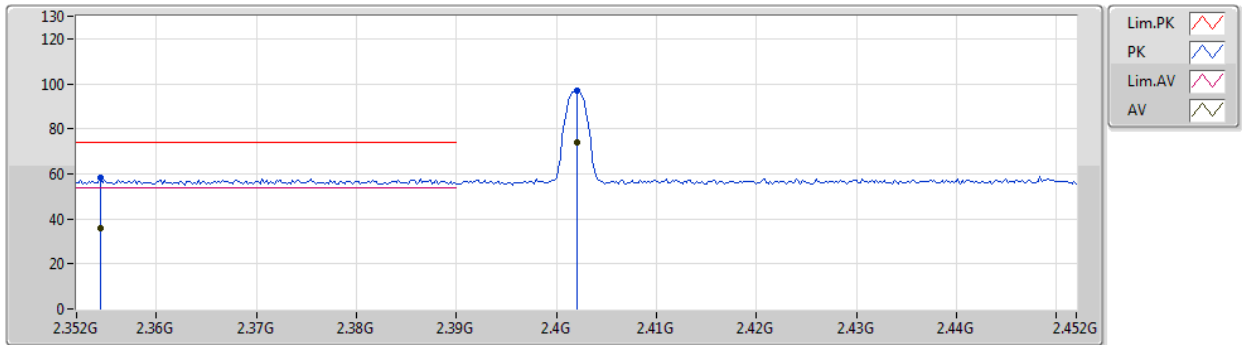


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9592G	24.20	54.00	-29.80	4.68	3	Horizontal	122	1.50	-	19.52	31.38	7.46	34.16
PK	4.9592G	46.70	74.00	-27.30	4.68	3	Horizontal	122	1.50	-	42.02	31.38	7.46	34.16

BT-EDR(3Mbps)

2402MHz_TX

10/06/2020

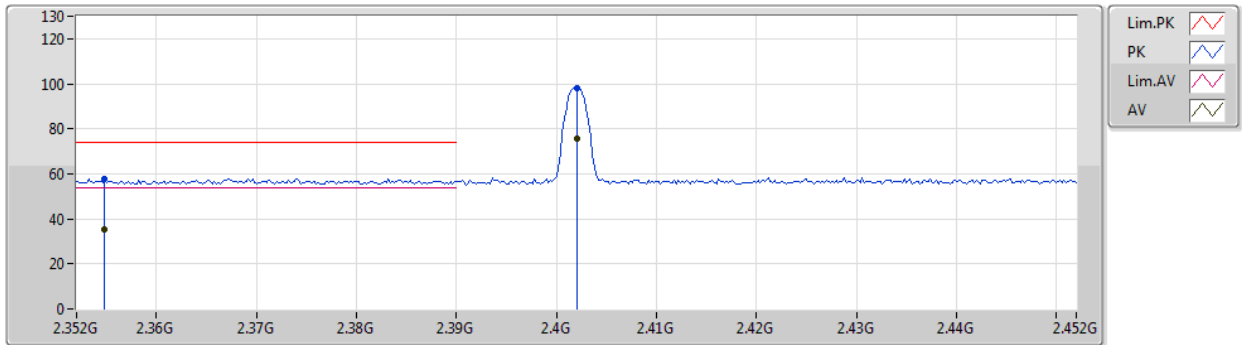


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3544G	35.80	54.00	-18.20	32.75	3	Vertical	42	1.46	-	3.05	27.74	5.01	-
AV	2.402G	74.19	Inf	-Inf	32.70	3	Vertical	42	1.46	-	41.49	27.60	5.10	-
PK	2.3544G	58.30	74.00	-15.70	32.75	3	Vertical	42	1.46	-	25.55	27.74	5.01	-
PK	2.402G	96.69	Inf	-Inf	32.70	3	Vertical	42	1.46	-	63.99	27.60	5.10	-

BT-EDR(3Mbps)

