Testing Laboratory 1190

FCC RADIO TEST REPORT

FCC ID	:	RAX-AIOS5V
Equipment	:	HEOS 5.X Platform Module
Brand Name	:	Arcadyan
Model Name	:	WN9722BAC22-DM (AIOS5.0V)
Applicant	:	Arcadyan Technology Corporation No.8, Sec.2, Guangfu Rd., Hsinchu, 30071 Taiwan
Manufacturer	:	Arcadyan Technology Corporation No.8, Sec.2, Guangfu Rd., Hsinchu, 30071 Taiwan
Standard	:	47 CFR FCC Part 15.247

The product was received on Jan. 10, 2020, and testing was started from Jan. 13, 2020 and completed on Feb. 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: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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Appendix I. Test Photos

Appendix J. Photographs of EUT

History of this test report

Report No.	Version	Description	Issued Date
FR010205AC	01	Initial issue of report	Mar. 20, 2020

Summary of Test Result

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

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
None

Reviewed by: Sam Chen
Report Producer: Viola Huang

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	1	1
2.4-2.4835GHz	BT-EDR	1	1

Note:
- Bluetooth BR uses a GFSK (1Mbps).
- Bluetooth EDR uses a combination of π/4-DQPSK (2Mbps) and 8DPSK (3Mbps).
- Bluetooth BR/EDR uses as a system using FHSS modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2, 3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

1.1.2 Antenna Information

Set	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1, 2	Airgain	N2420DG3-T2L-PK1-G30U	PIFA Antenna	I-PEX	Note 1
2	1, 2	Airgain	N2420DG3-T2L-PK1-G100U	PIFA Antenna	I-PEX	
3	1, 2	Airgain	N2420DG3-T2L-PK1-G600U	PIFA Antenna	I-PEX	
4	1, 2	Airgain	N2425D-T2L-PK1-G30U	PIFA Antenna	I-PEX	
5	1, 2	Airgain	N2425D-T2R-PK1-G150U	PIFA Antenna	I-PEX	
6	1, 2	Airgain	N2425D-T2R-PK1-G30U	PIFA Antenna	I-PEX	
7	1, 2	Airgain	N2425D-T2R-PK1-G500U	PIFA Antenna	I-PEX	
8	1, 2	LITE	503021-0123-0BC	Dipole Antenna	I-PEX	
9	1, 2	LITE	501301-0019-1BC (300mm antenna cable: 510411-5210-24C)	Dipole Antenna	I-PEX	
10	1, 2	LITE	501301-0019-1BC (500mm antenna cable: 510411-5300-23C)	Dipole Antenna	I-PEX	

Note 1:

Set	Port	Antenna Gain (dBi)			Cable Loss (dB)			True Gain (dBi)		
		WLAN 2.4GHz	WLAN 5GHz	BT	WLAN 2.4GHz	WLAN 5GHz	BT	WLAN 2.4GHz	WLAN 5GHz	BT
1	1, 2	3.1	3.66	3.1	0.105	0.147	0.105	2.995	3.513	2.995
2	1, 2	3.1	3.66	-	0.35	0.49	-	2.75	3.17	2.75
3	1, 2	3.1	3.66	-	2.1	2.94	-	1	0.72	1
4	1, 2	1.9	3.5	-	0.105	0.147	-	1.795	3.353	1.795
5	1, 2	1.9	3.5	-	0.525	0.735	-	1.375	2.765	1.375
6	1, 2	1.9	3.5	-	0.105	0.147	-	1.795	3.353	1.795
7	1, 2	1.9	3.5	-	1.75	2.45	-	0.15	1.05	0.15
8	1, 2	-	-	-	-	-	-	2.55	2.35	2.55
9	1, 2	3.48	4.29	3.48	0.72	1.66	0.72	2.76	2.63	2.76
10	1, 2	3.48	4.29	3.48	1.49	1.7	1.49	1.99	2.59	1.99

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has ten sets of antenna, and each set contains two antennas.

Note 4: For AC power-line conducted emissions and Unwanted Emissions items, the highest gain antennas “set 1” and “set 9” were tested and recorded in the report. For the other items only the highest gain antennas “set 1” was tested and recorded in the report.

<For WLAN 2.4GHz Band>

For IEEE 802.11b/g/n mode <2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

<For WLAN 5GHz Band>

For IEEE 802.11a/n/ac mode <2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

<For Bluetooth>

For bluetooth mode <1TX/1RX>:

Only Port 1 can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-BR(1Mbps)	0.79	1.02	2.917m	1k
BT-EDR(2Mbps)	0.792	1.01	2.921m	1k
BT-EDR(3Mbps)	0.778	1.09	2.866m	1k

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From host system
Test Software Version	MTool_2.0.1.6

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- FCC KDB 558074 D01 v05r02
- FCC 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, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, 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
RF Conducted	TH02-CB	Brian Sun	22.6~23.3°C / 57~61%	Jan. 13, 2020 ~ Jan. 17, 2020
Radiated below 1GHz	03CH05-CB	KJ Chang	14.7~15.1°C / 53~55%	Jan. 13, 2020
Radiated above 1GHz	03CH04-CB	Caster Chang	22.2~24.1°C / 57~60%	Jan. 13, 2020 ~ Feb. 13, 2020
	03CH05-CB	Kevin Huang	22.5~24.5°C / 57~61%	Jan. 13, 2020 ~ Feb. 13, 2020
AC Conduction	CO02-CB	Max Lin	22~23°C / 58~59%	Jan. 16, 2020

Test site Designation No. TW0006 with FCC.
Test site registered number IC 4086D with Industry Canada.

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)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-BR(1Mbps)	-
2402MHz	10
2440MHz	10
2480MHz	10
BT-EDR(2Mbps)	-
2402MHz	10
2440MHz	10
2480MHz	10
BT-EDR(3Mbps)	-
2402MHz	10
2440MHz	10
2480MHz	10

2.2 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	Normal Link
1	EUT in Z axis_WLAN 2.4G + Bluetooth + antenna set 1
2	EUT in Z axis_WLAN 5G + Bluetooth + antenna set 1
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT in Z axis_WLAN 2.4G + Bluetooth + antenna set 9
For operating mode 3 is the worst case and it was record in this test report.	

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
Operating Mode	CTX
1	EUT + antenna set 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Z axis_WLAN 2.4G + Bluetooth + antenna set 1
2	EUT in Z axis_WLAN 5G + Bluetooth + antenna set 1
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT in Z axis_WLAN 5G + Bluetooth + antenna set 9
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Y axis. So the measurement will follow this same test configuration.
1	EUT in Y axis + antenna set 1
2	EUT in Y axis + antenna set 9

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
	1. The EUT was performed at X axis, Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz and the worst case was found at Y axis. So the measurement will follow this same test configuration. 2. The EUT was performed at antenna set 1 and set 2 for Emissions in Restricted Frequency Bands above 1GHz and the worst case was found at antenna set 1. So the measurement will follow this same test configuration.
1	EUT in Y axis_WLAN 2.4GHz + Bluetooth + antenna set 1
2	EUT in Y axis_WLAN 5GHz + Bluetooth + antenna set 1
For operating mode 2 is the worst case and it was record in this test report.	
Refer to Appendix H for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + Bluetooth + antenna set 1
2	WLAN 5GHz + Bluetooth + antenna set 1
Refer to Sporton Test Report No.: FA010205 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Fixture	Arcadyan	WN9722A-DM Test Jig	N/A
B	LAN NB	DELL	E6430	N/A
C	AP router	ASUS	RP-N53	MSQ-RPN53
D	AP NB	DELL	E6430	N/A
E	Bluetooth test set	Anritsu	MT8852B	N/A

For Radiated (below 1GHz):

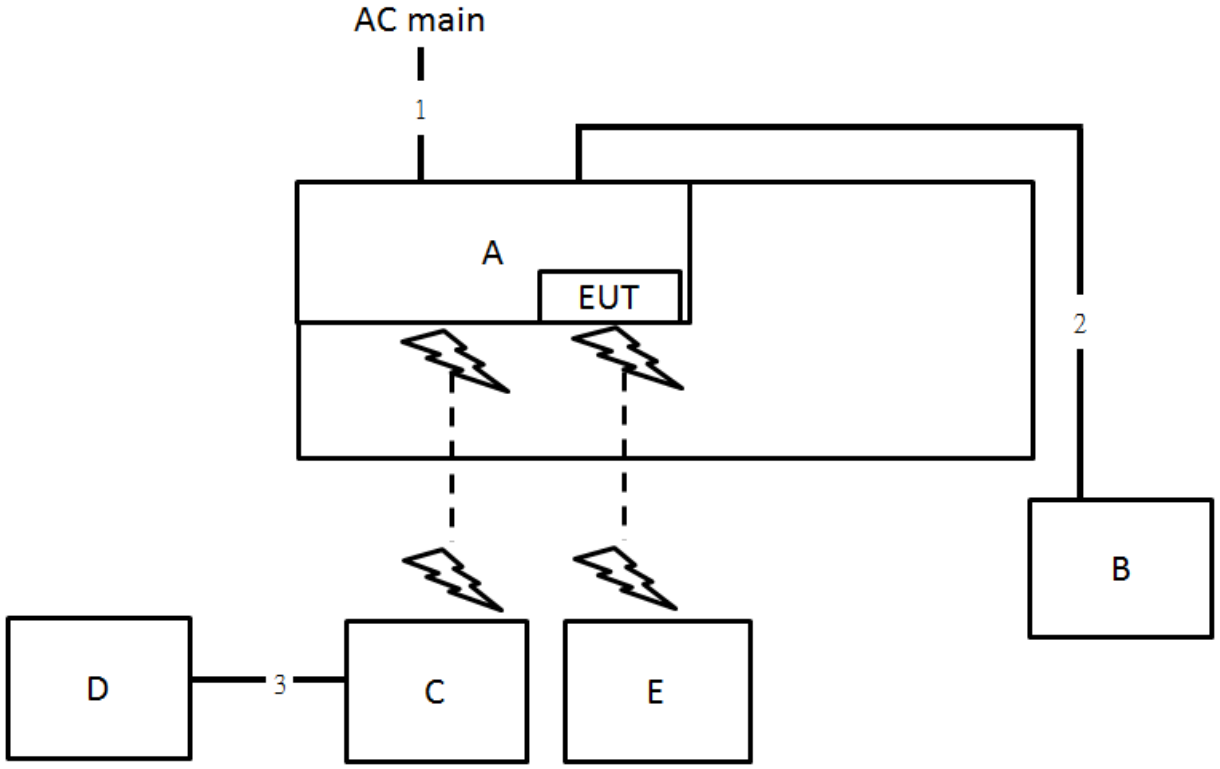
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Flash disk3.0	Silicon Power	B06	N/A
B	NB	DELL	E4300	N/A
C	Rx-Device	ASUS	AX88U	N/A
D	NB	DELL	E4300	N/A
E	Bluetooth Test set	Anritsu	MT8852B	N/A
F	Fixture	Arcadyan	WN9722A-DM Test Jig	N/A

For Radiated (above 1GHz) and RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	Fixture	Arcadyan	WN9722A-DM Test Jig	N/A

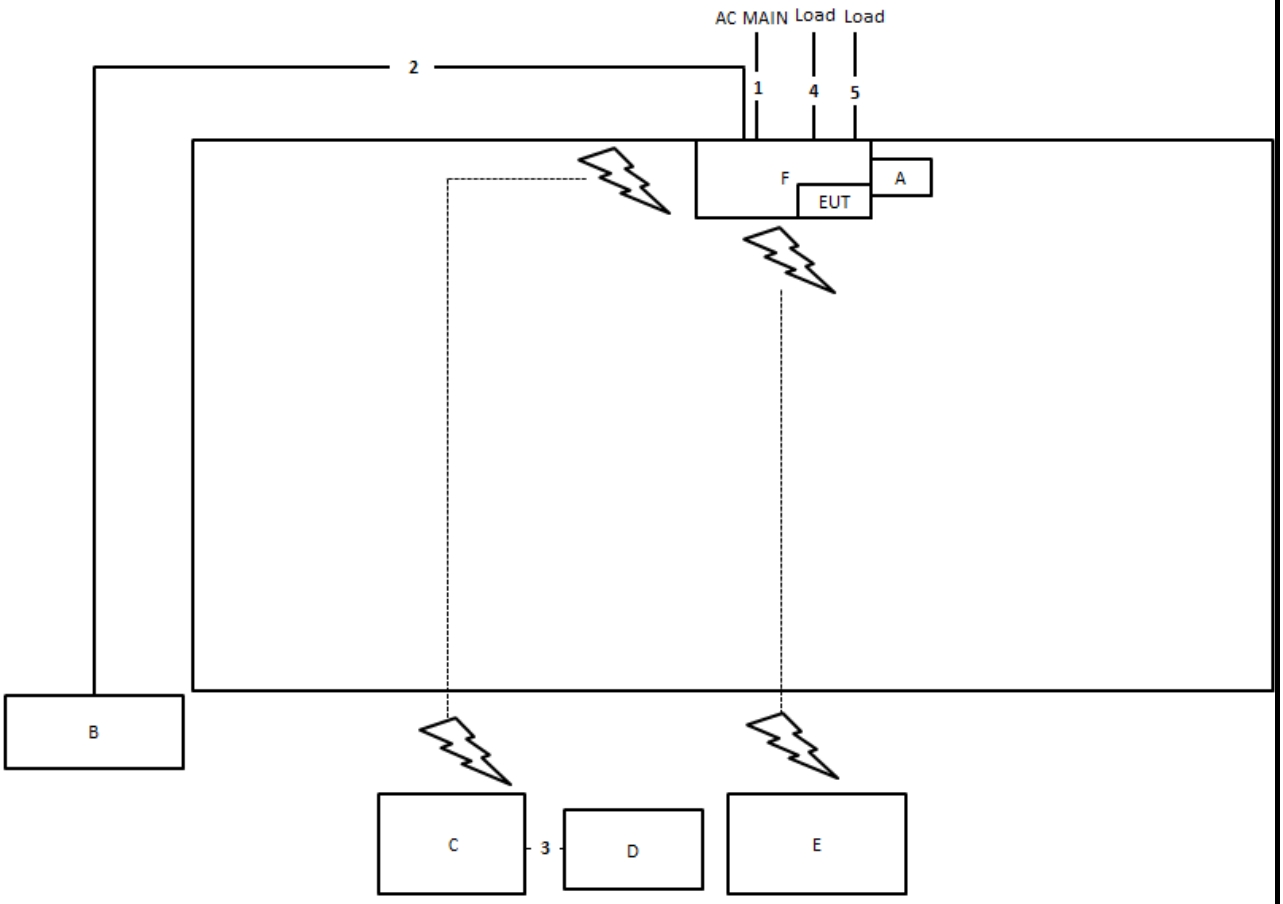
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



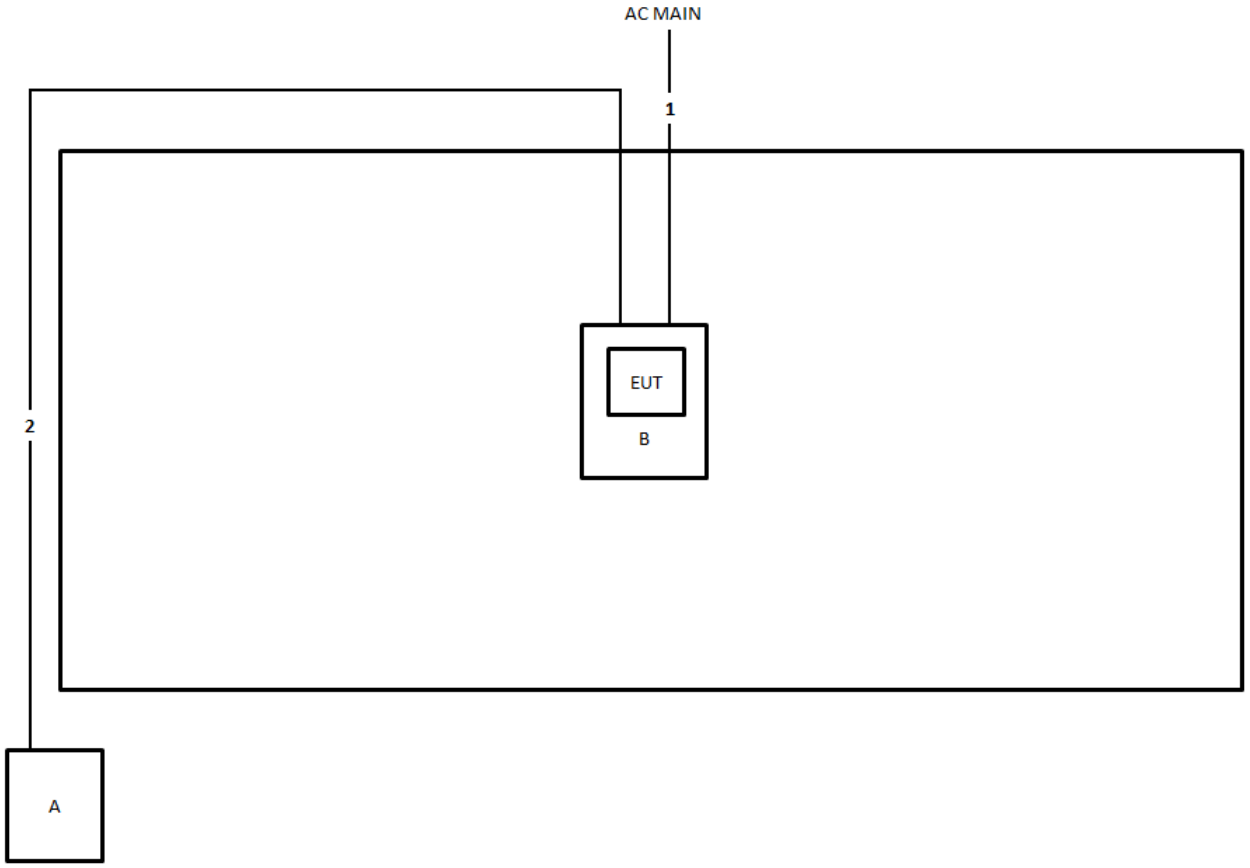
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	HDMI cable	Yes	2m
5	VGA cable	No	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m

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

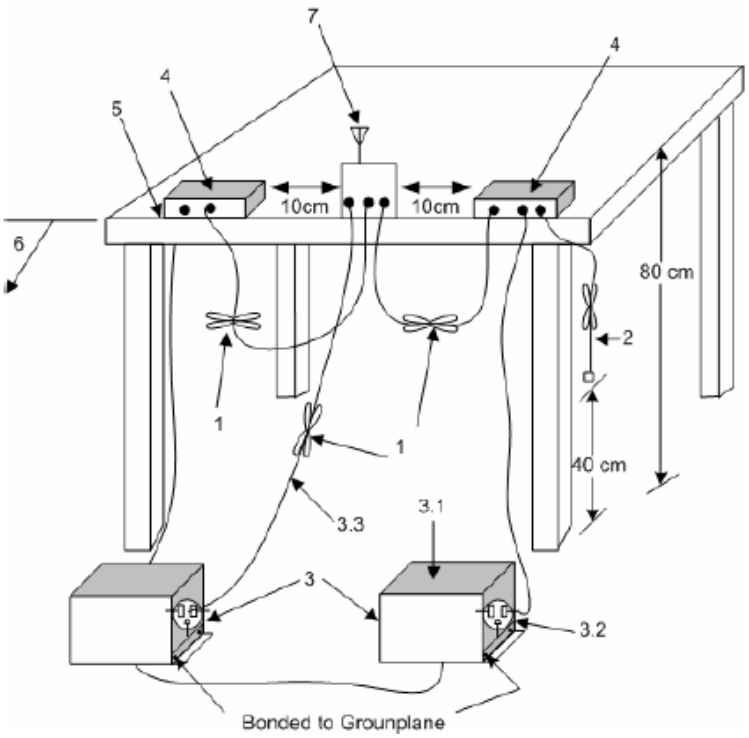
Refer a test equipment and calibration data table in this test report.

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

AC Power-line Conducted Emissions



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

3.1.5 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
▪ 902-928 MHz Band:
▪ N ≥50 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.
▪ 50 >N≥25 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.
▪ 2400-2483.5 MHz Band:
▪ N ≥75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz).
▪ 75>N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
▪ 5725-5850 MHz Band:
▪ N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz.
N:Number of Hopping Frequencies; **ChS**: Hopping Channel Separation

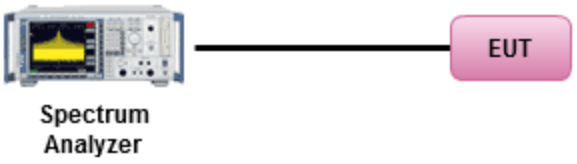
3.2.2 Measuring Instruments

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 6.9.1 for 20 dB bandwidth measurement.
▪ Refer as ANSI C63.10-2013, clause 7.8.2 for carrier frequency separation measurement.

3.2.4 Test Setup

20dB Bandwidth and Carrier Frequency Separation


3.2.5 Test Result of 20dB Bandwidth

Refer as Appendix B

3.2.6 Test Result of Carrier Frequency Separation

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit
▪ 902-928 MHz Band:
▪ N ≥50; Power 30dBm; EIRP 36dBm
▪ 50 >N≥ 25; Power 24dBm; EIRP 30dBm
▪ 2400-2483.5 MHz Band:
▪ N ≥ 75; Power 30dBm; EIRP 36dBm
▪ 75 >N ≥ 15; Power 21dBm; EIRP 27dBm
▪ 5725-5850 MHz Band:
▪ N ≥ 75; Power 30dBm; EIRP 36dBm
N:Number of Hopping Frequencies

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 7.8.5 for output power measurement.

3.3.4 Test Setup

Maximum Conducted Output Power (Peak Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Number of Hopping Frequencies and Hopping Bandedge

3.4.1 Number of Hopping Frequencies Limit

Number of Hopping Frequencies Limit
▪ 902-928 MHz Band:
▪ N ≥50 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 250 kHz.
▪ 50 >N≥ 25 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth>250 kHz.
▪ 2400-2483.5 MHz Band:
▪ N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz).
▪ 75 >N ≥ 15 and ChS ≥ MAX (20 dB bandwidth 2/3,25 kHz).
▪ 5725-5850 MHz Band:
▪ N ≥ 75 and ChS ≥ MAX (20 dB bandwidth, 25 kHz); 20 dB bandwidth≤ 1 MHz.
N:Number of Hopping Frequencies; **ChS** : Hopping Channel Separation

3.4.2 Hopping Bandedge Limit

Refer clause 3.6.1 and clause 3.7.1

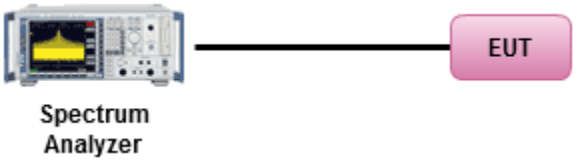
3.4.3 Measuring Instruments

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

3.4.4 Test Procedures

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

3.4.5 Test Setup

Number of Hopping Frequencies and Hopping Frequencies Bandedge


3.4.6 Test Result of Number of Hopping Frequencies

Refer as Appendix D

3.4.7 Test Result of Number of Hopping Frequencies Bandedge

Refer as Appendix D

3.5 Time of Occupancy (Dwell Time)

3.5.1 Time of Occupancy (Dwell Time) Limit

20dB Bandwidth and Carrier Frequency Separation Limit for Frequency Hopping Systems
▪ 902-928 MHz Band:
▪ N ≥50; 0.4s in 20s period
▪ 50 >N≥ 25; 0.4s in 10s period
▪ 2400-2483.5 MHz Band:
▪ N ≥ 75; 0.4s in N x 0.4 period
▪ 75 >N ≥ 15; 0.4s in N x 0.4 period
▪ 5725-5850 MHz Band:
▪ N ≥ 75; 0.4s in 30s period
N:Number of Hopping Frequencies

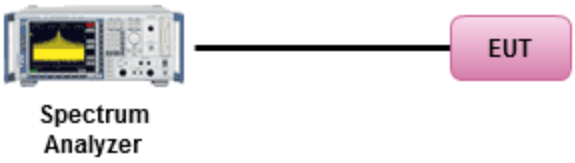
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup

Time of Occupancy (Dwell Time)


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

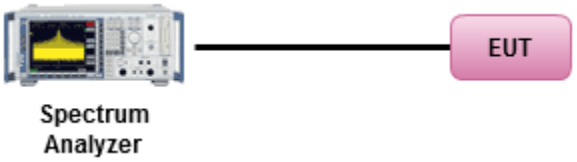
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.6.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix F

3.7 Emissions in Restricted Frequency Bands

3.7.1 Emissions in Restricted Frequency Bands Limit

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

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

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

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

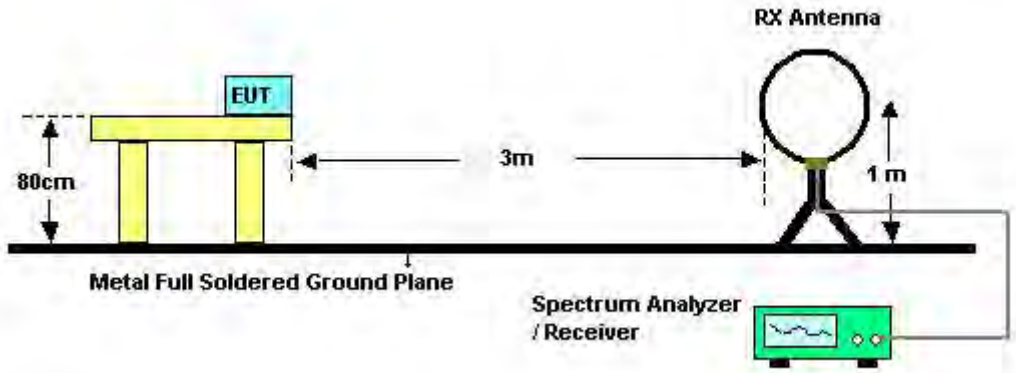
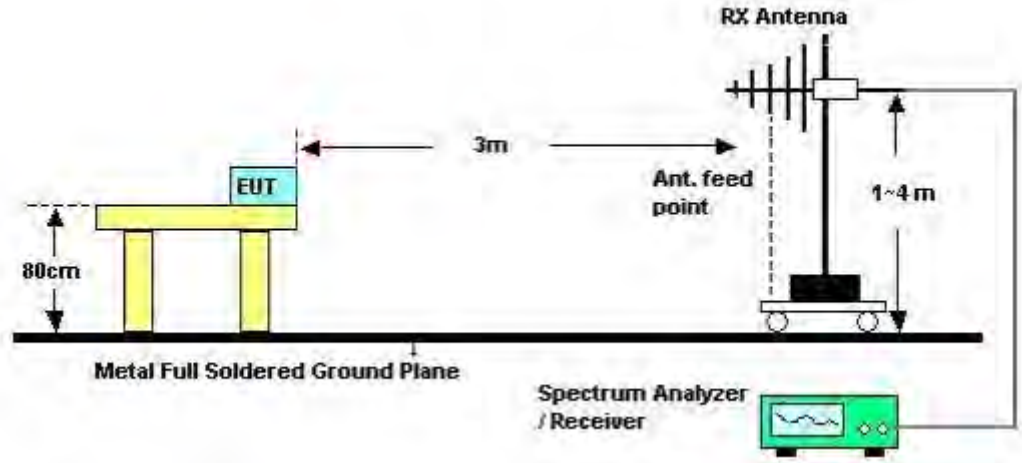
3.7.2 Measuring Instruments

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

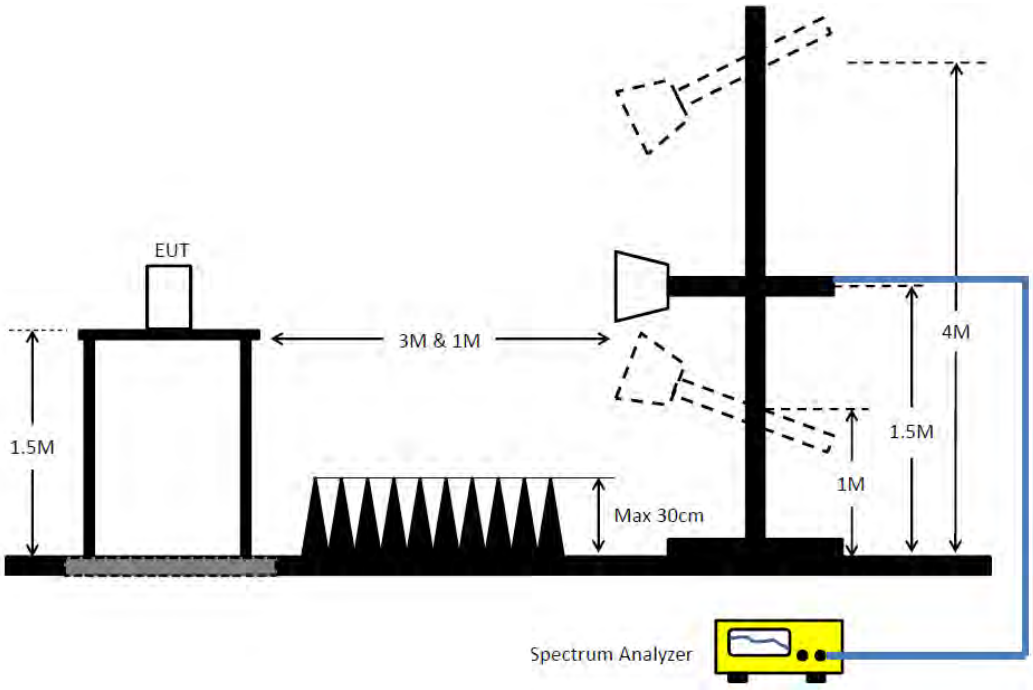
3.7.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [hopping duty factor].	
▪ Refer as ANSI C63.10; clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as ANSI C63.10, clause 4.1.4.2.1 QP value.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak.
	▪ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of hopping pulsed emissions.

