

NCC Test Report

Equipment : CSI 2140 Machinery Health Analyzer
Brand Name : AMS
Model Name : CSI 2140
Applicant/ Manufacturer : COMPUTATIONAL SYSTEMS INC.
835 Innovation Drive, Knoxville, TN,
37932, USA
Standard : LP0002 Section 3.10 (2018-01-10)

The product was received on Jul. 27, 2019, and testing was started from Jul. 27, 2019 and completed on Aug. 07, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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


Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

Table of Contents

HISTORY OF THIS TEST REPORT	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Information.....	5
1.2 Testing Applied Standards	8
1.3 Testing Location Information	8
1.4 Measurement Uncertainty	8
2 TEST CONFIGURATION OF EUT.....	9
2.1 Test Condition	9
2.2 Test Channel Mode	9
2.3 The Worst Case Measurement Configuration.....	10
2.4 Accessories and Support Equipment	11
2.5 Test Setup Diagram	12
3 TRANSMITTER TEST RESULT	14
3.1 AC Power-line Conducted Emissions	14
3.2 20dB Bandwidth and Carrier Frequency Separation.....	15
3.3 Maximum Conducted Output Power	16
3.4 Number of Hopping Frequencies and Hopping Bandedge	17
3.5 Time of Occupancy (Dwell Time)	18
3.6 Emissions in Non-restricted Frequency Bands	19
3.7 Emissions in Restricted Frequency Bands.....	20
3.8 Receiver Radiated Spurious Emissions	23
4 TEST EQUIPMENT AND CALIBRATION DATA.....	26
APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS	
APPENDIX B. TEST RESULTS OF 20DB BANDWIDTH AND CARRIER FREQUENCY SEPARATION	
APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER	
APPENDIX D. TEST RESULTS OF NUMBER OF HOPPING FREQUENCIES AND HOPPING BANDEDGE	
APPENDIX E. TEST RESULTS OF TIME OF OCCUPANCY (DWELL TIME)	
APPENDIX F. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS	
APPENDIX G. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS	
APPENDIX H. TEST RESULTS OF RECEIVER RADIATED UNWANTED EMISSIONS	
APPENDIX I. TEST PHOTOS	
PHOTOGRAPHS OF EUT V01	



History of this test report

[illegible]

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	LP0002-2.2
3.1	2.3	AC Power-line Conducted Emissions	PASS	LP0002-2.3
3.2	3.10.1.6	20dB Bandwidth	PASS	3.10.1.6
3.2	3.10.1.6	Carrier Frequency Separation	PASS	3.10.1.6
3.3	3.10.1.2	Maximum Conducted Output Power	PASS	3.10.1.2
3.4	3.10.1.6	Number of Hopping Frequencies and Hopping Bandedge	PASS	3.10.1.6
3.5	3.10.1.6	Time of Occupancy (Dwell Time)	PASS	3.10.1.6
3.6	3.10.1.5	Emissions in Non-restricted Frequency Bands	PASS	3.10.1.5
3.7	3.10.1.5	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: LP0002-2.8
3.8	2.11	Receiver Radiated Unwanted Emissions	PASS	Restricted Bands: LP0002-2.8

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Jackson Tsai

Report Producer: Kate Lo

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	-	-	PCB Trace Antenna	N/A

Ant.	Port	Gain (dBi)	
		2.4G	BT
1	1	1.4	1.9

Note 1: The EUT has one antenna.

For 2.4GHz function:

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

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

For BT function:

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

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	☒ Point-to-multipoint	☐ Point-to-point	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.: ...		
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-BR(1Mbps)	0.356	4.49	1.406m	1k
BT-EDR(2Mbps)	0.05	13.01	193.75u	10k
BT-EDR(3Mbps)	0.056	12.52	209.375u	10k

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)
- ♦ KDB 558074 D01 v05r01
- ♦ ANSI C63.10-2013
- ♦ ANSI C63.4-2014

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	23.9~24.1°C / 61.2~63.9%	07/Aug/2019
RF Conducted	TH01-HY	Dexter	24.3~24.7°C / 57~59%	30/Jul/2019~ 02/Aug/2019
Radiated	03CH03-HY	Edward	24.2~26.7°C / 55.8~71.2%	27/Jul/2019~ 03/Aug/2019

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	110V

2.2 Test Channel Mode

Test Software Version	CSI Hardware Test V1.2.1.21
-----------------------	-----------------------------

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	20dB Bandwidth Carrier Frequency Separation Maximum Conducted Output Power Number of Hopping Frequencies Hopping Bandedge Time of Occupancy (Dwell Time) Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands Receiver Radiated Unwanted 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	Adapter mode		
Operating Mode > 1GHz	CTX/CRX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

Note:

Non-AFH: DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $3.37 \times 1.185 = 4$ within 1.185 seconds.

AFH: DH5 Packet permit maximum $800 / 20 / 6 = 6.67$ hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $13.33 \times 8 = 106.6$ within 8 seconds.

Under the above conditions, Non-AFH Mode configuration was found to be the worst case and measured during the test.

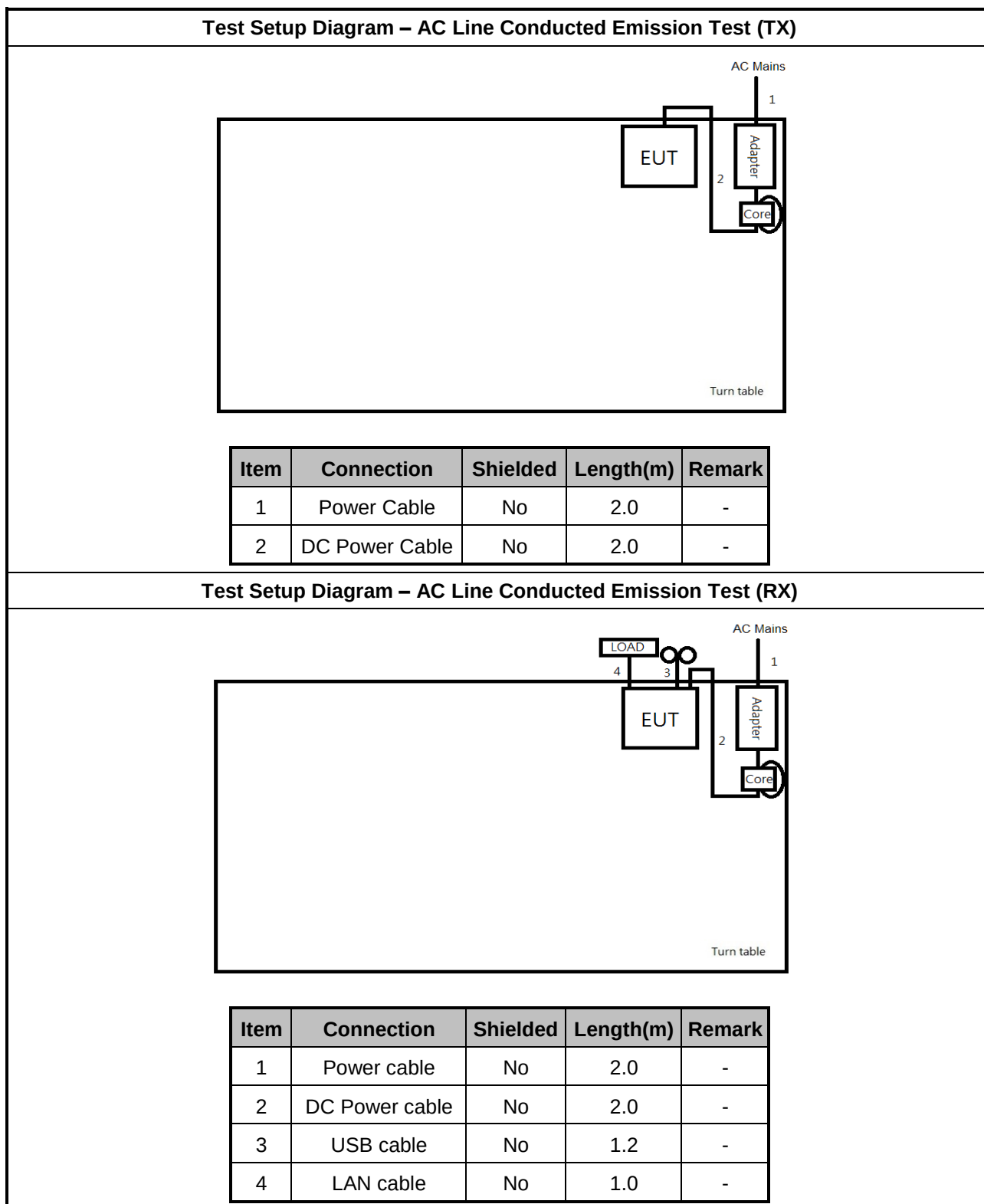
2.4 Accessories and Support Equipment

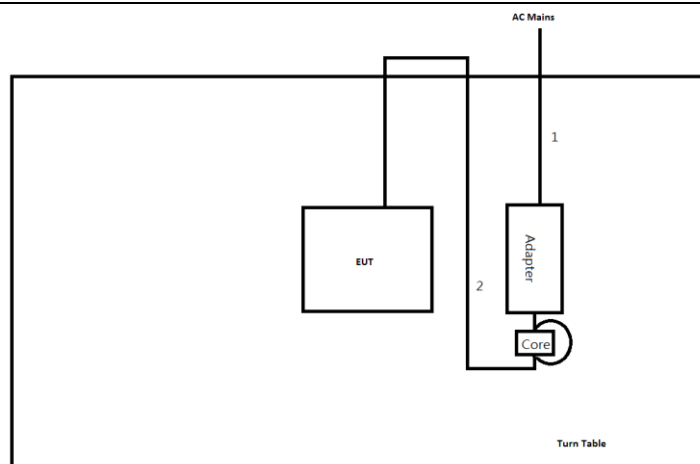
Accessories				
AC Adapter	Model Name	GlobTek	Model Name	GT-81081-6015T3
	Power Rating	I/P: 100 - 240Vac, 1.5A, 50/60Hz, O/P: 15Vdc, 4.0A		
	Power Cord	2 meter, non-shielded cable, with ferrite core		
Power cable	Model Name	AMS	Model Name	CSI 2140
	Signal Line	2 meter, non-shielded cable, w/o ferrite core		

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

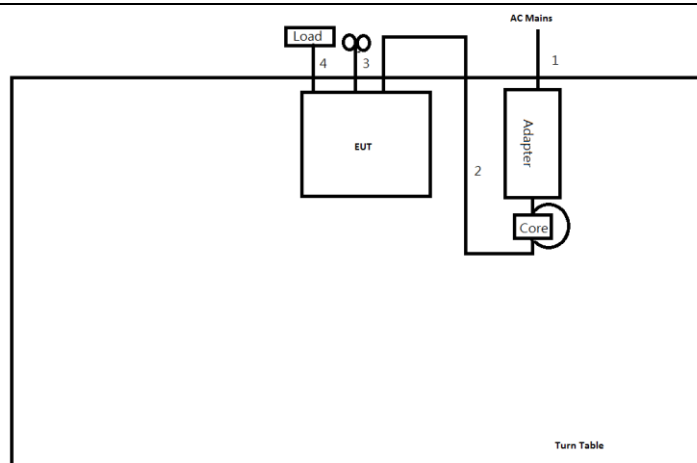
Support Equipment – AC Conduction and Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	LAN Cable	Power sync	CAT-6E-01	-
2	Core	鈞寶	KCF-100-E	-
3	USB Cable	Hawk	01-HTE120	-
4	Load	SPORTON	-	-

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test (TX)


Item	Connection	Shielded	Length(m)	Remark
1	Power Cable	No	2.0	-
2	DC Power Cable	No	2.0	-

Test Setup Diagram - Radiated Test (RX)


Item	Connection	Shielded	Length(m)	Remark
1	Power Cable	No	2.0	-
2	DC Power Cable	No	2.0	-
3	USB Cable	No	1.2	-
4	LAN Cable	No	1.0	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

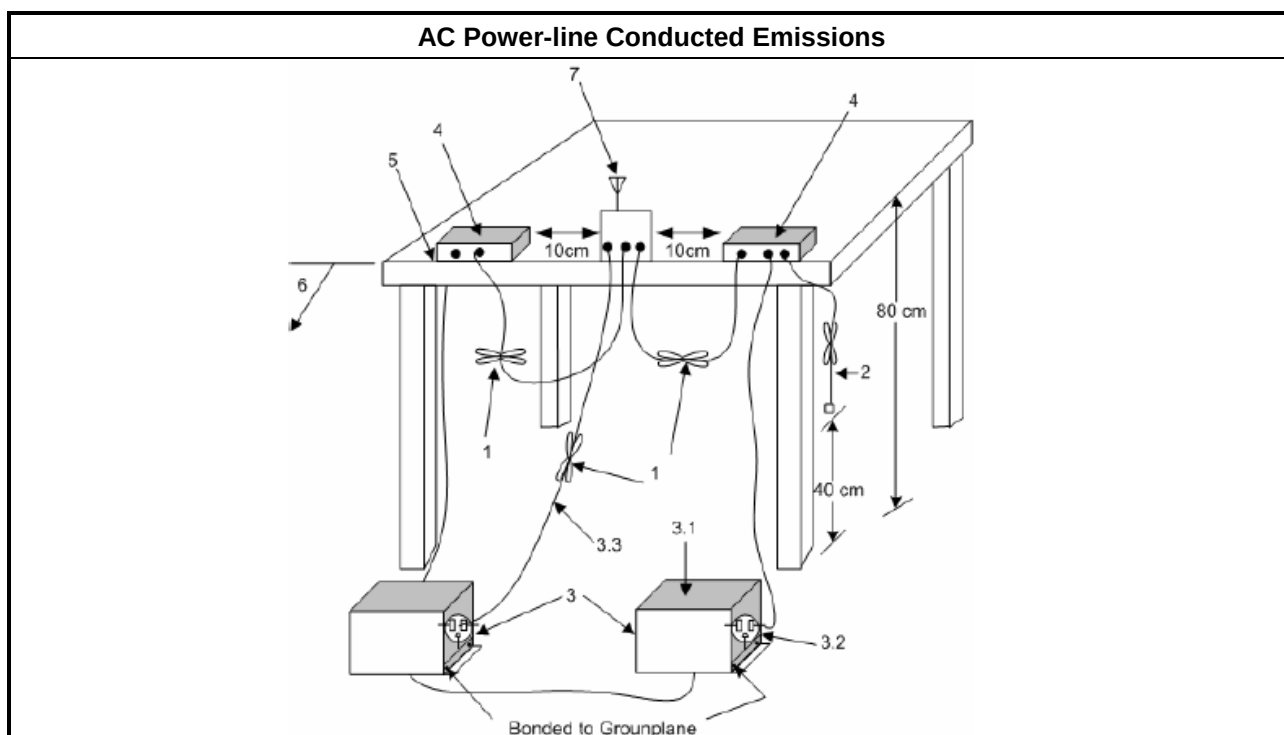
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



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 (20 dB bandwidth, 25 kHz); 20 dB bandwidth $\leq$ 250 kHz.
	$75 > N \geq 15$ and ChS $\geq$ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth $>$ 250 kHz.
N: Number of Hopping Frequencies; ChS: Hopping Channel Separation	

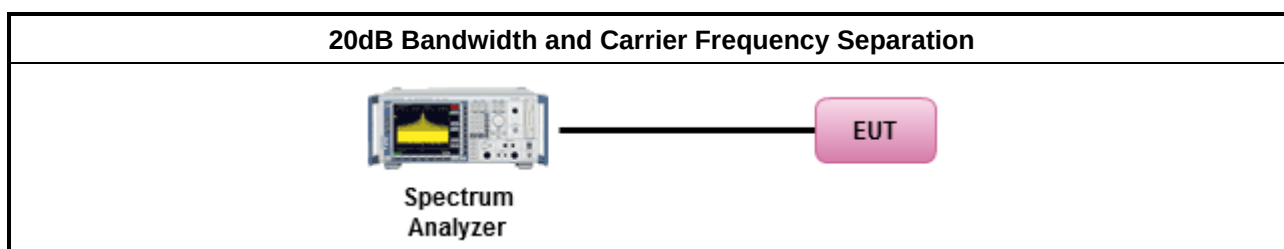
3.2.2 Measuring Instruments

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	

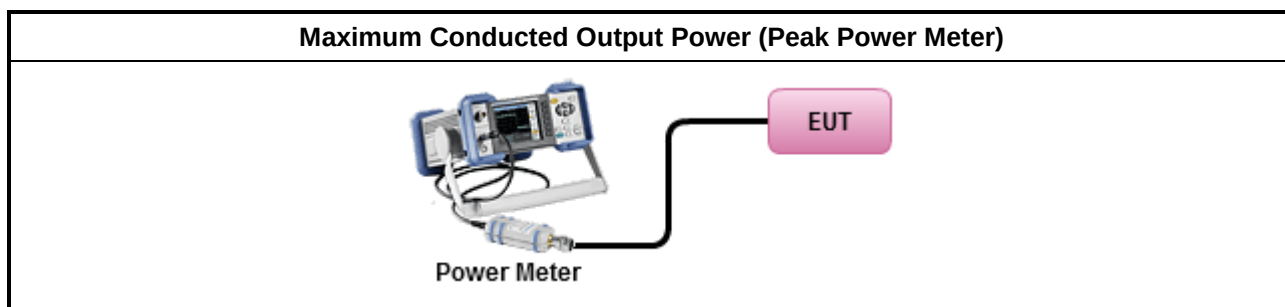
3.3.2 Measuring Instruments

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

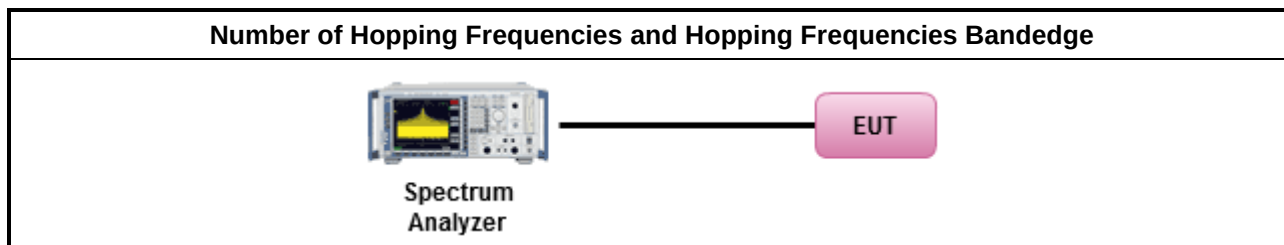
3.4.3 Measuring Instruments

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	

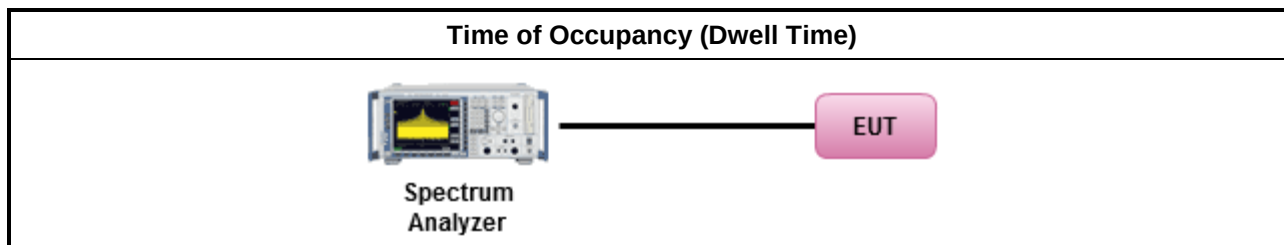
3.5.2 Measuring Instruments

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.	

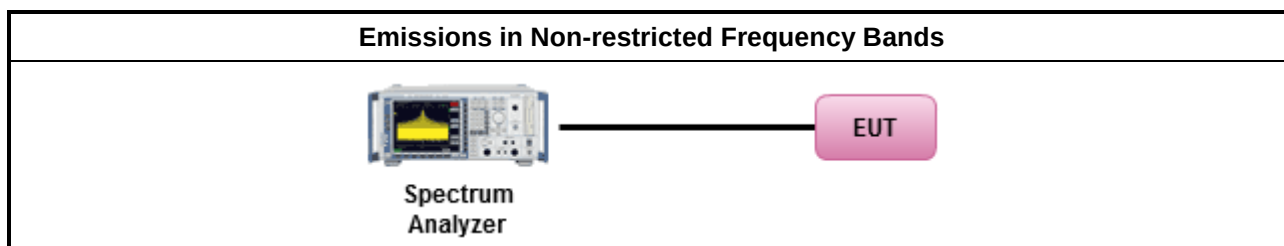
3.6.2 Measuring Instruments

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.

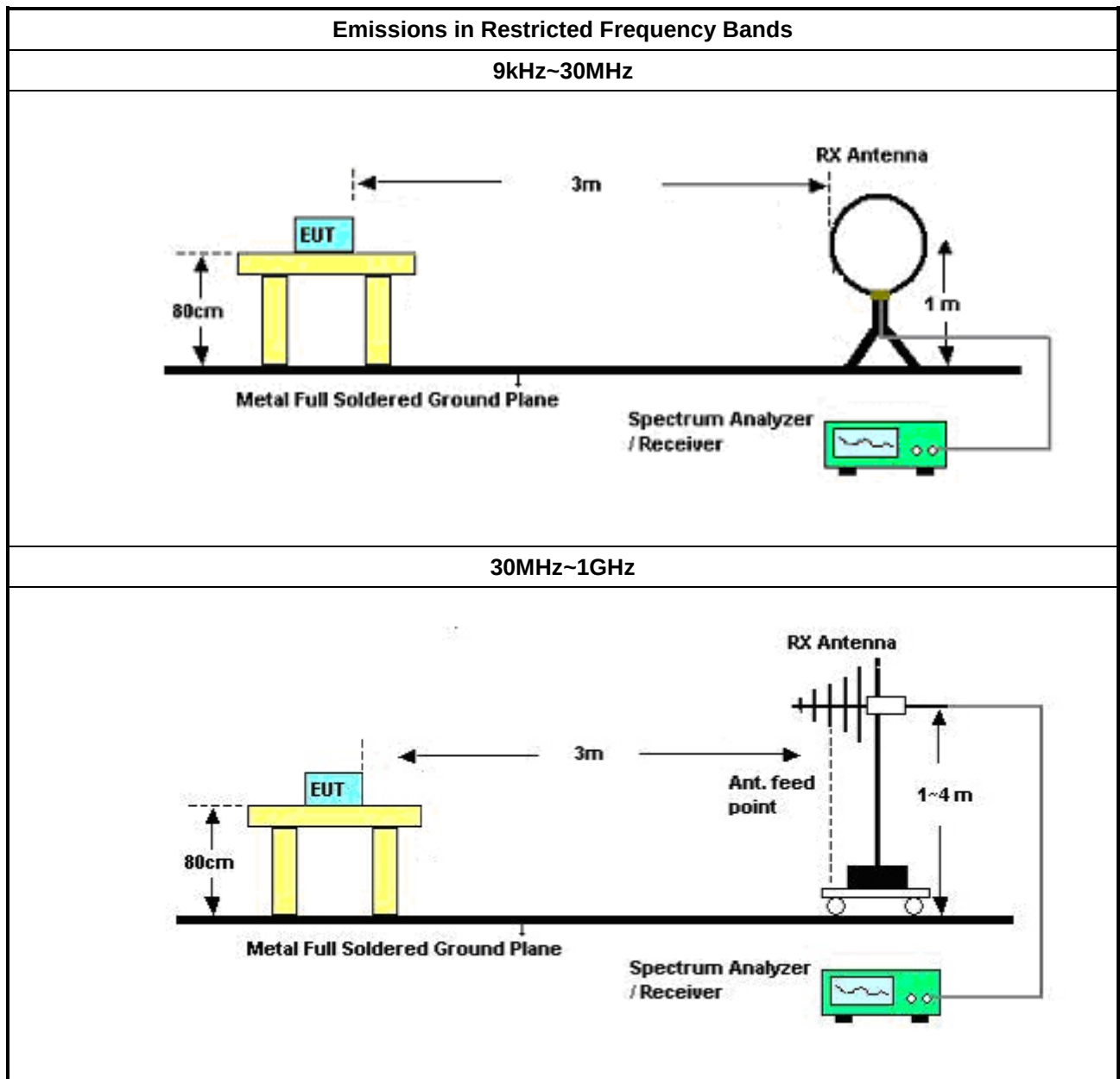
3.7.2 Measuring Instruments

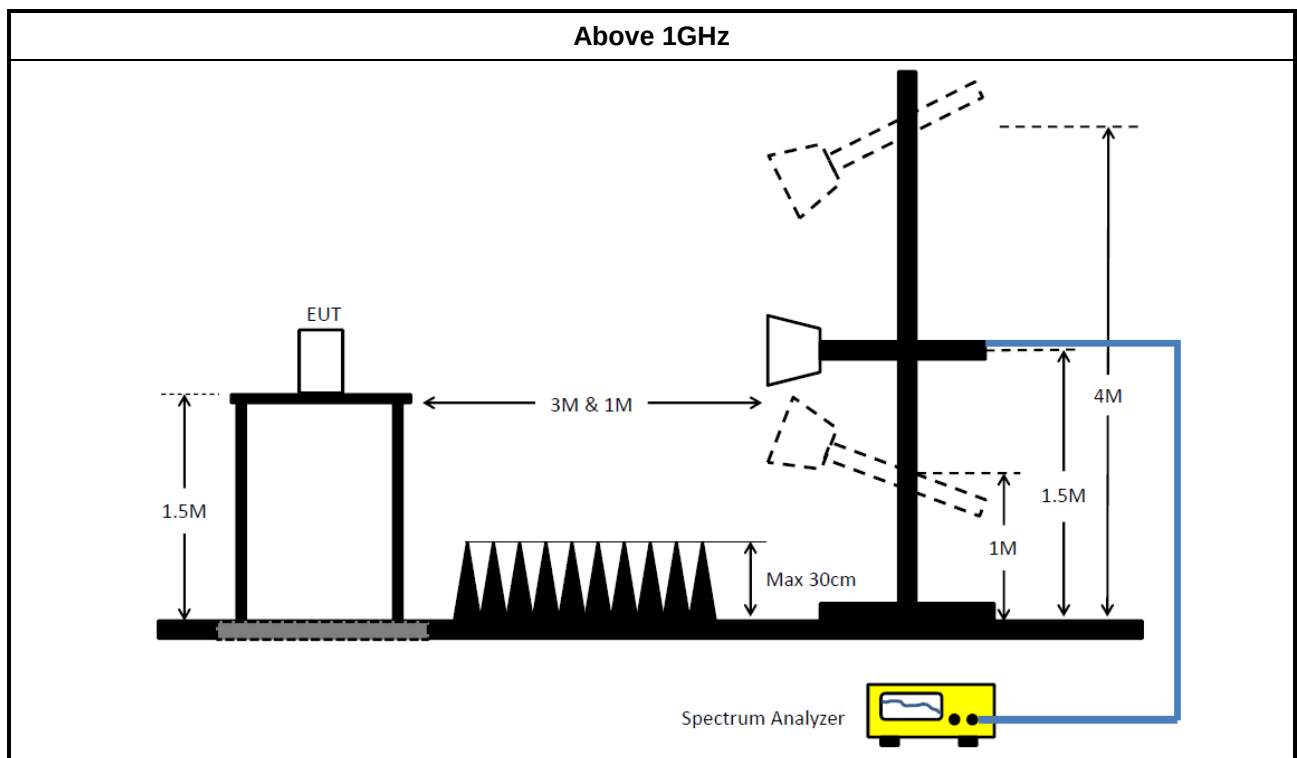
Refer a test equipment and calibration data table in this test report.