2402MHz_TX

10/06/2020

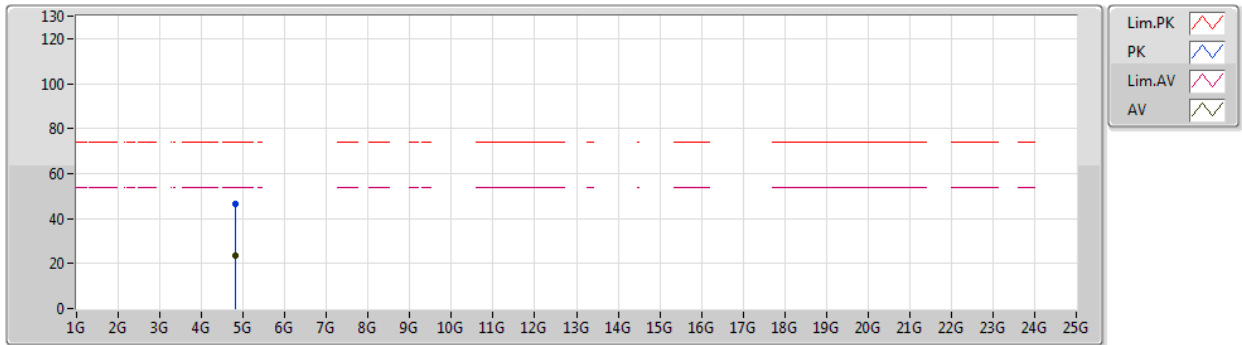


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3548G	35.49	54.00	-18.51	32.75	3	Horizontal	102	1.96	-	2.74	27.74	5.01	-
AV	2.402G	75.66	Inf	-Inf	32.70	3	Horizontal	102	1.96	-	42.96	27.60	5.10	-
PK	2.3548G	57.99	74.00	-16.01	32.75	3	Horizontal	102	1.96	-	25.24	27.74	5.01	-
PK	2.402G	98.16	Inf	-Inf	32.70	3	Horizontal	102	1.96	-	65.46	27.60	5.10	-

BT-EDR(3Mbps)

10/06/2020

2402MHz_TX

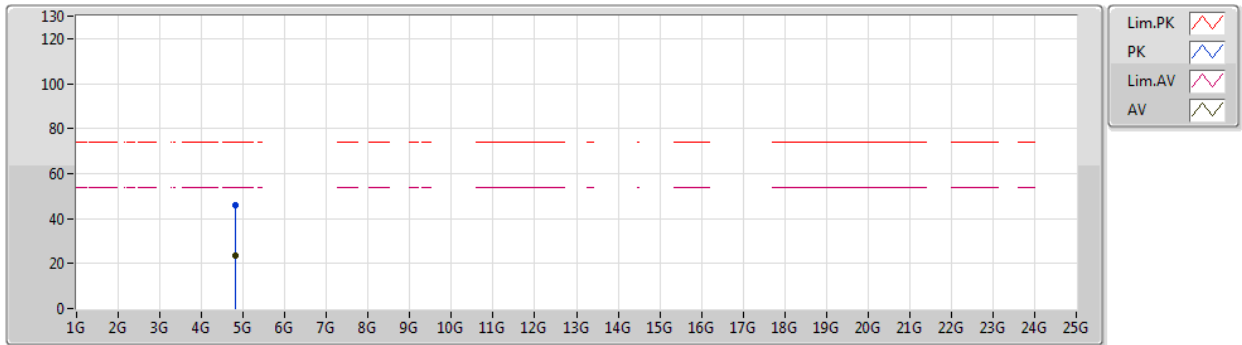


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80321G	23.79	54.00	-30.21	4.10	3	Vertical	259	1.57	-	19.69	31.10	7.30	34.30
PK	4.80321G	46.29	74.00	-27.71	4.10	3	Vertical	259	1.57	-	42.19	31.10	7.30	34.30

BT-EDR(3Mbps)

10/06/2020

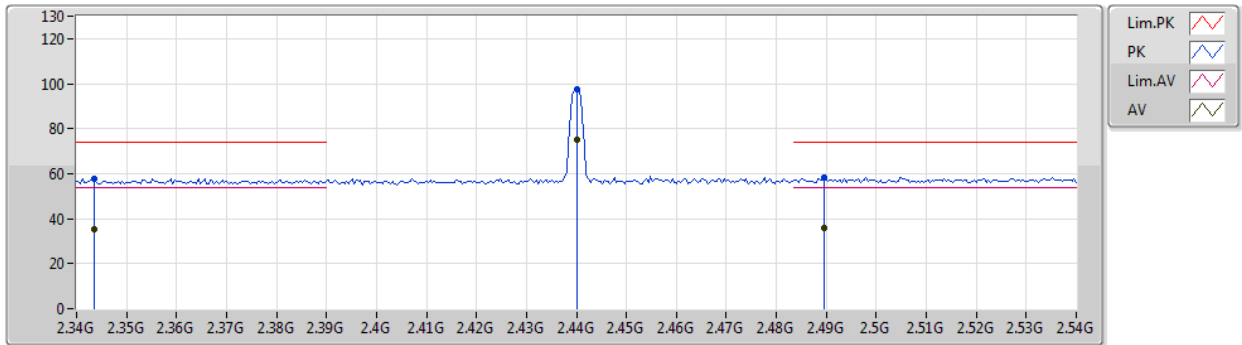
2402MHz_TX



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	4.80321G	23.69	54.00	-30.31	4.10	3	Horizontal	51	1.50	-	19.59	31.10	7.30	34.30
PK	4.80321G	46.19	74.00	-27.81	4.10	3	Horizontal	51	1.50	-	42.09	31.10	7.30	34.30

