Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	TLZ-XH32X
Equipment	:	IEEE 802.11 a/b/g/n/ac/ax Wi-Fi + Bluetooth 5.3 Combo SIP Module
Brand Name	:	AzureWave
Model Name	:	AW-XH323, AW-XH325, AW-XH327
Applicant	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Manufacturer	:	AzureWave Technologies, Inc. 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231
Standard	:	47 CFR FCC Part 15.247

The product was received on Dec. 14, 2023, and testing was started from Dec. 16, 2023 and completed on Apr. 11, 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
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Appendix H. Test Photos

Photographs of EUT v01

History of this test report

Report No.	Version	Description	Issued Date
FR3O3014AD	01	Initial issue of report	Apr. 25, 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.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	ARISTOTLE	RFA-27-JP326MHF4C198	PIFA	I-PEX	Note 1
2					

Note 1:

Ant.	Port		Gain (dBi)		
	WLAN 2.4GHz / 5GHz / 6GHz	Bluetooth	WLAN 2.4GHz	WLAN 5GHz / 6GHz	Bluetooth
1	1	1	3.5	5	3.5
2	2	N/A			

Note 2: The above information was declared by manufacturer.
Note 3: Directional gain information for 2TX/2RX

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$Directiona\ lGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$
BF	$Directiona\ lGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$	$Directiona\ lGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$

Ex.

Directional Gain (NSS1) formula : $Directiona\ lGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$

$NSS1(g1,1) = 10^{G1/20}$; $NSS1(g1,2) = 10^{G2/20}$; $NSS1(g1,2) = 10^{G3/20}$; $NSS1(g1,2) = 10^{G4/20}$

$gj,k = (Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))^2$

$DG = 10 \log[(Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))^2 / N_{ANT}] => 10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$

Where ;

2.4G G1= 3.5 dBi ;G2= 3.5 dBi ;

5G UNII-1 G1 = 5.00 dBi; G2 = 5.00 dBi;

5G UNII-2A G1 = 5.00 dBi; G2 = 5.00 dBi;

5G UNII-2C G1 = 5.00 dBi; G2 = 5.00 dBi;

5G UNII-3 G1 = 5.00 dBi; G2 = 5.00 dBi;

2.4G DG = 6.51 dBi

5G UNII-1 DG = 8.01 dBi

5G UNII-2A DG = 8.01 dBi

5G UNII-2C DG = 8.01 dB

5G UNII-3 DG = 8.01 dBi

Note 4: **For 2.4GHz function:**

For IEEE 802.11 b/g/n/VHT/ax (1TX/1RX):
Only Port 1 can be used as transmitting/receiving antenna.
For IEEE 802.11 b/g/n/VHT/ax (2TX/2RX):
Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.
For 5GHz function:
For IEEE 802.11a/n/ac/ax (1TX/1RX):
Only Port 1 can be used as transmitting/receiving antenna.
For IEEE 802.11a/n/ac/ax (2TX/2RX):
Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.
For 6GHz function:
For IEEE 802.11ax (1TX/1RX):
Only Port 1 can be used as transmitting/receiving antenna.
For IEEE 802.11ax (2TX/2RX):
Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.
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)	0.767	1.15	2.885m	1k
BT-EDR(2Mbps)	0.784	1.06	2.888m	1k
BT-EDR(3Mbps)	0.784	1.06	2.888m	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	Tera Term 4.75

1.1.5 Table for Multiple Listing

Model Name	Description
AW-XH323	All the models are identical, the different model names serve as strategies for marketing.
AW-XH325	
AW-XH327	

Note 1: From the above models, AW-XH323 was selected as representative model for the test, and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 Table for EUT Information

The EUT has 3 SKUs. The difference between them lies in the software settings listed below:

SKU	TX/RX Function for WLAN	Supporting WLAN 6GHz
1	2TX/2RX	V
2	1TX/1RX	V
3	2TX/2RX	X

Note 1: From the above SKUs, SKU 2 was selected to test all the test items, and SKU 1 was selected to test AC Power-line Conducted Emissions and Emissions in Restricted Frequency Bands below 1GHz. Their data was recorded in this report.

Note 2: The above information was declared by manufacturer.

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	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	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	TH01-CB	Ken Yeh	21.4~22.7 / 66~68	Dec. 21, 2023~ Jan. 15, 2024
Radiated < 1GHz	03CH04-CB	Black Lu	22.7~23.8 / 56~59	Mar. 19, 2024~ Apr. 11, 2024
Radiated > 1GHz	03CH02-CB	Black Lu	22~23 / 55~58	Dec. 16, 2023~ Jan. 12, 2024
AC Conduction	CO01-CB	Joe Chu	22~23 / 50~51	Mar. 27, 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	Power Setting
BT-BR(1Mbps)	-
2402MHz	Default
2440MHz	Default
2480MHz	Default
BT-EDR(2Mbps)	-
2402MHz	Default
2440MHz	Default
2480MHz	Default
BT-EDR(3Mbps)	-
2402MHz	Default
2440MHz	Default
2480MHz	Default

2.2 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	Normal Link
1	EUT (SKU 1)_WLAN 2.4GHz + Bluetooth
2	EUT (SKU 1)_WLAN 5GHz + Bluetooth
3	EUT (SKU 1)_WLAN 6GHz + Bluetooth
4	EUT (SKU 2)_WLAN 2.4GHz + Bluetooth
5	EUT (SKU 2)_WLAN 5GHz + Bluetooth
6	EUT (SKU 2)_WLAN 6GHz + Bluetooth
For operating, Mode 4 was 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
1	EUT (SKU 2)

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
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Z axis. Thus, the measurement will follow this same test configuration.
1	EUT (SKU 1) in Z axis_WLAN 2.4GHz + Bluetooth
2	EUT (SKU 1) in Z axis_WLAN 5GHz + Bluetooth
3	EUT (SKU 1) in Z axis_WLAN 6GHz + Bluetooth
4	EUT (SKU 2) in Z axis_WLAN 2.4GHz + Bluetooth
5	EUT (SKU 2) in Z axis_WLAN 5GHz + Bluetooth
6	EUT (SKU 2) in Z axis_WLAN 6GHz + Bluetooth
For operating, Mode 1 was 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 position, and the worst case was found at Y axis. Thus, the measurement will follow this same test configuration.
1	EUT (SKU 2) in Y axis

Note: The EUT can enable the WLAN function and the Bluetooth function at the same time, but they cannot function simultaneously. There will be a time delay between switching from each function.

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

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 1	AZW	2460-i3	N/A
B	Fixture 2	AZW	2460-i6	N/A
C	Control NB	DELL	E6430	N/A
D	NB 1	DELL	E6430	N/A
E	AP Router	TP-LINK	Archer C54	N/A
F	NB 2	DELL	E6430	N/A
G	iPad mini	Apple	A1489	N/A
H	Mouse	acer	MOBVUO	N/A
I	Earphone	e-Power	GT-02	N/A

For Radiated < 1GHz:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Fixture 1	AZW	2460-i3	N/A
B	Fixture 2	AZW	2460-i6	N/A
C	NB 1	DELL	E6230	N/A
D	WLAN AP	ASUS	RT-AX88U	N/A
E	NB 2	DELL	E4300	N/A
F	Mouse	Logitech	M-U0026	N/A
G	Earphone	e-Power	S90W	N/A
H	iPad	Apple	A1430	N/A

For Radiated > 1GHz:

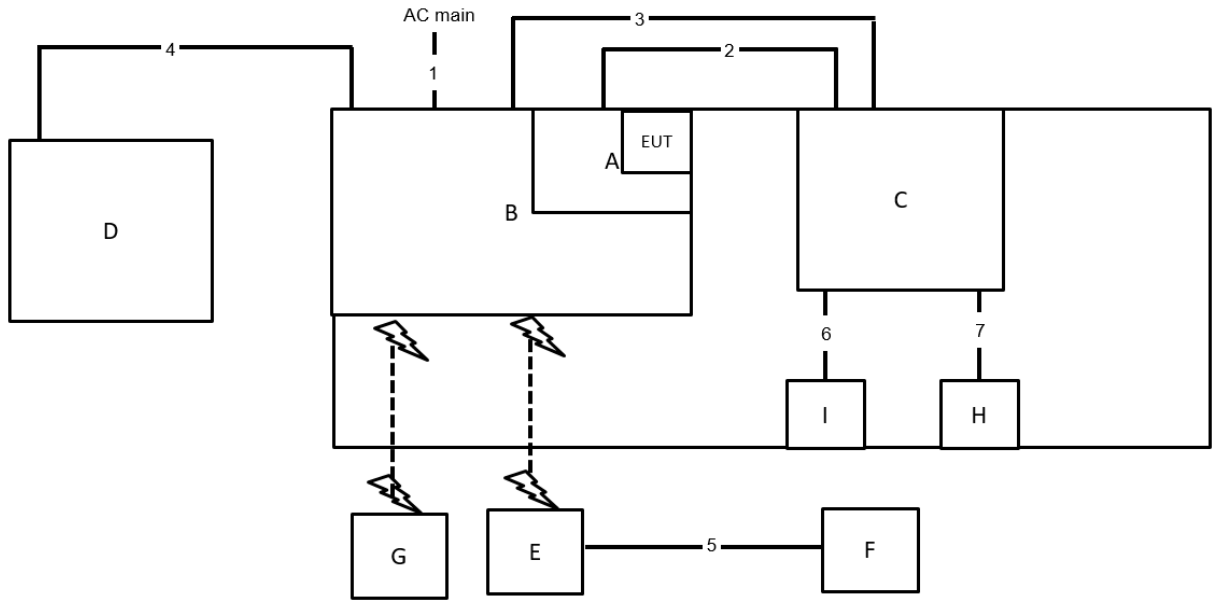
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	Fixture 1	AZW	2460-i3	N/A
B	Fixture 2	AZW	2460-i6	N/A
C	NB	DELL	E6230	N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	USB to TypeC cable	PHILIPS	DLC4543	N/A
C	USB to TypeC cable	PHILIPS	DLC4543	N/A
D	Fixture 1	AZW	2460-i3	N/A
E	Fixture 2	AZW	2460-i6	N/A

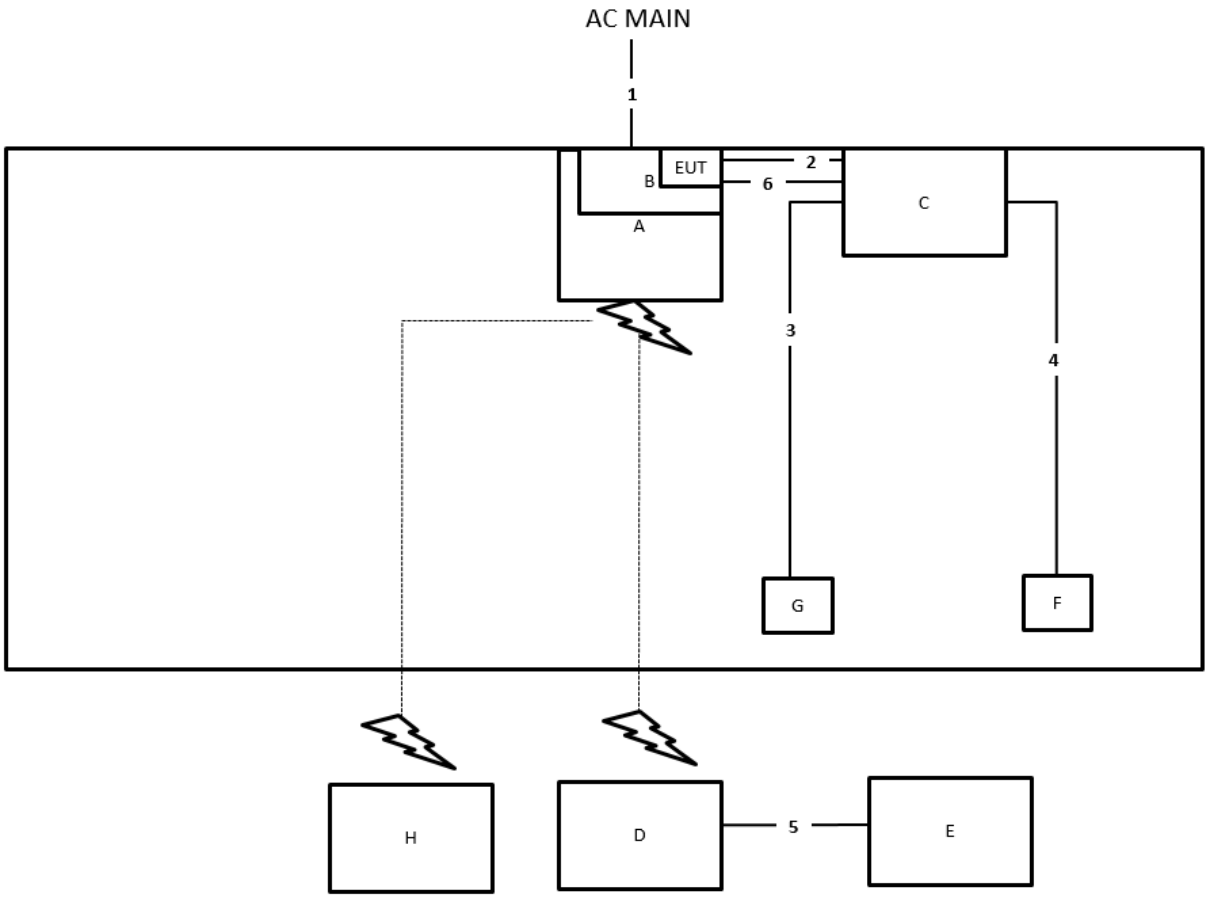
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



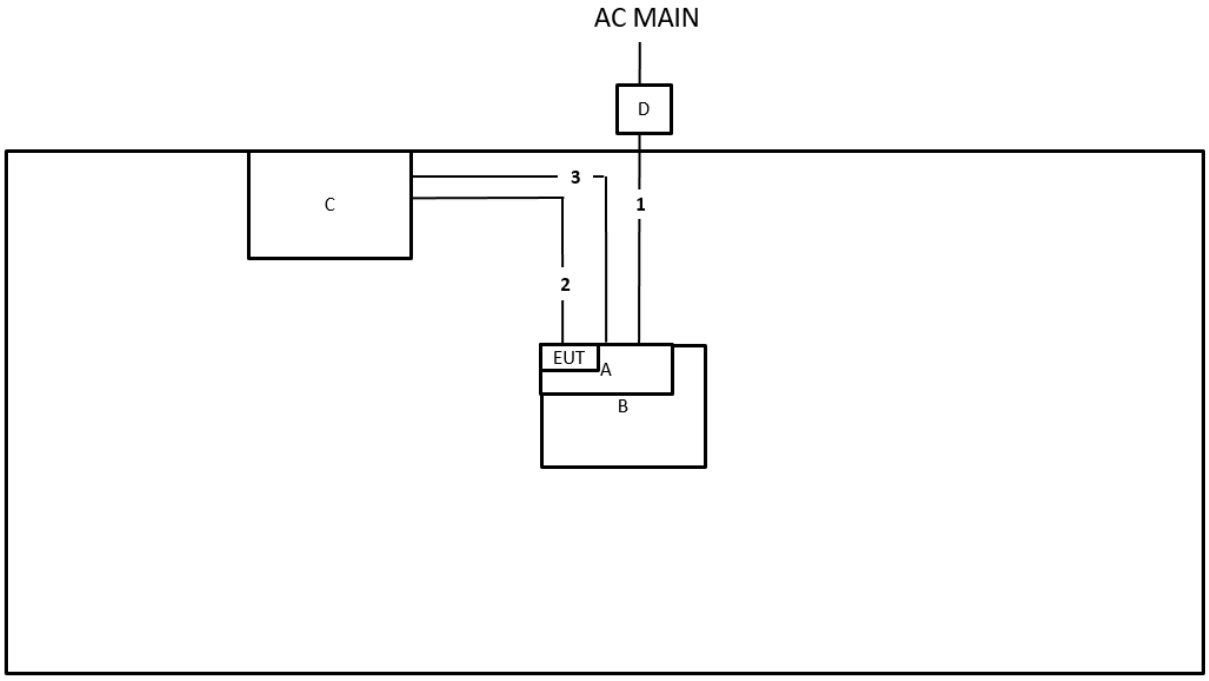
Item	Connection	Shielded	Length
1	Power cable	No	1.9m
2	Type C USB cable	Yes	0.5m
3	Type C USB cable	Yes	1m
4	RJ-45 cable	No	10m
5	RJ-45 cable	No	1.5m
6	Audio cable	No	1m
7	USB cable	Yes	1m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.9m
2	USB to TypeC cable	Yes	1m
3	Audio cable	No	1m
4	USB cable	Yes	1.5m
5	RJ-45 cable	No	10m
6	USB to TypeC cable	Yes	1m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.9m
2	USB to TypeC cable	Yes	1m
3	USB to TypeC cable	Yes	1m

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

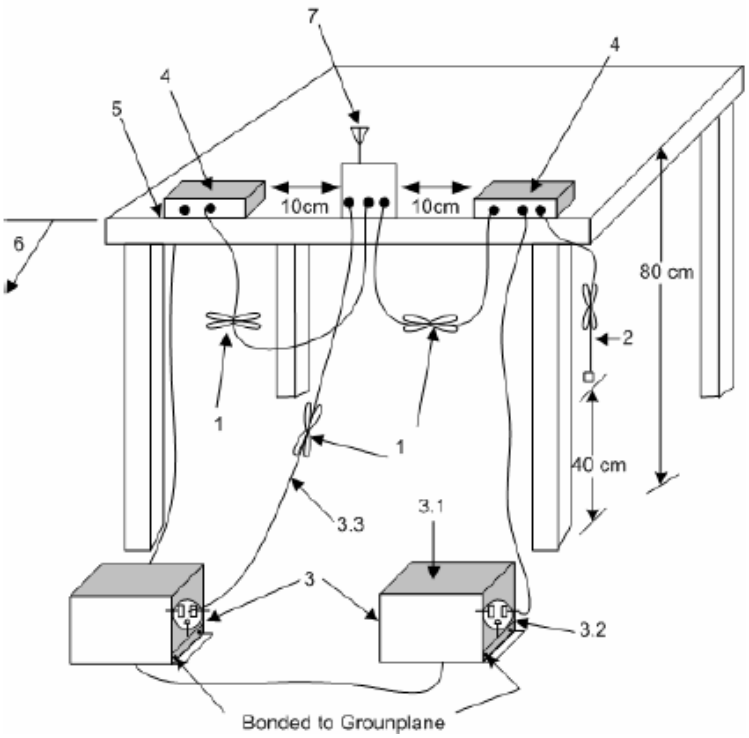
Refer a test equipment and calibration data table in this test report.

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

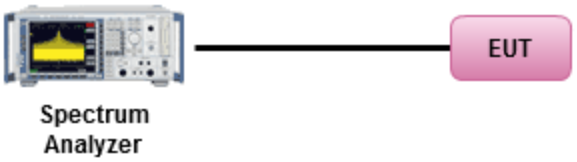
3.2.2 Measuring Instruments

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

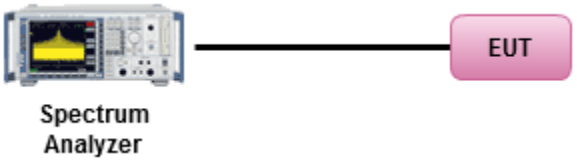
3.4.3 Measuring Instruments

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

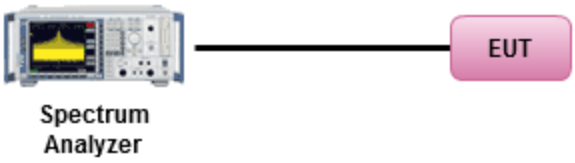
3.5.2 Measuring Instruments

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.	

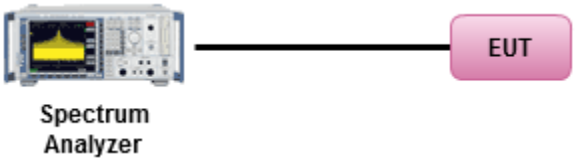
3.6.2 Measuring Instruments

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.

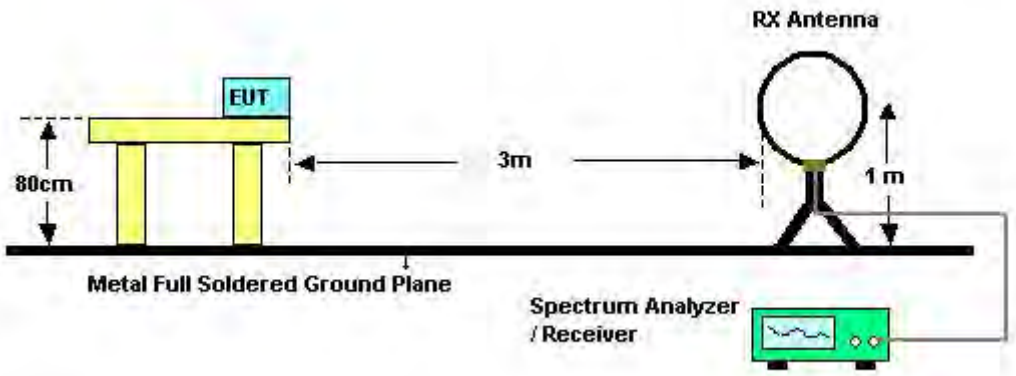
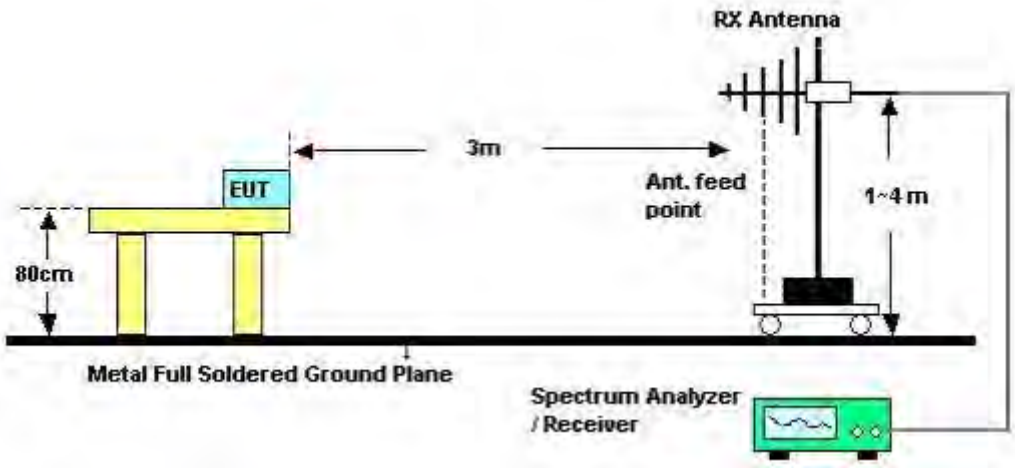
3.7.2 Measuring Instruments

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

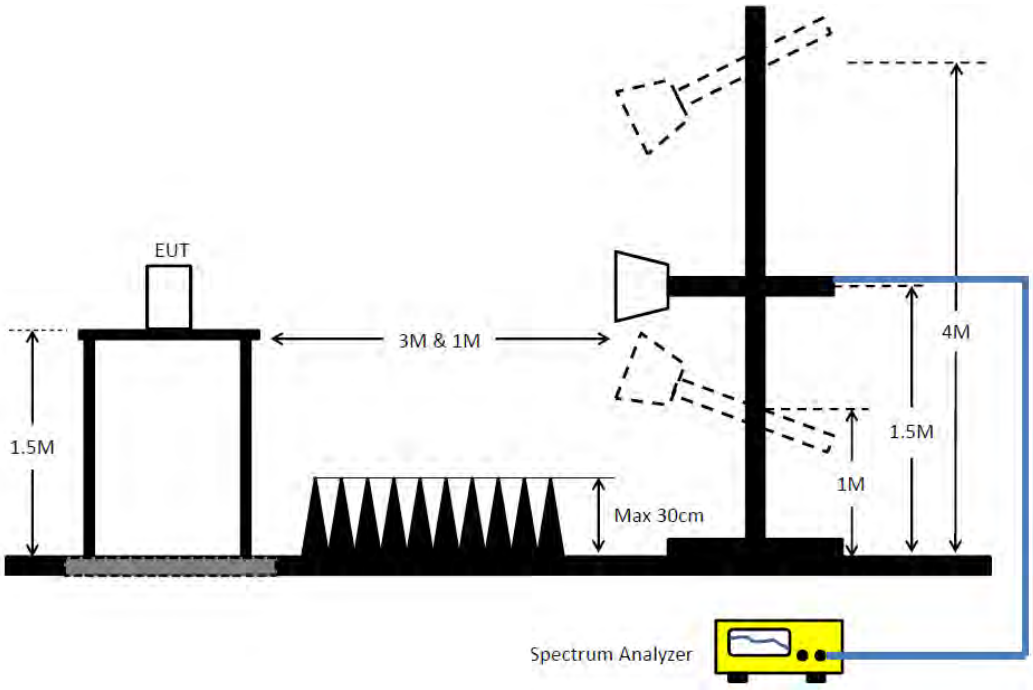
3.7.3 Test Procedures

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 - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30MHz ~ 1GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 07, 2023	Oct. 06, 2024	Radiation (03CH04-CB)
Pre-Amplifier	EMCI	EMC330N	980391	20MHz ~ 3GHz	May 23, 2023	May 22, 2024	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 19, 2024	Mar. 18, 2025	Radiation (03CH04-CB
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz – 1GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH02-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40GHz	Dec. 06, 2023	Dec. 05, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 29, 2023	May 28, 2024	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1~26.5GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1GHz – 18GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

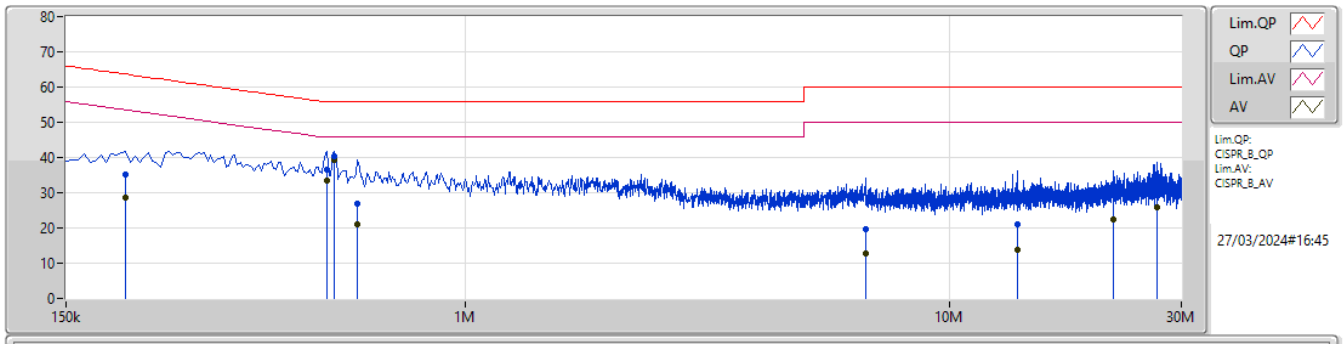
Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.