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.

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.

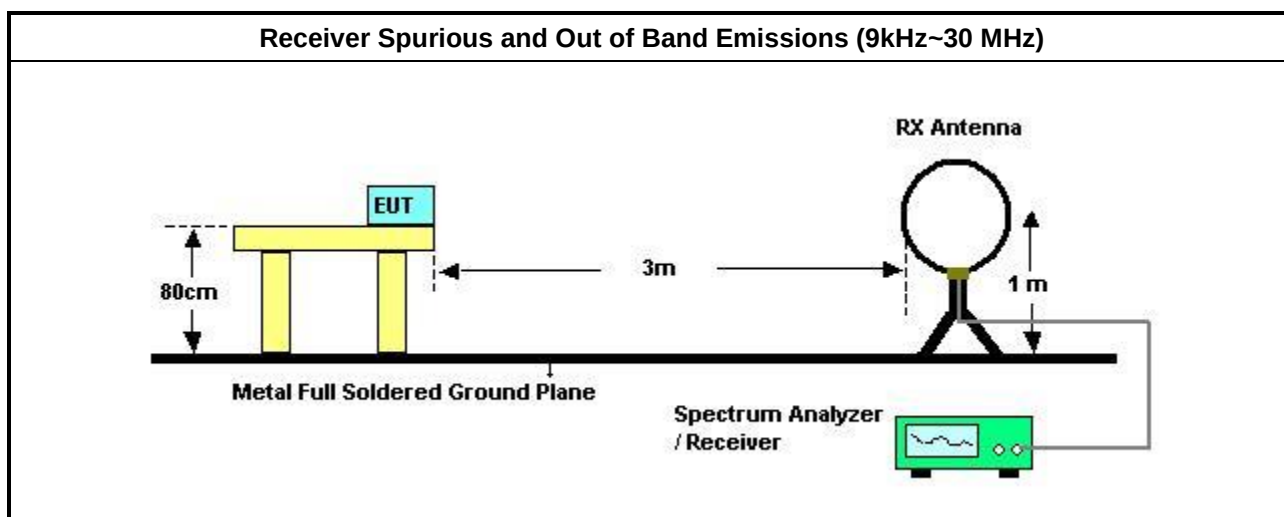
3.8.2 Measuring Instruments

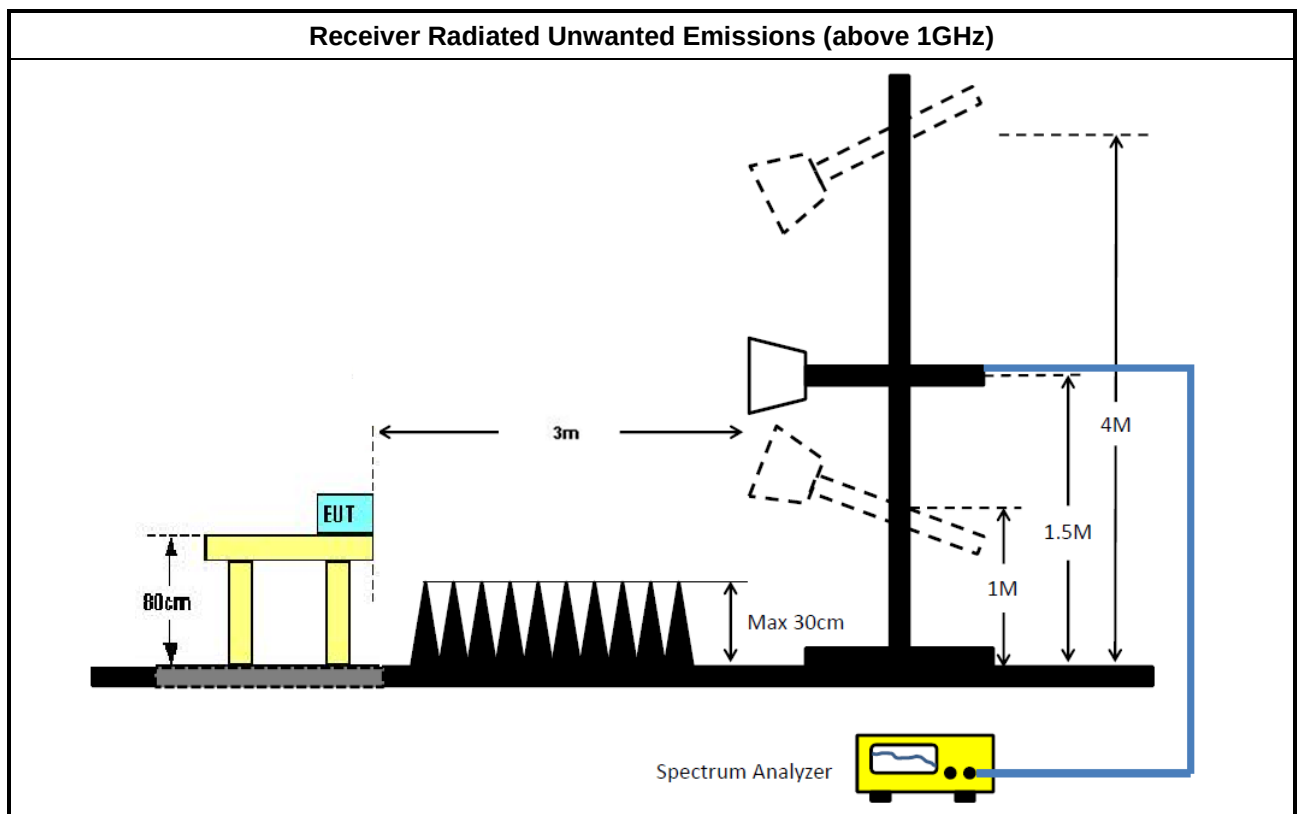
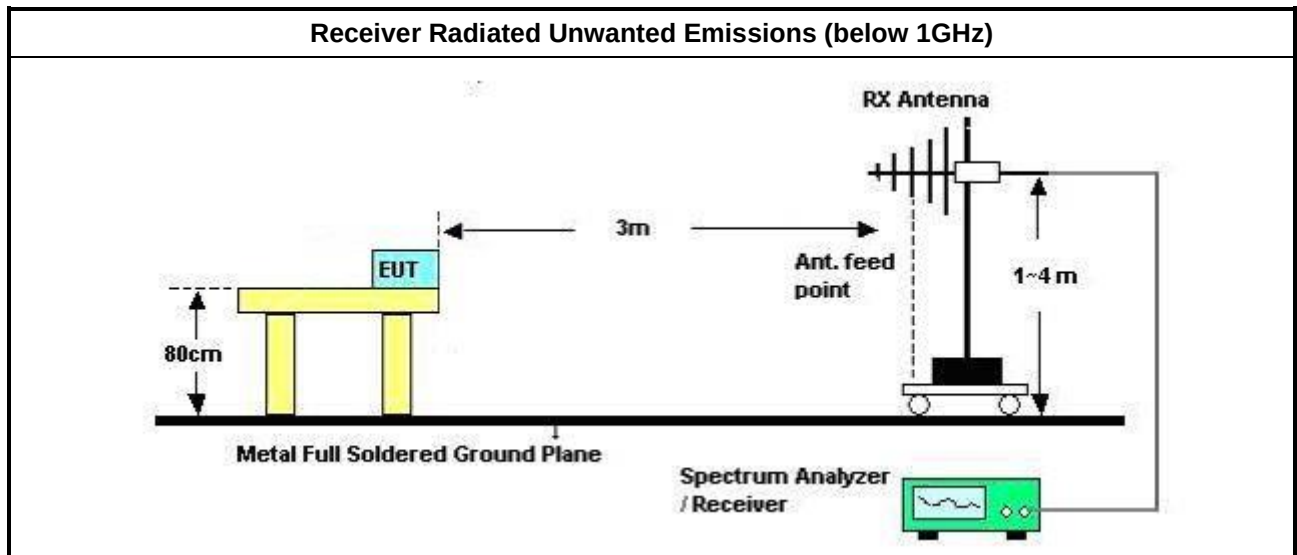
Refer a test equipment and calibration data table in this test report.

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

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	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz~30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz~200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz~30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

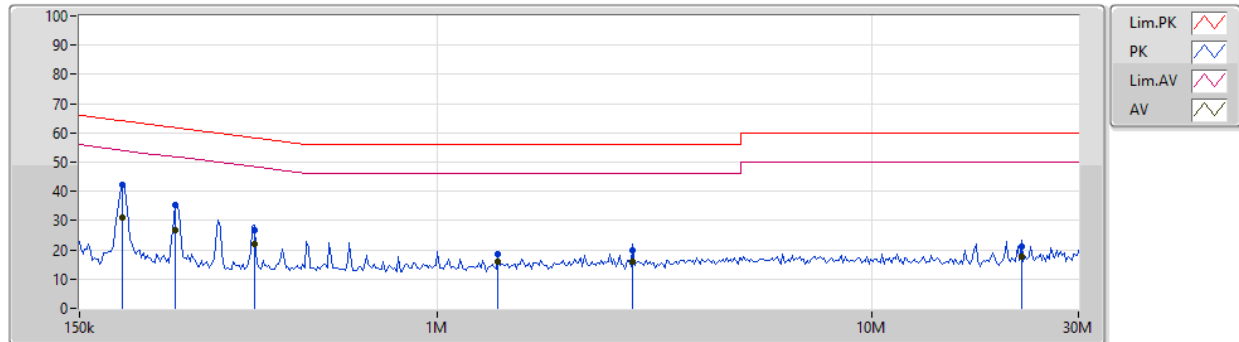
Instrument for Radiated Test

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	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna with 5dB Pad	ETS	3142B & MTJ6102-05	00022055	26MHz~3GHz	19/Nov/2018	18/Nov/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz~26.5GHz	05/Sep/2018	04/Sep/2019
Signal Analyzer	R&S	FSP40	100305	9kHz~40GHz; -140~+30dBm	10/Jun/2019	09/Jun/2020
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~1GHz	22/Mar/2019	21/Mar/2020
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz~40GHz	21/Mar/2019	20/Mar/2020
RF CABLE	HUBER+SUHNER	SUOFLEX 104	802378/4	1GHz~18GHz	04/Jul/2019	03/Jul/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz~18GHz	09/Mar/2019	08/Mar/2020

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode (TX)		

07/08/2019

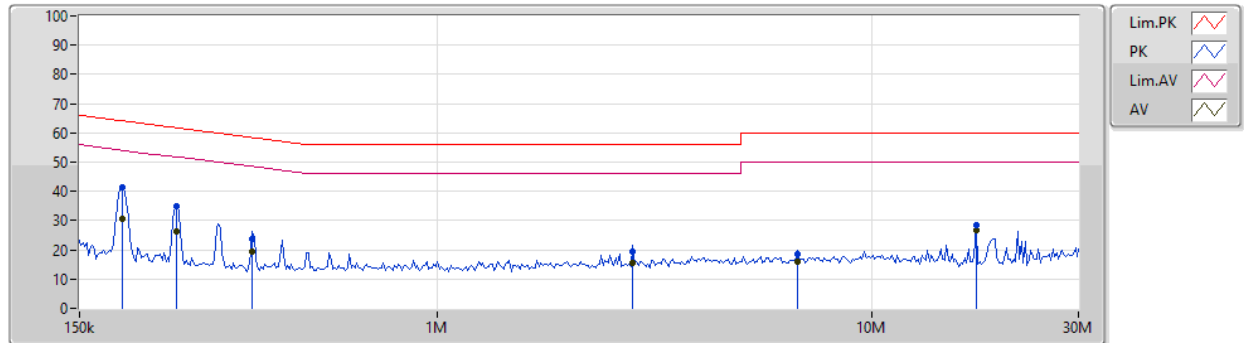


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	188.574k	42.05	64.11	-22.06	19.47	Neutral	"Worst"	22.58	9.59	0.01	9.87			
AV	188.574k	31.10	54.11	-23.01	19.47	Neutral	-	11.63	9.59	0.01	9.87			
QP	249.162k	35.44	61.79	-26.35	19.47	Neutral	-	15.97	9.59	0.01	9.87			
AV	249.162k	26.78	51.79	-25.01	19.47	Neutral	-	7.31	9.59	0.01	9.87			
QP	378.424k	26.56	58.31	-31.75	19.48	Neutral	-	7.08	9.59	0.01	9.88			
AV	378.424k	21.92	48.31	-26.39	19.48	Neutral	-	2.44	9.59	0.01	9.88			
QP	1.38M	18.34	56.00	-37.66	19.51	Neutral	-	-1.17	9.60	0.03	9.88			
AV	1.38M	15.86	46.00	-30.14	19.51	Neutral	-	-3.65	9.60	0.03	9.88			
QP	2.824M	19.96	56.00	-36.04	19.54	Neutral	-	0.42	9.61	0.04	9.89			
AV	2.824M	16.11	46.00	-29.89	19.54	Neutral	-	-3.43	9.61	0.04	9.89			
QP	22.152M	21.33	60.00	-38.67	19.69	Neutral	-	1.64	9.68	0.11	9.90			
AV	22.152M	17.64	50.00	-32.36	19.69	Neutral	-	-2.05	9.68	0.11	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode (TX)		

07/08/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	188.574k	41.48	64.11	-22.63	19.48	Line	"Worst"	22.00	9.60	0.01	9.87			
AV	188.574k	30.60	54.11	-23.51	19.48	Line	-	11.12	9.60	0.01	9.87			
QP	251.653k	34.81	61.70	-26.89	19.48	Line	-	15.33	9.60	0.01	9.87			
AV	251.653k	26.37	51.70	-25.33	19.48	Line	-	6.89	9.60	0.01	9.87			
QP	374.678k	23.59	58.39	-34.80	19.48	Line	-	4.11	9.59	0.01	9.88			
AV	374.678k	19.24	48.39	-29.15	19.48	Line	-	-0.24	9.59	0.01	9.88			
QP	2.824M	19.45	56.00	-36.55	19.55	Line	-	-0.10	9.62	0.04	9.89			
AV	2.824M	15.31	46.00	-30.69	19.55	Line	-	-4.24	9.62	0.04	9.89			
QP	6.779M	18.36	60.00	-41.64	19.60	Line	-	-1.24	9.65	0.06	9.89			
AV	6.779M	16.03	50.00	-33.97	19.60	Line	-	-3.57	9.65	0.06	9.89			
QP	17.446M	28.52	60.00	-31.48	19.64	Line	-	8.88	9.64	0.10	9.90			
AV	17.446M	26.72	50.00	-23.28	19.64	Line	-	7.08	9.64	0.10	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode (RX)		

07/08/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	186.707k	49.31	64.18	-14.87	19.47	Neutral	"Worst"	29.84	9.59	0.01	9.87			
AV	186.707k	38.37	54.18	-15.81	19.47	Neutral	-	18.90	9.59	0.01	9.87			
QP	251.653k	45.16	61.70	-16.54	19.47	Neutral	-	25.69	9.59	0.01	9.87			
AV	251.653k	36.82	51.70	-14.88	19.47	Neutral	-	17.35	9.59	0.01	9.87			
QP	313.237k	39.00	59.88	-20.88	19.48	Neutral	-	19.52	9.59	0.01	9.88			
AV	313.237k	32.18	49.88	-17.70	19.48	Neutral	-	12.70	9.59	0.01	9.88			
QP	1.769M	25.38	56.00	-30.62	19.53	Neutral	-	5.85	9.61	0.03	9.89			
AV	1.769M	23.32	46.00	-22.68	19.53	Neutral	-	3.79	9.61	0.03	9.89			
QP	2.634M	27.47	56.00	-28.53	19.54	Neutral	-	7.93	9.61	0.04	9.89			
AV	2.634M	24.36	46.00	-21.64	19.54	Neutral	-	4.82	9.61	0.04	9.89			
QP	16.112M	32.12	60.00	-27.88	19.67	Neutral	-	12.45	9.68	0.09	9.90			
AV	16.112M	28.70	50.00	-21.30	19.67	Neutral	-	9.03	9.68	0.09	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode (RX)		

07/08/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	188.574k	48.69	64.11	-15.42	19.48	Line	"Worst"	29.21	9.60	0.01	9.87			
AV	188.574k	38.10	54.11	-16.01	19.48	Line	-	18.62	9.60	0.01	9.87			
QP	251.653k	42.93	61.70	-18.77	19.48	Line	-	23.45	9.60	0.01	9.87			
AV	251.653k	34.81	51.70	-16.89	19.48	Line	-	15.33	9.60	0.01	9.87			
QP	374.678k	32.92	58.39	-25.47	19.48	Line	-	13.44	9.59	0.01	9.88			
AV	374.678k	27.80	48.39	-20.59	19.48	Line	-	8.32	9.59	0.01	9.88			
QP	2.506M	28.09	56.00	-27.91	19.55	Line	-	8.54	9.62	0.04	9.89			
AV	2.506M	24.50	46.00	-21.50	19.55	Line	-	4.95	9.62	0.04	9.89			
QP	6.016M	27.04	60.00	-32.96	19.60	Line	-	7.44	9.65	0.06	9.89			
AV	6.016M	24.90	50.00	-25.10	19.60	Line	-	5.30	9.65	0.06	9.89			
QP	16.112M	35.25	60.00	-24.75	19.63	Line	-	15.62	9.64	0.09	9.90			
AV	16.112M	32.88	50.00	-17.12	19.63	Line	-	13.25	9.64	0.09	9.90			



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-BR(1Mbps)	1.081M	1.564M	1M56F1D	932.5k	1.182M
BT-EDR(2Mbps)	1.255M	2.029M	2M03G1D	1.204M	1.912M
BT-EDR(3Mbps)	1.219M	2.12M	2M12G1D	1.154M	1.948M

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

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

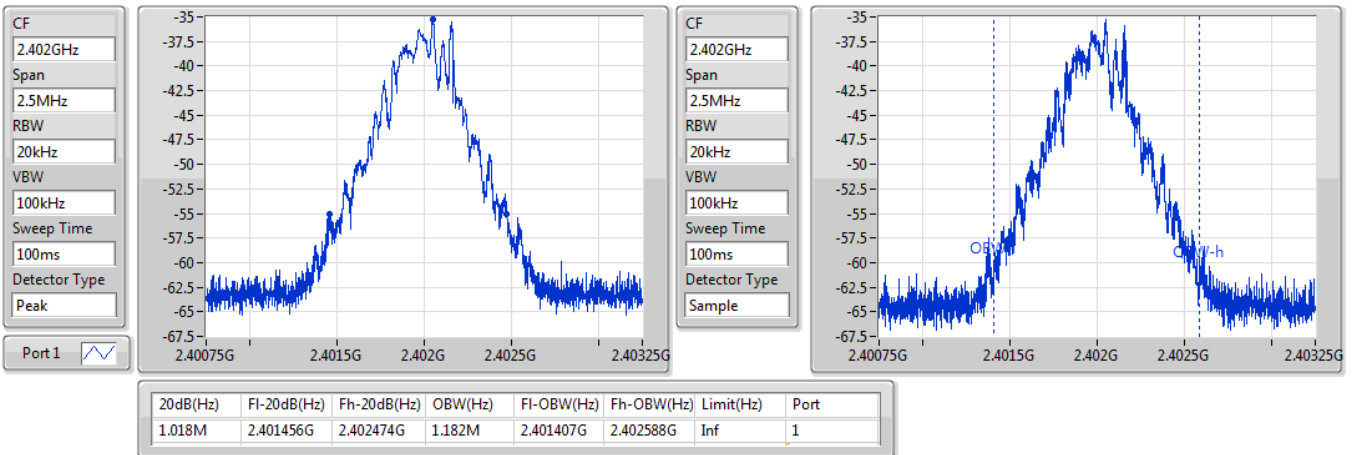
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.018M	1.182M
2441MHz_TnomVnom	Pass	Inf	932.5k	1.253M
2480MHz_TnomVnom	Pass	Inf	1.081M	1.564M
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.255M	1.912M
2441MHz_TnomVnom	Pass	Inf	1.204M	1.973M
2480MHz_TnomVnom	Pass	Inf	1.25M	2.029M
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	Inf	1.166M	1.948M
2441MHz_TnomVnom	Pass	Inf	1.154M	1.952M
2480MHz_TnomVnom	Pass	Inf	1.219M	2.12M

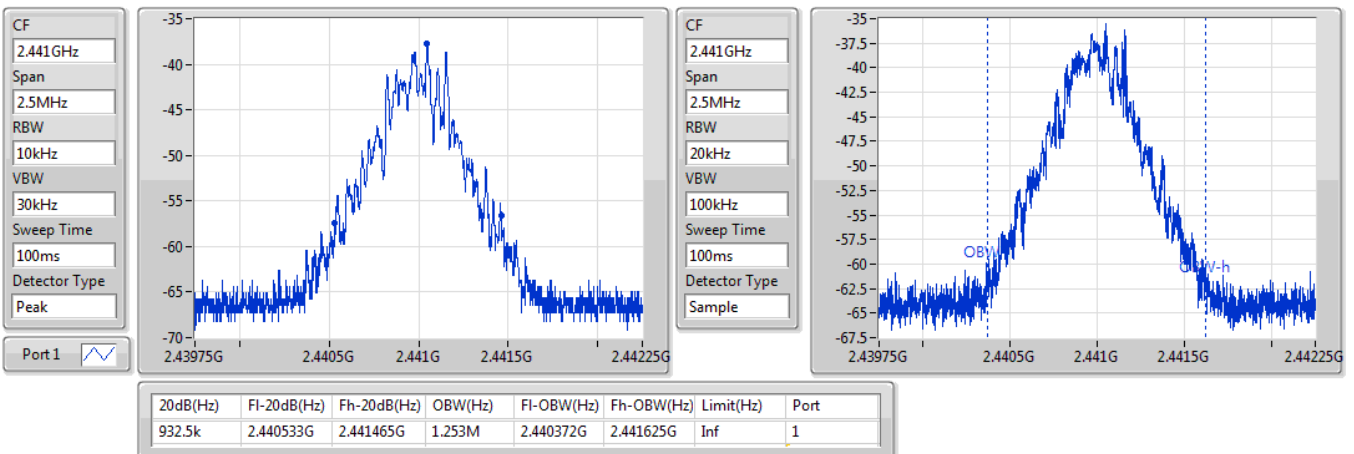
Port X-N dB = Port X 20dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-BR(1Mbps)
2402MHz
EBW