BT-EDR(3Mbps)
2440MHz_TX

10/06/2020

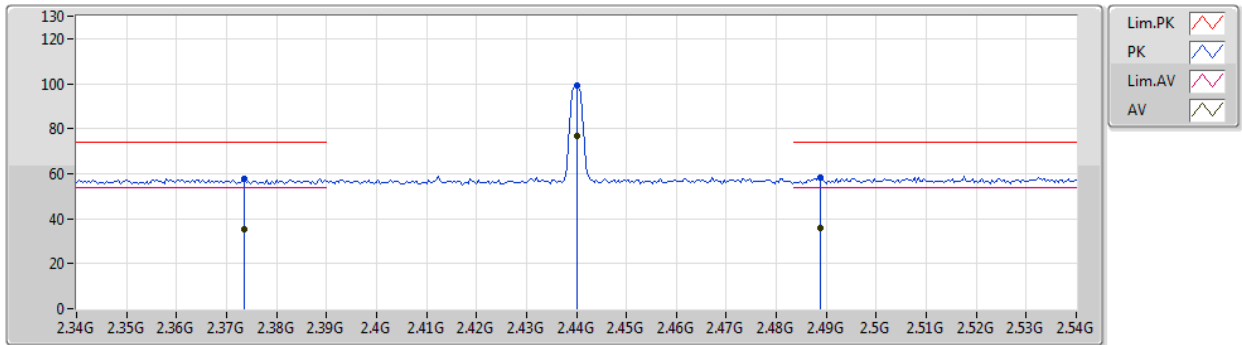


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3436G	35.46	54.00	-18.54	32.76	3	Vertical	58	2.09	-	2.70	27.77	4.99	-
AV	2.44G	75.18	Inf	-Inf	32.76	3	Vertical	58	2.09	-	42.42	27.60	5.16	-
AV	2.4896G	35.60	54.00	-18.40	32.83	3	Vertical	58	2.09	-	2.77	27.60	5.23	-
PK	2.3436G	57.96	74.00	-16.04	32.76	3	Vertical	58	2.09	-	25.20	27.77	4.99	-
PK	2.44G	97.68	Inf	-Inf	32.76	3	Vertical	58	2.09	-	64.92	27.60	5.16	-
PK	2.4896G	58.10	74.00	-15.90	32.83	3	Vertical	58	2.09	-	25.27	27.60	5.23	-

BT-EDR(3Mbps)

2440MHz_TX

10/06/2020

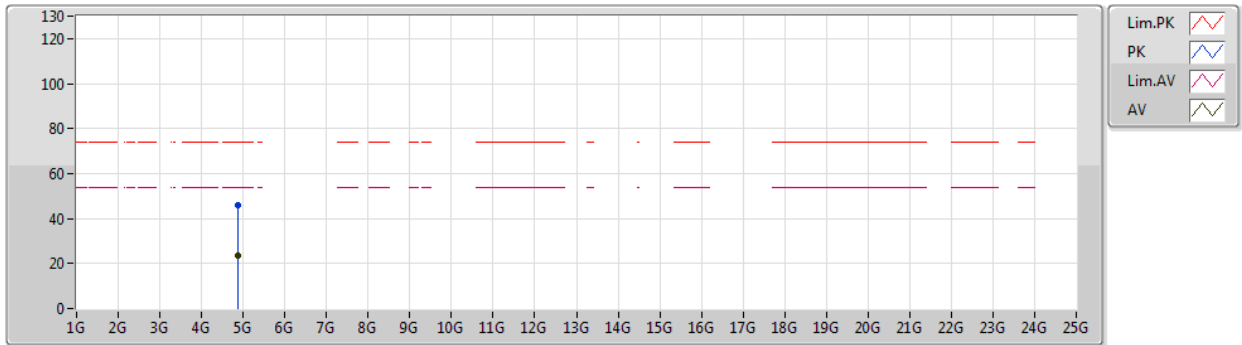


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3736G	35.46	54.00	-18.54	32.73	3	Horizontal	101	2.41	-	2.73	27.68	5.05	-
AV	2.44G	76.74	Inf	-Inf	32.76	3	Horizontal	101	2.41	-	43.98	27.60	5.16	-
AV	2.4888G	36.02	54.00	-17.98	32.83	3	Horizontal	101	2.41	-	3.19	27.60	5.23	-
PK	2.3736G	57.96	74.00	-16.04	32.73	3	Horizontal	101	2.41	-	25.23	27.68	5.05	-
PK	2.44G	99.24	Inf	-Inf	32.76	3	Horizontal	101	2.41	-	66.48	27.60	5.16	-
PK	2.4888G	58.52	74.00	-15.48	32.83	3	Horizontal	101	2.41	-	25.69	27.60	5.23	-

