Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	ZQ6-AP6256
Equipment	:	Wi-Fi/Bluetooth Module
Brand Name	:	AMPAK Technology Inc.
Model Name	:	AP6256
Applicant	:	AMPAK Technology Inc. 3F, No. 1, Jen Al Road, Hsinchu Industrial Park,Hsinchu City 30352 , Taiwan (R.O.C.)
Manufacturer	:	Billionton Systems Inc No. 21, Shuili Rd., East Dist., Hsinchu City 300053 , Taiwan (R.O.C.)
Standard	:	47 CFR FCC Part 15.247

The product was received on Feb. 20, 2024, and testing was started from Feb. 20, 2024 and completed on Apr. 26, 2024. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

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Appendix H. Test Photos

Photographs of EUT v01

History of this test report

Report No.	Version	Description	Issued Date
FR412211AC	01	Initial issue of report	May 13, 2024

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	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen
Report Producer: Sophia Shiung

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 π/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.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	PULSE ELECTRONICS PTE LTD	TZ2412W	Dipole	Reversed-SMA	Note 1

Note 1:

Ant.	Gain (dBi)		
	WLAN 2.4GHz	WLAN 5GHz	Bluetooth
1	3.68	4.65	3.68

Note 2: The above information was declared by manufacturer.

Note 3: **For 2.4GHz function:**

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

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

For 5GHz function:

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

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

For Bluetooth function (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)	0.741	1.3	2.888m	1k
BT-EDR(2Mbps)	0.742	1.3	2.891m	1k
BT-EDR(3Mbps)	0.743	1.29	2.893m	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	For Emissions in Restricted Frequency Bands < 1GHz: DOS [ver 6.1.7601] For other test items: BlueTool (ver 1.9.7.4)

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 15.247

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 558074 D01 v05r02
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab.：Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Nyle Chang	21.5~22.9 / 66~69	Feb. 21, 2024~ Feb. 27, 2024
Radiated < 1GHz	03CH05-CB	Roy Mai	21.9~22.4 / 55~58	Feb. 20, 2024~ Apr. 26, 2024
Radiated > 1GHz	03CH06-CB	Roy Mai	21.4~22.5 / 55~58	Feb. 20, 2024~ Apr. 26, 2024
AC Conduction	CO01-CB	Bob Chang	22~23 / 50~51	Mar. 21, 2024~ Apr. 22, 2024

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)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

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

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 Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	EUT_Bluetooth
2	EUT_WLAN 2.4GHz
3	EUT_WLAN 5GHz
For operating, mode 2 is the worst case and it was recorded 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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis positions with each function at Radiated measurement > 1GH, and the worst cases were found at Y axis for WLAN 2.4GHz, X axis for Bluetooth, and Z axis for WLAN 5GHz. Thus, the measurement will follow these same test configurations.
1	EUT in X axis_Bluetooth
2	EUT in Y axis_WLAN 2.4GHz
3	EUT in Z axis_WLAN 5GHz
For operating, mode 2 is the worst case and it was recorded in this test report.	
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis positions, and the worst case was found at X axis. Thus, the measurement will follow this same test configuration.
1	EUT in X axis

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	WIFI Fixture	AMPAK Technology Inc.	A113D_EVB_V01	N/A
B	EUT Fixture	AMPAK Technology Inc.	AP6256	N/A
C	Power Supply	MOTECH	LPS-305	N/A
D	AP Router NB	DELL	E6430	N/A
E	AP Router	TP-LINK	Archer C54	N/A

For Radiated < 1GHz:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	EUT Fixture	AMPAK Technology Inc.	AP6256	N/A
B	WIFI Fixture	AMPAK Technology Inc.	A113D_EVB_V01	N/A
C	USB adapter	HANG	C6	N/A
D	DC Power Supply	MOTECH	LPS-305	N/A

For Radiated > 1GHz:

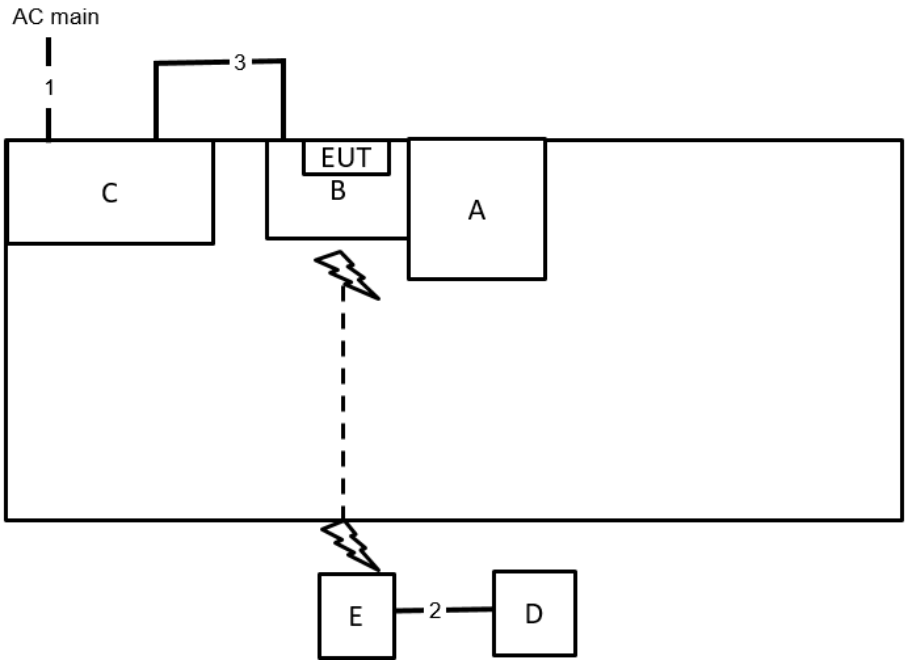
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	EUT Fixture	AMPAK Technology Inc.	AP6256	N/A
B	BT Fixture	AMPAK Technology Inc.	UART_V07	N/A
C	USB adapter	HANG	C6	N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	EUT Fixture	AMPAK Technology Inc.	AP6256	N/A
B	BT Fixture	AMPAK Technology Inc.	UART_V07	N/A
C	PC	AMPAK Technology Inc.	H81-PLUS	N/A

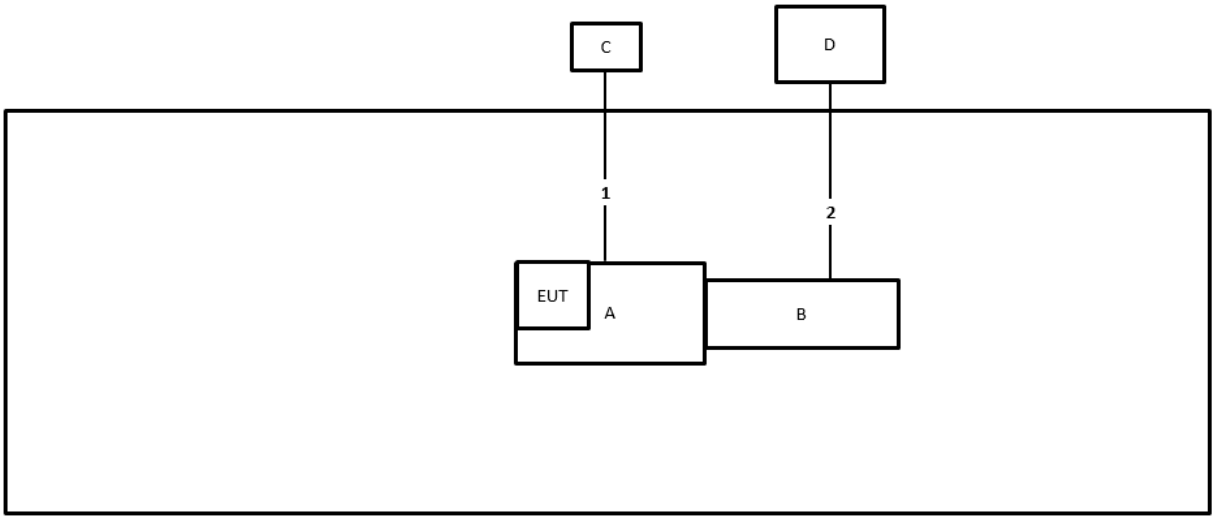
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



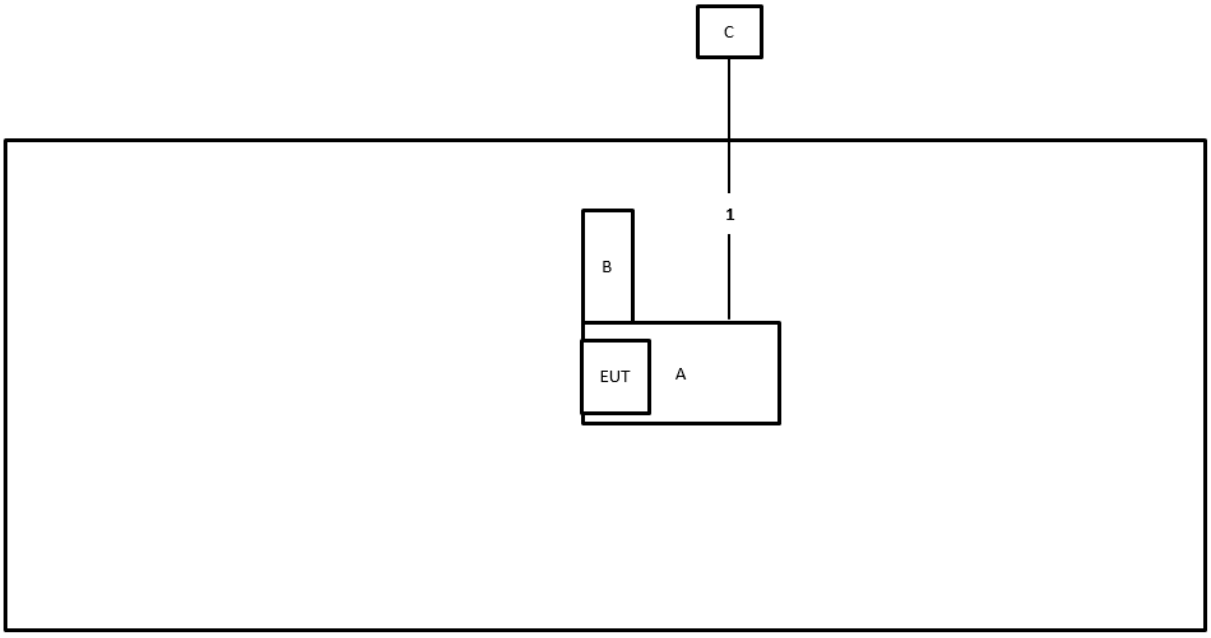
Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	1.5m
3	DC cable*2	No	0.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	USB cable	Yes	1.5m
2	DC cable*2	No	0.2m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	USB cable	Yes	1.5m

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

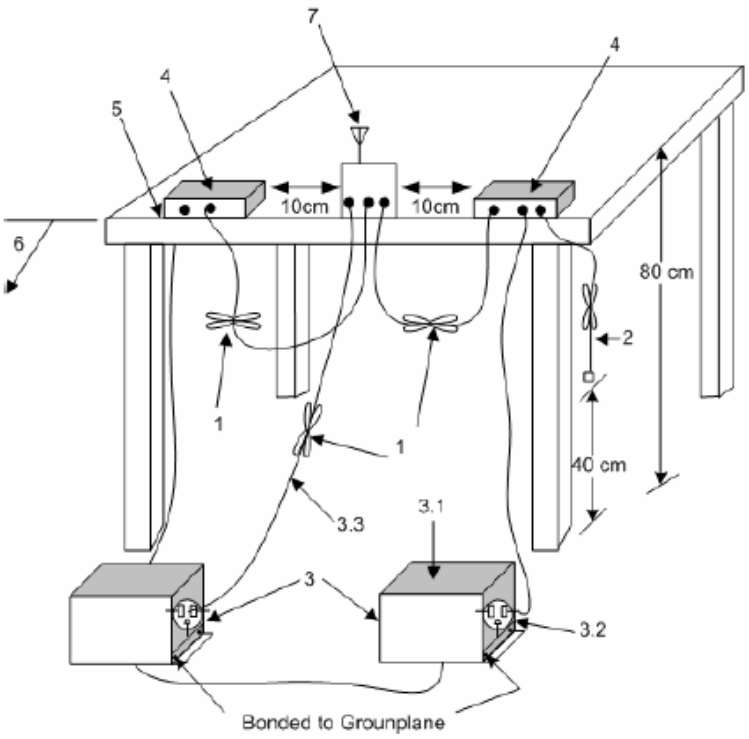
Refer a test equipment and calibration data table in this test report.

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.

1.1.1. Measurement Results Calculation

The measured Level is calculated using:

a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level

b. Margin = -Limit + Level

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	

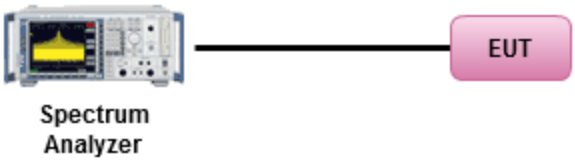
3.2.2 Measuring Instruments

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 23.98dBm; EIRP 29.98dBm
▪ 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

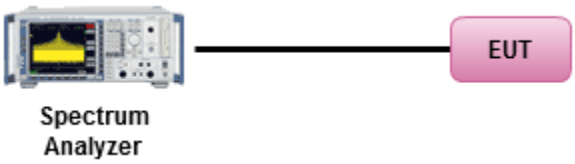
3.4.3 Measuring Instruments

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	

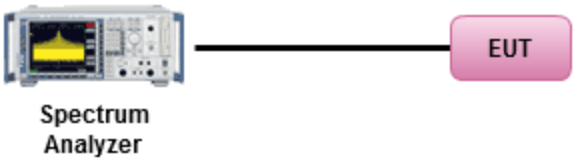
3.5.2 Measuring Instruments

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

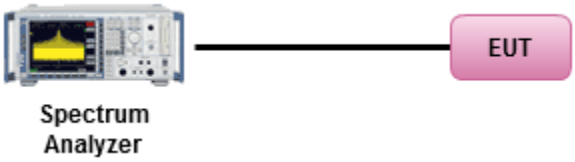
Refer a test equipment and calibration data table in this test report.

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.

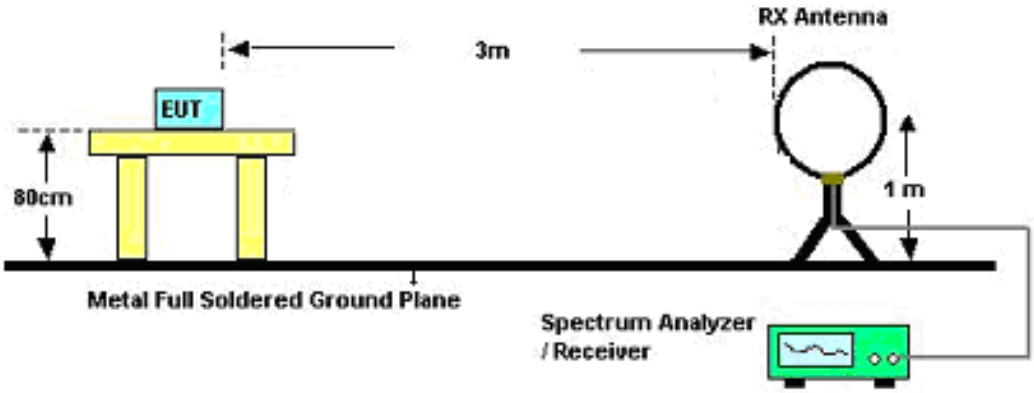
3.7.3 Test Procedures

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.

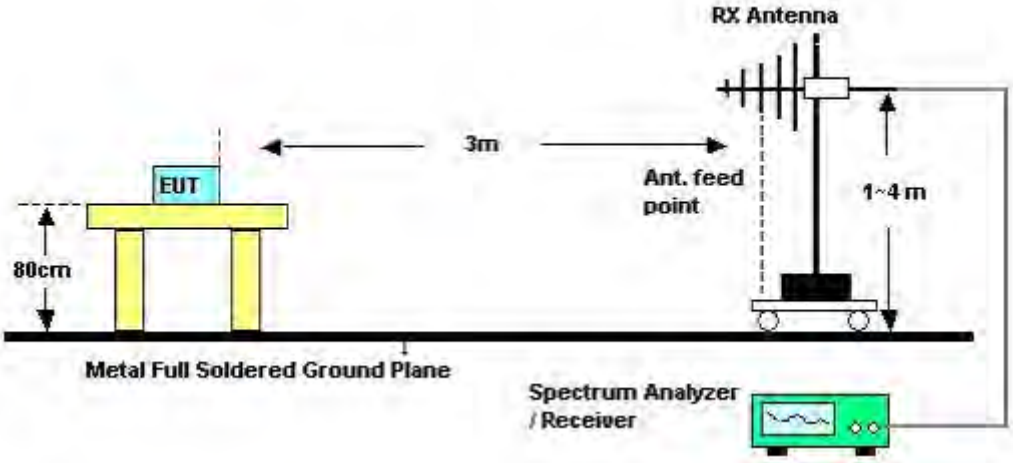
3.7.4 Test Setup

Emissions in Restricted Frequency Bands

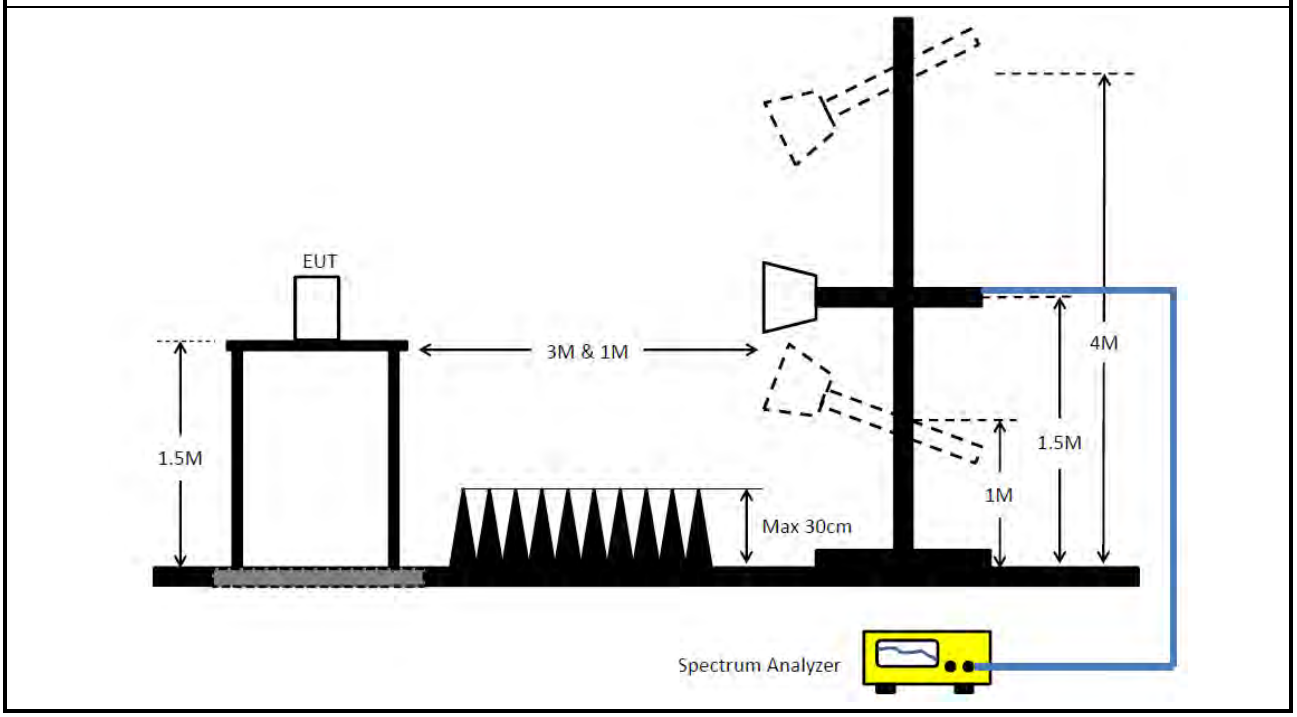
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.7.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = 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 10th 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	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 01, 2024	Feb. 28, 2025	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 19, 2024	Feb. 18, 2025	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 08, 2024	Feb. 07, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 17, 2023	Oct. 16, 2024	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30MHz ~ 1GHz	Aug. 02, 2023	Aug. 01, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 24, 2023	Mar. 23, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 23, 2024	Mar. 22, 2025	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 03, 2023	May 02, 2024	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 17, 2024	Apr. 16, 2025	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Dec. 06, 2023	Dec. 05, 2024	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Jul. 31, 2023	Jul. 30, 2024	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH06-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH06-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	May 29, 2023	May 28, 2024	Radiation (03CH06-CB
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Dec. 22, 2023	Dec. 21, 2024	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Sep. 04, 2023	Sep. 03, 2024	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Sep. 04, 2023	Sep. 03, 2024	Conducted (TH03-CB)
RF Cable	Woken	RG402	High Cable-11	30MHz –18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH03-CB)
RF Cable	Woken	RG402	High Cable-12	30MHz –18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH03-CB)
RF Cable	Woken	RG402	High Cable-13	30MHz –18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1GHz –18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1GHz –18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 ~26.5GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

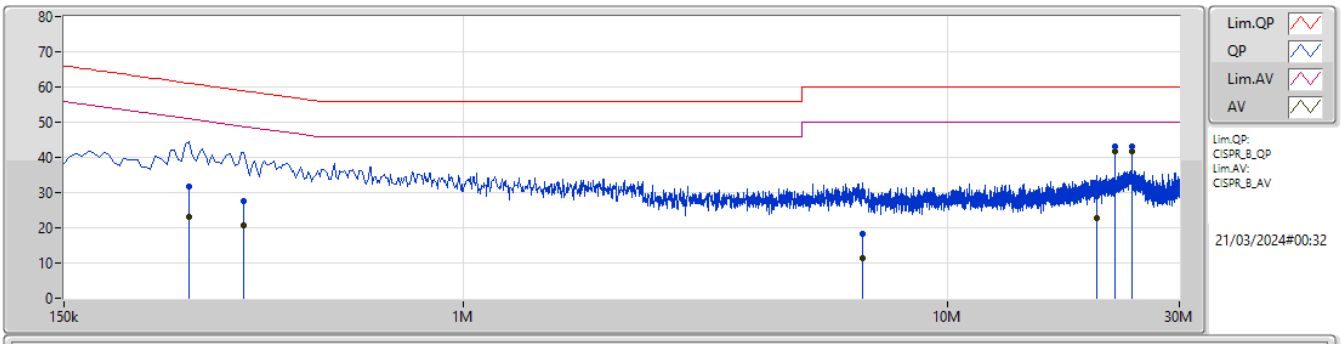
Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.