Summary

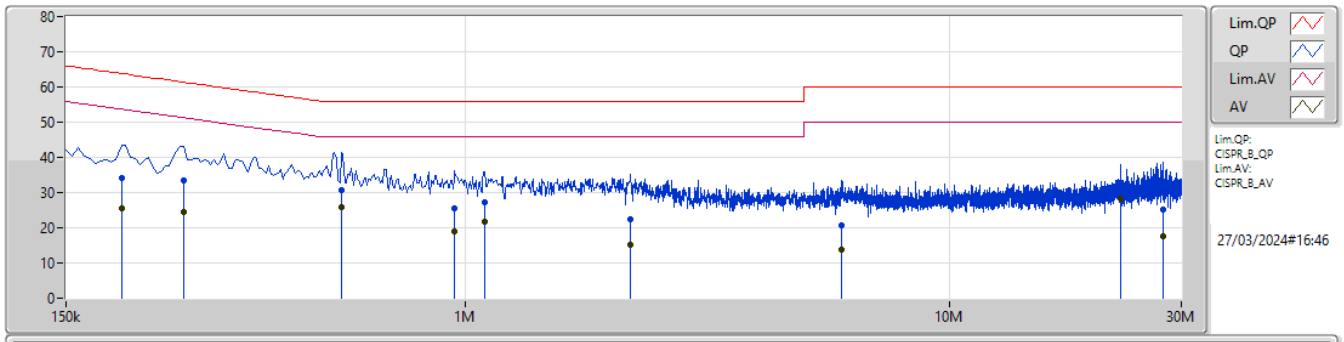
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 4	Pass	AV	537k	39.20	46.00	-6.80	Line

Mode 4



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	199.5k	35.21	63.63	-28.42	9.95	Line	-	25.26	0.08	0.02	9.85
AV	199.5k	28.70	53.63	-24.93	9.95	Line	-	18.75	0.08	0.02	9.85
QP	519k	36.53	56.00	-19.47	10.02	Line	-	26.51	0.10	0.02	9.90
AV	519k	33.29	46.00	-12.71	10.02	Line	-	23.27	0.10	0.02	9.90
QP	537k	40.42	56.00	-15.58	10.02	Line	-	30.40	0.10	0.02	9.90
AV	537k	39.20	46.00	-6.80	10.02	Line	"Worst"	29.18	0.10	0.02	9.90
QP	600k	26.92	56.00	-29.08	10.02	Line	-	16.90	0.10	0.02	9.90
AV	600k	21.13	46.00	-24.87	10.02	Line	-	11.11	0.10	0.02	9.90
QP	6.693M	19.69	60.00	-40.31	10.27	Line	-	9.42	0.22	0.14	9.91
AV	6.693M	12.70	50.00	-37.30	10.27	Line	-	2.43	0.22	0.14	9.91
QP	13.74M	21.08	60.00	-38.92	10.38	Line	-	10.70	0.27	0.17	9.94
AV	13.74M	13.85	50.00	-36.15	10.38	Line	-	3.47	0.27	0.17	9.94
QP	21.669M	29.47	60.00	-30.53	10.57	Line	-	18.90	0.31	0.23	10.03
AV	21.669M	22.48	50.00	-27.52	10.57	Line	-	11.91	0.31	0.23	10.03
QP	26.768M	33.34	60.00	-26.66	10.66	Line	-	22.68	0.32	0.29	10.05
AV	26.768M	25.73	50.00	-24.27	10.66	Line	-	15.07	0.32	0.29	10.05

Mode 4



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	195k	34.00	63.82	-29.82	9.94	Neutral	-	24.06	0.07	0.02	9.85
AV	195k	25.68	53.82	-28.14	9.94	Neutral	-	15.74	0.07	0.02	9.85
QP	262.5k	33.61	61.35	-27.74	9.96	Neutral	-	23.65	0.07	0.02	9.87
AV	262.5k	24.52	51.35	-26.83	9.96	Neutral	-	14.56	0.07	0.02	9.87
QP	555k	30.72	56.00	-25.28	9.99	Neutral	-	20.73	0.07	0.02	9.90
AV	555k	25.91	46.00	-20.09	9.99	Neutral	"Worst"	15.92	0.07	0.02	9.90
QP	951k	25.59	56.00	-30.41	10.00	Neutral	-	15.59	0.08	0.01	9.91
AV	951k	18.81	46.00	-27.19	10.00	Neutral	-	8.81	0.08	0.01	9.91
QP	1.095M	27.20	56.00	-28.80	10.01	Neutral	-	17.19	0.08	0.02	9.91
AV	1.095M	21.61	46.00	-24.39	10.01	Neutral	-	11.60	0.08	0.02	9.91
QP	2.189M	22.30	56.00	-33.70	10.07	Neutral	-	12.23	0.10	0.08	9.89
AV	2.189M	15.22	46.00	-30.78	10.07	Neutral	-	5.15	0.10	0.08	9.89
QP	5.987M	20.65	60.00	-39.35	10.21	Neutral	-	10.44	0.17	0.14	9.90
AV	5.987M	13.89	50.00	-36.11	10.21	Neutral	-	3.68	0.17	0.14	9.90
QP	22.524M	32.83	60.00	-27.17	10.60	Neutral	-	22.23	0.32	0.24	10.04
AV	22.524M	28.11	50.00	-21.89	10.60	Neutral	-	17.51	0.32	0.24	10.04
QP	27.573M	25.21	60.00	-34.79	10.75	Neutral	-	14.46	0.38	0.31	10.06
AV	27.573M	17.47	50.00	-32.53	10.75	Neutral	-	6.72	0.38	0.31	10.06

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)	918.5k	852.159k	852KF1D	849.75k	848.034k
BT-EDR(2Mbps)	1.317M	1.201M	1M20G1D	1.315M	1.195M
BT-EDR(3Mbps)	1.271M	1.205M	1M21G1D	1.268M	1.203M

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

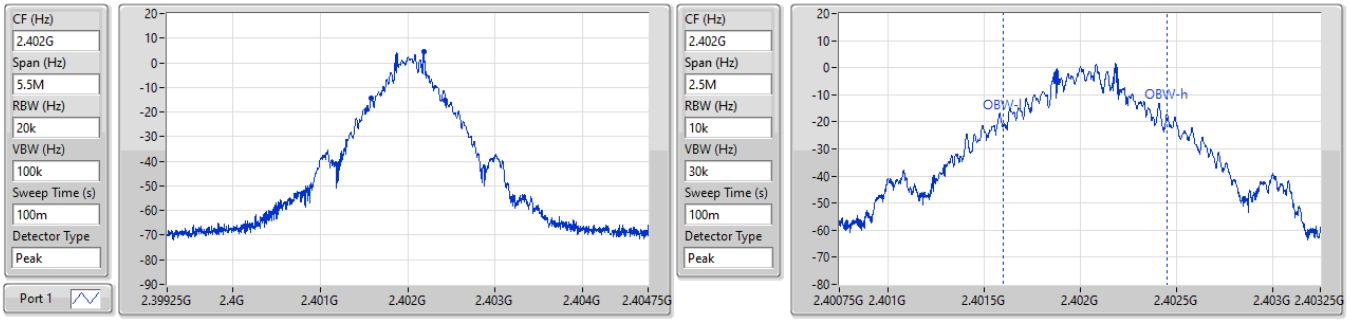
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	Inf	849.75k	852.159k
2440MHz	Pass	Inf	918.5k	849.855k
2480MHz	Pass	Inf	918.5k	848.034k
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.315M	1.195M
2440MHz	Pass	Inf	1.315M	1.198M
2480MHz	Pass	Inf	1.317M	1.201M
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	Inf	1.271M	1.203M
2440MHz	Pass	Inf	1.268M	1.204M
2480MHz	Pass	Inf	1.271M	1.205M

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

29/12/2023

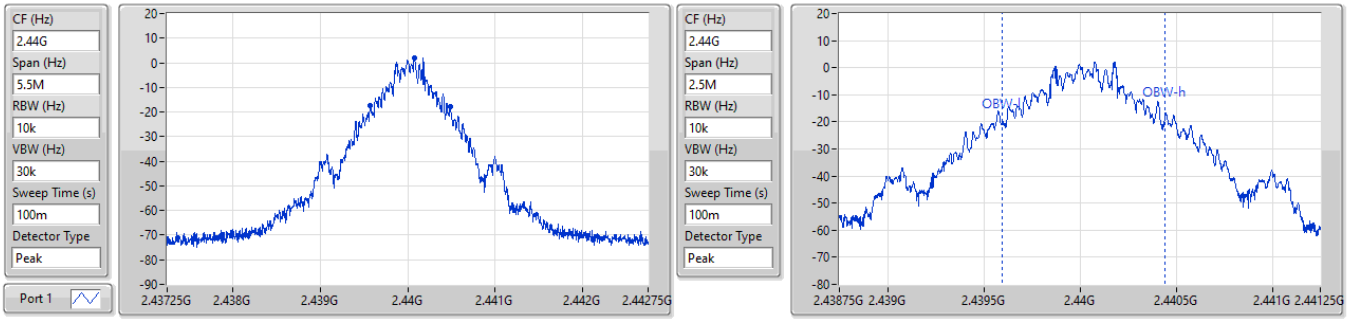


20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
849.75k	2.401579G	2.402429G	852.159k	2.401599G	2.402451G	Inf	1

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

2440MHz

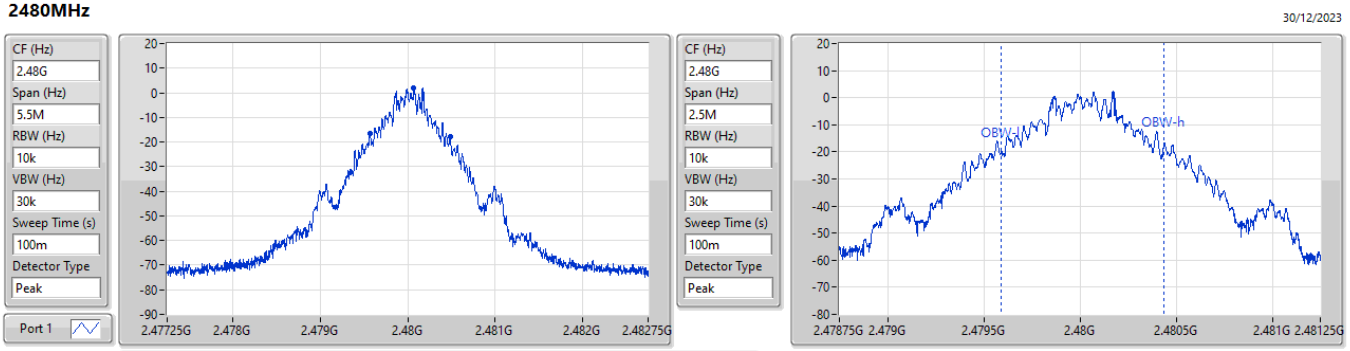
30/12/2023



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.5k	2.439571G	2.44049G	849.855k	2.439594G	2.440444G	Inf	1

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

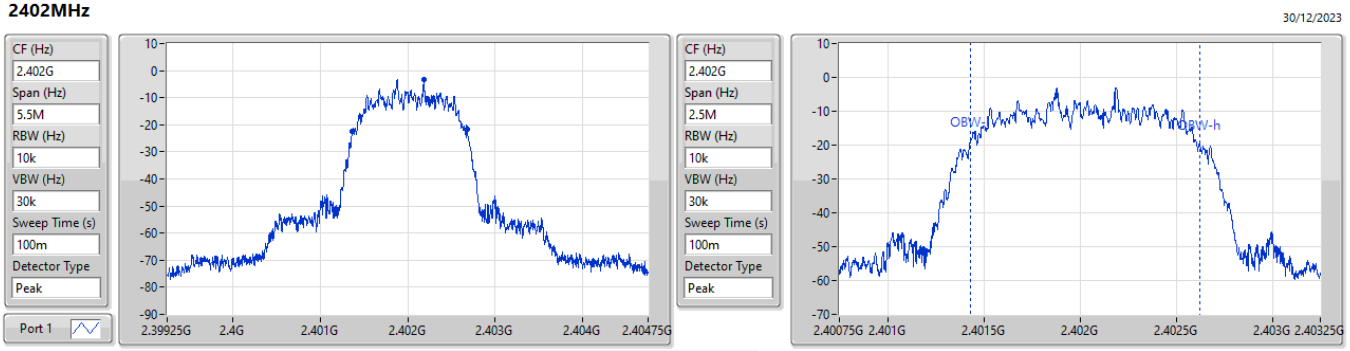
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
918.5k	2.479566G	2.480484G	848.034k	2.479589G	2.480437G	Inf	1

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

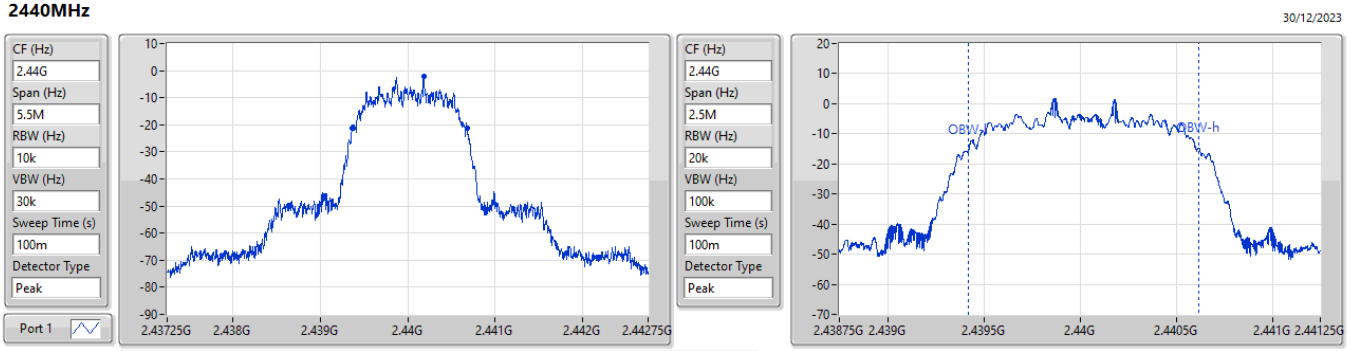
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.315M	2.40137G	2.402685G	1.195M	2.401431G	2.402626G	Inf	1

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

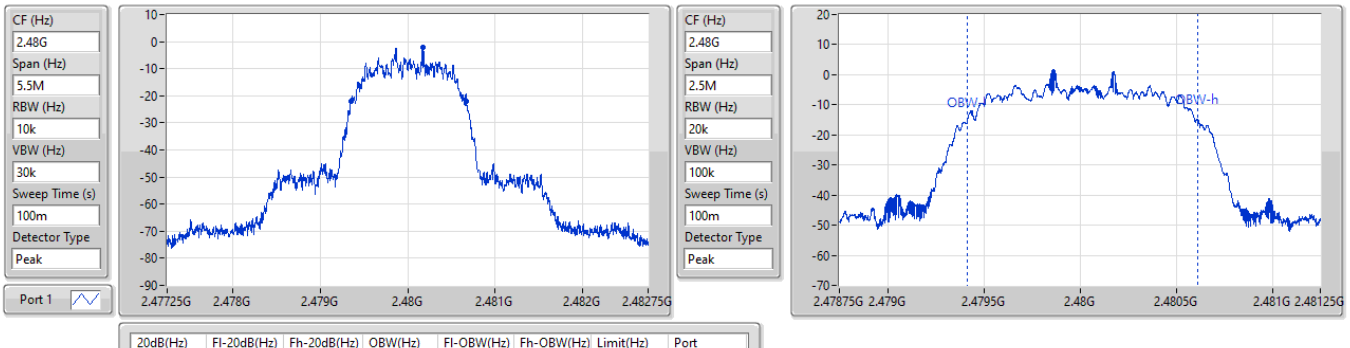
2440MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.315M	2.439365G	2.440679G	1.198M	2.439422G	2.44062G	Inf	1

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

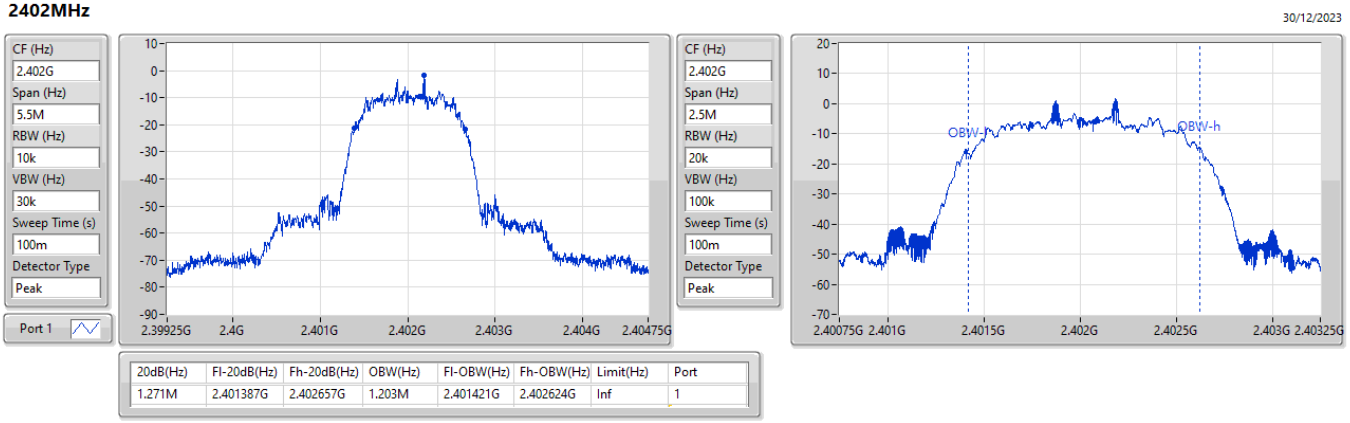
2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.317M	2.479357G	2.480674G	1.201M	2.479414G	2.480615G	Inf	1

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

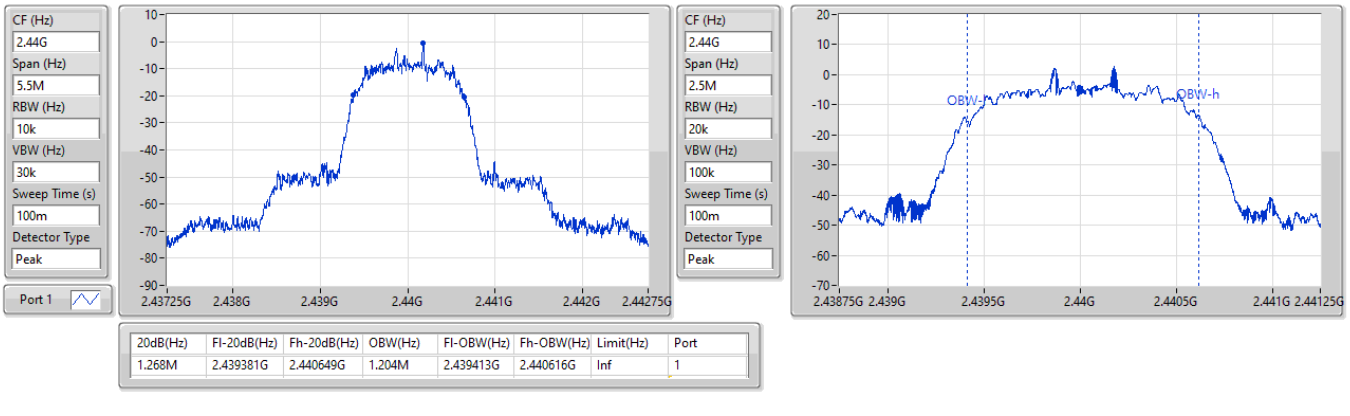
2402MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.271M	2.401387G	2.402657G	1.203M	2.401421G	2.402624G	Inf	1

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

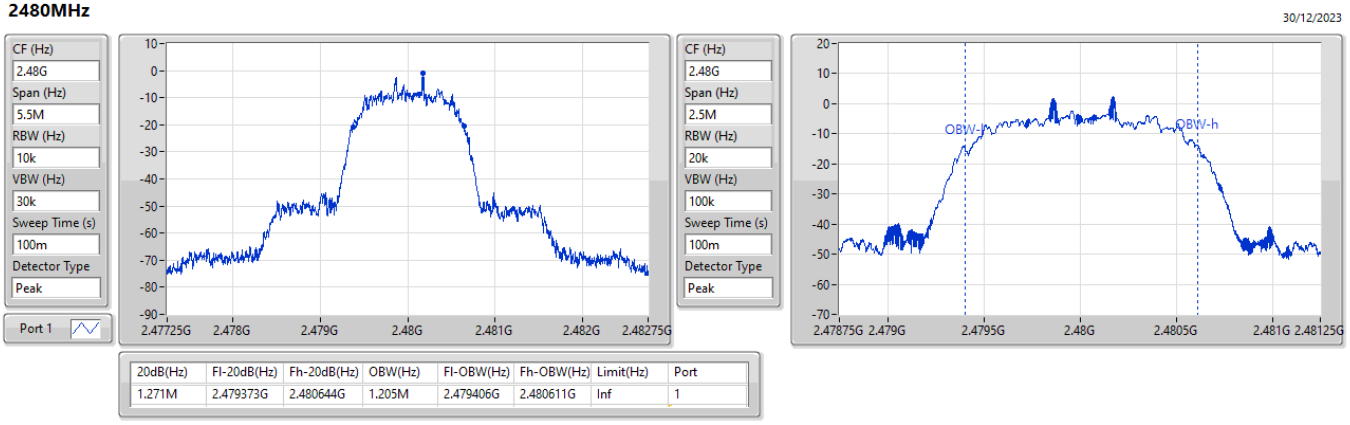
2440MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.268M	2.439381G	2.440649G	1.204M	2.439413G	2.440616G	Inf	1

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

2480MHz



20dB(Hz)	Fl-20dB(Hz)	Fh-20dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.271M	2.479373G	2.480644G	1.205M	2.479406G	2.480611G	Inf	1

Summary

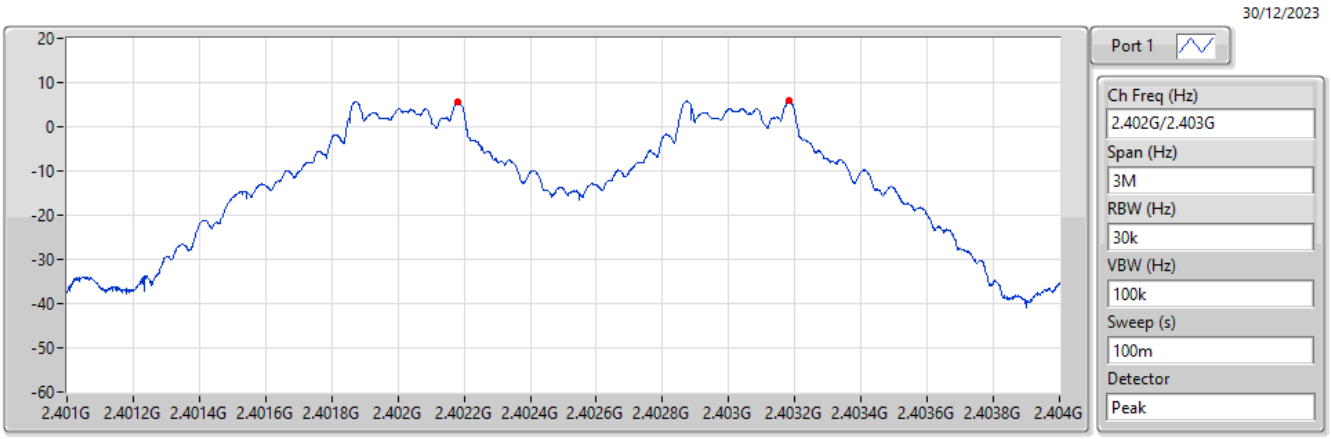
Mode	Max-Space (Hz)	Min-Space (Hz)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	1.002M	999k
BT-EDR(2Mbps)	1.002M	999k
BT-EDR(3Mbps)	1.0005M	999k