3.7.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.7.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.7.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.7.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix G

4 Test Equipment and Calibration Data

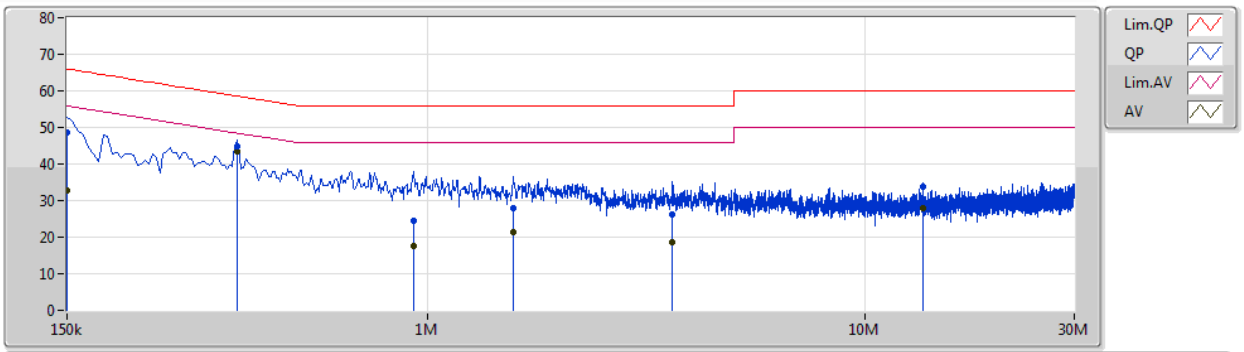
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 21, 2019	Nov. 20, 2020	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Oct. 30, 2019	Oct. 29, 2020	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY54130031	9kHz ~ 8.45GHz	Nov. 08, 2019	Nov. 07, 2020	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz~30MHz	Oct. 21, 2019	Oct. 20, 2020	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Bilog Antenna with 6dB Attenuator	TESE & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 28, 2019	Mar. 27, 2020	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 01, 2019	Apr. 30, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz – 26.5GHz	Apr. 16, 2019	Apr. 15, 2020	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH05-CB)
Horn Antenna	ETS・Lindgren	3115	00143147	750MHz~18GHz	Oct. 22, 2019	Oct. 21, 2020	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Mar. 19, 2019	Mar. 18, 2020	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+22	1GHz - 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)

Note: Calibration Interval of instruments listed above is one year.

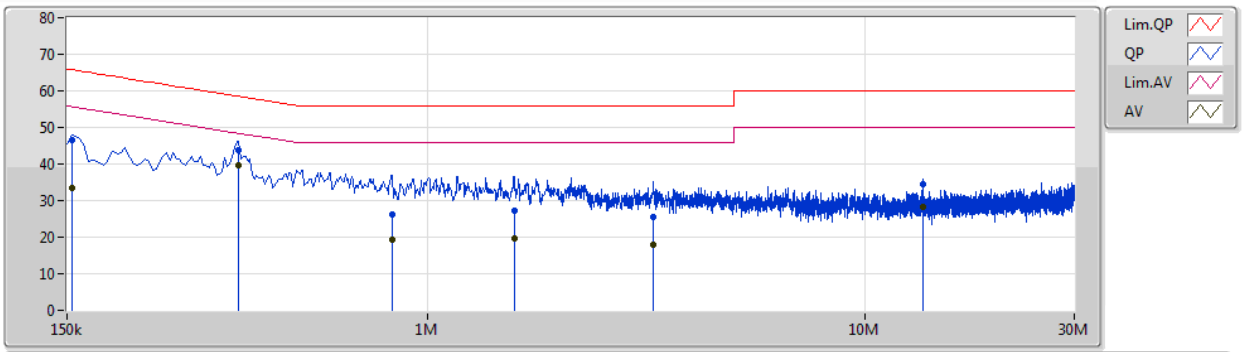
N.C.R means Non-Calibration required.

Mode 3



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	48.79	66.00	-17.21	10.20	Line	-	38.59	0.05	0.05	10.10
AV	150k	32.85	56.00	-23.15	10.20	Line	-	22.65	0.05	0.05	10.10
QP	366k	44.78	58.60	-13.82	10.23	Line	-	34.55	0.05	0.08	10.10
AV	366k	43.32	48.60	-5.28	10.23	Line	"Worst"	33.09	0.05	0.08	10.10
QP	928.5k	24.60	56.00	-31.40	10.28	Line	-	14.32	0.06	0.12	10.10
AV	928.5k	17.63	46.00	-28.37	10.28	Line	-	7.35	0.06	0.12	10.10
QP	1.568M	27.77	56.00	-28.23	10.33	Line	-	17.44	0.08	0.15	10.10
AV	1.568M	21.26	46.00	-24.74	10.33	Line	-	10.93	0.08	0.15	10.10
QP	3.62M	26.24	56.00	-29.76	10.37	Line	-	15.87	0.12	0.15	10.10
AV	3.62M	18.61	46.00	-27.39	10.37	Line	-	8.24	0.12	0.15	10.10
QP	13.56M	33.69	60.00	-26.31	10.61	Line	-	23.08	0.30	0.20	10.11
AV	13.56M	28.05	50.00	-21.95	10.61	Line	-	17.44	0.30	0.20	10.11

Mode 3



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.5k	46.55	65.75	-19.20	10.21	Neutral	-	36.34	0.05	0.06	10.10
AV	154.5k	33.54	55.75	-22.21	10.21	Neutral	-	23.33	0.05	0.06	10.10
QP	370.5k	43.74	58.49	-14.75	10.23	Neutral	-	33.51	0.05	0.08	10.10
AV	370.5k	39.78	48.49	-8.71	10.23	Neutral	"Worst"	29.55	0.05	0.08	10.10
QP	829.5k	26.16	56.00	-29.84	10.27	Neutral	-	15.89	0.06	0.11	10.10
AV	829.5k	19.32	46.00	-26.68	10.27	Neutral	-	9.05	0.06	0.11	10.10
QP	1.577M	27.21	56.00	-28.79	10.32	Neutral	-	16.89	0.07	0.15	10.10
AV	1.577M	19.68	46.00	-26.32	10.32	Neutral	-	9.36	0.07	0.15	10.10
QP	3.278M	25.44	56.00	-30.56	10.35	Neutral	-	15.09	0.10	0.15	10.10
AV	3.278M	17.91	46.00	-28.09	10.35	Neutral	-	7.56	0.10	0.15	10.10
QP	13.56M	34.46	60.00	-25.54	10.53	Neutral	-	23.93	0.22	0.20	10.11
AV	13.56M	28.18	50.00	-21.82	10.53	Neutral	-	17.65	0.22	0.20	10.11

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)	920k	907.046k	907KF1D	918.75k	903.298k
BT-EDR(2Mbps)	1.323M	1.214M	1M21G1D	1.318M	1.212M
BT-EDR(3Mbps)	1.263M	1.221M	1M22G1D	1.261M	1.219M

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

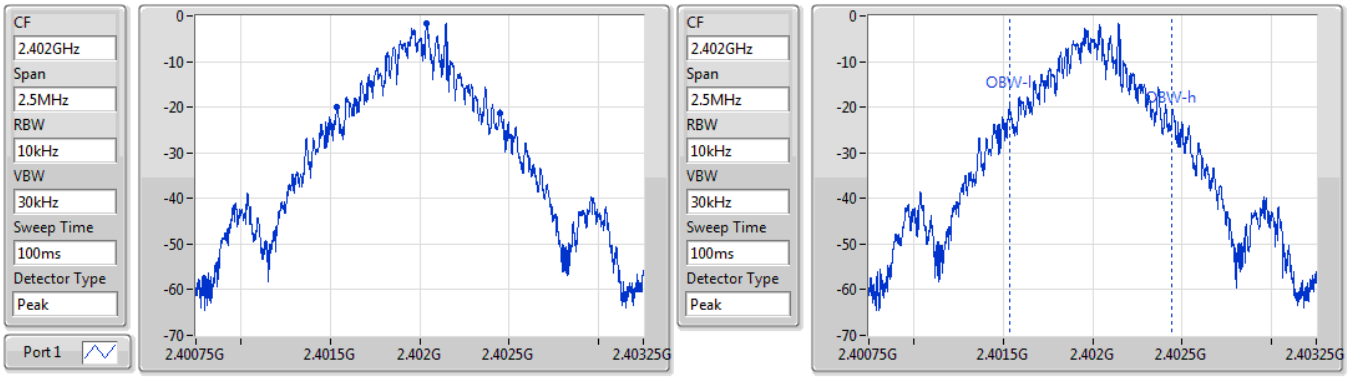
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	918.75k	907.046k
2440MHz	Pass	Inf	920k	904.548k
2480MHz	Pass	Inf	918.75k	903.298k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.318M	1.212M
2440MHz	Pass	Inf	1.323M	1.212M
2480MHz	Pass	Inf	1.32M	1.214M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.261M	1.219M
2440MHz	Pass	Inf	1.261M	1.219M
2480MHz	Pass	Inf	1.263M	1.221M

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

BT-BR(1Mbps) EBW

2402MHz

17/01/2020

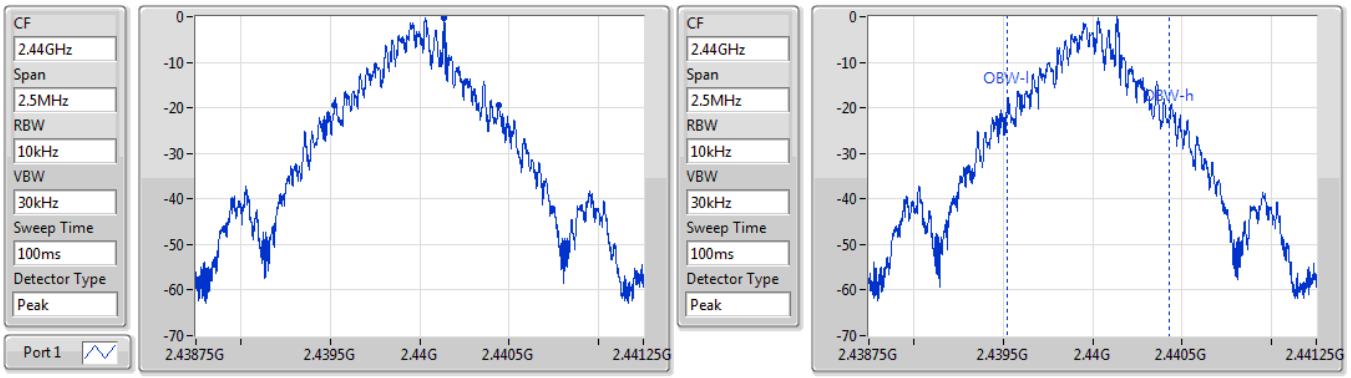


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.75k	2.401534G	2.402453G	907.046k	2.401534G	2.402441G	Inf	1

BT-BR(1Mbps) EBW

2440MHz

17/01/2020

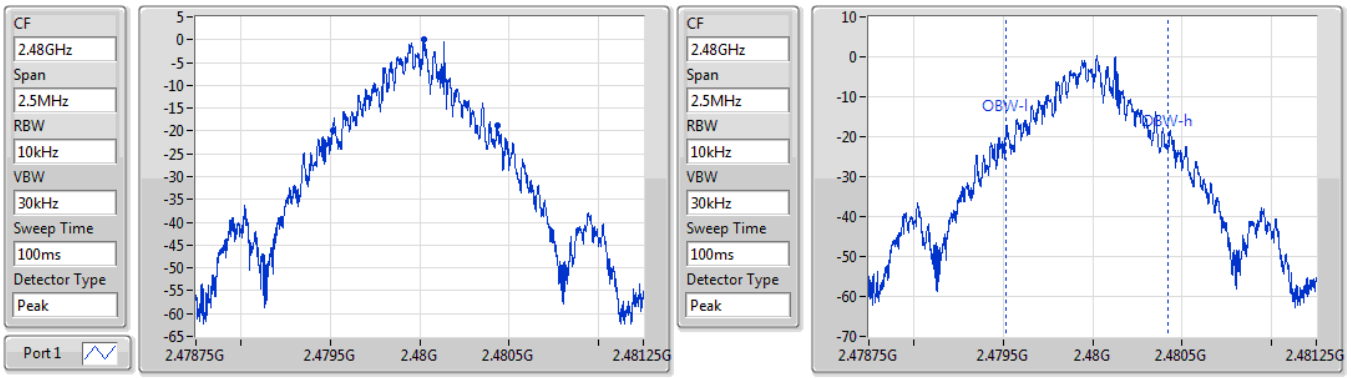


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
920k	2.439524G	2.440444G	904.548k	2.439525G	2.44043G	Inf	1

BT-BR(1Mbps) EBW

2480MHz

17/01/2020

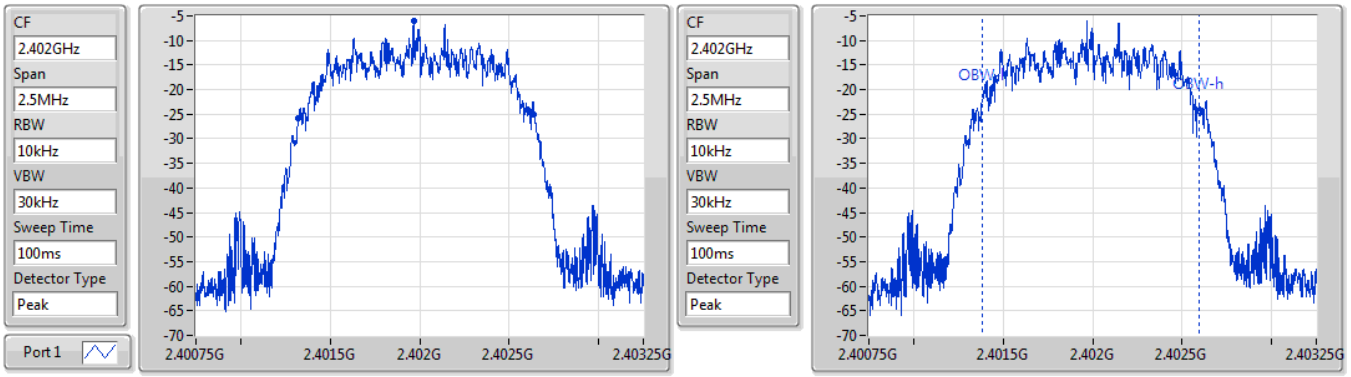


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.75k	2.479516G	2.480435G	903.298k	2.479518G	2.480421G	Inf	1

BT-EDR(2Mbps) EBW

2402MHz

17/01/2020

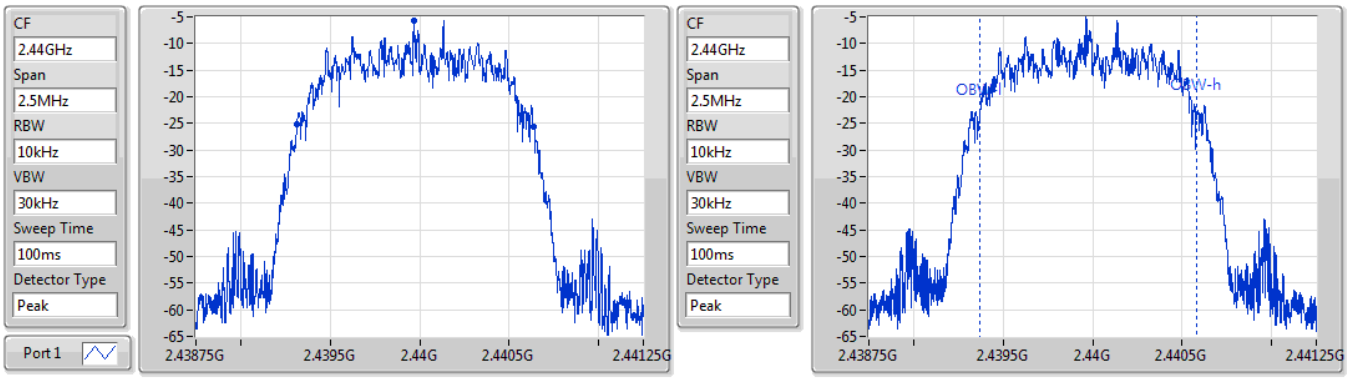


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.318M	2.401323G	2.40264G	1.212M	2.401382G	2.402593G	Inf	1

BT-EDR(2Mbps) EBW

2440MHz

17/01/2020

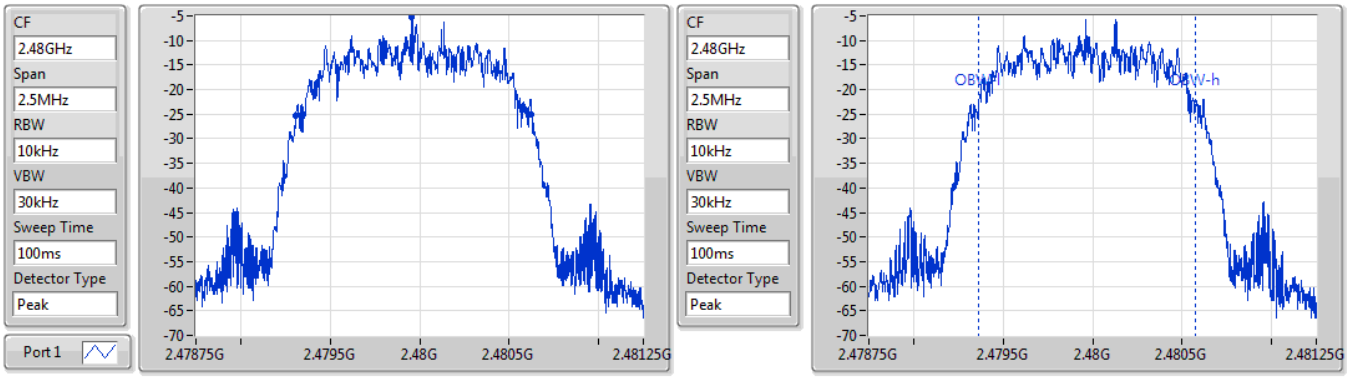


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.323M	2.439313G	2.440635G	1.212M	2.439373G	2.440585G	Inf	1

BT-EDR(2Mbps) EBW

2480MHz

17/01/2020

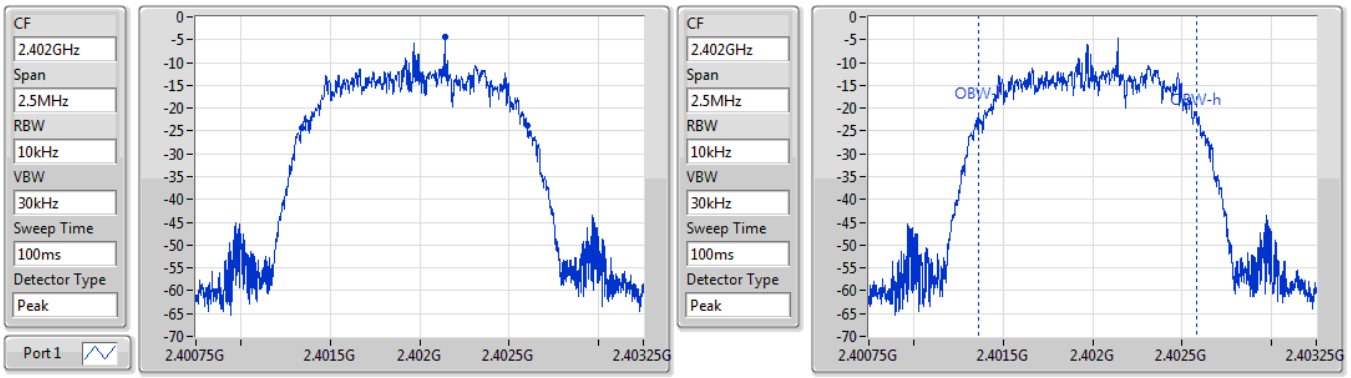


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.32M	2.479305G	2.480625G	1.214M	2.479363G	2.480577G	Inf	1

BT-EDR(3Mbps) EBW

2402MHz

17/01/2020

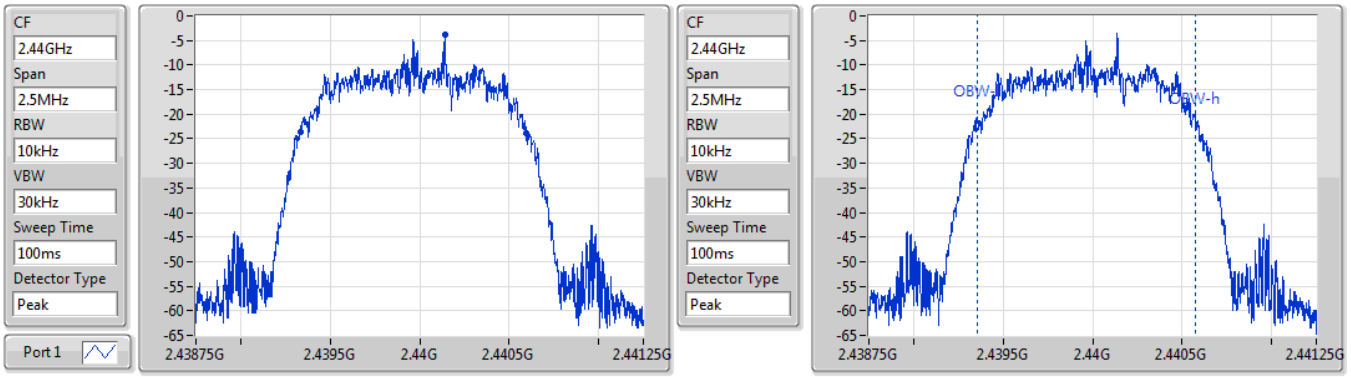


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.261M	2.40134G	2.402601G	1.219M	2.401365G	2.402585G	Inf	1

BT-EDR(3Mbps) EBW

2440MHz

17/01/2020

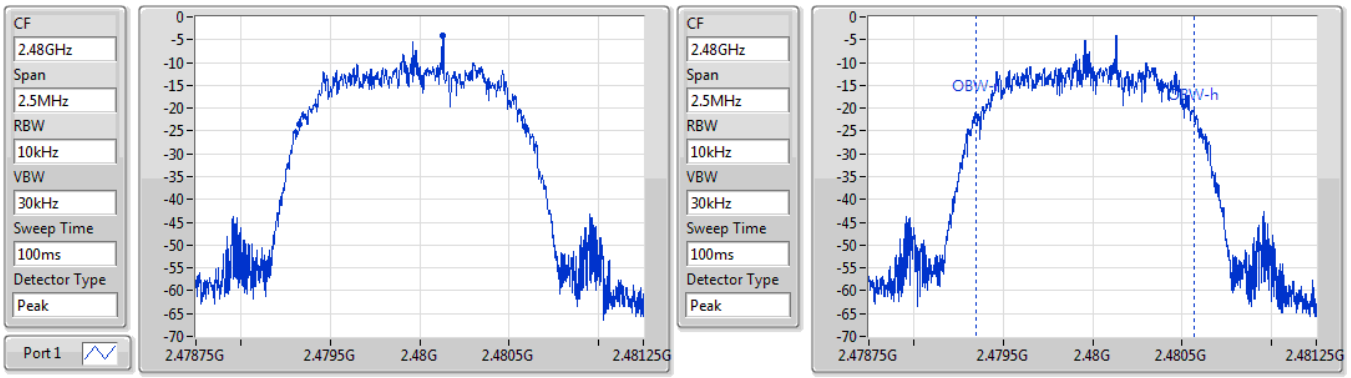


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.261M	2.439333G	2.440594G	1.219M	2.439357G	2.440576G	Inf	1

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

2480MHz

17/01/2020



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.263M	2.479326G	2.480589G	1.221M	2.479349G	2.48057G	Inf	1

Summary

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

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402142G	2.403141G	999k	611.8875k
2440MHz	Pass	2.440133G	2.441132G	999k	612.72k
2480MHz	Pass	2.479125G	2.480127G	1.002M	611.8875k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.402143G	2.403142G	999k	877.788k
2440MHz	Pass	2.440134G	2.441136G	1.002M	881.118k
2480MHz	Pass	2.47913G	2.48013G	1.0005M	879.12k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.40214G	2.403139G	999k	839.826k
2440MHz	Pass	2.440134G	2.441133G	999k	839.826k
2480MHz	Pass	2.479127G	2.480127G	1.0005M	841.158k

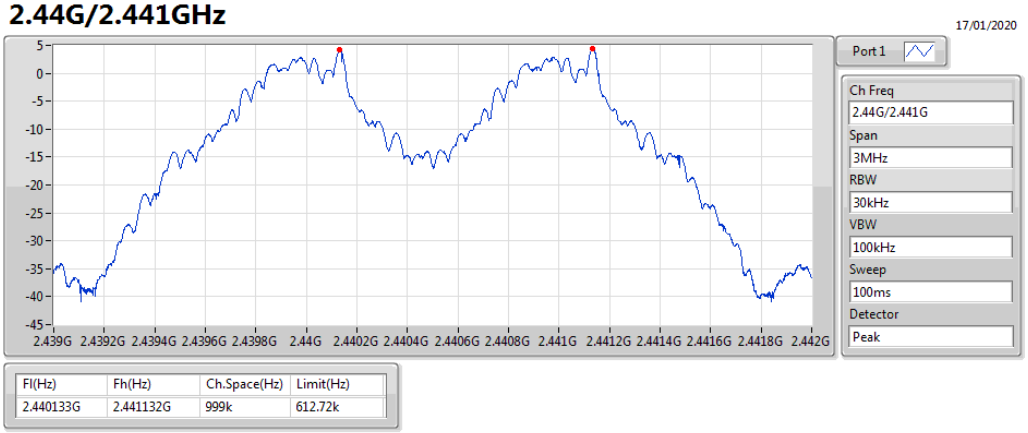
BT-BR(1Mbps) **Channel Separation**

2.402G/2.403GHz

Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402142G	2.403141G	999k	611.8875k