31/07/2019

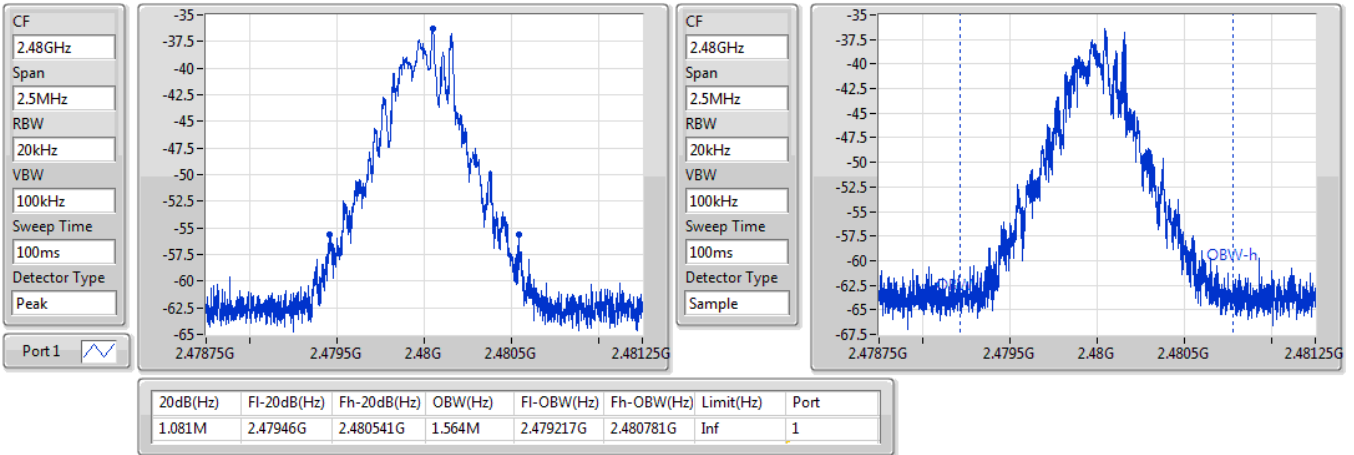

BT-BR(1Mbps)
2441MHz
EBW

31/07/2019

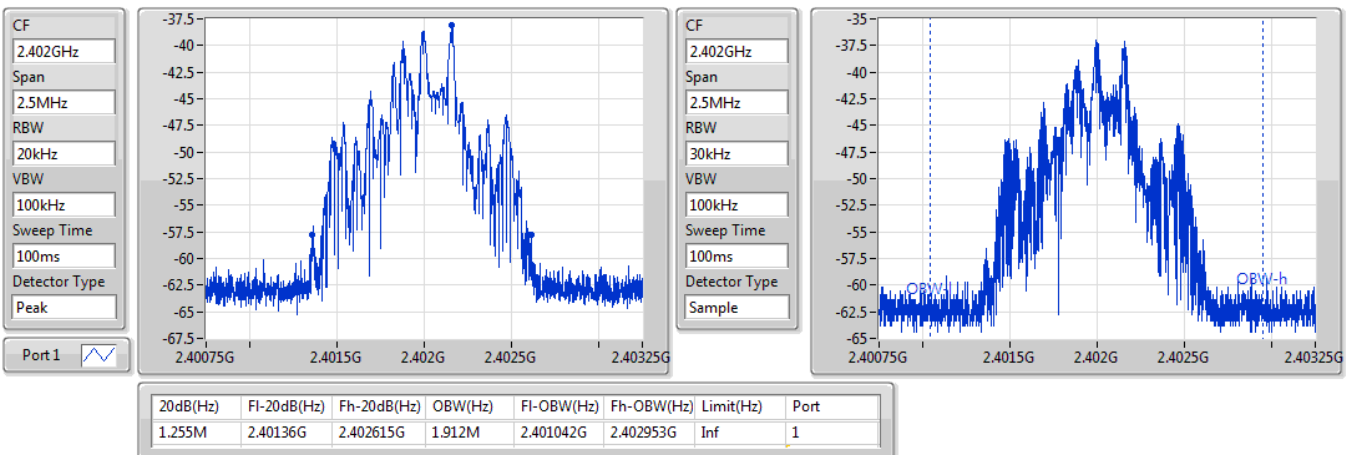


BT-BR(1Mbps)
EBW
2480MHz

31/07/2019

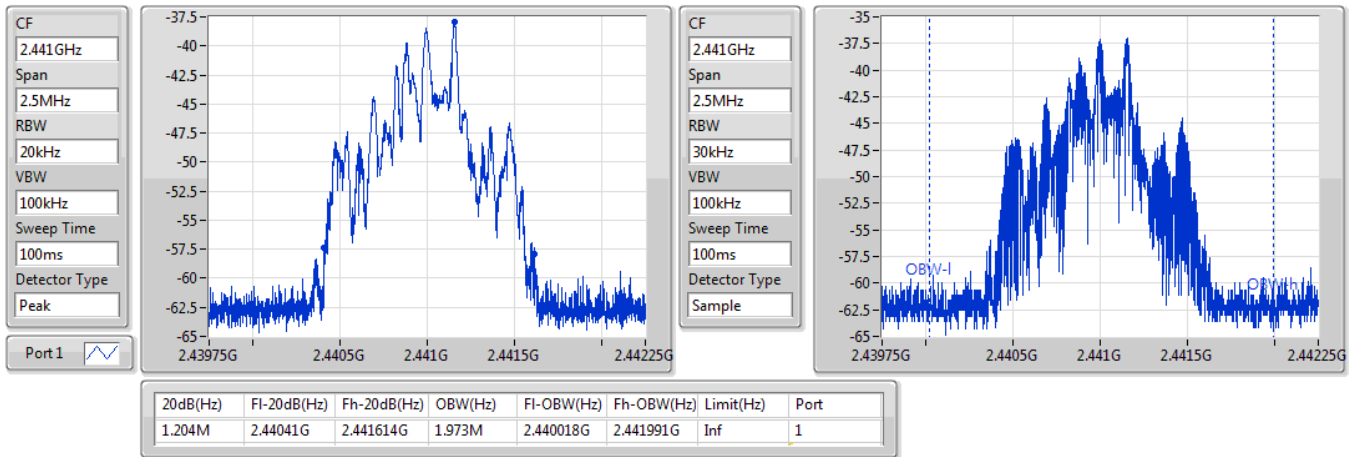

BT-EDR(2Mbps)
EBW
2402MHz

01/08/2019

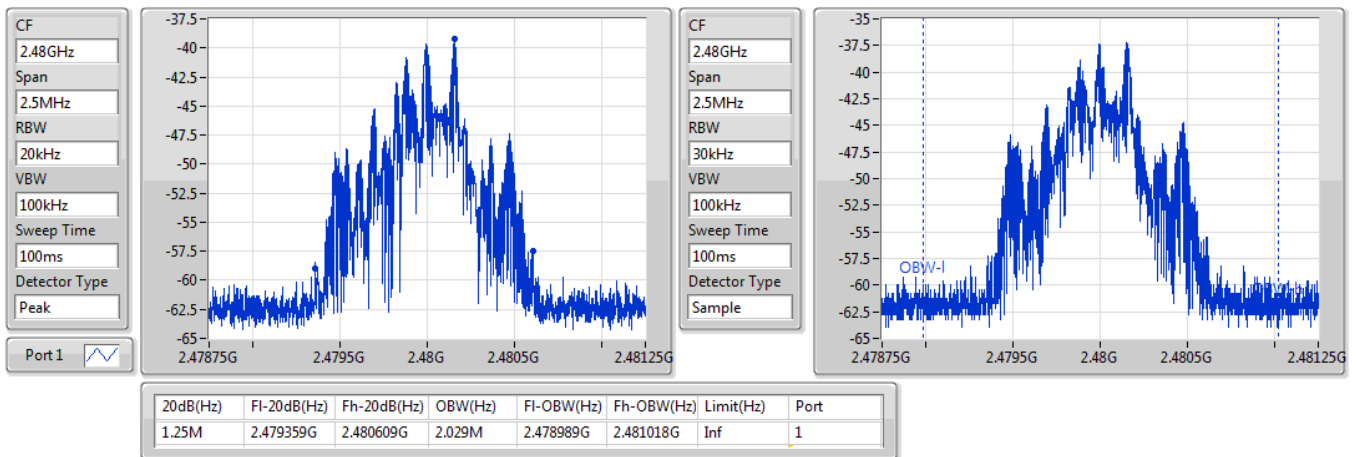


BT-EDR(2Mbps)
EBW
2441MHz

01/08/2019

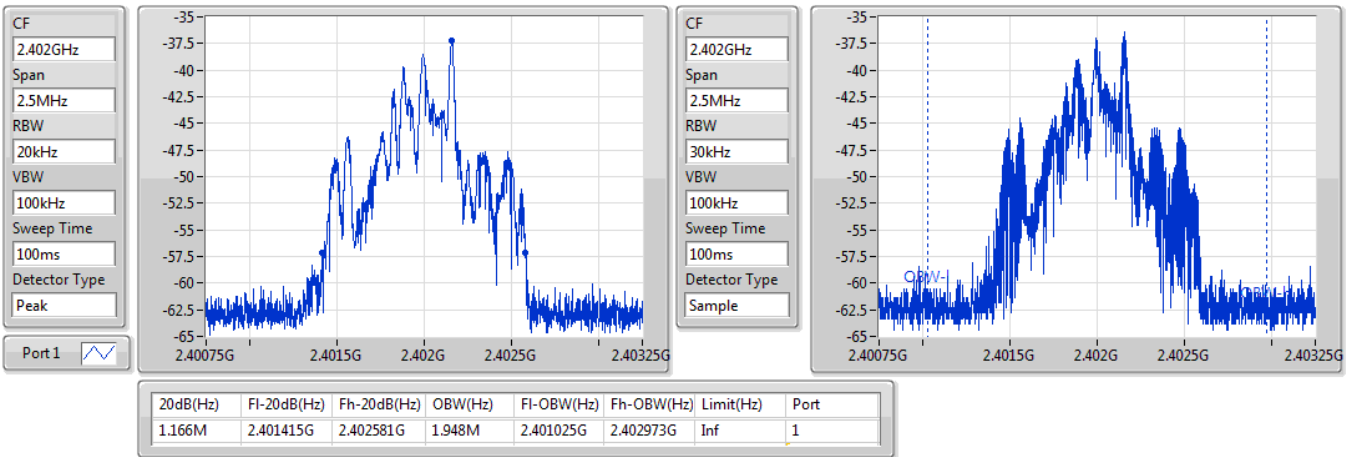

BT-EDR(2Mbps)
EBW
2480MHz

01/08/2019

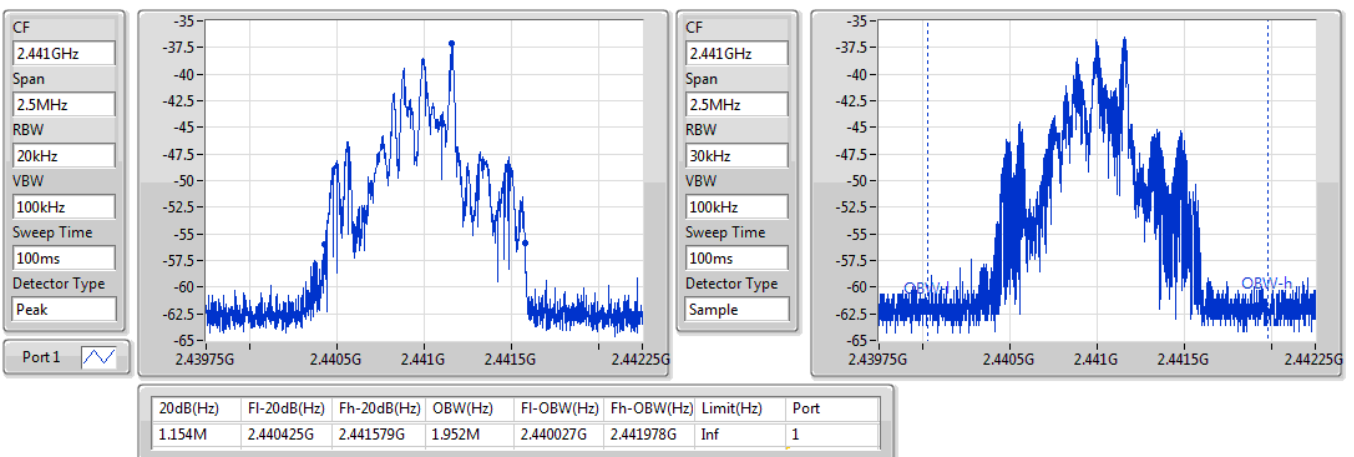


BT-EDR(3Mbps)
2402MHz
EBW

01/08/2019


BT-EDR(3Mbps)
2441MHz
EBW

01/08/2019

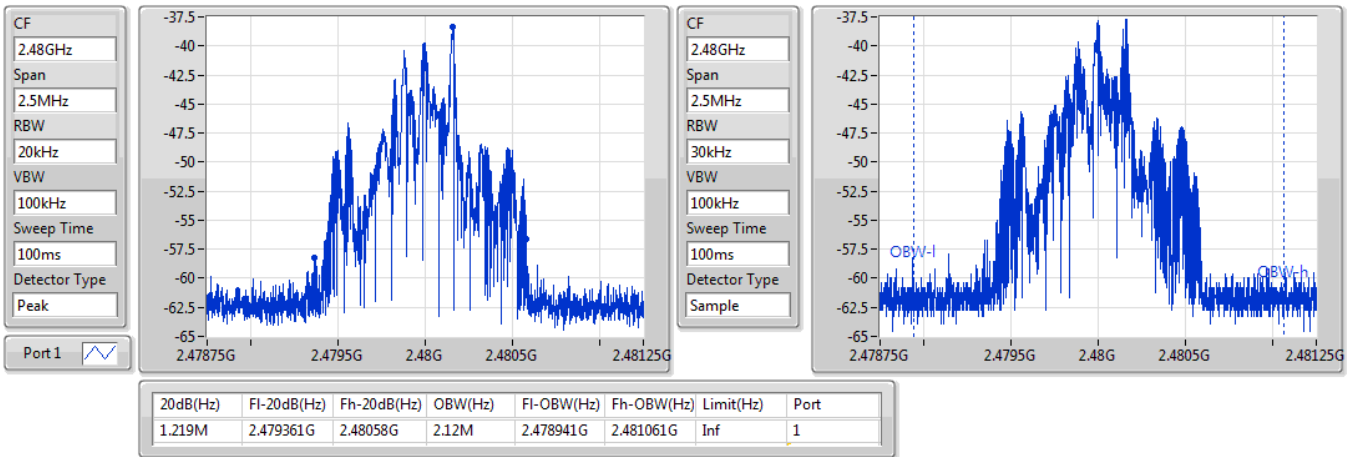


BT-EDR(3Mbps)

2480MHz

EBW

01/08/2019





Summary

Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0035M	894k
BT-EDR(2Mbps)	1.002M	997.5k
BT-EDR(3Mbps)	1.0035M	999k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402046G	2.403049G	1.0035M	609.39k
2441MHz_TnomVnom	Pass	2.441046G	2.442049G	1.0035M	612.72k
2480MHz_TnomVnom	Pass	2.479154G	2.480048G	894k	620.2125k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.401999G	2.402998G	999k	835.83k
2441MHz_TnomVnom	Pass	2.440998G	2.441995G	997.5k	801.864k
2480MHz_TnomVnom	Pass	2.478998G	2.48G	1.002M	832.5k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.402155G	2.403154G	999k	776.556k
2441MHz_TnomVnom	Pass	2.441157G	2.44216G	1.0035M	768.564k
2480MHz_TnomVnom	Pass	2.479154G	2.480154G	1.0005M	811.854k

BT-BR(1Mbps)

2.402G/2.403GHz

Channel Separation

30/07/2019



Port1 

Ch Freq
2.402G/2.403G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

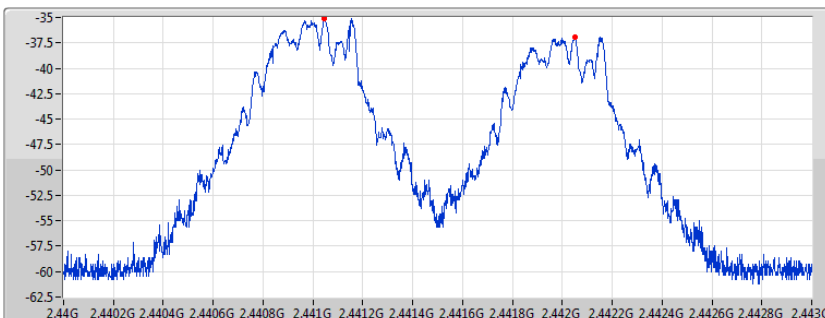
F(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402046G	2.403049G	1.0035M	609.39k

BT-BR(1Mbps)

2.441G/2.442GHz

Channel Separation

30/07/2019



Port1 

Ch Freq
2.441G/2.442G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

F(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.441046G	2.442049G	1.0035M	612.72k

BT-BR(1Mbps)

2.48G/2.479GHz

Channel Separation

30/07/2019



Port1 

Ch Freq
2.48G/2.479G

Span
3MHz

RBW
30kHz

VBW
100kHz

Sweep
100ms

Detector
Peak

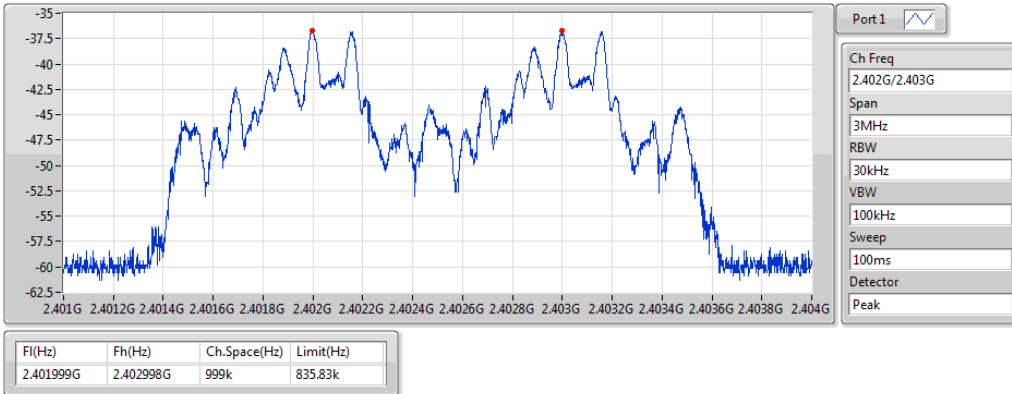
F(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479154G	2.480048G	894k	620.2125k

BT-EDR(2Mbps)

2.402G/2.403GHz

Channel Separation

01/08/2019

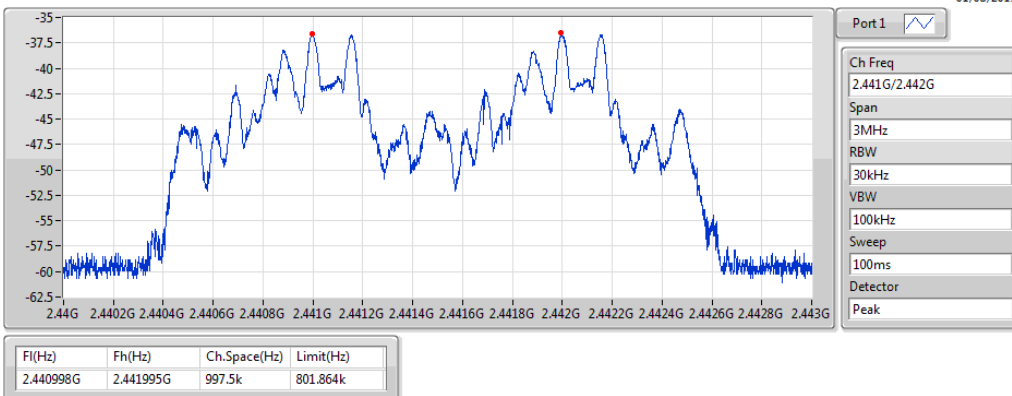


BT-EDR(2Mbps)

2.441G/2.442GHz

Channel Separation

01/08/2019

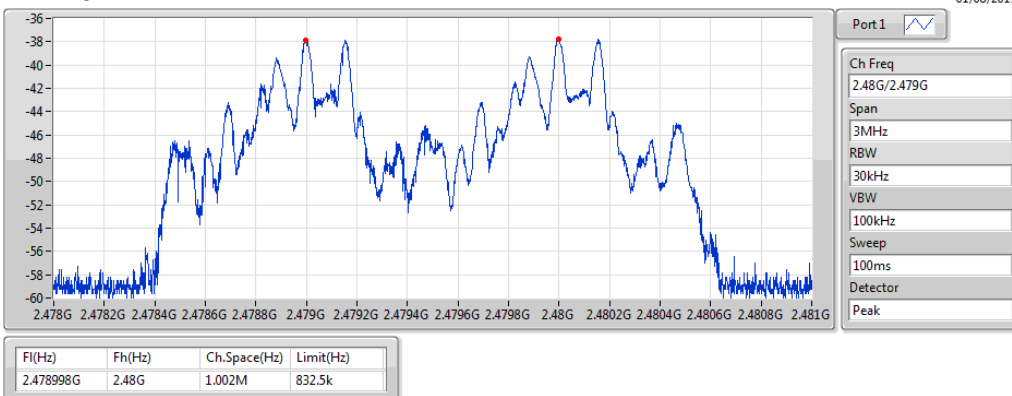


BT-EDR(2Mbps)

2.48G/2.479GHz

Channel Separation

01/08/2019

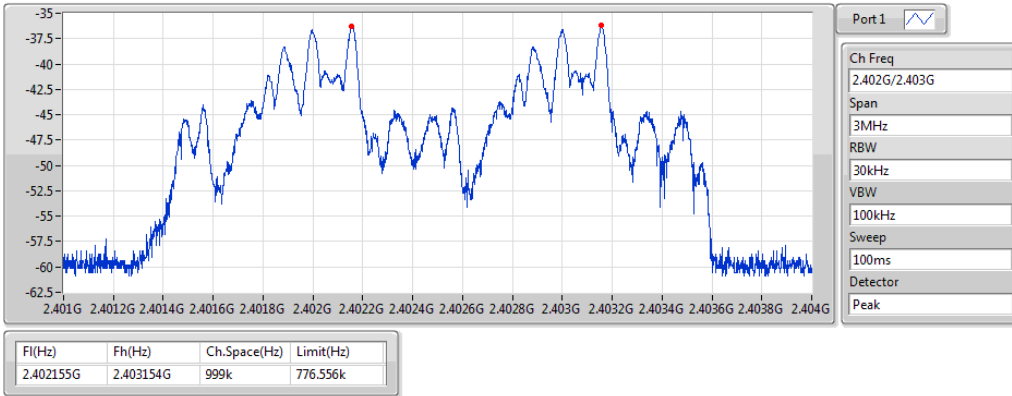


BT-EDR(3Mbps)

2.402G/2.403GHz

Channel Separation

01/08/2019

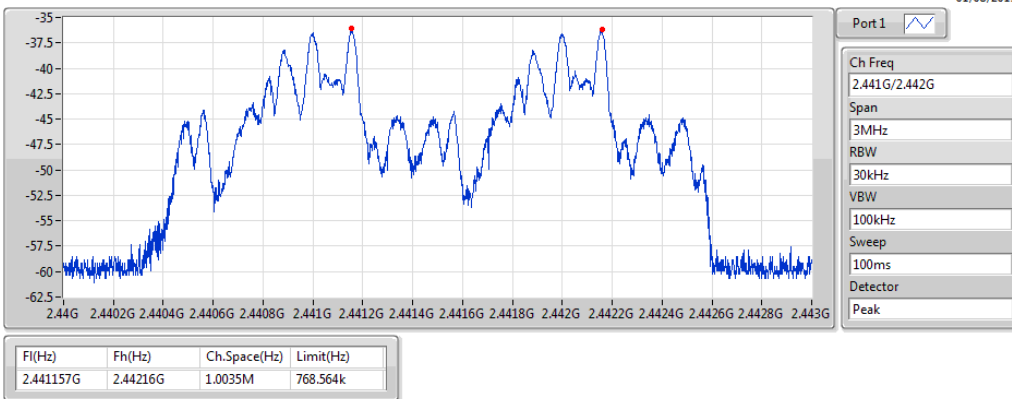


BT-EDR(3Mbps)

2.441G/2.442GHz

Channel Separation

01/08/2019

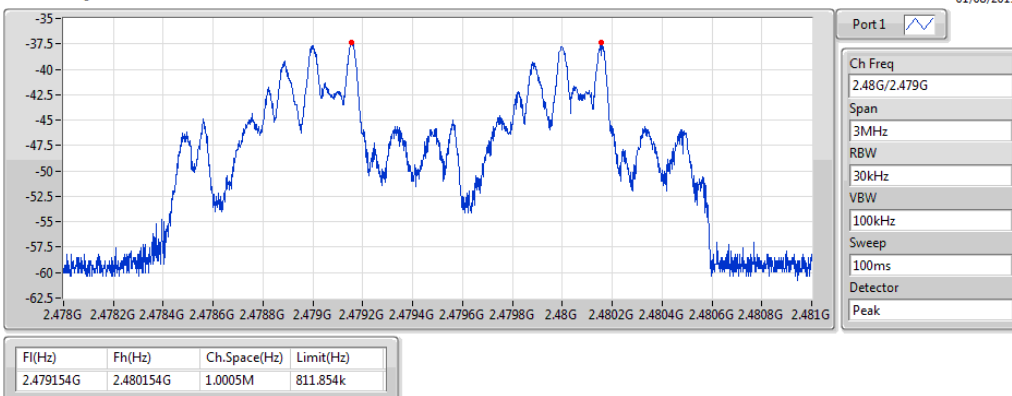


BT-EDR(3Mbps)

2.48G/2.479GHz

Channel Separation

01/08/2019





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	-8.82	0.00013
BT-EDR(2Mbps)	-8.77	0.00013
BT-EDR(3Mbps)	-8.98	0.00013

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-8.82	21.00
2441MHz_TnomVnom	Pass	1.90	-9.12	21.00
2480MHz_TnomVnom	Pass	1.90	-9.13	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-8.77	21.00
2441MHz_TnomVnom	Pass	1.90	-9.31	21.00
2480MHz_TnomVnom	Pass	1.90	-9.30	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-9.02	21.00
2441MHz_TnomVnom	Pass	1.90	-8.98	21.00
2480MHz_TnomVnom	Pass	1.90	-9.12	21.00

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



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	-19.77	0.00001
BT-EDR(2Mbps)	-19.49	0.00001
BT-EDR(3Mbps)	-19.70	0.00001

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-19.98	30.00
2441MHz_TnomVnom	Pass	1.90	-19.97	30.00
2480MHz_TnomVnom	Pass	1.90	-19.77	30.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-19.49	30.00
2441MHz_TnomVnom	Pass	1.90	-19.56	30.00
2480MHz_TnomVnom	Pass	1.90	-19.50	30.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz_TnomVnom	Pass	1.90	-19.79	30.00
2441MHz_TnomVnom	Pass	1.90	-19.70	30.00
2480MHz_TnomVnom	Pass	1.90	-19.90	30.00

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



Summary

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



Result

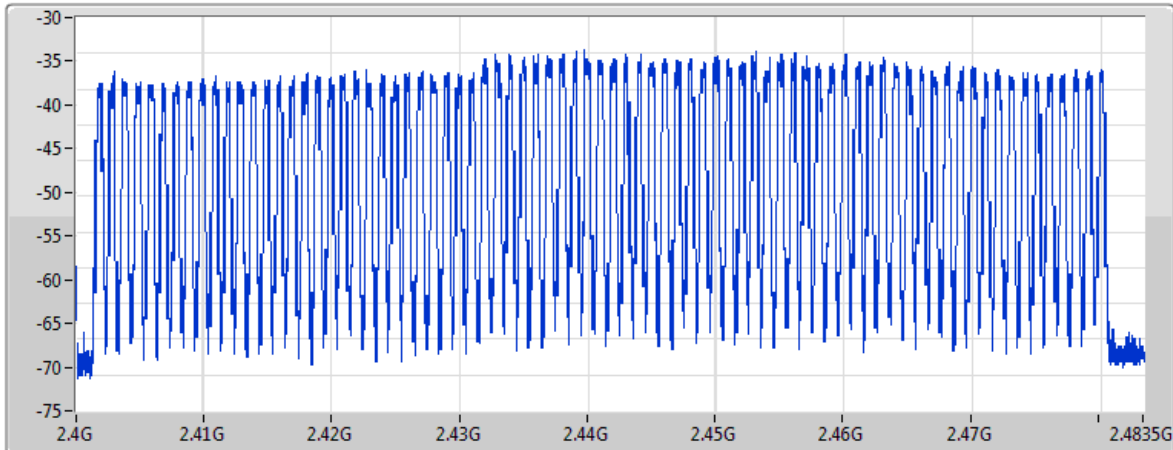
Mode	Result	Hopping No	Limit
BT-BR(1Mbps)	-	-	-
2441MHz_TnomVnom	Pass	79	15
BT-EDR(2Mbps)	-	-	-
2441MHz_TnomVnom	Pass	79	15
BT-EDR(3Mbps)	-	-	-
2441MHz_TnomVnom	Pass	79	15