Result

Mode	Result	Fl (Hz)	Fh (Hz)	Ch.Space (Hz)	Limit (Hz)
BT-BR(1Mbps)	-	-	-	-	-
2402MHz	Pass	2.402182G	2.403184G	1.002M	565.9335k
2440MHz	Pass	2.440178G	2.441177G	999k	611.721k
2480MHz	Pass	2.47917G	2.480169G	999k	611.721k
BT-EDR(2Mbps)	-	-	-	-	-
2402MHz	Pass	2.401873G	2.402872G	999k	875.79k
2440MHz	Pass	2.439867G	2.440868G	1.0005M	875.79k
2480MHz	Pass	2.47886G	2.479862G	1.002M	877.122k
BT-EDR(3Mbps)	-	-	-	-	-
2402MHz	Pass	2.402184G	2.403184G	1.0005M	846.486k
2440MHz	Pass	2.440176G	2.441177G	1.0005M	844.488k
2480MHz	Pass	2.479172G	2.480171G	999k	846.486k

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

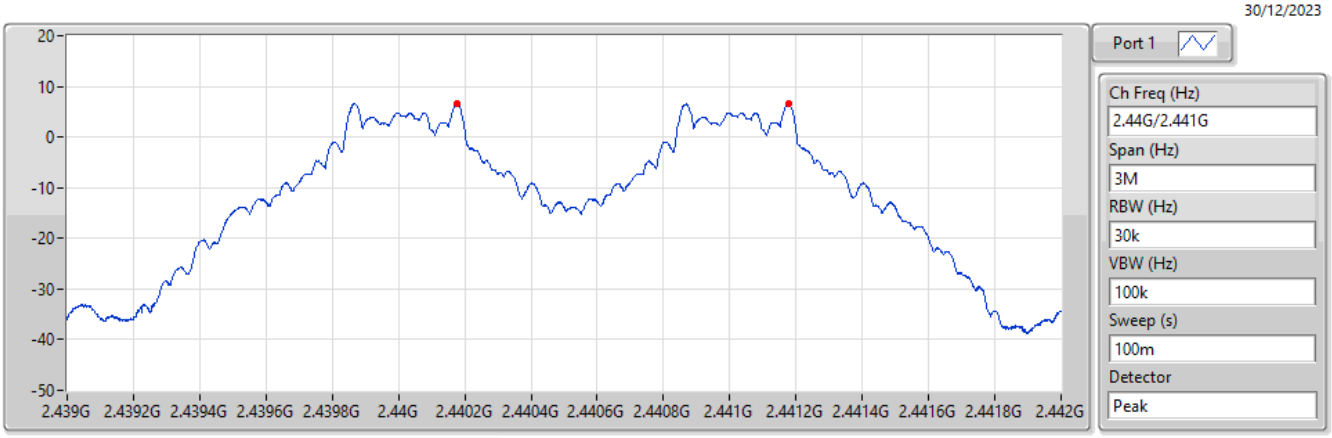
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402182G	2.403184G	1.002M	565.9335k

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

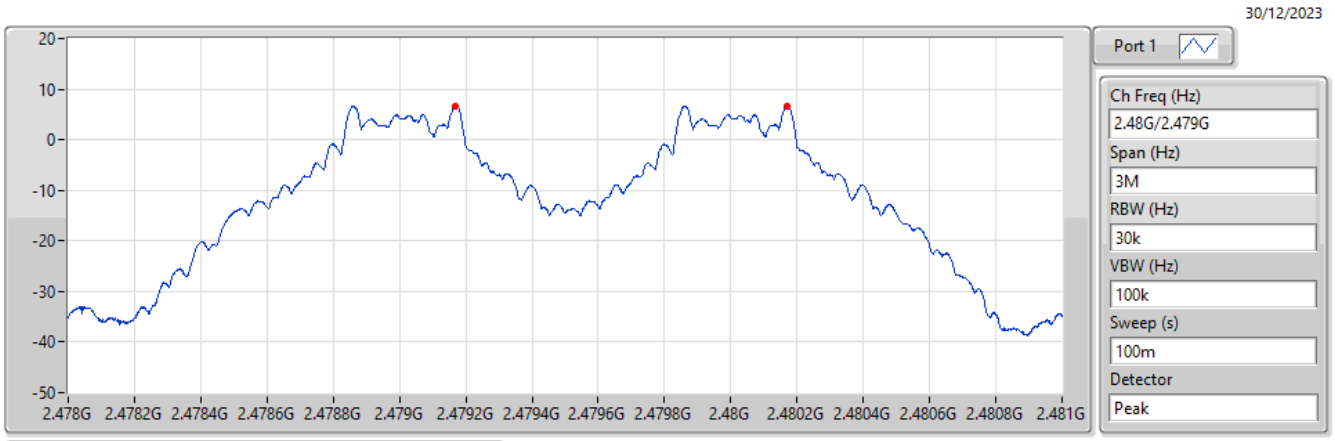
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440178G	2.441177G	999k	611.721k

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

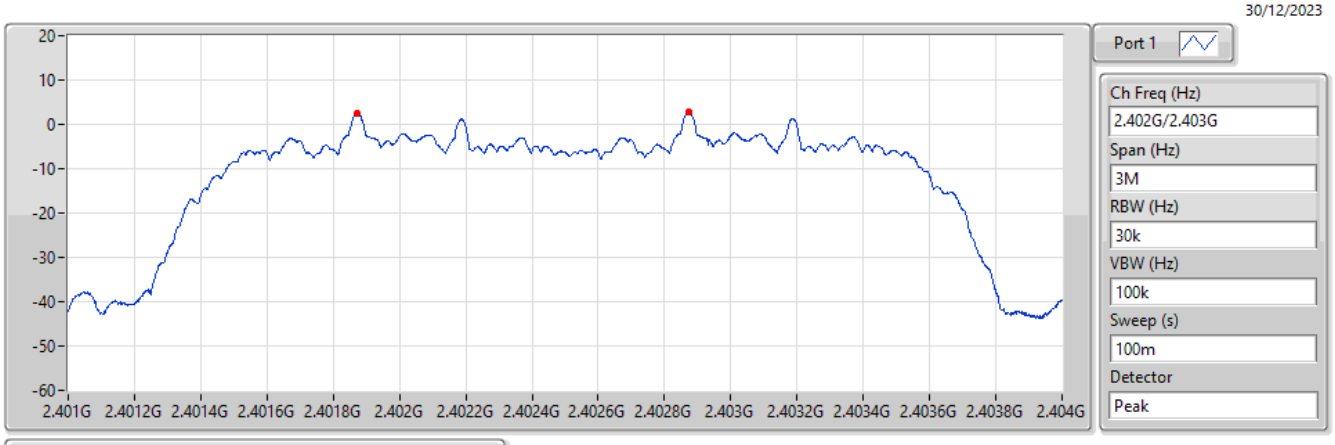
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.47917G	2.480169G	999k	611.721k

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

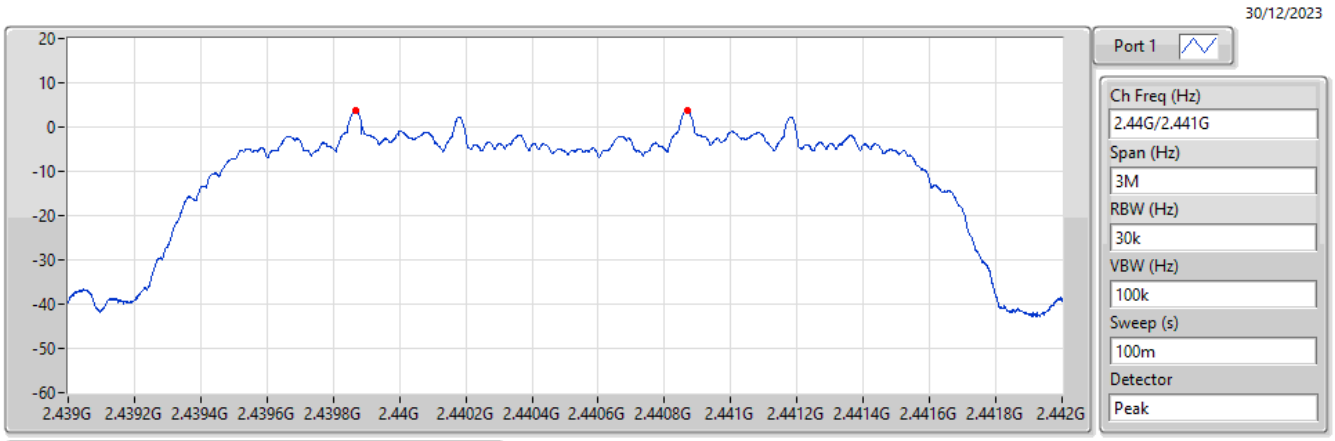
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.401873G	2.402872G	999k	875.79k

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

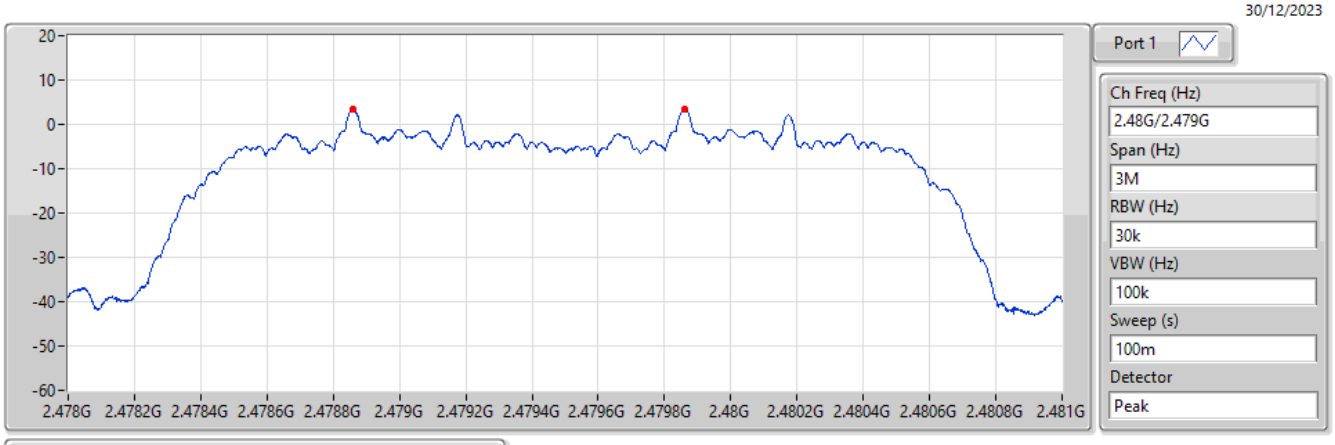
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.439867G	2.440868G	1.0005M	875.79k

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

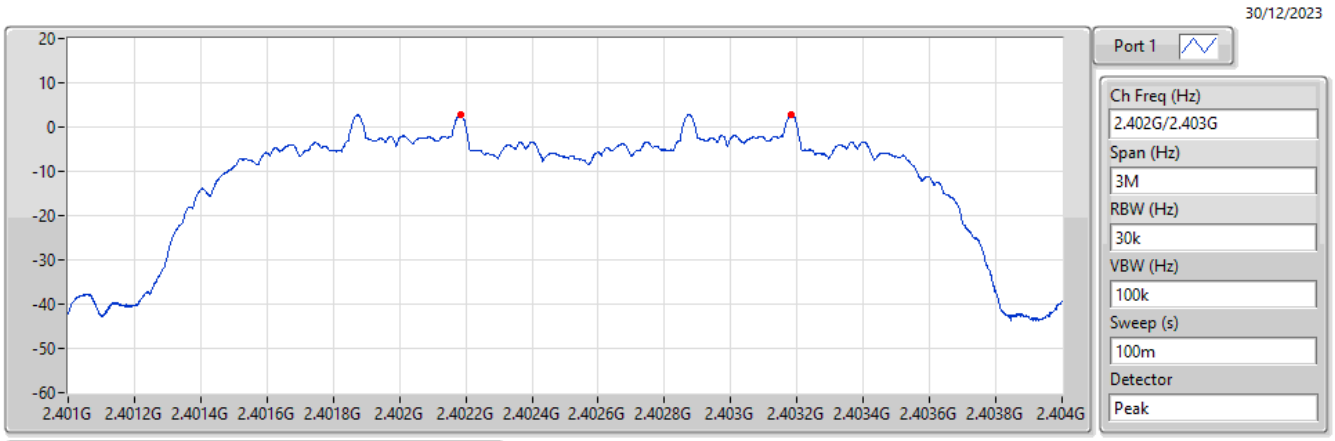
2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.47886G	2.479862G	1.002M	877.122k

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

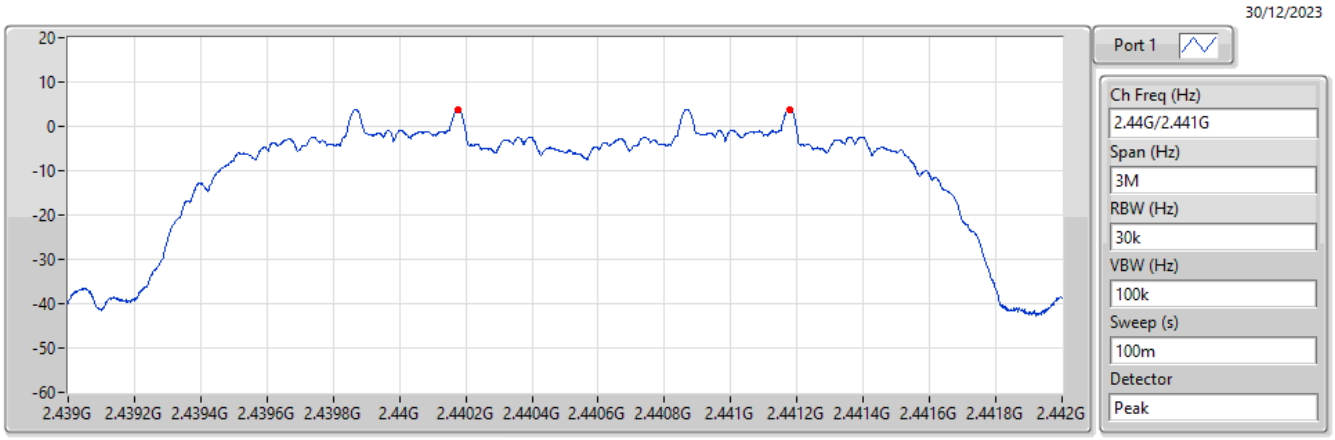
2.402G/2.403GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.402184G	2.403184G	1.0005M	846.486k

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

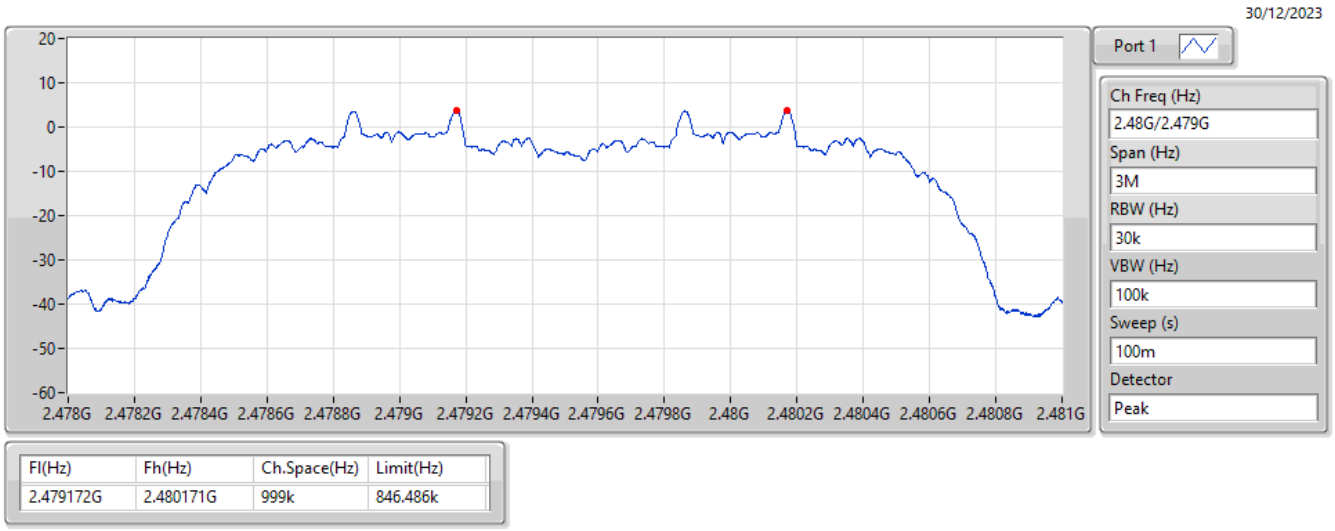
2.44G/2.441GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.440176G	2.441177G	1.0005M	844.488k

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

2.48G/2.479GHz



Fl(Hz)	Fh(Hz)	Ch.Space(Hz)	Limit(Hz)
2.479172G	2.480171G	999k	846.486k

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-BR(1Mbps)	7.54	0.00568
BT-EDR(2Mbps)	4.84	0.00305
BT-EDR(3Mbps)	4.75	0.00299

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.50	6.59	21.00
2440MHz	Pass	3.50	7.40	21.00
2480MHz	Pass	3.50	7.54	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.50	3.65	21.00
2440MHz	Pass	3.50	4.84	21.00
2480MHz	Pass	3.50	4.44	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.50	3.75	21.00
2440MHz	Pass	3.50	4.75	21.00
2480MHz	Pass	3.50	4.67	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)	8.26	0.00670
BT-EDR(2Mbps)	7.30	0.00537
BT-EDR(3Mbps)	7.73	0.00593

Result

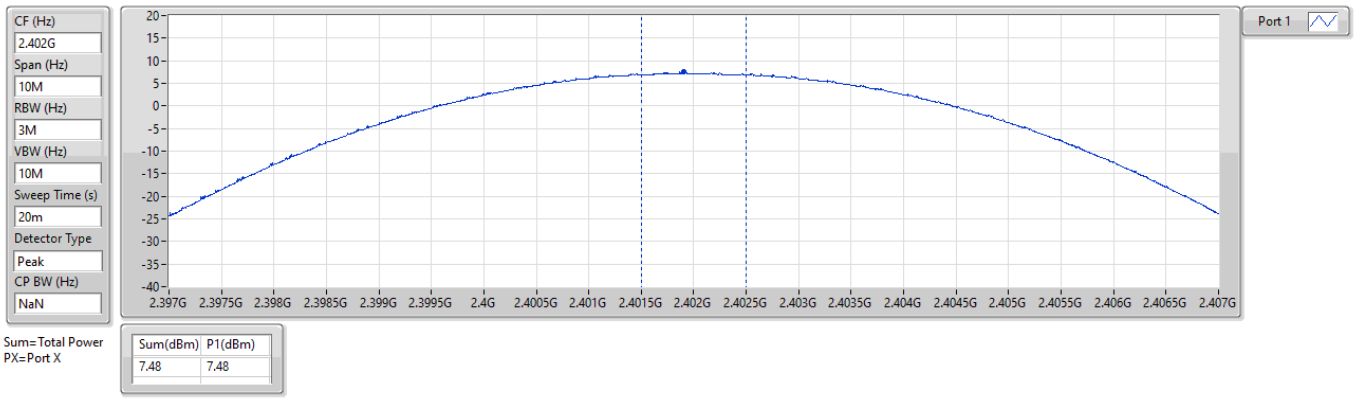
Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-BR(1Mbps)	-	-	-	-
2402MHz	Pass	3.50	7.48	21.00
2440MHz	Pass	3.50	8.12	21.00
2480MHz	Pass	3.50	8.26	21.00
BT-EDR(2Mbps)	-	-	-	-
2402MHz	Pass	3.50	6.30	21.00
2440MHz	Pass	3.50	7.30	21.00
2480MHz	Pass	3.50	7.16	21.00
BT-EDR(3Mbps)	-	-	-	-
2402MHz	Pass	3.50	6.83	21.00
2440MHz	Pass	3.50	7.73	21.00
2480MHz	Pass	3.50	7.61	21.00

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

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

2402MHz

29/12/2023



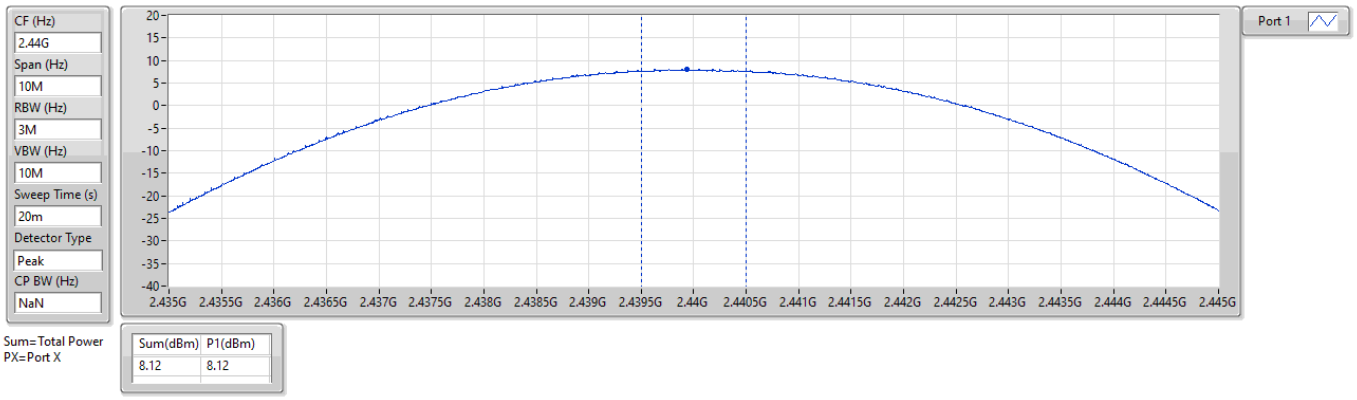
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
7.48	7.48

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

2440MHz

30/12/2023

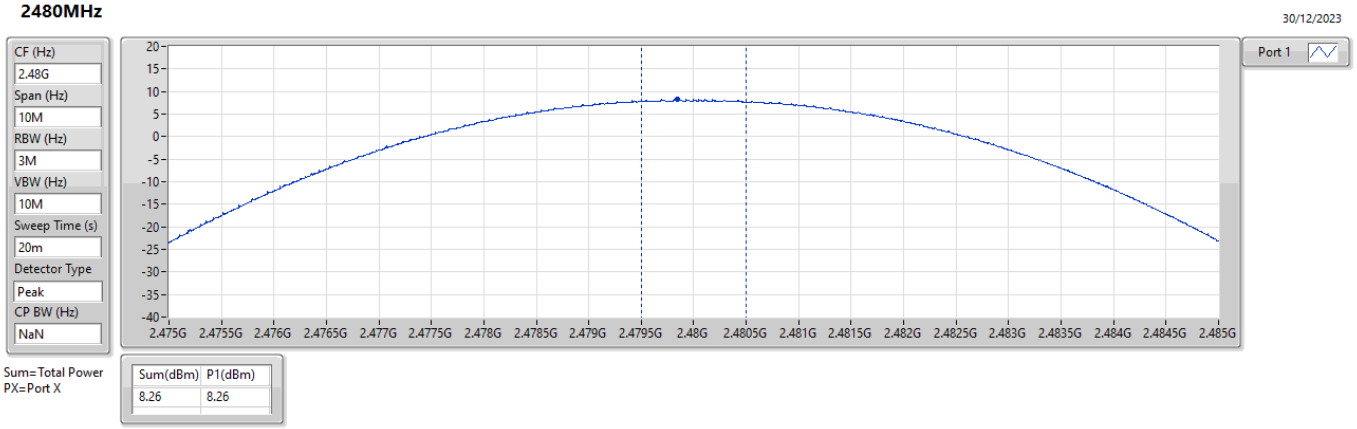


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)
8.12	8.12

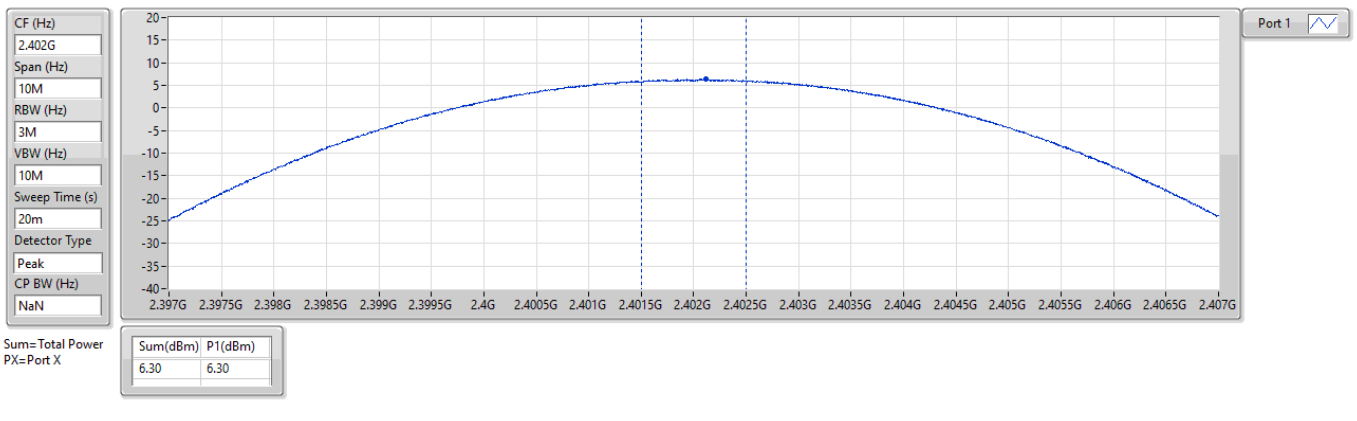
2.4-2.4835GHz_BT-BR(1Mbps) **PK Power-FS**