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

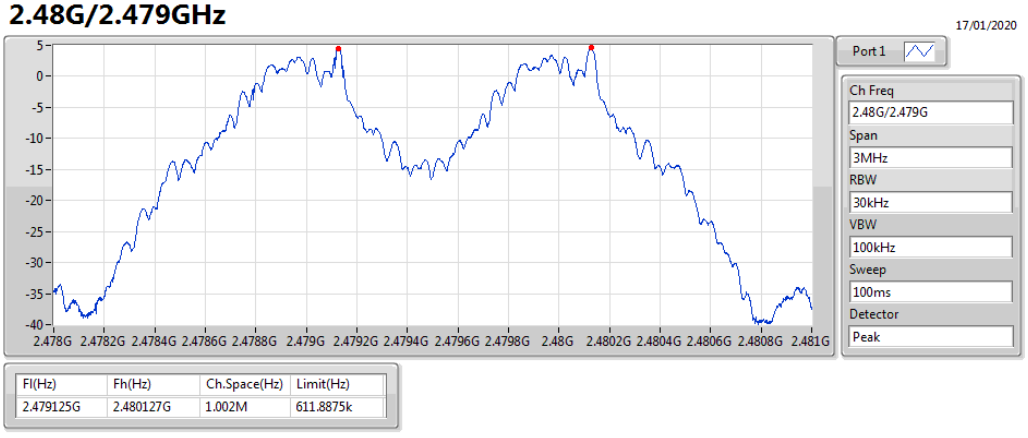
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440133G	2.441132G	999k	612.72k

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

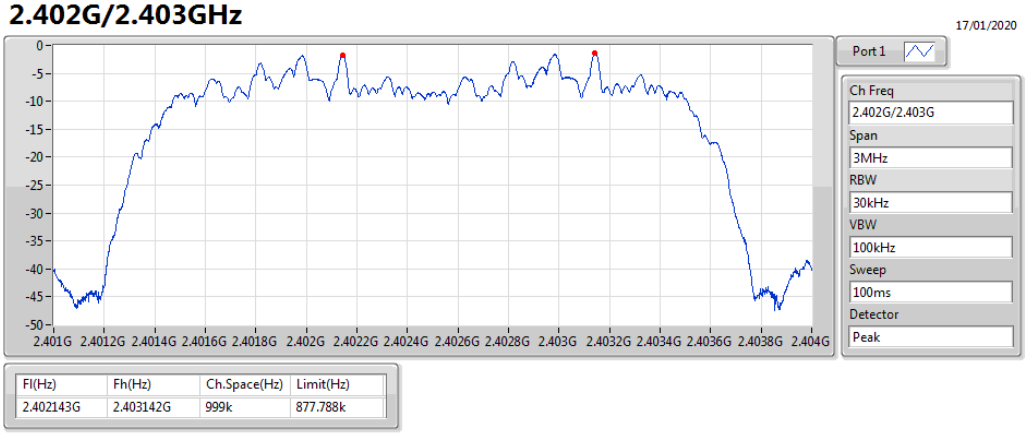
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479125G	2.480127G	1.002M	611.8875k

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

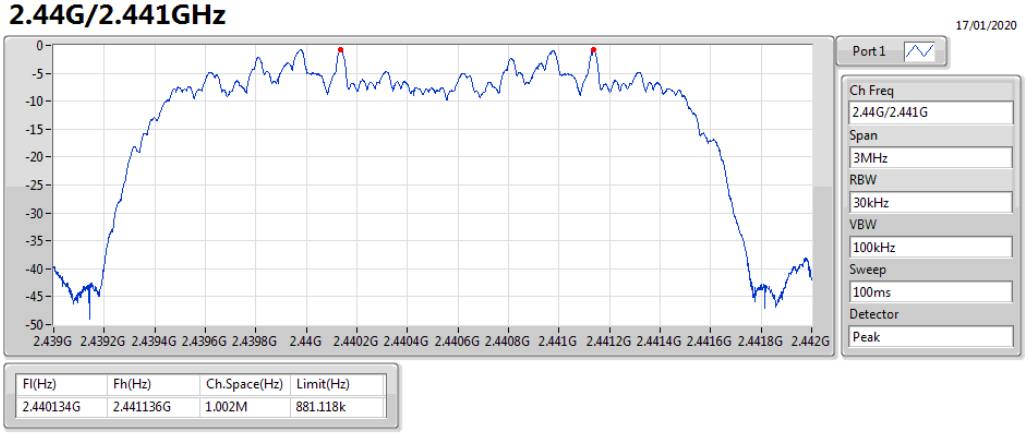
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402143G	2.403142G	999k	877.788k

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

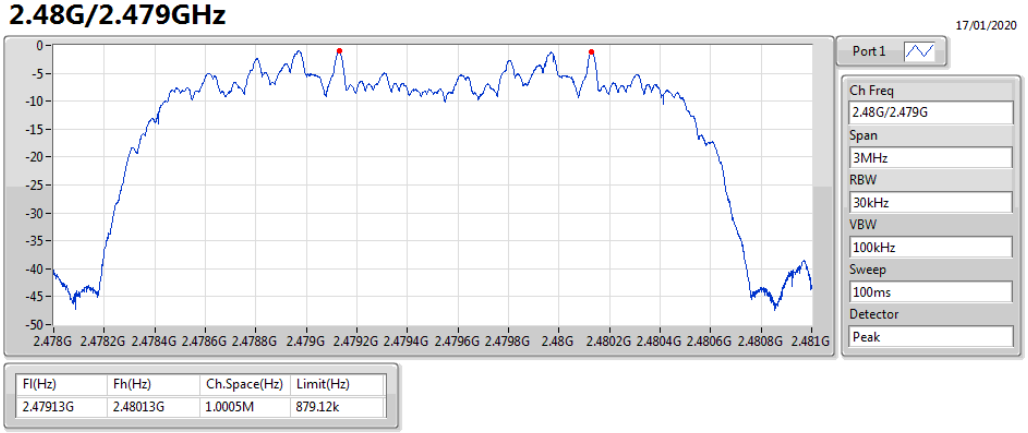
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440134G	2.441136G	1.002M	881.118k

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

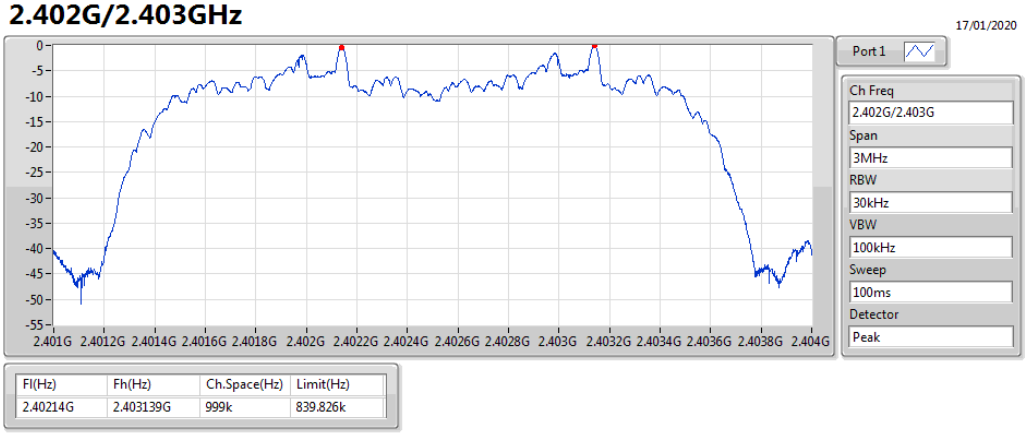
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.47913G	2.48013G	1.0005M	879.12k

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

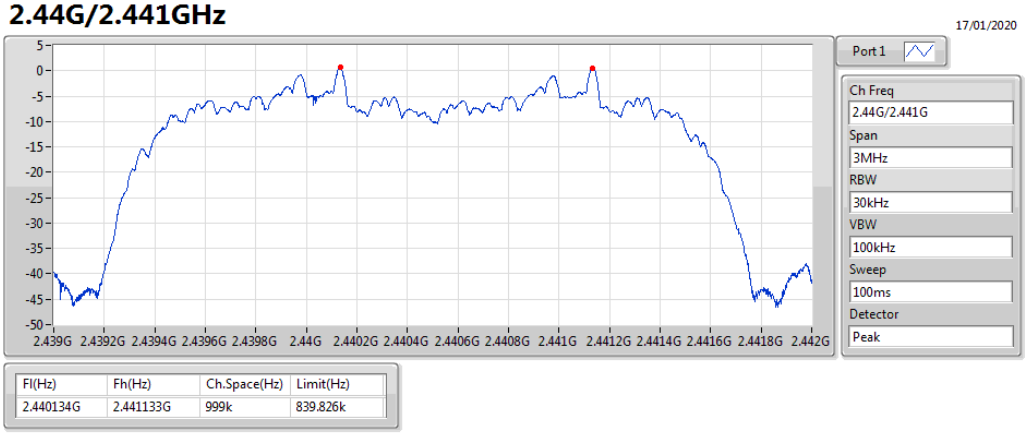
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.40214G	2.403139G	999k	839.826k

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

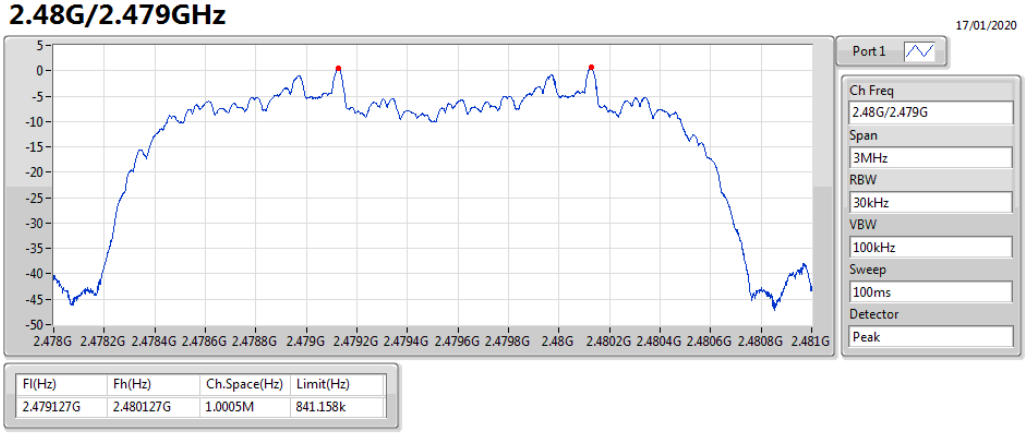
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440134G	2.441133G	999k	839.826k

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

2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479127G	2.480127G	1.0005M	841.158k

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	5.97	0.00395
BT-EDR(2Mbps)	2.04	0.00160
BT-EDR(3Mbps)	2.24	0.00167

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.995	4.29	21.00
2440MHz	Pass	2.995	5.69	21.00
2480MHz	Pass	2.995	5.97	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.995	1.14	21.00
2440MHz	Pass	2.995	2.04	21.00
2480MHz	Pass	2.995	1.75	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.995	1.15	21.00
2440MHz	Pass	2.995	2.24	21.00
2480MHz	Pass	2.995	2.05	21.00

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

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	6.46	0.00443
BT-EDR(2Mbps)	4.93	0.00311
BT-EDR(3Mbps)	5.32	0.00340

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	2.995	4.92	21.00
2440MHz	Pass	2.995	6.09	21.00
2480MHz	Pass	2.995	6.46	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	2.995	4.11	21.00
2440MHz	Pass	2.995	4.93	21.00
2480MHz	Pass	2.995	4.66	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	2.995	4.19	21.00
2440MHz	Pass	2.995	5.32	21.00
2480MHz	Pass	2.995	5.07	21.00

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

Summary

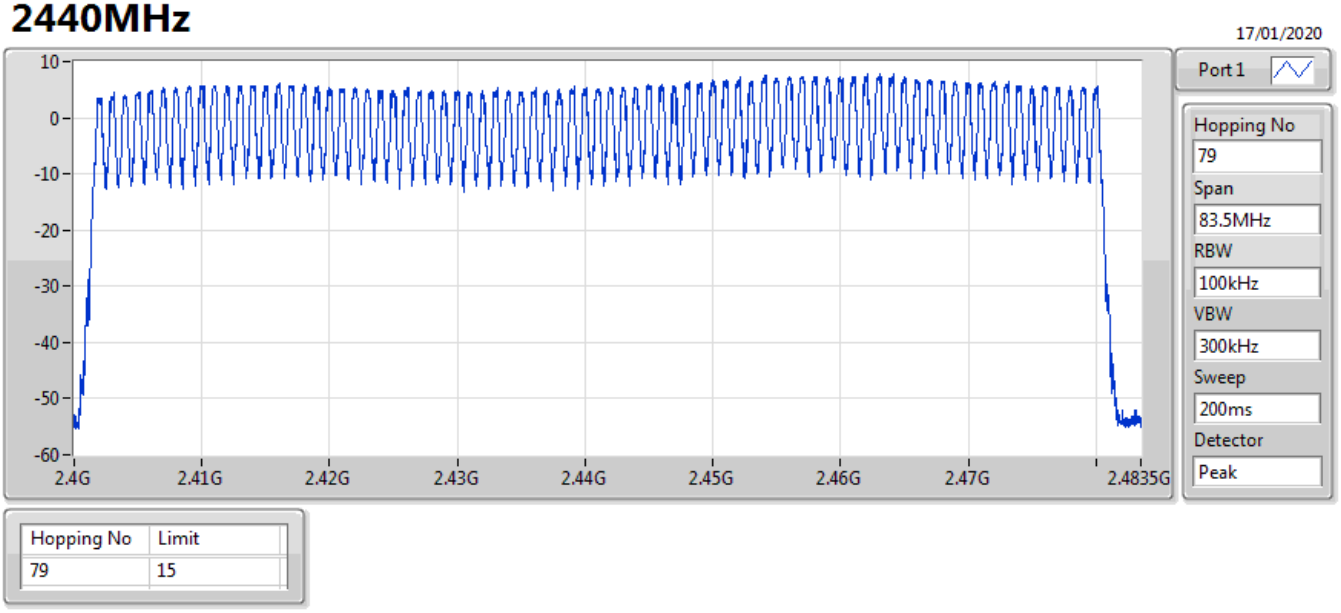
Mode	Max-Hop No
2.4-2.4835GHz	-
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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) **Hopping Ch**

2440MHz

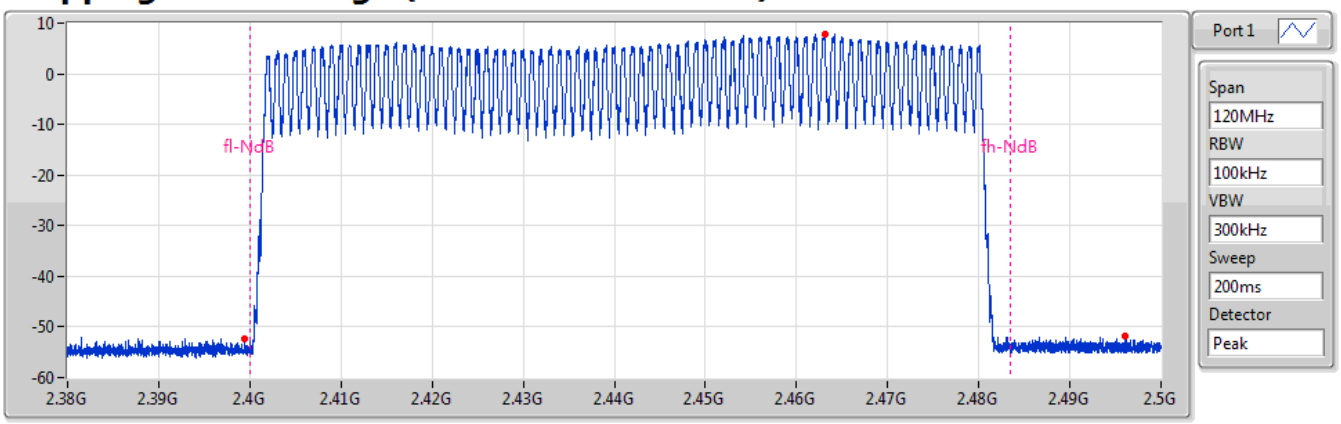


Hopping No	Limit
79	15

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

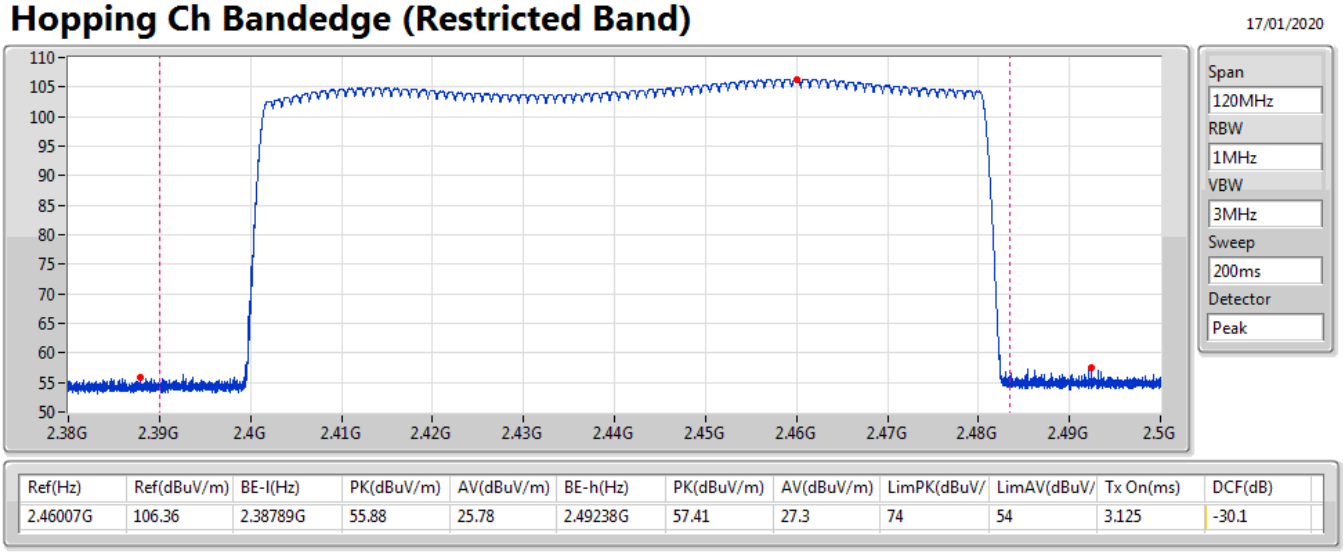


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.11	2.46313G	7.89	2.399455G	-52.22	2.49613G	-51.68

BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

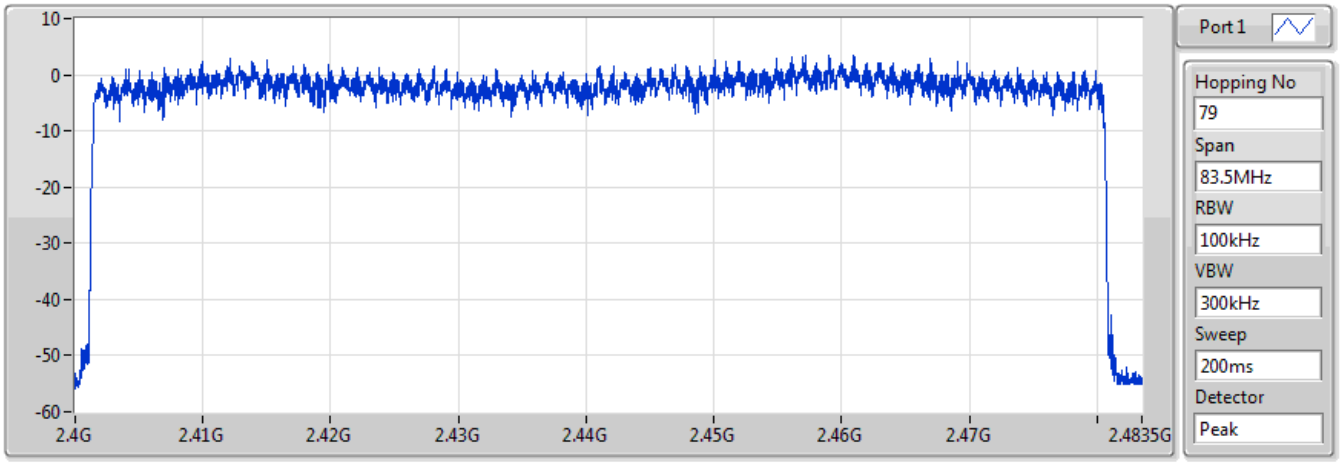


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.46007G	106.36	2.38789G	55.88	25.78	2.49238G	57.41	27.3	74	54	3.125	-30.1

BT-EDR(2Mbps)

2440MHz

Hopping Ch

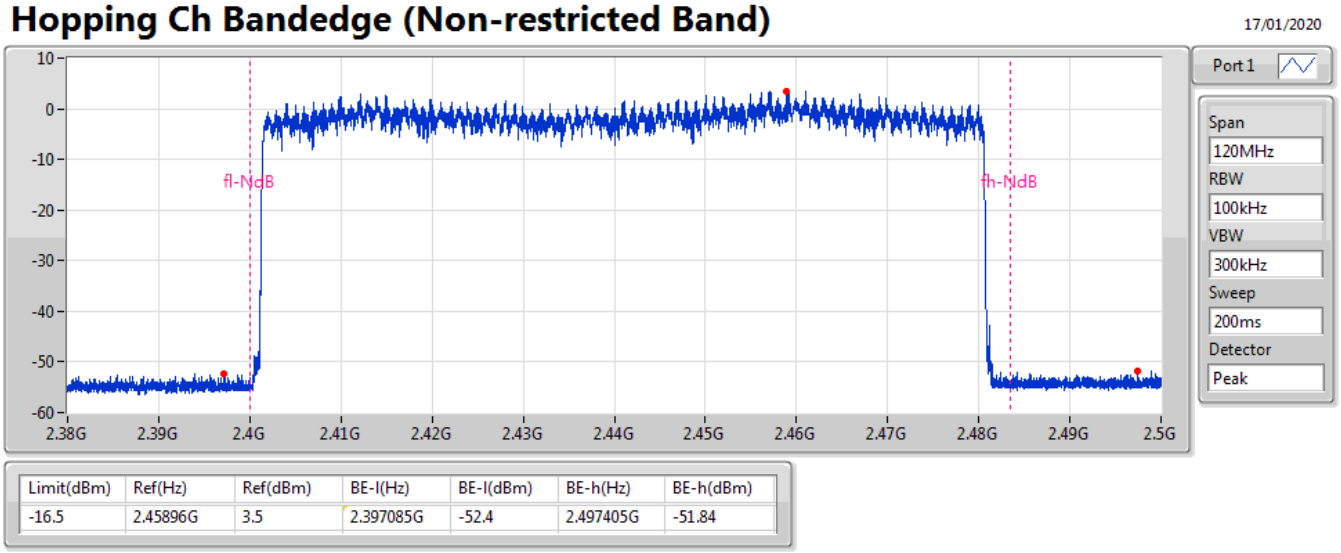


Hopping No	Limit
79	15

BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

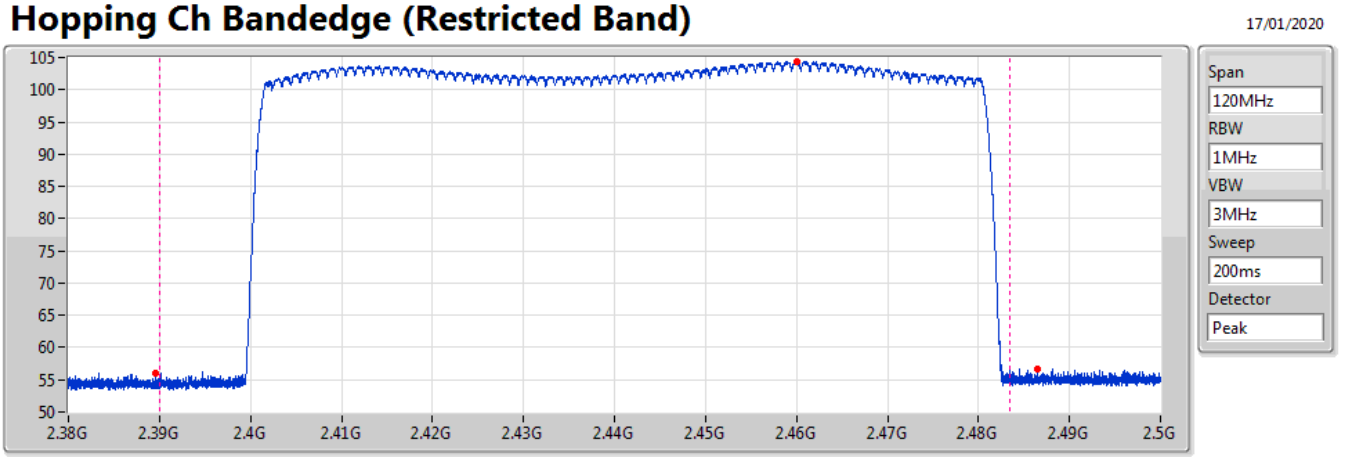


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.5	2.45896G	3.5	2.397085G	-52.4	2.497405G	-51.84

BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

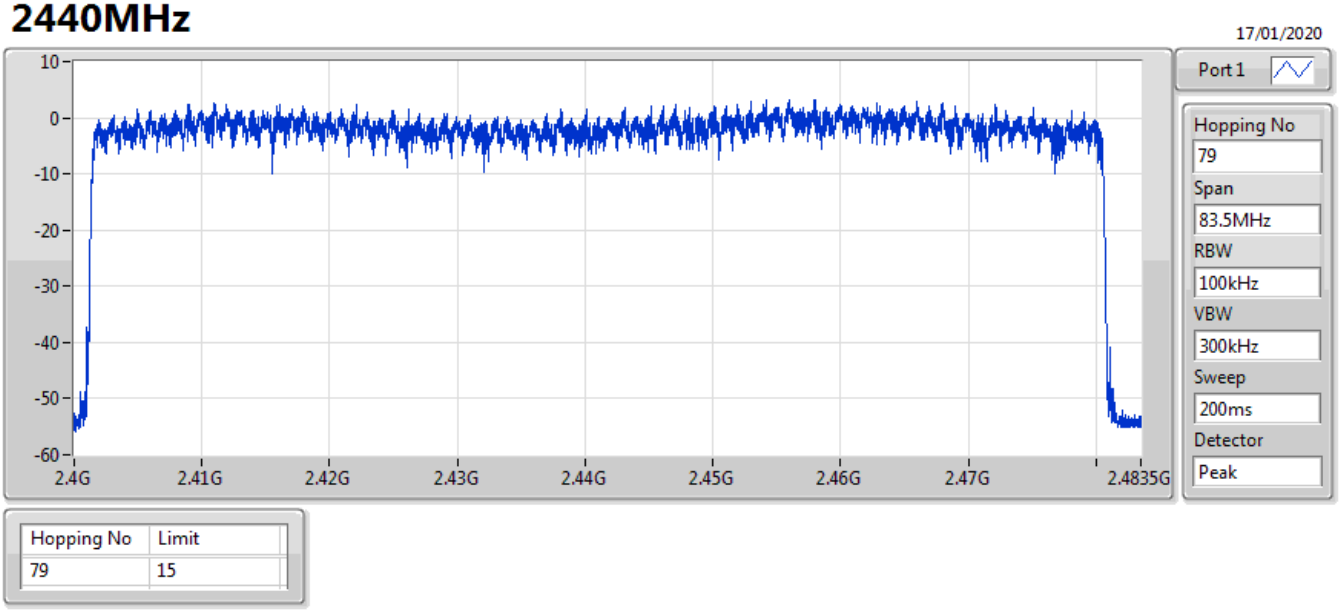


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.4601G	104.37	2.389555G	55.99	25.89	2.48641G	56.73	26.63	74	54	3.125	-30.1

BT-EDR(3Mbps)