BT-EDR(3Mbps)

10/06/2020

2440MHz_TX

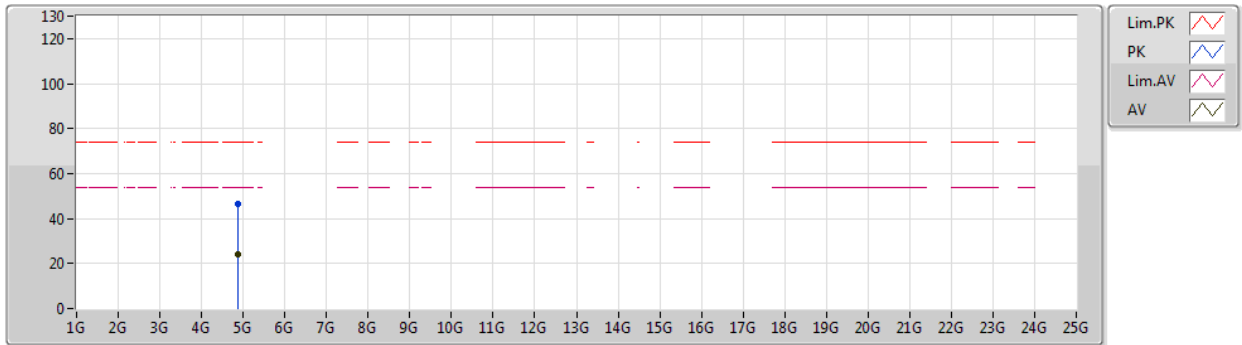


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88022G	23.72	54.00	-30.28	4.28	3	Vertical	142	1.50	-	19.44	31.18	7.38	34.28
PK	4.88022G	46.22	74.00	-27.78	4.28	3	Vertical	142	1.50	-	41.94	31.18	7.38	34.28

BT-EDR(3Mbps)

10/06/2020

2440MHz_TX

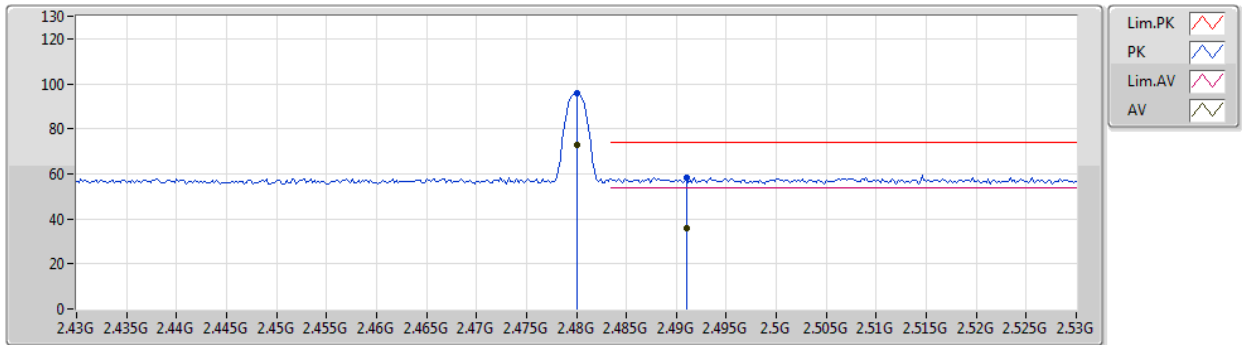


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87941G	23.91	54.00	-30.09	4.28	3	Horizontal	236	1.83	-	19.63	31.18	7.38	34.28
PK	4.87941G	46.41	74.00	-27.59	4.28	3	Horizontal	236	1.83	-	42.13	31.18	7.38	34.28

BT-EDR(3Mbps)