Summary

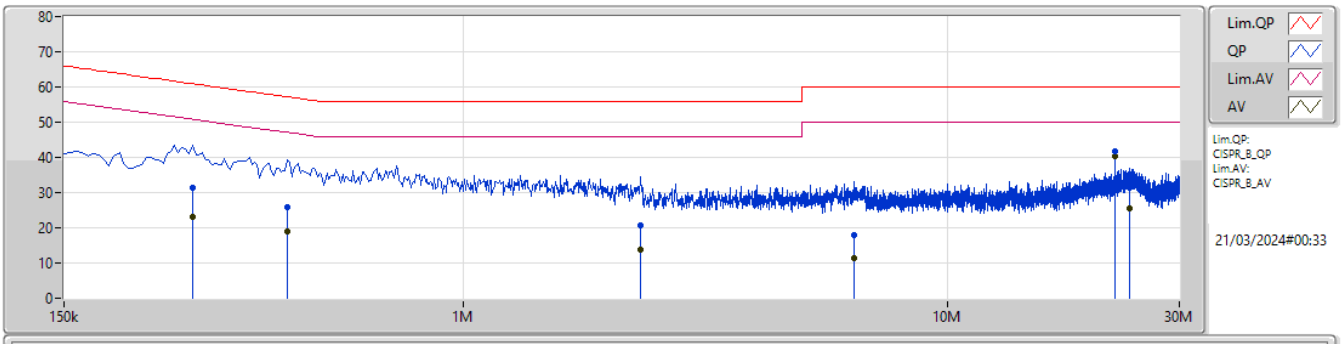
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 2	Pass	AV	24.009M	41.60	50.00	-8.40	Line

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	271.5k	31.56	61.07	-29.51	9.97	Line	-	21.59	0.08	0.02	9.87
AV	271.5k	23.27	51.07	-27.80	9.97	Line	-	13.30	0.08	0.02	9.87
QP	352.5k	27.58	58.91	-31.33	9.99	Line	-	17.59	0.09	0.02	9.88
AV	352.5k	20.74	48.91	-28.17	9.99	Line	-	10.75	0.09	0.02	9.88
QP	6.662M	18.15	60.00	-41.85	10.26	Line	-	7.89	0.21	0.14	9.91
AV	6.662M	11.44	50.00	-38.56	10.26	Line	-	1.18	0.21	0.14	9.91
QP	20.274M	28.90	60.00	-31.10	10.55	Line	-	18.35	0.30	0.23	10.02
AV	20.274M	22.77	50.00	-27.23	10.55	Line	-	12.22	0.30	0.23	10.02
QP	22.119M	43.03	60.00	-16.97	10.57	Line	-	32.46	0.31	0.23	10.03
AV	22.119M	41.59	50.00	-8.41	10.57	Line	-	31.02	0.31	0.23	10.03
QP	24.009M	42.97	60.00	-17.03	10.59	Line	-	32.38	0.31	0.24	10.04
AV	24.009M	41.60	50.00	-8.40	10.59	Line	"Worst"	31.01	0.31	0.24	10.04

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	276k	31.40	60.93	-29.53	9.96	Neutral	-	21.44	0.07	0.02	9.87
AV	276k	23.07	50.93	-27.86	9.96	Neutral	-	13.11	0.07	0.02	9.87
QP	433.5k	25.94	57.19	-31.25	9.98	Neutral	-	15.96	0.07	0.02	9.89
AV	433.5k	19.11	47.19	-28.08	9.98	Neutral	-	9.13	0.07	0.02	9.89
QP	2.324M	20.60	56.00	-35.40	10.09	Neutral	-	10.51	0.11	0.09	9.89
AV	2.324M	13.94	46.00	-32.06	10.09	Neutral	-	3.85	0.11	0.09	9.89
QP	6.387M	17.98	60.00	-42.02	10.23	Neutral	-	7.75	0.18	0.14	9.91
AV	6.387M	11.21	50.00	-38.79	10.23	Neutral	-	0.98	0.18	0.14	9.91
QP	22.119M	41.74	60.00	-18.26	10.57	Neutral	-	31.17	0.31	0.23	10.03
AV	22.119M	40.22	50.00	-9.78	10.57	Neutral	"Worst"	29.65	0.31	0.23	10.03
QP	23.735M	31.44	60.00	-28.56	10.61	Neutral	-	20.83	0.33	0.24	10.04
AV	23.735M	25.64	50.00	-24.36	10.61	Neutral	-	15.03	0.33	0.24	10.04

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)	929.5k	906.137k	906KF1D	926.75k	887.28k
BT-EDR(2Mbps)	1.367M	1.249M	1M25G1D	1.353M	1.216M
BT-EDR(3Mbps)	1.356M	1.247M	1M25G1D	1.312M	1.215M

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

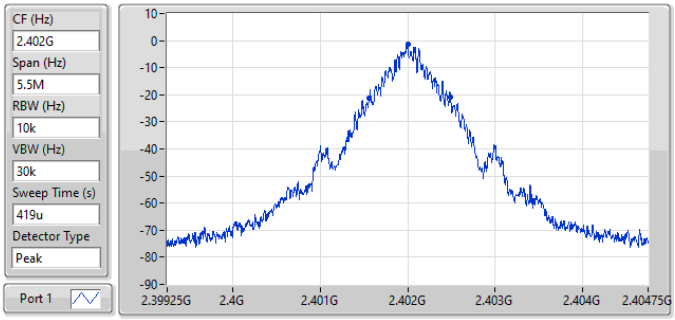
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	929.5k	899.333k
2440MHz	Pass	Inf	929.5k	887.28k
2480MHz	Pass	Inf	926.75k	906.137k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.353M	1.216M
2440MHz	Pass	Inf	1.356M	1.246M
2480MHz	Pass	Inf	1.367M	1.249M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.345M	1.247M
2440MHz	Pass	Inf	1.312M	1.215M
2480MHz	Pass	Inf	1.356M	1.237M

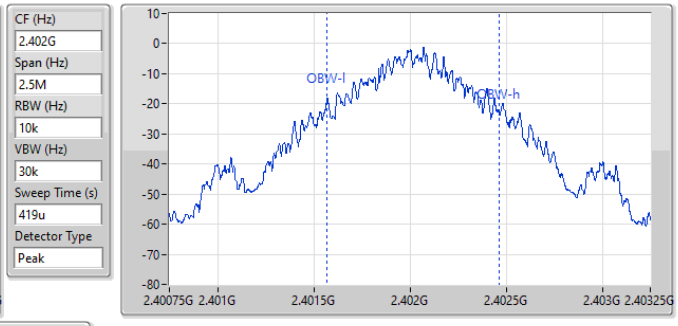
Port X-N dB = Port X 20dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-BR(1Mbps) **EBW-FS**

2402MHz

21/02/2024



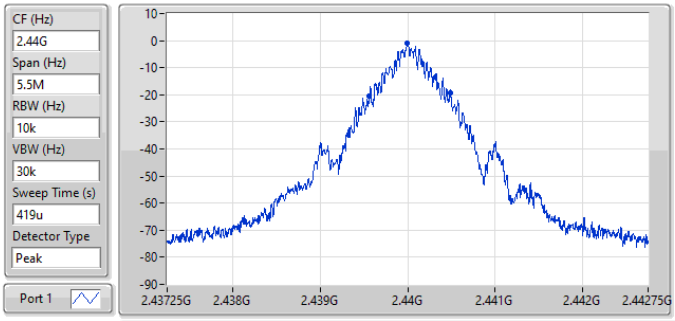


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
929.5k	2.401557G	2.402487G	899.333k	2.401568G	2.402467G	Inf	1

2.4-2.4835GHz_BT-BR(1Mbps) **EBW-FS**

2440MHz

21/02/2024

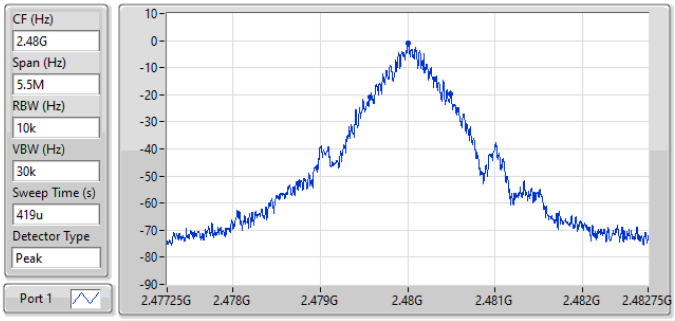


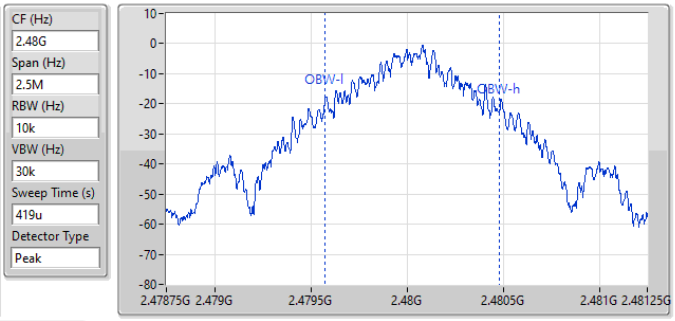
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
929.5k	2.439563G	2.440492G	887.28k	2.439576G	2.440463G	Inf	1

2.4-2.4835GHz_BT-BR(1Mbps) **EBW-FS**

2480MHz

21/02/2024



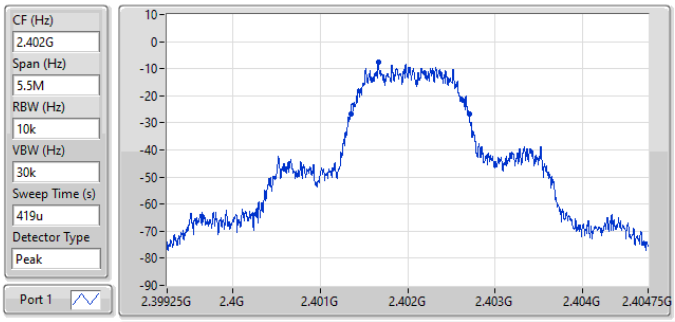


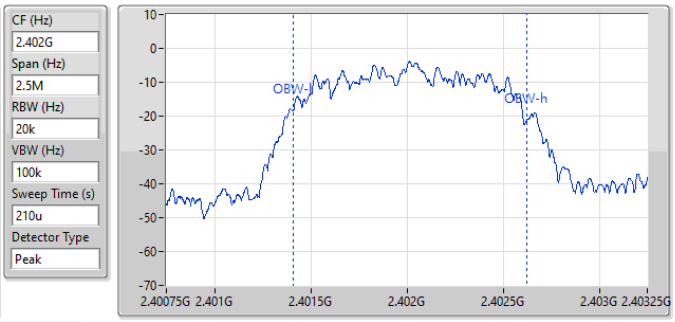
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
926.75k	2.479568G	2.480495G	906.137k	2.479576G	2.480482G	Inf	1

2.4-2.4835GHz_BT-EDR(2Mbps) **EBW-FS**

2402MHz

21/02/2024



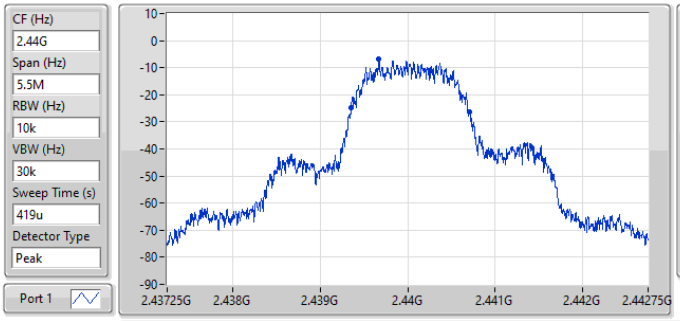


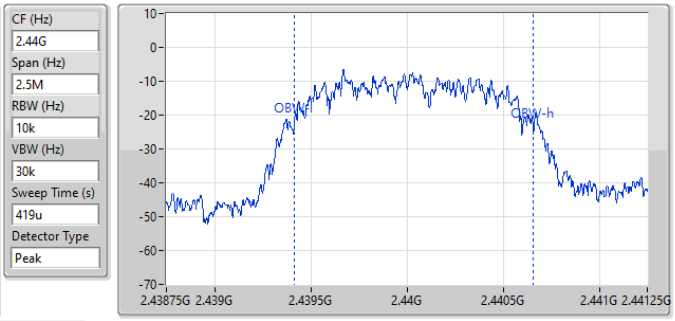
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.353M	2.401348G	2.402701G	1.216M	2.40141G	2.402626G	Inf	1

2.4-2.4835GHz_BT-EDR(2Mbps) **EBW-FS**

2440MHz

21/02/2024



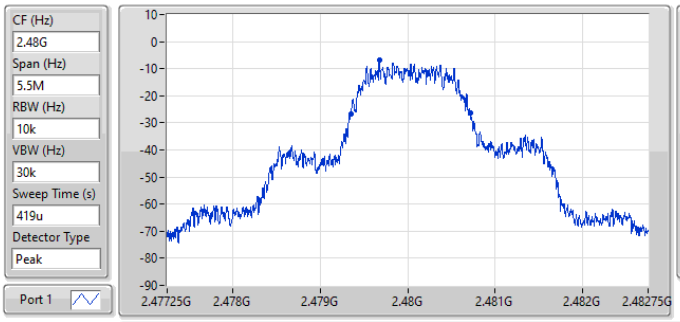


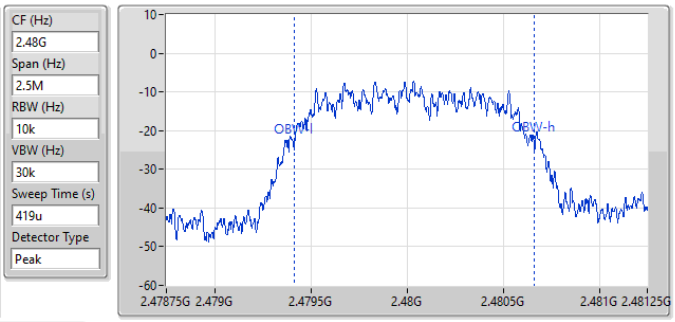
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.356M	2.439351G	2.440707G	1.246M	2.439412G	2.440658G	Inf	1

2.4-2.4835GHz_BT-EDR(2Mbps) **EBW-FS**

2480MHz

21/02/2024



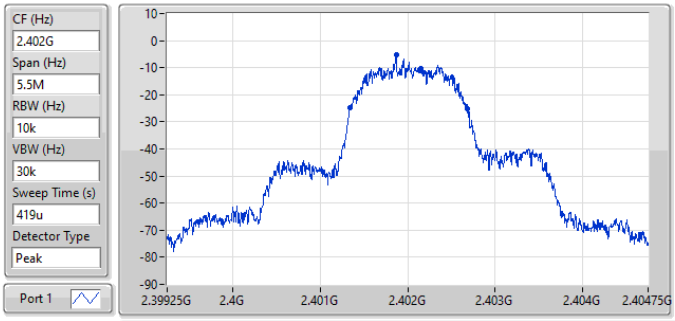


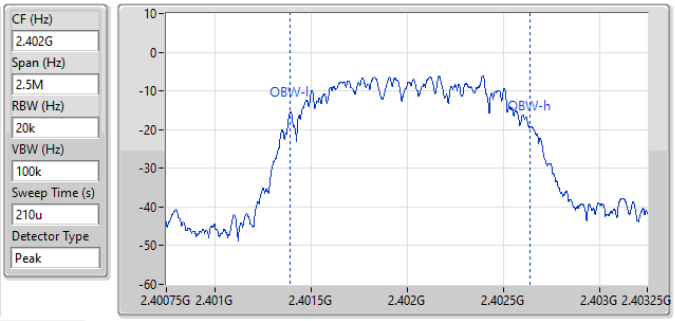
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.367M	2.479351G	2.480718G	1.249M	2.479416G	2.480664G	Inf	1

2.4-2.4835GHz_BT-EDR(3Mbps) **EBW-FS**

2402MHz

21/02/2024



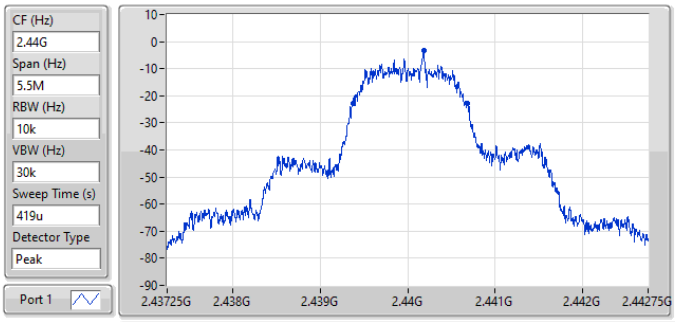


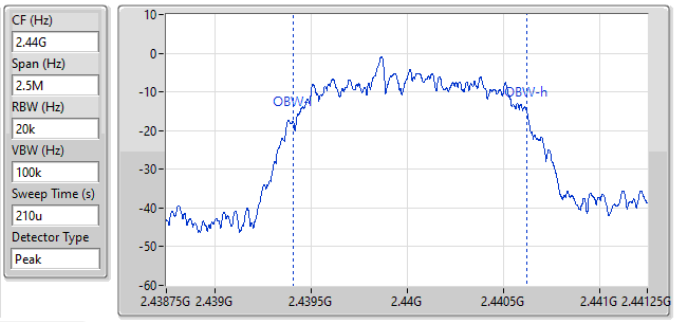
20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.345M	2.40134G	2.402685G	1.247M	2.401392G	2.402639G	Inf	1

2.4-2.4835GHz_BT-EDR(3Mbps) **EBW-FS**

2440MHz

21/02/2024



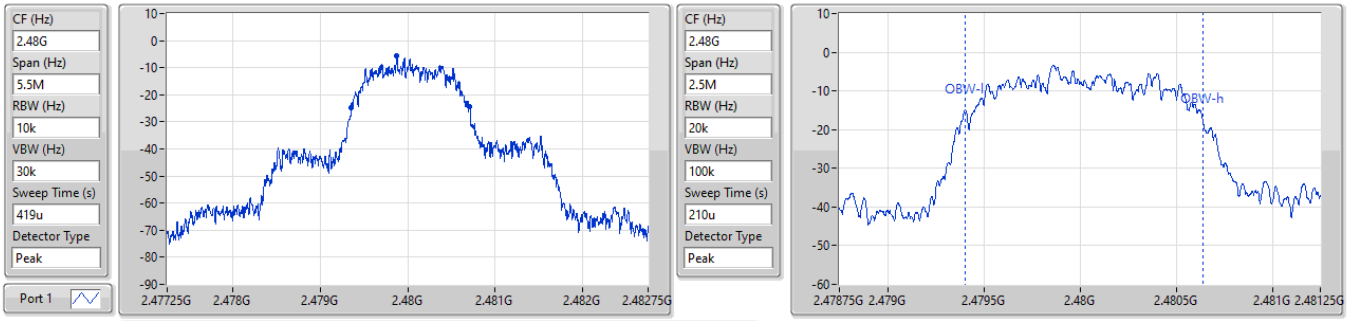


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.312M	2.439376G	2.440688G	1.215M	2.439411G	2.440626G	Inf	1

2.4-2.4835GHz_BT-EDR(3Mbps) **EBW-FS**

2480MHz

21/02/2024



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.356M	2.479357G	2.480712G	1.237M	2.479401G	2.480638G	Inf	1

Summary

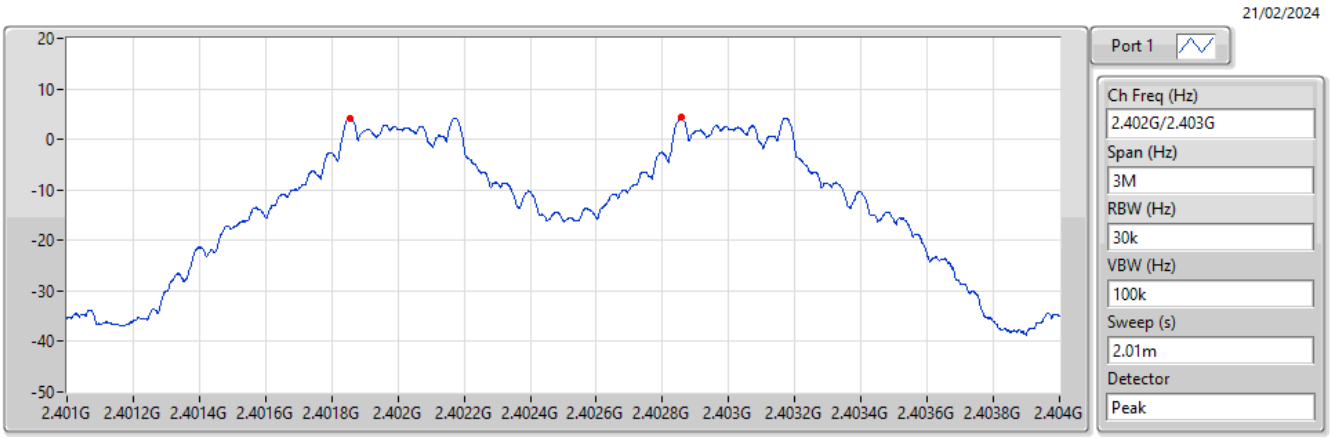
Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.0005M	1.0005M
BT-EDR(2Mbps)	1.002M	1.0005M
BT-EDR(3Mbps)	1.002M	1.0005M

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.401855G	2.402856G	1.0005M	619.047k
2440MHz	Pass	2.439861G	2.440862G	1.0005M	619.047k
2480MHz	Pass	2.478864G	2.479865G	1.0005M	617.2155k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.401854G	2.402856G	1.002M	901.098k
2440MHz	Pass	2.43986G	2.44086G	1.0005M	903.096k
2480MHz	Pass	2.478864G	2.479866G	1.002M	910.422k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.401855G	2.402856G	1.0005M	895.77k
2440MHz	Pass	2.439858G	2.440859G	1.0005M	873.792k
2480MHz	Pass	2.478863G	2.479865G	1.002M	903.096k

2.4-2.4835GHz_BT-BR(1Mbps) **Channel Separation-FS**

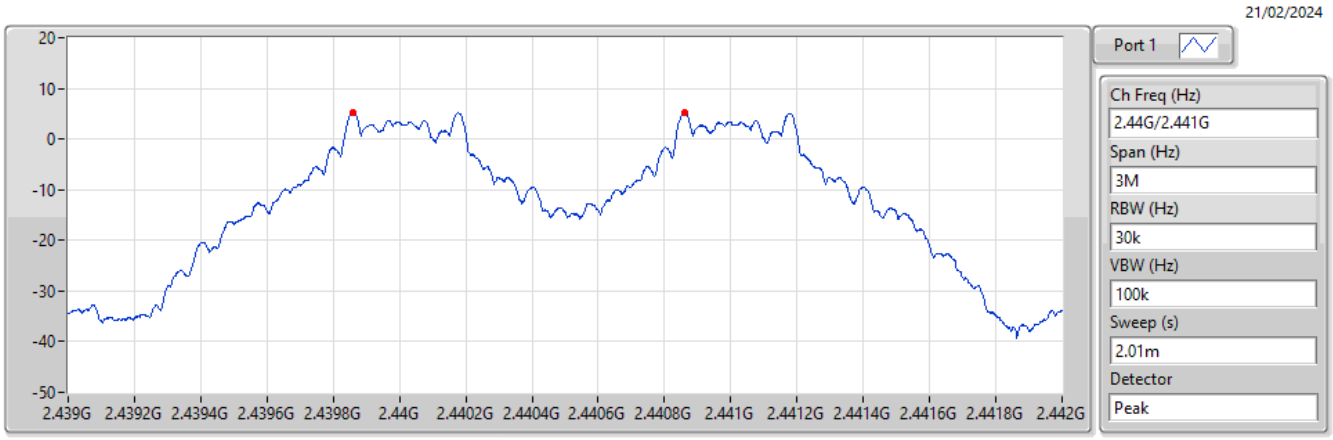
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401855G	2.402856G	1.0005M	619.047k