2440MHz

Hopping Ch

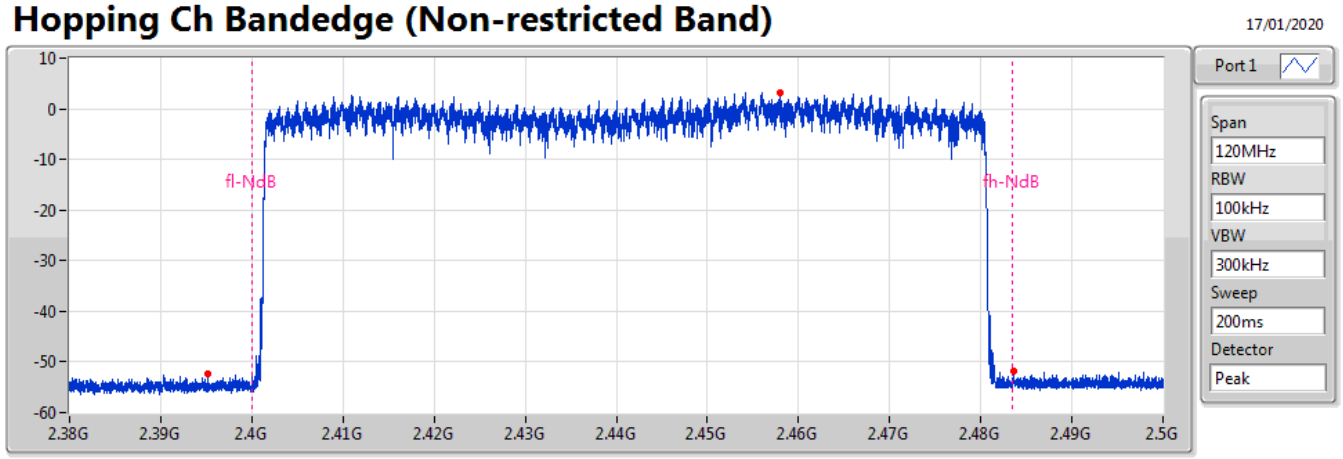


Hopping No	Limit
79	15

BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

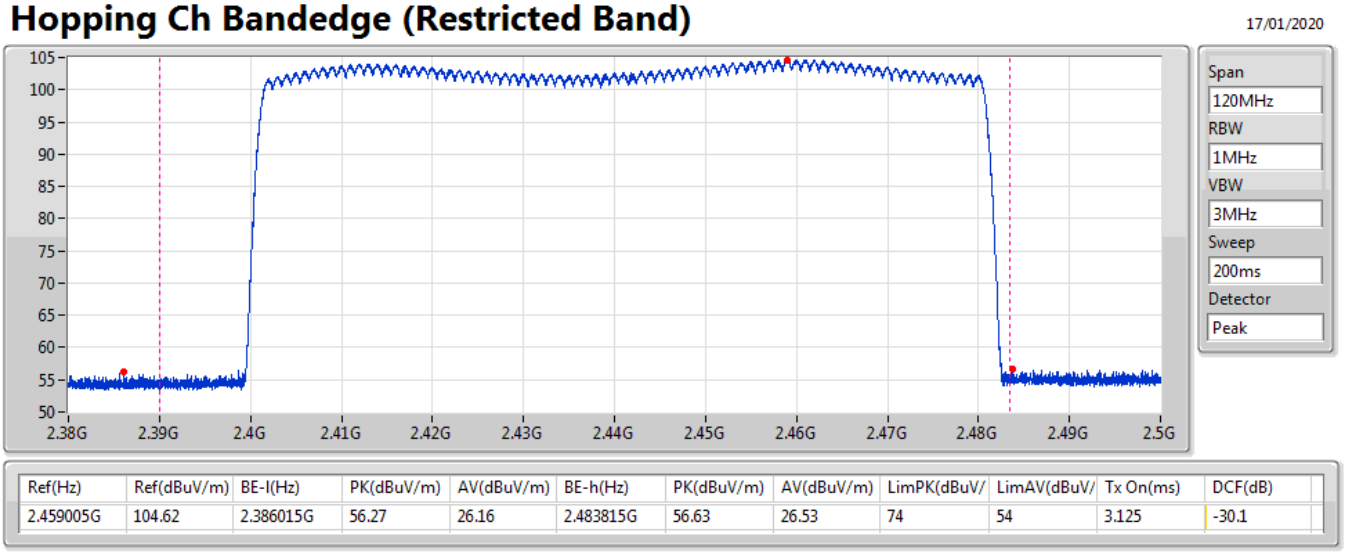


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.76	2.457955G	3.24	2.395195G	-52.26	2.48359G	-51.83

BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.459005G	104.62	2.386015G	56.27	26.16	2.483815G	56.63	26.53	74	54	3.125	-30.1

Summary

Mode	Max-Dwell (s)
2.4-2.4835GHz	-
BT-BR(1Mbps)	311.3786m
BT-EDR(2Mbps)	311.61845m
BT-EDR(3Mbps)	305.5156m

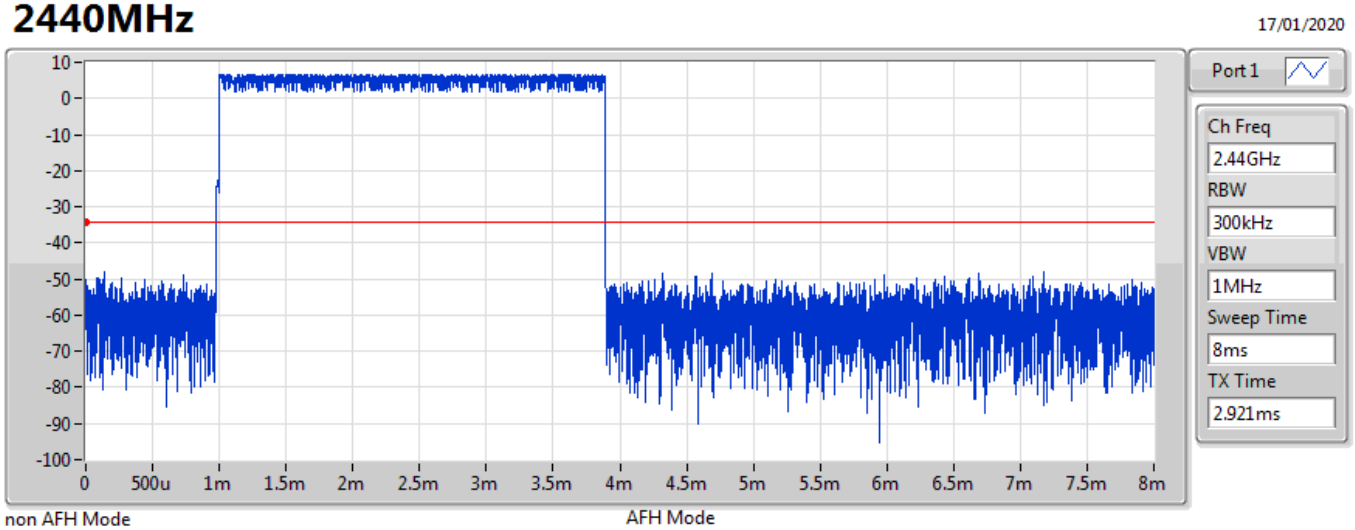
Result

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	311.61845m	400m	2.92325m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	305.5156m	400m	2.866m

BT-BR(1Mbps)

Dwell

2440MHz



non AFH Mode

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

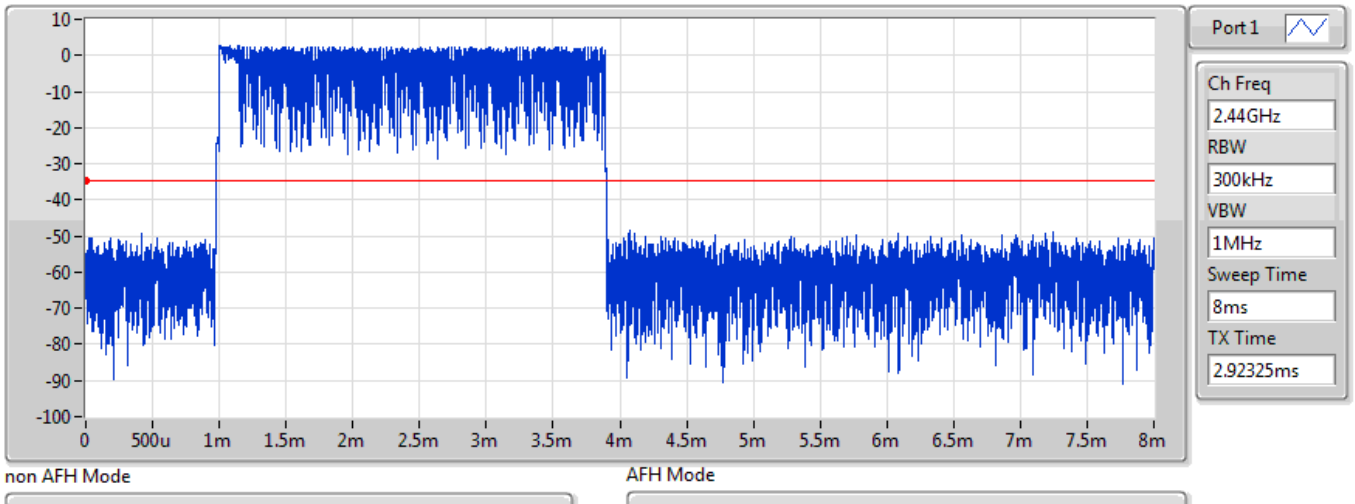
AFH Mode

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

BT-EDR(2Mbps)

Dwell

2440MHz



non AFH Mode

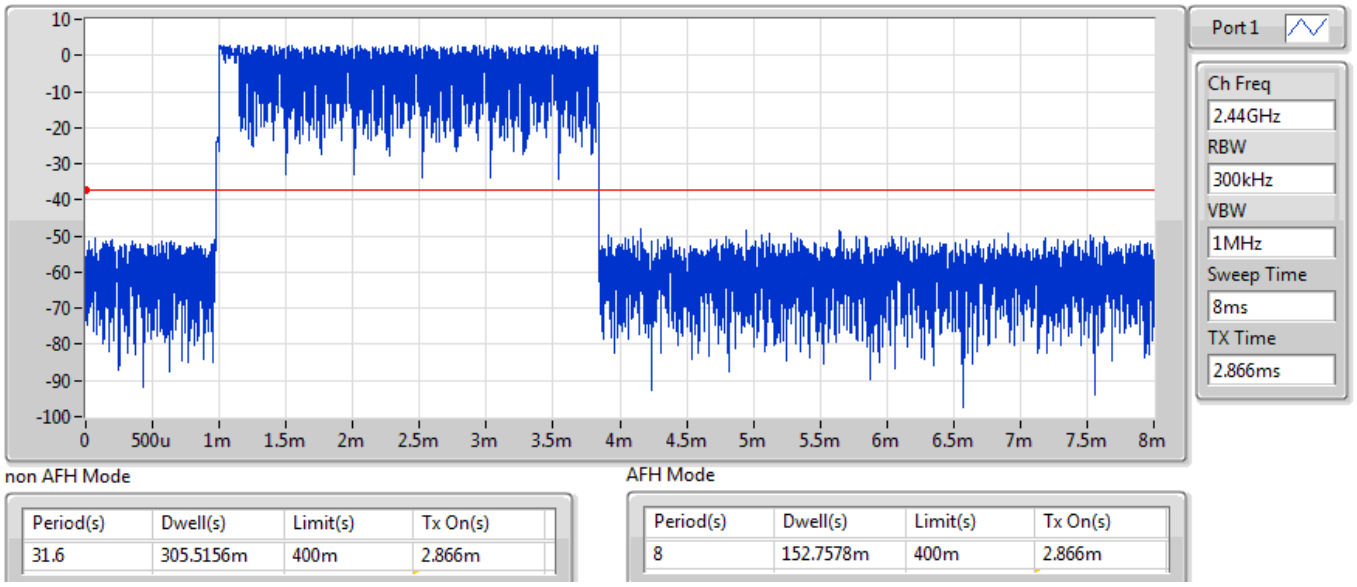
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	311.61845m	400m	2.92325m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	155.809225m	400m	2.92325m

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

2440MHz



non AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	305.5156m	400m	2.866m

AFH Mode

Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	152.7578m	400m	2.866m

Summary

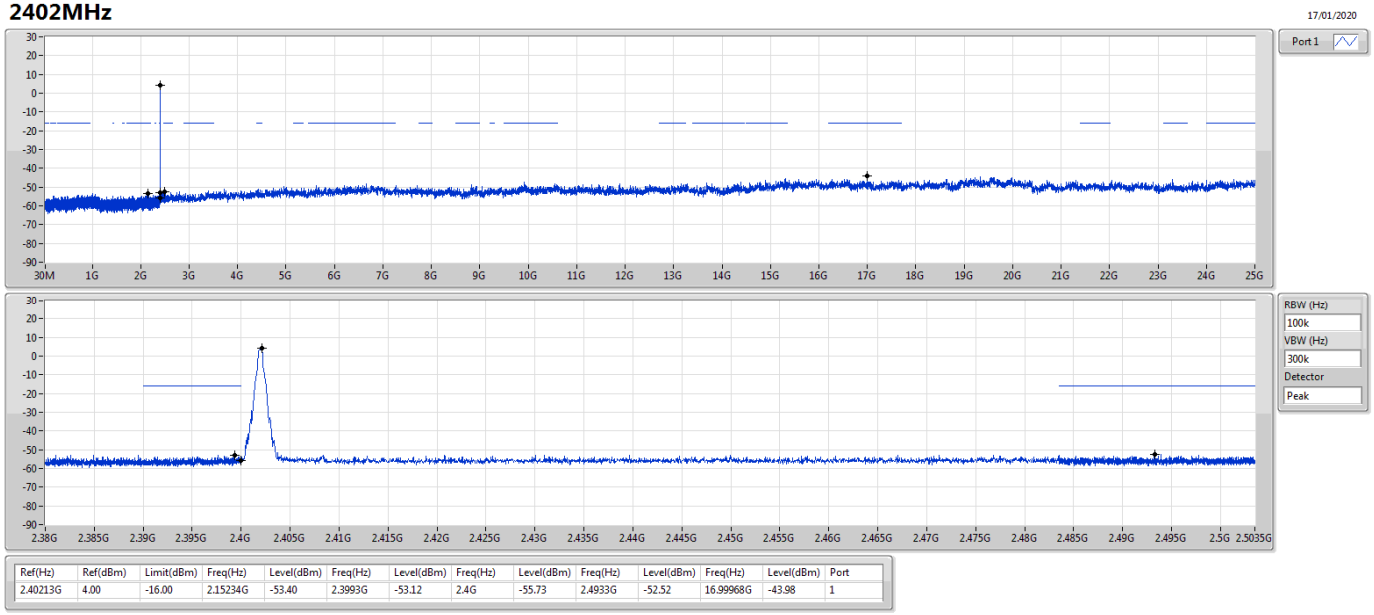
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.40213G	4.00	-16.00	2.15234G	-53.40	2.3993G	-53.12	2.4G	-55.73	2.4933G	-52.52	16.99968G	-43.98	1
BT-EDR(2Mbps)	Pass	2.4018G	0.07	-19.93	952.38M	-53.82	2.39595G	-53.06	2.4835G	-54.62	2.49864G	-52.12	24.23512G	-45.51	1
BT-EDR(3Mbps)	Pass	2.47991G	0.75	-19.25	914.48M	-53.73	2.39313G	-53.12	2.4G	-56.02	2.49625G	-52.39	16.53007G	-45.63	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	2.40213G	4.00	-16.00	2.15234G	-53.40	2.3993G	-53.12	2.4G	-55.73	2.4933G	-52.52	16.99968G	-43.98	1
2440MHz	Pass	2.43995G	5.18	-14.82	2.16409G	-53.40	2.39064G	-53.15	2.4835G	-55.09	2.49991G	-52.52	16.45695G	-44.90	1
2480MHz	Pass	2.47999G	5.21	-14.79	2.01663G	-53.23	2.39153G	-52.94	2.4G	-55.50	2.49064G	-52.33	21.69301G	-45.27	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.4018G	0.07	-19.93	952.38M	-53.82	2.39595G	-53.06	2.4835G	-54.62	2.49864G	-52.12	24.23512G	-45.51	1
2440MHz	Pass	2.44016G	1.37	-18.63	823.42M	-53.00	2.39857G	-52.96	2.4835G	-55.81	2.48937G	-52.25	15.14653G	-45.47	1
2480MHz	Pass	2.47999G	1.10	-18.90	1.65385G	-54.23	2.3957G	-53.12	2.4G	-54.40	2.50128G	-51.38	16.32198G	-44.41	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40192G	0.38	-19.62	848.68M	-53.82	2.39827G	-53.01	2.4G	-55.74	2.49916G	-52.80	16.96875G	-45.27	1
2440MHz	Pass	2.44012G	1.89	-18.11	911.25M	-53.25	2.39304G	-53.10	2.4835G	-55.89	2.48461G	-52.31	16.57225G	-44.96	1
2480MHz	Pass	2.47991G	0.75	-19.25	914.48M	-53.73	2.39313G	-53.12	2.4G	-56.02	2.49625G	-52.39	16.53007G	-45.63	1

BT-BR(1Mbps) **CSE NdB**

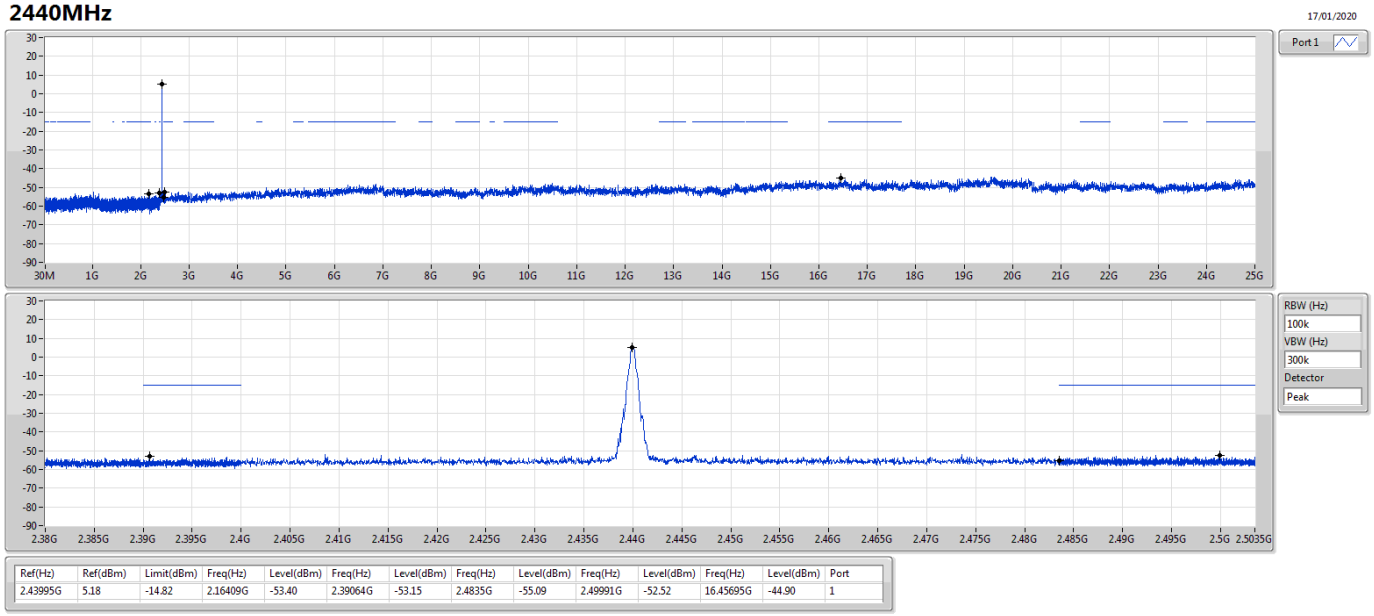
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40213G	4.00	-16.00	2.15234G	-53.40	2.3993G	-53.12	2.4G	-55.73	2.4933G	-52.52	16.99968G	-43.98	1

BT-BR(1Mbps) **CSE NdB**

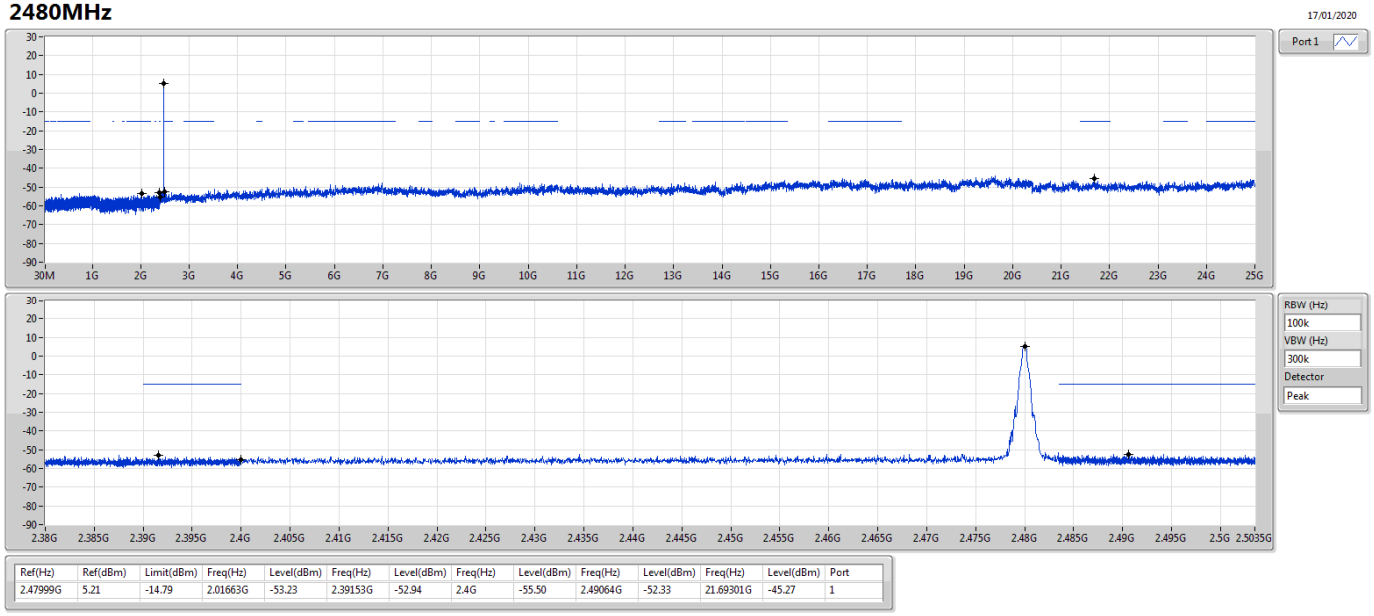
2440MHz



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
2.43995G	5.18	-14.82	2.16409G	-53.40	2.39064G	-53.15	2.4835G	-55.09	2.49991G	-52.52	16.45695G	-44.90	1

BT-BR(1Mbps) **CSE NdB**

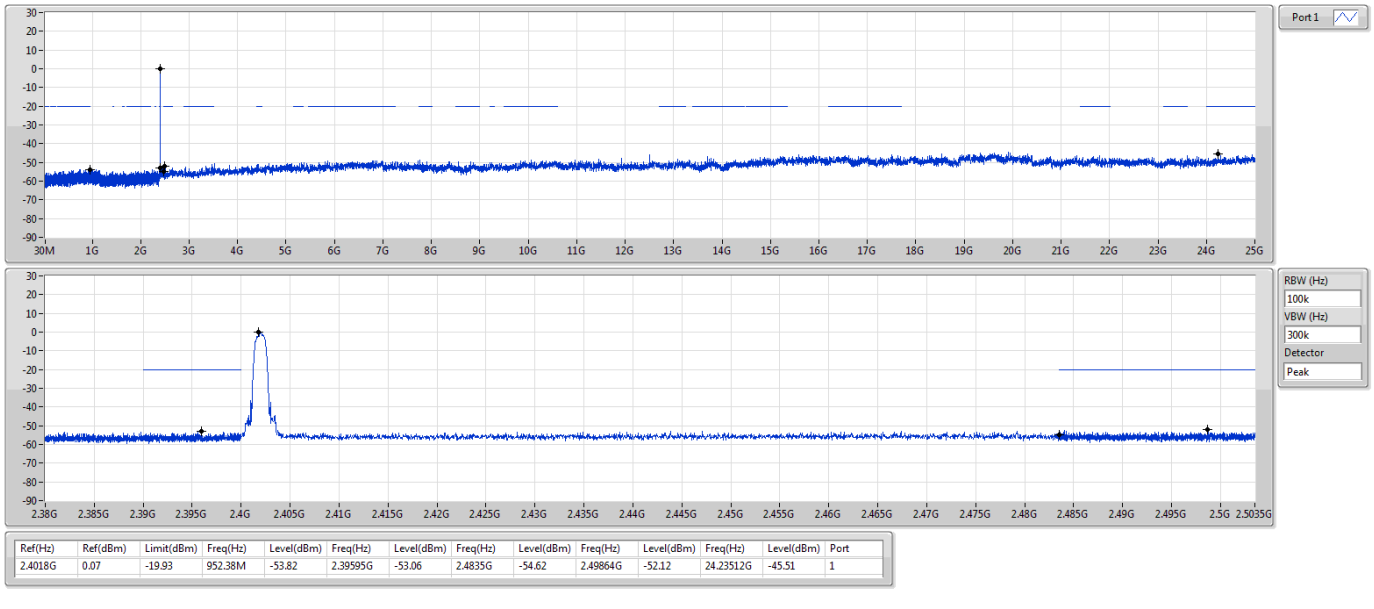
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	5.21	-14.79	2.01663G	-53.23	2.39153G	-52.94	2.4G	-55.50	2.49064G	-52.33	21.69301G	-45.27	1

BT-EDR(2Mbps) **CSE NdB**

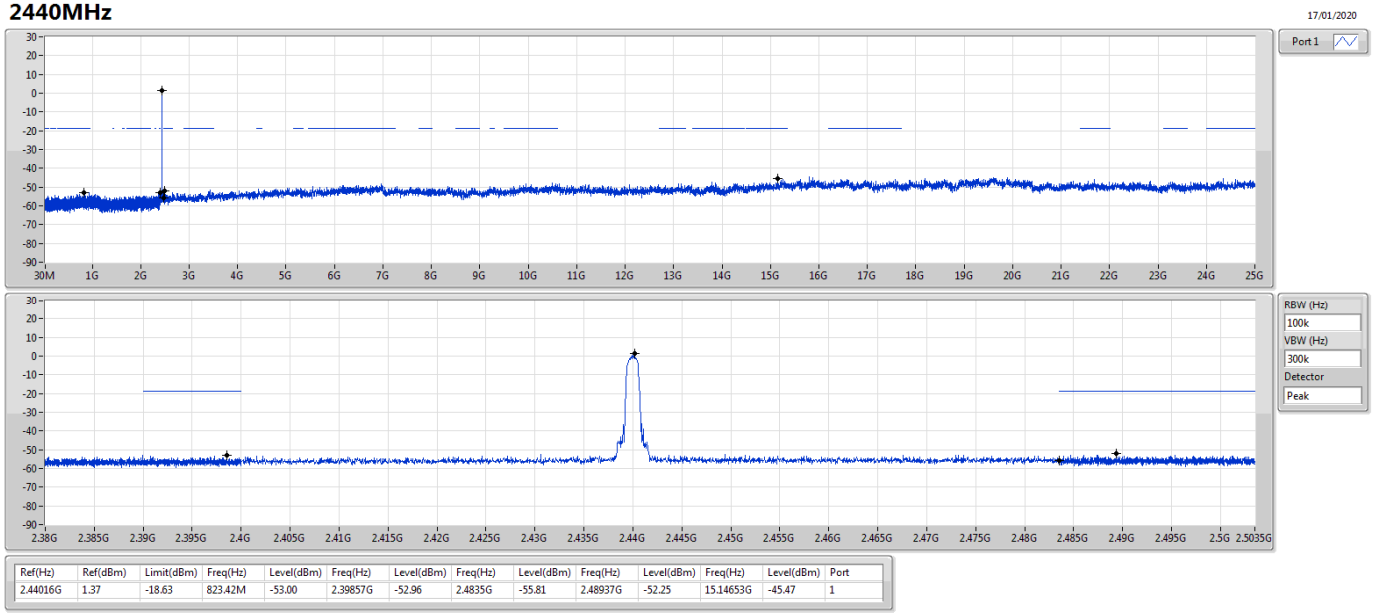
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4018G	0.07	-19.93	952.38M	-53.82	2.39595G	-53.06	2.4835G	-54.62	2.49864G	-52.12	24.23512G	-45.51	1