2480MHz_TX

10/06/2020

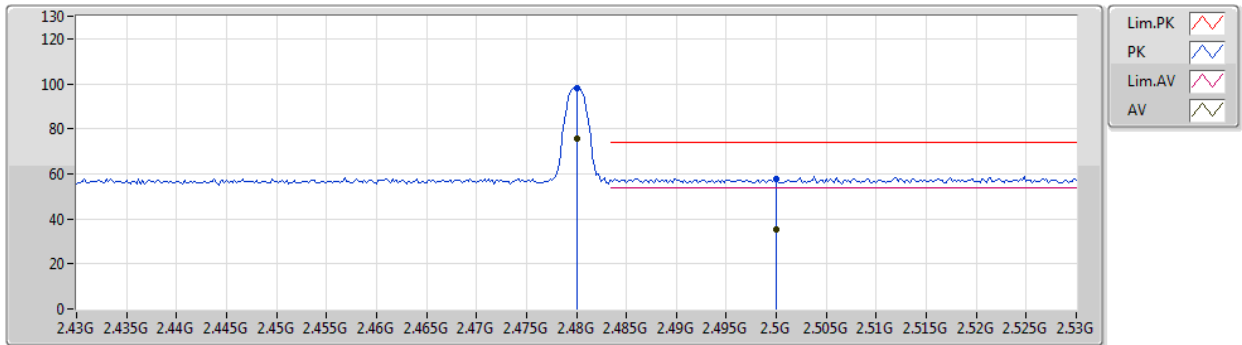


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	73.09	Inf	-Inf	32.82	3	Vertical	34	1.60	-	40.27	27.60	5.22	-
AV	2.491G	35.72	54.00	-18.28	32.84	3	Vertical	34	1.60	-	2.88	27.60	5.24	-
PK	2.48G	95.59	Inf	-Inf	32.82	3	Vertical	34	1.60	-	62.77	27.60	5.22	-
PK	2.491G	58.22	74.00	-15.78	32.84	3	Vertical	34	1.60	-	25.38	27.60	5.24	-

BT-EDR(3Mbps)

2480MHz_TX

10/06/2020

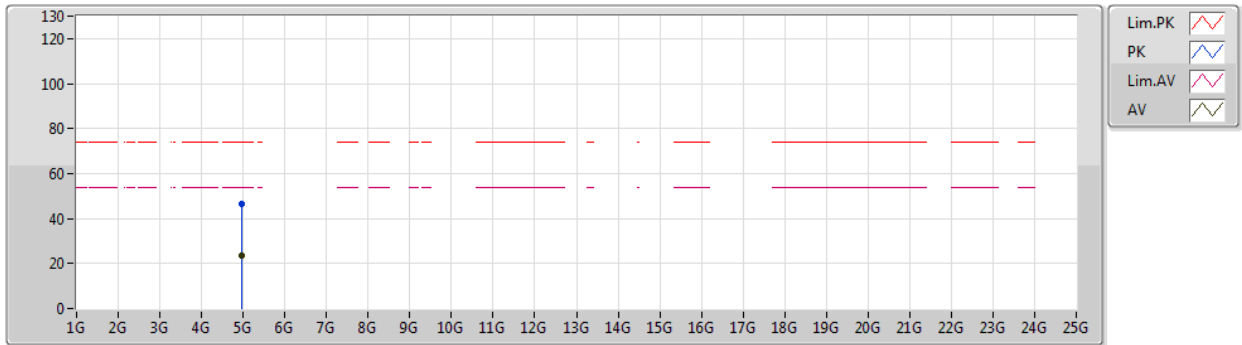


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	75.61	Inf	-Inf	32.82	3	Horizontal	100	2.12	-	42.79	27.60	5.22	-
AV	2.5G	35.41	54.00	-18.59	32.85	3	Horizontal	100	2.12	-	2.56	27.60	5.25	-
PK	2.48G	98.11	Inf	-Inf	32.82	3	Horizontal	100	2.12	-	65.29	27.60	5.22	-
PK	2.5G	57.91	74.00	-16.09	32.85	3	Horizontal	100	2.12	-	25.06	27.60	5.25	-

BT-EDR(3Mbps)