2480MHz



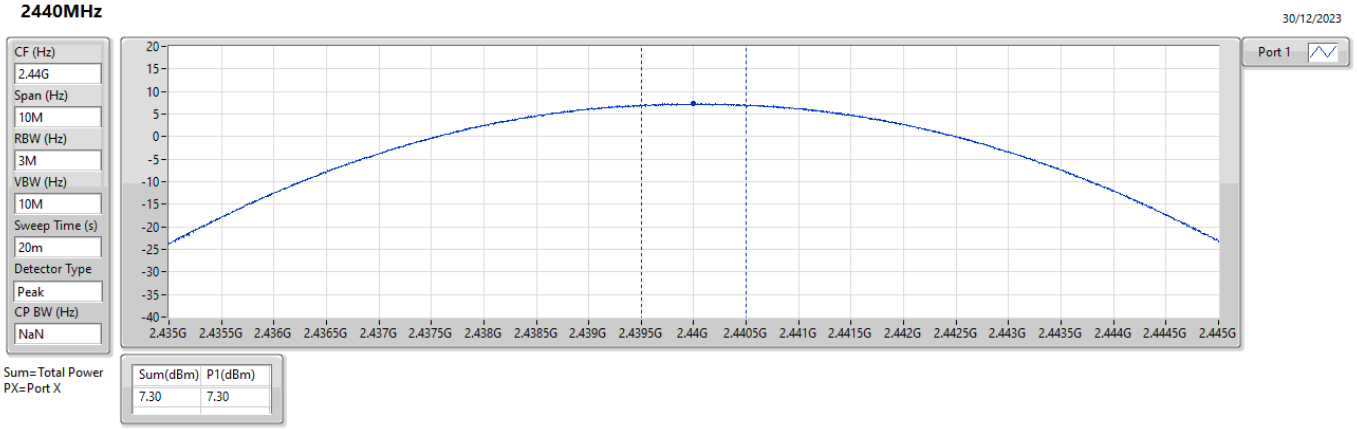
2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2402MHz



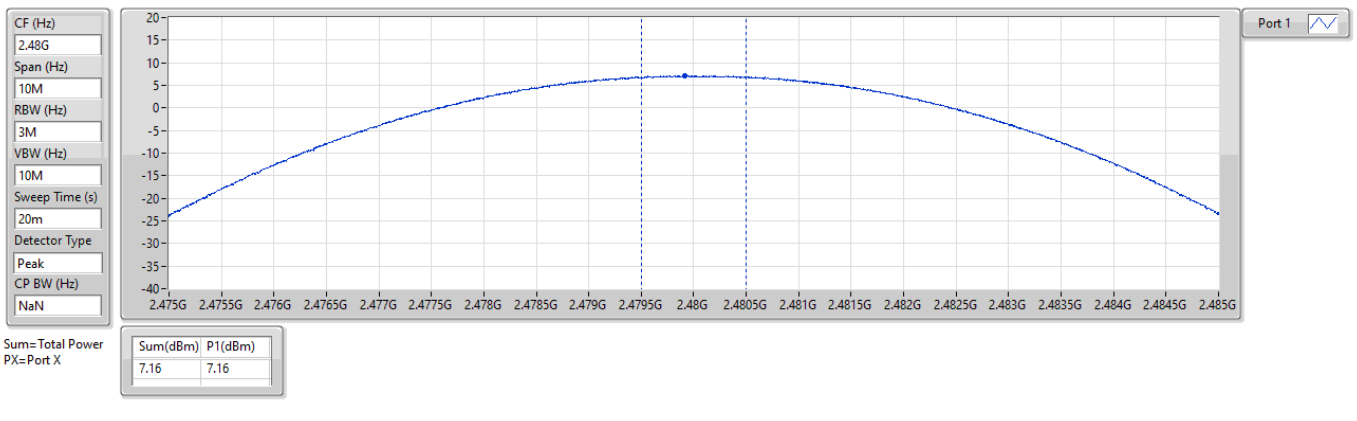
2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2440MHz



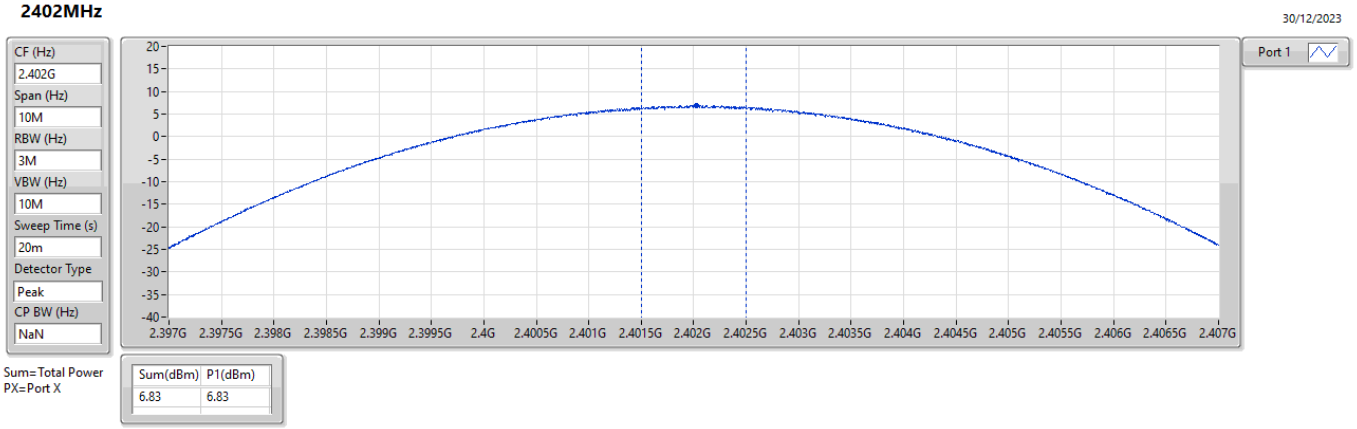
2.4-2.4835GHz_BT-EDR(2Mbps) **PK Power-FS**

2480MHz



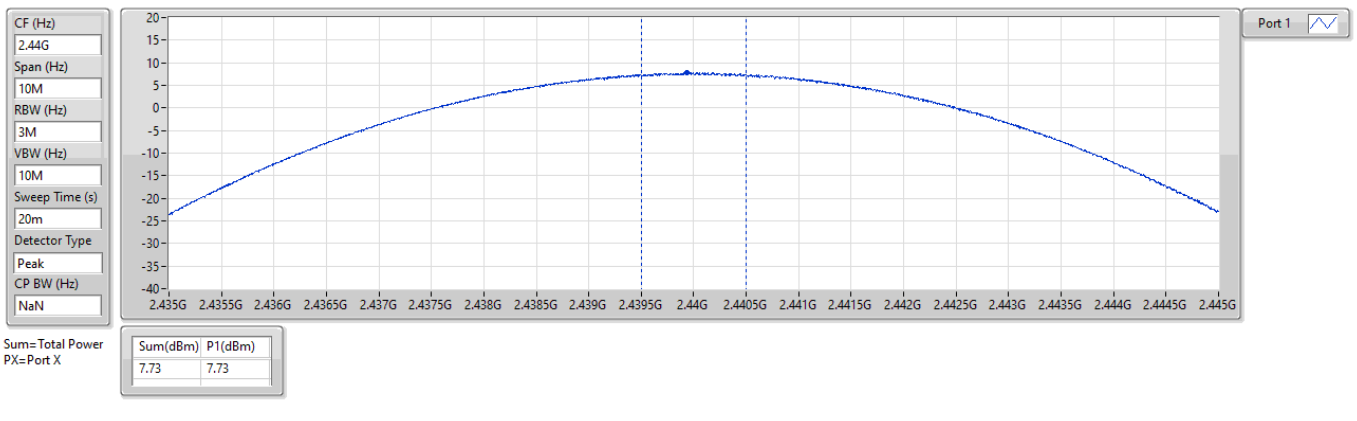
2.4-2.4835GHz_BT-EDR(3Mbps) **PK Power-FS**

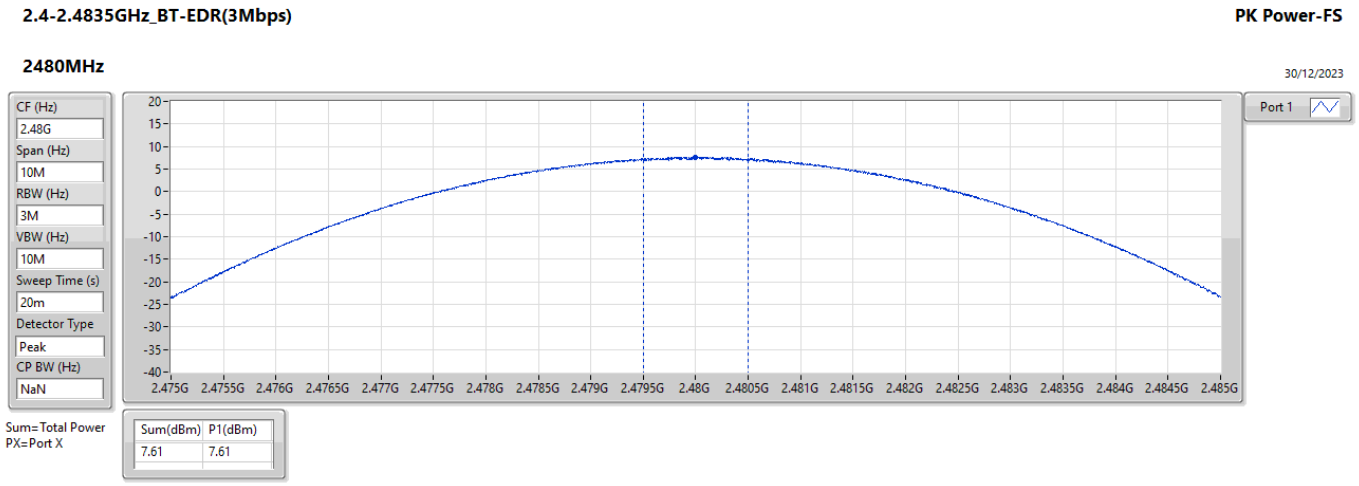
2402MHz



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

2440MHz




2.4-2.4835GHz_BT-EDR(3Mbps)
PK Power-FS
2480MHz
30/12/2023
CF (Hz)
2.48G
Span (Hz)
10M
RBW (Hz)
3M
VBW (Hz)
10M
Sweep Time (s)
20m
Detector Type
Peak
CP BW (Hz)
NaN
Port 1
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
2.475G 2.4755G 2.476G 2.4765G 2.477G 2.4775G 2.478G 2.4785G 2.479G 2.4795G 2.48G 2.4805G 2.481G 2.4815G 2.482G 2.4825G 2.483G 2.4835G 2.484G 2.4845G 2.485G
Sum=Total Power
PX=Port X
Sum(dBm) P1(dBm)
7.61 7.61

Summary

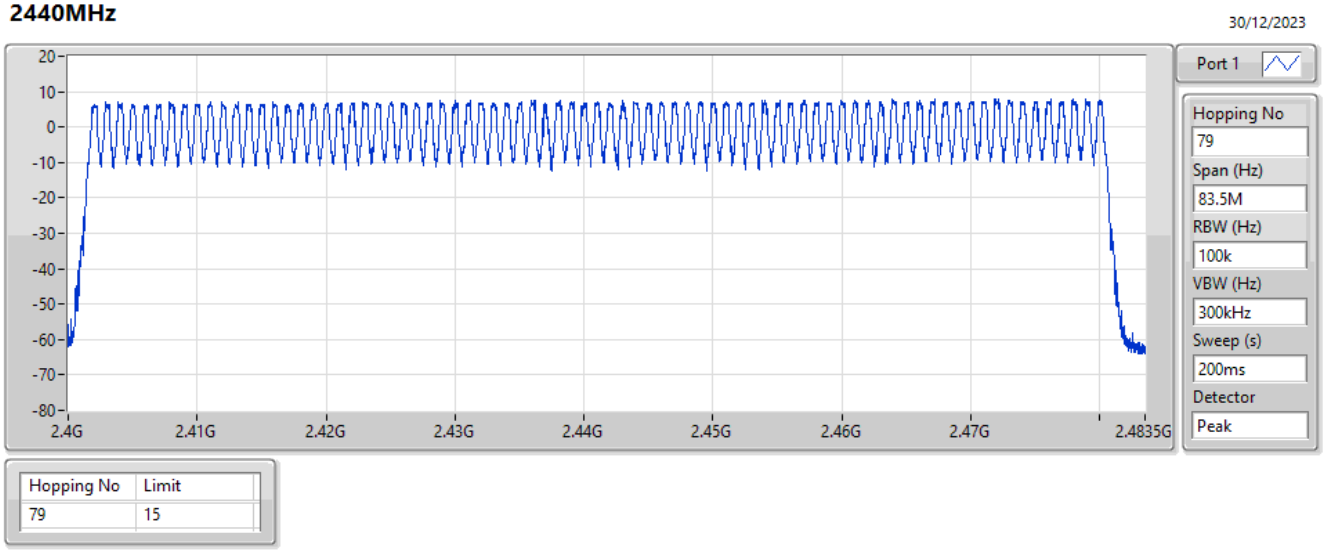
Mode 2.4-2.4835GHz	Max-Hop No -
BT-BR(1Mbps)	79
BT-EDR(2Mbps)	79
BT-EDR(3Mbps)	79

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

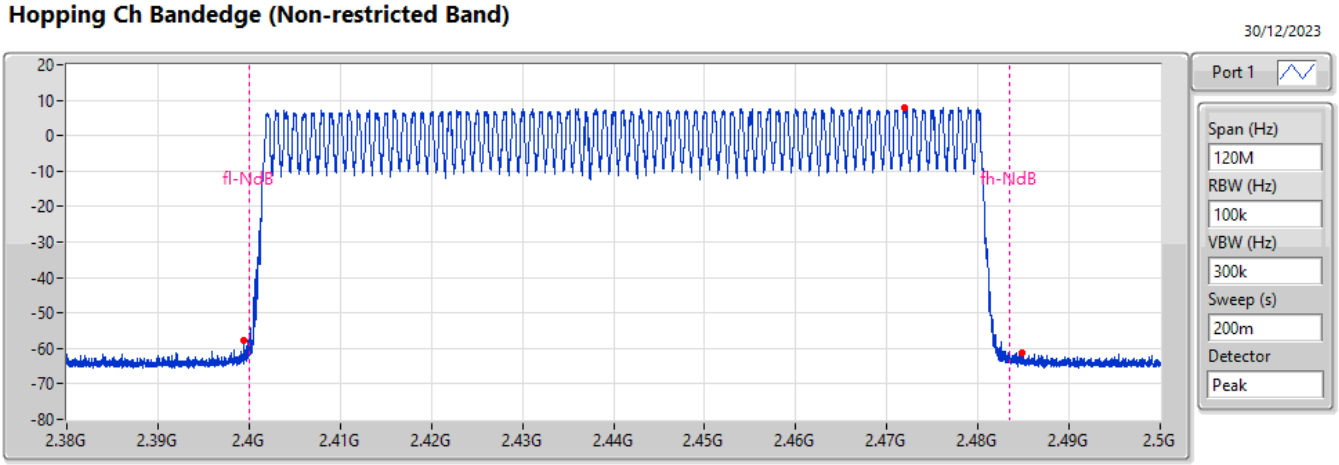


Hopping No	Limit
79	15

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

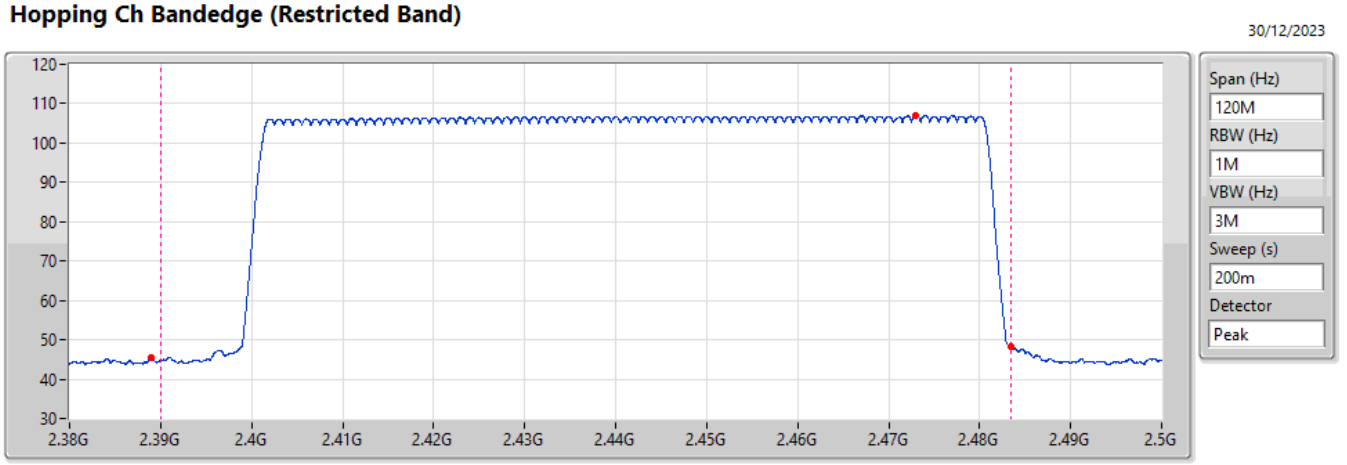


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-12.21	2.471875G	7.79	2.399485G	-57.63	2.48482G	-61.08

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz

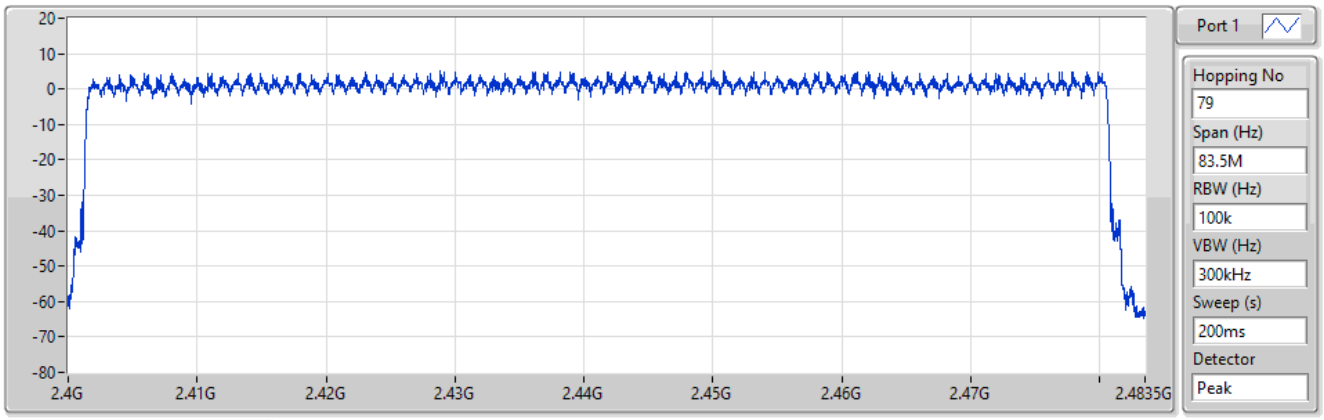
Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-I(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)
2.472955G	106.91	2.388985G	45.37	15.27	2.483515G	48.35	18.25	74	54	3.125	-30.1

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

2440MHz

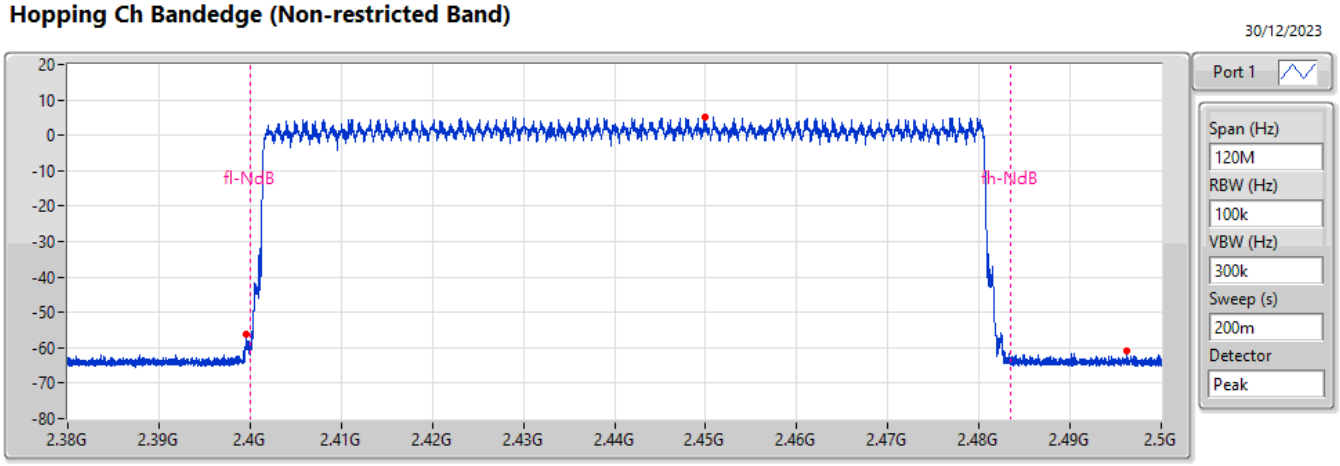


Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

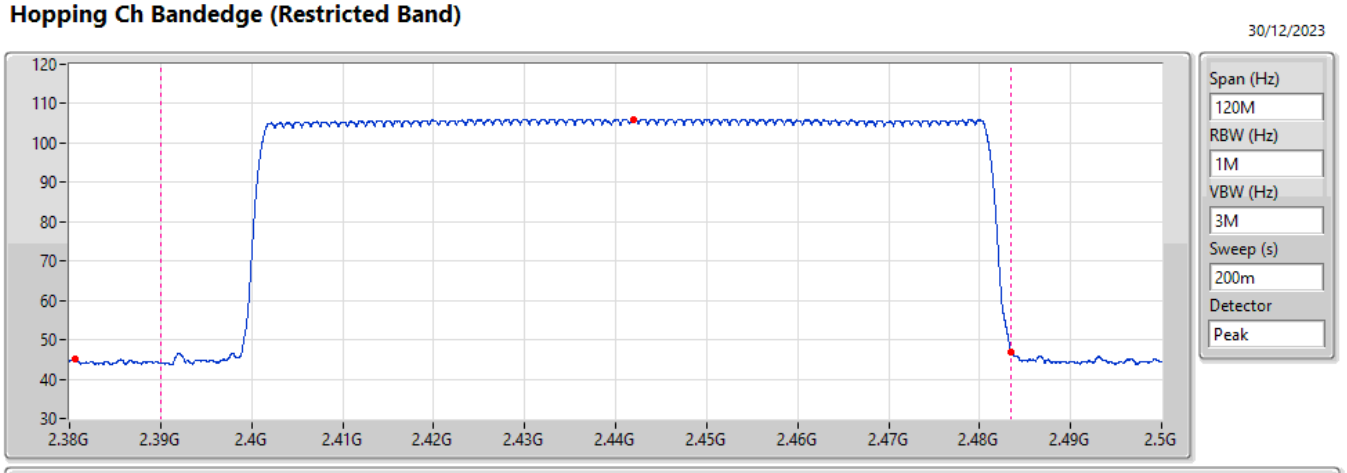


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-14.91	2.44987G	5.09	2.39962G	-56.28	2.496265G	-60.88

2.4-2.4835GHz_BT-EDR(2Mbps)