BT-BR(1Mbps)

Hopping Ch

2441MHz

01/08/2019



Port 1 

Hopping No
79

Span
83.5MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

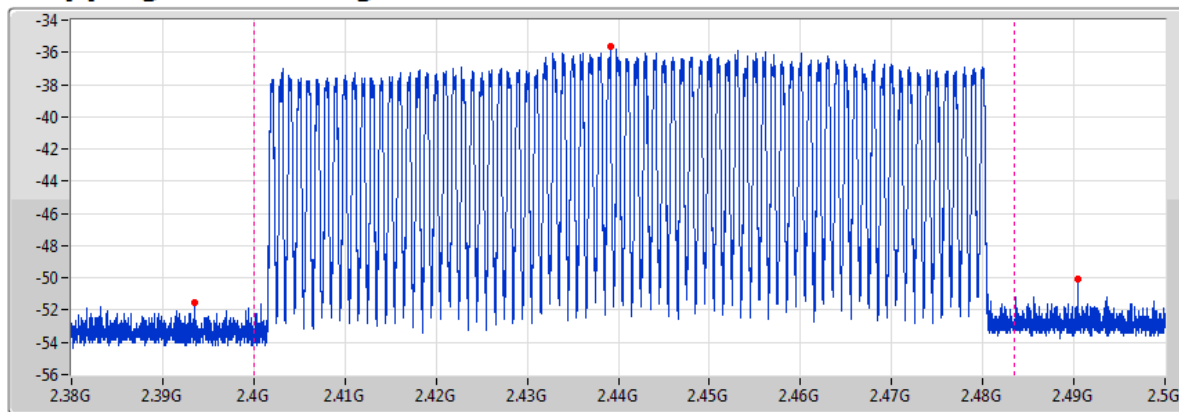
Hopping No	Limit
79	15

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

01/08/2019



Port 1 

Span
120MHz

RBW
100kHz

VBW
300kHz

Sweep
200ms

Detector
Peak

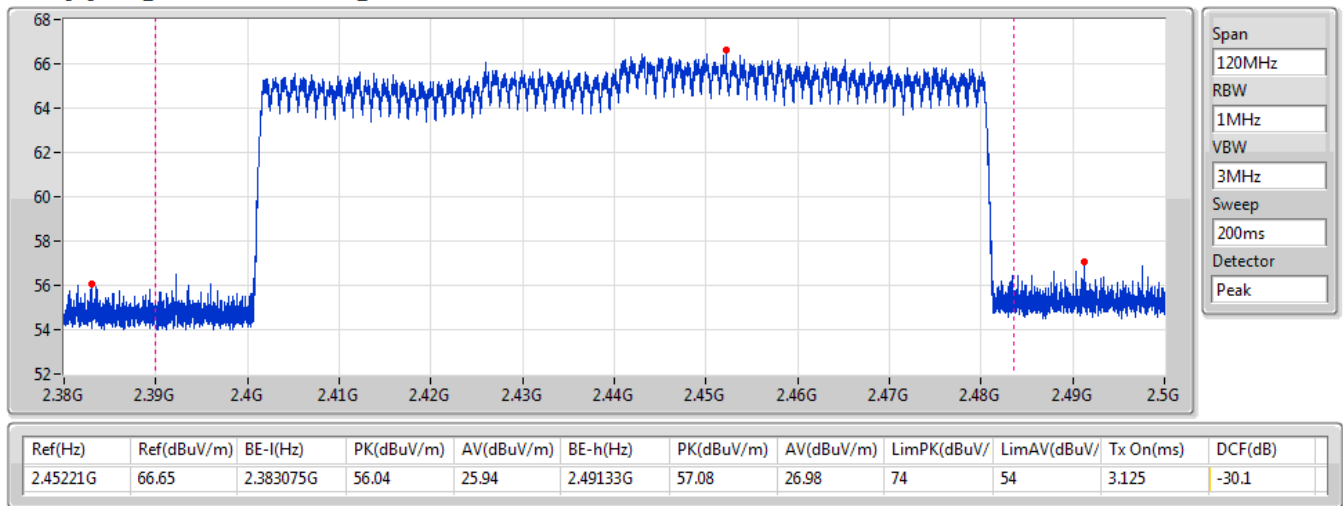
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-55.66	2.439145G	-35.66	2.39344G	-51.49	2.490475G	-50.09

BT-BR(1Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

01/08/2019

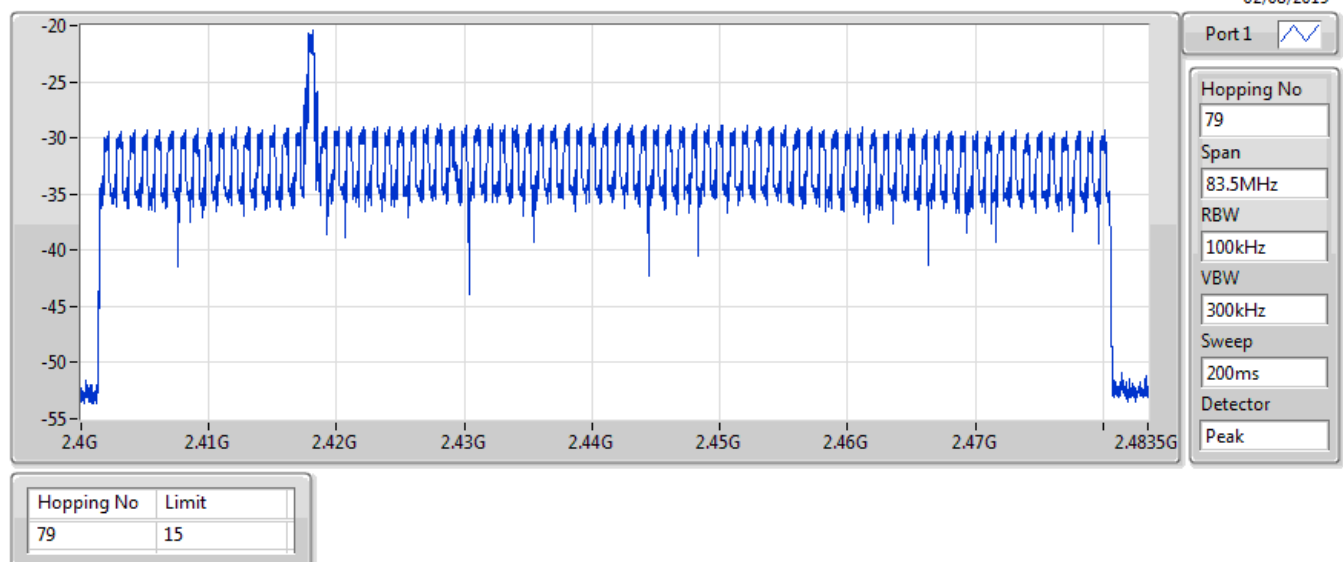


BT-EDR(2Mbps)

2441MHz

Hopping Ch

02/08/2019

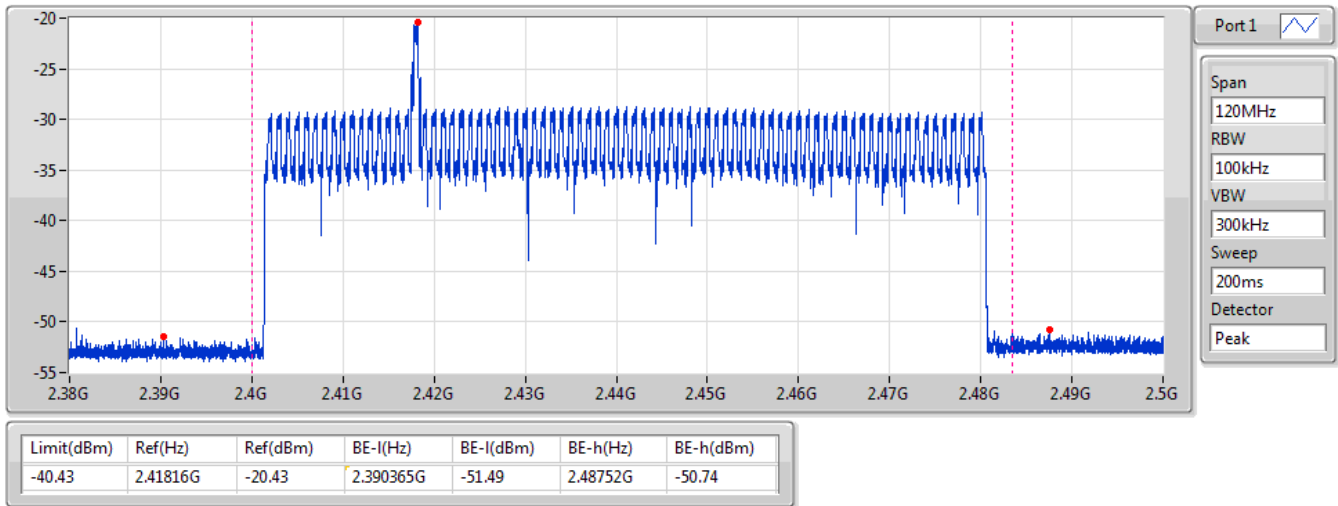


BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

02/08/2019

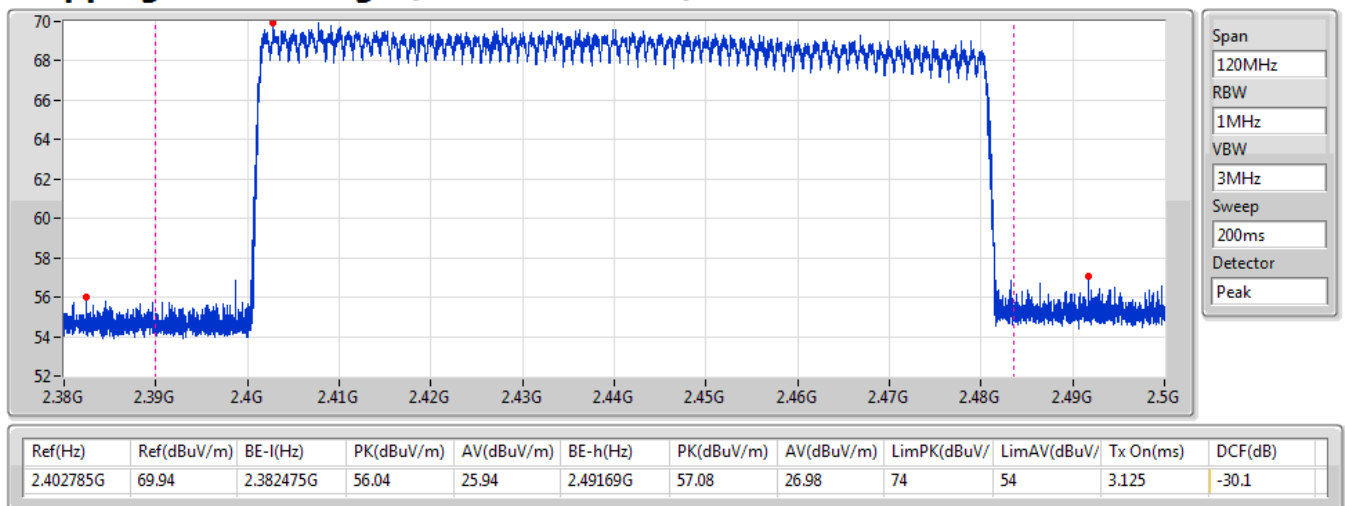


BT-EDR(2Mbps)

2441MHz

Hopping Ch Bandedge (Restricted Band)

02/08/2019

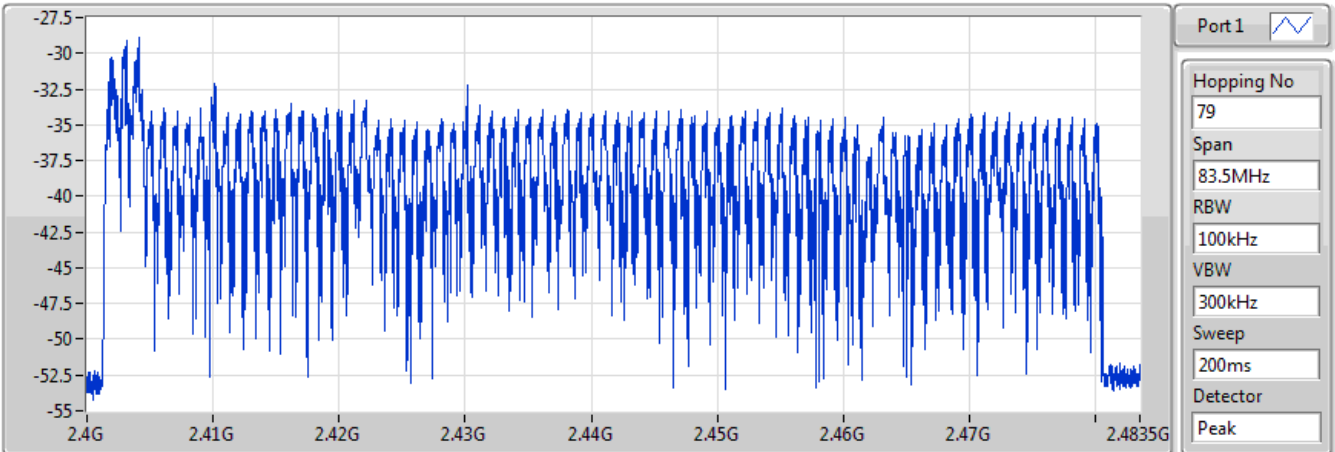


BT-EDR(3Mbps)

2441MHz

Hopping Ch

01/08/2019



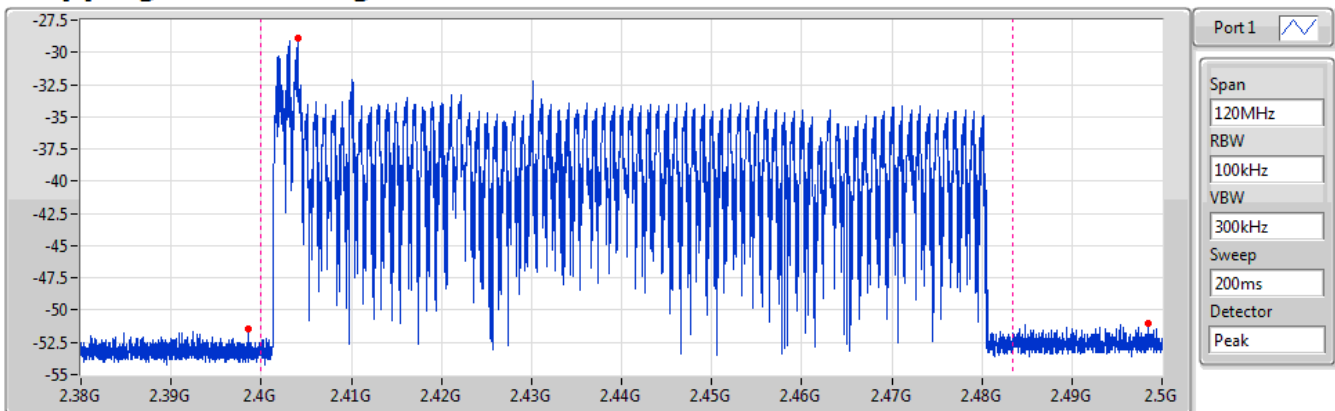
Hopping No	Limit
79	15

BT-EDR(3Mbps)

2441MHz

Hopping Ch Bandedge (Non-restricted Band)

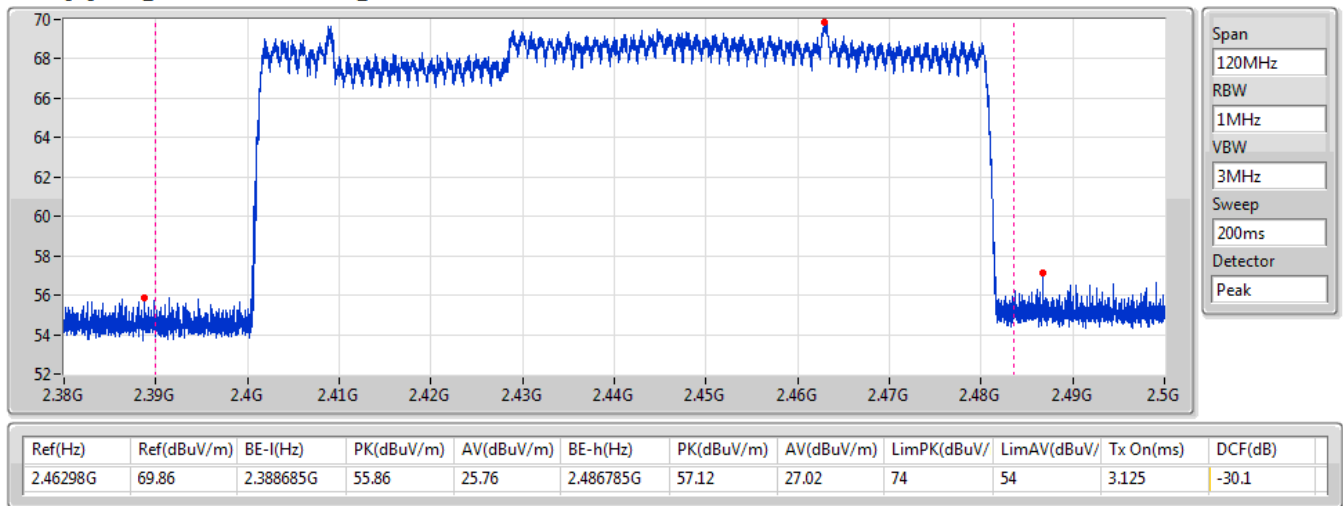
01/08/2019



Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-48.94	2.404135G	-28.94	2.39857G	-51.48	2.498455G	-51.02

BT-EDR(3Mbps)**2441MHz****Hopping Ch Bandedge (Restricted Band)**

01/08/2019





Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	149.6664m
BT-EDR(2Mbps)	20.254m
BT-EDR(3Mbps)	19.721m

Result

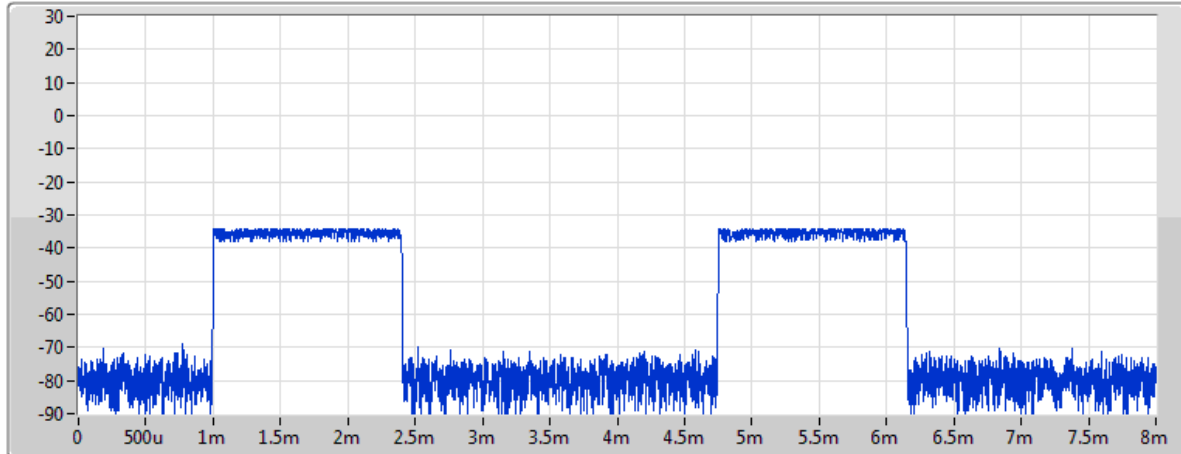
Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	149.6664m	400m	1.404m
BT-EDR(2Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	20.254m	400m	190u
BT-EDR(3Mbps)	-	-	-	-	-
2441MHz_TnomVnom	Pass	31.6	19.721m	400m	185u

BT-BR(1Mbps)

2441MHz

30/07/2019

Dwell



Port1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
1.404ms

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	149.6664m	400m	1.404m

AFH Mode

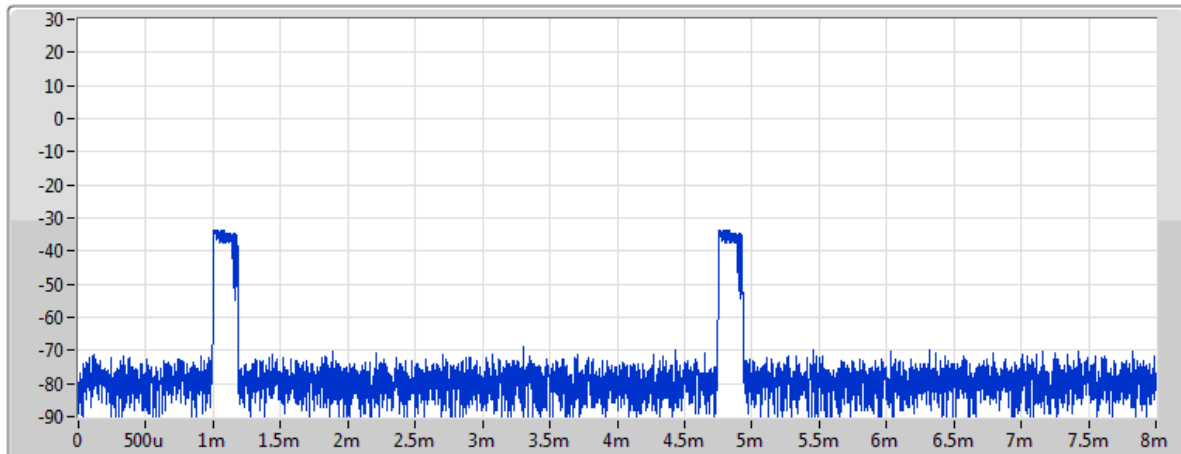
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	74.8332m	400m	1.404m

BT-EDR(2Mbps)

2441MHz

01/08/2019

Dwell



Port1 

Ch Freq
2.441GHz

RBW
300kHz

VBW
1MHz

Sweep Time
8ms

TX Time
190us

non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	20.254m	400m	190u

AFH Mode

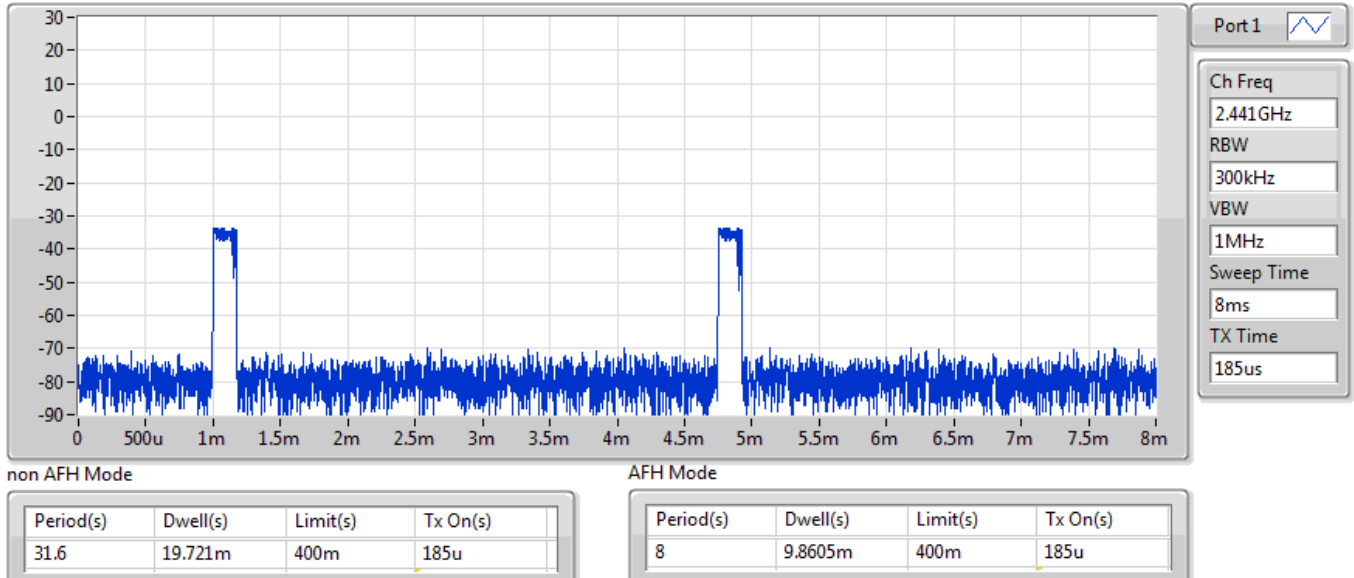
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	10.127m	400m	190u

BT-EDR(3Mbps)

2441MHz

Dwell

01/08/2019





Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.47983G	-33.10	-53.10	2.00018G	-73.77	2.39806G	-72.26	2.48424G	-71.58	24.13601G	-58.24	1
BT-EDR(2Mbps)	Pass	2.48016G	-34.00	-54.00	2.13545G	-72.41	2.39928G	-72.21	2.48482G	-72.17	24.41462G	-58.04	1
BT-EDR(3Mbps)	Pass	2.4802G	-34.58	-54.58	2.11414G	-73.80	2.39925G	-72.28	2.48547G	-71.00	24.40899G	-58.20	1