10/06/2020

2480MHz_TX

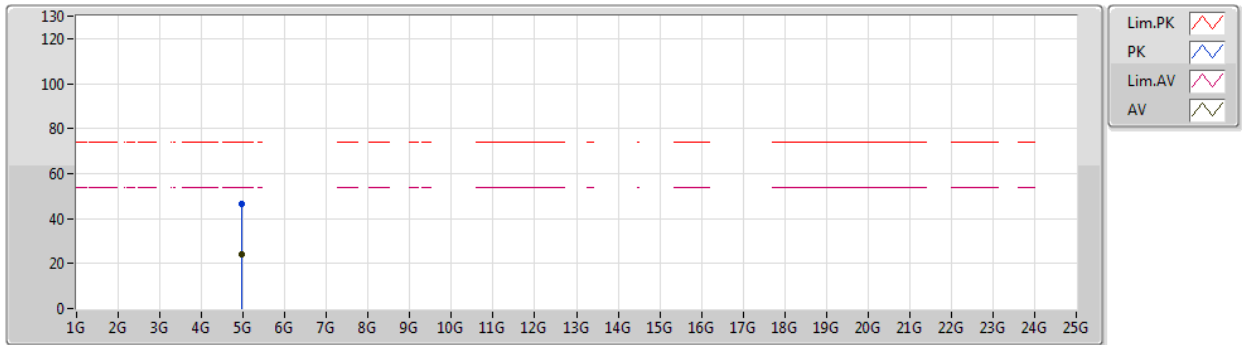


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95918G	23.73	54.00	-30.27	4.68	3	Vertical	129	1.46	-	19.05	31.38	7.46	34.16
PK	4.95918G	46.23	74.00	-27.77	4.68	3	Vertical	129	1.46	-	41.55	31.38	7.46	34.16

BT-EDR(3Mbps)

10/06/2020

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	4.96016G	24.02	54.00	-29.98	4.68	3	Horizontal	187	1.40	-	19.34	31.38	7.46	34.16
PK	4.96016G	46.52	74.00	-27.48	4.68	3	Horizontal	187	1.40	-	41.84	31.38	7.46	34.16



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	235.64M	39.35	46.00	-6.65	3	Vertical	360	1.00	-

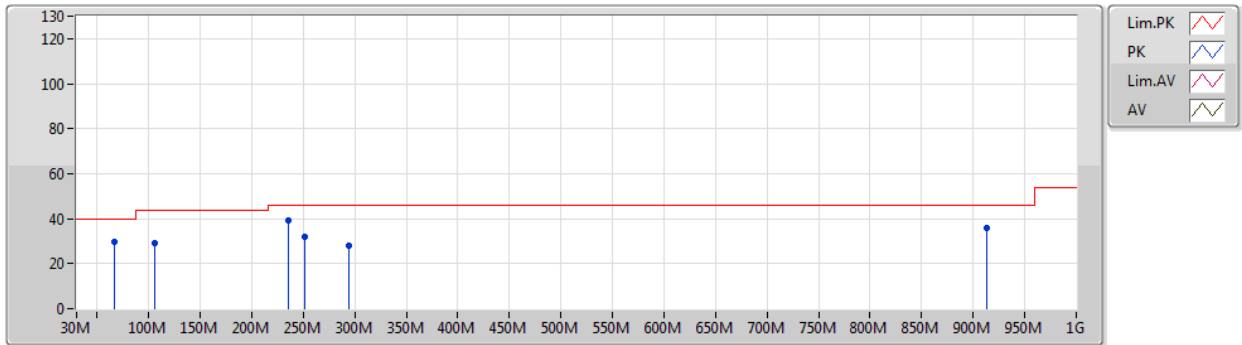
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	66.86M	29.48	40.00	-10.52	3	Vertical	360	1.00	-
2440MHz	Pass	PK	105.66M	29.06	43.50	-14.44	3	Vertical	360	1.00	-
2440MHz	Pass	PK	235.64M	39.35	46.00	-6.65	3	Vertical	360	1.00	-
2440MHz	Pass	PK	251.16M	31.93	46.00	-14.07	3	Vertical	360	1.00	-
2440MHz	Pass	PK	293.84M	28.16	46.00	-17.84	3	Vertical	360	1.00	-
2440MHz	Pass	PK	912.7M	35.93	46.00	-10.07	3	Vertical	360	1.00	-
2440MHz	Pass	PK	59.1M	29.91	40.00	-10.09	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	82.38M	25.46	40.00	-14.54	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	247.28M	25.30	46.00	-20.70	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	288.02M	33.22	46.00	-12.78	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	355.92M	31.71	46.00	-14.29	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	555.74M	28.00	46.00	-18.00	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)RX