BT-EDR(2Mbps) **CSE NdB**

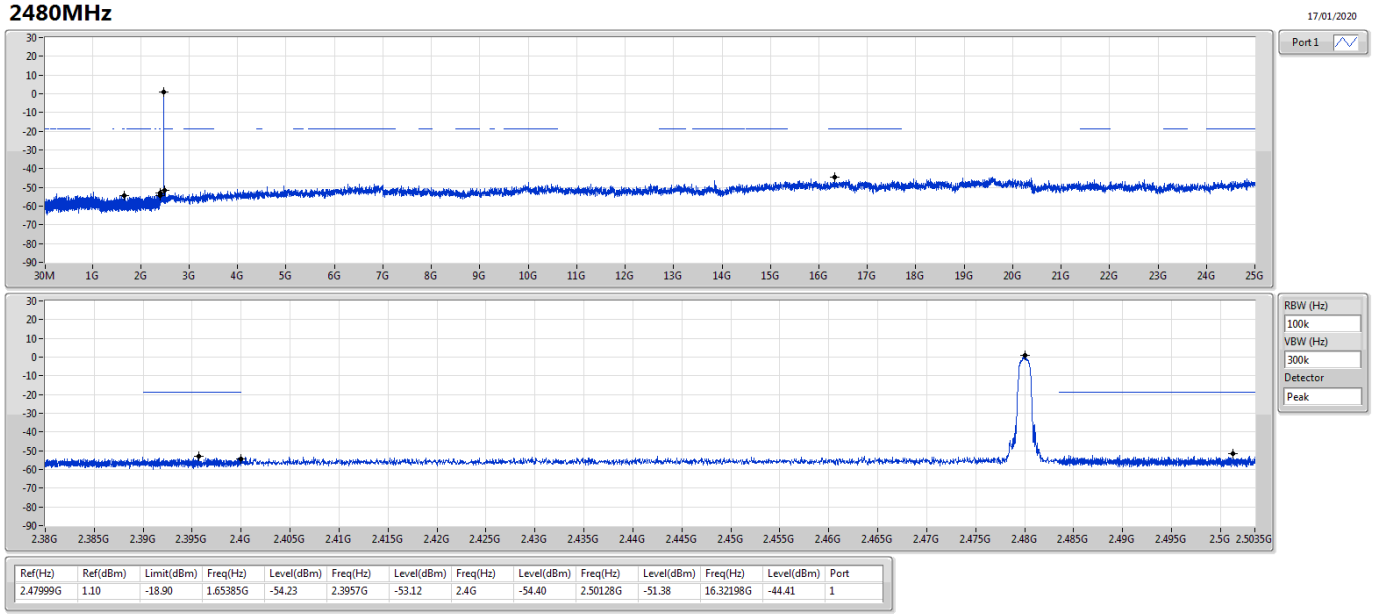
2440MHz



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
2.44016G	1.37	-18.63	823.42M	-53.00	2.39857G	-52.96	2.4835G	-55.81	2.48937G	-52.25	15.14653G	-45.47	1

BT-EDR(2Mbps) **CSE NdB**

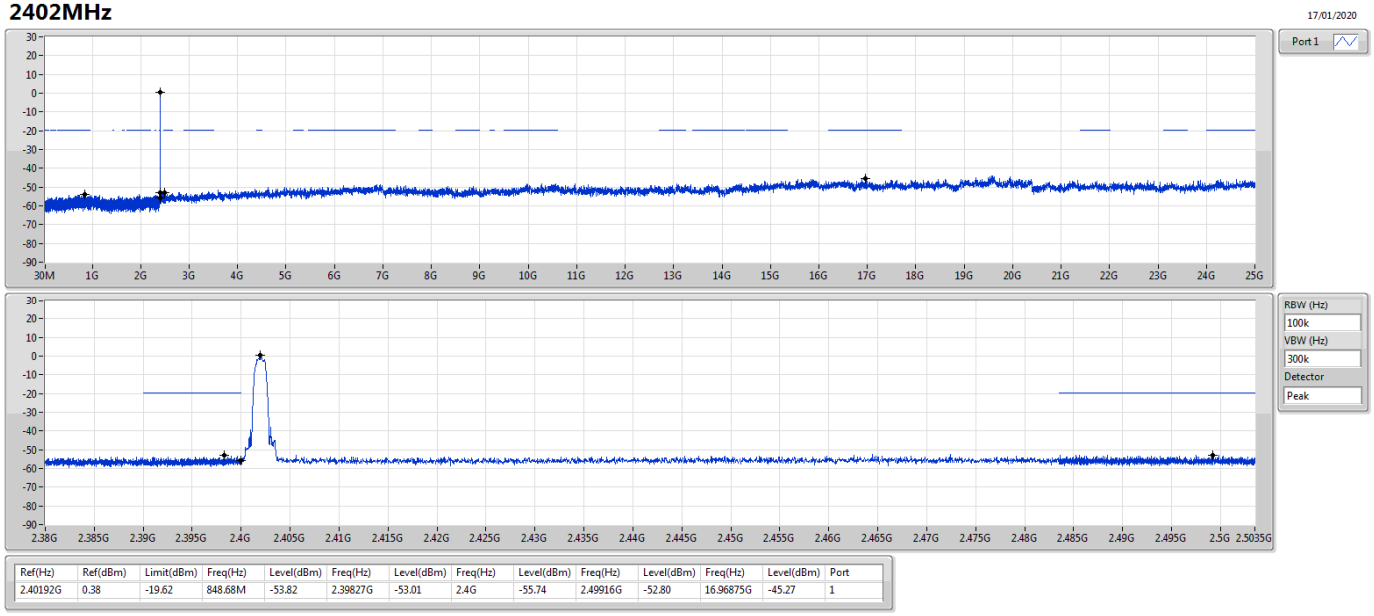
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	1.10	-18.90	1.65385G	-54.23	2.3957G	-53.12	2.4G	-54.40	2.50128G	-51.38	16.32198G	-44.41	1

BT-EDR(3Mbps) **CSE NdB**

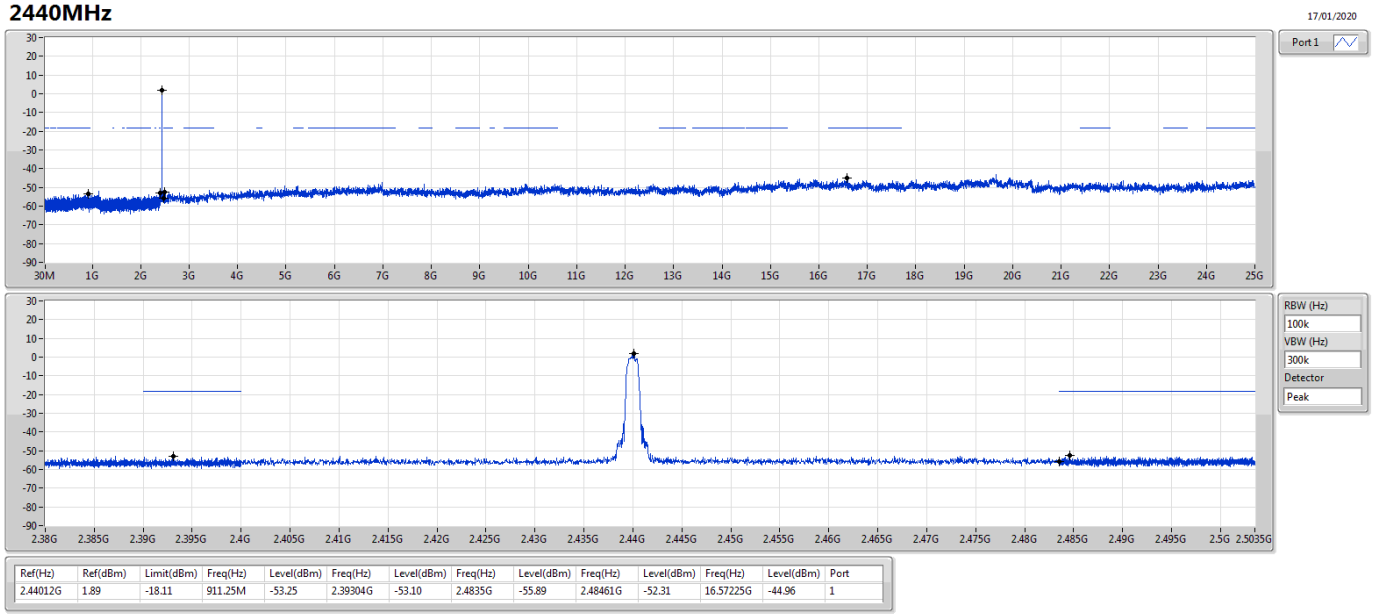
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40192G	0.38	-19.62	848.68M	-53.82	2.39827G	-53.01	2.4G	-55.74	2.49916G	-52.80	16.96875G	-45.27	1

BT-EDR(3Mbps) **CSE NdB**

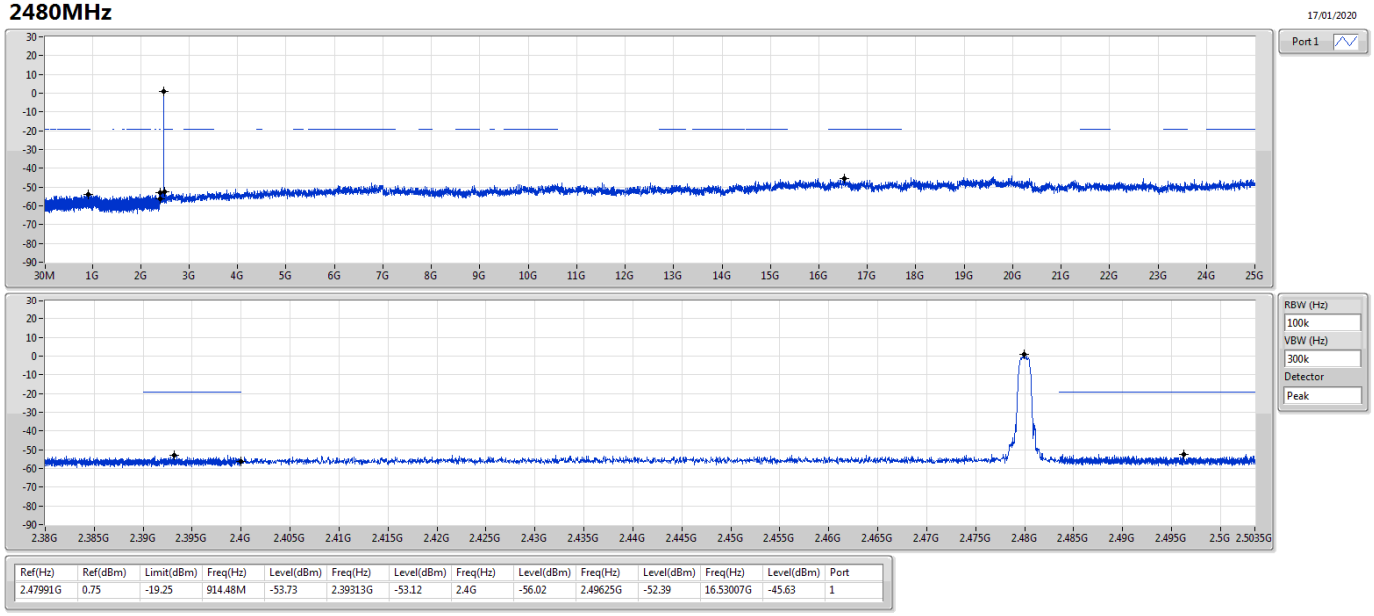
2440MHz



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
2.44012G	1.89	-18.11	911.25M	-53.25	2.39304G	-53.10	2.4835G	-55.89	2.48461G	-52.31	16.57225G	-44.96	1

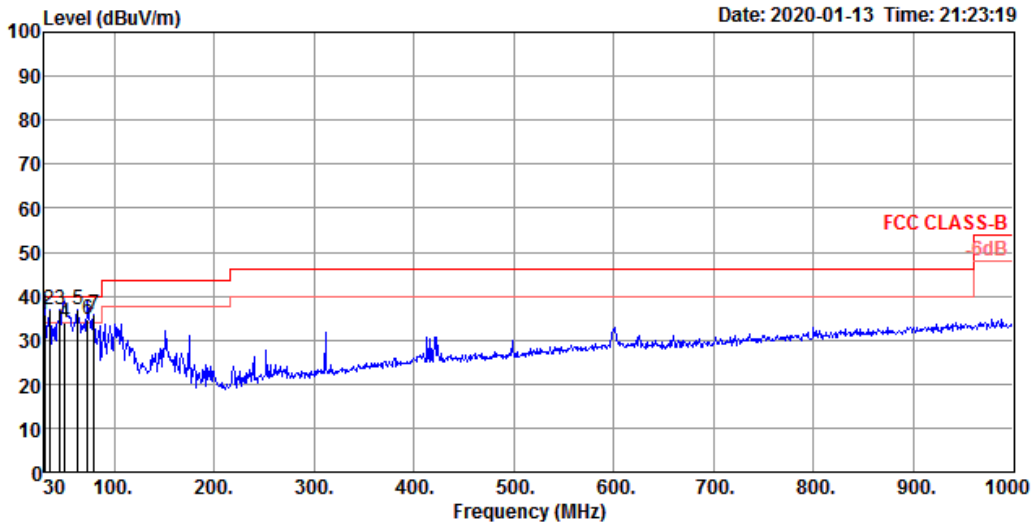
BT-EDR(3Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47991G	0.75	-19.25	914.48M	-53.73	2.39313G	-53.12	2.4G	-56.02	2.49625G	-52.39	16.53007G	-45.63	1

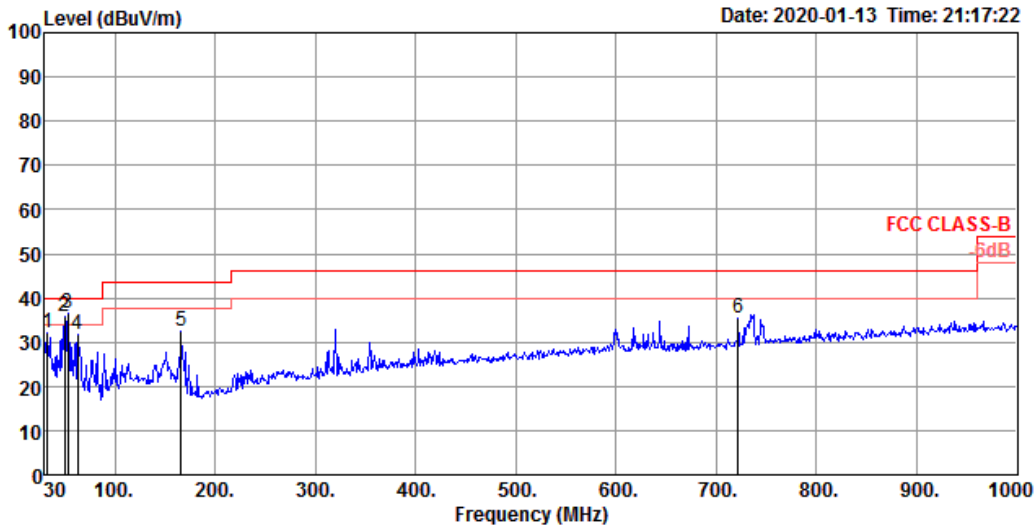
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.00	35.82	40.00	-4.18	41.03	0.67	25.70	31.58	100	6	QP	VERTICAL
2	34.85	36.91	40.00	-3.09	44.77	0.75	22.87	31.48	100	223	Peak	VERTICAL
3	45.52	36.72	40.00	-3.28	50.65	0.90	16.78	31.61	100	321	Peak	VERTICAL
4	50.37	33.92	40.00	-6.08	50.02	0.92	14.72	31.74	100	16	QP	VERTICAL
5	63.95	36.90	40.00	-3.10	55.17	1.00	12.60	31.87	100	344	Peak	VERTICAL
6	73.65	34.62	40.00	-5.38	52.54	1.10	12.86	31.88	100	158	QP	VERTICAL
7	79.47	35.85	40.00	-4.15	53.30	1.15	13.26	31.86	150	233	Peak	VERTICAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	32.06	40.00	-7.94	38.87	0.72	23.99	31.52	300	270	Peak	HORIZONTAL
2	49.40	35.93	40.00	-4.07	51.64	0.92	15.09	31.72	300	150	Peak	HORIZONTAL
3	53.28	36.53	40.00	-3.47	53.35	0.92	14.04	31.78	300	198	Peak	HORIZONTAL
4	62.98	31.56	40.00	-8.44	49.82	1.00	12.60	31.86	300	243	Peak	HORIZONTAL
5	165.80	32.57	43.50	-10.93	46.62	1.64	16.19	31.88	200	278	Peak	HORIZONTAL
6	721.61	35.31	46.00	-10.69	38.32	3.54	25.87	32.42	125	338	Peak	HORIZONTAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

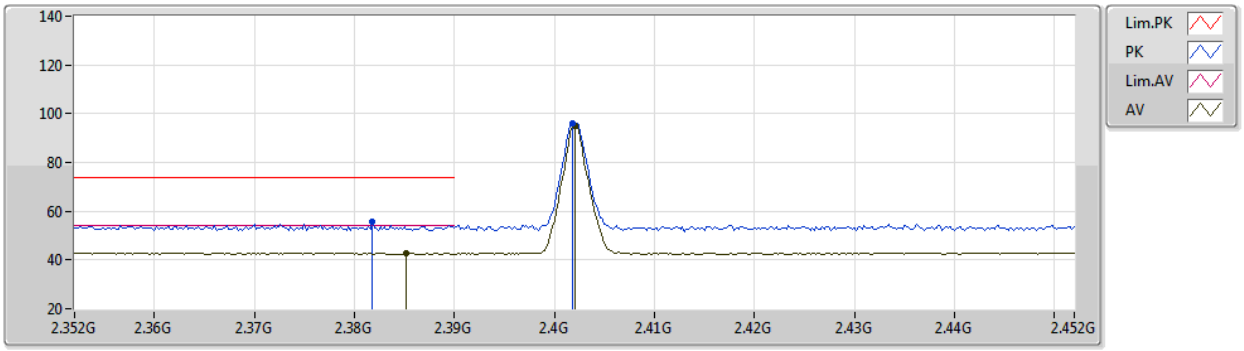
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	AV	2.4835G	52.29	54.00	-1.71	3	Horizontal	296	1.98	-

BT-BR(1Mbps)

2402MHz_TX

16/01/2020



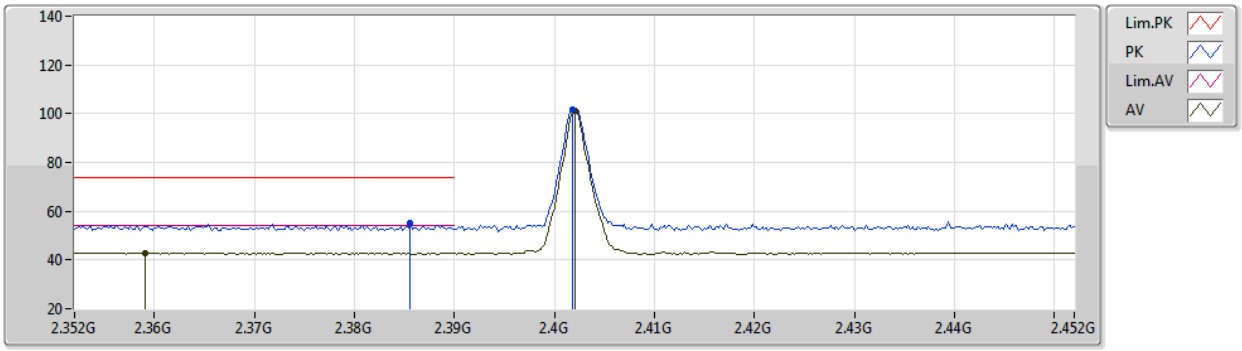
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3818G	55.56	74.00	-18.44	25.34	3	Vertical	329	2.34	-	27.52	2.70	-
AV	2.3852G	42.89	54.00	-11.11	12.68	3	Vertical	329	2.34	-	27.51	2.70	-
PK	2.4018G	96.24	Inf	-Inf	66.03	3	Vertical	329	2.34	-	27.51	2.70	-
AV	2.402G	95.25	Inf	-Inf	65.04	3	Vertical	329	2.34	-	27.51	2.70	-

BT-BR(1Mbps)

2402MHz_TX

16/01/2020



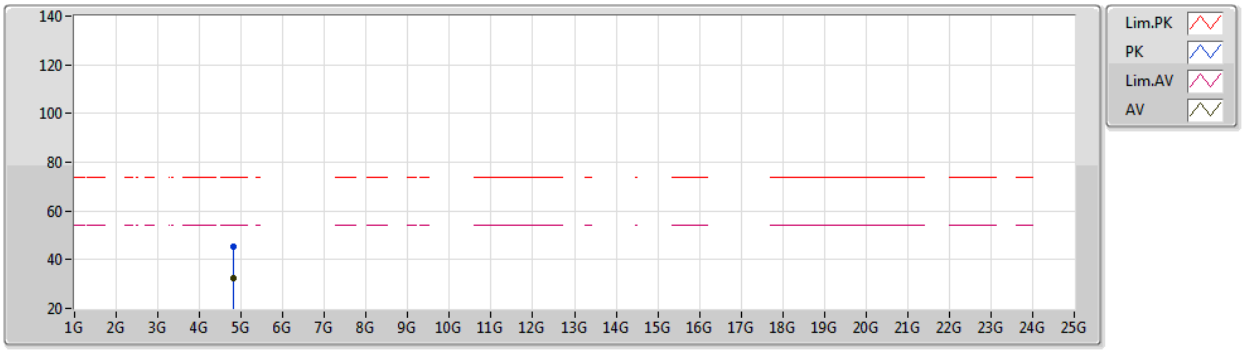
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3856G	55.11	74.00	-18.89	24.90	3	Horizontal	297	2.11	-	27.51	2.70	-
AV	2.359G	42.87	54.00	-11.13	12.63	3	Horizontal	297	2.11	-	27.54	2.70	-
PK	2.4018G	101.91	Inf	-Inf	71.70	3	Horizontal	297	2.11	-	27.51	2.70	-
AV	2.402G	100.95	Inf	-Inf	70.74	3	Horizontal	297	2.11	-	27.51	2.70	-

BT-BR(1Mbps)

2402MHz_TX

16/01/2020



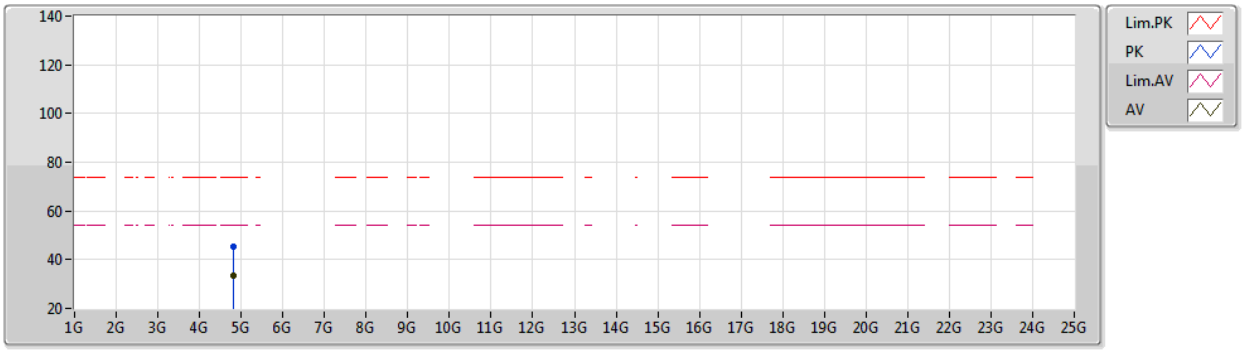
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.81396G	45.47	74.00	-28.53	42.02	3	Vertical	310	1.80	-	32.56	4.52	33.63
AV	4.79976G	32.42	54.00	-21.58	29.06	3	Vertical	310	1.80	-	32.50	4.50	33.64

BT-BR(1Mbps)

2402MHz_TX

16/01/2020



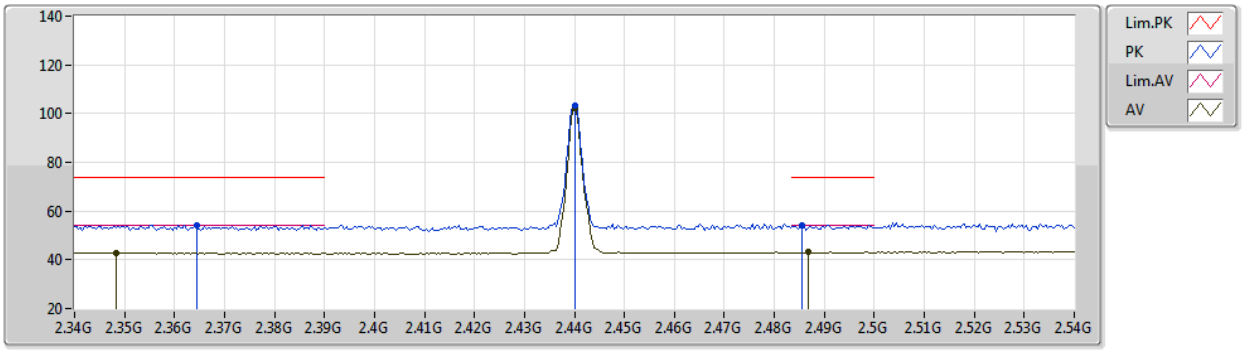
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.80508G	45.33	74.00	-28.67	41.94	3	Horizontal	348	1.70	-	32.52	4.51	33.64
AV	4.8G	33.31	54.00	-20.69	29.95	3	Horizontal	348	1.70	-	32.50	4.50	33.64

BT-BR(1Mbps)

2440MHz_TX

16/01/2020



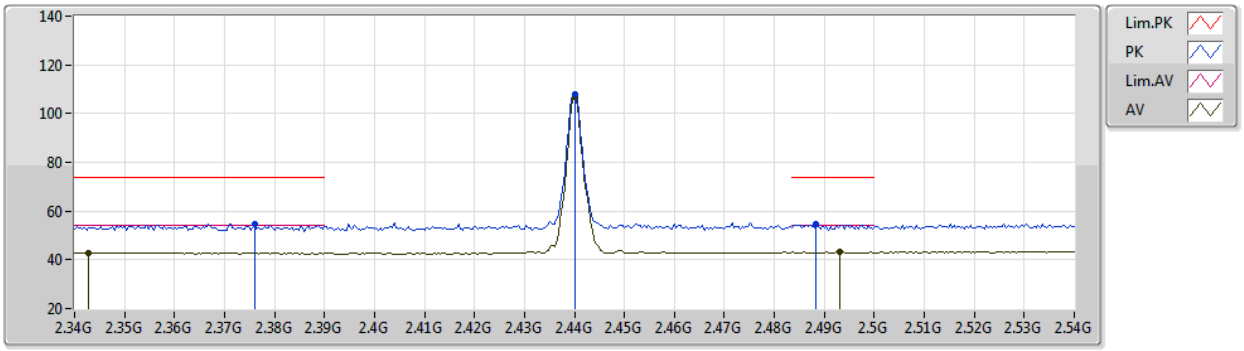
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3644G	54.36	74.00	-19.64	24.12	3	Vertical	322	2.78	-	27.54	2.70	-
AV	2.3484G	42.86	54.00	-11.14	12.61	3	Vertical	322	2.78	-	27.55	2.70	-
PK	2.44G	103.22	Inf	-Inf	72.86	3	Vertical	322	2.78	-	27.66	2.70	-
AV	2.44G	102.25	Inf	-Inf	71.89	3	Vertical	322	2.78	-	27.66	2.70	-
PK	2.4856G	54.37	74.00	-19.63	23.83	3	Vertical	322	2.78	-	27.84	2.70	-
AV	2.4868G	43.04	54.00	-10.96	12.49	3	Vertical	322	2.78	-	27.85	2.70	-