Result

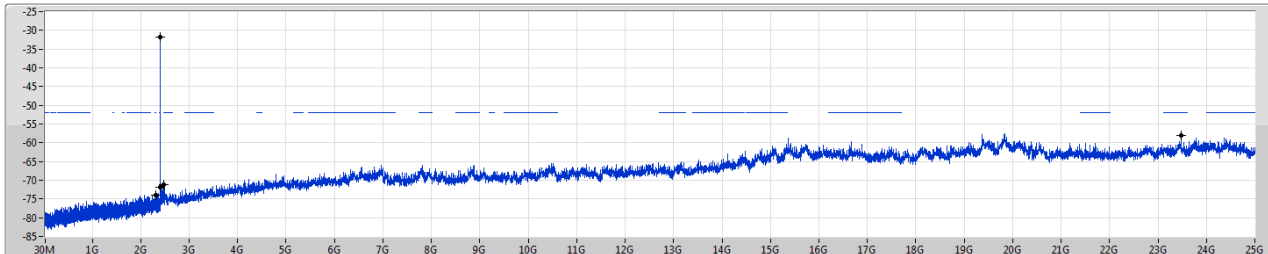
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.40213G	-31.86	-51.86	2.30861G	-73.96	2.39952G	-71.99	2.4835G	-71.20	23.47464G	-58.14	1
2441MHz_TnomVnom	Pass	2.44117G	-32.11	-52.11	2.14551G	-73.81	2.39919G	-72.81	2.48498G	-71.78	24.39774G	-58.11	1
2480MHz_TnomVnom	Pass	2.47983G	-33.10	-53.10	2.00018G	-73.77	2.39806G	-72.26	2.48424G	-71.58	24.13601G	-58.24	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.40213G	-33.72	-53.72	1.77906G	-73.68	2.39858G	-72.67	2.48448G	-71.73	24.49905G	-58.18	1
2441MHz_TnomVnom	Pass	2.44117G	-33.70	-53.70	2.39622G	-73.76	2.39984G	-71.87	2.48418G	-71.53	24.45402G	-59.07	1
2480MHz_TnomVnom	Pass	2.48016G	-34.00	-54.00	2.13545G	-72.41	2.39928G	-72.21	2.48482G	-72.17	24.41462G	-58.04	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz_TnomVnom	Pass	2.40213G	-33.54	-53.54	2.3015G	-72.77	2.39935G	-72.42	2.48463G	-71.85	24.43432G	-58.03	1
2441MHz_TnomVnom	Pass	2.44117G	-33.57	-53.57	2.00906G	-72.72	2.39917G	-73.04	2.48431G	-71.58	24.34427G	-58.82	1
2480MHz_TnomVnom	Pass	2.4802G	-34.58	-54.58	2.11414G	-73.80	2.39925G	-72.28	2.48547G	-71.00	24.40899G	-58.20	1

BT-BR(1Mbps)

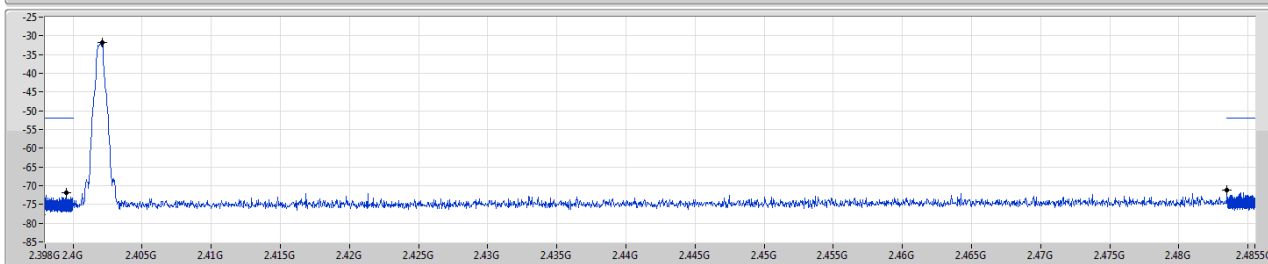
CSE NdB

2402MHz

31.07/2019



Port1



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

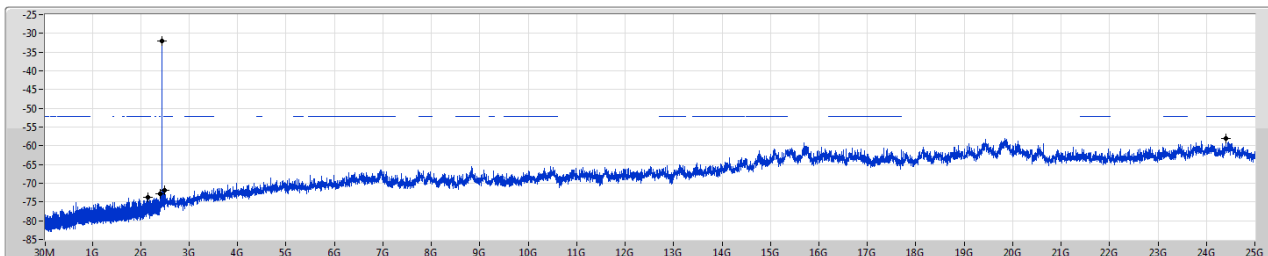
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	-31.86	-51.86	2.30861G	-73.96	2.39952G	-71.99	2.4833G	-71.20	2.47464G	-58.14	1

BT-BR(1Mbps)

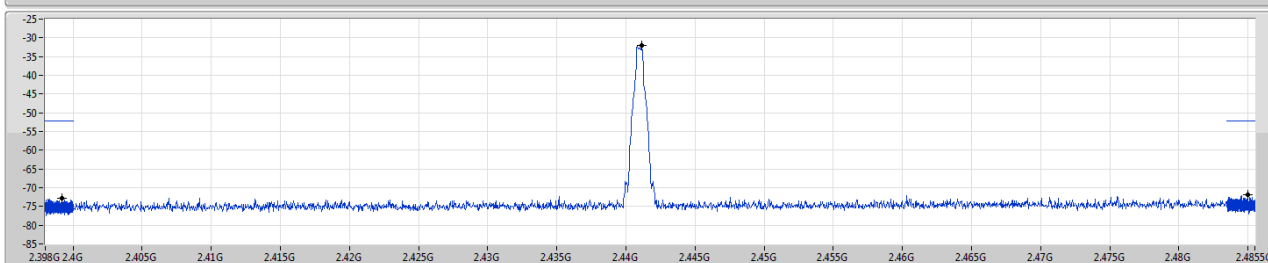
CSE NdB

2441MHz

31.07/2019



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)	Port
2.44117G	-32.11	-52.11	2.14551G	-73.81	2.39919G	-72.81	2.48498G	-71.78	2.439774G	-58.11	1

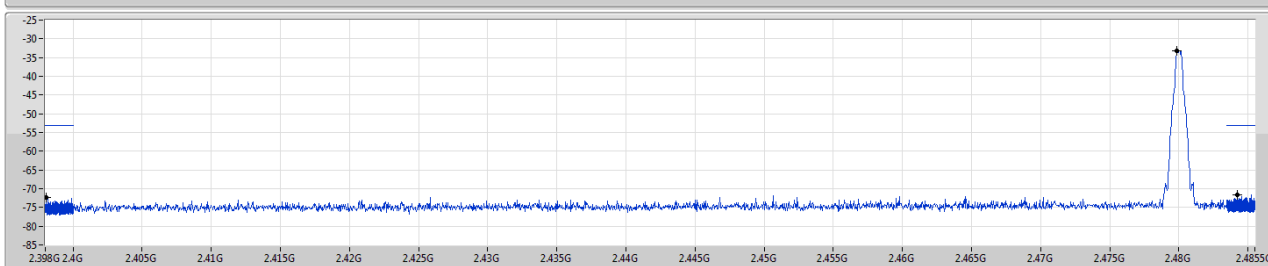
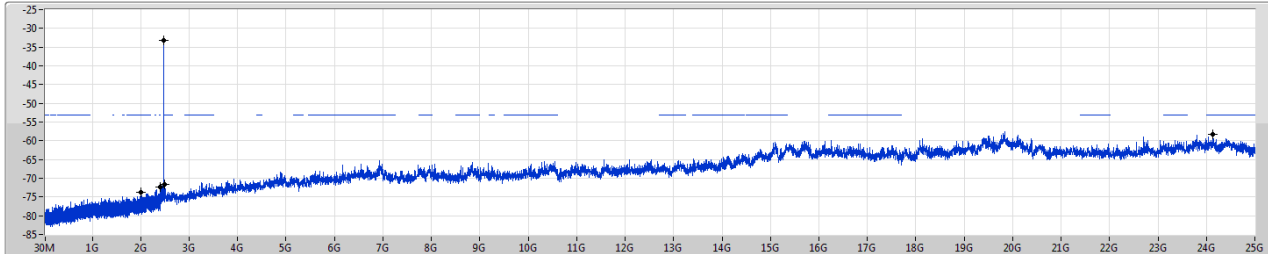
BT-BR(1Mbps)

2480MHz

CSE NdB

31/07/2019

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)	Port
2.47983G	-33.10	-53.10	2.00018G	-73.77	2.39806G	-72.26	2.48424G	-71.58	2.43601G	-58.24	1

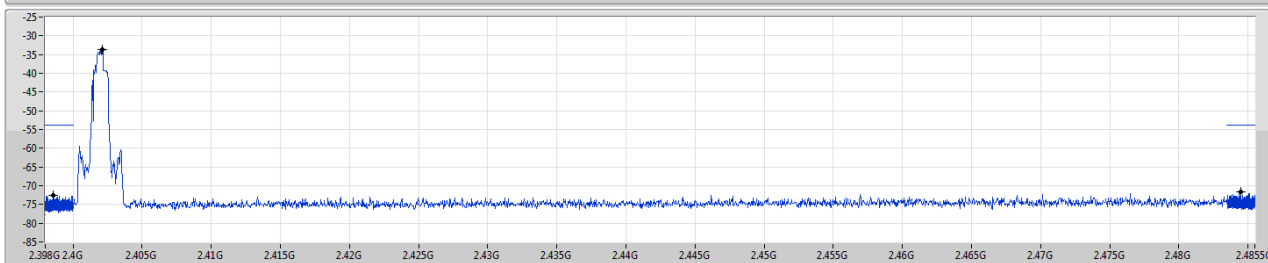
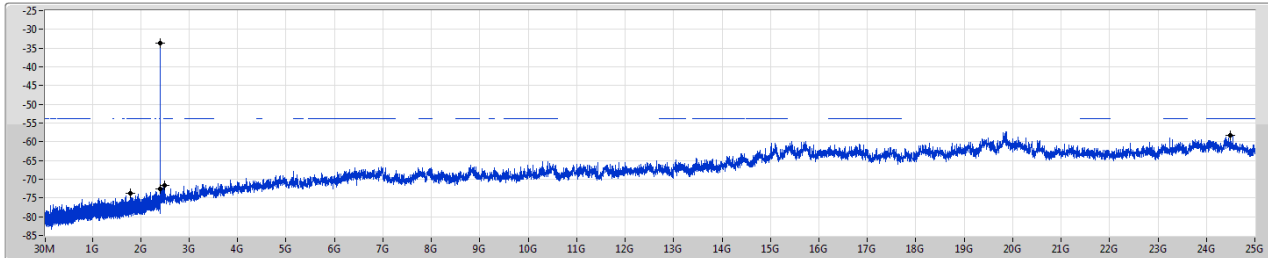
BT-EDR(2Mbps)

2402MHz

CSE NdB

01/08/2019

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)	Port
2.40213G	-33.72	-53.72	1.77906G	-73.68	2.39858G	-72.67	2.48448G	-71.73	2.49905G	-58.18	1

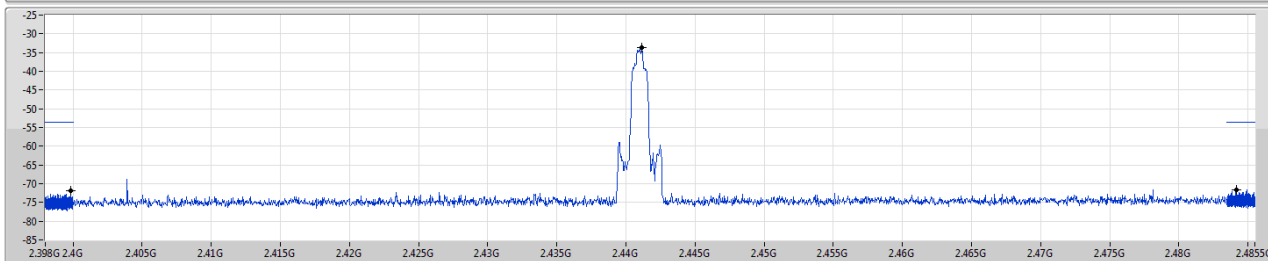
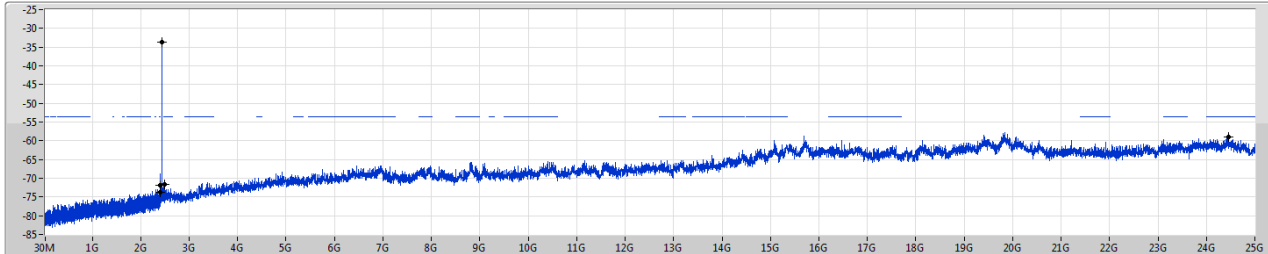
BT-EDR(2Mbps)

2441MHz

CSE NdB

01/08/2019

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)	Port
2.44117G	-33.70	-53.70	2.39622G	-73.76	2.39984G	-71.87	2.48418G	-71.53	2.45402G	-59.07	1

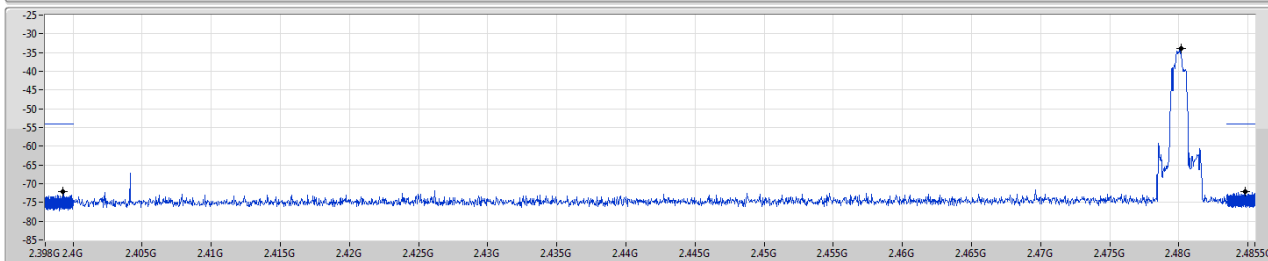
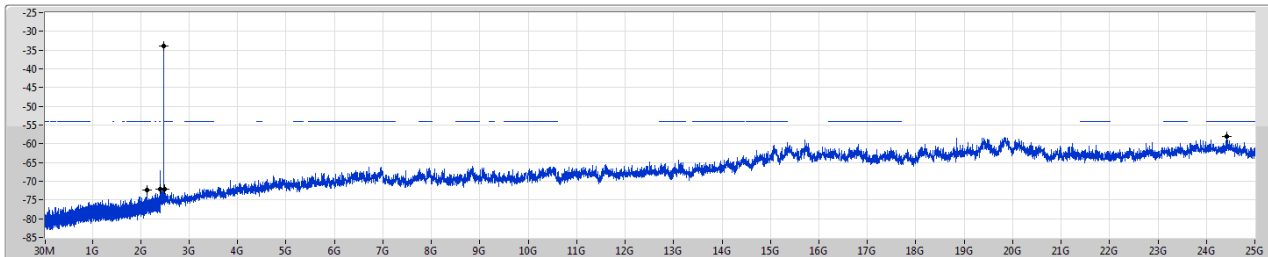
BT-EDR(2Mbps)

2480MHz

CSE NdB

01/08/2019

Port1



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

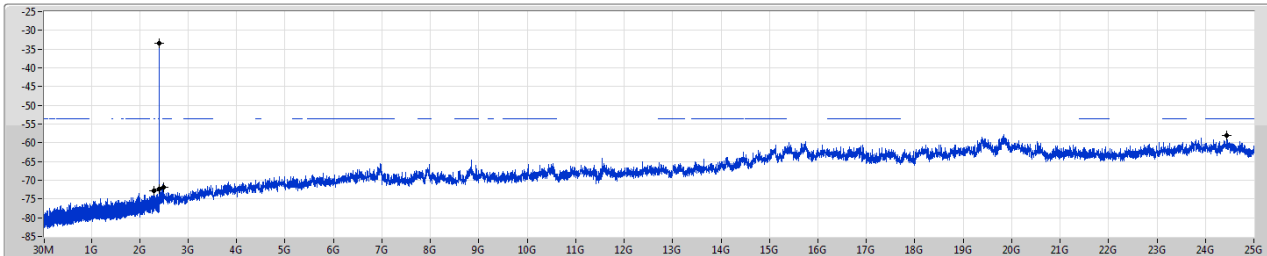
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	-34.00	-54.00	2.13545G	-72.41	2.39928G	-72.21	2.48482G	-72.17	2.41462G	-58.04	1

BT-EDR(3Mbps)

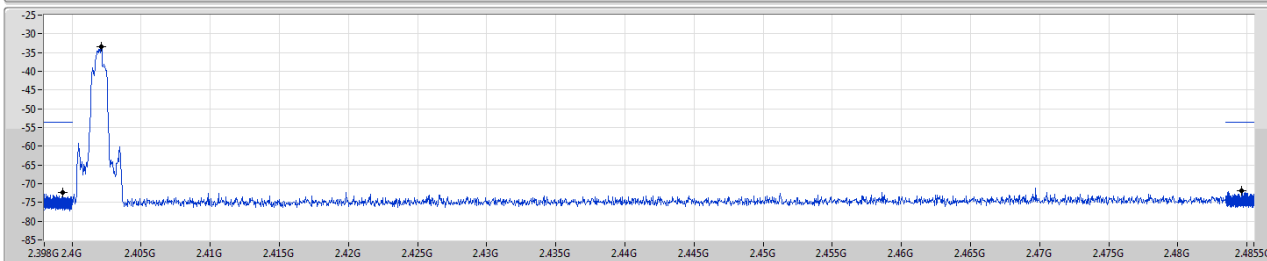
CSE NdB

2402MHz

01/08/2019



Port 1

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

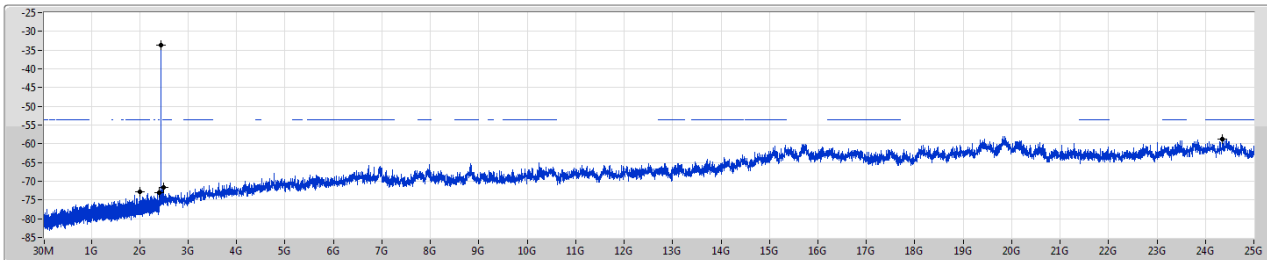
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	-33.54	-53.54	2.3015G	-72.77	2.39935G	-72.42	2.48463G	-71.85	2.43432G	-58.03	1

BT-EDR(3Mbps)

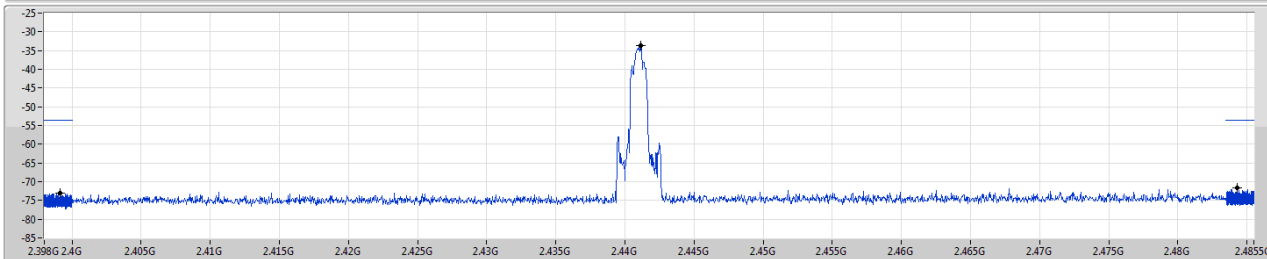
CSE NdB

2441MHz

01/08/2019



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)	Port
2.44117G	-33.57	-53.57	2.00906G	-72.72	2.39917G	-73.04	2.48431G	-71.58	2.43427G	-58.82	1

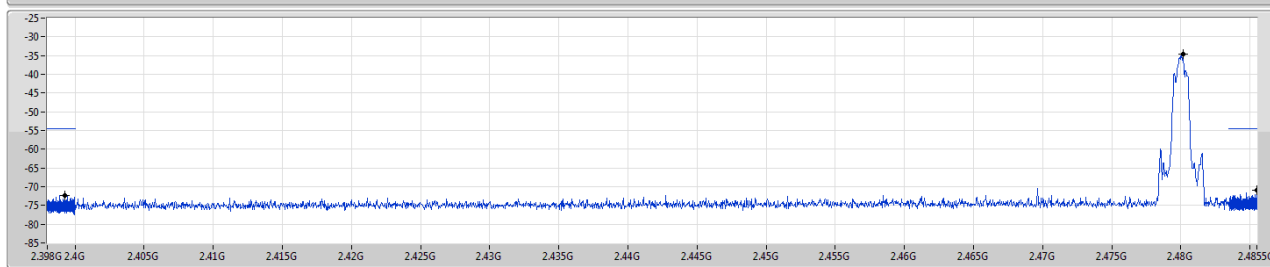
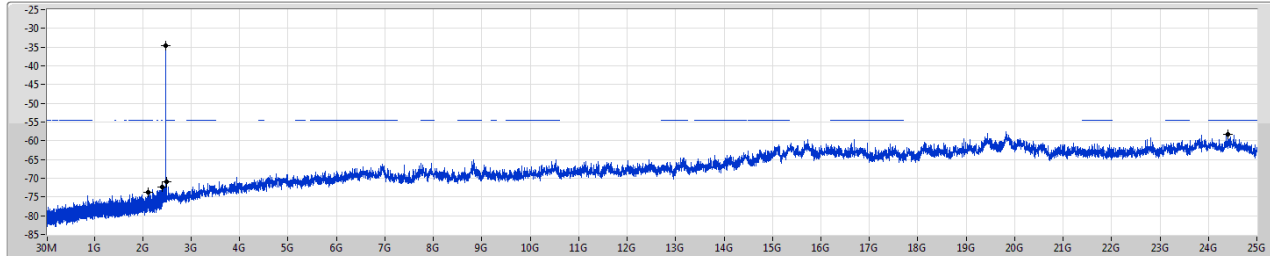
BT-EDR(3Mbps)

CSE NdB

2480MHz

01/08/2019

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)	Port
2.4802G	-34.58	-54.58	2.11414G	-73.80	2.39925G	-72.28	2.48547G	-71.00	24.40899G	-58.20	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	QP	39.7M	38.52	40.00	-1.48	-9.42	3	Horizontal	199	2.94	-

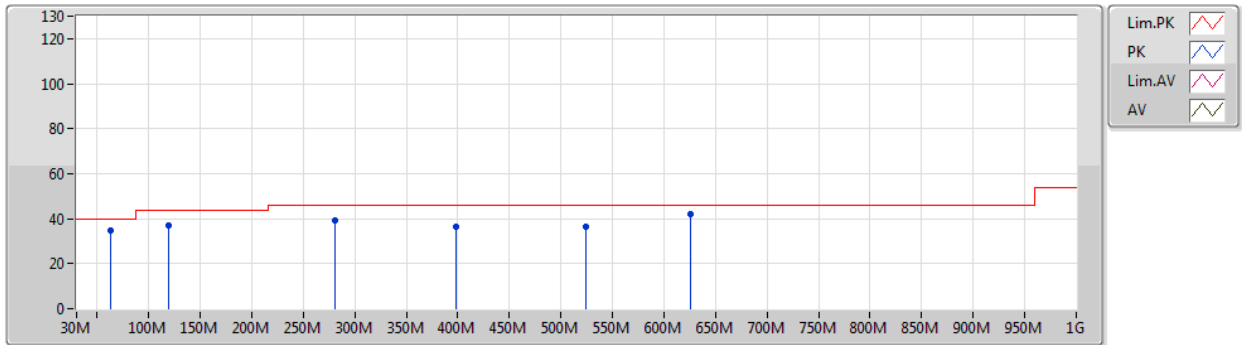
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz_Adapter	Pass	PK	280.26M	39.40	46.00	-6.60	-6.32	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	398.6M	36.44	46.00	-9.56	-3.89	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	524.7M	36.55	46.00	-9.45	-2.24	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	QP	62.98M	34.99	40.00	-5.01	-15.46	3	Vertical	275	1.30	-
2441MHz_Adapter	Pass	QP	119.24M	36.89	43.50	-6.61	-8.87	3	Vertical	32	1.00	-
2441MHz_Adapter	Pass	QP	625.58M	41.93	46.00	-4.07	-0.55	3	Vertical	229	1.00	-
2441MHz_Adapter	Pass	PK	332.64M	41.59	46.00	-4.41	-5.44	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	398.6M	42.00	46.00	-4.00	-3.89	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	625.58M	40.98	46.00	-5.02	-0.55	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	QP	39.7M	38.52	40.00	-1.48	-9.42	3	Horizontal	199	2.94	-
2441MHz_Adapter	Pass	QP	68.8M	36.27	40.00	-3.73	-15.30	3	Horizontal	113	2.40	-
2441MHz_Adapter	Pass	QP	119.24M	38.50	43.50	-5.00	-8.87	3	Horizontal	254	2.13	-