2440MHz

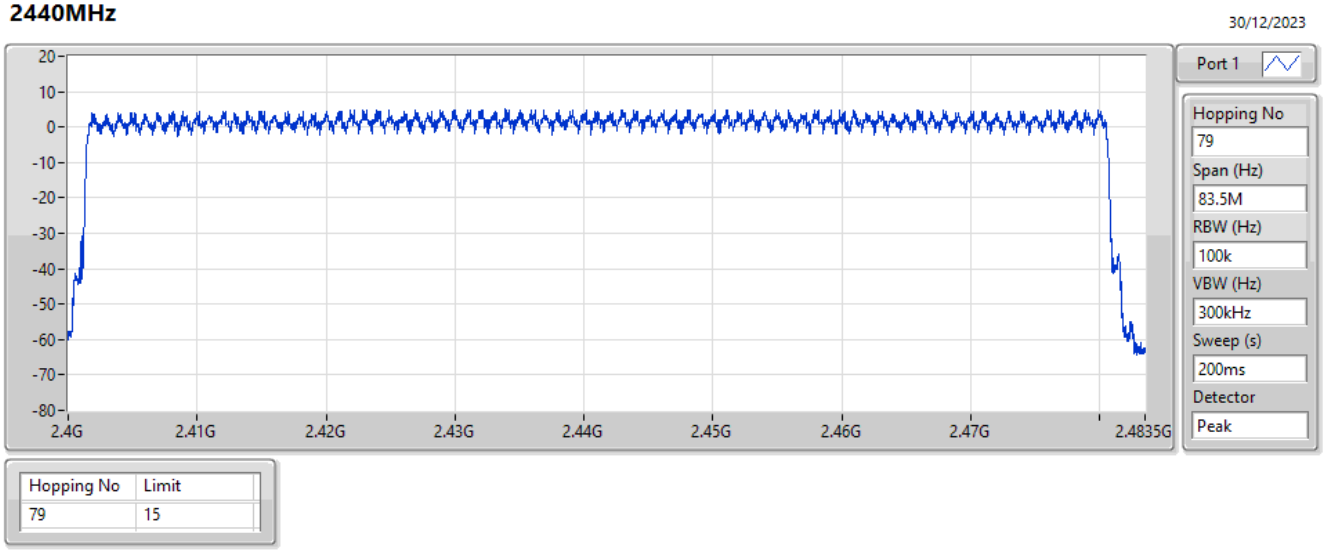
Hopping Ch Bandedge (Restricted Band)



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)
2.441905G	106.08	2.380645G	45.21	15.11	2.483515G	46.95	16.85	74	54	3.125	-30.1

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

2440MHz

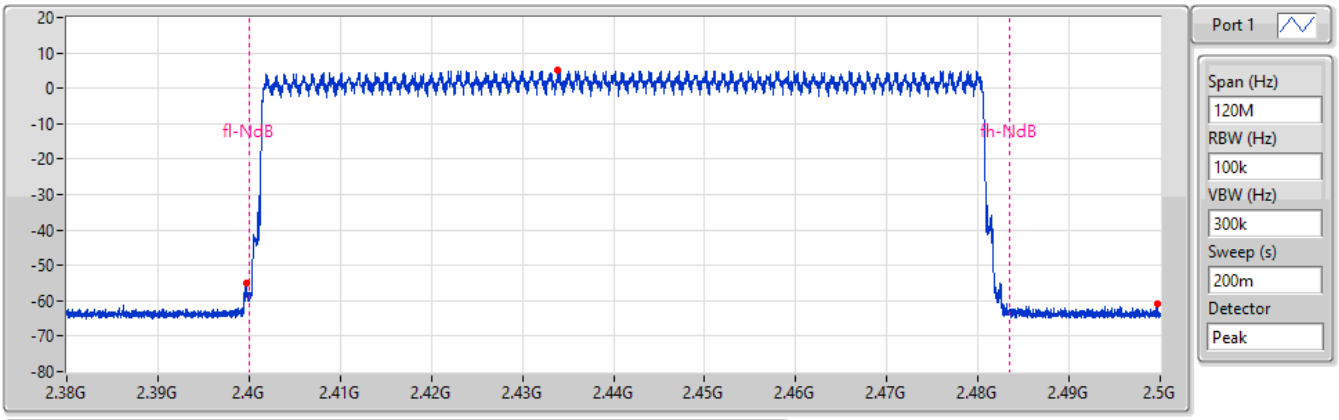


Hopping No	Limit
79	15

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Non-restricted Band)

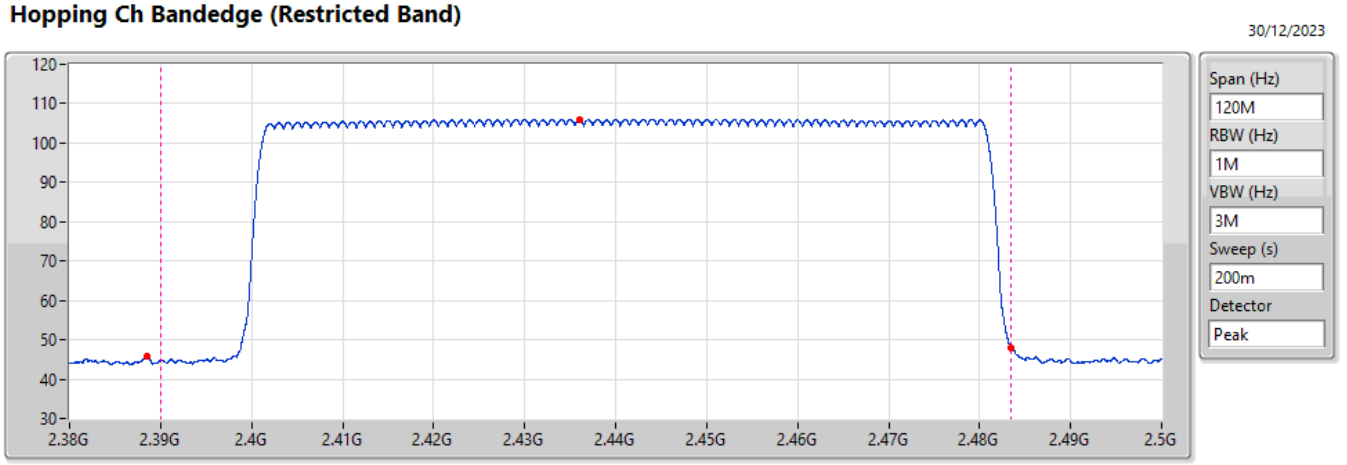


Limit(dBm)	Ref(Hz)	Ref(dBm)	BE-l(Hz)	BE-l(dBm)	BE-h(Hz)	BE-h(dBm)
-15.02	2.433865G	4.98	2.39971G	-54.98	2.499625G	-60.91

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz

Hopping Ch Bandedge (Restricted Band)



Ref(Hz)	Ref(dBuV/m)	BE-I(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)
2.43601G	106.09	2.388445G	45.71	15.61	2.483515G	48.07	17.97	74	54	3.125	-30.1

Summary

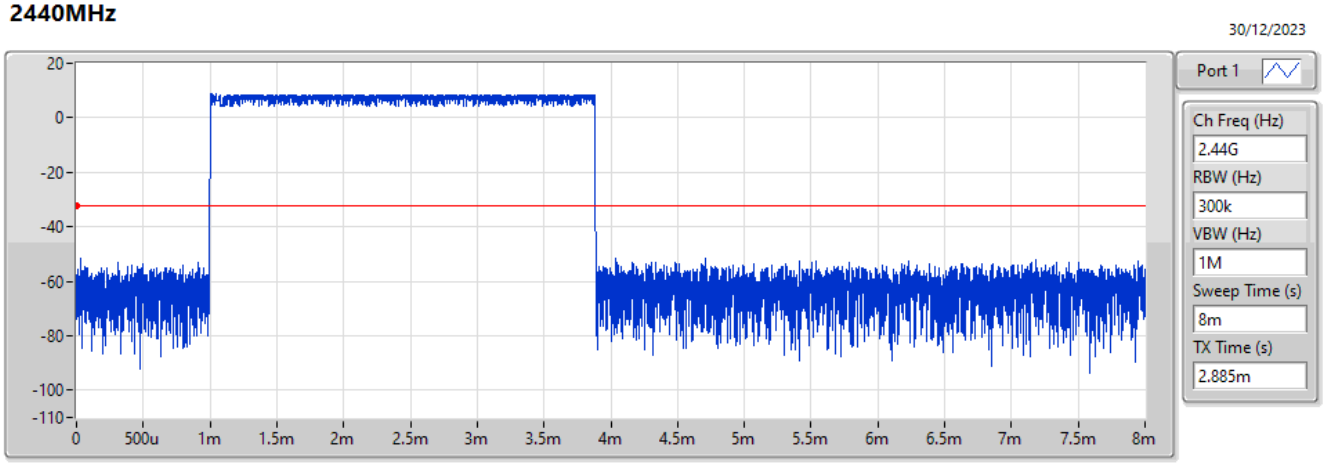
2.4-2.4835GHz	-
BT-BR(1Mbps)	307.541m_DH5
BT-EDR(2Mbps)	307.62095m_DH5
BT-EDR(3Mbps)	307.83415m_DH5

Result

Mode	Result	Period (s)	Dwell (s)	Limit (s)	Tx On (s)
BT-BR(1Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.541m_DH5	400m	2.885m
2440MHz	Pass	8	153.7705m_DH5-AFH	400m	2.885m
BT-EDR(2Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.62095m_DH5	400m	2.88575m
2440MHz	Pass	8	153.810475m_DH5-AFH	400m	2.88575m
BT-EDR(3Mbps)	-	-	-	-	-
2440MHz	Pass	31.6	307.83415m_DH5	400m	2.88775m
2440MHz	Pass	8	153.917075m_DH5-AFH	400m	2.88775m

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

2440MHz

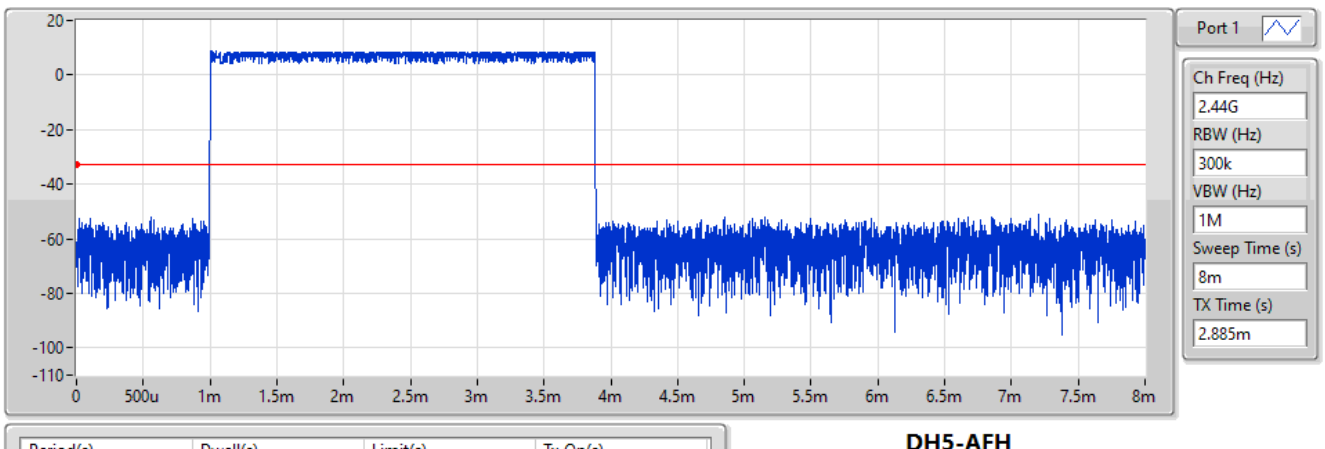


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.541m_DH5	400m	2.885m

DH5

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

2440MHz

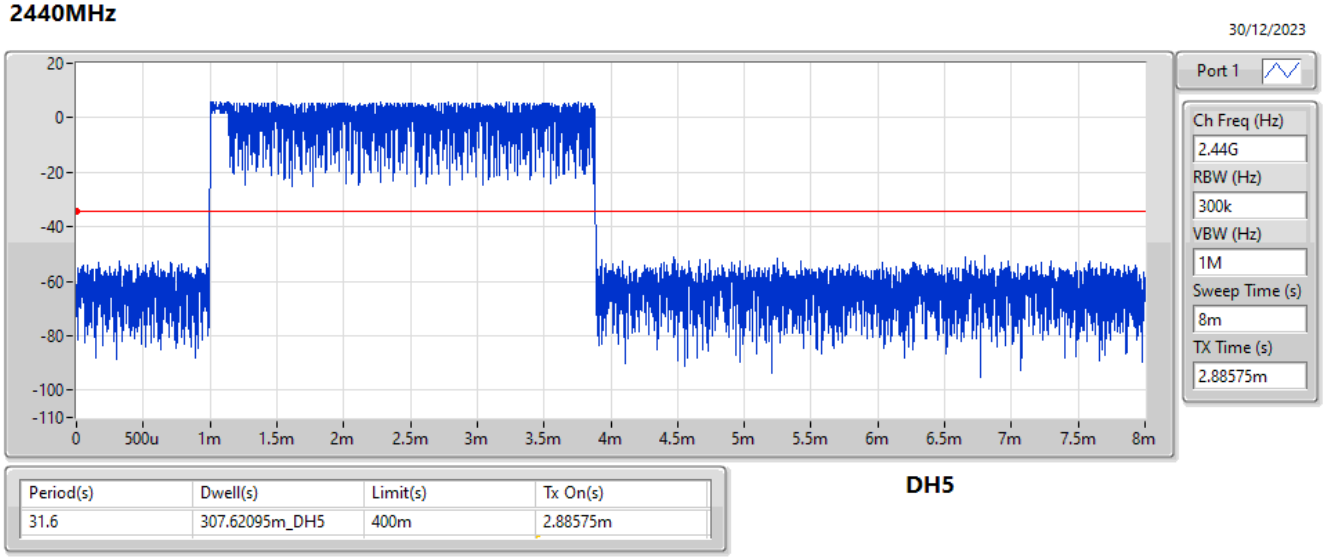


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.7705m_DH5-AFH	400m	2.885m

DH5-AFH

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

2440MHz

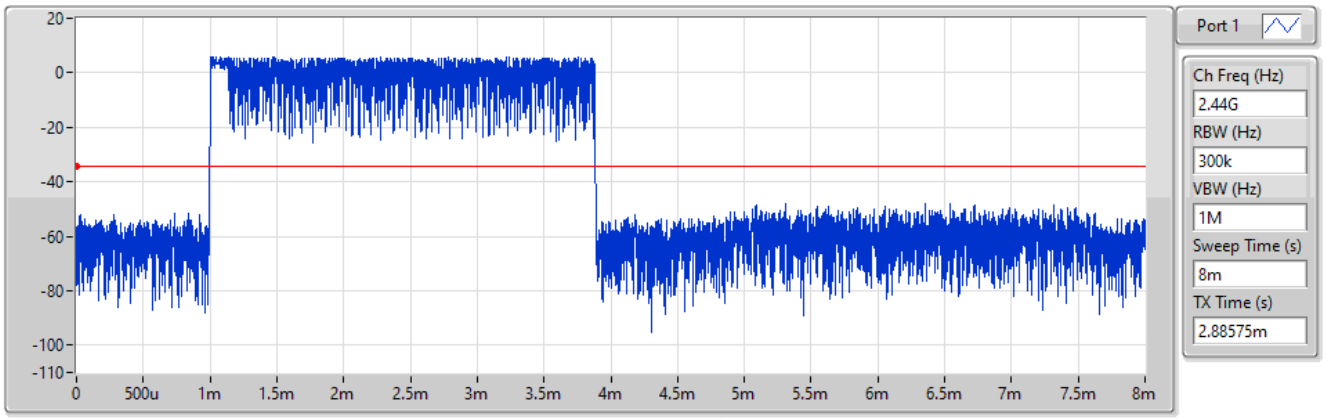


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.62095m_DH5	400m	2.88575m

DH5

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

2440MHz

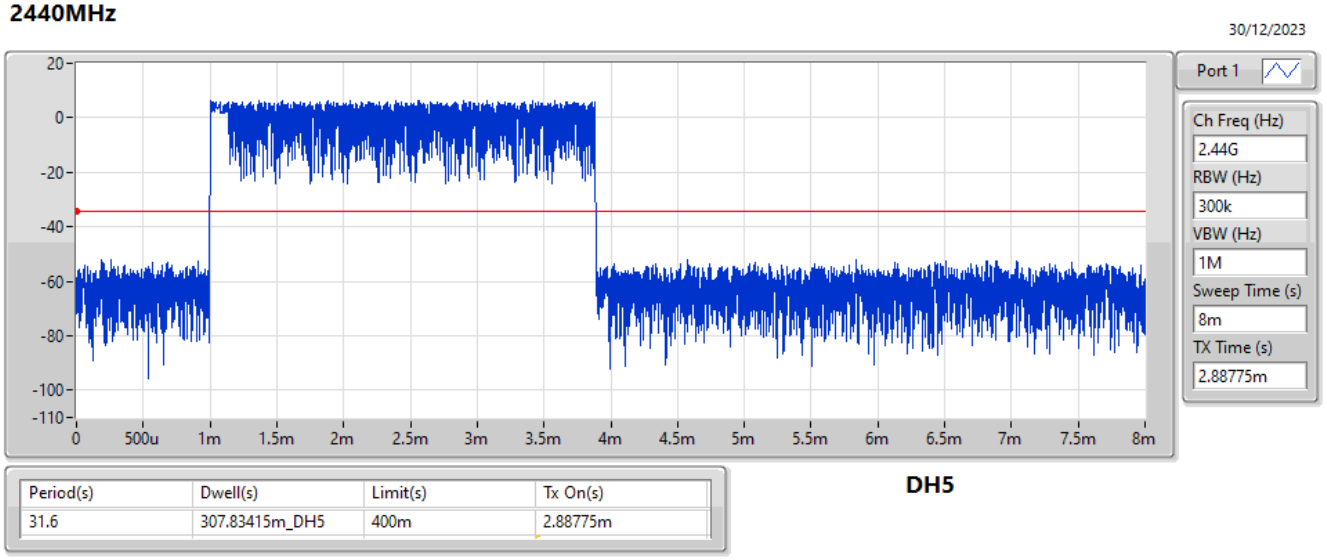


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.810475m_DH5-AFI	400m	2.88575m

DH5-AFH

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

2440MHz

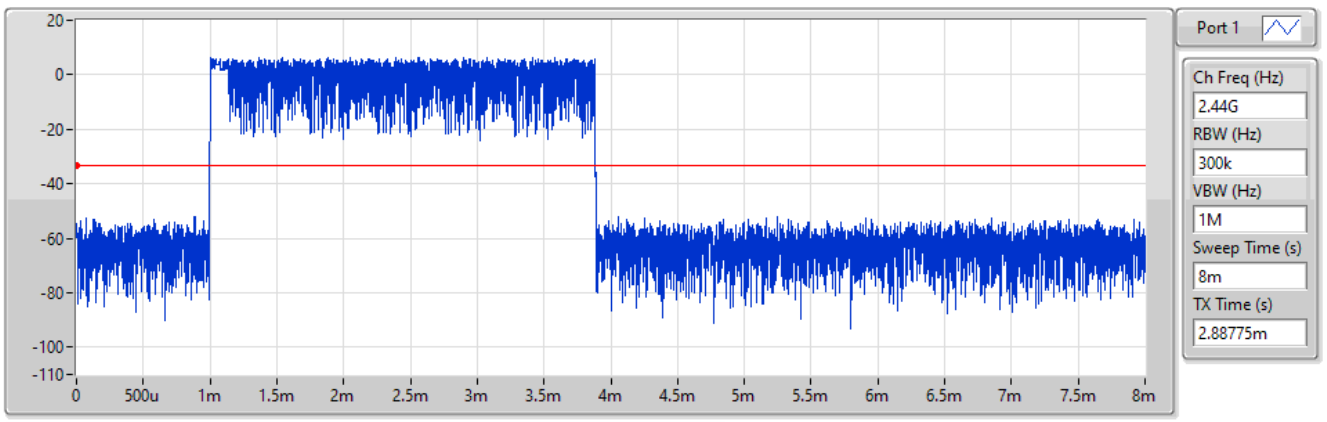


Period(s)	Dwell(s)	Limit(s)	Tx On(s)
31.6	307.83415m_DH5	400m	2.88775m

DH5

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

2440MHz



Period(s)	Dwell(s)	Limit(s)	Tx On(s)
8	153.917075m_DH5-AFI	400m	2.88775m

DH5-AFH

Summary

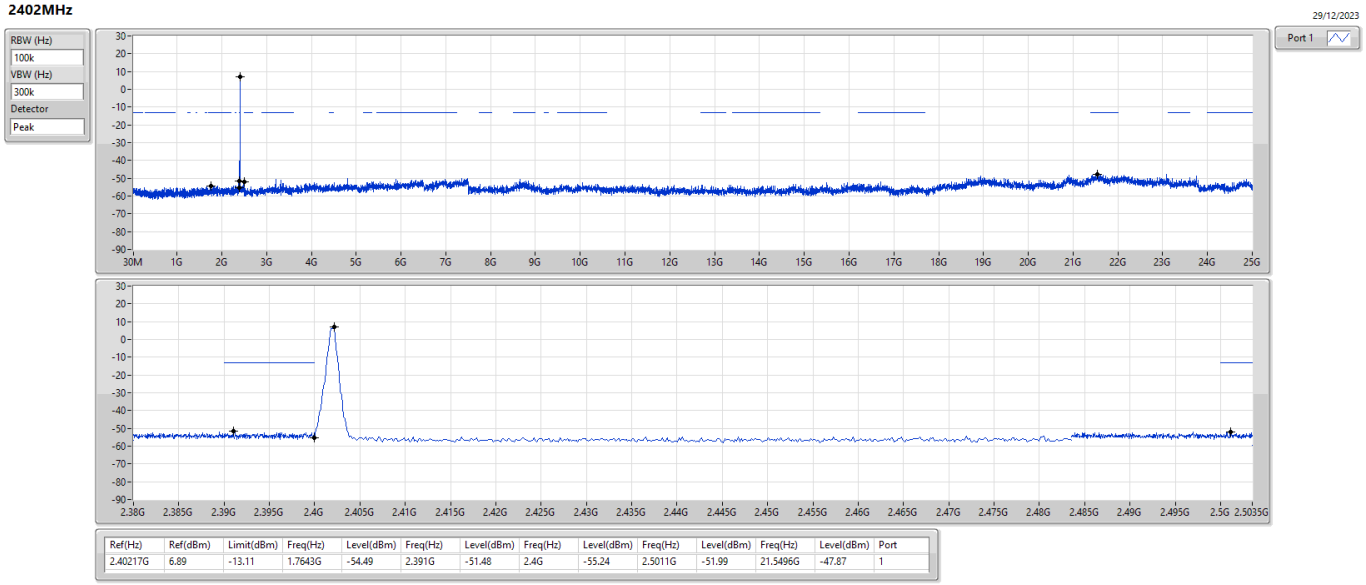
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-BR(1Mbps)	Pass	2.44008G	6.98	-13.02	1.79368G	-53.39	2.3952G	-51.74	2.4G	-57.21	2.50002G	-51.25	21.5271G	-47.53	1
BT-EDR(2Mbps)	Pass	2.40184G	3.62	-16.38	1.6468G	-53.92	2.39968G	-51.35	2.4G	-54.53	2.50254G	-52.87	3.20089G	-45.52	1
BT-EDR(3Mbps)	Pass	2.40184G	3.81	-16.19	2.30363G	-53.09	2.39972G	-51.49	2.4G	-53.47	2.50218G	-52.58	3.20089G	-45.50	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	2.40217G	6.89	-13.11	1.7643G	-54.49	2.391G	-51.48	2.4G	-55.24	2.5011G	-51.99	21.5496G	-47.87	1
2440MHz	Pass	2.44008G	6.98	-13.02	1.79368G	-53.39	2.3952G	-51.74	2.4G	-57.21	2.50002G	-51.25	21.5271G	-47.53	1
2480MHz	Pass	2.48016G	7.11	-12.89	1.71848G	-54.21	2.39128G	-52.17	2.4G	-56.05	2.50058G	-52.74	21.47086G	-47.32	1
BT-EDR(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	3.62	-16.38	1.6468G	-53.92	2.39968G	-51.35	2.4G	-54.53	2.50254G	-52.87	3.20089G	-45.52	1
2440MHz	Pass	2.44008G	4.61	-15.39	1.91235G	-54.16	2.3946G	-52.17	2.4G	-56.97	2.50306G	-51.81	3.25151G	-46.92	1
2480MHz	Pass	2.47999G	3.95	-16.05	2.0416G	-53.82	2.3922G	-51.84	2.4G	-57.79	2.50246G	-52.04	21.99109G	-47.41	1
BT-EDR(3Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	3.81	-16.19	2.30363G	-53.09	2.39972G	-51.49	2.4G	-53.47	2.50218G	-52.58	3.20089G	-45.50	1
2440MHz	Pass	2.43991G	4.01	-15.99	99.33M	-54.46	2.39732G	-51.69	2.4G	-56.42	2.5033G	-51.90	3.25151G	-46.69	1
2480MHz	Pass	2.48016G	4.50	-15.50	1.79368G	-54.00	2.394G	-52.25	2.4G	-55.07	2.50186G	-52.59	21.50742G	-47.47	1