2.4-2.4835GHz_BT-BR(1Mbps) **Channel Separation-FS**

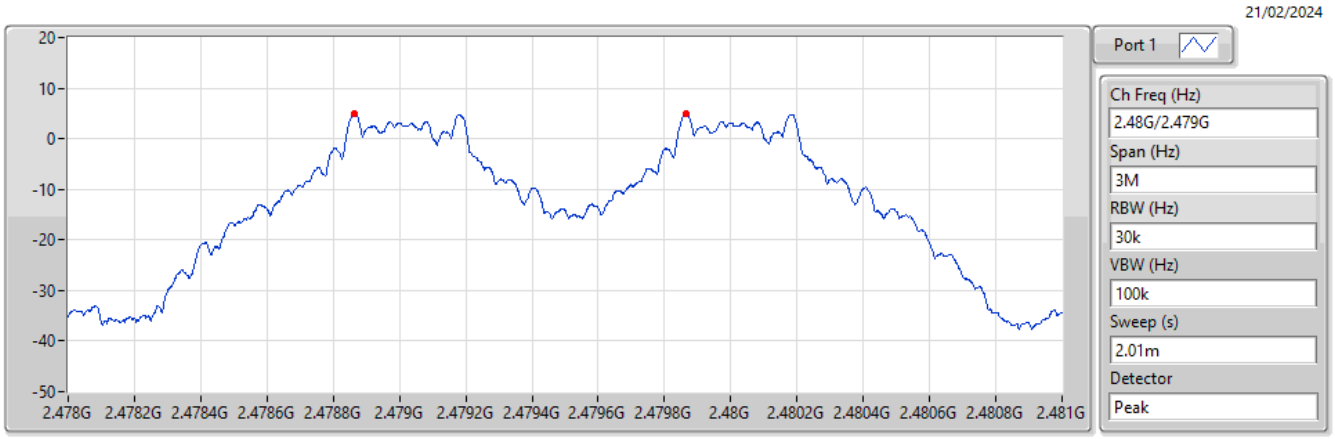
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.439861G	2.440862G	1.0005M	619.047k

2.4-2.4835GHz_BT-BR(1Mbps) **Channel Separation-FS**

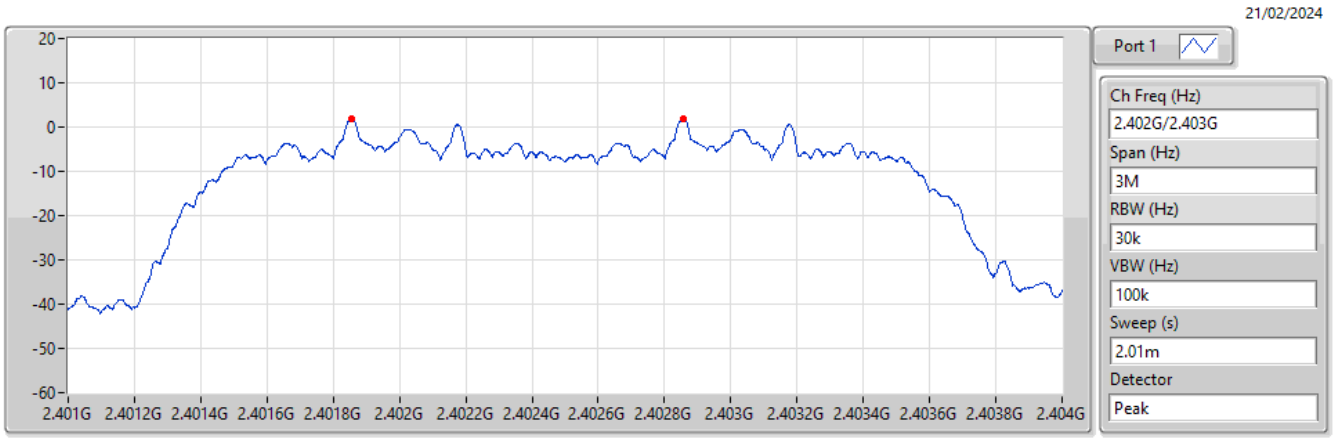
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478864G	2.479865G	1.0005M	617.2155k

2.4-2.4835GHz_BT-EDR(2Mbps) **Channel Separation-FS**

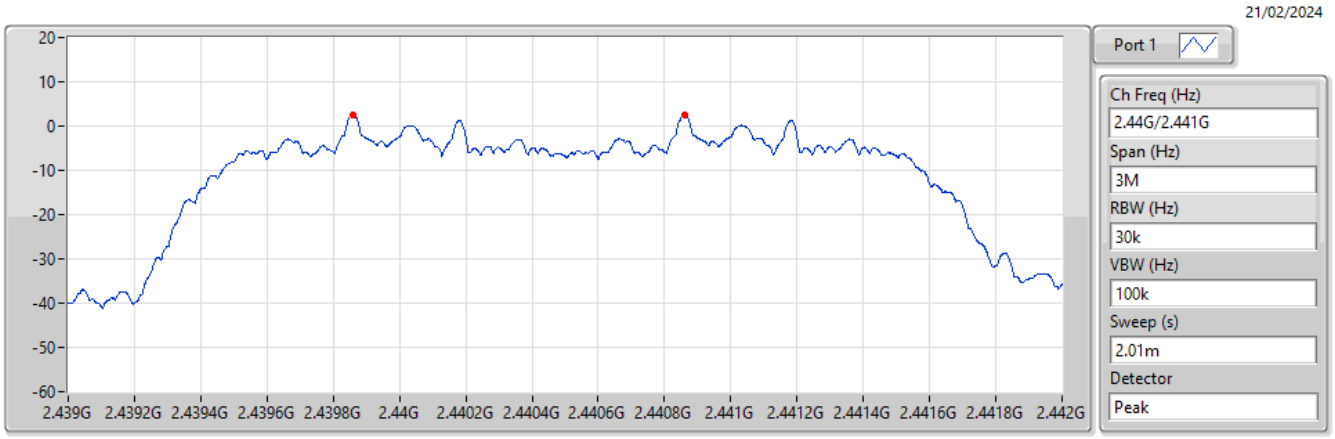
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401854G	2.402856G	1.002M	901.098k

2.4-2.4835GHz_BT-EDR(2Mbps) **Channel Separation-FS**

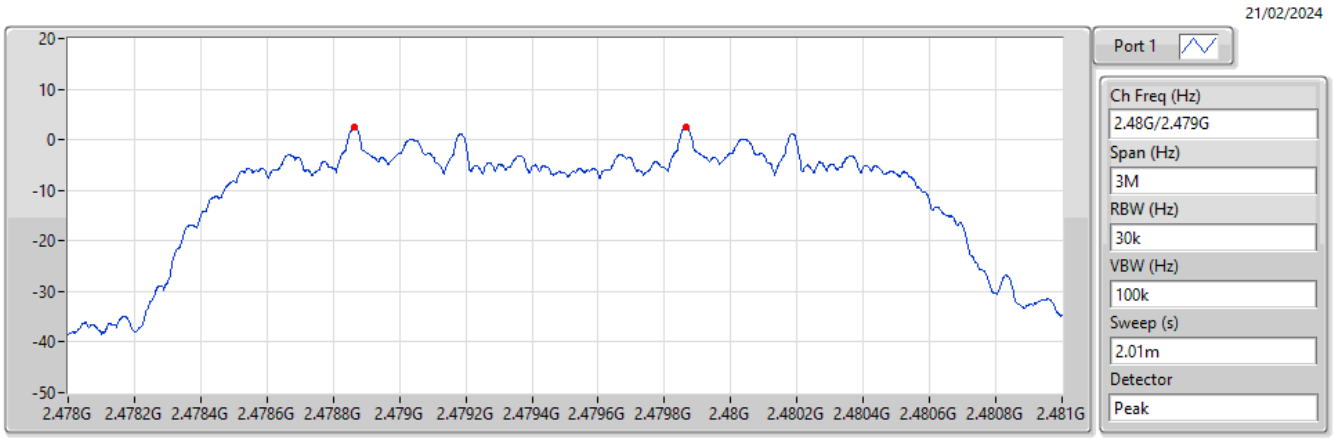
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.43986G	2.44086G	1.0005M	903.096k

2.4-2.4835GHz_BT-EDR(2Mbps) **Channel Separation-FS**

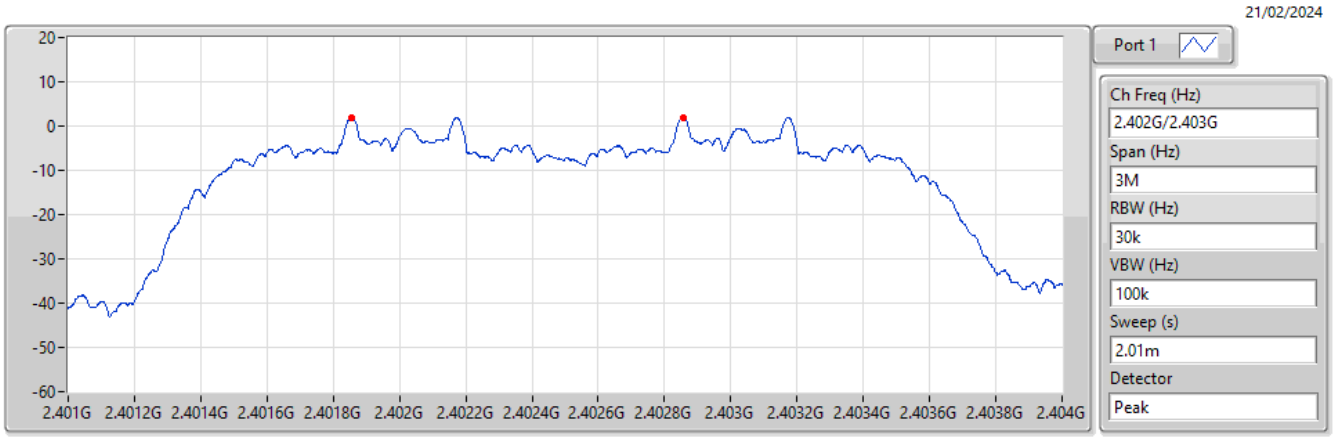
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478864G	2.479866G	1.002M	910.422k

2.4-2.4835GHz_BT-EDR(3Bmps) **Channel Separation-FS**

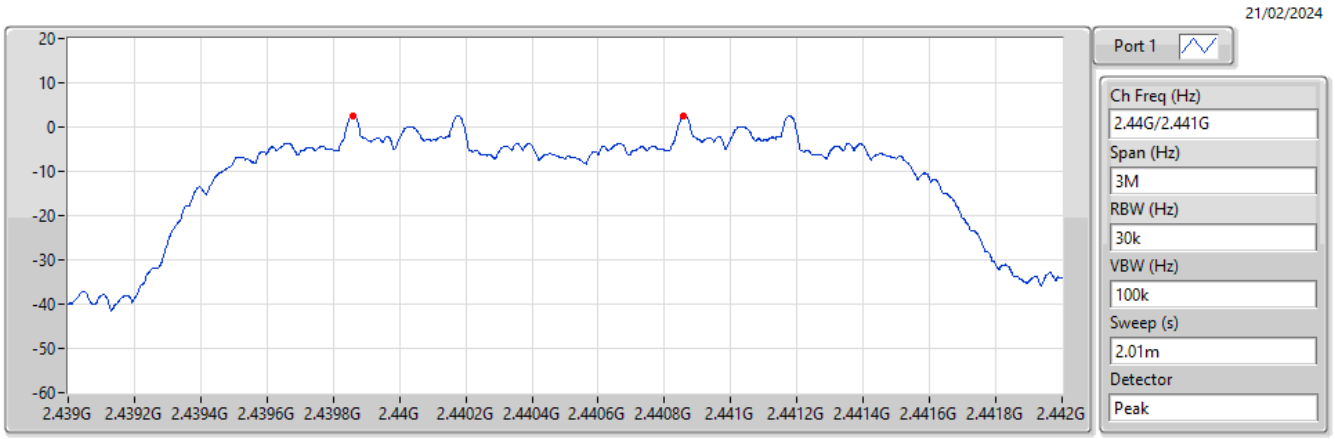
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401855G	2.402856G	1.0005M	895.77k

2.4-2.4835GHz_BT-EDR(3Bmps) **Channel Separation-FS**

2.44G/2.441GHz

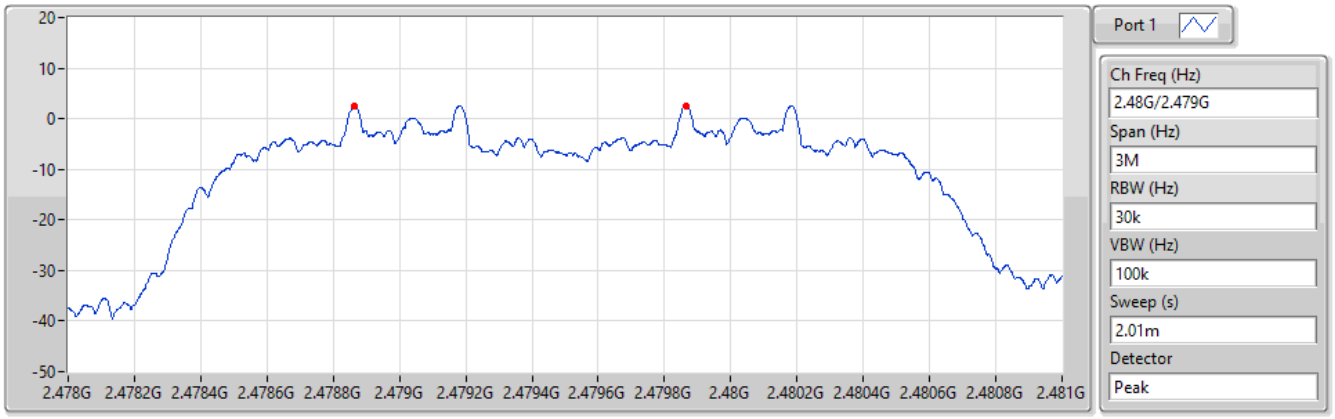


Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.439858G	2.440859G	1.0005M	873.792k

2.4-2.4835GHz_BT-EDR(3Mbps) **Channel Separation-FS**

2.48G/2.479GHz

21/02/2024



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.478863G	2.479865G	1.002M	903.096k

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	6.38	0.00435
BT-EDR(2Mbps)	4.18	0.00262
BT-EDR(3Mbps)	4.17	0.00261

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.68	5.44	21.00
2440MHz	Pass	3.68	6.38	21.00
2480MHz	Pass	3.68	6.07	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.68	3.49	21.00
2440MHz	Pass	3.68	4.18	21.00
2480MHz	Pass	3.68	4.11	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.68	3.53	21.00
2440MHz	Pass	3.68	4.17	21.00
2480MHz	Pass	3.68	4.15	21.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	6.41	0.00438
BT-EDR(2Mbps)	5.86	0.00385
BT-EDR(3Mbps)	6.14	0.00411

Result

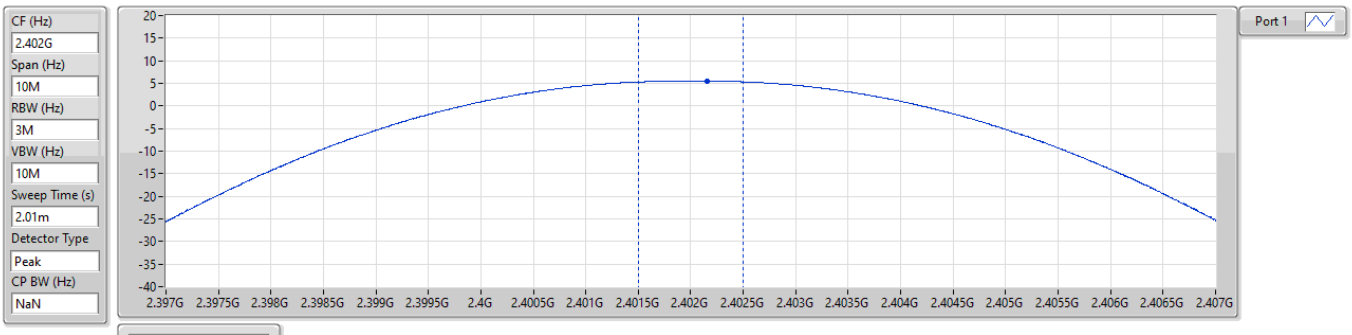
Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.68	5.50	21.00
2440MHz	Pass	3.68	6.41	21.00
2480MHz	Pass	3.68	6.10	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.68	5.18	21.00
2440MHz	Pass	3.68	5.86	21.00
2480MHz	Pass	3.68	5.63	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.68	5.47	21.00
2440MHz	Pass	3.68	6.14	21.00
2480MHz	Pass	3.68	5.87	21.00

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

2.4-2.4835GHz_BT-BR(1Mbps) **PK Power-FS**

2402MHz

21/02/2024



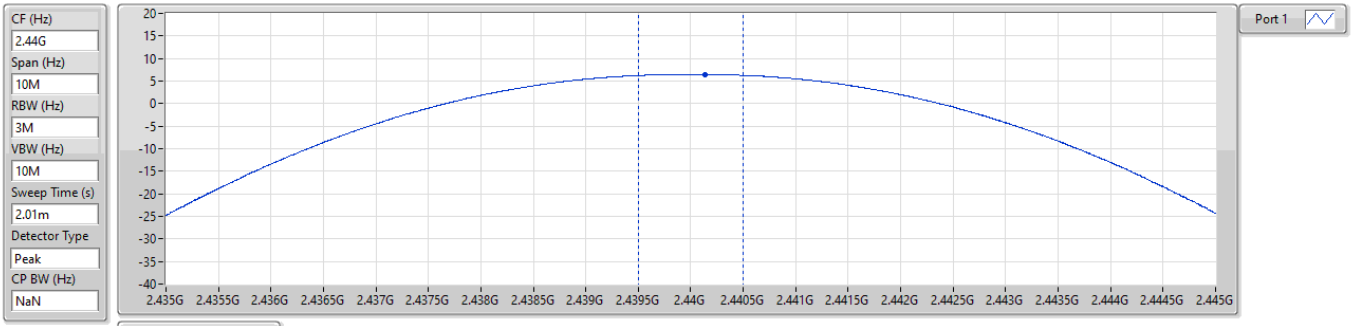
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
5.50	5.50

2.4-2.4835GHz_BT-BR(1Mbps) **PK Power-FS**

2440MHz

21/02/2024



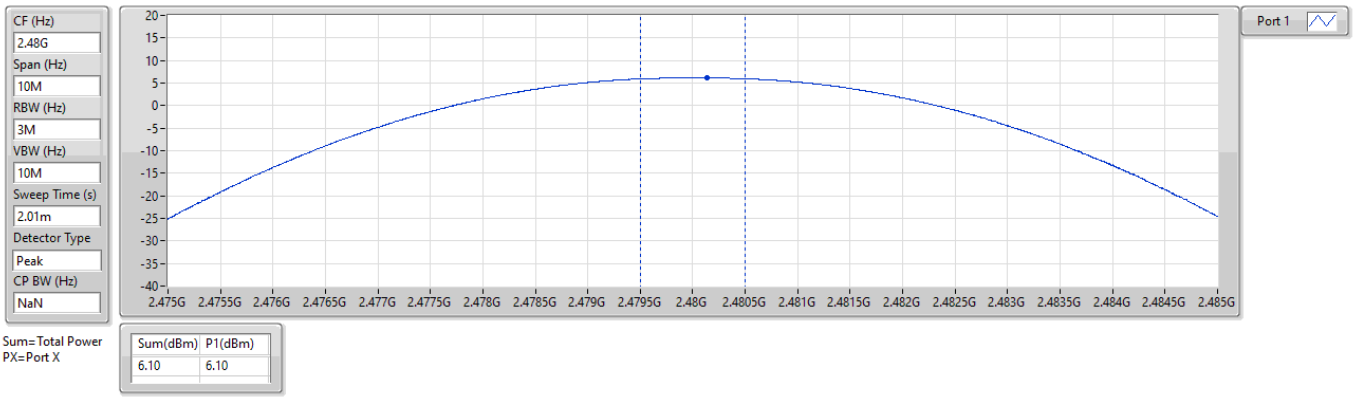
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
6.41	6.41

2.4-2.4835GHz_BT-BR(1Mbps) **PK Power-FS**

2480MHz

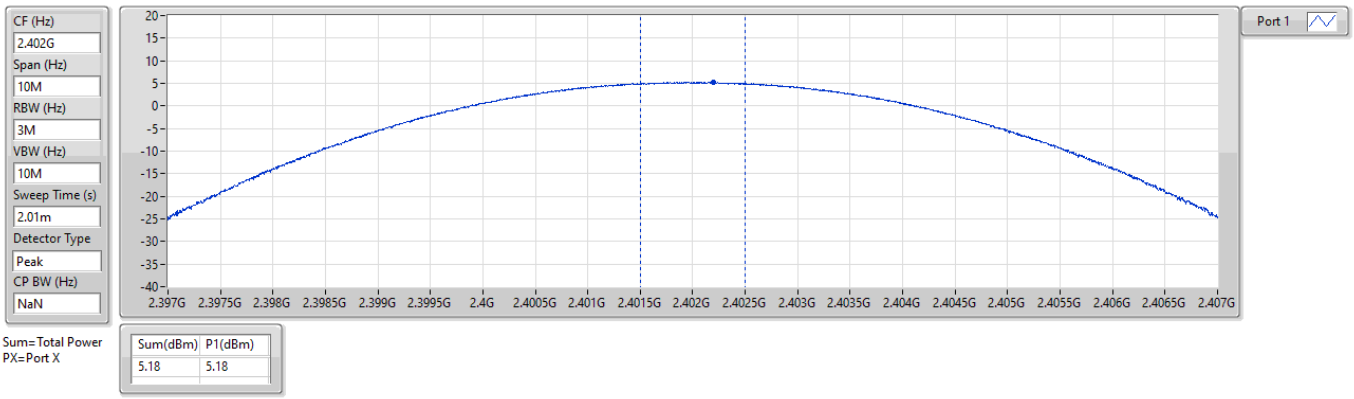
21/02/2024



2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2402MHz

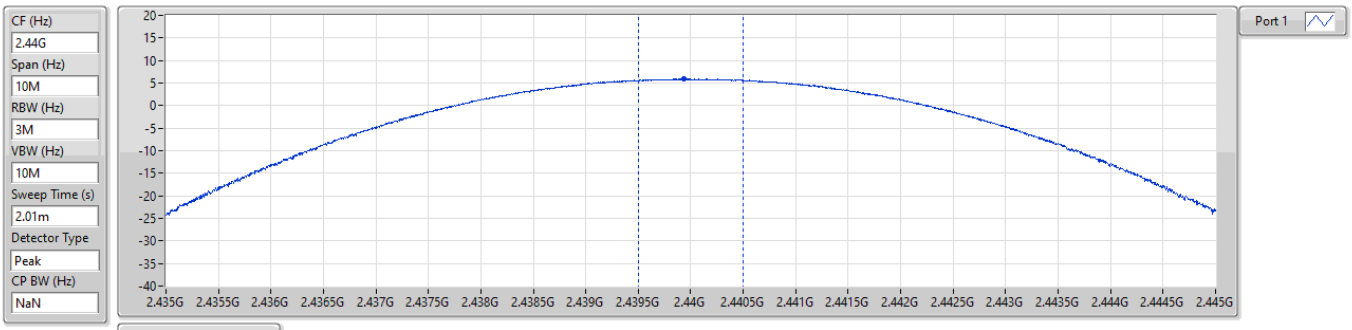
21/02/2024



2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2440MHz

21/02/2024



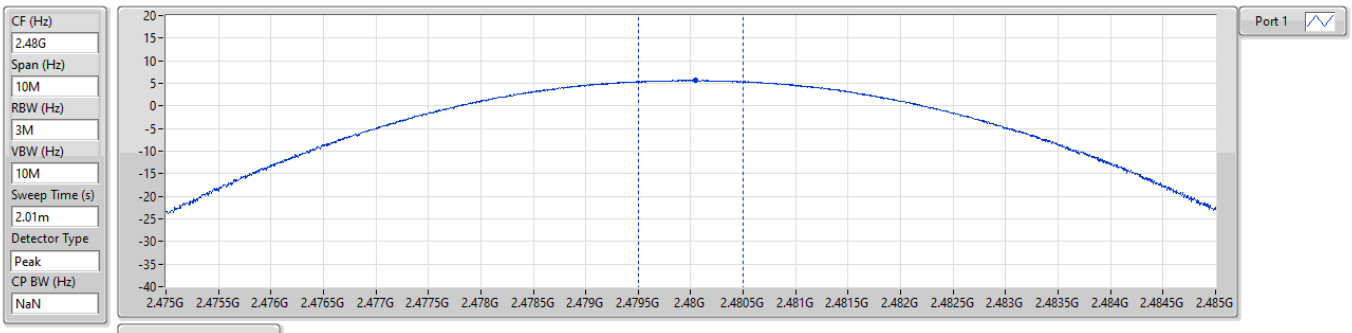
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
5.86	5.86