BT-BR(1Mbps)

2441MHz_Adapter

03/08/2019

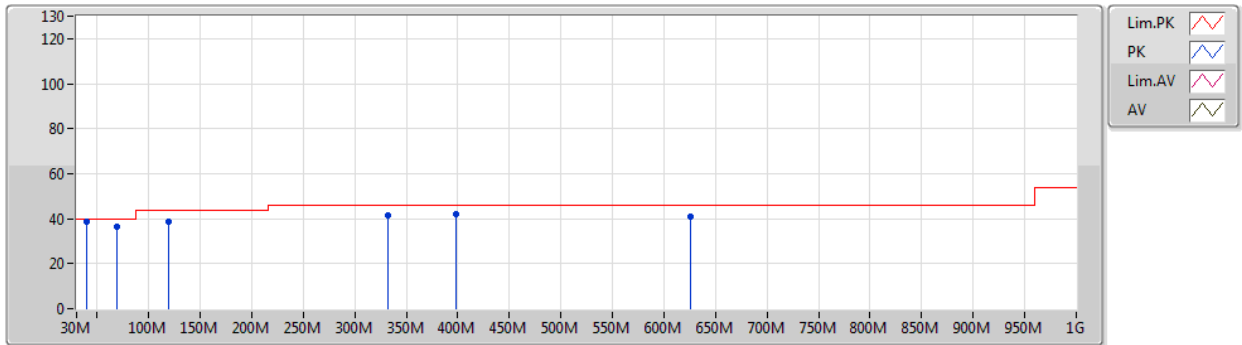


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	280.26M	39.40	46.00	-6.60	-6.32	3	Vertical	360	1.00	-	45.72	17.97	2.88	27.17
PK	398.6M	36.44	46.00	-9.56	-3.89	3	Vertical	360	1.00	-	40.33	20.78	3.19	27.86
PK	524.7M	36.55	46.00	-9.45	-2.24	3	Vertical	360	1.00	-	38.79	22.83	3.45	28.52
QP	62.98M	34.99	40.00	-5.01	-15.46	3	Vertical	275	1.30	-	50.45	11.27	0.98	27.71
QP	119.24M	36.89	43.50	-6.61	-8.87	3	Vertical	32	1.00	-	45.76	17.21	1.65	27.73
QP	625.58M	41.93	46.00	-4.07	-0.55	3	Vertical	229	1.00	-	42.48	24.24	3.74	28.53

BT-BR(1Mbps)

2441MHz_Adapter

03/08/2019



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	332.64M	41.59	46.00	-4.41	-5.44	3	Horizontal	0	1.00	-	47.03	18.87	3.07	27.38
PK	398.6M	42.00	46.00	-4.00	-3.89	3	Horizontal	0	1.00	-	45.89	20.78	3.19	27.86
PK	625.58M	40.98	46.00	-5.02	-0.55	3	Horizontal	0	1.00	-	41.53	24.24	3.74	28.53
QP	39.7M	38.52	40.00	-1.48	-9.42	3	Horizontal	199	2.94	-	47.94	17.62	0.64	27.68
QP	68.8M	36.27	40.00	-3.73	-15.30	3	Horizontal	113	2.40	-	51.57	11.36	1.06	27.72
QP	119.24M	38.50	43.50	-5.00	-8.87	3	Horizontal	254	2.13	-	47.37	17.21	1.65	27.73



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	AV	2.4835G	45.43	54.00	-8.57	31.41	3	Horizontal	26	1.98	-
BT-EDR(3Mbps)	Pass	AV	2.3698G	46.52	54.00	-7.48	31.60	3	Horizontal	30	1.85	-

Result

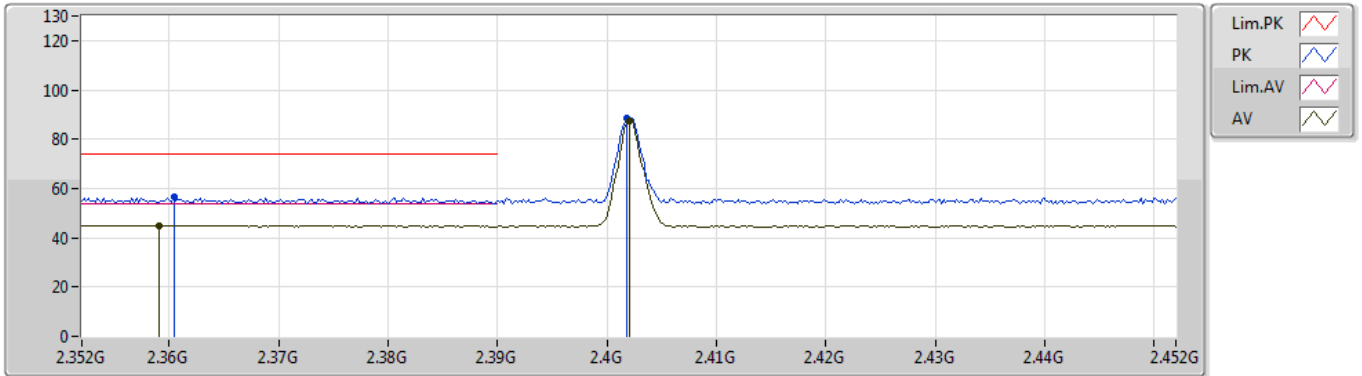
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.359G	44.93	54.00	-9.07	31.63	3	Vertical	275	2.06	-
2402MHz	Pass	AV	2.402G	87.67	Inf	-Inf	31.51	3	Vertical	275	2.06	-
2402MHz	Pass	PK	2.3604G	56.43	74.00	-17.57	31.63	3	Vertical	275	2.06	-
2402MHz	Pass	PK	2.4018G	88.53	Inf	-Inf	31.51	3	Vertical	275	2.06	-
2402MHz	Pass	AV	2.3568G	44.82	54.00	-9.18	31.64	3	Horizontal	28	1.87	-
2402MHz	Pass	AV	2.402G	89.96	Inf	-Inf	31.51	3	Horizontal	28	1.87	-
2402MHz	Pass	PK	2.3608G	56.53	74.00	-17.47	31.63	3	Horizontal	28	1.87	-
2402MHz	Pass	PK	2.4018G	90.82	Inf	-Inf	31.51	3	Horizontal	28	1.87	-
2402MHz	Pass	AV	4.80279G	31.42	54.00	-22.58	7.10	3	Vertical	41	1.24	-
2402MHz	Pass	PK	4.80373G	46.14	74.00	-27.86	7.10	3	Vertical	41	1.24	-
2402MHz	Pass	AV	4.80422G	31.29	54.00	-22.71	7.10	3	Horizontal	126	1.16	-
2402MHz	Pass	PK	4.80344G	44.08	74.00	-29.92	7.10	3	Horizontal	126	1.16	-
2441MHz	Pass	AV	2.3718G	44.97	54.00	-9.03	31.59	3	Vertical	334	1.96	-
2441MHz	Pass	AV	2.441G	85.09	Inf	-Inf	31.46	3	Vertical	334	1.96	-
2441MHz	Pass	AV	2.4846G	44.67	54.00	-9.33	31.42	3	Vertical	334	1.96	-
2441MHz	Pass	PK	2.3506G	56.31	74.00	-17.69	31.66	3	Vertical	334	1.96	-
2441MHz	Pass	PK	2.441G	86.04	Inf	-Inf	31.46	3	Vertical	334	1.96	-
2441MHz	Pass	PK	2.4886G	55.37	74.00	-18.63	31.41	3	Vertical	334	1.96	-
2441MHz	Pass	AV	2.341G	45.03	54.00	-8.97	31.69	3	Horizontal	27	1.87	-
2441MHz	Pass	AV	2.441G	88.43	Inf	-Inf	31.46	3	Horizontal	27	1.87	-
2441MHz	Pass	AV	2.4842G	44.60	54.00	-9.40	31.42	3	Horizontal	27	1.87	-
2441MHz	Pass	PK	2.3486G	56.31	74.00	-17.69	31.67	3	Horizontal	27	1.87	-
2441MHz	Pass	PK	2.441G	90.86	Inf	-Inf	31.46	3	Horizontal	27	1.87	-
2441MHz	Pass	PK	2.4998G	55.73	74.00	-18.27	31.40	3	Horizontal	27	1.87	-
2441MHz	Pass	AV	4.88098G	31.46	54.00	-22.54	7.24	3	Vertical	127	1.23	-
2441MHz	Pass	PK	4.88327G	44.72	74.00	-29.28	7.25	3	Vertical	127	1.23	-
2441MHz	Pass	AV	4.88305G	31.29	54.00	-22.71	7.25	3	Horizontal	346	1.37	-
2441MHz	Pass	PK	4.88407G	44.86	74.00	-29.14	7.25	3	Horizontal	346	1.37	-
2480MHz	Pass	AV	2.48G	88.12	Inf	-Inf	31.42	3	Vertical	278	2.15	-
2480MHz	Pass	AV	2.4835G	45.17	54.00	-8.83	31.41	3	Vertical	278	2.15	-
2480MHz	Pass	PK	2.4802G	89.15	Inf	-Inf	31.42	3	Vertical	278	2.15	-
2480MHz	Pass	PK	2.489G	55.78	74.00	-18.22	31.41	3	Vertical	278	2.15	-
2480MHz	Pass	AV	2.48G	90.22	Inf	-Inf	31.42	3	Horizontal	26	1.98	-
2480MHz	Pass	AV	2.4835G	45.43	54.00	-8.57	31.41	3	Horizontal	26	1.98	-
2480MHz	Pass	PK	2.4798G	91.07	Inf	-Inf	31.42	3	Horizontal	26	1.98	-
2480MHz	Pass	PK	2.4874G	55.70	74.00	-18.30	31.42	3	Horizontal	26	1.98	-
2480MHz	Pass	AV	4.9575G	31.80	54.00	-22.20	7.50	3	Vertical	18	1.44	-
2480MHz	Pass	PK	4.96056G	44.70	74.00	-29.30	7.51	3	Vertical	18	1.44	-
2480MHz	Pass	AV	4.95894G	31.75	54.00	-22.25	7.51	3	Horizontal	182	2.28	-
2480MHz	Pass	PK	4.96007G	44.71	74.00	-29.29	7.51	3	Horizontal	182	2.28	-
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3602G	46.40	54.00	-7.60	31.63	3	Vertical	344	2.22	-
2402MHz	Pass	AV	2.402G	83.43	Inf	-Inf	31.51	3	Vertical	344	2.22	-
2402MHz	Pass	PK	2.3702G	57.24	74.00	-16.76	31.60	3	Vertical	344	2.22	-
2402MHz	Pass	PK	2.402G	84.11	Inf	-Inf	31.51	3	Vertical	344	2.22	-
2402MHz	Pass	AV	2.3698G	46.52	54.00	-7.48	31.60	3	Horizontal	30	1.85	-
2402MHz	Pass	AV	2.4022G	88.70	Inf	-Inf	31.51	3	Horizontal	30	1.85	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3568G	56.95	74.00	-17.05	31.64	3	Horizontal	30	1.85	-
2402MHz	Pass	PK	2.402G	89.48	Inf	-Inf	31.51	3	Horizontal	30	1.85	-
2402MHz	Pass	AV	4.80226G	33.76	54.00	-20.24	7.10	3	Vertical	325	1.33	-
2402MHz	Pass	PK	4.80358G	44.73	74.00	-29.27	7.10	3	Vertical	325	1.33	-
2402MHz	Pass	AV	4.80614G	33.79	54.00	-20.21	7.11	3	Horizontal	294	1.27	-
2402MHz	Pass	PK	4.80303G	44.80	74.00	-29.20	7.10	3	Horizontal	294	1.27	-
2441MHz	Pass	AV	2.3454G	46.50	54.00	-7.50	31.67	3	Vertical	336	1.96	-
2441MHz	Pass	AV	2.441G	84.01	Inf	-Inf	31.46	3	Vertical	336	1.96	-
2441MHz	Pass	AV	2.495G	46.41	54.00	-7.59	31.41	3	Vertical	336	1.96	-
2441MHz	Pass	PK	2.3434G	57.54	74.00	-16.46	31.68	3	Vertical	336	1.96	-
2441MHz	Pass	PK	2.441G	84.76	Inf	-Inf	31.46	3	Vertical	336	1.96	-
2441MHz	Pass	PK	2.491G	56.38	74.00	-17.62	31.41	3	Vertical	336	1.96	-
2441MHz	Pass	AV	2.3494G	46.51	54.00	-7.49	31.66	3	Horizontal	26	1.86	-
2441MHz	Pass	AV	2.441G	89.18	Inf	-Inf	31.46	3	Horizontal	26	1.86	-
2441MHz	Pass	AV	2.4926G	46.41	54.00	-7.59	31.40	3	Horizontal	26	1.86	-
2441MHz	Pass	PK	2.3822G	56.81	74.00	-17.19	31.56	3	Horizontal	26	1.86	-
2441MHz	Pass	PK	2.441G	89.81	Inf	-Inf	31.46	3	Horizontal	26	1.86	-
2441MHz	Pass	PK	2.485G	56.23	74.00	-17.77	31.42	3	Horizontal	26	1.86	-
2441MHz	Pass	AV	4.88107G	33.86	54.00	-20.14	7.24	3	Vertical	299	1.38	-
2441MHz	Pass	PK	4.88015G	44.29	74.00	-29.71	7.24	3	Vertical	299	1.38	-
2441MHz	Pass	AV	4.88311G	33.62	54.00	-20.38	7.25	3	Horizontal	202	1.78	-
2441MHz	Pass	PK	4.88048G	44.61	74.00	-29.39	7.24	3	Horizontal	202	1.78	-
2480MHz	Pass	AV	2.4802G	86.47	Inf	-Inf	31.42	3	Vertical	279	1.91	-
2480MHz	Pass	AV	2.4908G	46.31	54.00	-7.69	31.41	3	Vertical	279	1.91	-
2480MHz	Pass	PK	2.48G	87.36	Inf	-Inf	31.42	3	Vertical	279	1.91	-
2480MHz	Pass	PK	2.4835G	57.30	74.00	-16.70	31.41	3	Vertical	279	1.91	-
2480MHz	Pass	AV	2.4802G	88.62	Inf	-Inf	31.42	3	Horizontal	24	1.89	-
2480MHz	Pass	AV	2.4886G	46.16	54.00	-7.84	31.41	3	Horizontal	24	1.89	-
2480MHz	Pass	PK	2.48G	89.36	Inf	-Inf	31.42	3	Horizontal	24	1.89	-
2480MHz	Pass	PK	2.496G	56.43	74.00	-17.57	31.41	3	Horizontal	24	1.89	-
2480MHz	Pass	AV	4.95893G	34.72	54.00	-19.28	7.51	3	Vertical	262	1.25	-
2480MHz	Pass	PK	4.95938G	44.65	74.00	-29.35	7.51	3	Vertical	262	1.25	-
2480MHz	Pass	AV	4.9602G	34.02	54.00	-19.98	7.51	3	Horizontal	147	1.49	-
2480MHz	Pass	PK	4.95868G	44.85	74.00	-29.15	7.51	3	Horizontal	147	1.49	-

BT-BR(1Mbps)

27/07/2019

2402MHz_TX

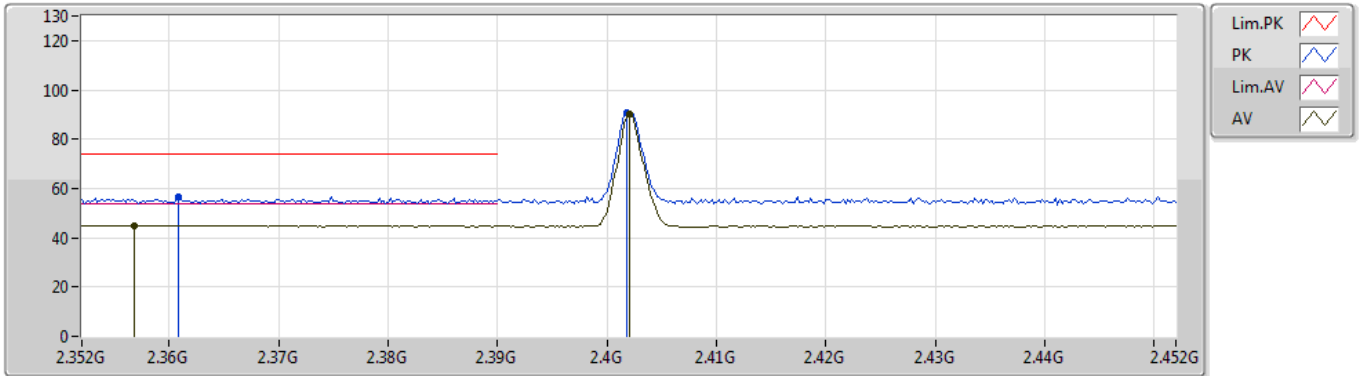


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.359G	44.93	54.00	-9.07	31.63	3	Vertical	275	2.06	-	13.30	27.66	3.97	-
AV	2.402G	87.67	Inf	-Inf	31.51	3	Vertical	275	2.06	-	56.16	27.50	4.01	-
PK	2.3604G	56.43	74.00	-17.57	31.63	3	Vertical	275	2.06	-	24.80	27.66	3.97	-
PK	2.4018G	88.53	Inf	-Inf	31.51	3	Vertical	275	2.06	-	57.02	27.50	4.01	-

BT-BR(1Mbps)

27/07/2019

2402MHz_TX

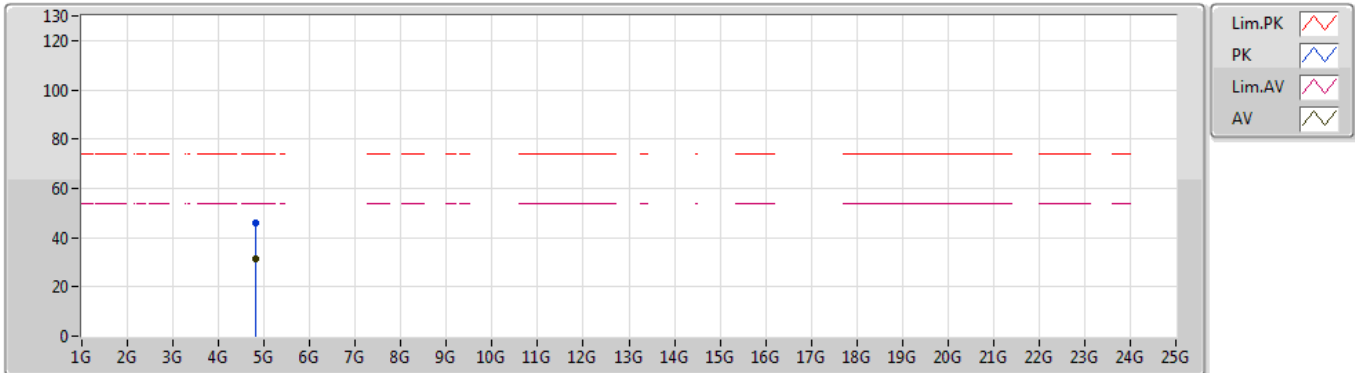


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3568G	44.82	54.00	-9.18	31.64	3	Horizontal	28	1.87	-	13.18	27.67	3.97	-
AV	2.402G	89.96	Inf	-Inf	31.51	3	Horizontal	28	1.87	-	58.45	27.50	4.01	-
PK	2.3608G	56.53	74.00	-17.47	31.63	3	Horizontal	28	1.87	-	24.90	27.66	3.97	-
PK	2.4018G	90.82	Inf	-Inf	31.51	3	Horizontal	28	1.87	-	59.31	27.50	4.01	-

BT-BR(1Mbps)

27/07/2019

2402MHz_TX

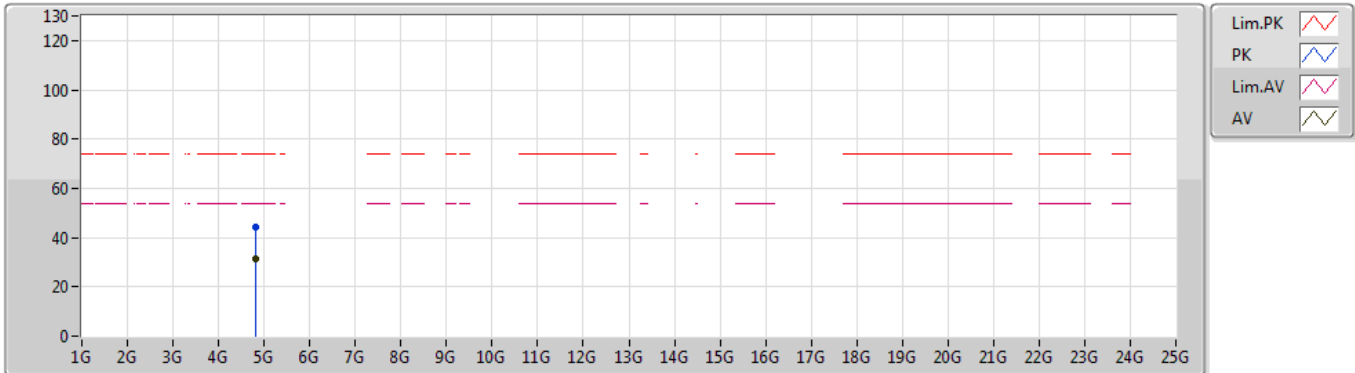


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80279G	31.42	54.00	-22.58	7.10	3	Vertical	41	1.24	-	24.32	31.10	5.78	29.78
PK	4.80373G	46.14	74.00	-27.86	7.10	3	Vertical	41	1.24	-	39.04	31.10	5.78	29.78

BT-BR(1Mbps)

27/07/2019

2402MHz_TX

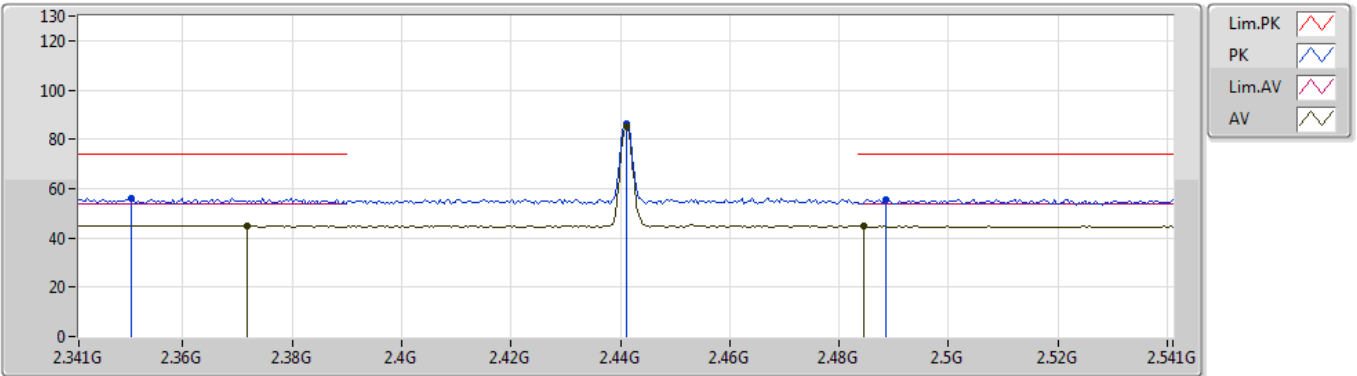


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80422G	31.29	54.00	-22.71	7.10	3	Horizontal	126	1.16	-	24.19	31.10	5.78	29.78
PK	4.80344G	44.08	74.00	-29.92	7.10	3	Horizontal	126	1.16	-	36.98	31.10	5.78	29.78

BT-BR(1Mbps)

27/07/2019

2441MHz_TX

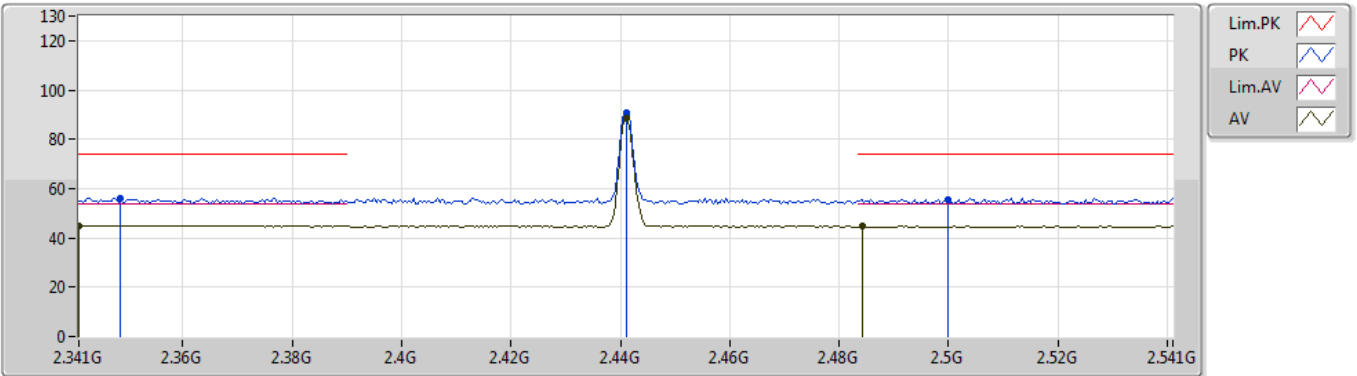


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3718G	44.97	54.00	-9.03	31.59	3	Vertical	334	1.96	-	13.38	27.61	3.98	-
AV	2.441G	85.09	Inf	-Inf	31.46	3	Vertical	334	1.96	-	53.63	27.42	4.04	-
AV	2.4846G	44.67	54.00	-9.33	31.42	3	Vertical	334	1.96	-	13.25	27.33	4.09	-
PK	2.3506G	56.31	74.00	-17.69	31.66	3	Vertical	334	1.96	-	24.65	27.70	3.96	-
PK	2.441G	86.04	Inf	-Inf	31.46	3	Vertical	334	1.96	-	54.58	27.42	4.04	-
PK	2.4886G	55.37	74.00	-18.63	31.41	3	Vertical	334	1.96	-	23.96	27.32	4.09	-

BT-BR(1Mbps)