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

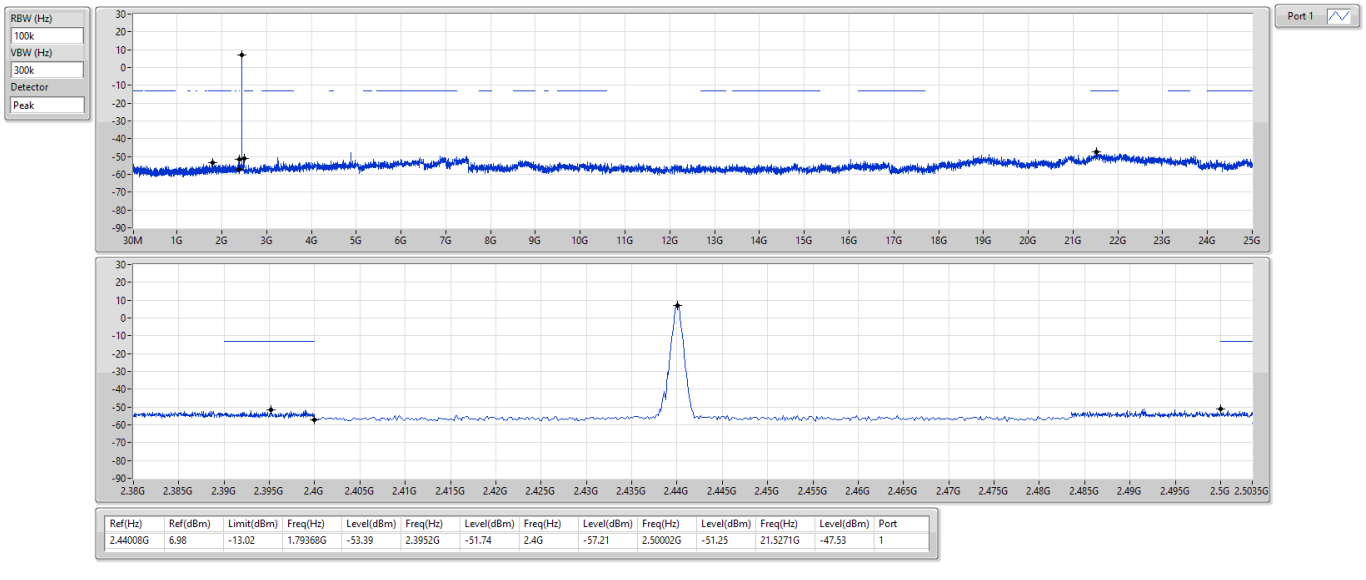
2402MHz



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
2.40217G	6.89	-13.11	1.7643G	-54.49	2.391G	-51.48	2.4G	-55.24	2.5011G	-51.99	21.5496G	-47.87	1

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

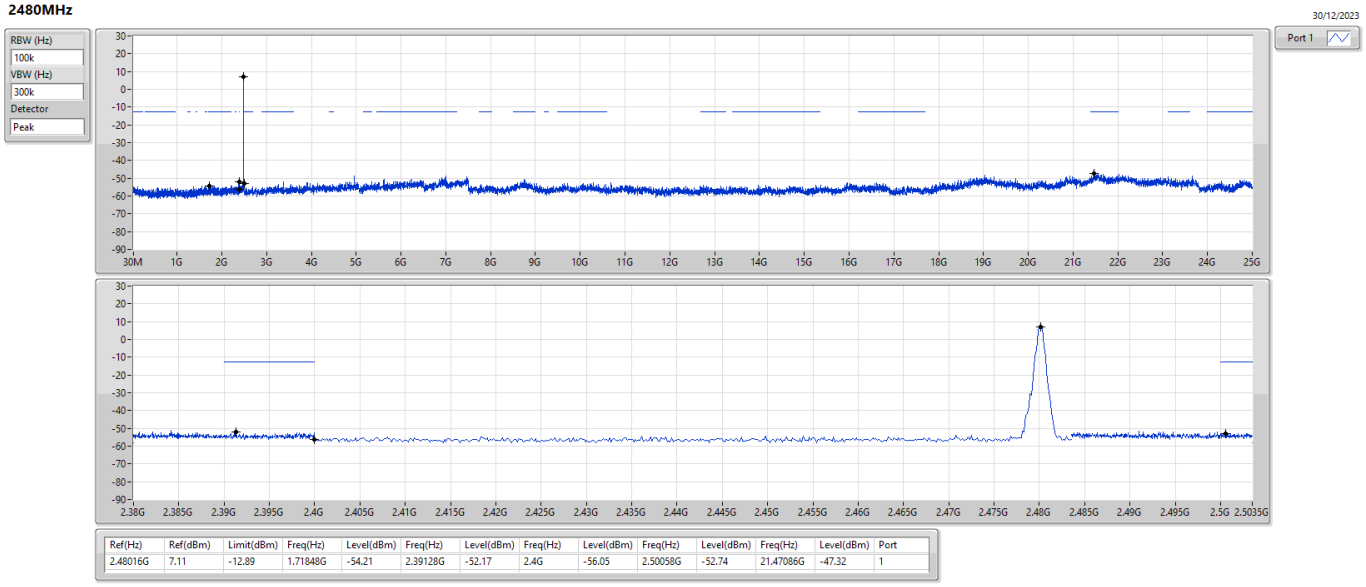
2440MHz



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
2.44008G	6.98	-13.02	1.79368G	-53.39	2.3952G	-51.74	2.4G	-57.21	2.50002G	-51.25	21.5271G	-47.53	1

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

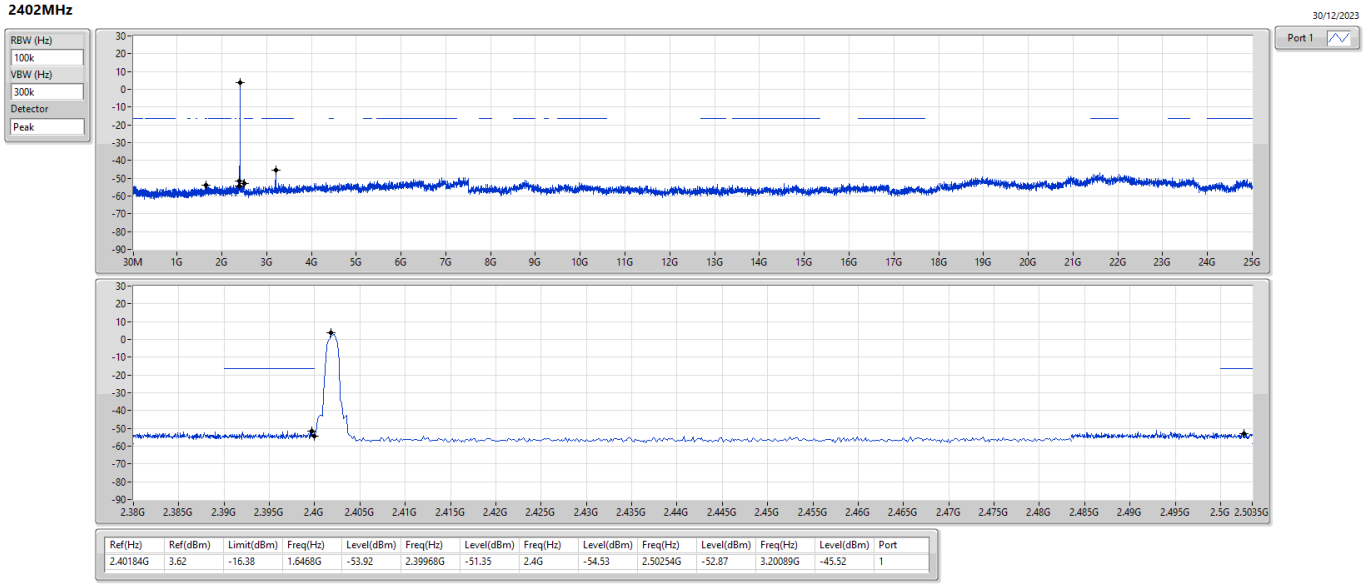
2480MHz



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
2.48016G	7.11	-12.89	1.71848G	-54.21	2.39128G	-52.17	2.4G	-56.05	2.50058G	-52.74	21.47086G	-47.32	1

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

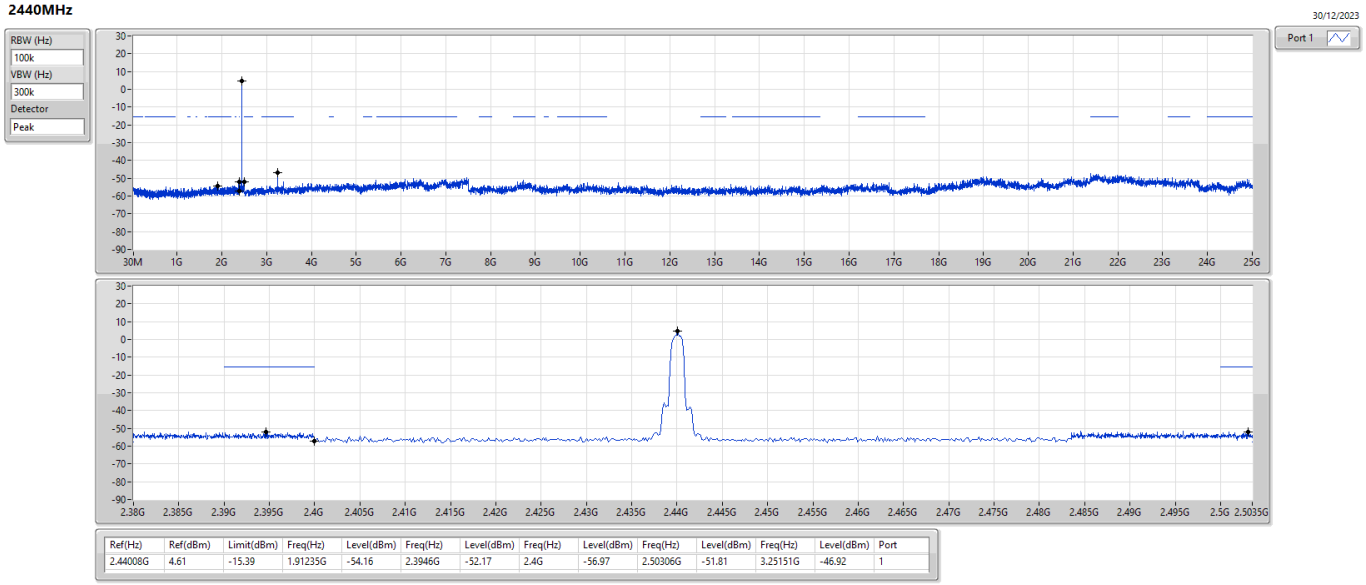
2402MHz



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
2.40184G	3.62	-16.38	1.6468G	-53.92	2.39968G	-51.35	2.4G	-54.53	2.50254G	-52.87	3.20089G	-45.52	1

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

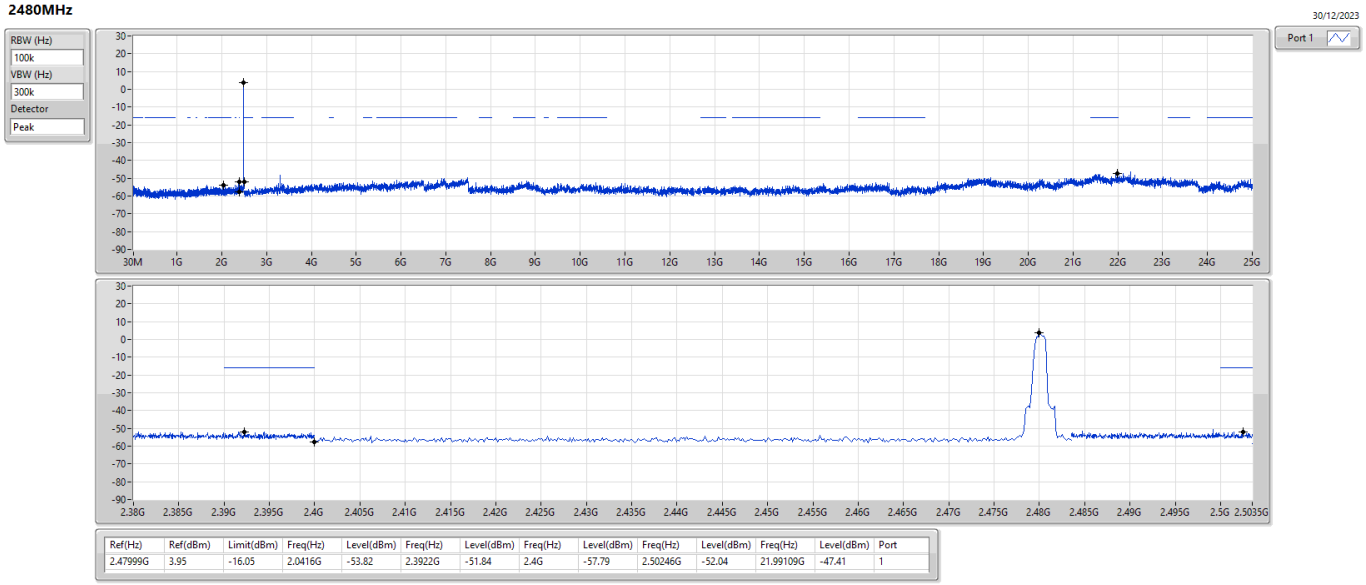
2440MHz



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	4.61	-15.39	1.91235G	-54.16	2.3946G	-52.17	2.4G	-56.97	2.50306G	-51.81	3.25151G	-46.92	1

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

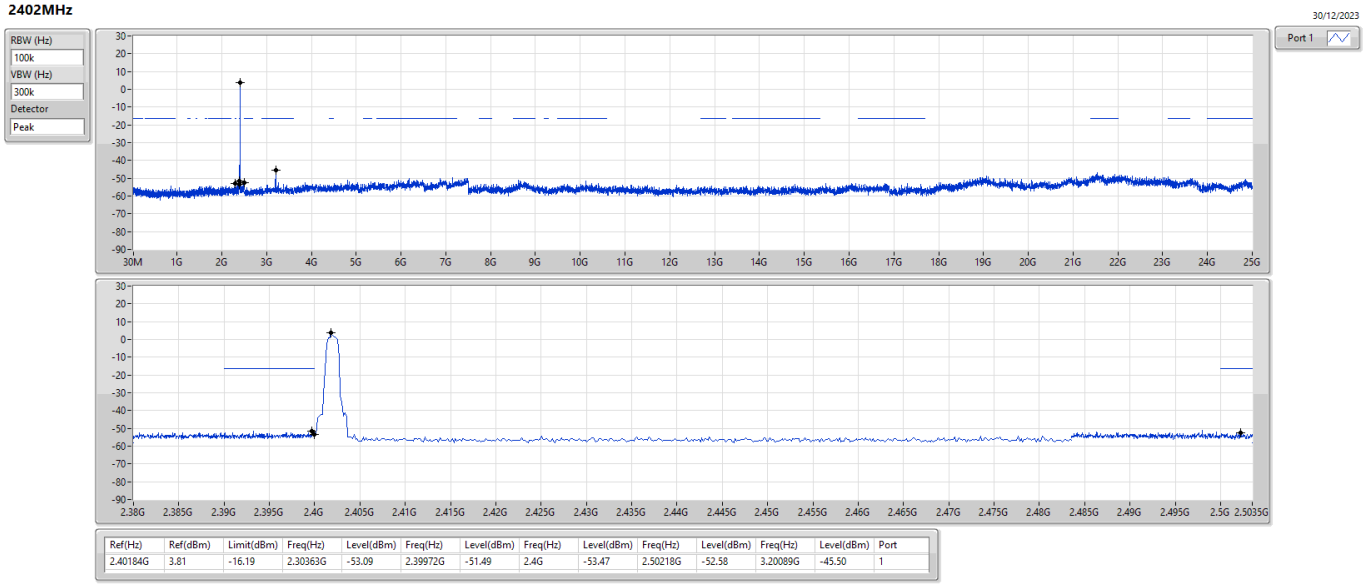
2480MHz



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	3.95	-16.05	2.0416G	-53.82	2.3922G	-51.84	2.4G	-57.79	2.50246G	-52.04	21.99109G	-47.41	1

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

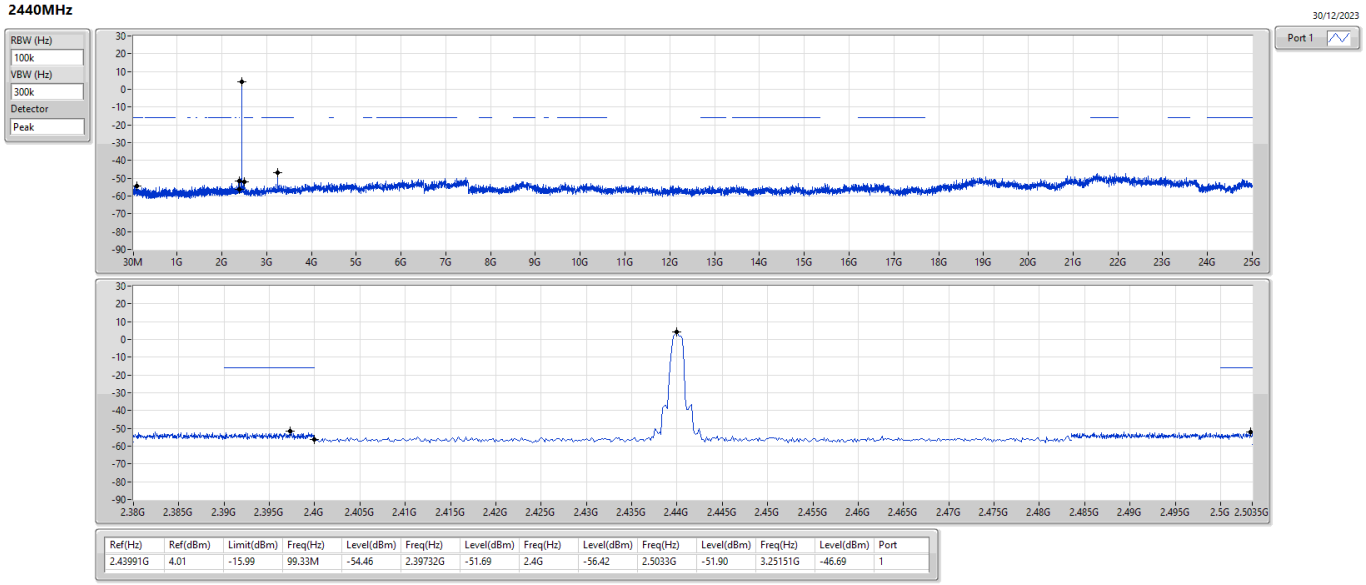
2402MHz



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
2.40184G	3.81	-16.19	2.30363G	-53.09	2.39972G	-51.49	2.4G	-53.47	2.50218G	-52.58	3.20089G	-45.50	1

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

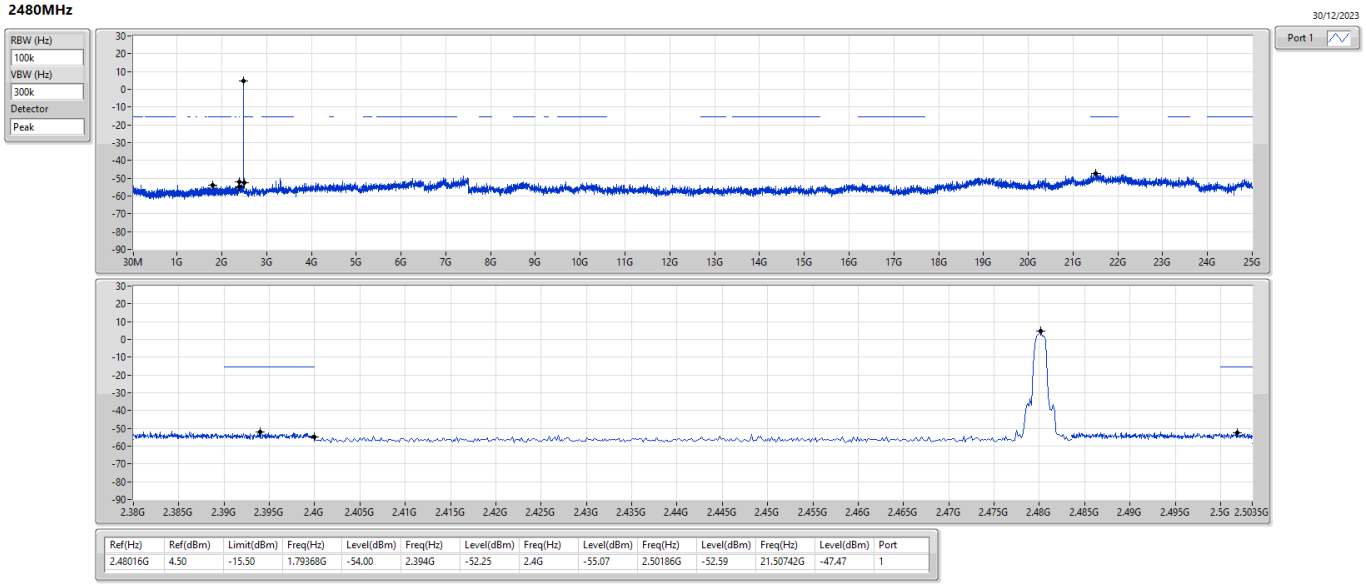
2440MHz



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
2.43991G	4.01	-15.99	99.33M	-54.46	2.39732G	-51.69	2.4G	-56.42	2.5033G	-51.90	3.25151G	-46.69	1

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

2480MHz

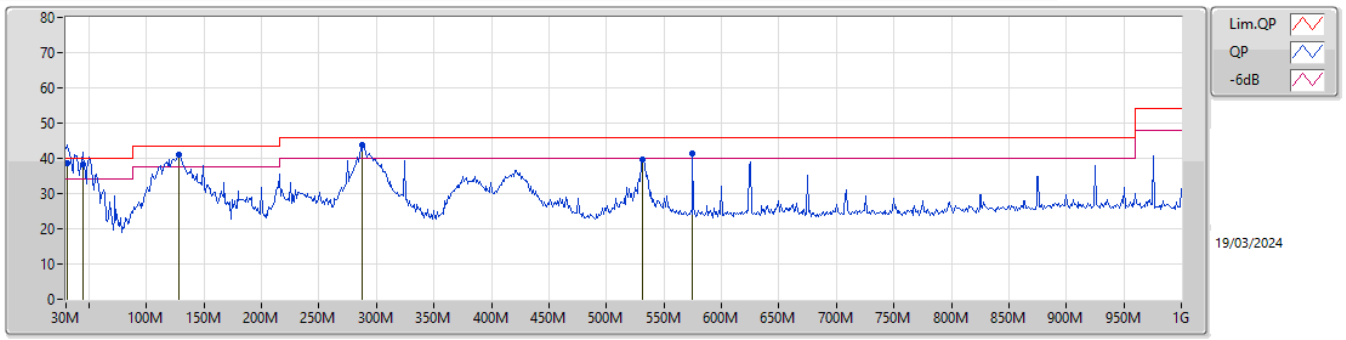


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48016G	4.50	-15.50	1.79368G	-54.00	2.394G	-52.25	2.4G	-55.07	2.50186G	-52.59	21.50742G	-47.47	1

Summary

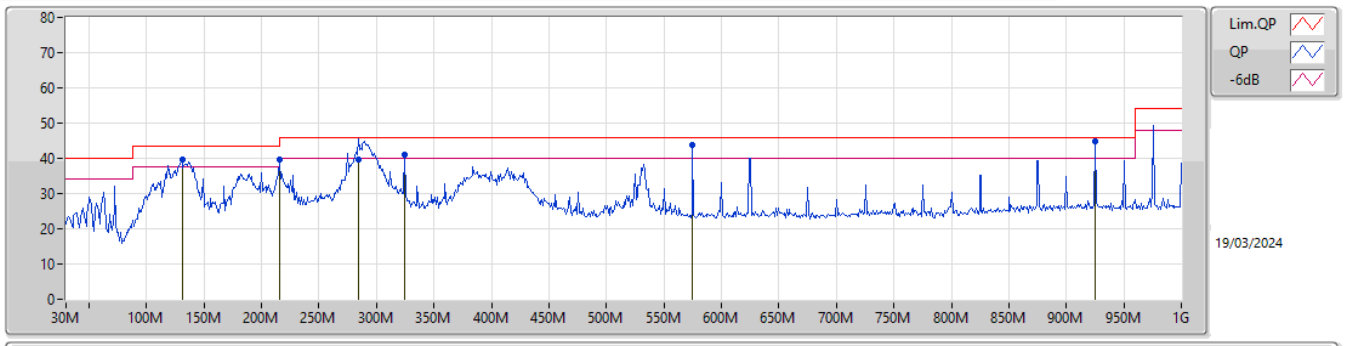
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	925.31M	44.99	46.00	-1.01	Horizontal