2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2480MHz

21/02/2024



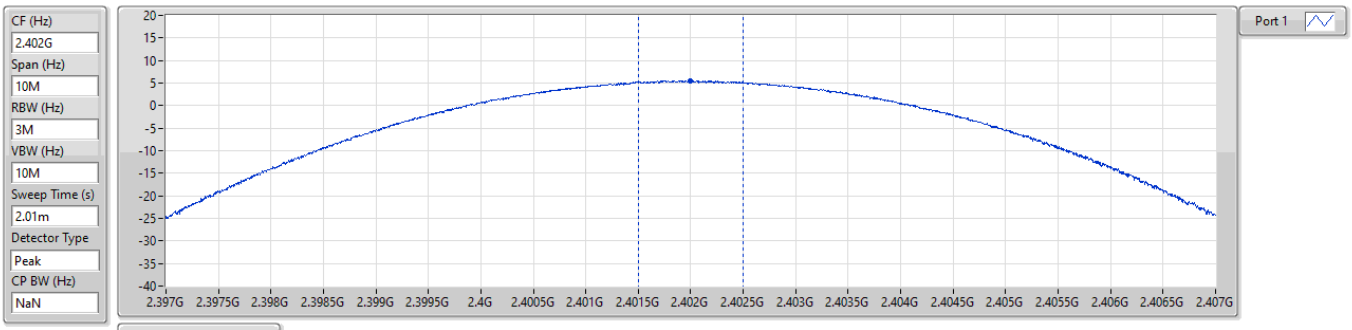
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
5.63	5.63

2.4-2.4835GHz_BT-EDR(3Mbps) **PK Power-FS**

2402MHz

21/02/2024



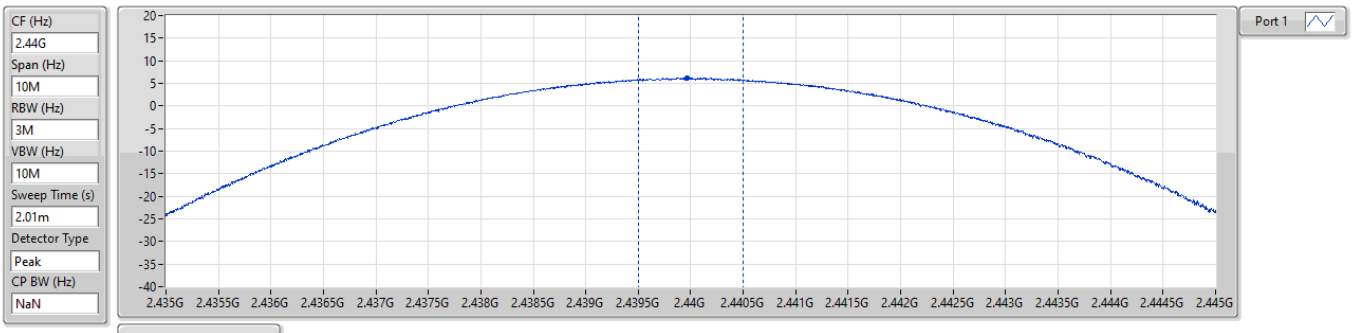
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
5.47	5.47

2.4-2.4835GHz_BT-EDR(3Mbps) **PK Power-FS**

2440MHz

21/02/2024



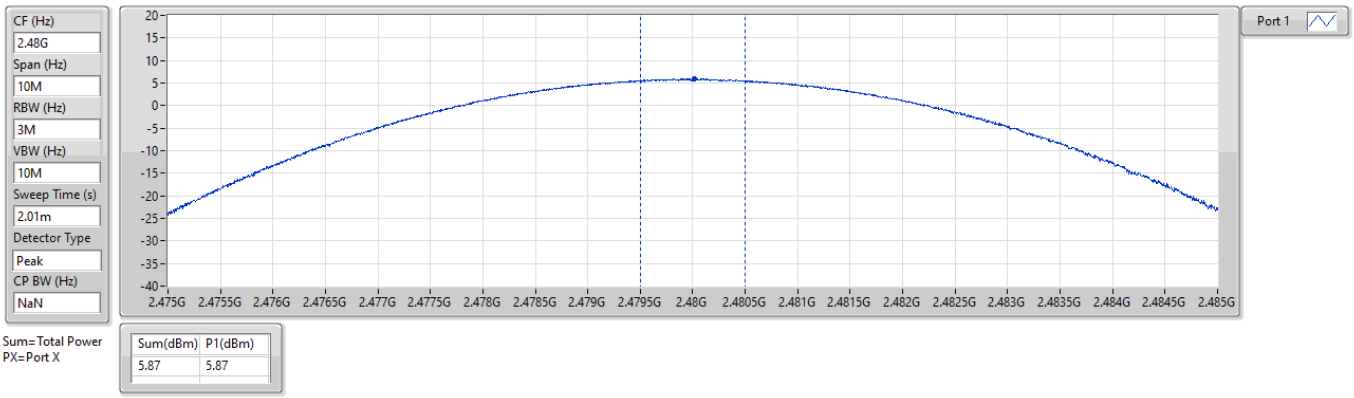
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
6.14	6.14

2.4-2.4835GHz_BT-EDR(3Mbps) **PK Power-FS**

2480MHz

21/02/2024



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
5.87	5.87

Summary

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

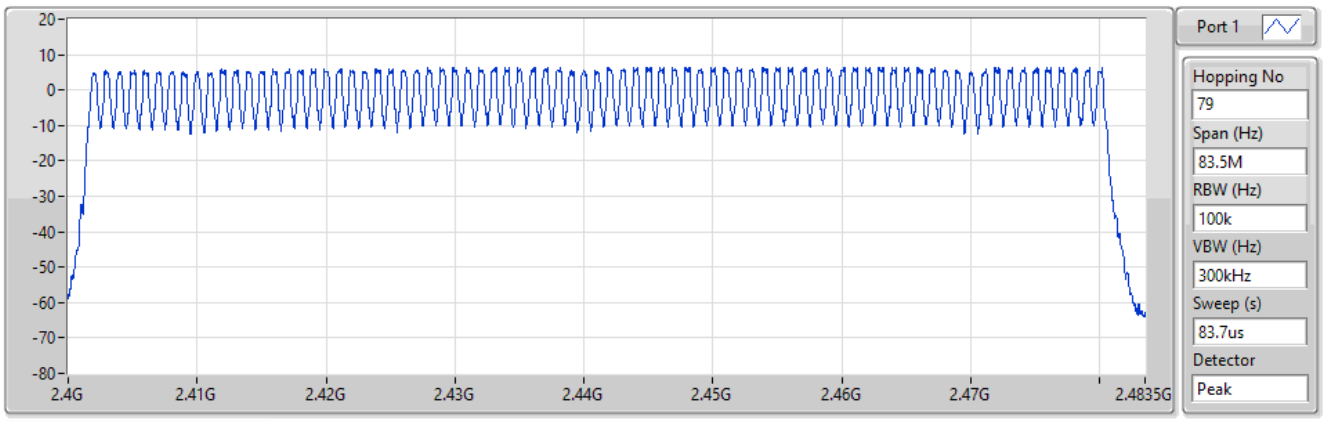
Result

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

2.4-2.4835GHz_BT-BR(1Mbps) **Hopping-FS**

2440MHz

21/02/2024



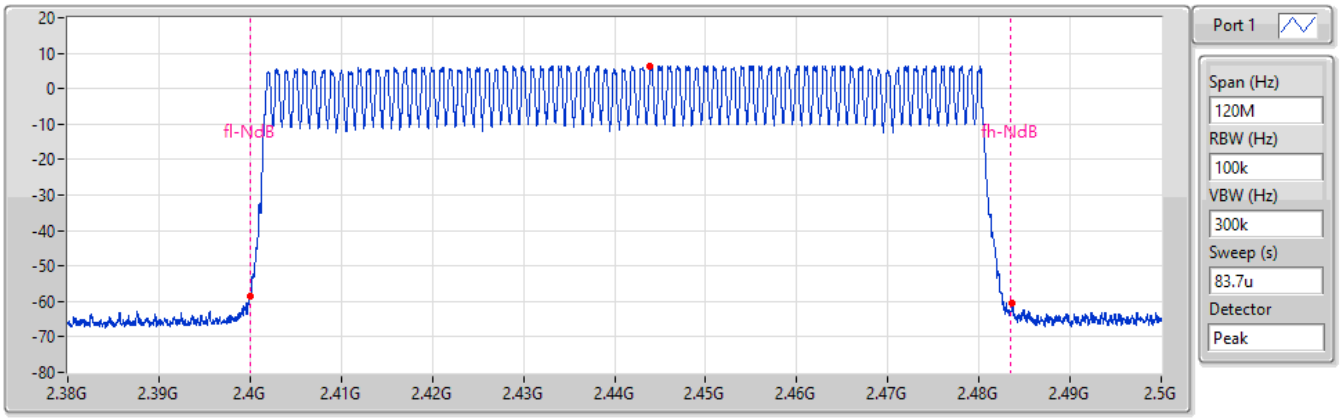
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

21/02/2024

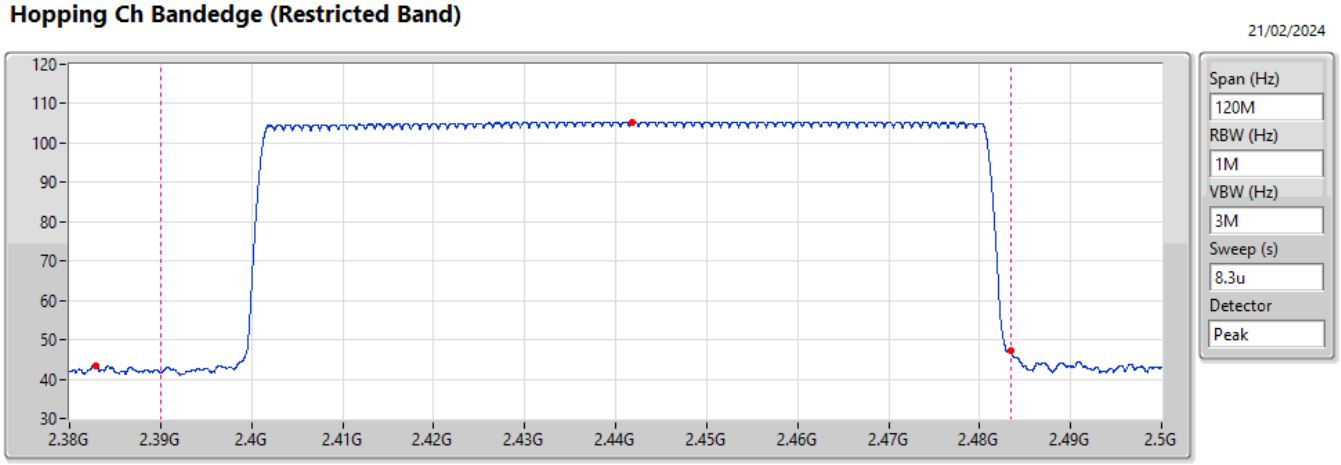


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-13.53	2.443855G	6.47	2.399965G	-58.47	2.483635G	-60.49

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

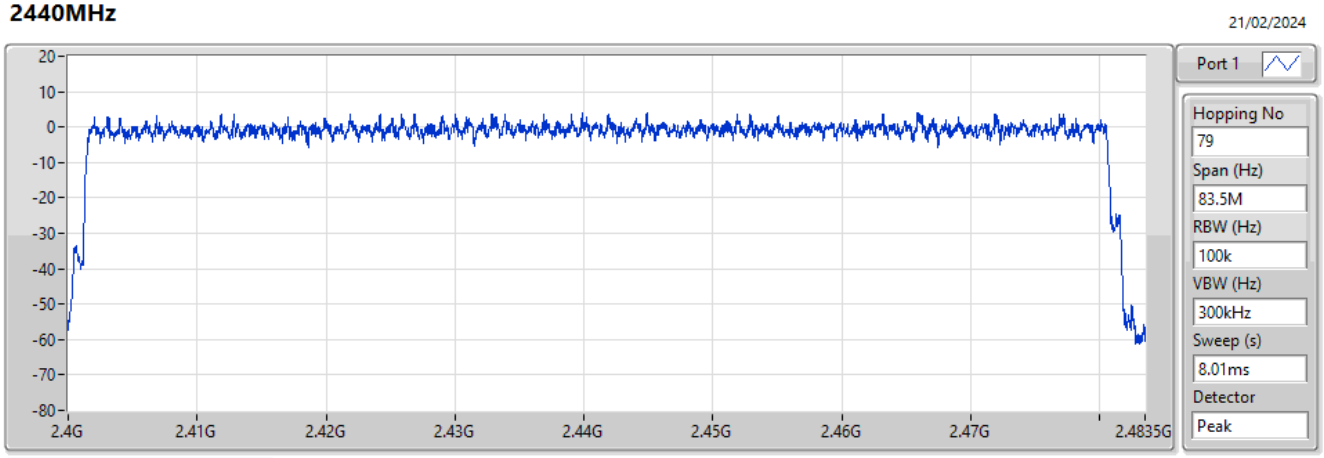
Hopping Ch Bandedge (Restricted Band)



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)
2.441845G	105.4	2.38282G	43.44	13.34	2.483515G	47.11	17.01	74	54	3.125	-30.1

2.4-2.4835GHz_BT-EDR(2Mbps) **Hopping-FS**

2440MHz

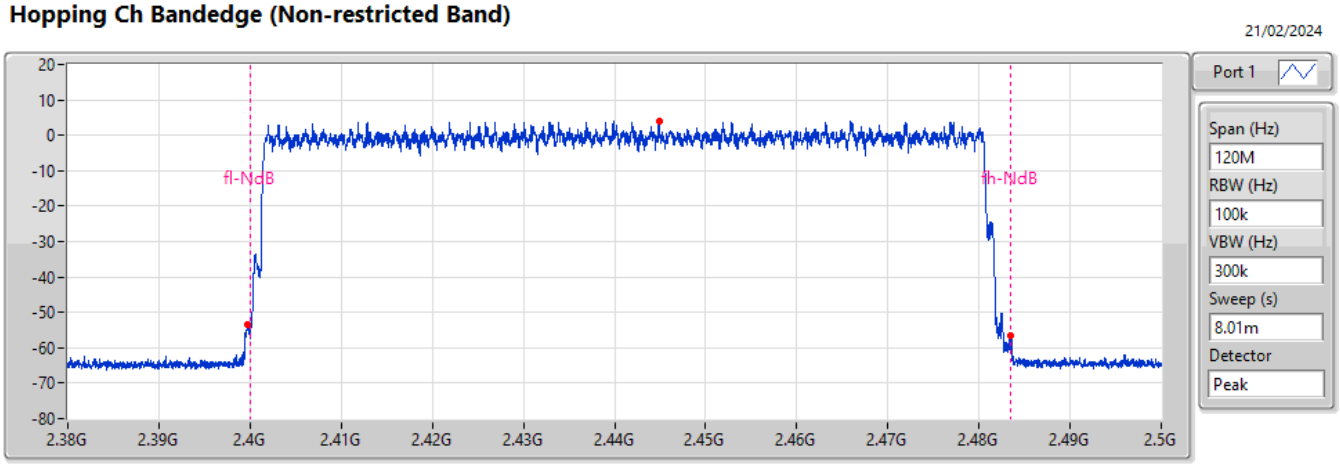


Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

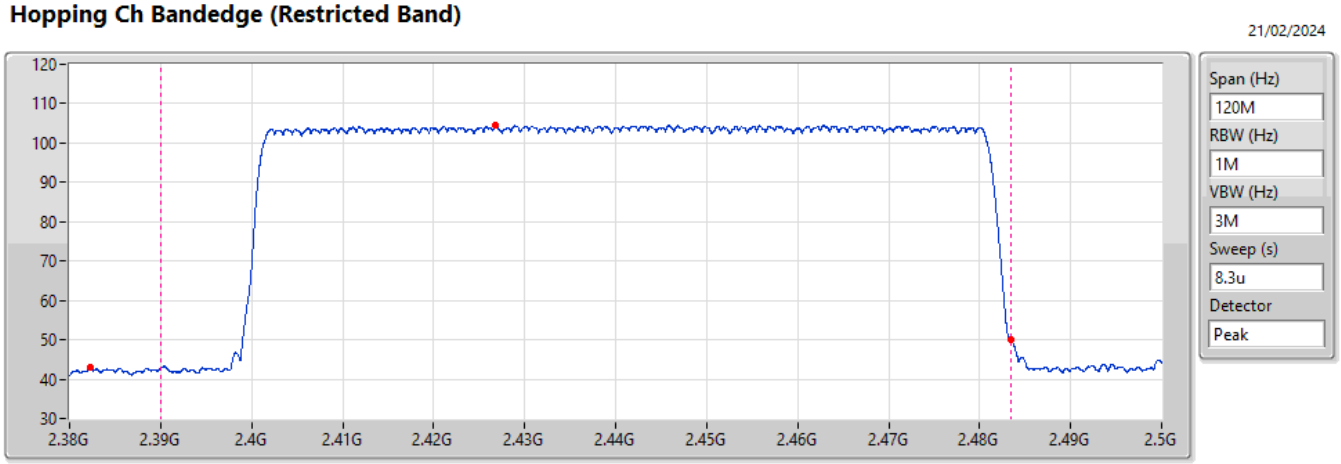


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.15	2.44486G	3.85	2.39968G	-53.47	2.483515G	-56.51

2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

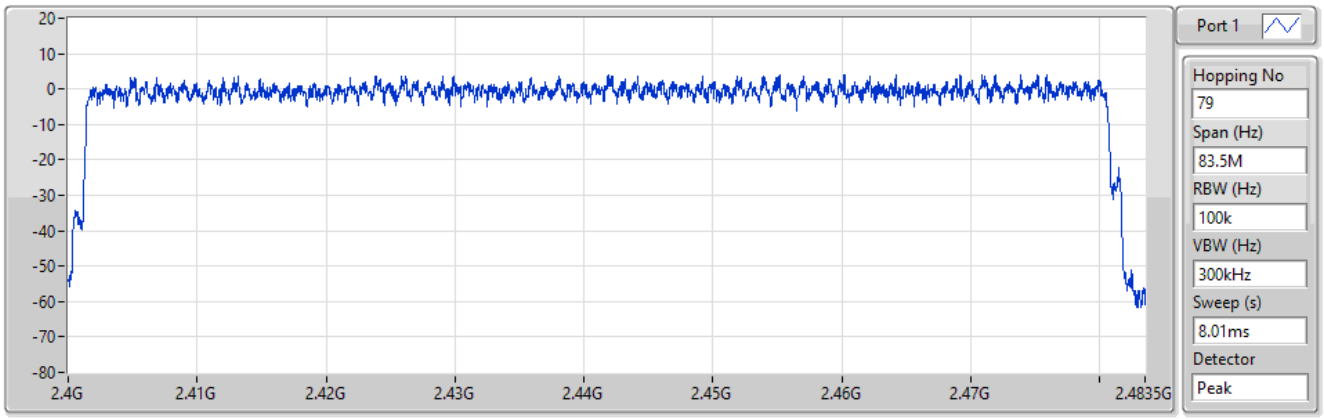


Ref(Hz)	Ref(dBuV/m)	BE-l(Hz)	PK(dBuV/m)	AV(dBuV/m)	BE-h(Hz)	PK(dBuV/m)	AV(dBuV/m)	LimPK(dBuV/	LimAV(dBuV/	Tx On(ms)	DCF(dB)
2.426845G	104.46	2.38231G	42.88	12.78	2.483515G	49.87	19.77	74	54	3.125	-30.1

2.4-2.4835GHz_BT-EDR(3Mbps) **Hopping-FS**

2440MHz

21/02/2024



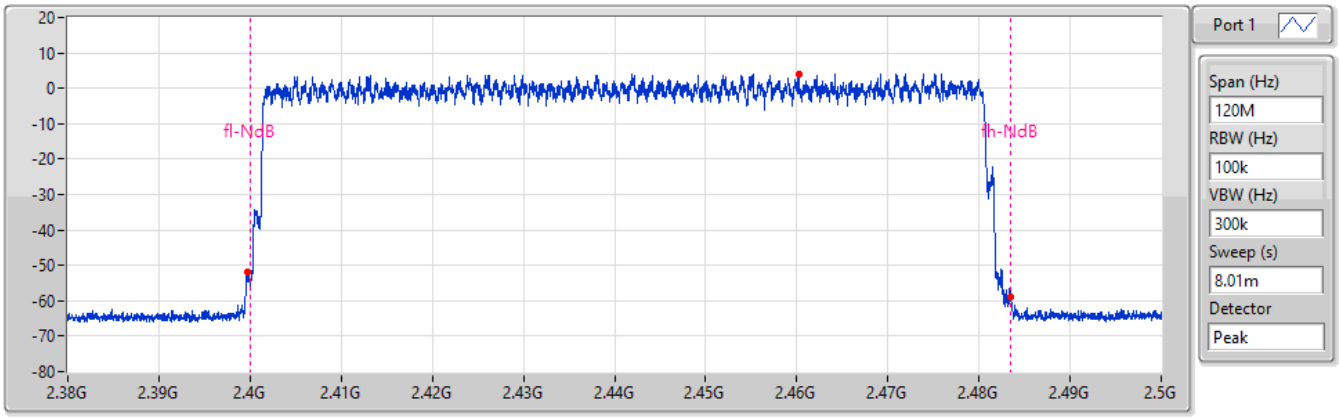
Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

21/02/2024



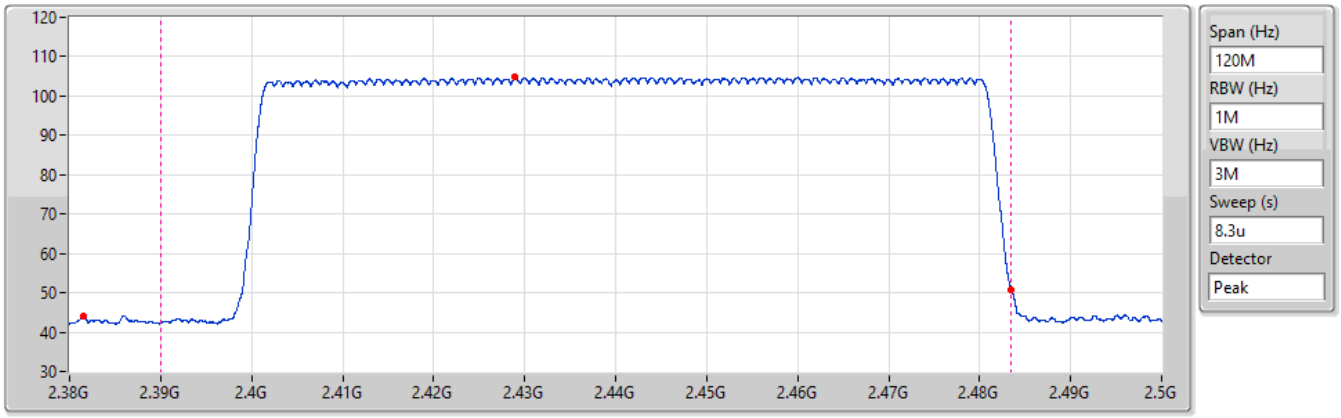
Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-16.13	2.46019G	3.87	2.39968G	-51.7	2.483515G	-58.85