27/07/2019

2441MHz_TX

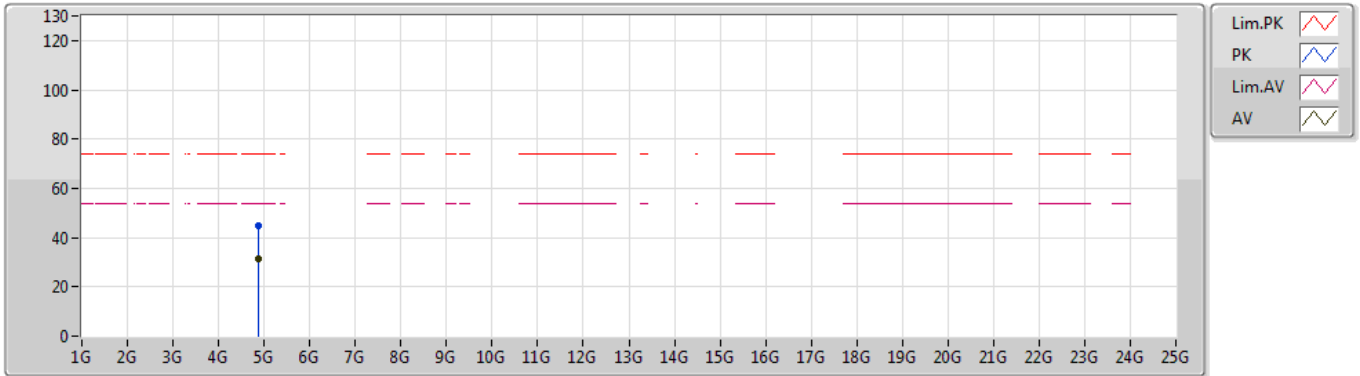


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.341G	45.03	54.00	-8.97	31.69	3	Horizontal	27	1.87	-	13.34	27.74	3.95	-
AV	2.441G	88.43	Inf	-Inf	31.46	3	Horizontal	27	1.87	-	56.97	27.42	4.04	-
AV	2.4842G	44.60	54.00	-9.40	31.42	3	Horizontal	27	1.87	-	13.18	27.33	4.09	-
PK	2.3486G	56.31	74.00	-17.69	31.67	3	Horizontal	27	1.87	-	24.64	27.71	3.96	-
PK	2.441G	90.86	Inf	-Inf	31.46	3	Horizontal	27	1.87	-	59.40	27.42	4.04	-
PK	2.4998G	55.73	74.00	-18.27	31.40	3	Horizontal	27	1.87	-	24.33	27.30	4.10	-

BT-BR(1Mbps)

27/07/2019

2441MHz_TX

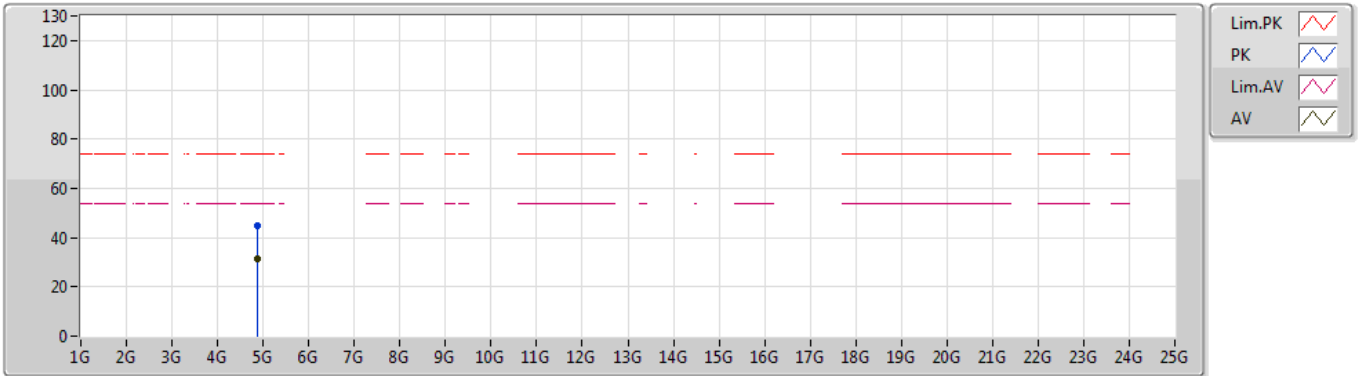


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88098G	31.46	54.00	-22.54	7.24	3	Vertical	127	1.23	-	24.22	31.18	5.83	29.77
PK	4.88327G	44.72	74.00	-29.28	7.25	3	Vertical	127	1.23	-	37.47	31.18	5.84	29.77

BT-BR(1Mbps)

27/07/2019

2441MHz_TX

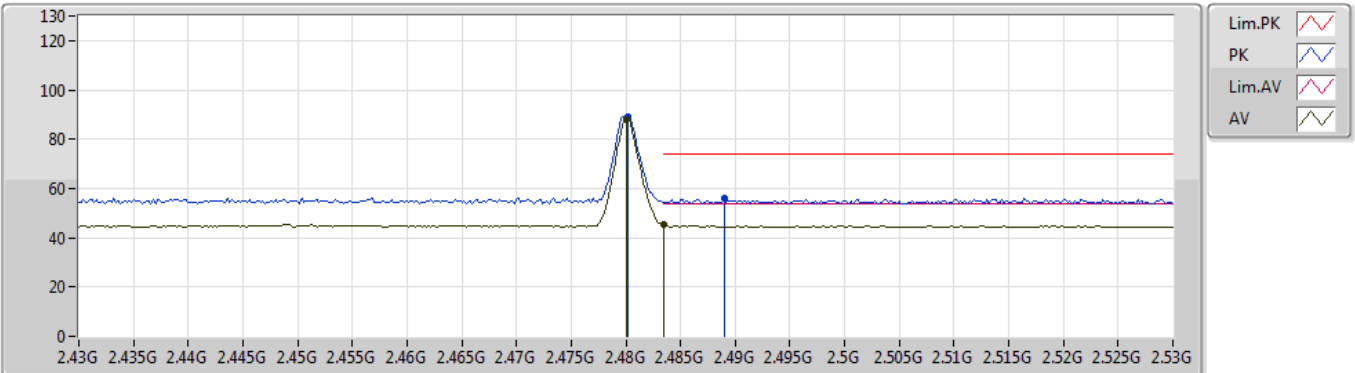


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88305G	31.29	54.00	-22.71	7.25	3	Horizontal	346	1.37	-	24.04	31.18	5.84	29.77
PK	4.88407G	44.86	74.00	-29.14	7.25	3	Horizontal	346	1.37	-	37.61	31.18	5.84	29.77

BT-BR(1Mbps)

27/07/2019

2480MHz_TX

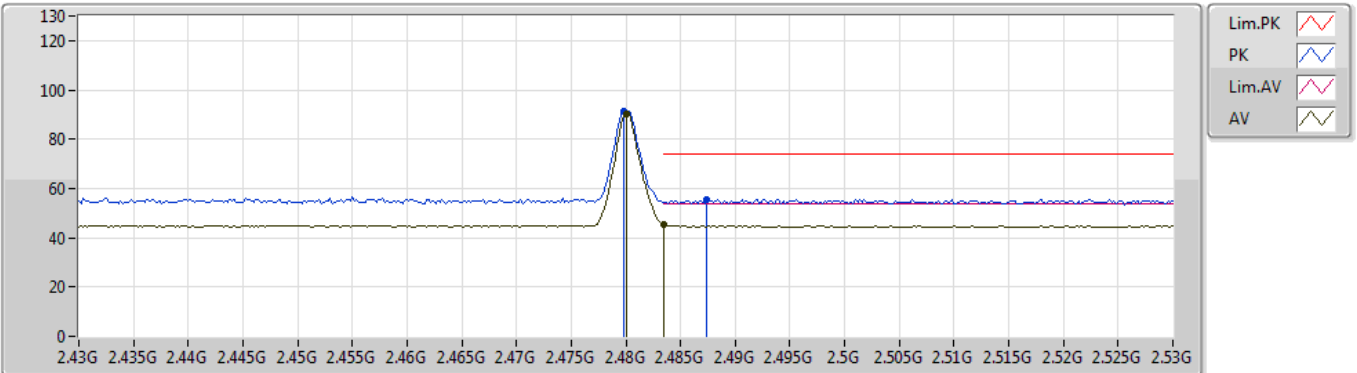


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	88.12	Inf	-Inf	31.42	3	Vertical	278	2.15	-	56.70	27.34	4.08	-
AV	2.4835G	45.17	54.00	-8.83	31.41	3	Vertical	278	2.15	-	13.76	27.33	4.08	-
PK	2.4802G	89.15	Inf	-Inf	31.42	3	Vertical	278	2.15	-	57.73	27.34	4.08	-
PK	2.489G	55.78	74.00	-18.22	31.41	3	Vertical	278	2.15	-	24.37	27.32	4.09	-

BT-BR(1Mbps)

27/07/2019

2480MHz_TX

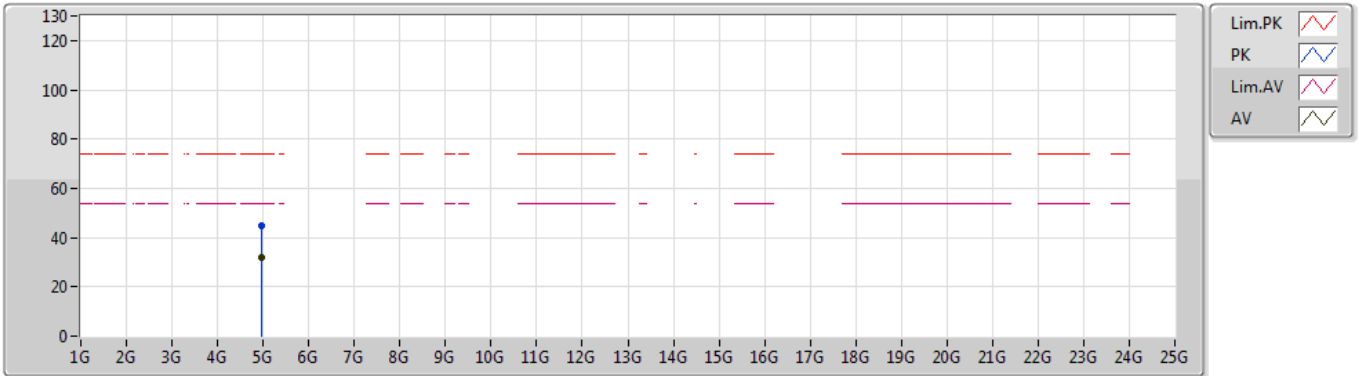


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	90.22	Inf	-Inf	31.42	3	Horizontal	26	1.98	-	58.80	27.34	4.08	-
AV	2.4835G	45.43	54.00	-8.57	31.41	3	Horizontal	26	1.98	-	14.02	27.33	4.08	-
PK	2.4798G	91.07	Inf	-Inf	31.42	3	Horizontal	26	1.98	-	59.65	27.34	4.08	-
PK	2.4874G	55.70	74.00	-18.30	31.42	3	Horizontal	26	1.98	-	24.28	27.33	4.09	-

BT-BR(1Mbps)

27/07/2019

2480MHz_TX

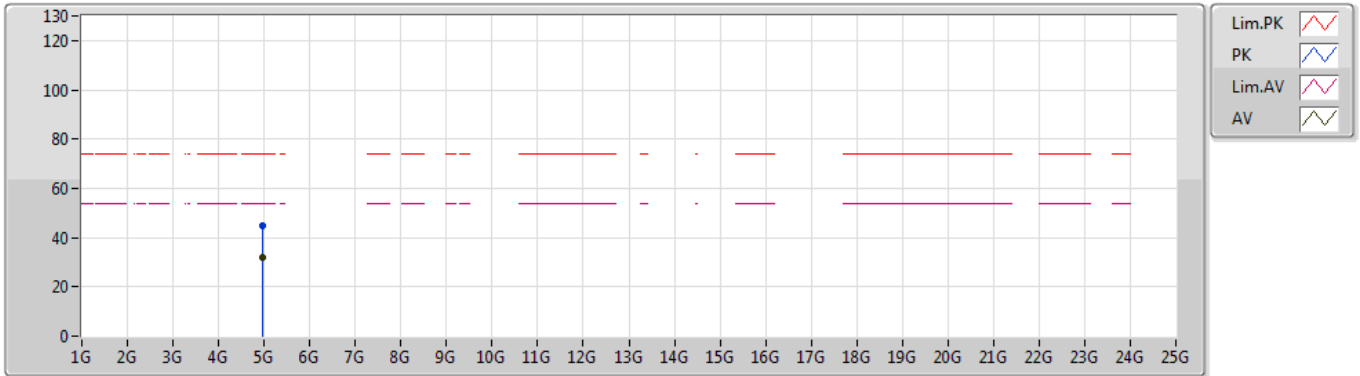


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9575G	31.80	54.00	-22.20	7.50	3	Vertical	18	1.44	-	24.30	31.37	5.89	29.76
PK	4.96056G	44.70	74.00	-29.30	7.51	3	Vertical	18	1.44	-	37.19	31.38	5.89	29.76

BT-BR(1Mbps)

27/07/2019

2480MHz_TX

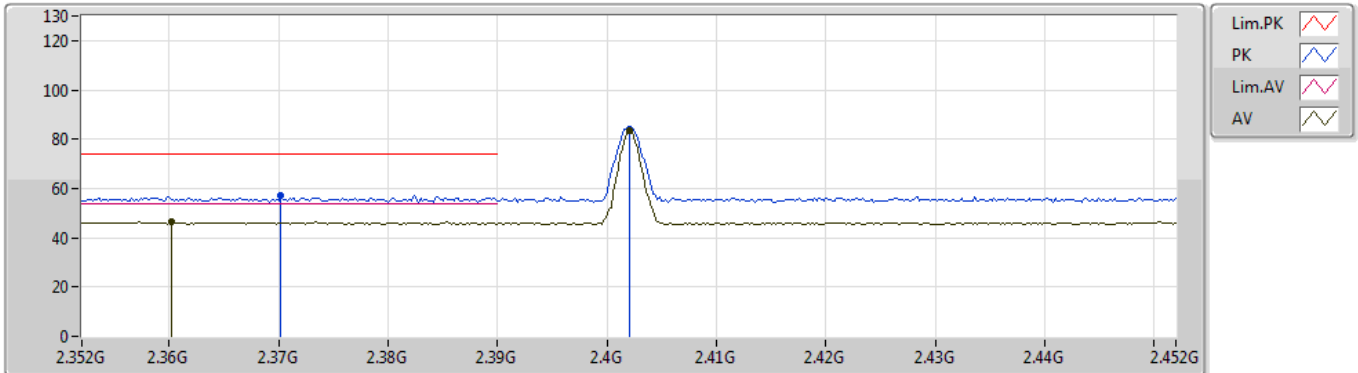


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95894G	31.75	54.00	-22.25	7.51	3	Horizontal	182	2.28	-	24.24	31.38	5.89	29.76
PK	4.96007G	44.71	74.00	-29.29	7.51	3	Horizontal	182	2.28	-	37.20	31.38	5.89	29.76

BT-EDR(3Mbps)

27/07/2019

2402MHz_TX

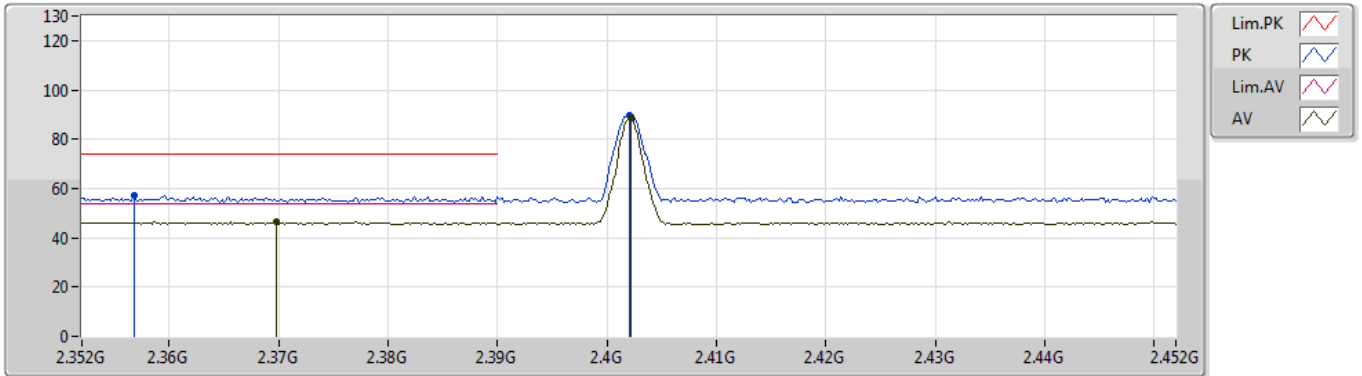


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3602G	46.40	54.00	-7.60	31.63	3	Vertical	344	2.22	-	14.77	27.66	3.97	-
AV	2.402G	83.43	Inf	-Inf	31.51	3	Vertical	344	2.22	-	51.92	27.50	4.01	-
PK	2.3702G	57.24	74.00	-16.76	31.60	3	Vertical	344	2.22	-	25.64	27.62	3.98	-
PK	2.402G	84.11	Inf	-Inf	31.51	3	Vertical	344	2.22	-	52.60	27.50	4.01	-

BT-EDR(3Mbps)

27/07/2019

2402MHz_TX

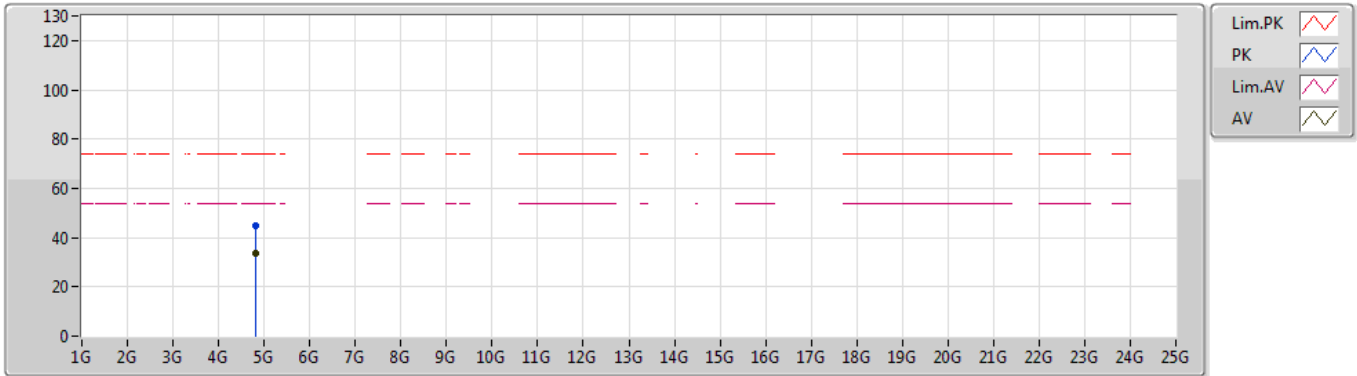


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3698G	46.52	54.00	-7.48	31.60	3	Horizontal	30	1.85	-	14.92	27.62	3.98	-
AV	2.4022G	88.70	Inf	-Inf	31.51	3	Horizontal	30	1.85	-	57.19	27.50	4.01	-
PK	2.3568G	56.95	74.00	-17.05	31.64	3	Horizontal	30	1.85	-	25.31	27.67	3.97	-
PK	2.402G	89.48	Inf	-Inf	31.51	3	Horizontal	30	1.85	-	57.97	27.50	4.01	-

BT-EDR(3Mbps)

27/07/2019

2402MHz_TX

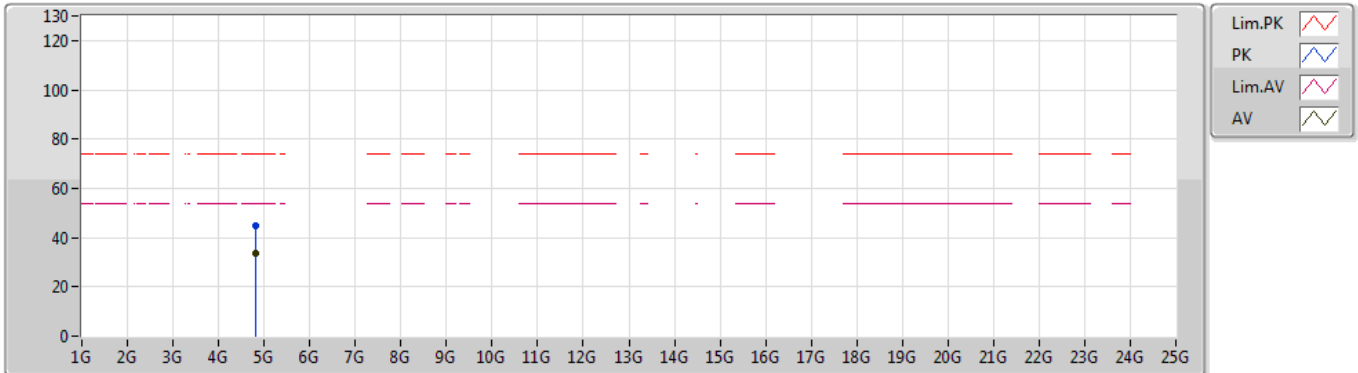


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80226G	33.76	54.00	-20.24	7.10	3	Vertical	325	1.33	-	26.66	31.10	5.78	29.78
PK	4.80358G	44.73	74.00	-29.27	7.10	3	Vertical	325	1.33	-	37.63	31.10	5.78	29.78

BT-EDR(3Mbps)

27/07/2019

2402MHz_TX

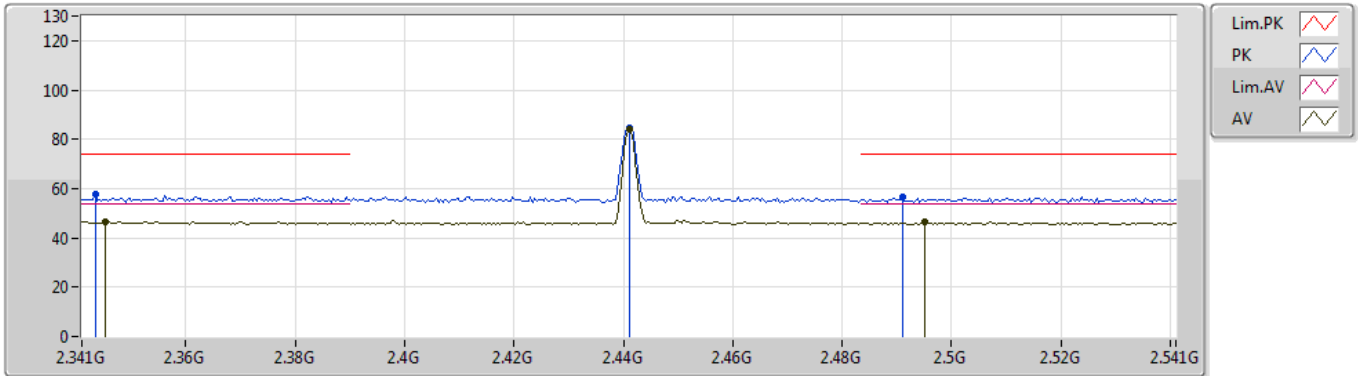


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80614G	33.79	54.00	-20.21	7.11	3	Horizontal	294	1.27	-	26.68	31.11	5.78	29.78
PK	4.80303G	44.80	74.00	-29.20	7.10	3	Horizontal	294	1.27	-	37.70	31.10	5.78	29.78

BT-EDR(3Mbps)

27/07/2019

2441MHz_TX

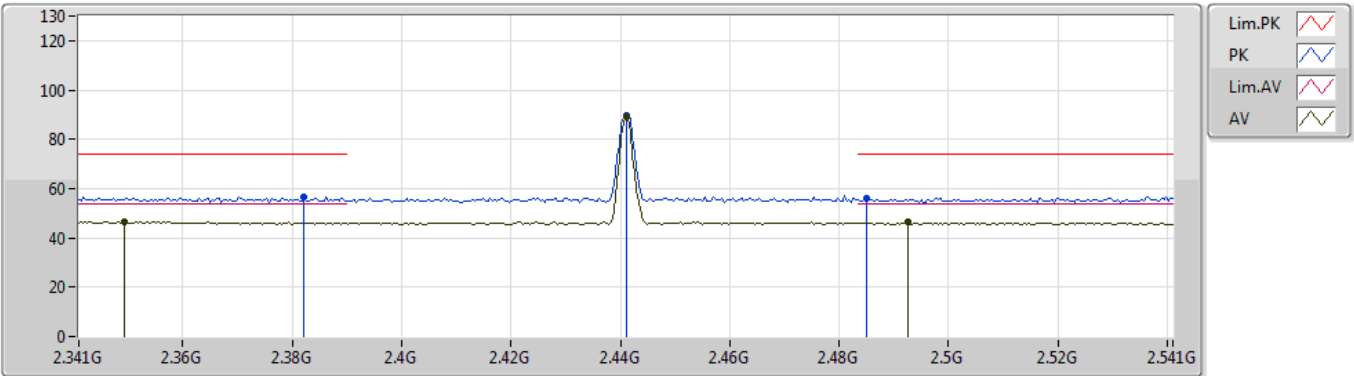


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3454G	46.50	54.00	-7.50	31.67	3	Vertical	336	1.96	-	14.83	27.72	3.95	-
AV	2.441G	84.01	Inf	-Inf	31.46	3	Vertical	336	1.96	-	52.55	27.42	4.04	-
AV	2.495G	46.41	54.00	-7.59	31.41	3	Vertical	336	1.96	-	15.00	27.31	4.10	-
PK	2.3434G	57.54	74.00	-16.46	31.68	3	Vertical	336	1.96	-	25.86	27.73	3.95	-
PK	2.441G	84.76	Inf	-Inf	31.46	3	Vertical	336	1.96	-	53.30	27.42	4.04	-
PK	2.491G	56.38	74.00	-17.62	31.41	3	Vertical	336	1.96	-	24.97	27.32	4.09	-

BT-EDR(3Mbps)