2440MHz_Switching power supply

12/06/2020

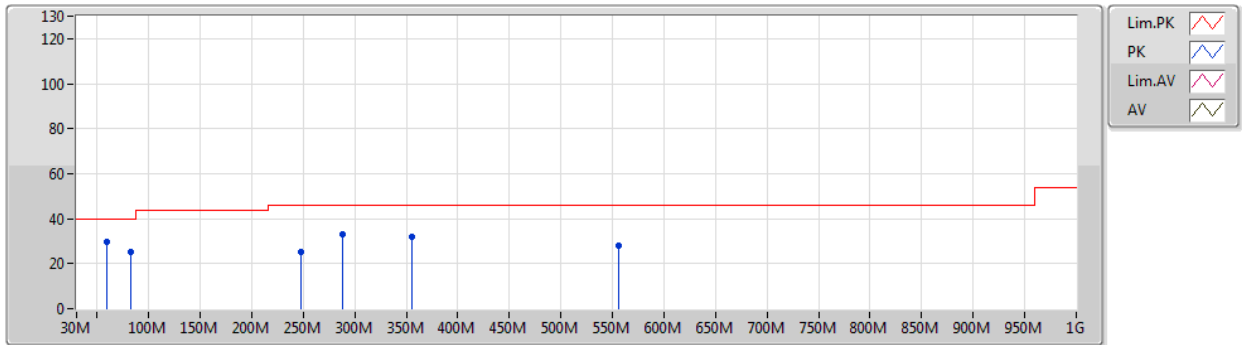


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	66.86M	29.48	40.00	-10.52	-25.32	3	Vertical	360	1.00	-	54.80	11.11	0.60	37.03
PK	105.66M	29.06	43.50	-14.44	-20.34	3	Vertical	360	1.00	-	49.40	15.52	0.80	36.66
PK	235.64M	39.35	46.00	-6.65	-19.31	3	Vertical	360	1.00	-	58.66	15.86	1.24	36.41
PK	251.16M	31.93	46.00	-14.07	-17.33	3	Vertical	360	1.00	-	49.26	17.80	1.30	36.43
PK	293.84M	28.16	46.00	-17.84	-16.85	3	Vertical	360	1.00	-	45.01	18.18	1.39	36.42
PK	912.7M	35.93	46.00	-10.07	-6.53	3	Vertical	360	1.00	-	42.46	28.09	2.83	37.45

BT-EDR(3Mbps)RX

2440MHz_Switching power supply

12/06/2020



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	59.1M	29.91	40.00	-10.09	-25.79	3	Horizontal	0	1.00	-	55.70	10.69	0.60	37.08
PK	82.38M	25.46	40.00	-14.54	-23.34	3	Horizontal	0	1.00	-	48.80	12.88	0.70	36.92
PK	247.28M	25.30	46.00	-20.70	-17.87	3	Horizontal	0	1.00	-	43.17	17.26	1.29	36.42
PK	288.02M	33.22	46.00	-12.78	-17.00	3	Horizontal	0	1.00	-	50.22	18.09	1.38	36.47
PK	355.92M	31.71	46.00	-14.29	-15.41	3	Horizontal	0	1.00	-	47.12	19.61	1.52	36.54
PK	555.74M	28.00	46.00	-18.00	-10.32	3	Horizontal	0	1.00	-	38.32	24.76	2.02	37.10



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	AV	6.496G	35.52	54.00	-18.48	3	Vertical	360	1.00	-

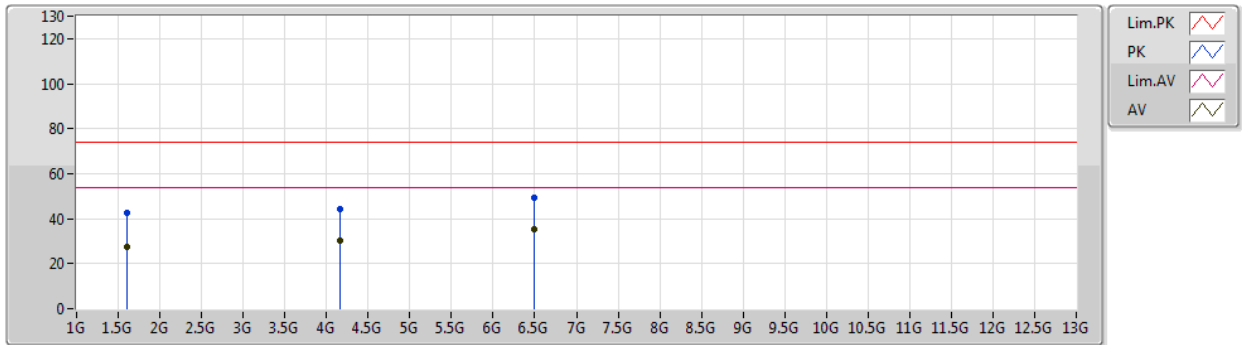
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	AV	1.6G	27.65	54.00	-26.35	3	Vertical	360	1.00	-
2440MHz	Pass	AV	4.156G	30.14	54.00	-23.86	3	Vertical	360	1.00	-
2440MHz	Pass	AV	6.496G	35.52	54.00	-18.48	3	Vertical	360	1.00	-
2440MHz	Pass	PK	1.6G	42.46	74.00	-31.54	3	Vertical	360	1.00	-
2440MHz	Pass	PK	4.156G	44.31	74.00	-29.69	3	Vertical	360	1.00	-
2440MHz	Pass	PK	6.496G	49.51	74.00	-24.49	3	Vertical	360	1.00	-
2440MHz	Pass	AV	1.6G	26.15	54.00	-27.85	3	Horizontal	0	1.00	-
2440MHz	Pass	AV	4.6G	31.46	54.00	-22.54	3	Horizontal	0	1.00	-
2440MHz	Pass	AV	6.46G	35.51	54.00	-18.49	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	1.6G	39.31	74.00	-34.69	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	4.6G	45.99	74.00	-28.01	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	6.46G	48.60	74.00	-25.40	3	Horizontal	0	1.00	-