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)

21/02/2024



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)
2.42896G	104.73	2.3815G	44.1	14	2.483515G	50.76	20.66	74	54	3.125	-30.1

Summary

Mode	Max-Dwell (s)
BT-BR(1Mbps)	309.0334m
BT-EDR(2Mbps)	309.16665m
BT-EDR(3Mbps)	309.43315m

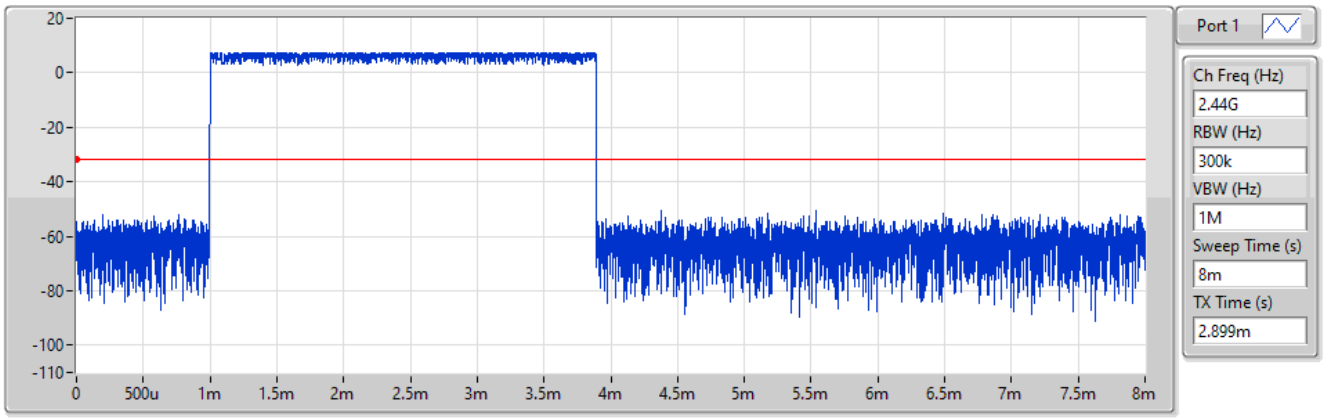
Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.0334m_DH5	400m	2.899m
2440MHz	Pass	8	154.503375m_DH5-AFH	400m	2.89875m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.16665m_DH5	400m	2.90025m
2440MHz	Pass	8	154.583325m_DH5-AFH	400m	2.90025m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	309.43315m_DH5	400m	2.90275m
2440MHz	Pass	8	100.737m_DH5-AFH	400m	1.89m

2.4-2.4835GHz_BT-BR(1Mbps) **Dwell-FS**

2440MHz

21/02/2024



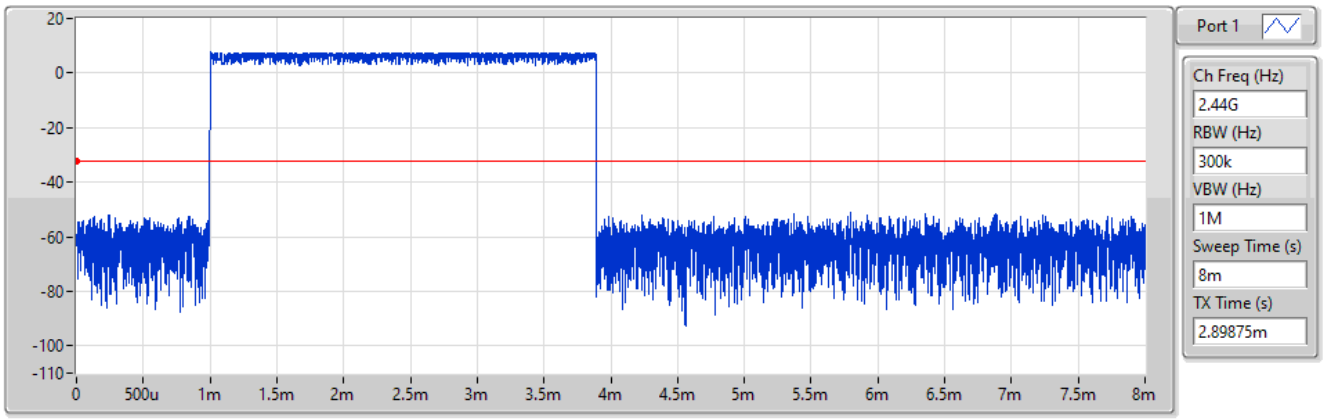
Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.0334m_DH5	400m	2.899m

DH5

2.4-2.4835GHz_BT-BR(1Mbps) **Dwell-FS**

2440MHz

21/02/2024

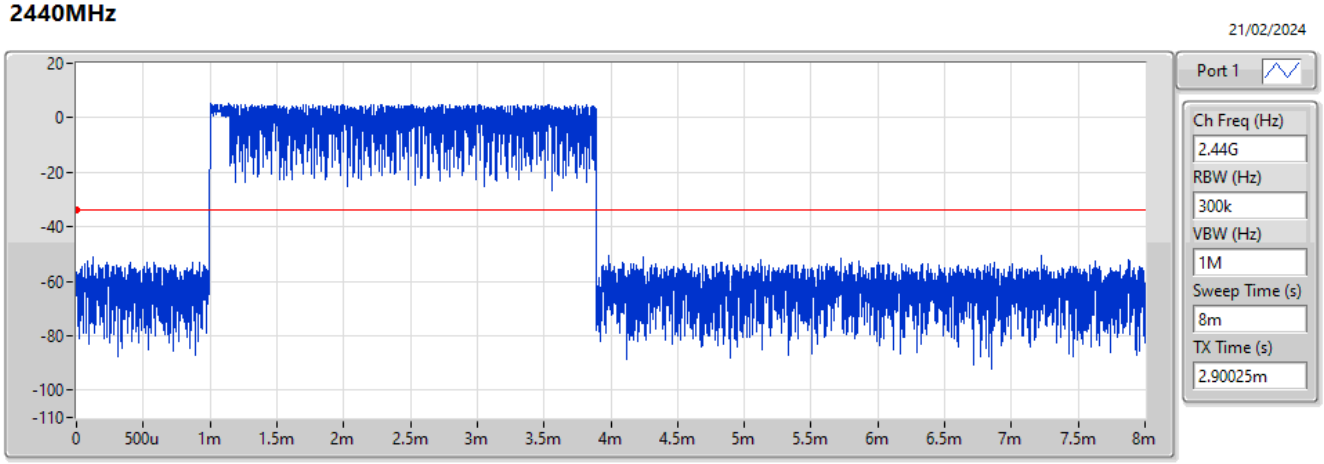


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.503375m_DH5-AFI	400m	2.89875m

DH5-AFH

2.4-2.4835GHz_BT-EDR(2Mbps) **Dwell-FS**

2440MHz

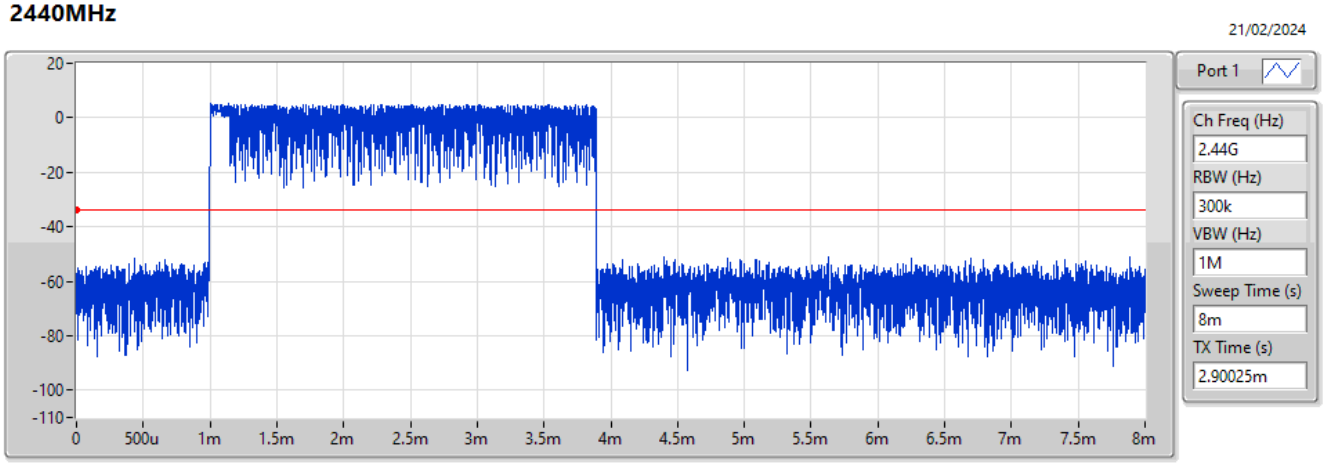


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.16665m_DH5	400m	2.90025m

DH5

2.4-2.4835GHz_BT-EDR(2Mbps) **Dwell-FS**

2440MHz

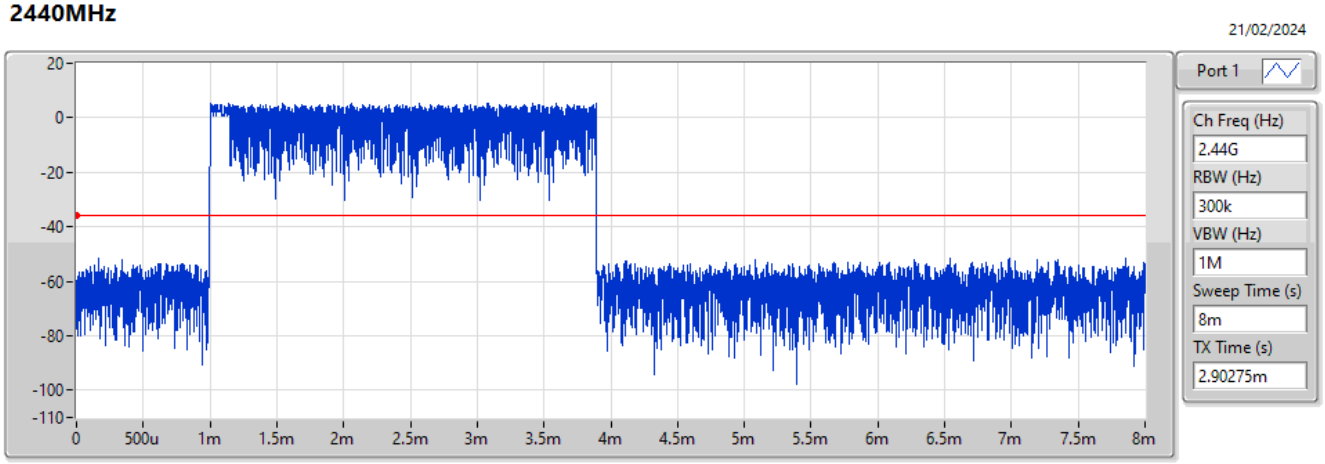


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	154.583325m_DH5-AFI	400m	2.90025m

DH5-AFH

2.4-2.4835GHz_BT-EDR(3Mbps) **Dwell-FS**

2440MHz

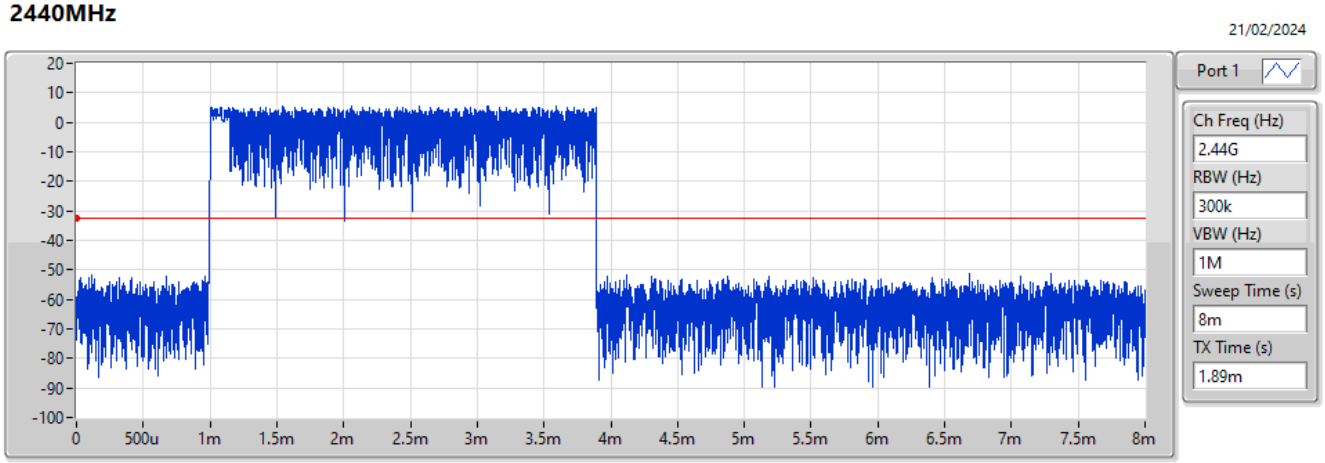


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	309.43315m_DH5	400m	2.90275m

DH5

2.4-2.4835GHz_BT-EDR(3Mbps) **Dwell-FS**

2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	100.737m_DH5-AFH	400m	1.89m

DH5-AFH

Summary

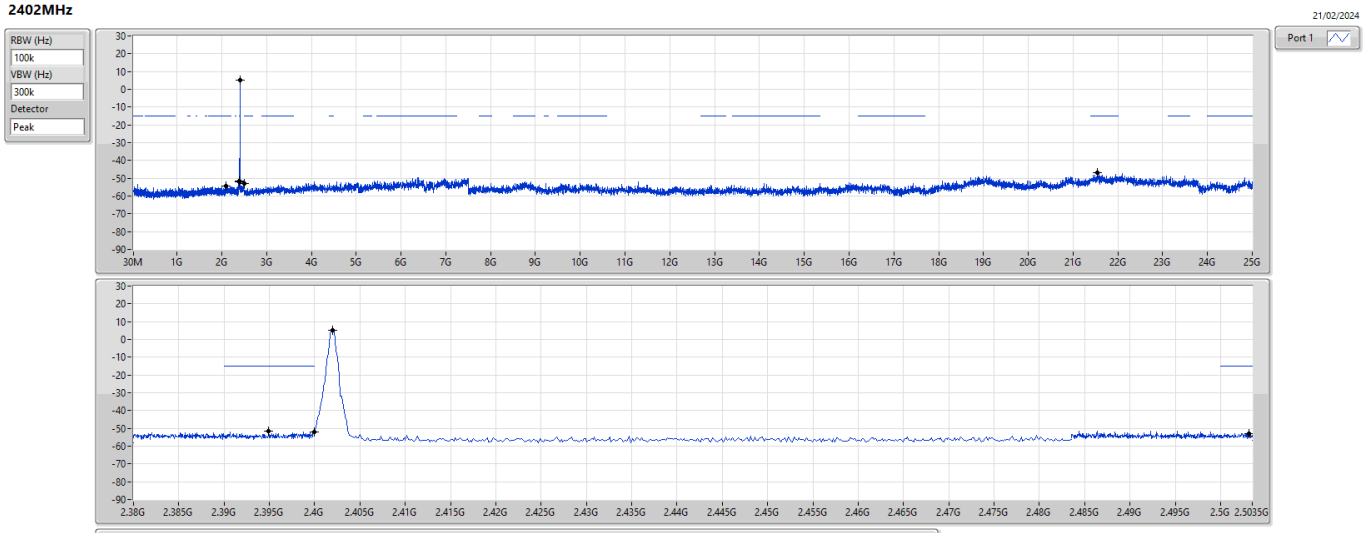
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.402G	4.98	-15.02	2.08743G	-54.52	2.39492G	-51.50	2.4G	-52.26	2.50314G	-52.76	21.5496G	-46.94	1
BT-EDR(2Mbps)	Pass	2.402G	2.70	-17.30	1.76195G	-53.57	2.3998G	-49.38	2.4G	-49.38	2.5029G	-51.37	21.61428G	-47.01	1
BT-EDR(3Mbps)	Pass	2.40217G	3.09	-16.91	1.97698G	-52.71	2.3998G	-49.10	2.4G	-50.40	2.50102G	-52.28	21.70707G	-47.57	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	2.402G	4.98	-15.02	2.08743G	-54.52	2.39492G	-51.50	2.4G	-52.26	2.50314G	-52.76	21.5496G	-46.94	1
2440MHz	Pass	2.44025G	6.28	-13.72	139.28M	-53.84	2.3982G	-51.99	2.4G	-55.66	2.5035G	-52.22	21.56085G	-46.43	1
2480MHz	Pass	2.48033G	5.73	-14.27	64.08M	-53.47	2.39472G	-51.88	2.4G	-56.41	2.50162G	-51.56	21.58616G	-46.90	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	2.70	-17.30	1.76195G	-53.57	2.3998G	-49.38	2.4G	-49.38	2.5029G	-51.37	21.61428G	-47.01	1
2440MHz	Pass	2.44008G	3.45	-16.55	1.90413G	-54.24	2.393G	-52.40	2.4G	-57.52	2.5035G	-51.78	21.67614G	-47.24	1
2480MHz	Pass	2.47999G	2.38	-17.62	1.77605G	-53.16	2.39564G	-51.48	2.4G	-56.54	2.50106G	-51.72	21.93485G	-47.68	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40217G	3.09	-16.91	1.97698G	-52.71	2.3998G	-49.10	2.4G	-50.40	2.50102G	-52.28	21.70707G	-47.57	1
2440MHz	Pass	2.44008G	3.46	-16.54	2.1638G	-54.00	2.39372G	-52.27	2.4G	-56.54	2.50006G	-52.33	21.43149G	-47.33	1
2480MHz	Pass	2.47999G	3.74	-16.26	1.8113G	-53.57	2.39072G	-51.75	2.4G	-55.95	2.5011G	-52.55	21.4568G	-47.60	1

2.4-2.4835GHz_BT-BR(1Mbps) **CSENdB-FS**

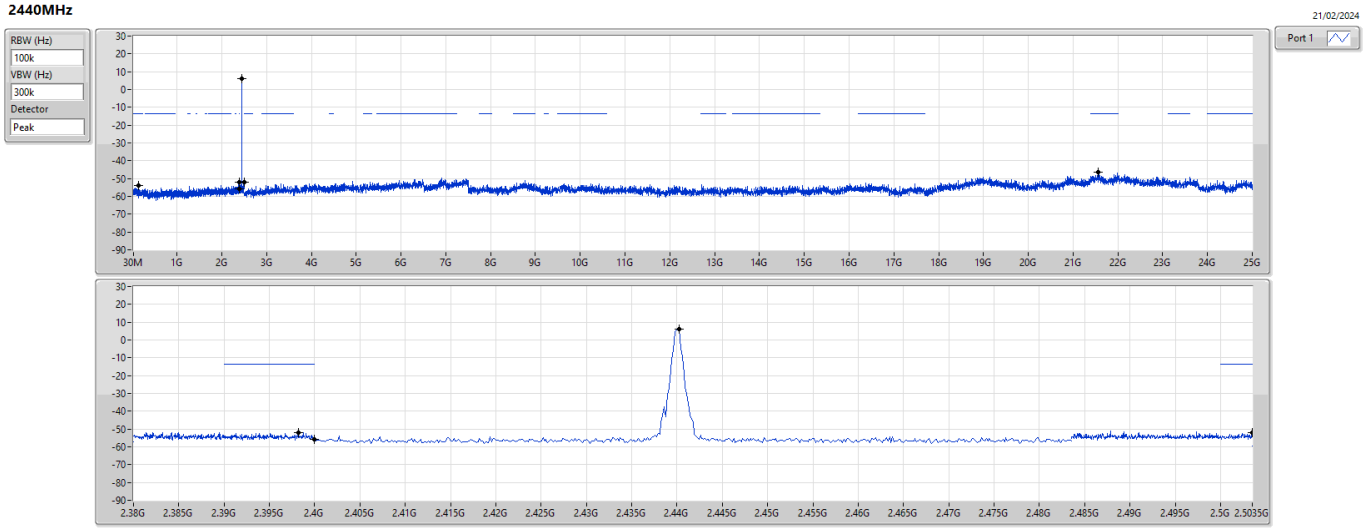
2402MHz



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
2.402G	4.98	-15.02	2.08743G	-54.52	2.39492G	-51.50	2.4G	-52.26	2.50314G	-52.76	21.5496G	-46.94	1

2.4-2.4835GHz_BT-BR(1Mbps) **CSENdB-FS**

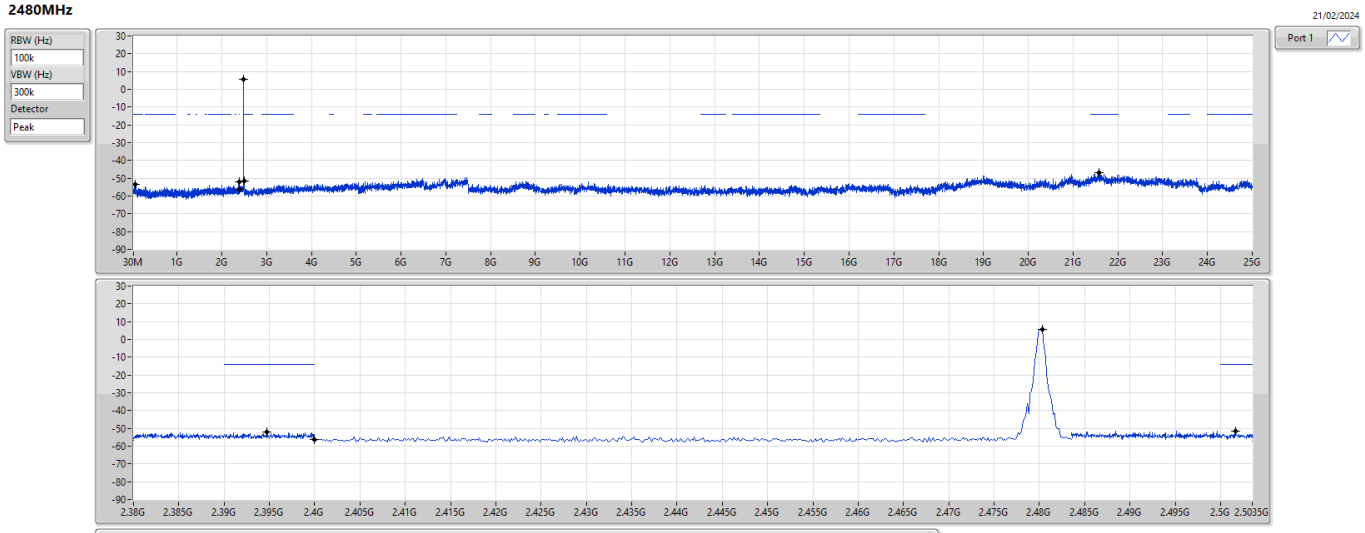
2440MHz



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
2.44025G	6.28	-13.72	139.28M	-53.84	2.3982G	-51.99	2.4G	-55.66	2.5035G	-52.22	21.56085G	-46.43	1