27/07/2019

2441MHz_TX

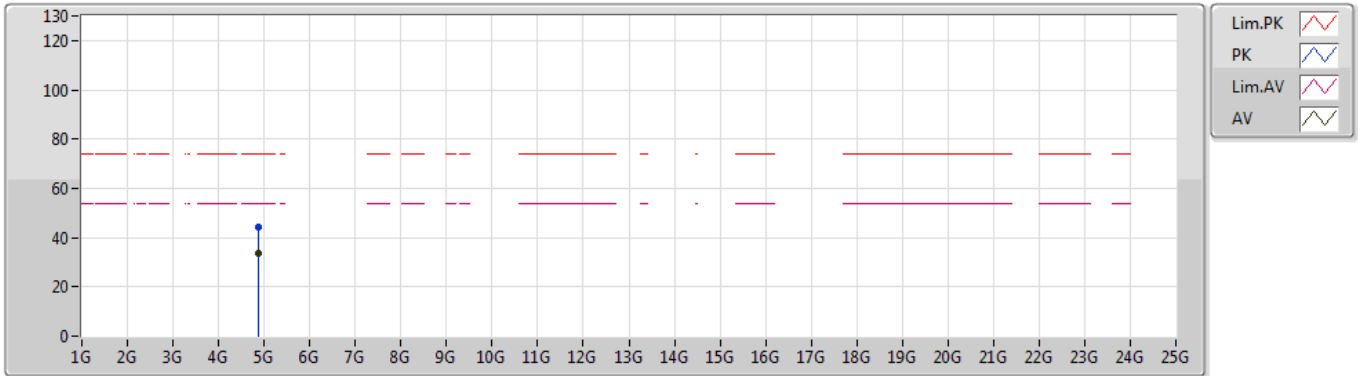


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3494G	46.51	54.00	-7.49	31.66	3	Horizontal	26	1.86	-	14.85	27.70	3.96	-
AV	2.441G	89.18	Inf	-Inf	31.46	3	Horizontal	26	1.86	-	57.72	27.42	4.04	-
AV	2.4926G	46.41	54.00	-7.59	31.40	3	Horizontal	26	1.86	-	15.01	27.31	4.09	-
PK	2.3822G	56.81	74.00	-17.19	31.56	3	Horizontal	26	1.86	-	25.25	27.57	3.99	-
PK	2.441G	89.81	Inf	-Inf	31.46	3	Horizontal	26	1.86	-	58.35	27.42	4.04	-
PK	2.485G	56.23	74.00	-17.77	31.42	3	Horizontal	26	1.86	-	24.81	27.33	4.09	-

BT-EDR(3Mbps)

27/07/2019

2441MHz_TX

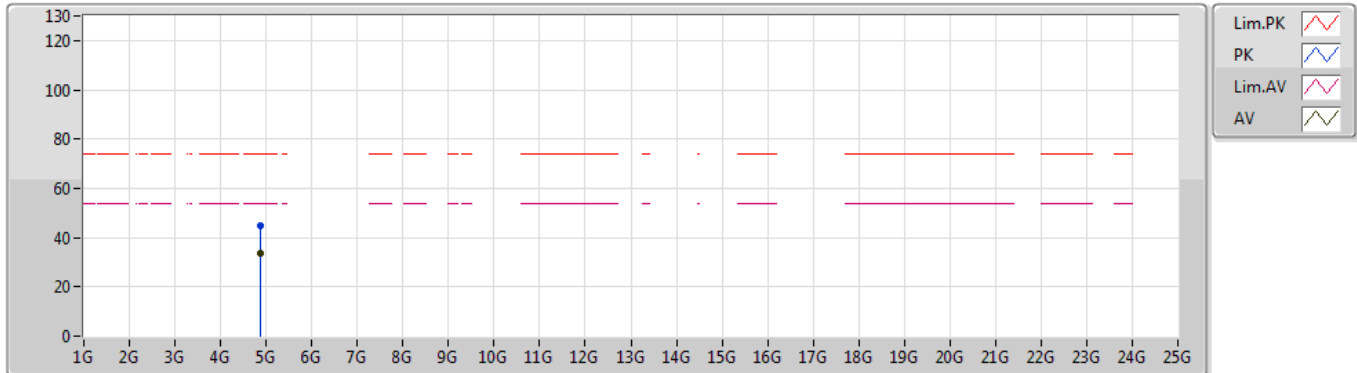


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88107G	33.86	54.00	-20.14	7.24	3	Vertical	299	1.38	-	26.62	31.18	5.83	29.77
PK	4.88015G	44.29	74.00	-29.71	7.24	3	Vertical	299	1.38	-	37.05	31.18	5.83	29.77

BT-EDR(3Mbps)

27/07/2019

2441MHz_TX

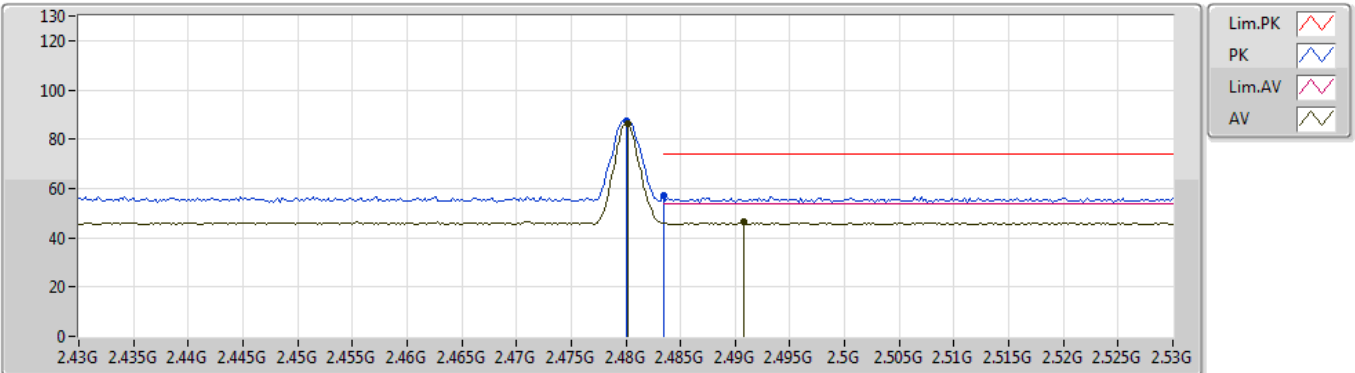


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88311G	33.62	54.00	-20.38	7.25	3	Horizontal	202	1.78	-	26.37	31.18	5.84	29.77
PK	4.88048G	44.61	74.00	-29.39	7.24	3	Horizontal	202	1.78	-	37.37	31.18	5.83	29.77

BT-EDR(3Mbps)

27/07/2019

2480MHz_TX

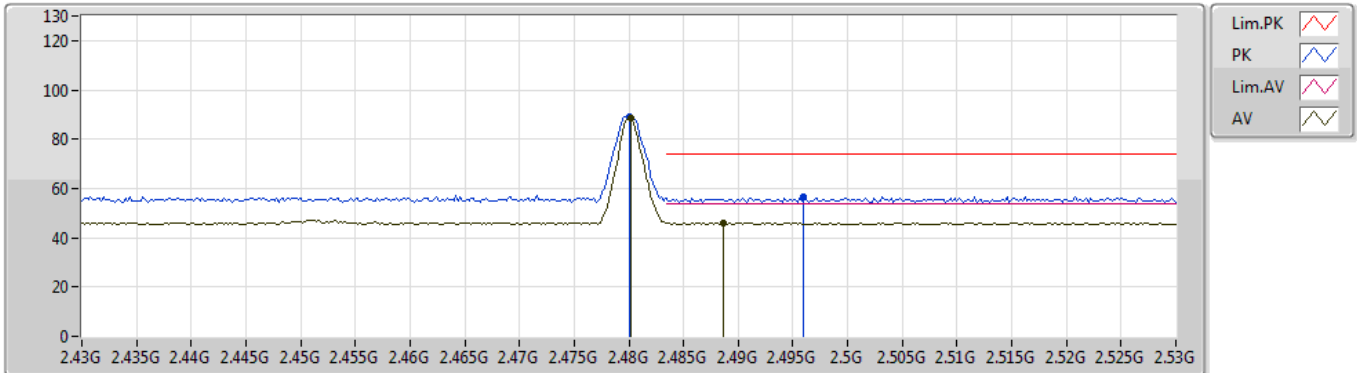


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	86.47	Inf	-Inf	31.42	3	Vertical	279	1.91	-	55.05	27.34	4.08	-
AV	2.4908G	46.31	54.00	-7.69	31.41	3	Vertical	279	1.91	-	14.90	27.32	4.09	-
PK	2.48G	87.36	Inf	-Inf	31.42	3	Vertical	279	1.91	-	55.94	27.34	4.08	-
PK	2.4835G	57.30	74.00	-16.70	31.41	3	Vertical	279	1.91	-	25.89	27.33	4.08	-

BT-EDR(3Mbps)

27/07/2019

2480MHz_TX

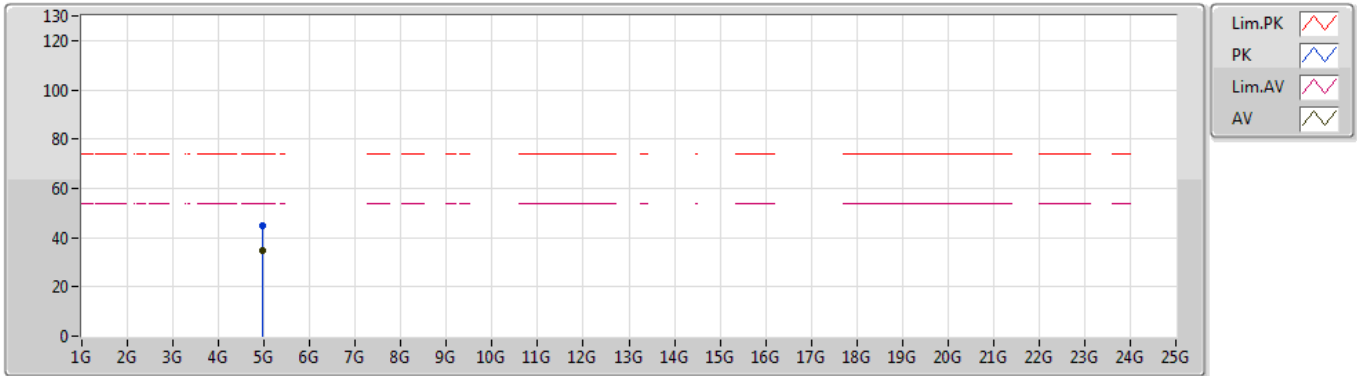


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4802G	88.62	Inf	-Inf	31.42	3	Horizontal	24	1.89	-	57.20	27.34	4.08	-
AV	2.4886G	46.16	54.00	-7.84	31.41	3	Horizontal	24	1.89	-	14.75	27.32	4.09	-
PK	2.48G	89.36	Inf	-Inf	31.42	3	Horizontal	24	1.89	-	57.94	27.34	4.08	-
PK	2.496G	56.43	74.00	-17.57	31.41	3	Horizontal	24	1.89	-	25.02	27.31	4.10	-

BT-EDR(3Mbps)

27/07/2019

2480MHz_TX

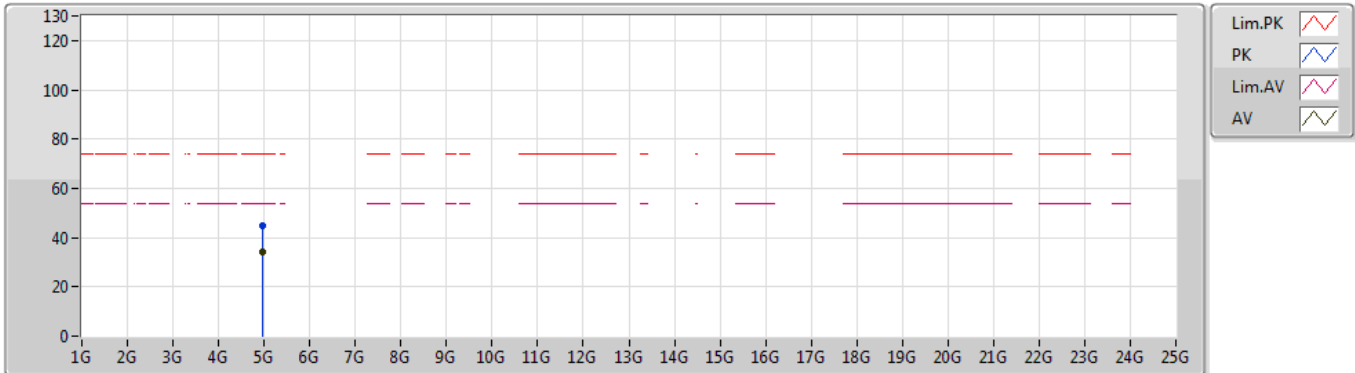


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95893G	34.72	54.00	-19.28	7.51	3	Vertical	262	1.25	-	27.21	31.38	5.89	29.76
PK	4.95938G	44.65	74.00	-29.35	7.51	3	Vertical	262	1.25	-	37.14	31.38	5.89	29.76

BT-EDR(3Mbps)

27/07/2019

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	4.9602G	34.02	54.00	-19.98	7.51	3	Horizontal	147	1.49	-	26.51	31.38	5.89	29.76
PK	4.95868G	44.85	74.00	-29.15	7.51	3	Horizontal	147	1.49	-	37.34	31.38	5.89	29.76



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	QP	398.6M	43.51	46.00	-2.49	-3.89	3	Horizontal	216	2.20	-

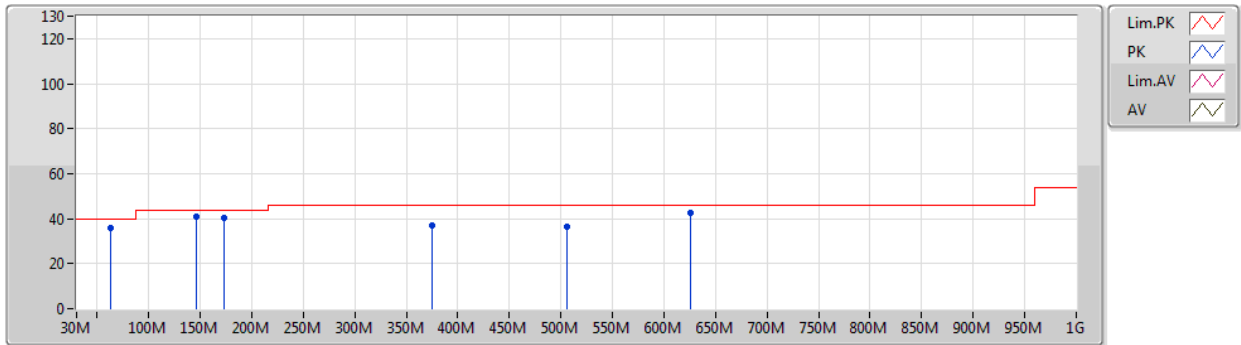
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz_Adapter	Pass	PK	375.32M	36.77	46.00	-9.23	-4.50	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	505.3M	36.37	46.00	-9.63	-2.43	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	PK	625.58M	42.66	46.00	-3.34	-0.55	3	Vertical	360	1.00	-
2441MHz_Adapter	Pass	QP	62.98M	35.76	40.00	-4.24	-15.46	3	Vertical	333	1.00	-
2441MHz_Adapter	Pass	QP	146.4M	40.79	43.50	-2.71	-10.06	3	Vertical	0	1.00	-
2441MHz_Adapter	Pass	QP	173.56M	40.34	43.50	-3.16	-10.87	3	Vertical	110	1.09	-
2441MHz_Adapter	Pass	PK	625.58M	39.17	46.00	-6.83	-0.55	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	PK	676.02M	40.84	46.00	-5.16	-0.42	3	Horizontal	0	1.00	-
2441MHz_Adapter	Pass	QP	90.14M	36.49	43.50	-7.01	-12.52	3	Horizontal	56	2.04	-
2441MHz_Adapter	Pass	QP	146.4M	40.72	43.50	-2.78	-10.06	3	Horizontal	247	2.01	-
2441MHz_Adapter	Pass	QP	224M	42.91	46.00	-3.09	-10.06	3	Horizontal	135	1.60	-
2441MHz_Adapter	Pass	QP	398.6M	43.51	46.00	-2.49	-3.89	3	Horizontal	216	2.20	-

BT-BR(1Mbps)RX

2441MHz_Adapter

03/08/2019

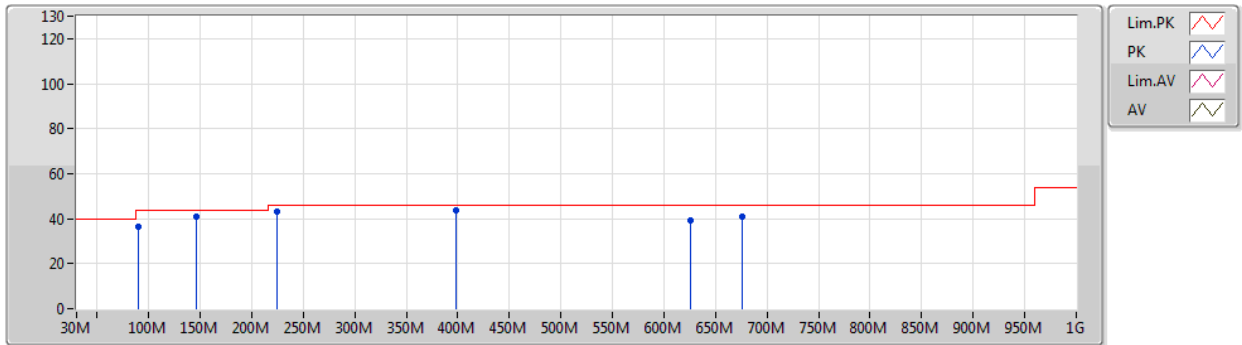


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	375.32M	36.77	46.00	-9.23	-4.50	3	Vertical	360	1.00	-	41.27	20.03	3.15	27.68
PK	505.3M	36.37	46.00	-9.63	-2.43	3	Vertical	360	1.00	-	38.80	22.67	3.34	28.44
PK	625.58M	42.66	46.00	-3.34	-0.55	3	Vertical	360	1.00	-	43.21	24.24	3.74	28.53
QP	62.98M	35.76	40.00	-4.24	-15.46	3	Vertical	333	1.00	-	51.22	11.27	0.98	27.71
QP	146.4M	40.79	43.50	-2.71	-10.06	3	Vertical	0	1.00	-	50.85	15.77	1.81	27.64
QP	173.56M	40.34	43.50	-3.16	-10.87	3	Vertical	110	1.09	-	51.21	14.58	2.06	27.51

BT-BR(1Mbps)RX

2441MHz_Adapter

03/08/2019



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	625.58M	39.17	46.00	-6.83	-0.55	3	Horizontal	0	1.00	-	39.72	24.24	3.74	28.53
PK	676.02M	40.84	46.00	-5.16	-0.42	3	Horizontal	0	1.00	-	41.26	24.11	3.93	28.46
QP	90.14M	36.49	43.50	-7.01	-12.52	3	Horizontal	56	2.04	-	49.01	13.84	1.39	27.75
QP	146.4M	40.72	43.50	-2.78	-10.06	3	Horizontal	247	2.01	-	50.78	15.77	1.81	27.64
QP	224M	42.91	46.00	-3.09	-10.06	3	Horizontal	135	1.60	-	52.97	14.68	2.55	27.29
QP	398.6M	43.51	46.00	-2.49	-3.89	3	Horizontal	216	2.20	-	47.40	20.78	3.19	27.86



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	AV	1.02503G	34.04	54.00	-19.96	-6.22	3	Vertical	14	1.02	-

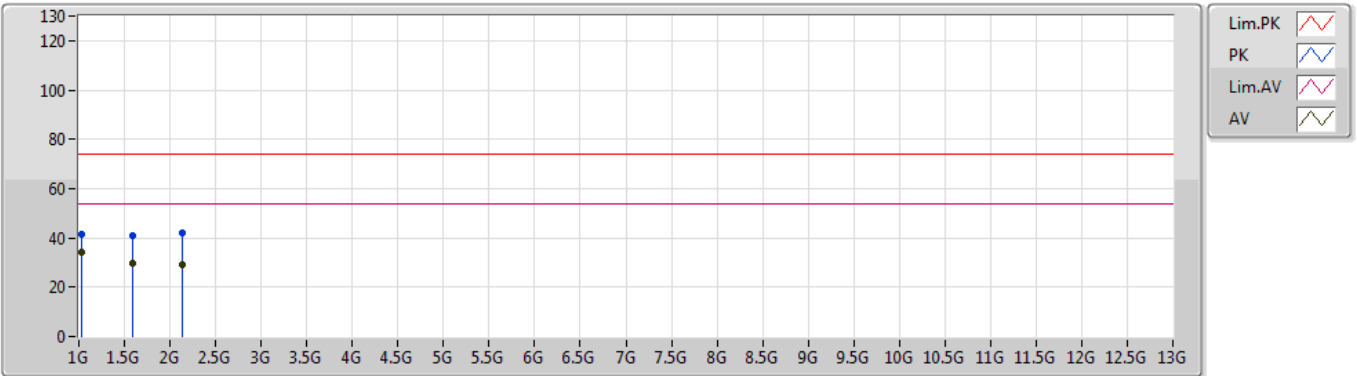
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-BR(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2441MHz	Pass	AV	1.02503G	34.04	54.00	-19.96	-6.22	3	Vertical	14	1.02	-
2441MHz	Pass	AV	1.59601G	29.63	54.00	-24.37	-2.89	3	Vertical	59	1.28	-
2441MHz	Pass	AV	2.1282G	29.23	54.00	-24.77	0.51	3	Vertical	69	1.15	-
2441MHz	Pass	PK	1.02471G	41.19	74.00	-32.81	-6.22	3	Vertical	14	1.02	-
2441MHz	Pass	PK	1.59624G	41.13	74.00	-32.87	-2.88	3	Vertical	59	1.28	-
2441MHz	Pass	PK	2.12744G	42.25	74.00	-31.75	0.51	3	Vertical	69	1.15	-
2441MHz	Pass	AV	1.07497G	30.51	54.00	-23.49	-5.86	3	Horizontal	327	1.17	-
2441MHz	Pass	AV	1.86202G	31.30	54.00	-22.70	-1.92	3	Horizontal	339	1.25	-
2441MHz	Pass	AV	2.12806G	32.07	54.00	-21.93	0.51	3	Horizontal	211	1.09	-
2441MHz	Pass	PK	1.07488G	40.04	74.00	-33.96	-5.86	3	Horizontal	327	1.17	-
2441MHz	Pass	PK	1.86213G	40.44	74.00	-33.56	-1.92	3	Horizontal	339	1.25	-
2441MHz	Pass	PK	2.12742G	43.95	74.00	-30.05	0.51	3	Horizontal	211	1.09	-

BT-BR(1Mbps)RX

27/07/2019

2441MHz_RX

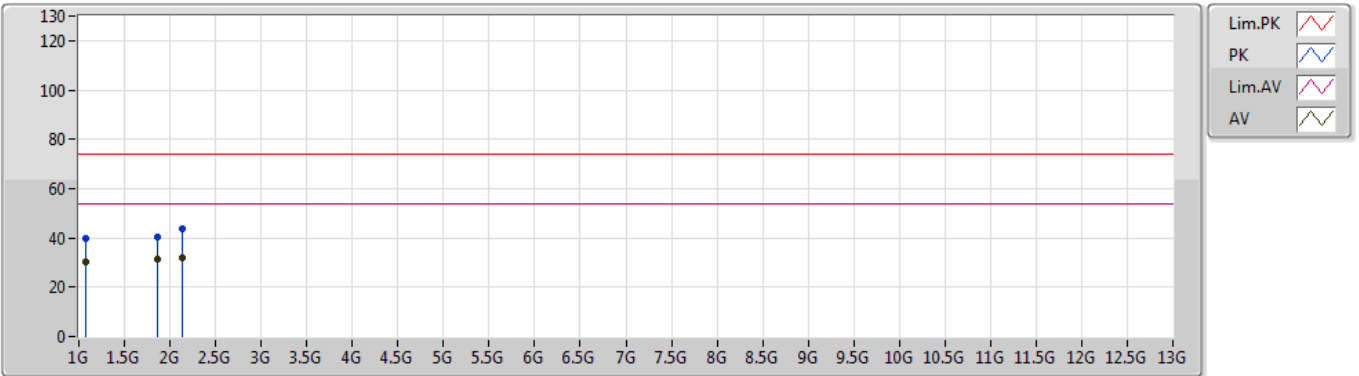


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	1.02503G	34.04	54.00	-19.96	-6.22	3	Vertical	14	1.02	-	40.26	24.55	2.57	33.34
AV	1.59601G	29.63	54.00	-24.37	-2.89	3	Vertical	59	1.28	-	32.52	25.12	3.17	31.18
AV	2.1282G	29.23	54.00	-24.77	0.51	3	Vertical	69	1.15	-	28.72	27.35	3.75	30.59
PK	1.02471G	41.19	74.00	-32.81	-6.22	3	Vertical	14	1.02	-	47.41	24.55	2.57	33.34
PK	1.59624G	41.13	74.00	-32.87	-2.88	3	Vertical	59	1.28	-	44.01	25.12	3.17	31.17
PK	2.12744G	42.25	74.00	-31.75	0.51	3	Vertical	69	1.15	-	41.74	27.35	3.75	30.59

BT-BR(1Mbps)RX

27/07/2019

2441MHz_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	1.07497G	30.51	54.00	-23.49	-5.86	3	Horizontal	327	1.17	-	36.37	24.65	2.62	33.13
AV	1.86202G	31.30	54.00	-22.70	-1.92	3	Horizontal	339	1.25	-	33.22	25.45	3.47	30.84
AV	2.12806G	32.07	54.00	-21.93	0.51	3	Horizontal	211	1.09	-	31.56	27.35	3.75	30.59
PK	1.07488G	40.04	74.00	-33.96	-5.86	3	Horizontal	327	1.17	-	45.90	24.65	2.62	33.13
PK	1.86213G	40.44	74.00	-33.56	-1.92	3	Horizontal	339	1.25	-	42.36	25.45	3.47	30.84
PK	2.12742G	43.95	74.00	-30.05	0.51	3	Horizontal	211	1.09	-	43.44	27.35	3.75	30.59