Mode 1



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)
QP	30.97M	38.68	40.00	-1.32	-7.77	3	Vertical	89	1.50	"Worst"	46.45	23.07	0.34	31.18
QP	44.55M	38.27	40.00	-1.73	-14.85	3	Vertical	236	1.00	-	53.12	16.17	0.45	31.47
PK	127.97M	41.06	43.50	-2.44	-12.19	3	Vertical	107	1.25	-	53.25	18.53	1.00	31.72
PK	288.02M	43.82	46.00	-2.18	-11.29	3	Vertical	129	1.00	-	55.11	18.91	1.63	31.83
PK	531.49M	39.53	46.00	-6.47	-5.90	3	Vertical	207	1.25	-	45.43	23.93	2.27	32.10
PK	575.14M	41.35	46.00	-4.65	-5.23	3	Vertical	216	1.25	-	46.58	24.54	2.38	32.15

Mode 1



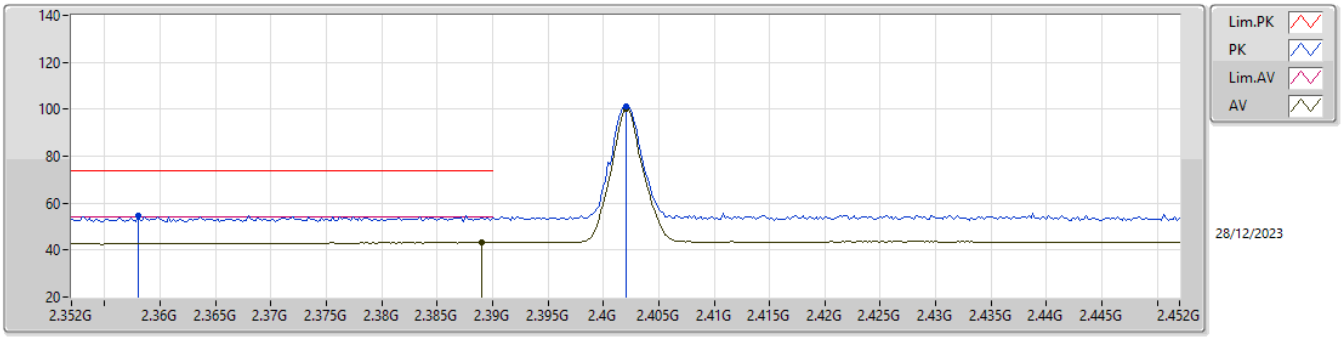
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	130.88M	39.68	43.50	-3.82	-12.55	3	Horizontal	316	3.00	-	52.23	18.17	1.02	31.74
PK	215.27M	39.59	43.50	-3.91	-15.58	3	Horizontal	282	1.00	-	55.17	14.89	1.32	31.79
QP	284.14M	39.52	46.00	-6.48	-11.36	3	Horizontal	240	1.00	-	50.88	18.86	1.61	31.83
PK	324.88M	40.95	46.00	-5.05	-10.64	3	Horizontal	250	1.25	-	51.59	19.45	1.73	31.82
PK	575.14M	43.78	46.00	-2.22	-5.23	3	Horizontal	180	2.00	-	49.01	24.54	2.38	32.15
QP	925.31M	44.99	46.00	-1.01	-2.38	3	Horizontal	235	1.00	"Worst"	47.37	26.72	3.14	32.24

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	48.23	54.00	-5.77	3	Vertical	252	2.54	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

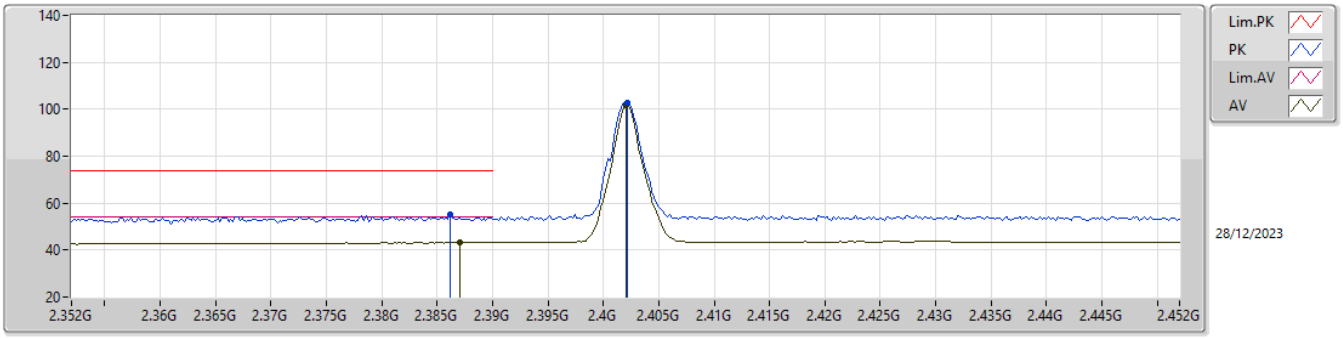


EUT Y_1TX
Setting default
02-E-G-4

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	2.358G	54.85	74.00	-19.15	23.61	3	Vertical	225	2.69	-	28.20	3.04	-
AV	2.389G	43.25	54.00	-10.75	11.80	3	Vertical	225	2.69	-	28.40	3.05	-
PK	2.402G	101.21	Inf	-Inf	69.75	3	Vertical	225	2.69	-	28.40	3.06	-
AV	2.402G	100.15	Inf	-Inf	68.69	3	Vertical	225	2.69	-	28.40	3.06	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

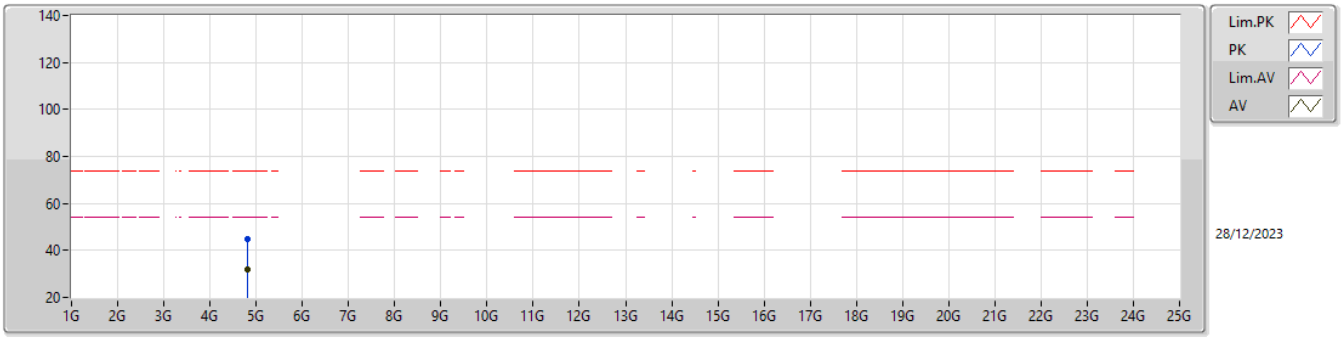


EUT Y_1TX
Setting default
02-E-G-4

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	2.3862G	54.93	74.00	-19.07	23.48	3	Horizontal	169	2.49	-	28.40	3.05	-
AV	2.387G	43.22	54.00	-10.78	11.77	3	Horizontal	169	2.49	-	28.40	3.05	-
PK	2.4022G	102.89	Inf	-Inf	71.43	3	Horizontal	169	2.49	-	28.40	3.06	-
AV	2.402G	101.72	Inf	-Inf	70.26	3	Horizontal	169	2.49	-	28.40	3.06	-

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

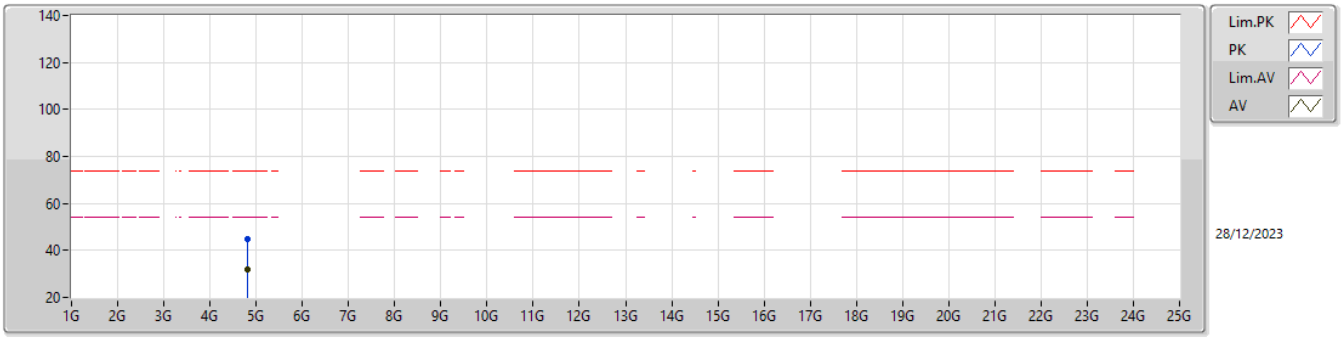


EUT Y_1TX
Setting default
02-E-G-4

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	4.80534G	44.62	74.00	-29.38	37.39	3	Vertical	156	1.50	-	32.83	5.09	30.69
AV	4.79954G	32.07	54.00	-21.93	24.87	3	Vertical	156	1.50	-	32.80	5.09	30.69

2.4-2.4835GHz_BT-BR(1Mbps)

2402MHz_TX

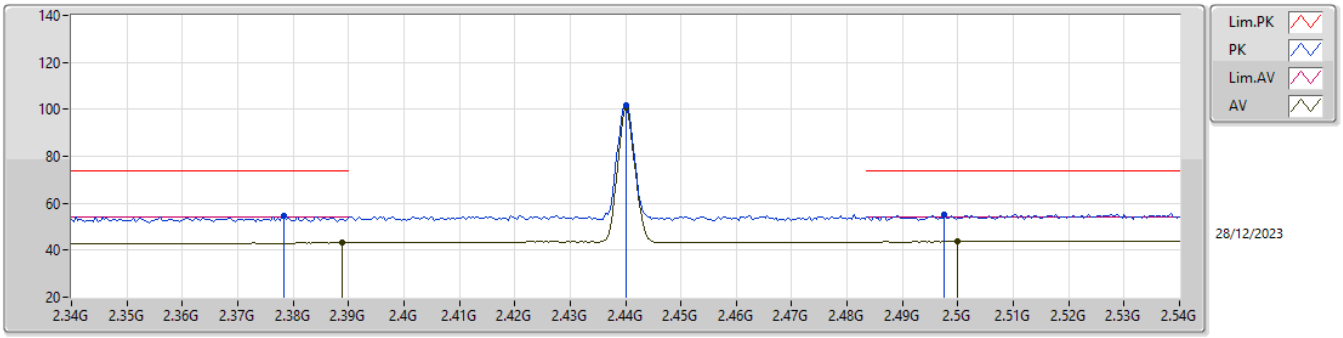


EUT Y_1TX
Setting default
02-E-G-4

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	4.809G	44.77	74.00	-29.23	37.52	3	Horizontal	115	2.59	-	32.85	5.09	30.69
AV	4.79968G	31.98	54.00	-22.02	24.78	3	Horizontal	115	2.59	-	32.80	5.09	30.69

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

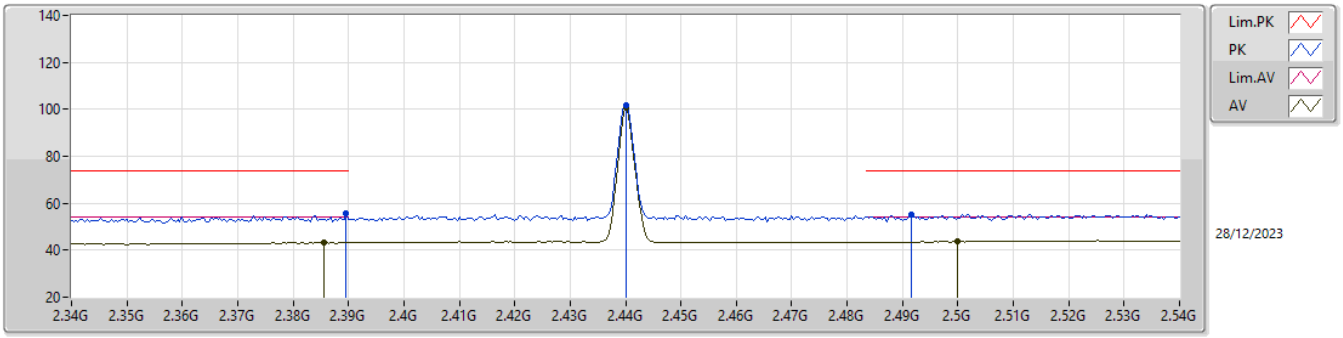


EUT Y_1TX
Setting default
02-E-G-4

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	2.3784G	54.55	74.00	-19.45	23.12	3	Vertical	324	2.65	-	28.38	3.05	-
AV	2.3888G	43.31	54.00	-10.69	11.86	3	Vertical	324	2.65	-	28.40	3.05	-
PK	2.44G	101.80	Inf	-Inf	70.32	3	Vertical	324	2.65	-	28.40	3.08	-
AV	2.44G	100.87	Inf	-Inf	69.39	3	Vertical	324	2.65	-	28.40	3.08	-
PK	2.4976G	54.93	74.00	-19.07	23.25	3	Vertical	324	2.65	-	28.58	3.10	-
AV	2.5G	43.80	54.00	-10.20	12.10	3	Vertical	324	2.65	-	28.60	3.10	-

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

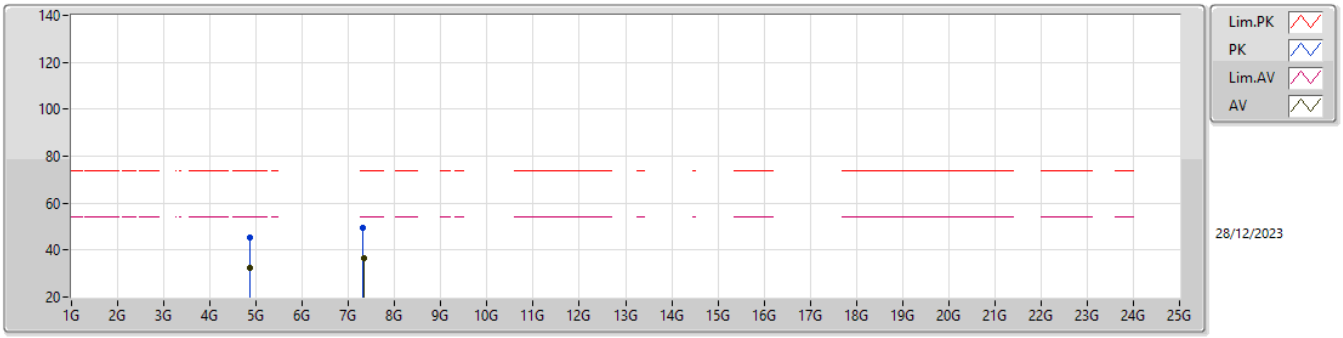


EUT Y_1TX
Setting default
02-E-G-4

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	55.78	74.00	-18.22	24.33	3	Horizontal	28	2.64	-	28.40	3.05	-
AV	2.3856G	43.32	54.00	-10.68	11.87	3	Horizontal	28	2.64	-	28.40	3.05	-
PK	2.44G	101.84	Inf	-Inf	70.36	3	Horizontal	28	2.64	-	28.40	3.08	-
AV	2.44G	100.86	Inf	-Inf	69.38	3	Horizontal	28	2.64	-	28.40	3.08	-
PK	2.4916G	54.92	74.00	-19.08	23.30	3	Horizontal	28	2.64	-	28.52	3.10	-
AV	2.5G	43.83	54.00	-10.17	12.13	3	Horizontal	28	2.64	-	28.60	3.10	-

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

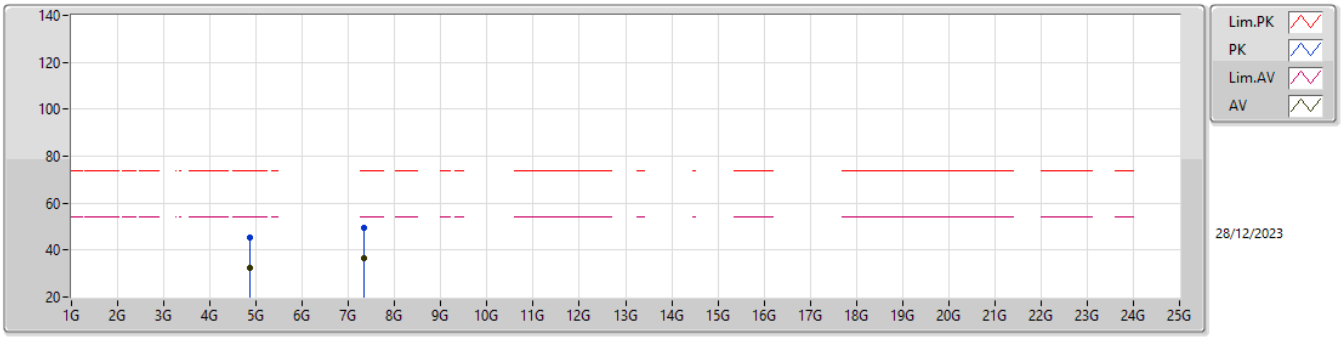


EUT Y_1TX
Setting default
02-E-G-4

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	4.8772G	45.23	74.00	-28.77	37.61	3	Vertical	180	2.25	-	33.15	5.11	30.64
AV	4.87584G	32.57	54.00	-21.43	24.95	3	Vertical	180	2.25	-	33.15	5.11	30.64
PK	7.31598G	49.54	74.00	-24.46	38.52	3	Vertical	247	1.22	-	36.63	6.51	32.12
AV	7.32424G	36.68	54.00	-17.32	25.63	3	Vertical	247	1.22	-	36.65	6.52	32.12

2.4-2.4835GHz_BT-BR(1Mbps)

2440MHz_TX

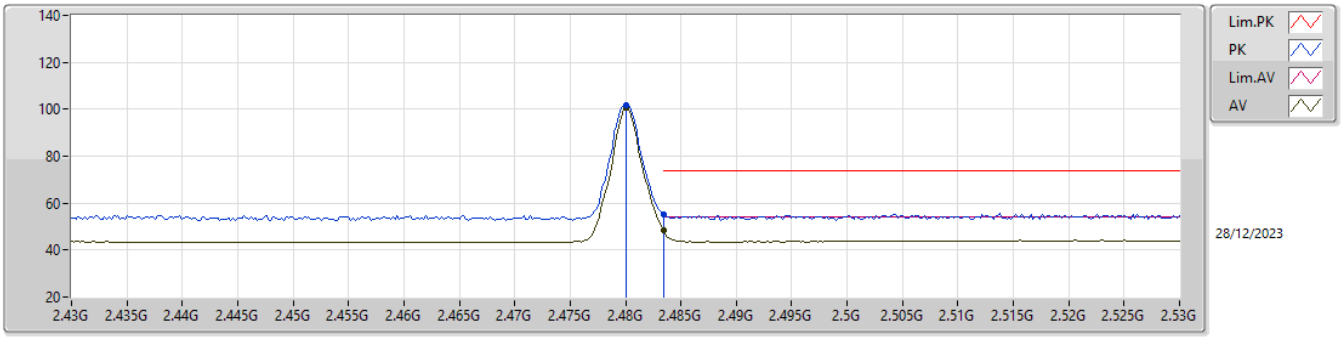


EUT Y_1TX
Setting default
02-E-G-4

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	4.87542G	45.43	74.00	-28.57	37.81	3	Horizontal	171	2.12	-	33.15	5.11	30.64
AV	4.87688G	32.48	54.00	-21.52	24.86	3	Horizontal	171	2.12	-	33.15	5.11	30.64
PK	7.32216G	49.28	74.00	-24.72	38.24	3	Horizontal	356	2.25	-	36.64	6.52	32.12
AV	7.32368G	36.61	54.00	-17.39	25.56	3	Horizontal	356	2.25	-	36.65	6.52	32.12

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

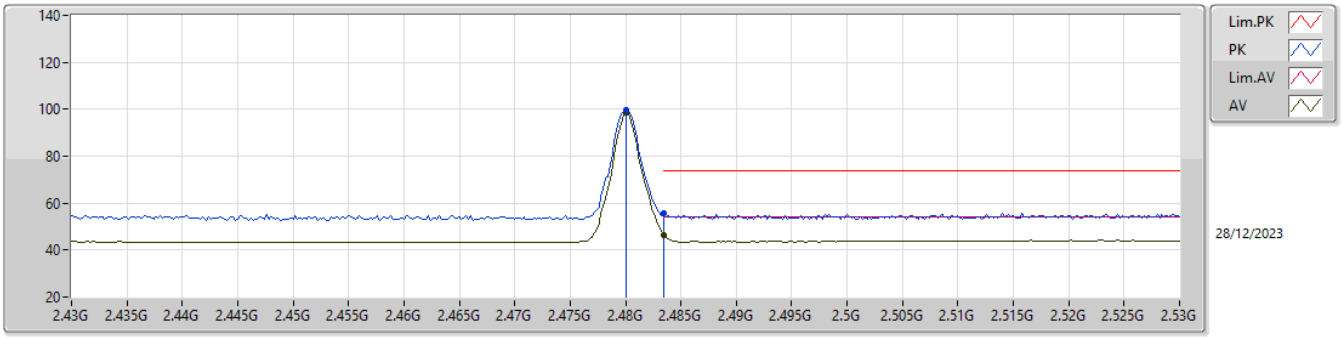


EUT Y_1TX
Setting default
02-E-G-4

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	101.84	Inf	-Inf	70.25	3	Vertical	252	2.54	-	28.50	3.09	-
AV	2.48G	100.75	Inf	-Inf	69.16	3	Vertical	252	2.54	-	28.50	3.09	-
PK	2.4835G	55.27	74.00	-18.73	23.68	3	Vertical	252	2.54	-	28.50	3.09	-
AV	2.4835G	48.23	54.00	-5.77	16.64	3	Vertical	252	2.54	-	28.50	3.09	-

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

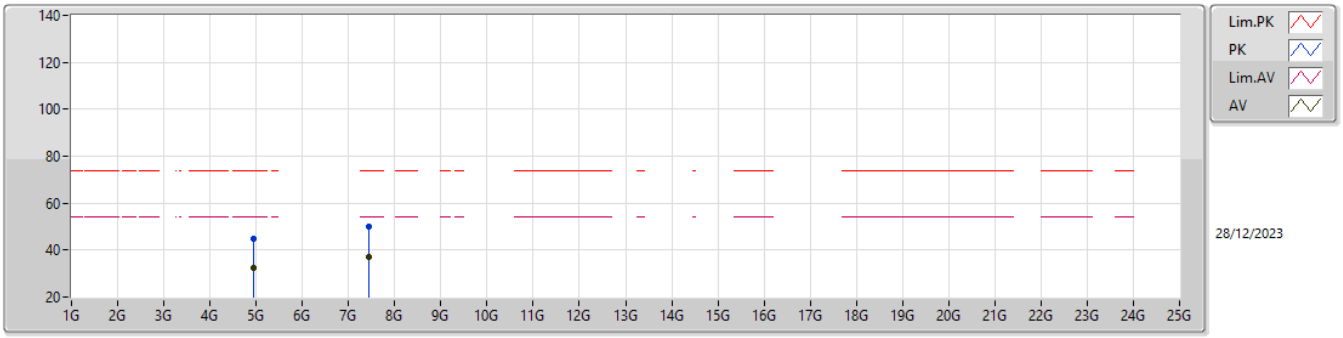


EUT Y_1TX
Setting default
02-E-G-4

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	99.51	Inf	-Inf	67.92	3	Horizontal	42	1.18	-	28.50	3.09	-
AV	2.48G	98.39	Inf	-Inf	66.80	3	Horizontal	42	1.18	-	28.50	3.09	-
PK	2.4835G	55.69	74.00	-18.31	24.10	3	Horizontal	42	1.18	-	28.50	3.09	-
AV	2.4835G	46.59	54.00	-7.41	15.00	3	Horizontal	42	1.18	-	28.50	3.09	-

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

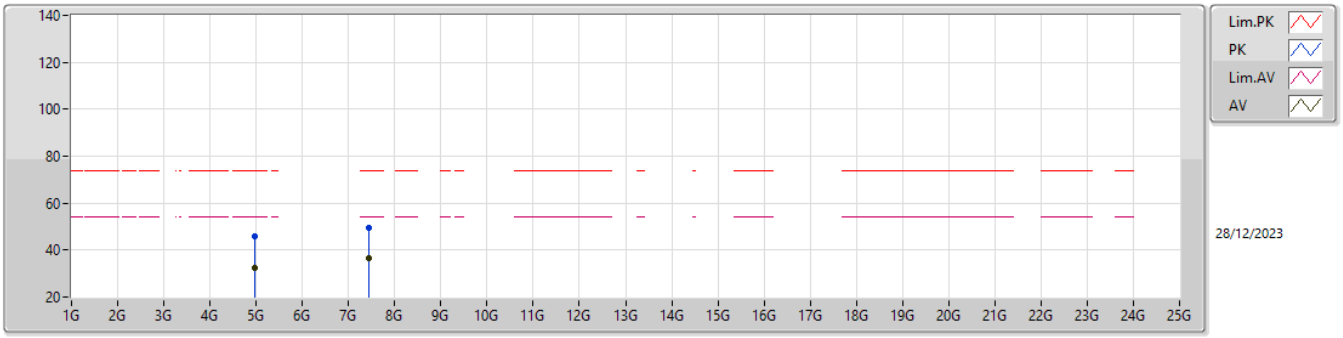


EUT Y_1TX
Setting default
02-E-G-4

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	4.95522G	44.99	74.00	-29.01	37.13	3	Vertical	239	2.41	-	33.31	5.14	30.59
AV	4.9556G	32.54	54.00	-21.46	24.68	3	Vertical	239	2.41	-	33.31	5.14	30.59
PK	7.43678G	50.12	74.00	-23.88	39.02	3	Vertical	262	1.73	-	36.70	6.58	32.18
AV	7.44088G	36.85	54.00	-17.15	25.76	3	Vertical	262	1.73	-	36.70	6.58	32.19