2.4-2.4835GHz_BT-BR(1Mbps) **CSENdB-FS**

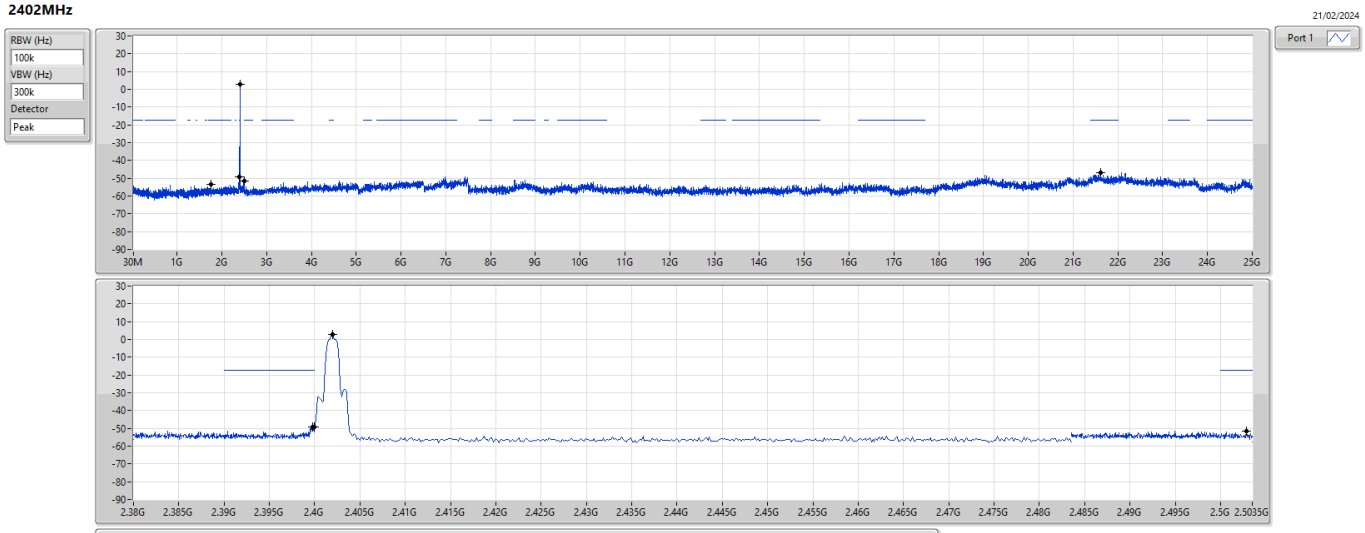
2480MHz



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
2.48033G	5.73	-14.27	64.08M	-53.47	2.39472G	-51.88	2.4G	-56.41	2.50162G	-51.56	21.58616G	-46.90	1

2.4-2.4835GHz_BT-EDR(2Mbps) **CSENdB-FS**

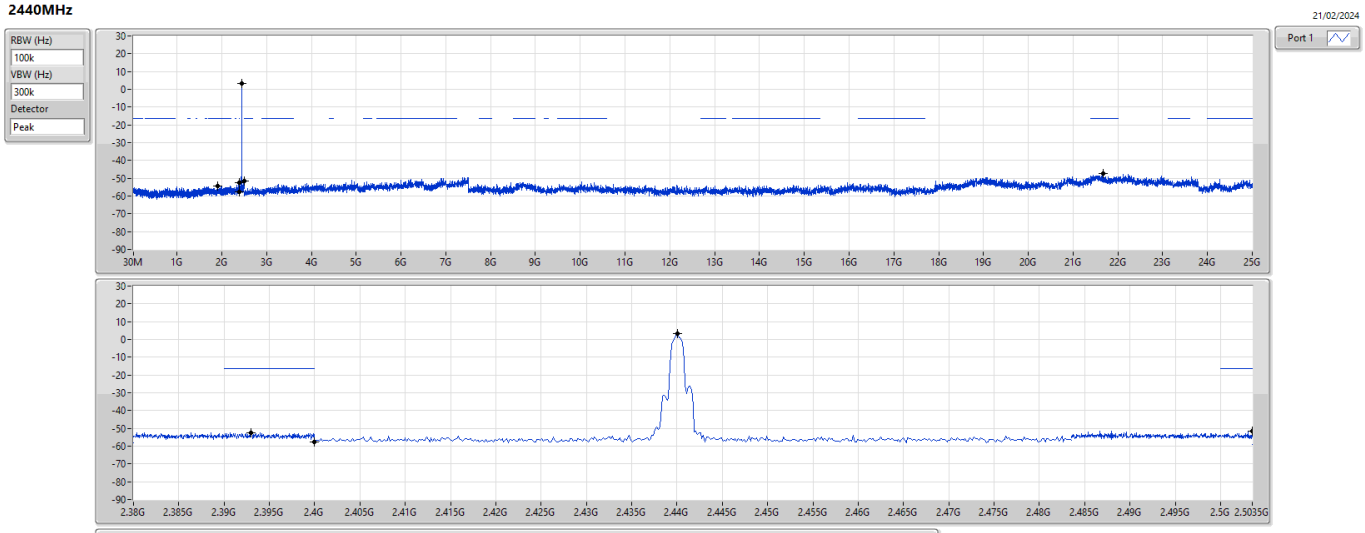
2402MHz



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
2.402G	2.70	-17.30	1.76195G	-53.57	2.3998G	-49.38	2.4G	-49.38	2.5029G	-51.37	21.61428G	-47.01	1

2.4-2.4835GHz_BT-EDR(2Mbps) **CSENdB-FS**

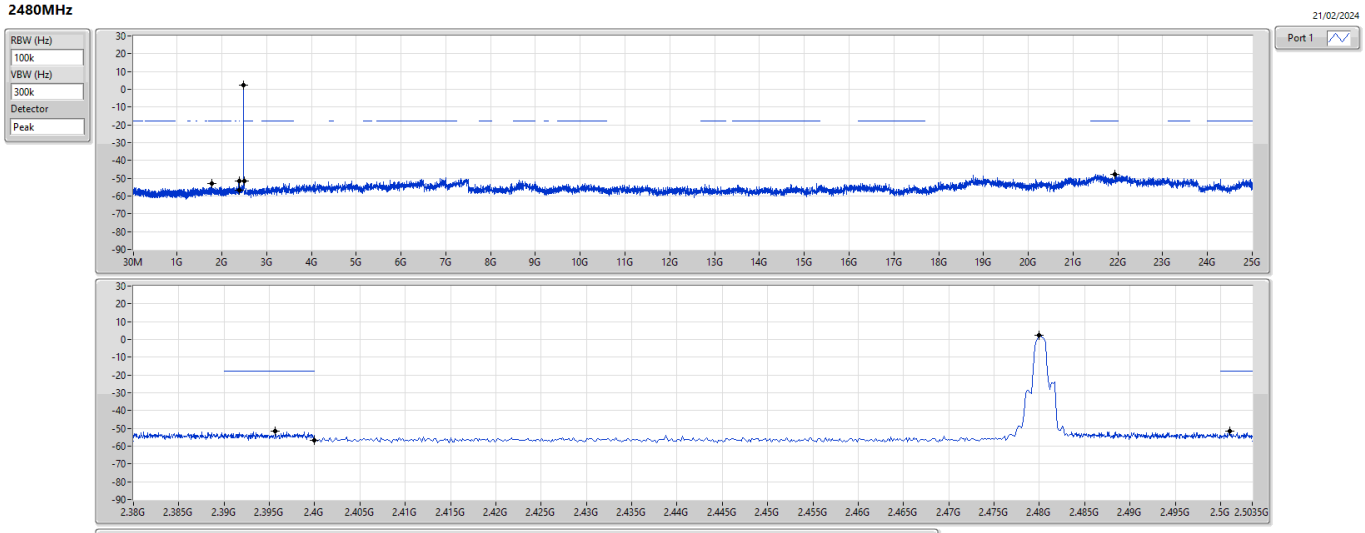
2440MHz



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
2.44008G	3.45	-16.55	1.90413G	-54.24	2.393G	-52.40	2.4G	-57.52	2.5035G	-51.78	21.67614G	-47.24	1

2.4-2.4835GHz_BT-EDR(2Mbps) **CSENdB-FS**

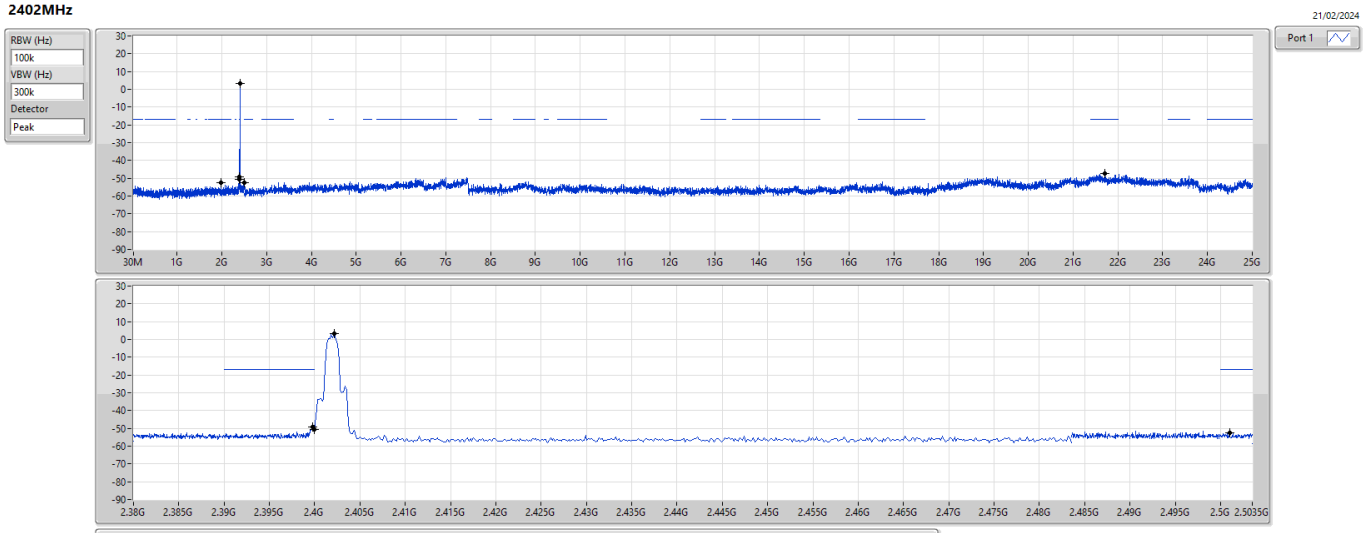
2480MHz



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	2.38	-17.62	1.77605G	-53.16	2.39564G	-51.48	2.4G	-56.54	2.50106G	-51.72	21.93485G	-47.68	1

2.4-2.4835GHz_BT-EDR(3Mbps) **CSENdB-FS**

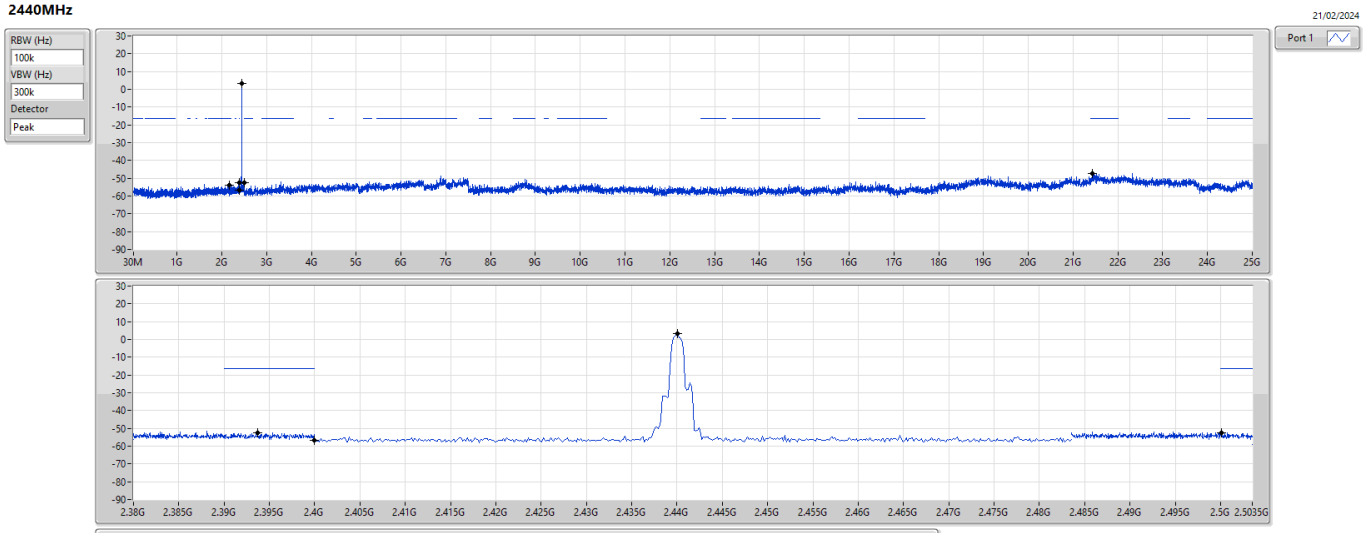
2402MHz



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
2.40217G	3.09	-16.91	1.97698G	-52.71	2.3998G	-49.10	2.4G	-50.40	2.50102G	-52.28	21.70707G	-47.57	1

2.4-2.4835GHz_BT-EDR(3Mbps) **CSENdB-FS**

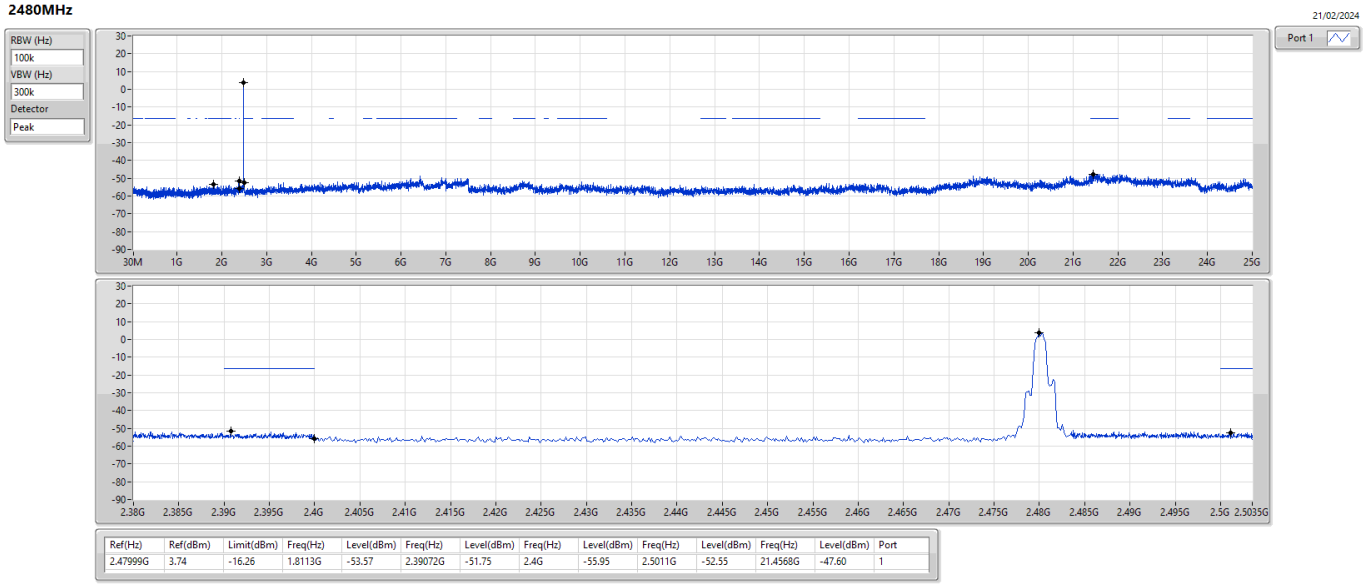
2440MHz



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
2.44008G	3.46	-16.54	2.1638G	-54.00	2.39372G	-52.27	2.4G	-56.54	2.50006G	-52.33	21.43149G	-47.33	1

2.4-2.4835GHz_BT-EDR(3Mbps) CSENdB-FS

2480MHz

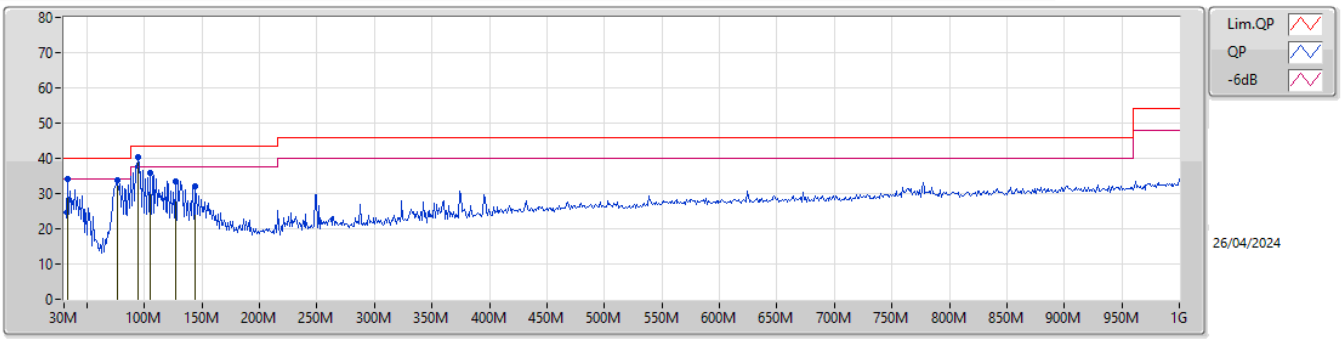


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	3.74	-16.26	1.8113G	-53.57	2.39072G	-51.75	2.4G	-55.95	2.5011G	-52.55	21.4568G	-47.60	1

Summary

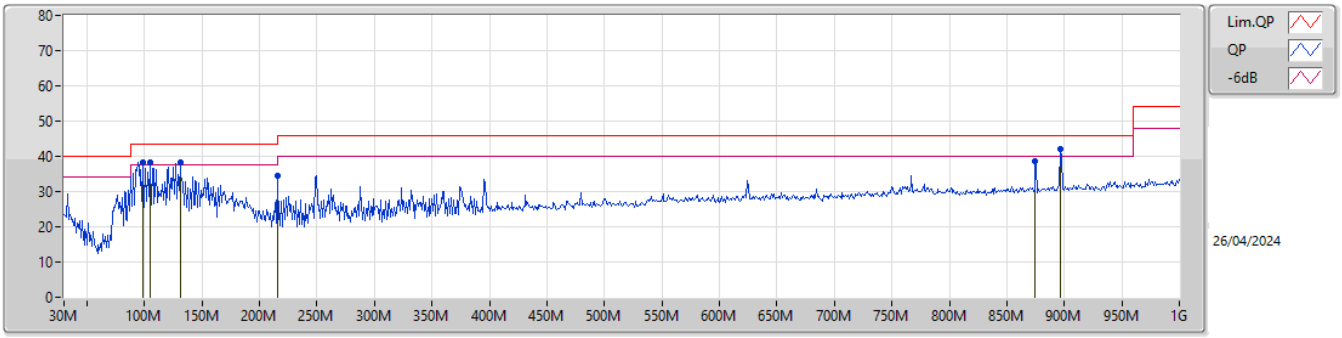
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	94.02M	40.22	43.50	-3.28	Vertical

Mode 2



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	32.91M	34.27	40.00	-5.73	-8.12	3	Vertical	232	1.00	-	42.39	22.55	0.95	31.62
PK	76.56M	33.77	40.00	-6.23	-17.86	3	Vertical	120	1.50	-	51.63	12.54	1.55	31.95
PK	94.02M	40.22	43.50	-3.28	-14.47	3	Vertical	58	1.00	"Worst"	54.69	15.82	1.71	32.00
PK	104.69M	36.00	43.50	-7.50	-12.71	3	Vertical	172	1.00	-	48.71	17.45	1.79	31.95
PK	127M	33.56	43.50	-9.94	-11.98	3	Vertical	111	1.00	-	45.54	18.02	1.98	31.98
PK	143.49M	32.19	43.50	-11.31	-12.96	3	Vertical	129	1.00	-	45.15	16.92	2.10	31.98

Mode 2



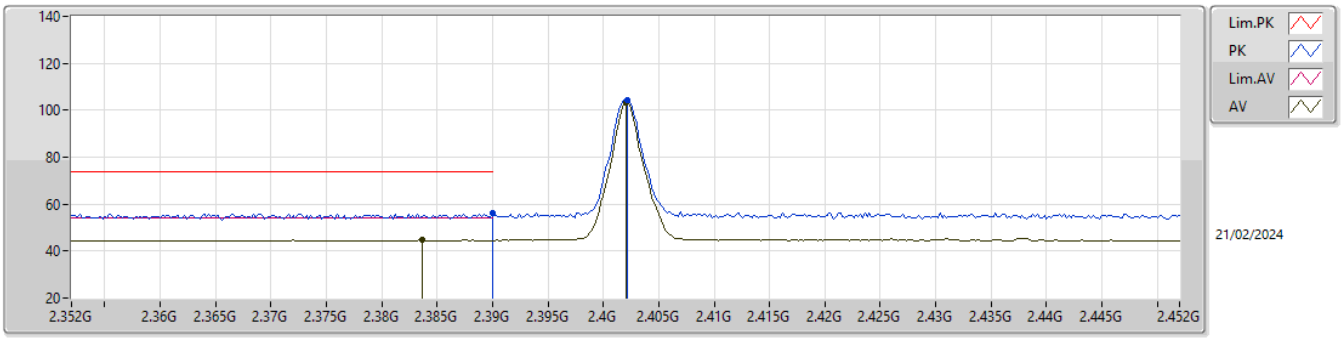
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	98.87M	38.36	43.50	-5.14	-13.65	3	Horizontal	352	3.00	-	52.01	16.56	1.74	31.95
PK	104.69M	38.16	43.50	-5.34	-12.71	3	Horizontal	345	2.00	-	50.87	17.45	1.79	31.95
PK	130.88M	38.24	43.50	-5.26	-12.07	3	Horizontal	180	2.00	-	50.31	17.89	2.01	31.97
PK	215.27M	34.45	43.50	-9.05	-14.43	3	Horizontal	104	2.00	-	48.88	14.99	2.60	32.02
PK	874.87M	38.68	46.00	-7.32	-0.68	3	Horizontal	0	1.00	-	39.36	26.14	5.72	32.54
PK	896.21M	42.04	46.00	-3.96	-0.24	3	Horizontal	360	1.50	"Worst"	42.28	26.40	5.82	32.46

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	51.58	54.00	-2.42	3	Vertical	252	2.23	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