BT-BR(1Mbps)

2440MHz_TX

16/01/2020



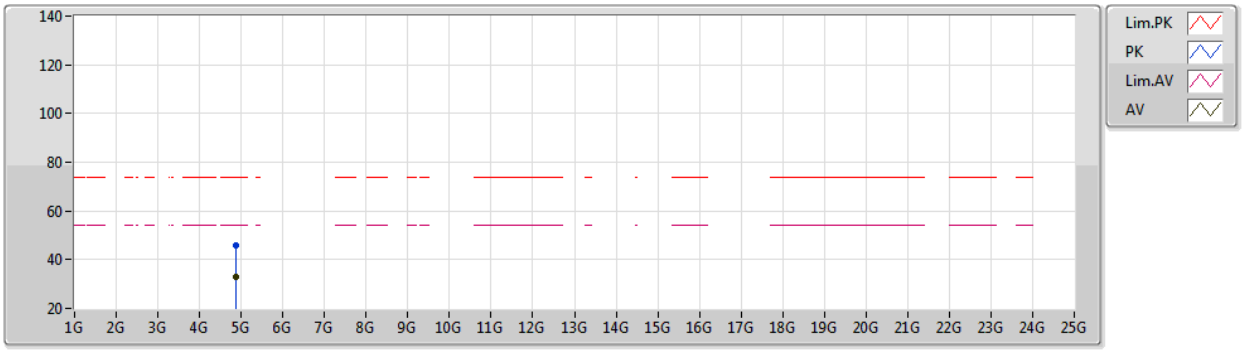
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.376G	54.82	74.00	-19.18	24.60	3	Horizontal	302	2.31	-	27.52	2.70	-
AV	2.3428G	42.92	54.00	-11.08	12.66	3	Horizontal	302	2.31	-	27.56	2.70	-
PK	2.44G	108.04	Inf	-Inf	77.68	3	Horizontal	302	2.31	-	27.66	2.70	-
AV	2.44G	107.08	Inf	-Inf	76.72	3	Horizontal	302	2.31	-	27.66	2.70	-
PK	2.4884G	54.76	74.00	-19.24	24.21	3	Horizontal	302	2.31	-	27.85	2.70	-
AV	2.4932G	43.08	54.00	-10.92	12.51	3	Horizontal	302	2.31	-	27.87	2.70	-

BT-BR(1Mbps)

2440MHz_TX

16/01/2020



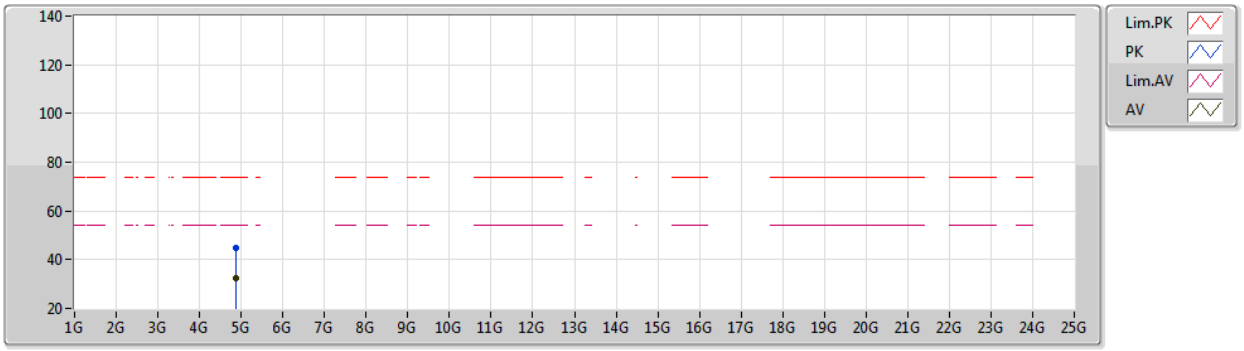
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88032G	45.80	74.00	-28.20	41.97	3	Vertical	360	1.87	-	32.82	4.62	33.61
AV	4.87996G	32.83	54.00	-21.17	29.00	3	Vertical	360	1.87	-	32.82	4.62	33.61

BT-BR(1Mbps)

2440MHz_TX

16/01/2020



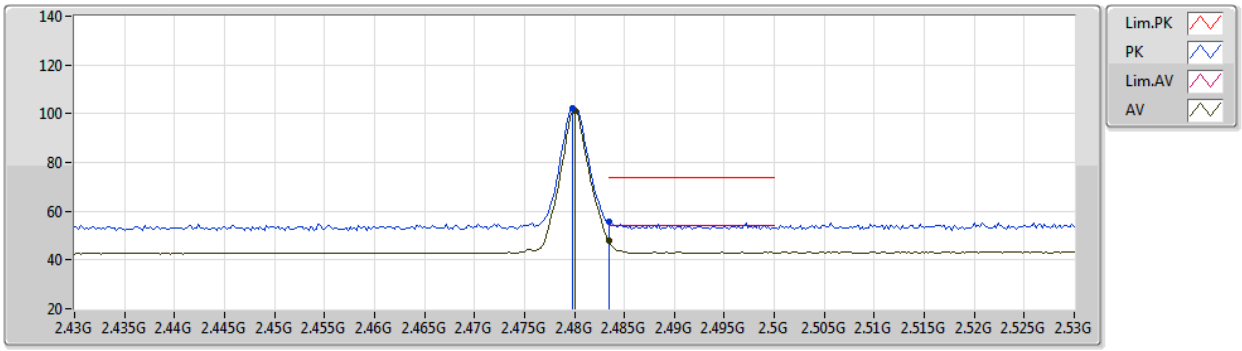
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87977G	44.80	74.00	-29.20	40.97	3	Horizontal	314	1.80	-	32.82	4.62	33.61
AV	4.87995G	32.45	54.00	-21.55	28.62	3	Horizontal	314	1.80	-	32.82	4.62	33.61

BT-BR(1Mbps)

2480MHz_TX

16/01/2020



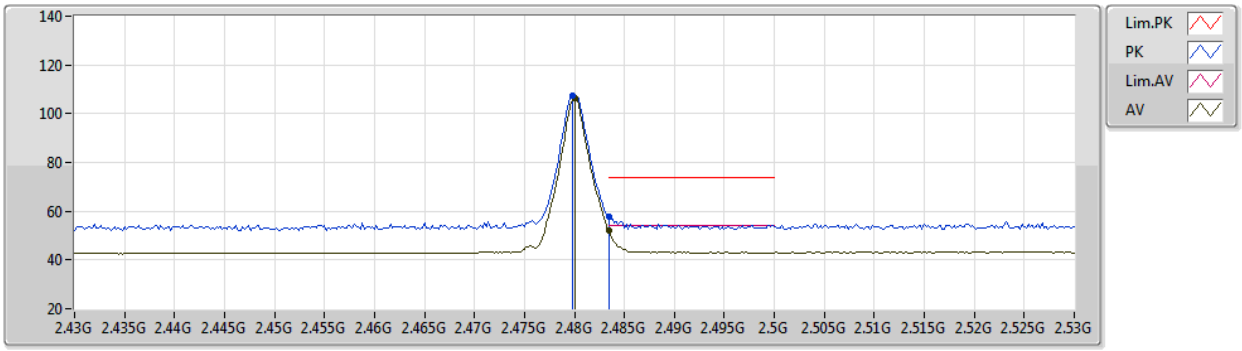
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	102.36	Inf	-Inf	71.84	3	Vertical	315	2.44	-	27.82	2.70	-
AV	2.48G	101.30	Inf	-Inf	70.78	3	Vertical	315	2.44	-	27.82	2.70	-
PK	2.4835G	55.80	74.00	-18.20	25.27	3	Vertical	315	2.44	-	27.83	2.70	-
AV	2.4835G	47.92	54.00	-6.08	17.39	3	Vertical	315	2.44	-	27.83	2.70	-

BT-BR(1Mbps)

2480MHz_TX

16/01/2020



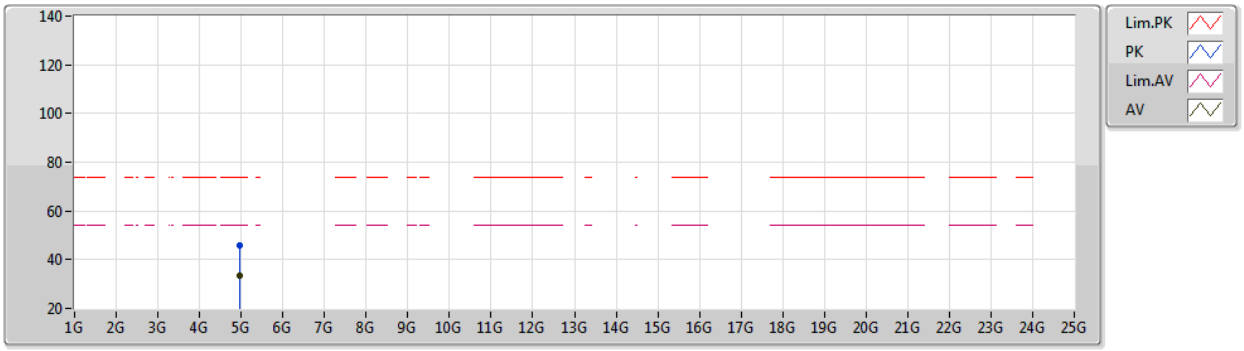
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	107.36	Inf	-Inf	76.84	3	Horizontal	296	1.98	-	27.82	2.70	-
AV	2.48G	106.33	Inf	-Inf	75.81	3	Horizontal	296	1.98	-	27.82	2.70	-
PK	2.4835G	57.65	74.00	-16.35	27.12	3	Horizontal	296	1.98	-	27.83	2.70	-
AV	2.4835G	52.29	54.00	-1.71	21.76	3	Horizontal	296	1.98	-	27.83	2.70	-

BT-BR(1Mbps)

2480MHz_TX

16/01/2020



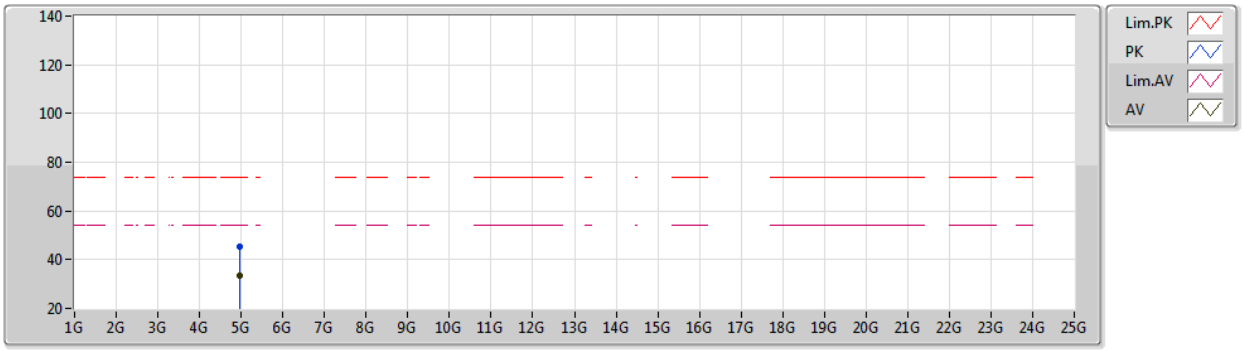
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.95976G	45.94	74.00	-28.06	41.75	3	Vertical	307	2.07	-	33.02	4.74	33.57
AV	4.96G	33.68	54.00	-20.32	29.49	3	Vertical	307	2.07	-	33.02	4.74	33.57

BT-BR(1Mbps)

2480MHz_TX

16/01/2020



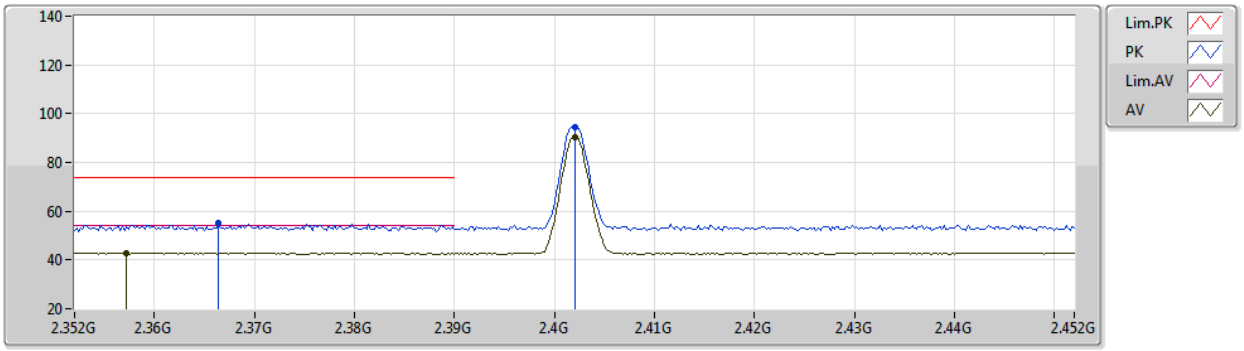
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9562G	45.33	74.00	-28.67	41.16	3	Horizontal	324	2.39	-	33.01	4.73	33.57
AV	4.9598G	33.24	54.00	-20.76	29.05	3	Horizontal	324	2.39	-	33.02	4.74	33.57

BT-EDR(3Mbps)

2402MHz_TX

16/01/2020



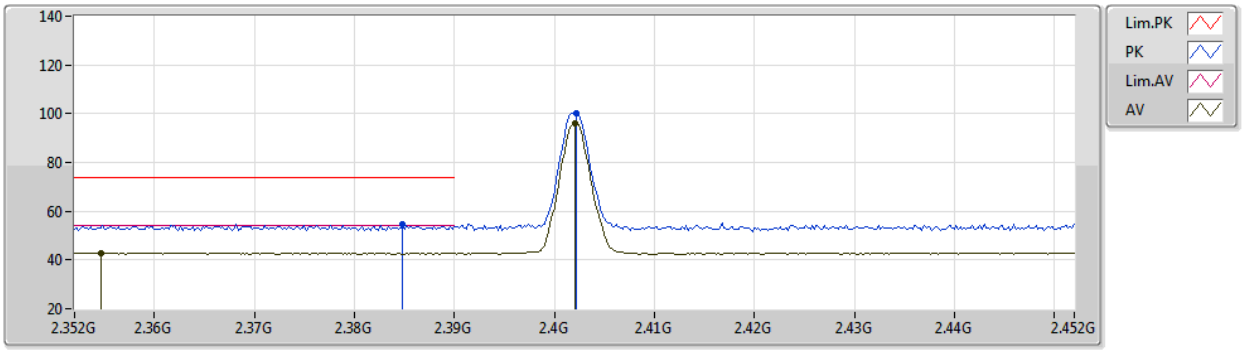
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3664G	54.97	74.00	-19.03	24.74	3	Vertical	329	2.34	-	27.53	2.70	-
AV	2.3572G	42.80	54.00	-11.20	12.56	3	Vertical	329	2.34	-	27.54	2.70	-
PK	2.402G	94.62	Inf	-Inf	64.41	3	Vertical	329	2.34	-	27.51	2.70	-
AV	2.402G	90.49	Inf	-Inf	60.28	3	Vertical	329	2.34	-	27.51	2.70	-

BT-EDR(3Mbps)

2402MHz_TX

16/01/2020



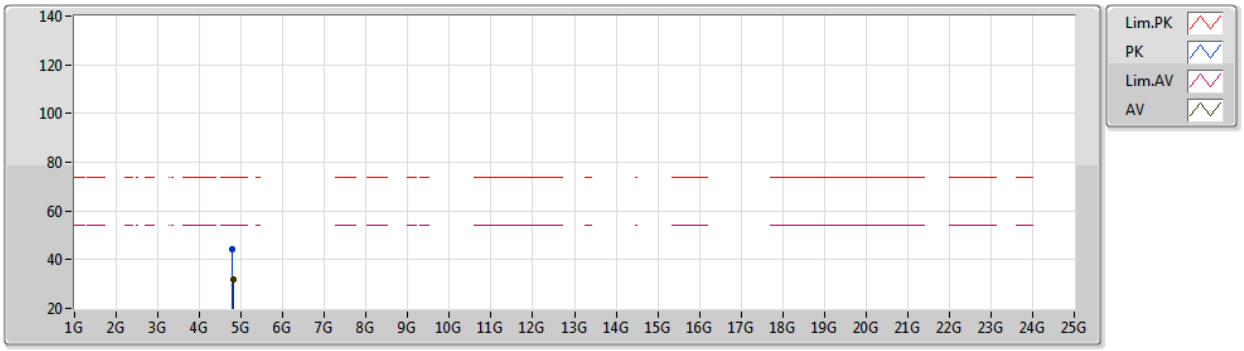
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3848G	54.45	74.00	-19.55	24.23	3	Horizontal	287	2.11	-	27.52	2.70	-
AV	2.3546G	42.79	54.00	-11.21	12.54	3	Horizontal	287	2.11	-	27.55	2.70	-
PK	2.4022G	100.18	Inf	-Inf	69.97	3	Horizontal	287	2.11	-	27.51	2.70	-
AV	2.402G	96.02	Inf	-Inf	65.81	3	Horizontal	287	2.11	-	27.51	2.70	-

BT-EDR(3Mbps)

2402MHz_TX

16/01/2020



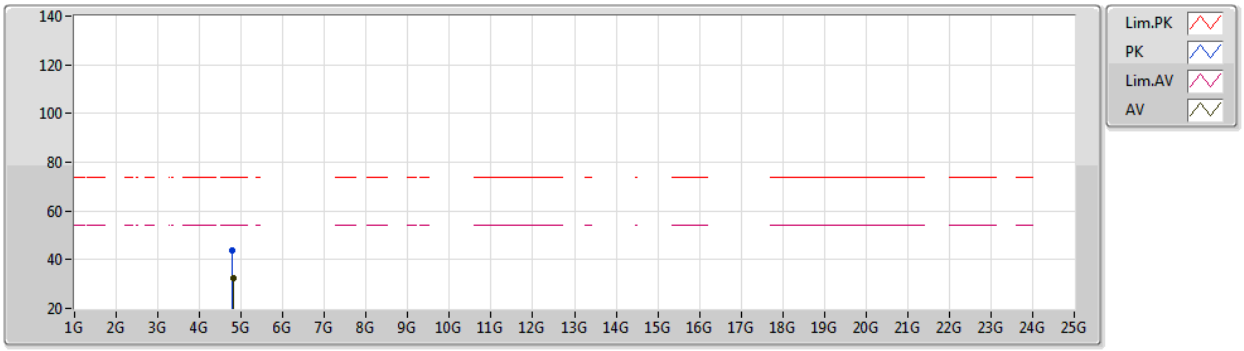
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.7932G	44.52	74.00	-29.48	41.16	3	Vertical	15	1.80	-	32.51	4.49	33.64
AV	4.8001G	31.93	54.00	-22.07	28.57	3	Vertical	15	1.80	-	32.50	4.50	33.64

BT-EDR(3Mbps)

2402MHz_TX

16/01/2020



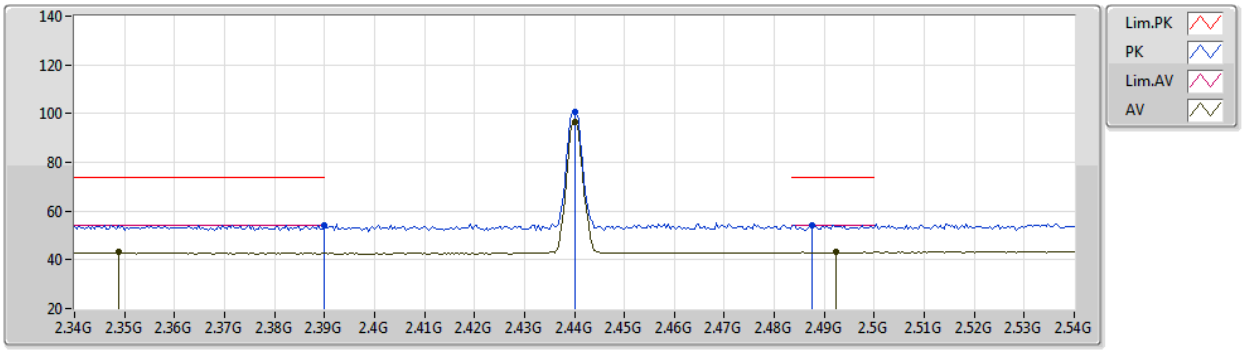
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.7885G	44.04	74.00	-29.96	40.69	3	Horizontal	355	1.80	-	32.52	4.48	33.65
AV	4.8G	32.40	54.00	-21.60	29.04	3	Horizontal	355	1.80	-	32.50	4.50	33.64

BT-EDR(3Mbps)

2440MHz_TX

16/01/2020



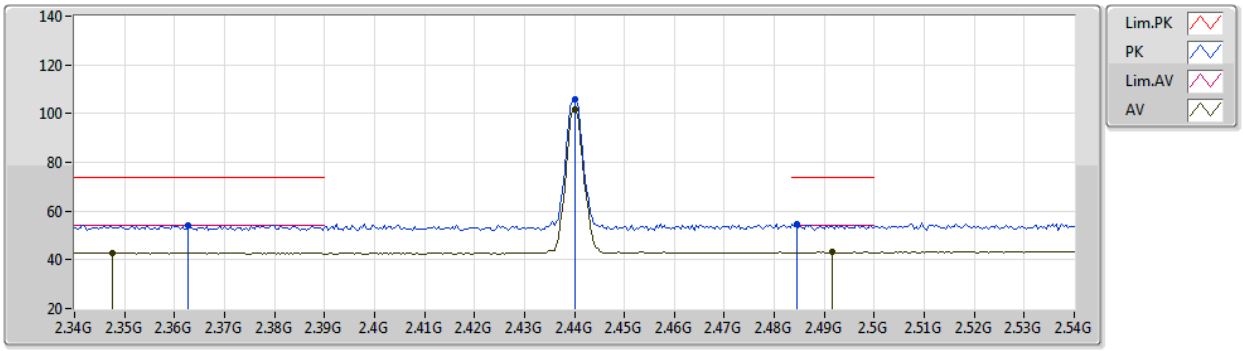
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.39G	54.29	74.00	-19.71	24.08	3	Vertical	322	2.79	-	27.51	2.70	-
AV	2.3488G	43.05	54.00	-10.95	12.80	3	Vertical	322	2.79	-	27.55	2.70	-
PK	2.44G	100.64	Inf	-Inf	70.28	3	Vertical	322	2.79	-	27.66	2.70	-
AV	2.44G	96.54	Inf	-Inf	66.18	3	Vertical	322	2.79	-	27.66	2.70	-
PK	2.4876G	54.35	74.00	-19.65	23.80	3	Vertical	322	2.79	-	27.85	2.70	-
AV	2.4924G	43.10	54.00	-10.90	12.53	3	Vertical	322	2.79	-	27.87	2.70	-

BT-EDR(3Mbps)

2440MHz_TX

16/01/2020



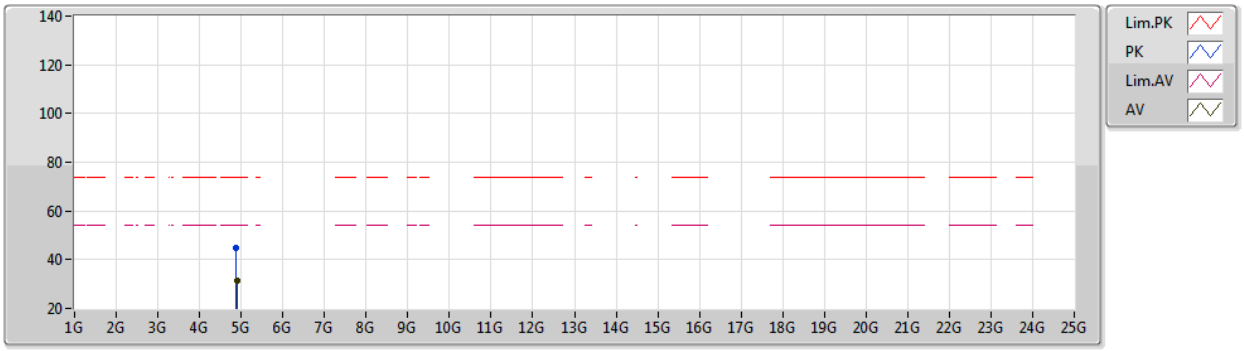
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3628G	54.13	74.00	-19.87	23.89	3	Horizontal	302	2.32	-	27.54	2.70	-
AV	2.3476G	42.81	54.00	-11.19	12.56	3	Horizontal	302	2.32	-	27.55	2.70	-
PK	2.44G	105.61	Inf	-Inf	75.25	3	Horizontal	302	2.32	-	27.66	2.70	-
AV	2.44G	101.49	Inf	-Inf	71.13	3	Horizontal	302	2.32	-	27.66	2.70	-
PK	2.4844G	54.64	74.00	-19.36	24.10	3	Horizontal	302	2.32	-	27.84	2.70	-
AV	2.4916G	43.17	54.00	-10.83	12.60	3	Horizontal	302	2.32	-	27.87	2.70	-

BT-EDR(3Mbps)

2440MHz_TX

16/01/2020



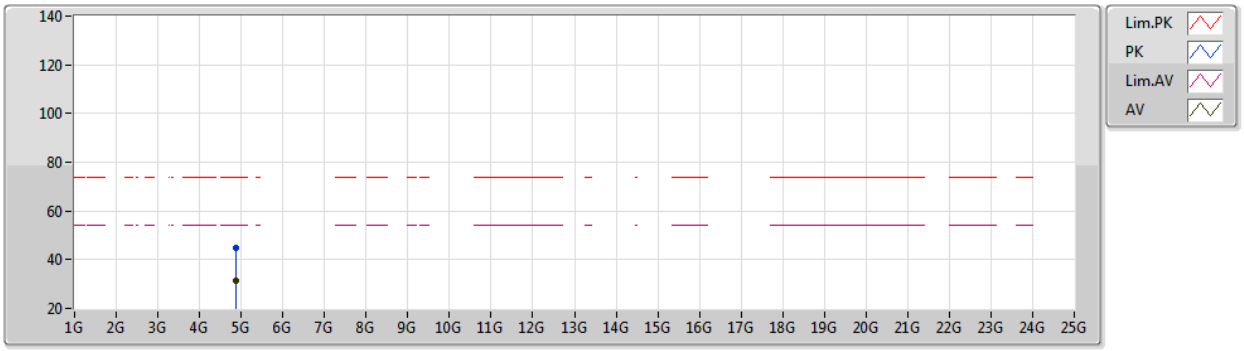
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8778G	44.92	74.00	-29.08	41.10	3	Vertical	333	1.80	-	32.81	4.62	33.61
AV	4.88912G	31.42	54.00	-22.58	27.53	3	Vertical	333	1.80	-	32.86	4.63	33.60

BT-EDR(3Mbps)

2440MHz_TX

16/01/2020



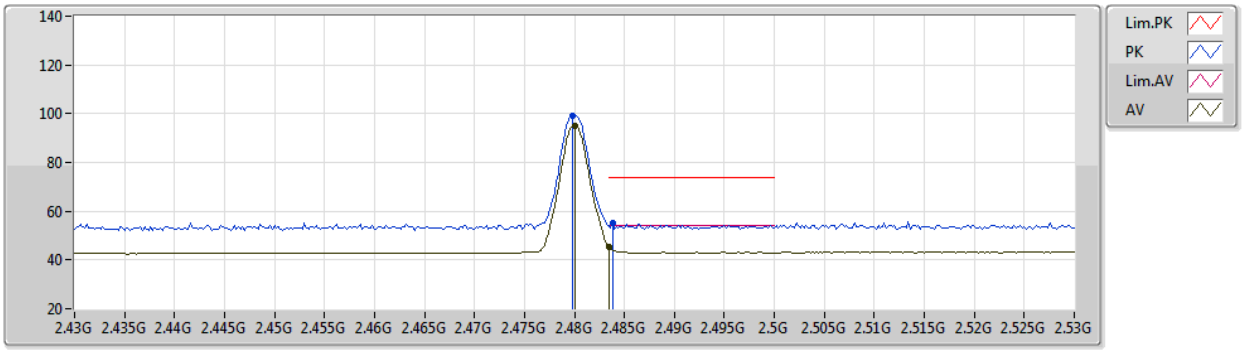
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88472G	45.05	74.00	-28.95	41.19	3	Horizontal	188	2.96	-	32.84	4.63	33.61
AV	4.889G	31.58	54.00	-22.42	27.69	3	Horizontal	188	2.96	-	32.86	4.63	33.60