BT-EDR(3Mbps)RX

2440MHz_RX

11/06/2020

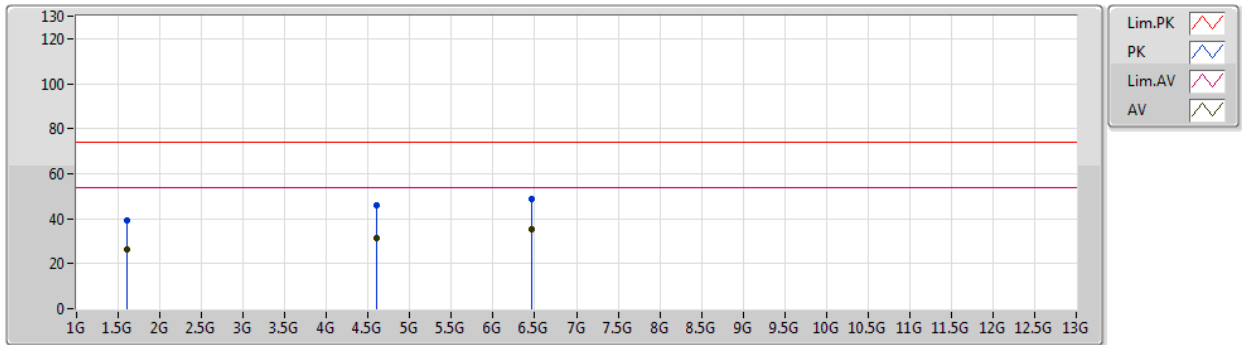


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.6G	27.65	54.00	-26.35	-5.25	3	Vertical	360	1.00	-	32.90	25.10	4.10	34.45
AV	4.156G	30.14	54.00	-23.86	2.38	3	Vertical	360	1.00	-	27.76	29.76	6.98	34.36
AV	6.496G	35.52	54.00	-18.48	7.90	3	Vertical	360	1.00	-	27.62	34.18	8.15	34.43
PK	1.6G	42.46	74.00	-31.54	-5.25	3	Vertical	360	1.00	-	47.71	25.10	4.10	34.45
PK	4.156G	44.31	74.00	-29.69	2.38	3	Vertical	360	1.00	-	41.93	29.76	6.98	34.36
PK	6.496G	49.51	74.00	-24.49	7.90	3	Vertical	360	1.00	-	41.61	34.18	8.15	34.43

BT-EDR(3Mbps)RX

11/06/2020

2440MHz_RX



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	26.15	54.00	-27.85	-5.25	3	Horizontal	0	1.00	-	31.40	25.10	4.10	34.45
AV	4.6G	31.46	54.00	-22.54	3.75	3	Horizontal	0	1.00	-	27.71	30.90	7.20	34.35
AV	6.46G	35.51	54.00	-18.49	7.75	3	Horizontal	0	1.00	-	27.76	34.04	8.13	34.42
PK	1.6G	39.31	74.00	-34.69	-5.25	3	Horizontal	0	1.00	-	44.56	25.10	4.10	34.45
PK	4.6G	45.99	74.00	-28.01	3.75	3	Horizontal	0	1.00	-	42.24	30.90	7.20	34.35
PK	6.46G	48.60	74.00	-25.40	7.75	3	Horizontal	0	1.00	-	40.85	34.04	8.13	34.42



Exposure Environment: General Population / Uncontrolled Exposure

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-BR	2.46	5.69	8.15	0.50	8.65	0.00733	20	0.00146	1.00000
2.4G;BT-EDR	2.46	1.99	4.45	0.50	4.95	0.00313	20	0.00062	1.00000