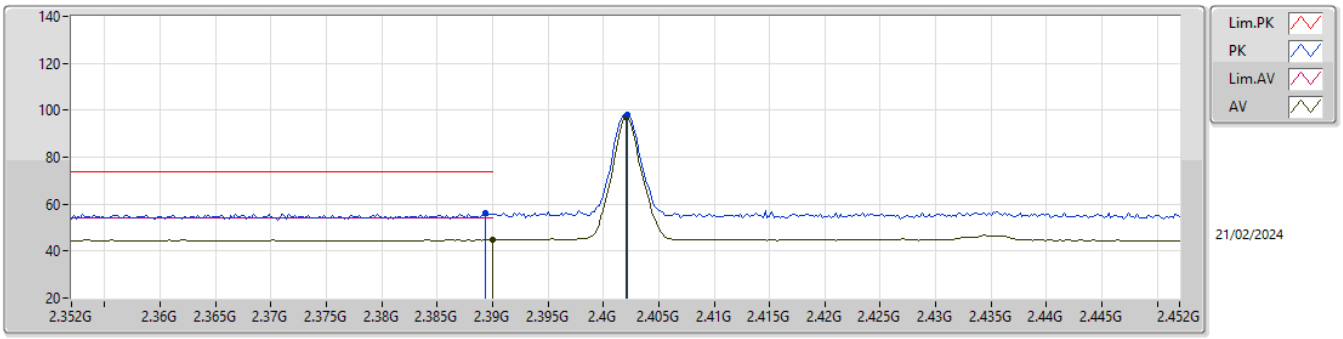


EUT X_1TX
Setting 0
06-E-R-7

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	56.12	74.00	-17.88	23.71	3	Vertical	276	2.37	-	27.70	4.71	-
AV	2.3836G	44.69	54.00	-9.31	12.29	3	Vertical	276	2.37	-	27.70	4.70	-
PK	2.4022G	104.33	Inf	-Inf	71.93	3	Vertical	276	2.37	-	27.68	4.72	-
AV	2.402G	103.44	Inf	-Inf	71.04	3	Vertical	276	2.37	-	27.68	4.72	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

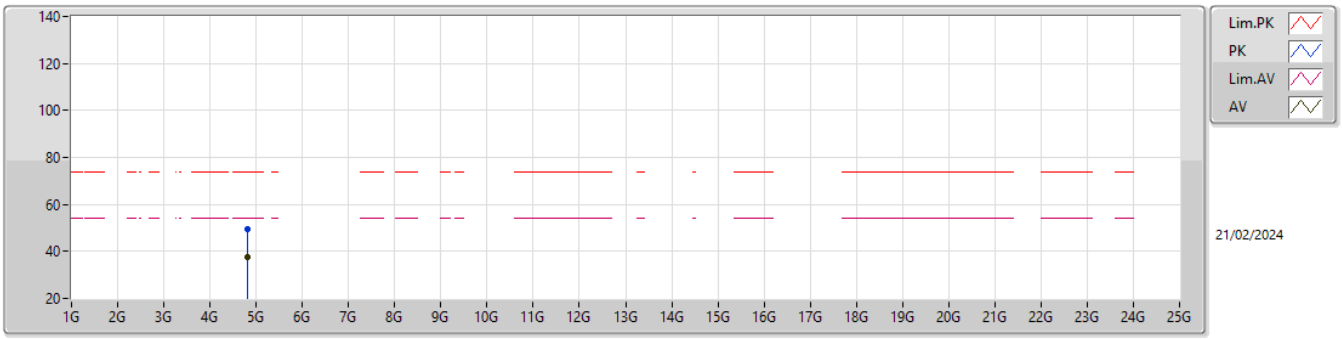


EUT X_1TX
Setting 0
06-E-R-7

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	2.3894G	56.15	74.00	-17.85	23.74	3	Horizontal	234	1.09	-	27.70	4.71	-
AV	2.39G	44.73	54.00	-9.27	12.32	3	Horizontal	234	1.09	-	27.70	4.71	-
PK	2.4022G	97.94	Inf	-Inf	65.54	3	Horizontal	234	1.09	-	27.68	4.72	-
AV	2.402G	97.02	Inf	-Inf	64.62	3	Horizontal	234	1.09	-	27.68	4.72	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

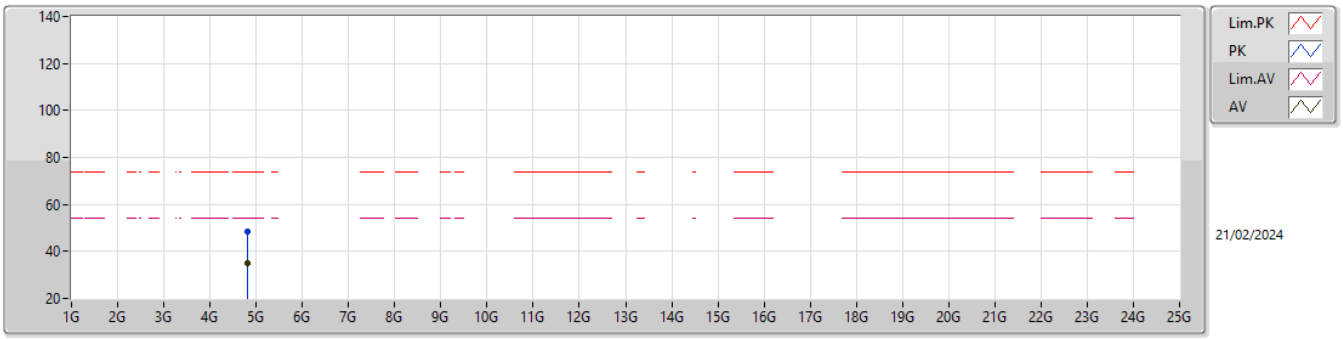


EUT X_1TX
Setting 0
06-E-R-7

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	49.61	74.00	-24.39	43.06	3	Vertical	156	3.00	-	31.30	6.67	31.42
AV	4.8042G	37.45	54.00	-16.55	30.90	3	Vertical	156	3.00	-	31.30	6.67	31.42

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

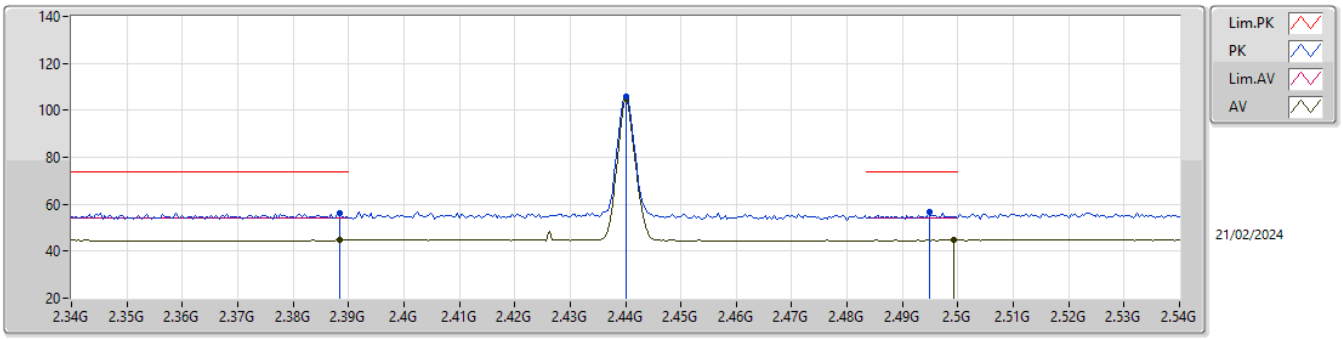


EUT X_1TX
Setting 0
06-E-R-7

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	4.80518G	48.31	74.00	-25.69	41.76	3	Horizontal	41	1.80	-	31.30	6.67	31.42
AV	4.80404G	35.08	54.00	-18.92	28.53	3	Horizontal	41	1.80	-	31.30	6.67	31.42

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

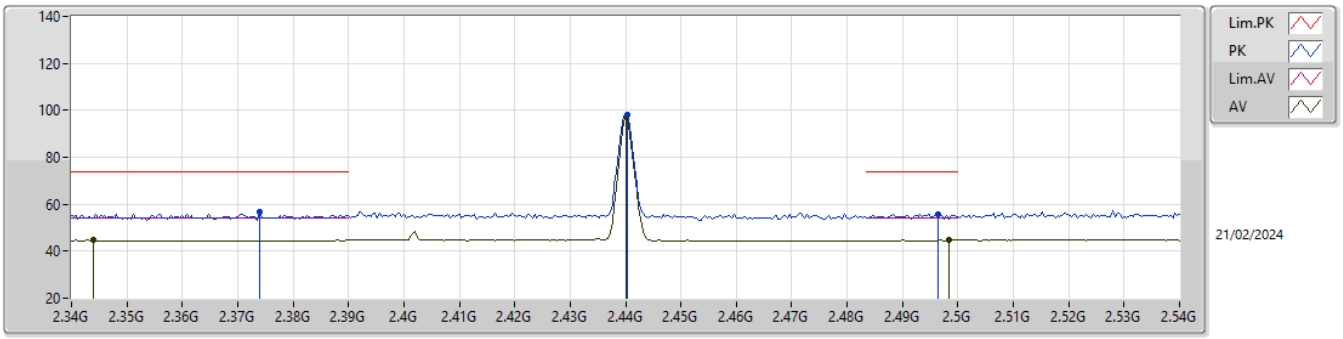


EUT X_1TX
Setting 0
06-E-R-7

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	2.3884G	56.34	74.00	-17.66	23.93	3	Vertical	274	2.09	-	27.70	4.71	-
AV	2.3884G	44.74	54.00	-9.26	12.33	3	Vertical	274	2.09	-	27.70	4.71	-
PK	2.44G	105.63	Inf	-Inf	73.37	3	Vertical	274	2.09	-	27.50	4.76	-
AV	2.44G	104.78	Inf	-Inf	72.52	3	Vertical	274	2.09	-	27.50	4.76	-
PK	2.4948G	56.50	74.00	-17.50	24.29	3	Vertical	274	2.09	-	27.40	4.81	-
AV	2.4992G	44.76	54.00	-9.24	12.55	3	Vertical	274	2.09	-	27.40	4.81	-

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

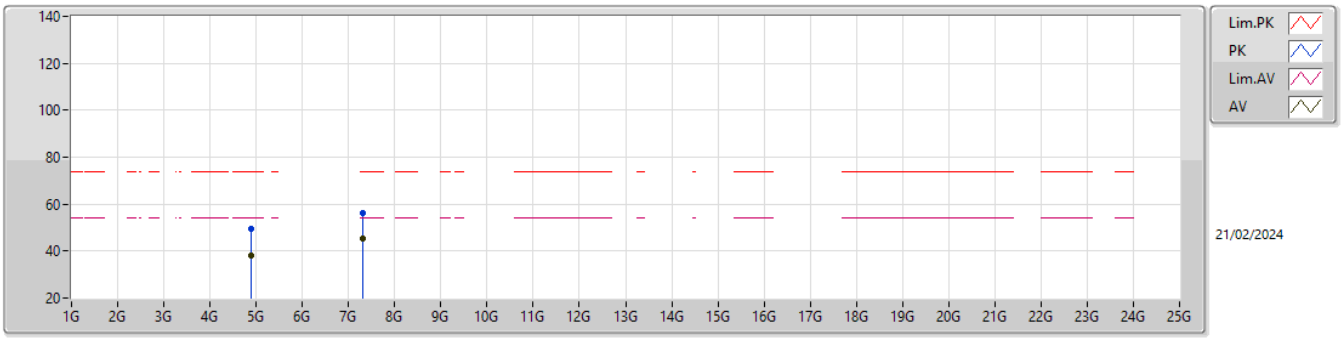


EUT X_1TX
Setting 0
06-E-R-7

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	2.374G	56.87	74.00	-17.13	24.42	3	Horizontal	234	1.04	-	27.76	4.69	-
AV	2.344G	44.66	54.00	-9.34	12.10	3	Horizontal	234	1.04	-	27.90	4.66	-
PK	2.4404G	97.95	Inf	-Inf	65.69	3	Horizontal	234	1.04	-	27.50	4.76	-
AV	2.44G	97.07	Inf	-Inf	64.81	3	Horizontal	234	1.04	-	27.50	4.76	-
PK	2.4964G	55.86	74.00	-18.14	23.65	3	Horizontal	234	1.04	-	27.40	4.81	-
AV	2.4984G	44.68	54.00	-9.32	12.47	3	Horizontal	234	1.04	-	27.40	4.81	-

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

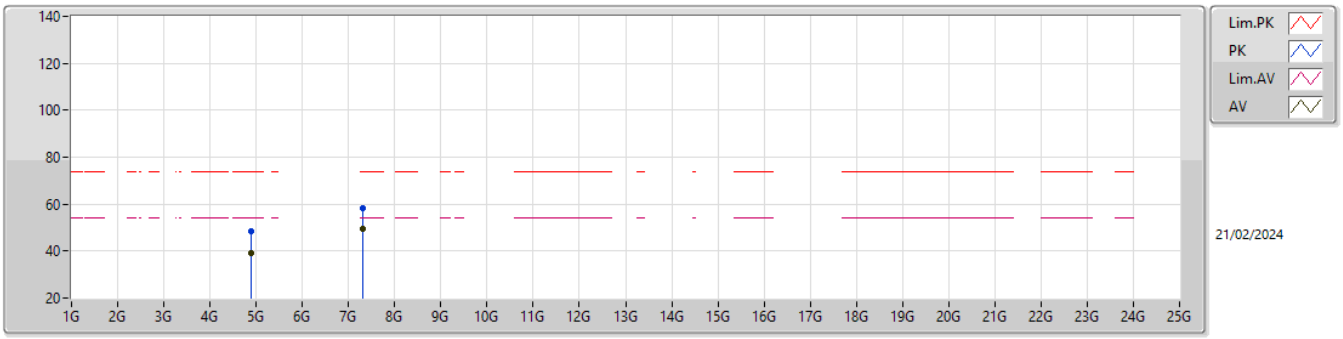


EUT X_1TX
Setting 0
06-E-R-7

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	4.87966G	49.31	74.00	-24.69	42.63	3	Vertical	40	2.96	-	31.30	6.74	31.36
AV	4.88G	38.04	54.00	-15.96	31.36	3	Vertical	40	2.96	-	31.30	6.74	31.36
PK	7.32006G	56.24	74.00	-17.76	43.91	3	Vertical	82	1.85	-	36.60	8.34	32.61
AV	7.32002G	45.50	54.00	-8.50	33.17	3	Vertical	82	1.85	-	36.60	8.34	32.61

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

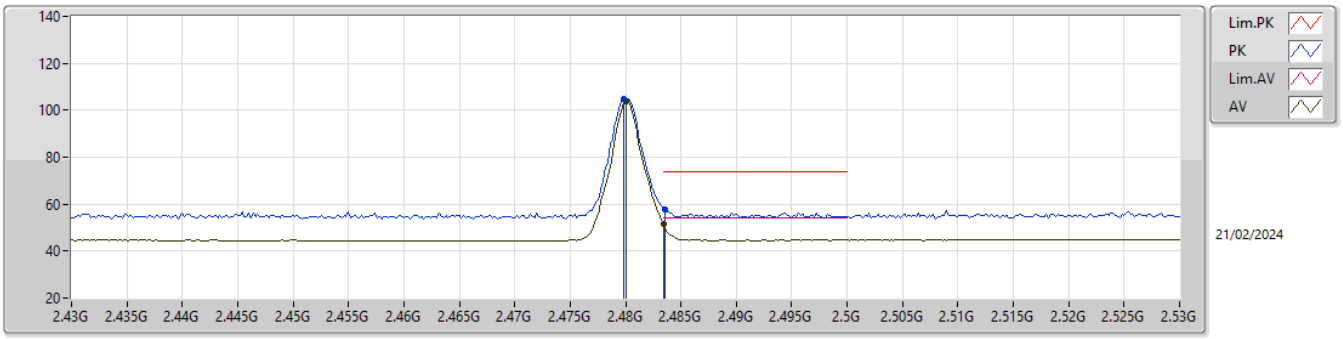


EUT X_1TX
Setting 0
06-E-R-7

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	4.878G	48.33	74.00	-25.67	41.66	3	Horizontal	298	2.79	-	31.30	6.74	31.37
AV	4.8777G	39.26	54.00	-14.74	32.59	3	Horizontal	298	2.79	-	31.30	6.74	31.37
PK	7.32048G	58.28	74.00	-15.72	45.96	3	Horizontal	132	1.80	-	36.60	8.34	32.62
AV	7.32006G	49.30	54.00	-4.70	36.97	3	Horizontal	132	1.80	-	36.60	8.34	32.61

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

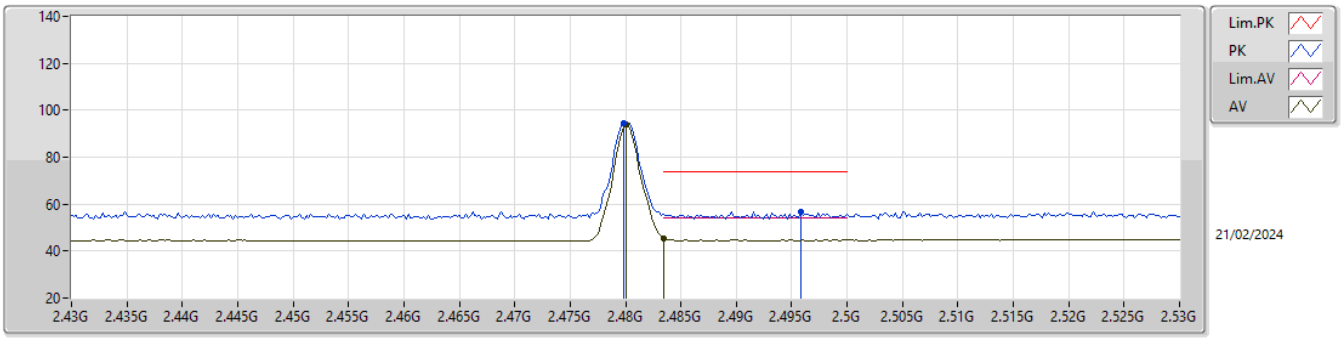


EUT X_1TX
Setting 0
06-E-J-8

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	104.87	Inf	-Inf	72.68	3	Vertical	252	2.23	-	27.40	4.79	-
AV	2.48G	104.01	Inf	-Inf	71.82	3	Vertical	252	2.23	-	27.40	4.79	-
PK	2.4836G	57.64	74.00	-16.36	25.44	3	Vertical	252	2.23	-	27.40	4.80	-
AV	2.4835G	51.58	54.00	-2.42	19.38	3	Vertical	252	2.23	-	27.40	4.80	-

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

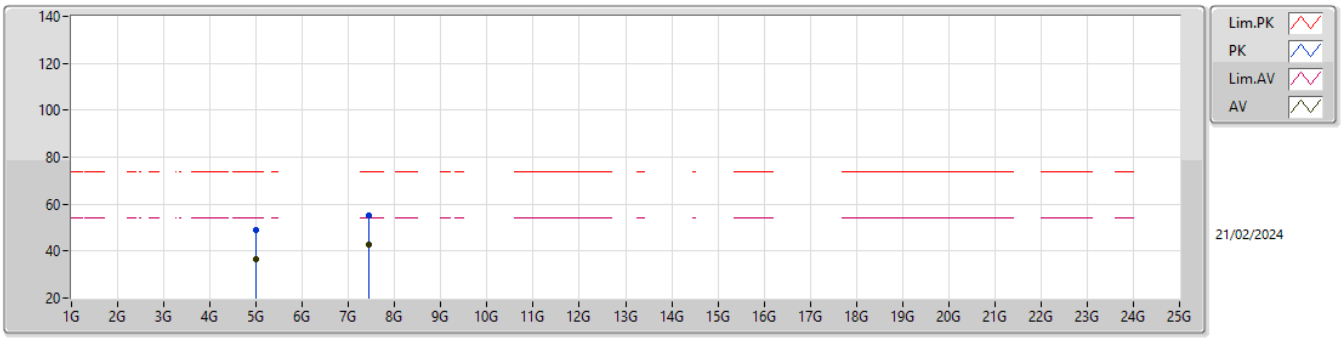


EUT X_1TX
Setting 0
06-E-J-8

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	94.65	Inf	-Inf	62.46	3	Horizontal	201	1.80	-	27.40	4.79	-
AV	2.48G	93.81	Inf	-Inf	61.62	3	Horizontal	201	1.80	-	27.40	4.79	-
PK	2.4958G	56.64	74.00	-17.36	24.43	3	Horizontal	201	1.80	-	27.40	4.81	-
AV	2.4835G	45.46	54.00	-8.54	13.26	3	Horizontal	201	1.80	-	27.40	4.80	-

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

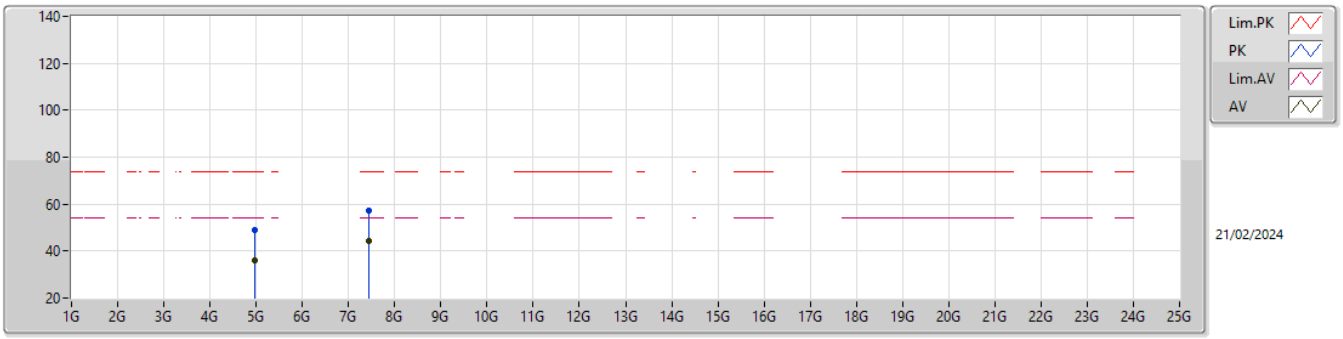


EUT X_1TX
Setting 0
06-E-J-8

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	4.9838G	48.85	74.00	-25.15	41.67	3	Vertical	295	1.20	-	31.64	6.83	31.29
AV	4.9866G	36.75	54.00	-17.25	29.56	3	Vertical	295	1.20	-	31.65	6.83	31.29
PK	7.4428G	55.15	74.00	-18.85	42.87	3	Vertical	87	2.70	-	36.69	8.38	32.79
AV	7.4426G	42.65	54.00	-11.35	30.37	3	Vertical	87	2.70	-	36.69	8.38	32.79

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

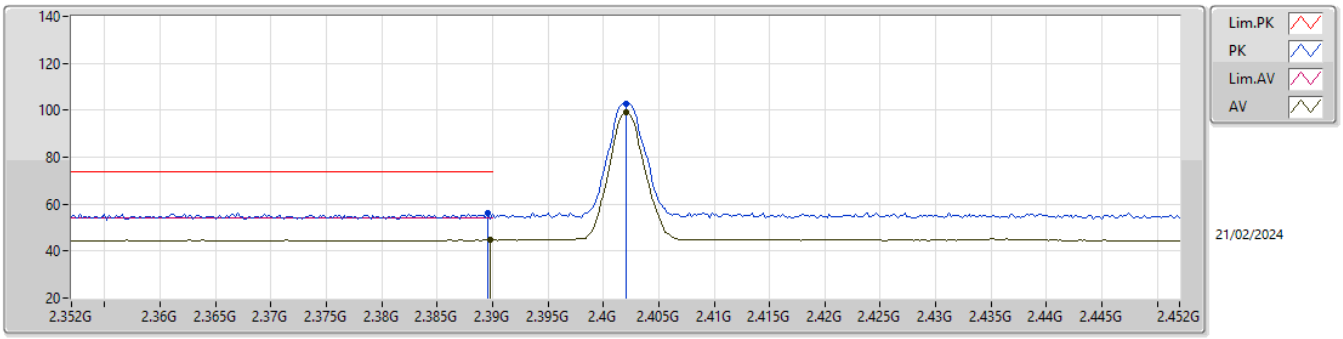


EUT X_1TX
Setting 0
06-E-J-8

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	4.95748G	48.91	74.00	-25.09	41.89	3	Horizontal	49	1.83	-	31.53	6.80	31.31
AV	4.95822G	35.78	54.00	-18.22	28.76	3	Horizontal	49	1.83	-	31.53	6.80	31.31
PK	7.4402G	57.28	74.00	-16.72	45.01	3	Horizontal	195	1.80	-	36.68	8.38	32.79
AV	7.4441G	44.26	54.00	-9.74	31.98	3	Horizontal	195	1.80	-	36.69	8.38	32.79