BT-EDR(3Mbps)

2480MHz_TX

16/01/2020



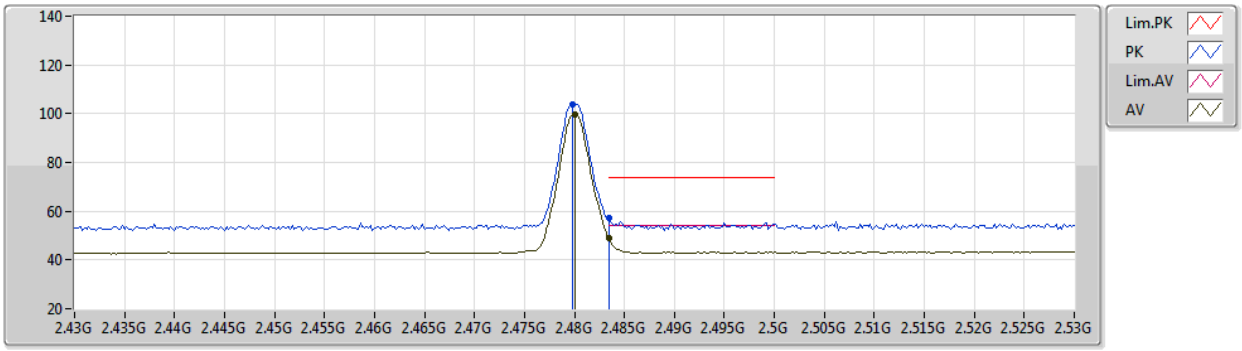
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	99.18	Inf	-Inf	68.66	3	Vertical	314	2.43	-	27.82	2.70	-
AV	2.48G	94.99	Inf	-Inf	64.47	3	Vertical	314	2.43	-	27.82	2.70	-
PK	2.4838G	55.07	74.00	-18.93	24.53	3	Vertical	314	2.43	-	27.84	2.70	-
AV	2.4835G	45.60	54.00	-8.40	15.07	3	Vertical	314	2.43	-	27.83	2.70	-

BT-EDR(3Mbps)

2480MHz_TX

16/01/2020



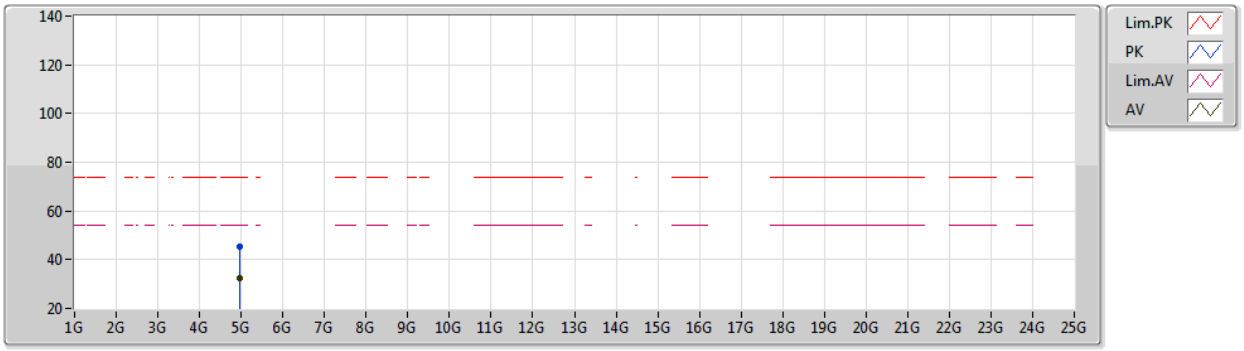
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	103.89	Inf	-Inf	73.37	3	Horizontal	297	1.96	-	27.82	2.70	-
AV	2.48G	99.69	Inf	-Inf	69.17	3	Horizontal	297	1.96	-	27.82	2.70	-
PK	2.4835G	57.34	74.00	-16.66	26.81	3	Horizontal	297	1.96	-	27.83	2.70	-
AV	2.4835G	49.06	54.00	-4.94	18.53	3	Horizontal	297	1.96	-	27.83	2.70	-

BT-EDR(3Mbps)

2480MHz_TX

16/01/2020



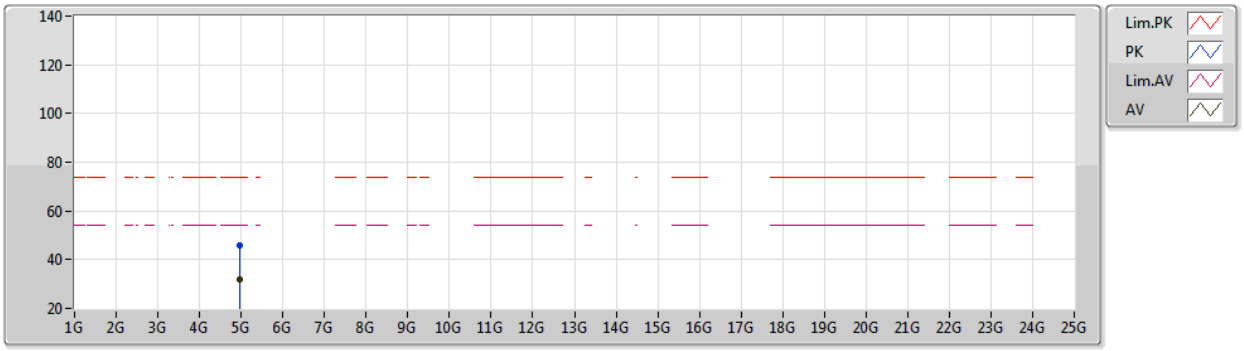
EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9602G	45.21	74.00	-28.79	41.02	3	Vertical	140	1.82	-	33.02	4.74	33.57
AV	4.96988G	32.22	54.00	-21.78	28.00	3	Vertical	140	1.82	-	33.04	4.75	33.57

BT-EDR(3Mbps)

2480MHz_TX

16/01/2020



EUT Y_1TX
Setting 10
04-C-C-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.96712G	45.81	74.00	-28.19	41.60	3	Horizontal	349	2.13	-	33.03	4.75	33.57
AV	4.96824G	32.11	54.00	-21.89	27.89	3	Horizontal	349	2.13	-	33.04	4.75	33.57

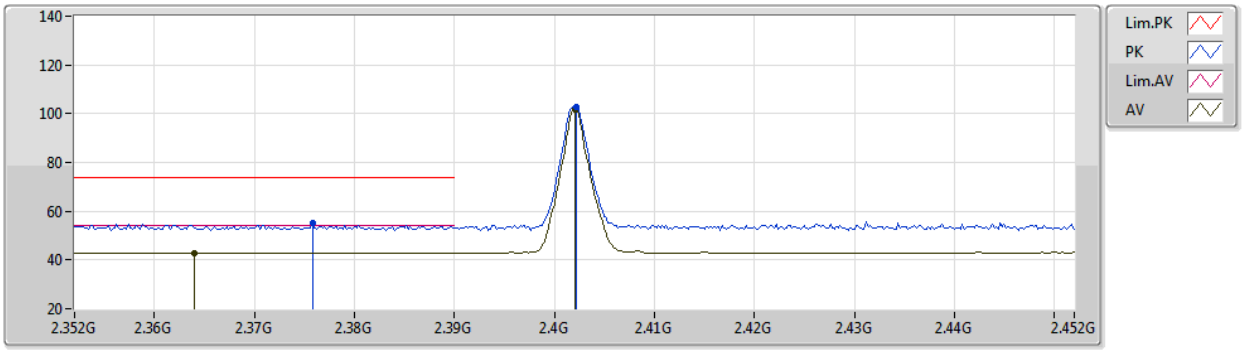
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	AV	2.4835G	50.02	54.00	-3.98	3	Vertical	317	1.80	-

BT-BR(1Mbps)

2402MHz_TX

13/02/2020



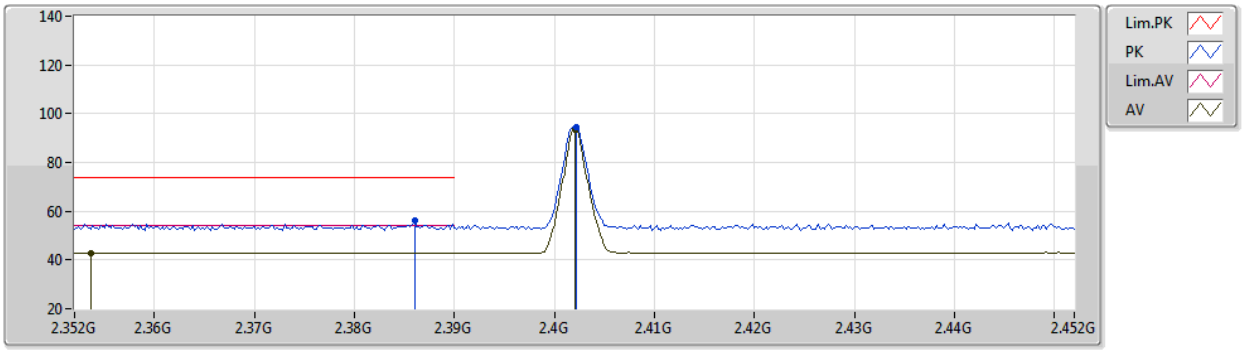
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3758G	54.96	74.00	-19.04	24.59	3	Vertical	326	2.10	-	27.52	2.85	-
AV	2.364G	42.99	54.00	-11.01	12.61	3	Vertical	326	2.10	-	27.54	2.84	-
PK	2.4022G	102.90	Inf	-Inf	72.53	3	Vertical	326	2.10	-	27.51	2.86	-
AV	2.402G	101.94	Inf	-Inf	71.57	3	Vertical	326	2.10	-	27.51	2.86	-

BT-BR(1Mbps)

2402MHz_TX

13/02/2020



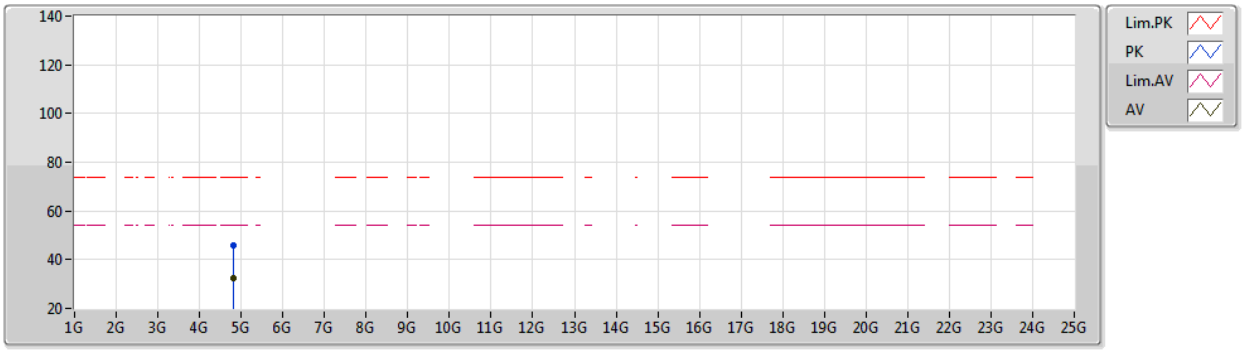
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.386G	56.15	74.00	-17.85	25.79	3	Horizontal	278	1.93	-	27.51	2.85	-
AV	2.3536G	43.00	54.00	-11.00	12.62	3	Horizontal	278	1.93	-	27.55	2.83	-
PK	2.4022G	94.54	Inf	-Inf	64.17	3	Horizontal	278	1.93	-	27.51	2.86	-
AV	2.402G	93.58	Inf	-Inf	63.21	3	Horizontal	278	1.93	-	27.51	2.86	-

BT-BR(1Mbps)

2402MHz_TX

13/02/2020



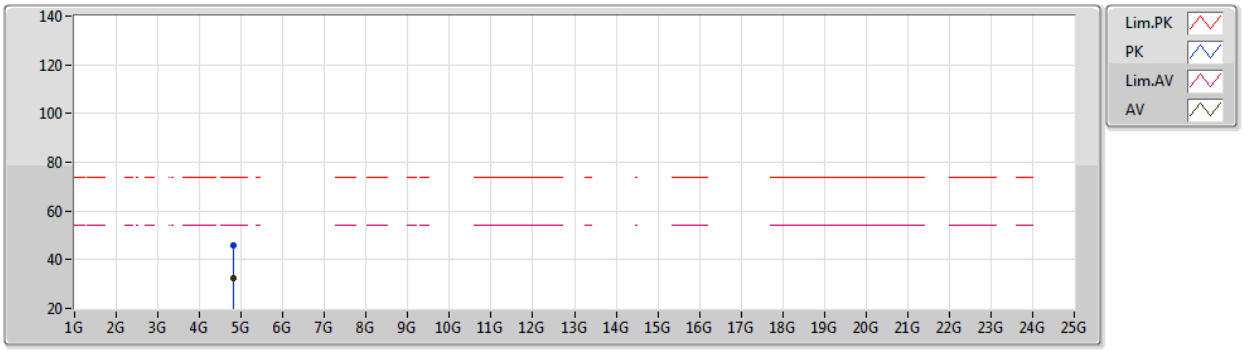
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.80624G	45.69	74.00	-28.31	41.89	3	Vertical	108	2.67	-	32.52	4.92	33.64
AV	4.8G	32.26	54.00	-21.74	28.48	3	Vertical	108	2.67	-	32.50	4.92	33.64

BT-BR(1Mbps)

2402MHz_TX

13/02/2020



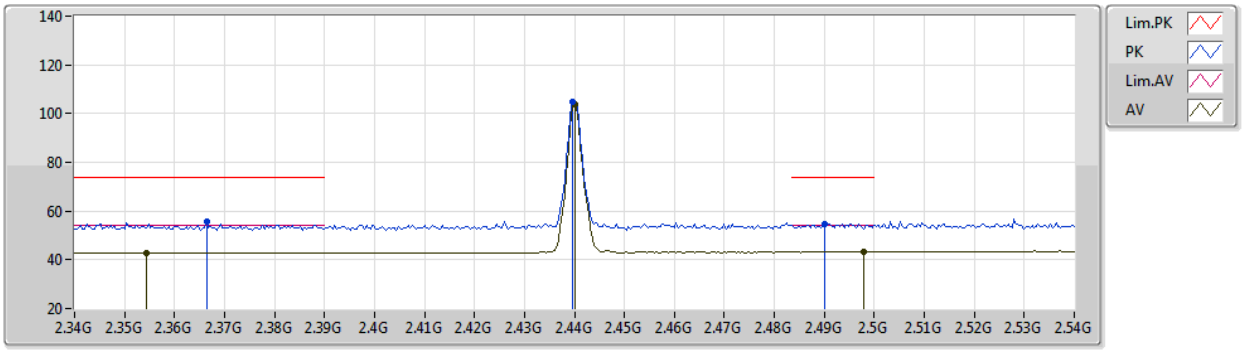
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.79996G	45.88	74.00	-28.12	42.10	3	Horizontal	313	2.64	-	32.50	4.92	33.64
AV	4.79996G	32.52	54.00	-21.48	28.74	3	Horizontal	313	2.64	-	32.50	4.92	33.64

BT-BR(1Mbps)

2440MHz_TX

13/02/2020



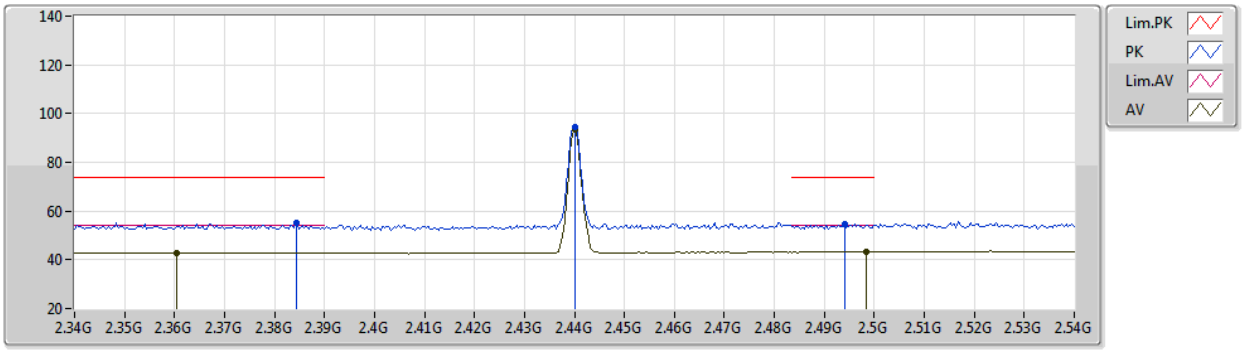
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3664G	55.65	74.00	-18.35	25.28	3	Vertical	322	1.68	-	27.53	2.84	-
AV	2.3544G	43.01	54.00	-10.99	12.63	3	Vertical	322	1.68	-	27.55	2.83	-
PK	2.4396G	104.78	Inf	-Inf	74.24	3	Vertical	322	1.68	-	27.66	2.88	-
AV	2.44G	103.83	Inf	-Inf	73.29	3	Vertical	322	1.68	-	27.66	2.88	-
PK	2.49G	54.69	74.00	-19.31	23.92	3	Vertical	322	1.68	-	27.86	2.91	-
AV	2.498G	43.33	54.00	-10.67	12.52	3	Vertical	322	1.68	-	27.89	2.92	-

BT-BR(1Mbps)

2440MHz_TX

13/02/2020



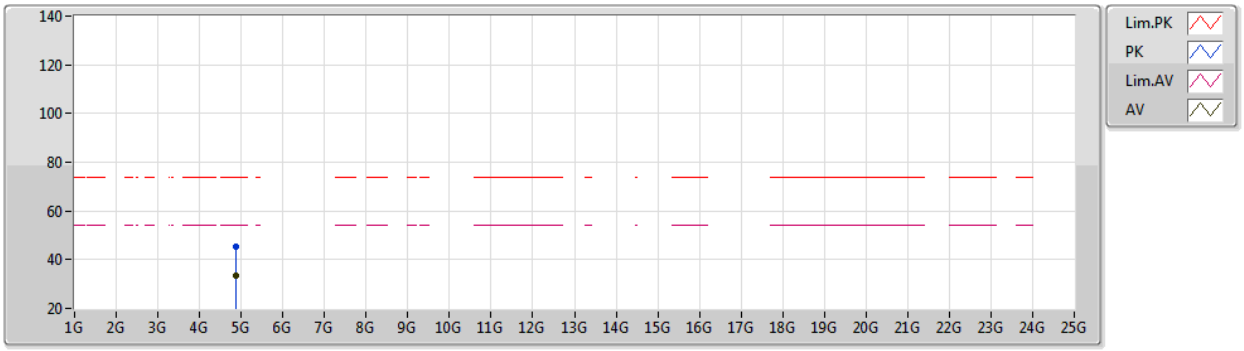
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3844G	55.28	74.00	-18.72	24.91	3	Horizontal	280	2.08	-	27.52	2.85	-
AV	2.3604G	42.96	54.00	-11.04	12.58	3	Horizontal	280	2.08	-	27.54	2.84	-
PK	2.44G	94.36	Inf	-Inf	63.82	3	Horizontal	280	2.08	-	27.66	2.88	-
AV	2.44G	93.37	Inf	-Inf	62.83	3	Horizontal	280	2.08	-	27.66	2.88	-
PK	2.494G	54.62	74.00	-19.38	23.82	3	Horizontal	280	2.08	-	27.88	2.92	-
AV	2.4984G	43.30	54.00	-10.70	12.49	3	Horizontal	280	2.08	-	27.89	2.92	-

BT-BR(1Mbps)

2440MHz_TX

13/02/2020



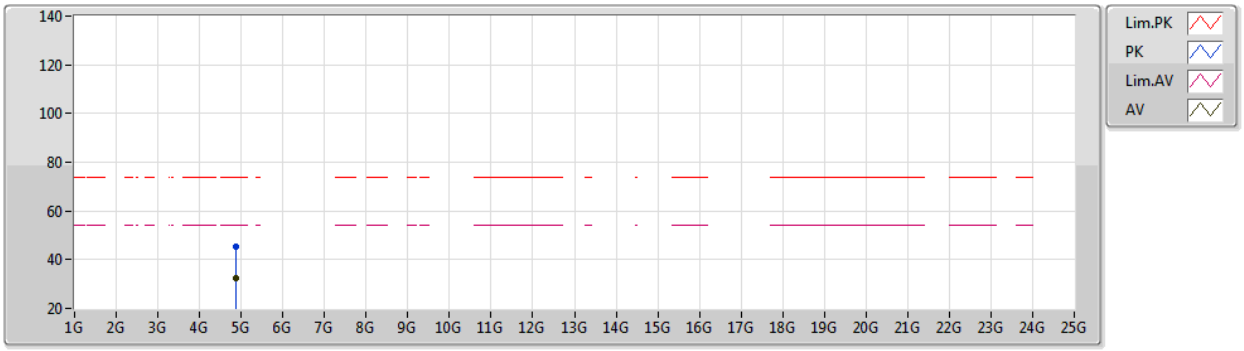
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8798G	45.37	74.00	-28.63	41.20	3	Vertical	21	2.00	-	32.82	4.96	33.61
AV	4.88004G	33.29	54.00	-20.71	29.12	3	Vertical	21	2.00	-	32.82	4.96	33.61

BT-BR(1Mbps)

2440MHz_TX

13/02/2020



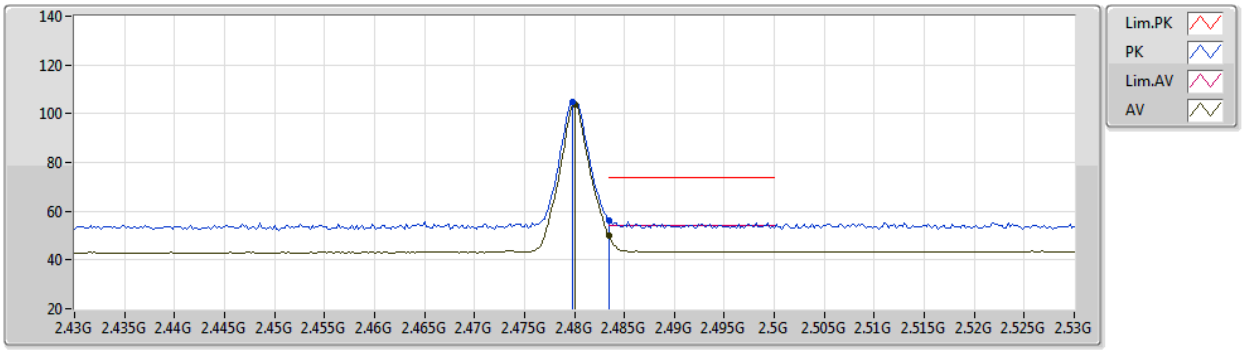
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8815G	45.50	74.00	-28.50	41.32	3	Horizontal	332	2.58	-	32.83	4.96	33.61
AV	4.88042G	32.45	54.00	-21.55	28.28	3	Horizontal	332	2.58	-	32.82	4.96	33.61

BT-BR(1Mbps)

2480MHz_TX

13/02/2020



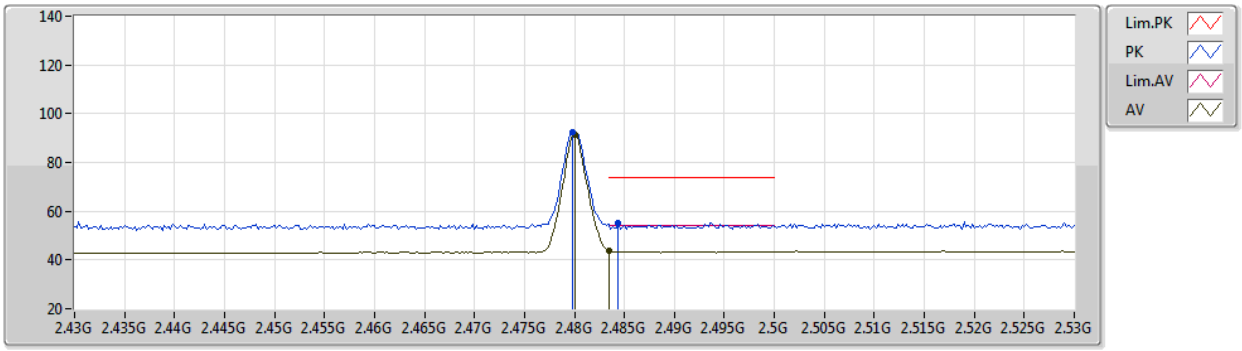
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	104.80	Inf	-Inf	74.07	3	Vertical	317	1.80	-	27.82	2.91	-
AV	2.48G	103.86	Inf	-Inf	73.13	3	Vertical	317	1.80	-	27.82	2.91	-
PK	2.4835G	56.14	74.00	-17.86	25.40	3	Vertical	317	1.80	-	27.83	2.91	-
AV	2.4835G	50.02	54.00	-3.98	19.28	3	Vertical	317	1.80	-	27.83	2.91	-

BT-BR(1Mbps)

2480MHz_TX

13/02/2020



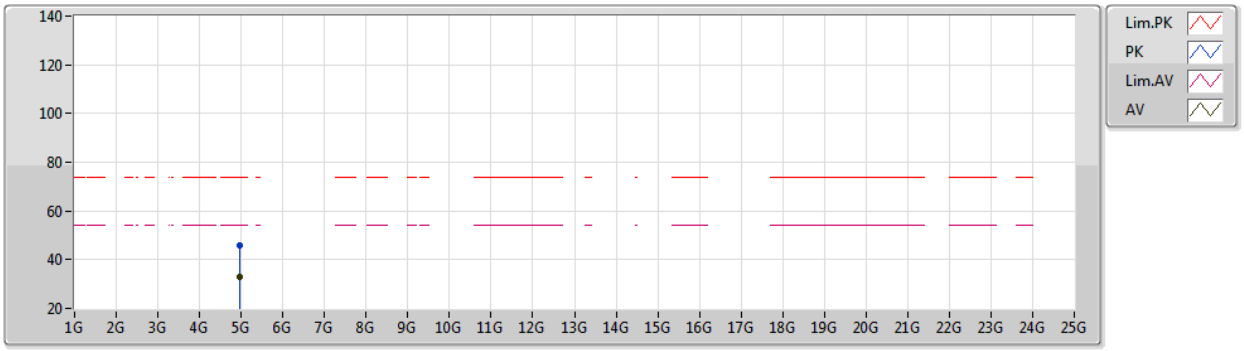
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4798G	92.40	Inf	-Inf	61.67	3	Horizontal	265	2.07	-	27.82	2.91	-
AV	2.48G	91.45	Inf	-Inf	60.72	3	Horizontal	265	2.07	-	27.82	2.91	-
PK	2.4844G	55.32	74.00	-18.68	24.57	3	Horizontal	265	2.07	-	27.84	2.91	-
AV	2.4835G	43.75	54.00	-10.25	13.01	3	Horizontal	265	2.07	-	27.83	2.91	-

BT-BR(1Mbps)