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

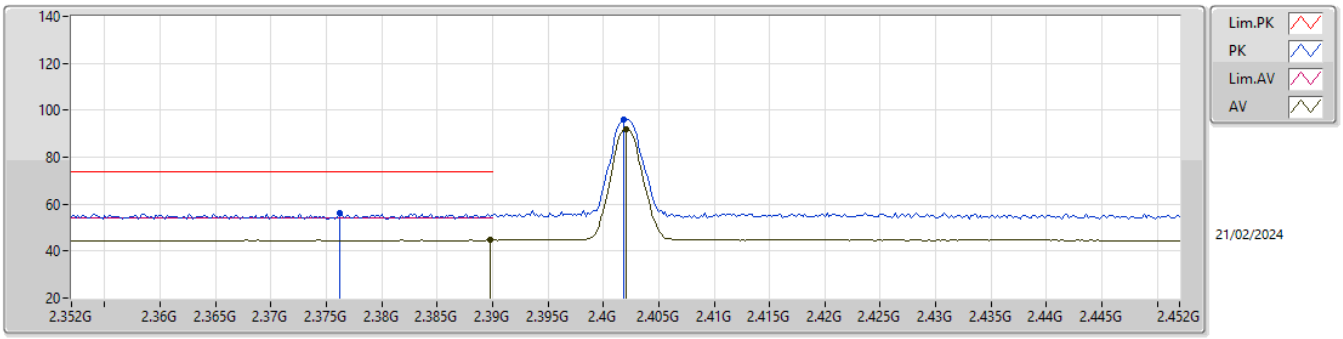


EUT X_1TX
Setting 0
06-E-J-8

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	2.3896G	56.28	74.00	-17.72	23.87	3	Vertical	280	2.39	-	27.70	4.71	-
AV	2.3898G	44.77	54.00	-9.23	12.36	3	Vertical	280	2.39	-	27.70	4.71	-
PK	2.402G	102.96	Inf	-Inf	70.56	3	Vertical	280	2.39	-	27.68	4.72	-
AV	2.402G	98.97	Inf	-Inf	66.57	3	Vertical	280	2.39	-	27.68	4.72	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

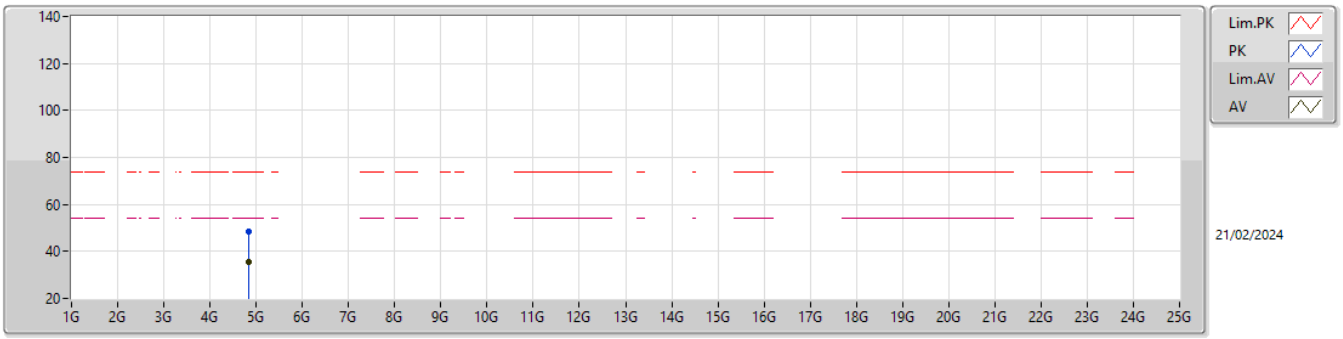


EUT X_1TX
Setting 0
06-E-J-8

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	2.3762G	56.16	74.00	-17.84	23.72	3	Horizontal	238	1.09	-	27.74	4.70	-
AV	2.3898G	44.73	54.00	-9.27	12.32	3	Horizontal	238	1.09	-	27.70	4.71	-
PK	2.4018G	95.89	Inf	-Inf	63.49	3	Horizontal	238	1.09	-	27.68	4.72	-
AV	2.402G	91.94	Inf	-Inf	59.54	3	Horizontal	238	1.09	-	27.68	4.72	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

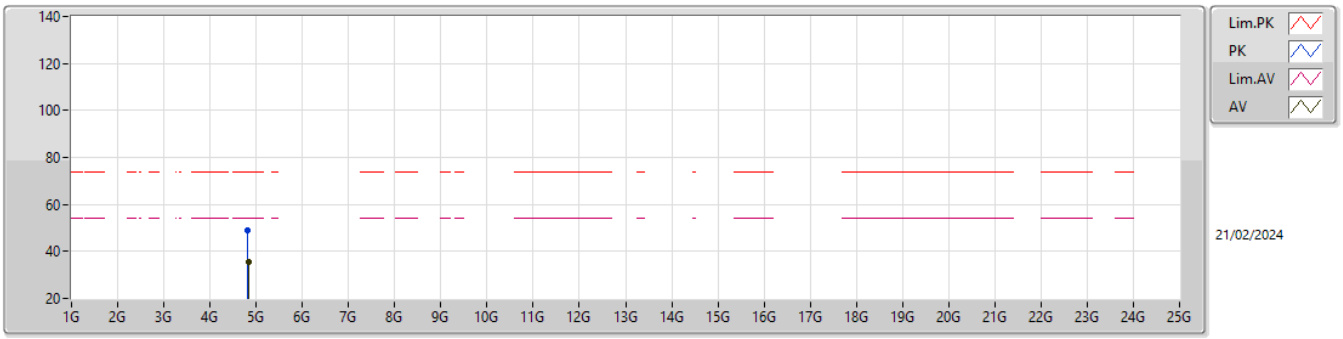


EUT X_1TX
Setting 0
06-E-J-8

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	4.8296G	48.41	74.00	-25.59	41.81	3	Vertical	19	1.79	-	31.30	6.70	31.40
AV	4.838G	35.59	54.00	-18.41	28.98	3	Vertical	19	1.79	-	31.30	6.70	31.39

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

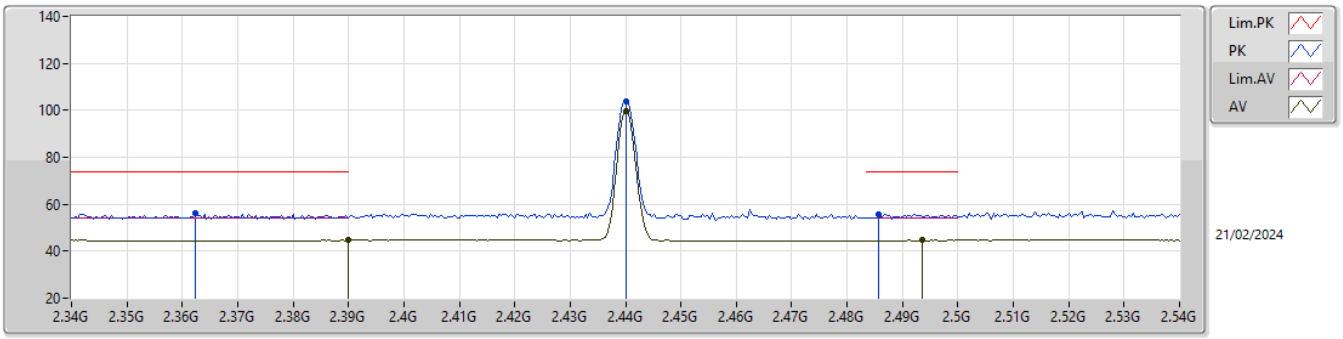


EUT X_1TX
Setting 0
06-E-J-8

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	4.8012G	48.72	74.00	-25.28	42.17	3	Horizontal	147	1.43	-	31.30	6.67	31.42
AV	4.8356G	35.51	54.00	-18.49	28.91	3	Horizontal	147	1.43	-	31.30	6.70	31.40

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

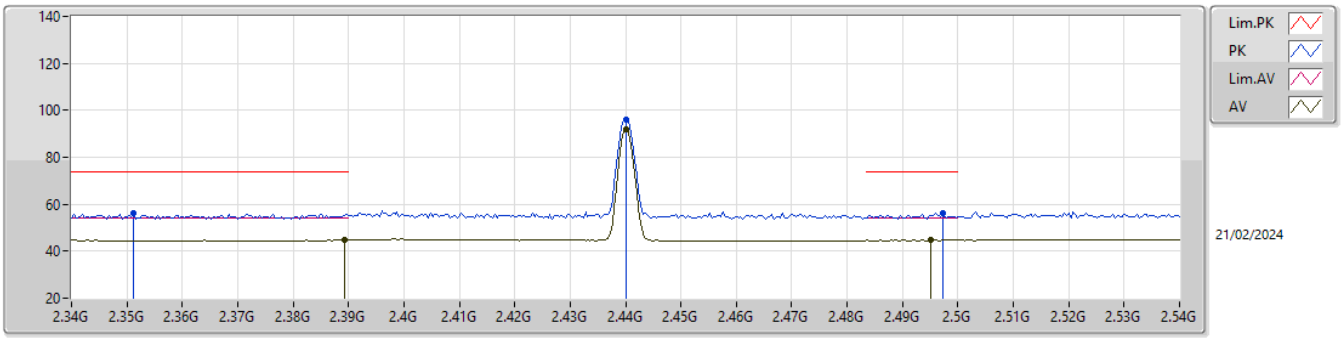


EUT X_1TX
Setting 0
06-E-J-8

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	2.3624G	55.98	74.00	-18.02	23.42	3	Vertical	258	2.10	-	27.88	4.68	-
AV	2.39G	44.64	54.00	-9.36	12.23	3	Vertical	258	2.10	-	27.70	4.71	-
PK	2.44G	103.82	Inf	-Inf	71.56	3	Vertical	258	2.10	-	27.50	4.76	-
AV	2.44G	99.84	Inf	-Inf	67.58	3	Vertical	258	2.10	-	27.50	4.76	-
PK	2.4856G	55.82	74.00	-18.18	23.62	3	Vertical	258	2.10	-	27.40	4.80	-
AV	2.4936G	44.70	54.00	-9.30	12.50	3	Vertical	258	2.10	-	27.40	4.80	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

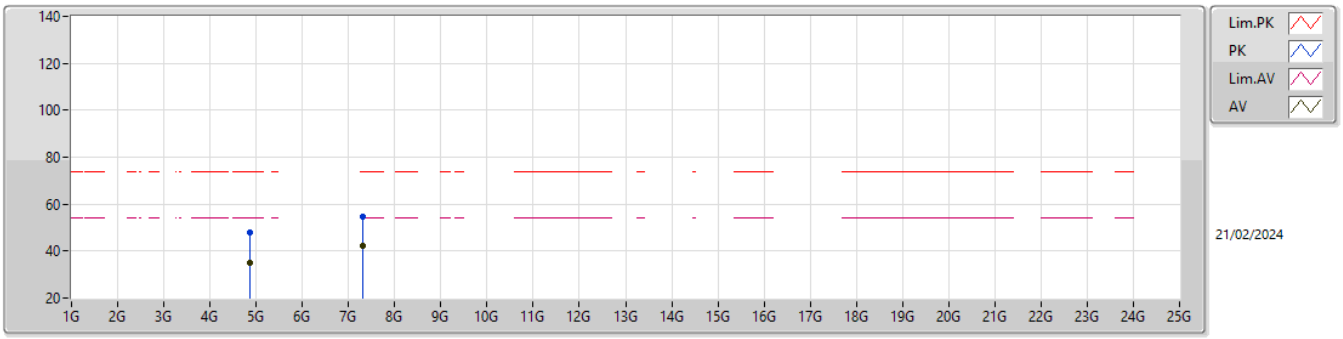


EUT X_1TX
Setting 0
06-E-J-8

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	2.3512G	56.10	74.00	-17.90	23.53	3	Horizontal	234	1.95	-	27.90	4.67	-
AV	2.3892G	44.88	54.00	-9.12	12.47	3	Horizontal	234	1.95	-	27.70	4.71	-
PK	2.44G	96.04	Inf	-Inf	63.78	3	Horizontal	234	1.95	-	27.50	4.76	-
AV	2.44G	92.12	Inf	-Inf	59.86	3	Horizontal	234	1.95	-	27.50	4.76	-
PK	2.4972G	56.11	74.00	-17.89	23.90	3	Horizontal	234	1.95	-	27.40	4.81	-
AV	2.4952G	44.80	54.00	-9.20	12.59	3	Horizontal	234	1.95	-	27.40	4.81	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

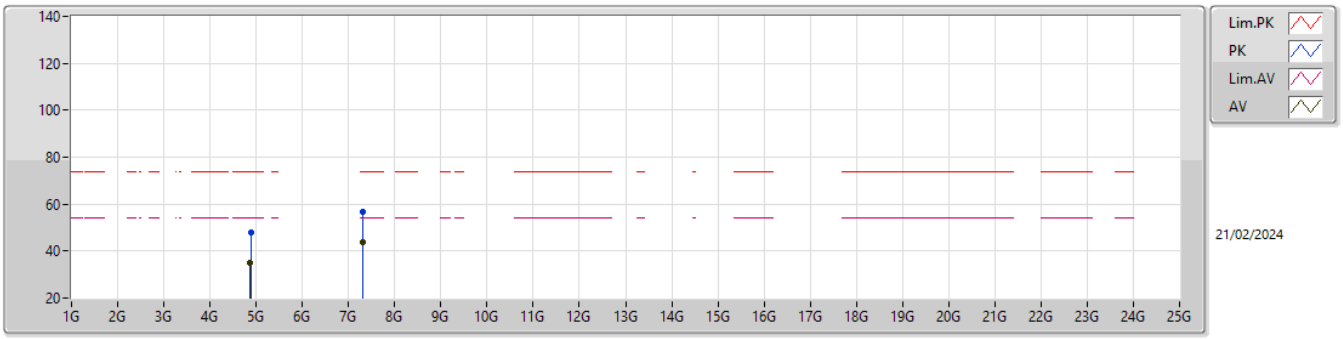


EUT X_1TX
Setting 0
06-E-J-8

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	4.8677G	47.79	74.00	-26.21	41.13	3	Vertical	166	1.98	-	31.30	6.73	31.37
AV	4.86554G	35.16	54.00	-18.84	28.50	3	Vertical	166	1.98	-	31.30	6.73	31.37
PK	7.31574G	54.85	74.00	-19.15	42.52	3	Vertical	79	1.75	-	36.60	8.34	32.61
AV	7.32018G	42.31	54.00	-11.69	29.98	3	Vertical	79	1.75	-	36.60	8.34	32.61

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

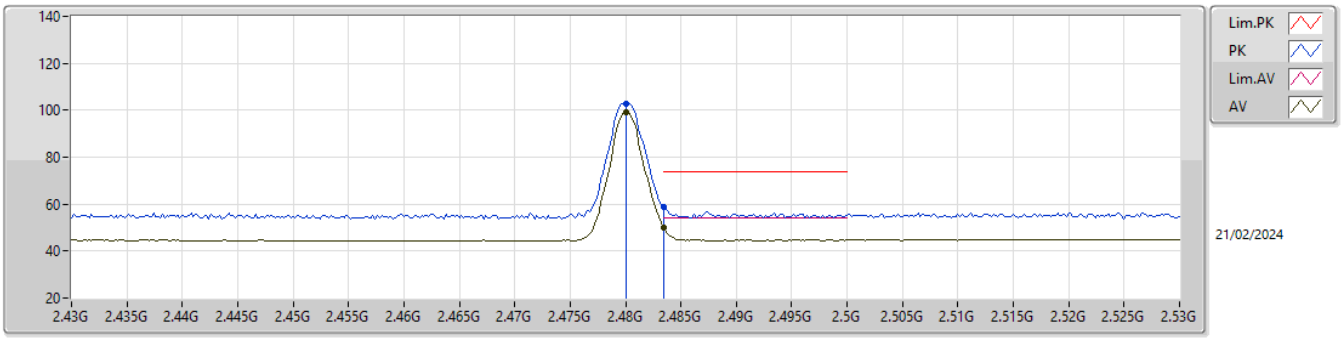


EUT X_1TX
Setting 0
06-E-J-8

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	4.88228G	48.02	74.00	-25.98	41.34	3	Horizontal	162	1.80	-	31.30	6.74	31.36
AV	4.8707G	35.23	54.00	-18.77	28.57	3	Horizontal	162	1.80	-	31.30	6.73	31.37
PK	7.3197G	56.77	74.00	-17.23	44.44	3	Horizontal	137	1.80	-	36.60	8.34	32.61
AV	7.31976G	43.70	54.00	-10.30	31.37	3	Horizontal	137	1.80	-	36.60	8.34	32.61

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

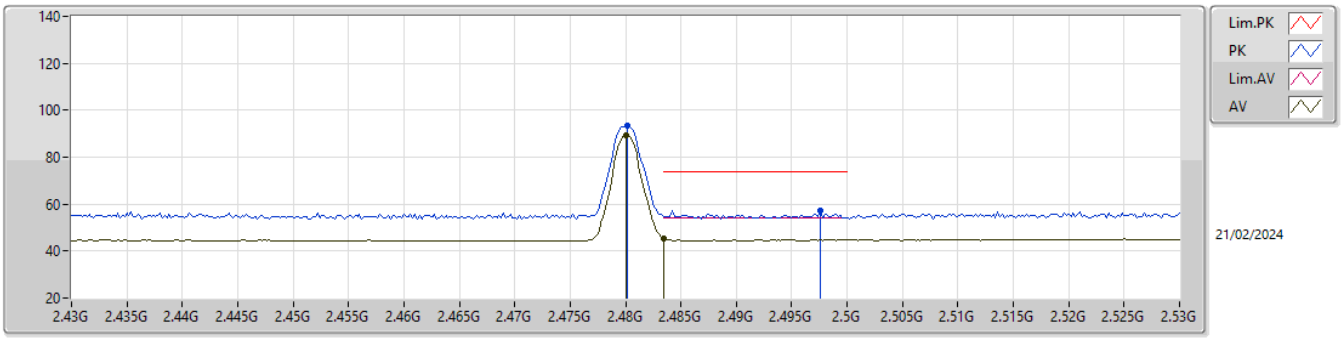


EUT X_1TX
Setting 0
06-E-J-8

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	102.91	Inf	-Inf	70.72	3	Vertical	257	2.18	-	27.40	4.79	-
AV	2.48G	99.12	Inf	-Inf	66.93	3	Vertical	257	2.18	-	27.40	4.79	-
PK	2.4835G	58.96	74.00	-15.04	26.76	3	Vertical	257	2.18	-	27.40	4.80	-
AV	2.4835G	50.18	54.00	-3.82	17.98	3	Vertical	257	2.18	-	27.40	4.80	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

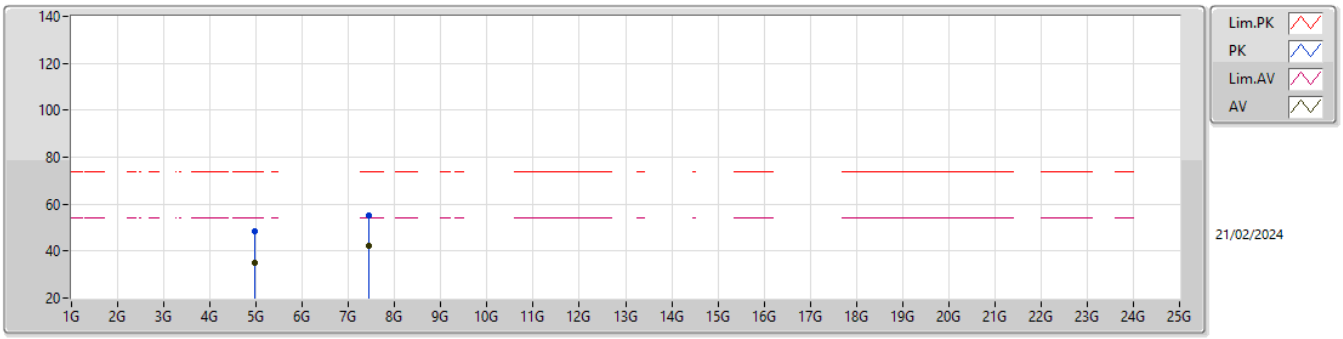


EUT X_1TX
Setting 0
06-E-J-8

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	93.19	Inf	-Inf	61.00	3	Horizontal	201	1.80	-	27.40	4.79	-
AV	2.48G	89.46	Inf	-Inf	57.27	3	Horizontal	201	1.80	-	27.40	4.79	-
PK	2.4976G	57.00	74.00	-17.00	24.79	3	Horizontal	201	1.80	-	27.40	4.81	-
AV	2.4835G	45.37	54.00	-8.63	13.17	3	Horizontal	201	1.80	-	27.40	4.80	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

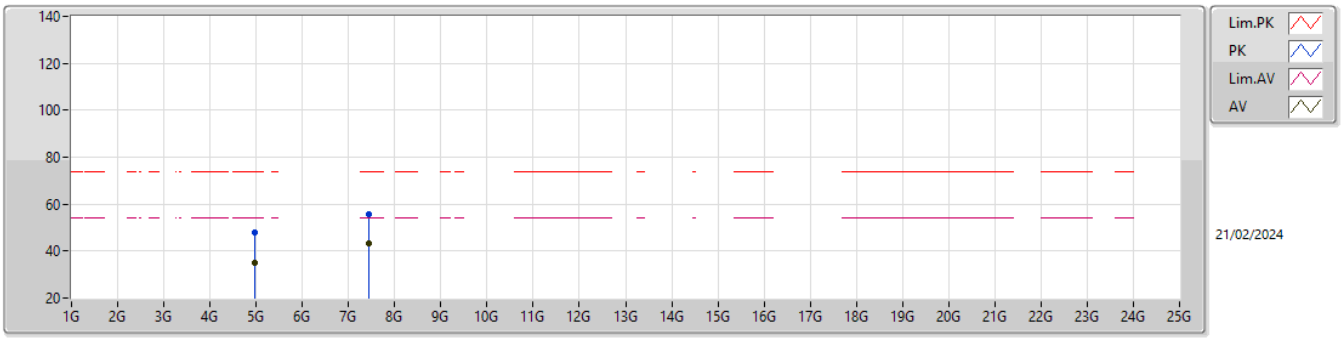


EUT X_1TX
Setting 0
06-E-J-8

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	4.9666G	48.21	74.00	-25.79	41.13	3	Vertical	118	1.91	-	31.57	6.81	31.30
AV	4.96036G	35.22	54.00	-18.78	28.18	3	Vertical	118	1.91	-	31.54	6.81	31.31
PK	7.43994G	55.38	74.00	-18.62	43.10	3	Vertical	324	1.60	-	36.68	8.38	32.78
AV	7.44006G	42.32	54.00	-11.68	30.04	3	Vertical	324	1.60	-	36.68	8.38	32.78

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



EUT X_1TX
Setting 0
06-E-J-8

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	4.9708G	47.95	74.00	-26.05	40.85	3	Horizontal	342	2.11	-	31.58	6.82	31.30
AV	4.97488G	35.24	54.00	-18.76	28.12	3	Horizontal	342	2.11	-	31.60	6.82	31.30
PK	7.43922G	55.60	74.00	-18.40	43.32	3	Horizontal	130	1.80	-	36.68	8.38	32.78
AV	7.44006G	43.52	54.00	-10.48	31.24	3	Horizontal	130	1.80	-	36.68	8.38	32.78