2480MHz_TX

13/02/2020



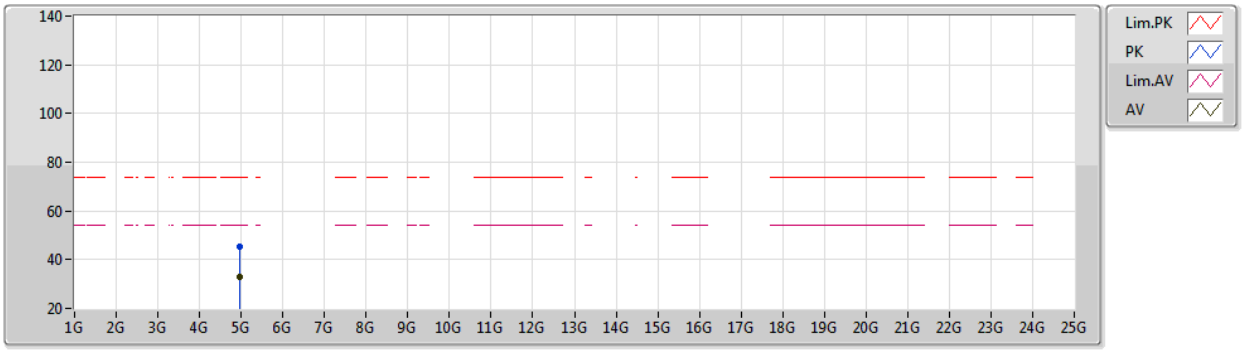
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.9613G	45.78	74.00	-28.22	41.33	3	Vertical	89	1.78	-	33.02	5.00	33.57
AV	4.96122G	32.87	54.00	-21.13	28.42	3	Vertical	89	1.78	-	33.02	5.00	33.57

BT-BR(1Mbps)

2480MHz_TX

13/02/2020



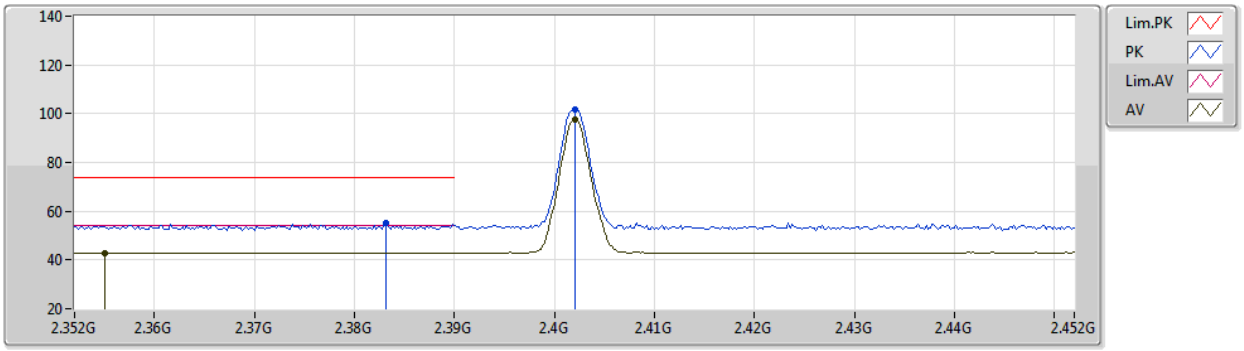
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.96206G	45.40	74.00	-28.60	40.95	3	Horizontal	183	2.16	-	33.02	5.00	33.57
AV	4.96076G	32.79	54.00	-21.21	28.34	3	Horizontal	183	2.16	-	33.02	5.00	33.57

BT-EDR(3Mbps)

13/02/2020

2402MHz_TX



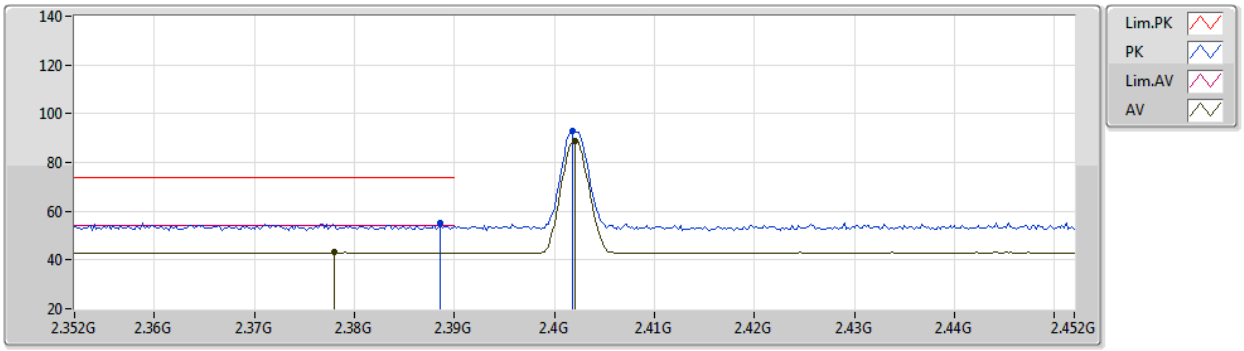
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3832G	54.98	74.00	-19.02	24.61	3	Vertical	321	1.37	-	27.52	2.85	-
AV	2.355G	43.01	54.00	-10.99	12.63	3	Vertical	321	1.37	-	27.55	2.83	-
PK	2.402G	101.47	Inf	-Inf	71.10	3	Vertical	321	1.37	-	27.51	2.86	-
AV	2.402G	97.33	Inf	-Inf	66.96	3	Vertical	321	1.37	-	27.51	2.86	-

BT-EDR(3Mbps)

2402MHz_TX

13/02/2020



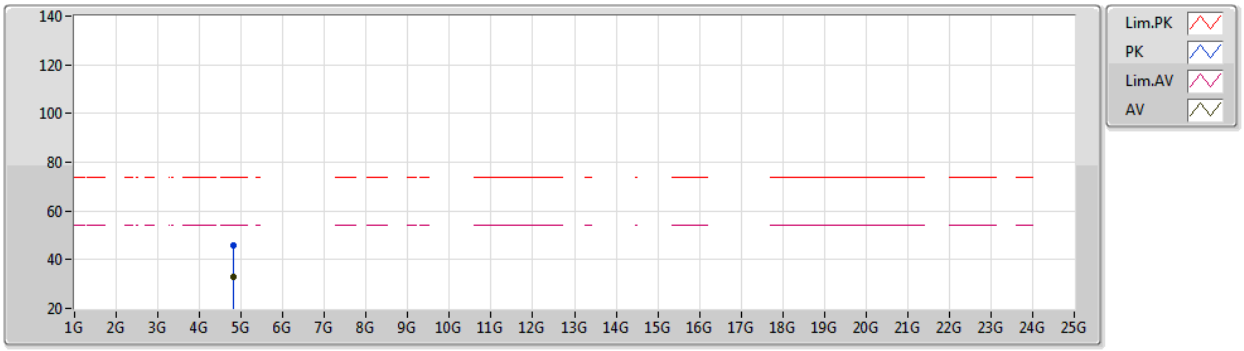
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3886G	55.07	74.00	-18.93	24.71	3	Horizontal	278	1.92	-	27.51	2.85	-
AV	2.378G	43.08	54.00	-10.92	12.71	3	Horizontal	278	1.92	-	27.52	2.85	-
PK	2.4018G	92.77	Inf	-Inf	62.40	3	Horizontal	278	1.92	-	27.51	2.86	-
AV	2.402G	88.63	Inf	-Inf	58.26	3	Horizontal	278	1.92	-	27.51	2.86	-

BT-EDR(3Mbps)

2402MHz_TX

13/02/2020



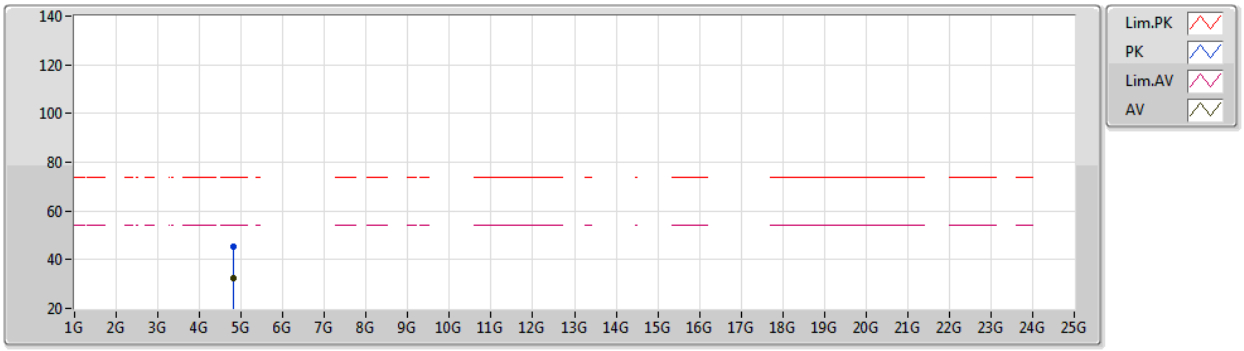
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.80416G	45.64	74.00	-28.36	41.84	3	Vertical	0	1.80	-	32.52	4.92	33.64
AV	4.79996G	32.78	54.00	-21.22	29.00	3	Vertical	0	1.80	-	32.50	4.92	33.64

BT-EDR(3Mbps)

2402MHz_TX

13/02/2020



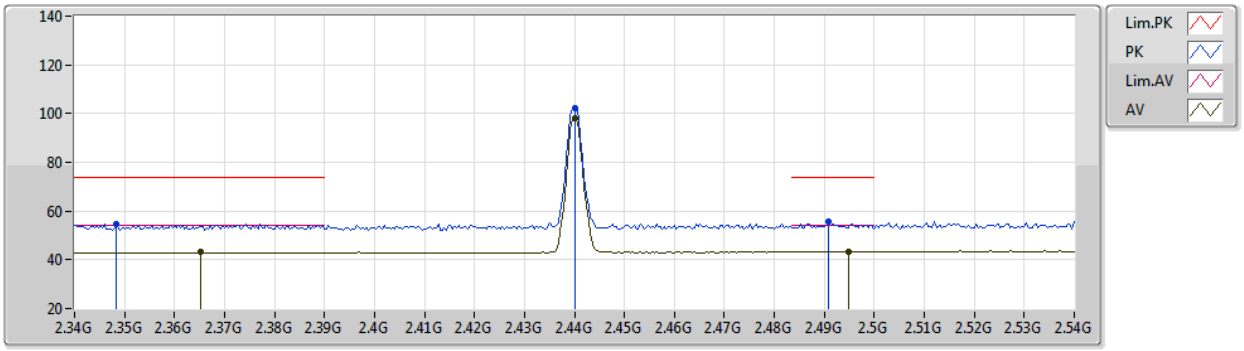
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.79992G	45.28	74.00	-28.72	41.50	3	Horizontal	338	1.85	-	32.50	4.92	33.64
AV	4.79996G	32.65	54.00	-21.35	28.87	3	Horizontal	338	1.85	-	32.50	4.92	33.64

BT-EDR(3Mbps)

2440MHz_TX

13/02/2020



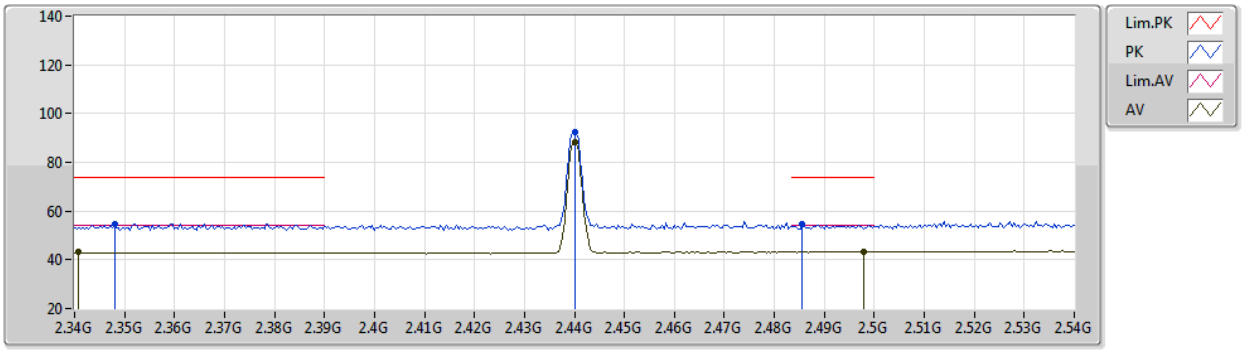
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3484G	54.78	74.00	-19.22	24.40	3	Vertical	324	1.70	-	27.55	2.83	-
AV	2.3652G	43.02	54.00	-10.98	12.65	3	Vertical	324	1.70	-	27.53	2.84	-
PK	2.44G	102.28	Inf	-Inf	71.74	3	Vertical	324	1.70	-	27.66	2.88	-
AV	2.44G	98.08	Inf	-Inf	67.54	3	Vertical	324	1.70	-	27.66	2.88	-
PK	2.4908G	55.57	74.00	-18.43	24.80	3	Vertical	324	1.70	-	27.86	2.91	-
AV	2.4948G	43.37	54.00	-10.63	12.57	3	Vertical	324	1.70	-	27.88	2.92	-

BT-EDR(3Mbps)

2440MHz_TX

13/02/2020



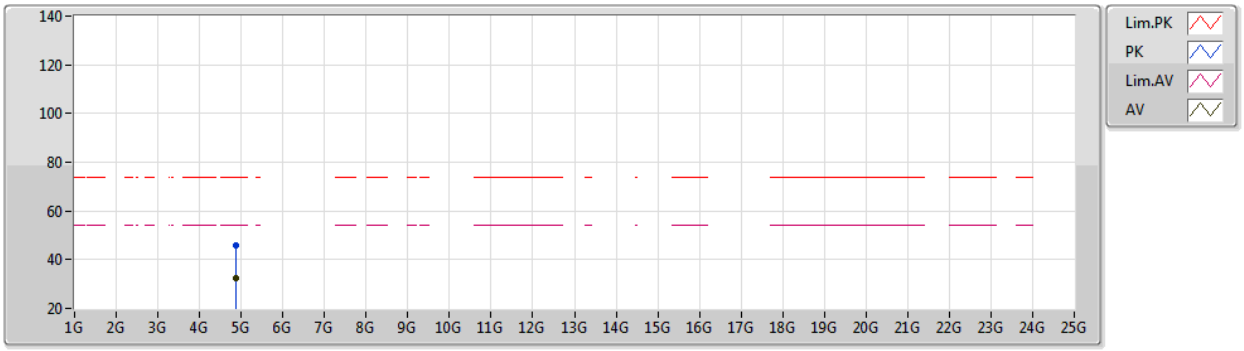
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.348G	54.89	74.00	-19.11	24.51	3	Horizontal	277	2.12	-	27.55	2.83	-
AV	2.3408G	43.03	54.00	-10.97	12.65	3	Horizontal	277	2.12	-	27.56	2.82	-
PK	2.44G	92.41	Inf	-Inf	61.87	3	Horizontal	277	2.12	-	27.66	2.88	-
AV	2.44G	88.23	Inf	-Inf	57.69	3	Horizontal	277	2.12	-	27.66	2.88	-
PK	2.4856G	54.42	74.00	-19.58	23.67	3	Horizontal	277	2.12	-	27.84	2.91	-
AV	2.498G	43.45	54.00	-10.55	12.64	3	Horizontal	277	2.12	-	27.89	2.92	-

BT-EDR(3Mbps)

2440MHz_TX

13/02/2020



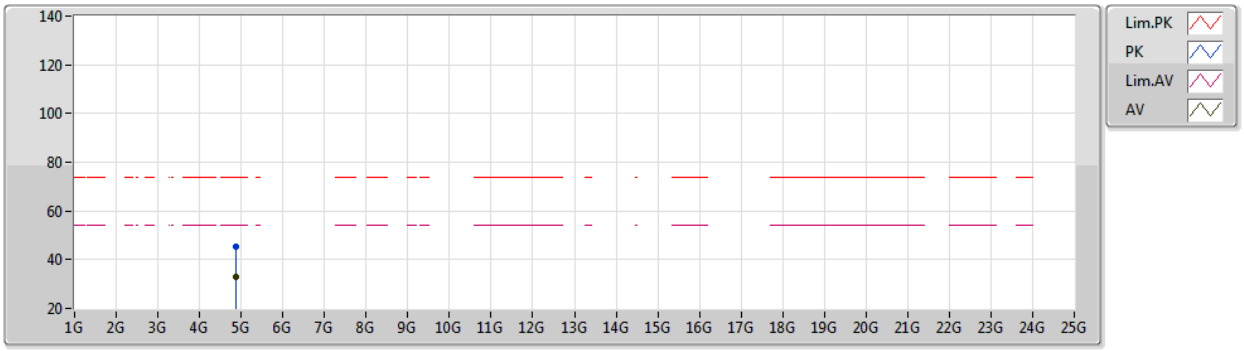
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.87862G	45.70	74.00	-28.30	41.54	3	Vertical	315	2.05	-	32.81	4.96	33.61
AV	4.87648G	32.57	54.00	-21.43	28.41	3	Vertical	315	2.05	-	32.81	4.96	33.61

BT-EDR(3Mbps)

2440MHz_TX

13/02/2020



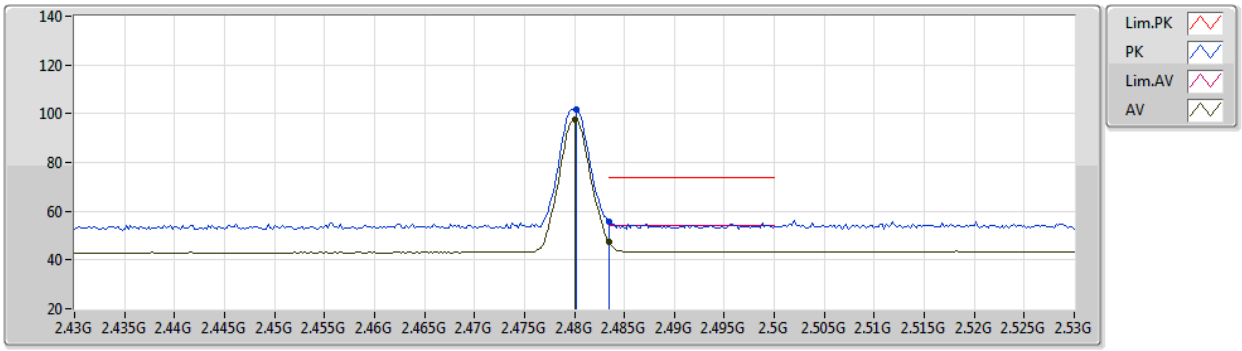
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.8827G	45.13	74.00	-28.87	40.95	3	Horizontal	291	1.13	-	32.83	4.96	33.61
AV	4.87886G	32.88	54.00	-21.12	28.71	3	Horizontal	291	1.13	-	32.82	4.96	33.61

BT-EDR(3Mbps)

2480MHz_TX

13/02/2020



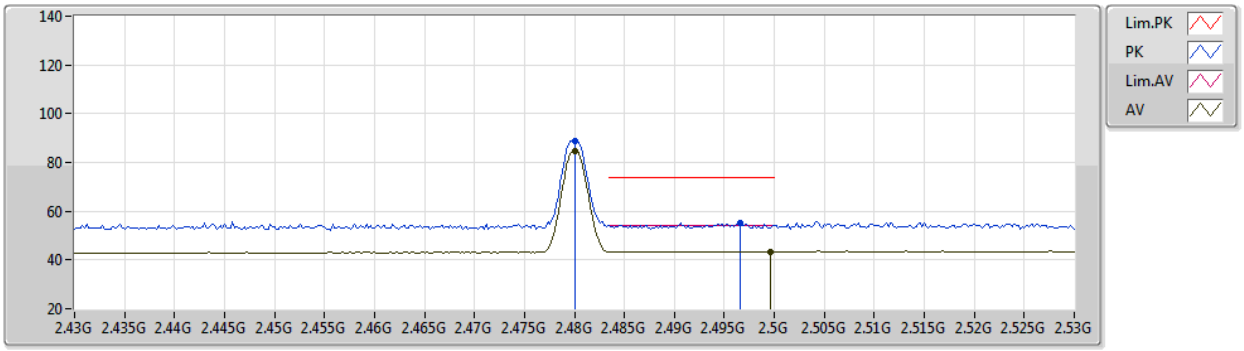
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.4802G	101.58	Inf	-Inf	70.85	3	Vertical	316	1.80	-	27.82	2.91	-
AV	2.48G	97.41	Inf	-Inf	66.68	3	Vertical	316	1.80	-	27.82	2.91	-
PK	2.4835G	55.68	74.00	-18.32	24.94	3	Vertical	316	1.80	-	27.83	2.91	-
AV	2.4835G	47.49	54.00	-6.51	16.75	3	Vertical	316	1.80	-	27.83	2.91	-

BT-EDR(3Mbps)

2480MHz_TX

13/02/2020



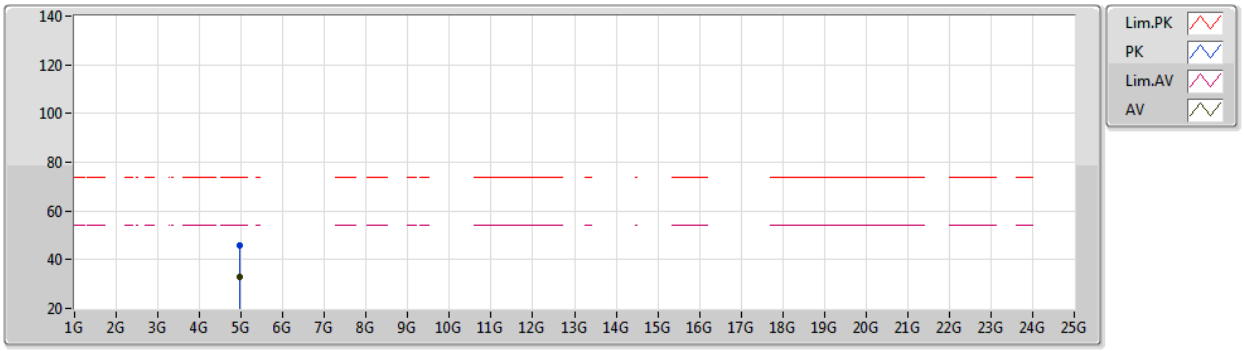
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.48G	89.04	Inf	-Inf	58.31	3	Horizontal	264	1.80	-	27.82	2.91	-
AV	2.48G	84.84	Inf	-Inf	54.11	3	Horizontal	264	1.80	-	27.82	2.91	-
PK	2.4966G	55.12	74.00	-18.88	24.31	3	Horizontal	264	1.80	-	27.89	2.92	-
AV	2.4996G	43.44	54.00	-10.56	12.62	3	Horizontal	264	1.80	-	27.90	2.92	-

BT-EDR(3Mbps)

2480MHz_TX

13/02/2020



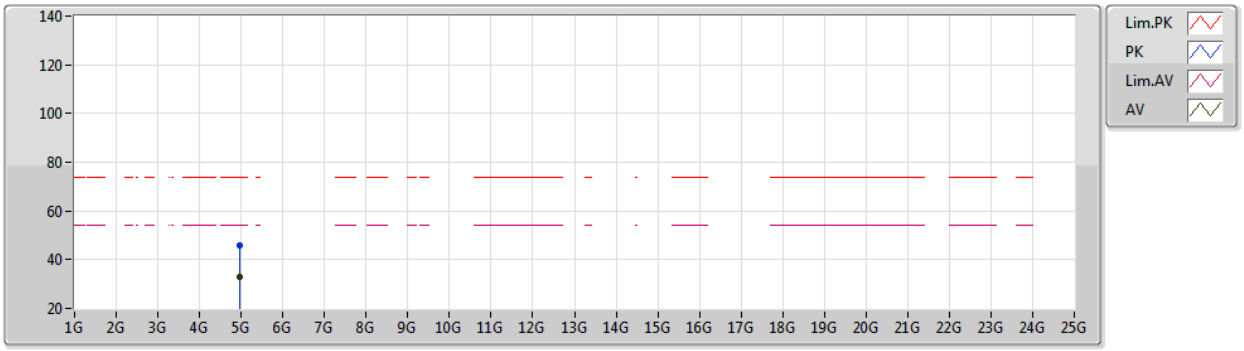
EUT Y_1TX
Setting 10
04-C-K-3

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.95982G	45.86	74.00	-28.14	41.41	3	Vertical	339	1.86	-	33.02	5.00	33.57
AV	4.95988G	32.73	54.00	-21.27	28.28	3	Vertical	339	1.86	-	33.02	5.00	33.57

BT-EDR(3Mbps)

2480MHz_TX

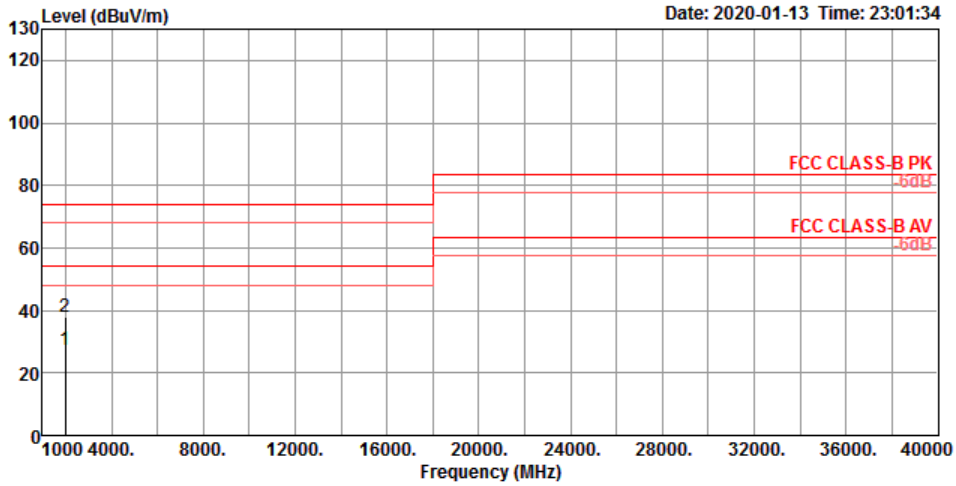
13/02/2020



EUT Y_1TX
Setting 10
04-C-K-3

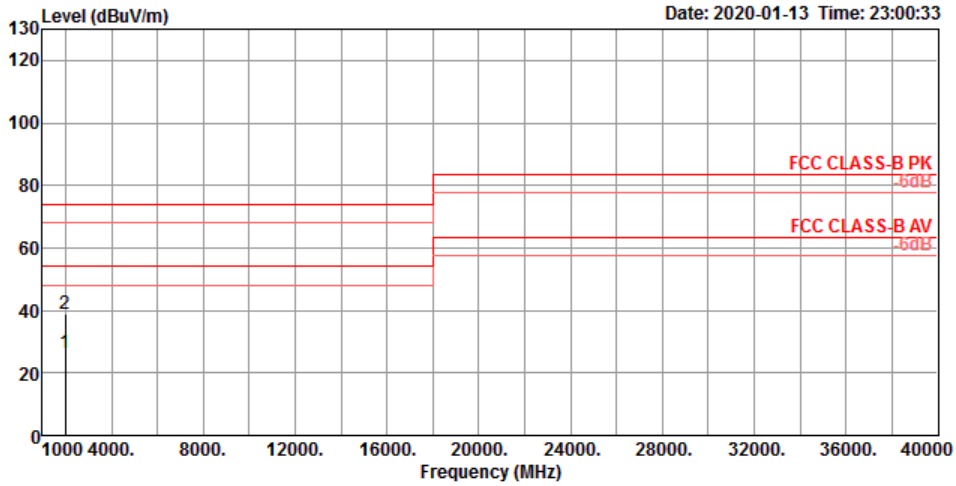
Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.95676G	45.83	74.00	-28.17	41.39	3	Horizontal	104	2.58	-	33.01	5.00	33.57
AV	4.95984G	32.79	54.00	-21.21	28.34	3	Horizontal	104	2.58	-	33.02	5.00	33.57

RSE Co-location Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	WLAN 5GHz + Bluetooth + antenna set 1		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1974.35	27.54	54.00	-26.46	31.04	3.54	29.92	36.96	200	349	Average	HORIZONTAL
2	1974.49	38.00	74.00	-36.00	41.50	3.54	29.92	36.96	200	349	Peak	HORIZONTAL

RSE Co-location Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	WLAN 5GHz + Bluetooth + antenna set 1		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1974.25	26.34	54.00	-27.66	29.84	3.54	29.92	36.96	166	259	Average	VERTICAL
2	1975.36	38.81	74.00	-35.19	42.20	3.54	30.03	36.96	166	259	Peak	VERTICAL