2.4-2.4835GHz_BT-BR(1Mbps)

2480MHz_TX

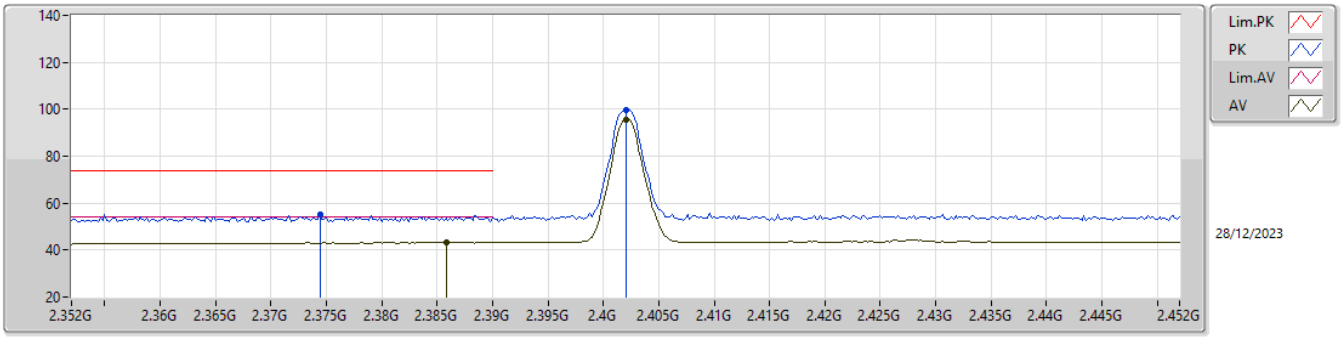


EUT Y_1TX
Setting default
02-E-G-4

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	4.95898G	45.97	74.00	-28.03	38.10	3	Horizontal	165	1.83	-	33.32	5.14	30.59
AV	4.9631G	32.43	54.00	-21.57	24.54	3	Horizontal	165	1.83	-	33.33	5.14	30.58
PK	7.43918G	49.53	74.00	-24.47	38.44	3	Horizontal	58	1.30	-	36.70	6.58	32.19
AV	7.44324G	36.71	54.00	-17.29	25.62	3	Horizontal	58	1.30	-	36.70	6.58	32.19

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

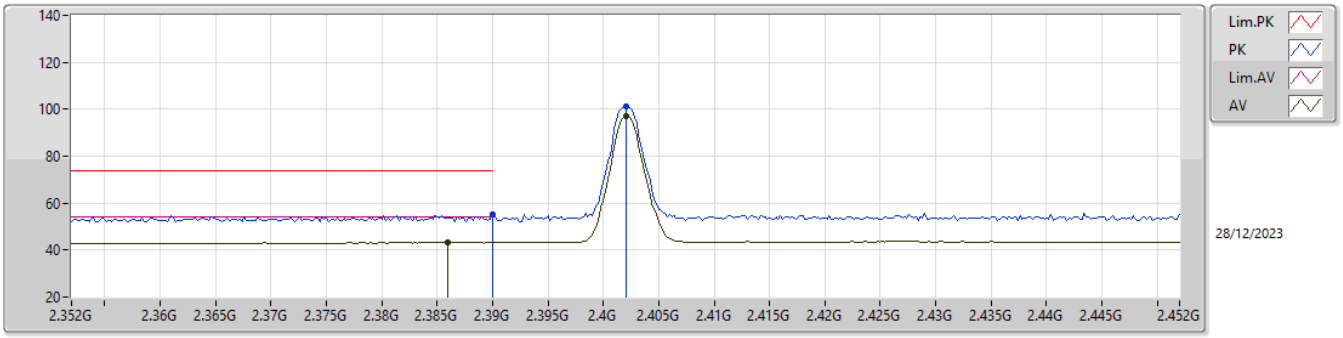


EUT Y_1TX
Setting default
02-E-G-4

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	2.3744G	55.01	74.00	-18.99	23.62	3	Vertical	228	2.69	-	28.34	3.05	-
AV	2.3858G	43.38	54.00	-10.62	11.93	3	Vertical	228	2.69	-	28.40	3.05	-
PK	2.402G	99.78	Inf	-Inf	68.32	3	Vertical	228	2.69	-	28.40	3.06	-
AV	2.402G	95.69	Inf	-Inf	64.23	3	Vertical	228	2.69	-	28.40	3.06	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

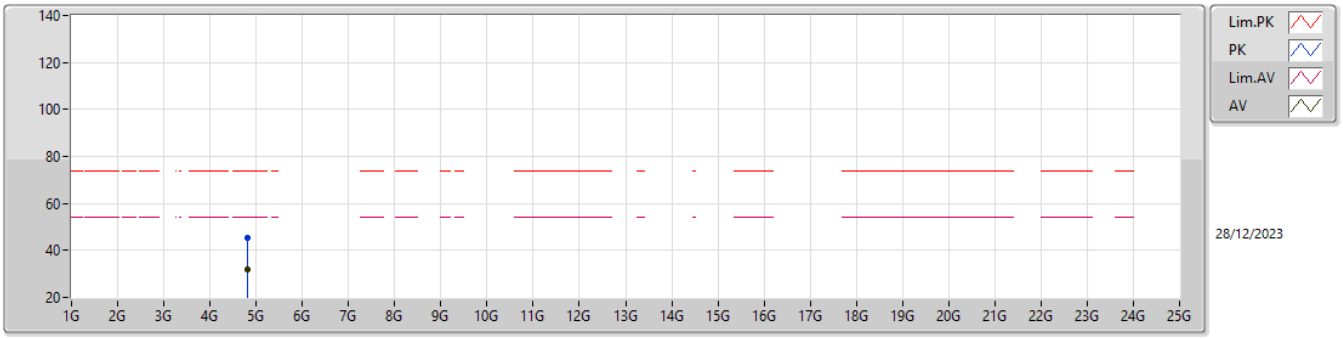


EUT Y_1TX
Setting default
02-E-G-4

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	55.03	74.00	-18.97	23.57	3	Horizontal	169	2.48	-	28.40	3.06	-
AV	2.386G	43.29	54.00	-10.71	11.84	3	Horizontal	169	2.48	-	28.40	3.05	-
PK	2.402G	101.23	Inf	-Inf	69.77	3	Horizontal	169	2.48	-	28.40	3.06	-
AV	2.402G	97.00	Inf	-Inf	65.54	3	Horizontal	169	2.48	-	28.40	3.06	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

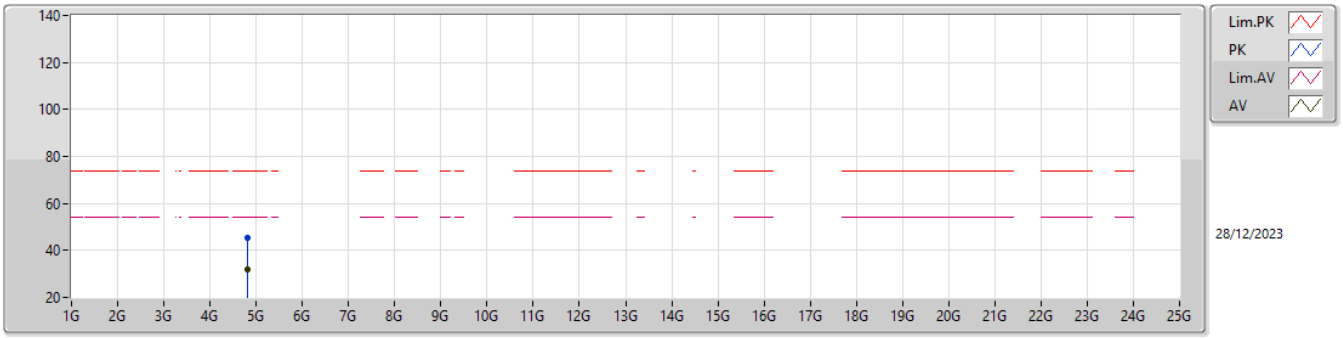


EUT Y_1TX
Setting default
02-E-G-4

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	4.8066G	45.16	74.00	-28.84	37.92	3	Vertical	82	2.08	-	32.84	5.09	30.69
AV	4.80194G	32.01	54.00	-21.99	24.80	3	Vertical	82	2.08	-	32.81	5.09	30.69

2.4-2.4835GHz_BT-EDR(3Mbps)

2402MHz_TX

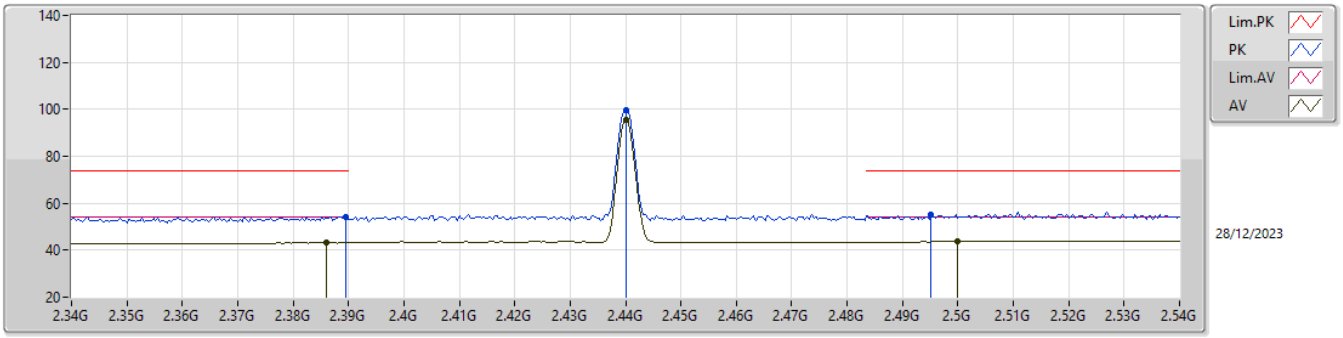


EUT Y_1TX
Setting default
02-E-G-4

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	4.8087G	45.27	74.00	-28.73	38.02	3	Horizontal	201	2.71	-	32.85	5.09	30.69
AV	4.80666G	32.06	54.00	-21.94	24.82	3	Horizontal	201	2.71	-	32.84	5.09	30.69

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

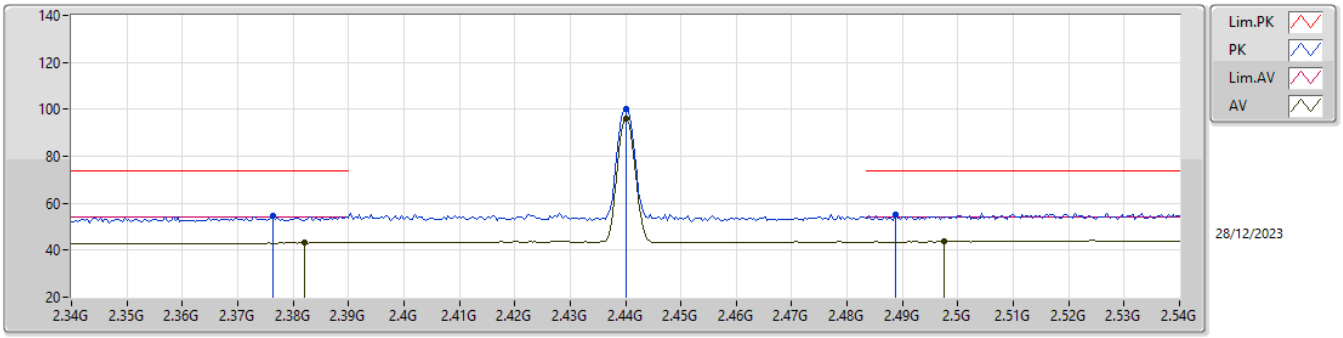


EUT Y_1TX
Setting default
02-E-G-4

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	54.29	74.00	-19.71	22.84	3	Vertical	319	2.18	-	28.40	3.05	-
AV	2.386G	43.24	54.00	-10.76	11.79	3	Vertical	319	2.18	-	28.40	3.05	-
PK	2.44G	99.79	Inf	-Inf	68.31	3	Vertical	319	2.18	-	28.40	3.08	-
AV	2.44G	95.58	Inf	-Inf	64.10	3	Vertical	319	2.18	-	28.40	3.08	-
PK	2.4952G	55.23	74.00	-18.77	23.58	3	Vertical	319	2.18	-	28.55	3.10	-
AV	2.5G	43.86	54.00	-10.14	12.16	3	Vertical	319	2.18	-	28.60	3.10	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

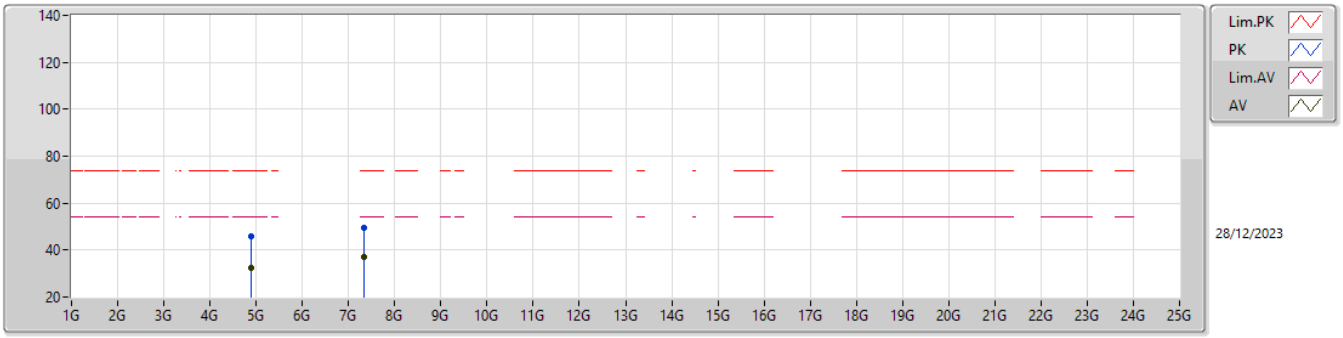


EUT Y_1TX
Setting default
02-E-G-4

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	2.3764G	54.50	74.00	-19.50	23.09	3	Horizontal	26	2.63	-	28.36	3.05	-
AV	2.382G	43.31	54.00	-10.69	11.86	3	Horizontal	26	2.63	-	28.40	3.05	-
PK	2.44G	100.17	Inf	-Inf	68.69	3	Horizontal	26	2.63	-	28.40	3.08	-
AV	2.44G	95.94	Inf	-Inf	64.46	3	Horizontal	26	2.63	-	28.40	3.08	-
PK	2.4888G	55.16	74.00	-18.84	23.56	3	Horizontal	26	2.63	-	28.50	3.10	-
AV	2.4976G	43.86	54.00	-10.14	12.18	3	Horizontal	26	2.63	-	28.58	3.10	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

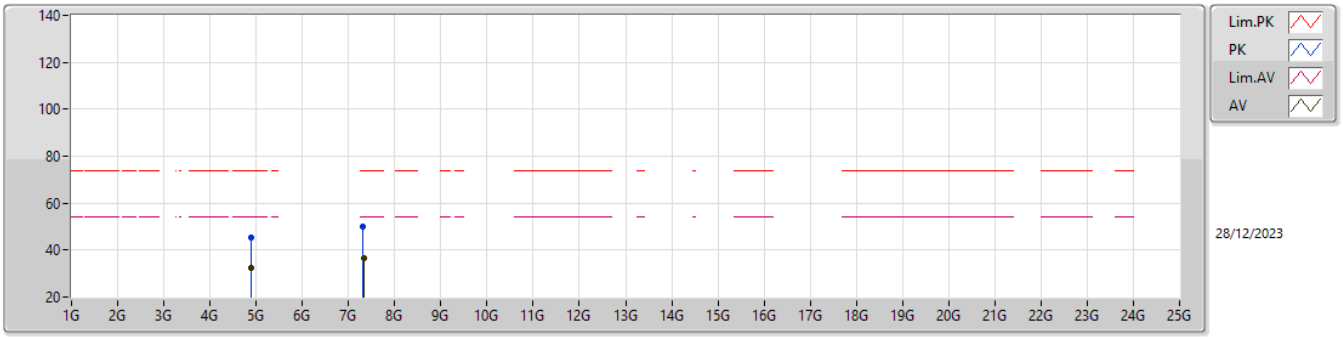


EUT Y_1TX
Setting default
02-E-G-4

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	4.8794G	45.72	74.00	-28.28	38.09	3	Vertical	291	1.97	-	33.16	5.11	30.64
AV	4.87854G	32.66	54.00	-21.34	25.03	3	Vertical	291	1.97	-	33.16	5.11	30.64
PK	7.32286G	49.45	74.00	-24.55	38.40	3	Vertical	295	2.58	-	36.65	6.52	32.12
AV	7.3247G	36.84	54.00	-17.16	25.79	3	Vertical	295	2.58	-	36.65	6.52	32.12

2.4-2.4835GHz_BT-EDR(3Mbps)

2440MHz_TX

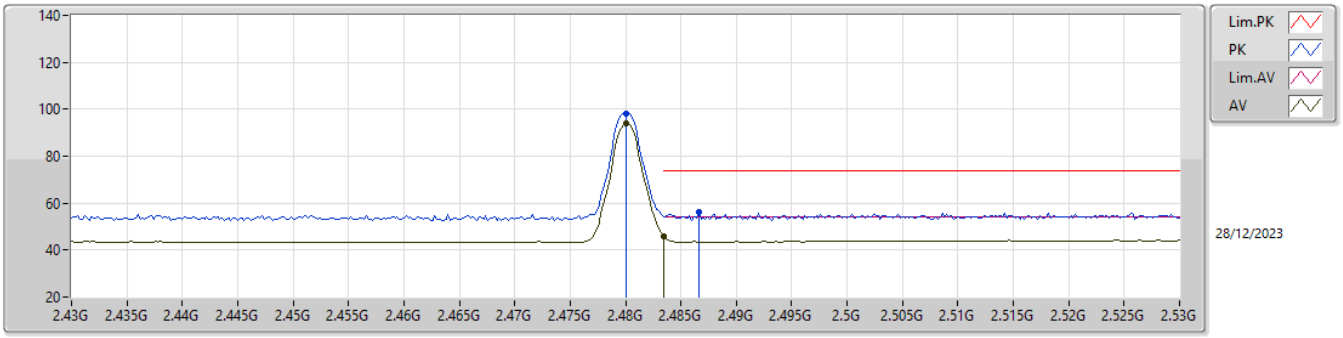


EUT Y_1TX
Setting default
02-E-G-4

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	4.88006G	45.09	74.00	-28.91	37.46	3	Horizontal	247	2.62	-	33.16	5.11	30.64
AV	4.87972G	32.53	54.00	-21.47	24.90	3	Horizontal	247	2.62	-	33.16	5.11	30.64
PK	7.3202G	49.81	74.00	-24.19	38.77	3	Horizontal	114	2.44	-	36.64	6.52	32.12
AV	7.3245G	36.80	54.00	-17.20	25.75	3	Horizontal	114	2.44	-	36.65	6.52	32.12

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

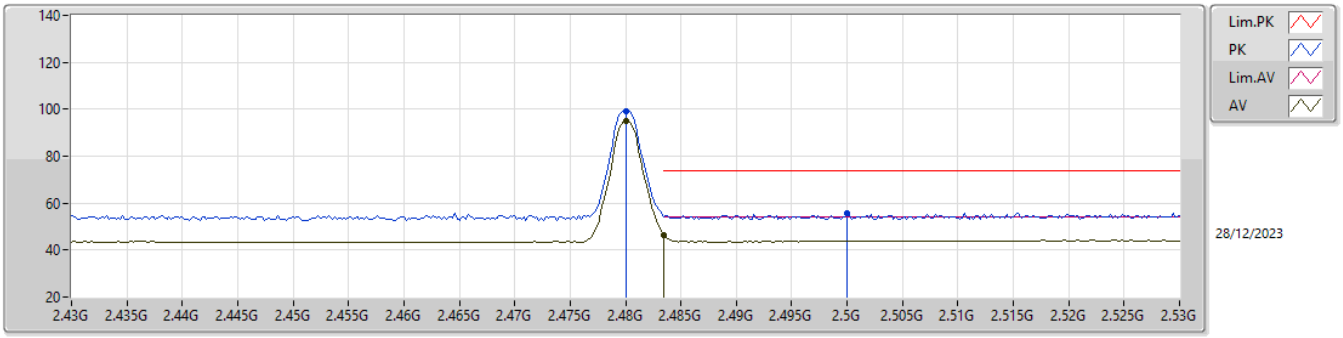


EUT Y_1TX
Setting default
02-E-G-4

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	98.27	Inf	-Inf	66.68	3	Vertical	256	2.90	-	28.50	3.09	-
AV	2.48G	94.02	Inf	-Inf	62.43	3	Vertical	256	2.90	-	28.50	3.09	-
PK	2.4866G	56.14	74.00	-17.86	24.55	3	Vertical	256	2.90	-	28.50	3.09	-
AV	2.4835G	46.02	54.00	-7.98	14.43	3	Vertical	256	2.90	-	28.50	3.09	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

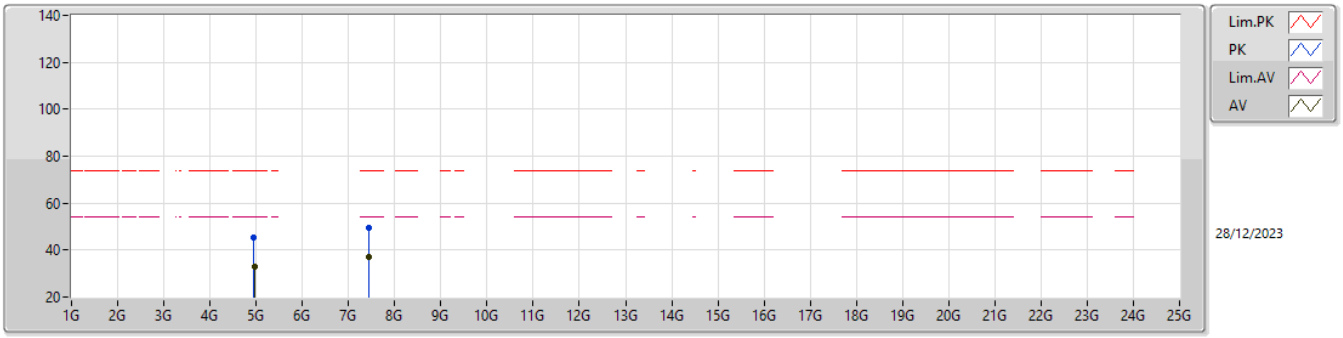


EUT Y_1TX
Setting default
02-E-G-4

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	99.38	Inf	-Inf	67.79	3	Horizontal	16	2.85	-	28.50	3.09	-
AV	2.48G	95.21	Inf	-Inf	63.62	3	Horizontal	16	2.85	-	28.50	3.09	-
PK	2.5G	55.55	74.00	-18.45	23.85	3	Horizontal	16	2.85	-	28.60	3.10	-
AV	2.4835G	46.57	54.00	-7.43	14.98	3	Horizontal	16	2.85	-	28.50	3.09	-

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX

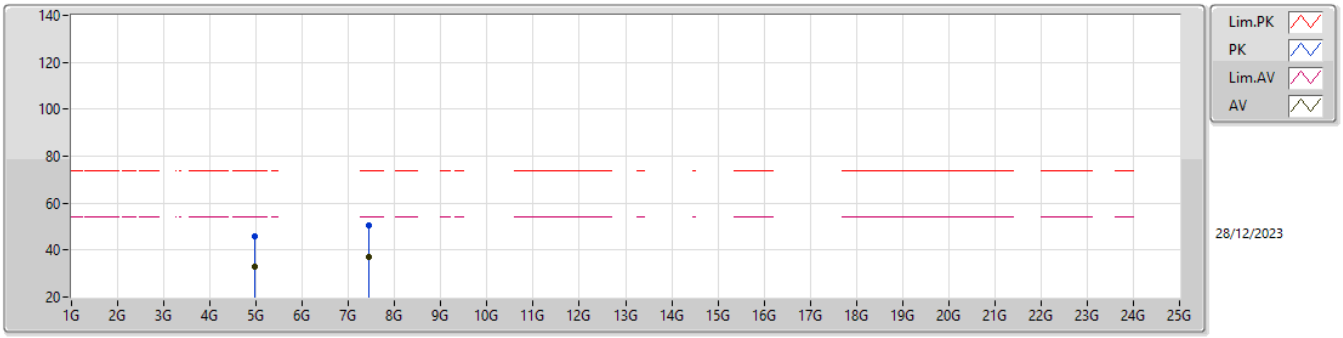


EUT Y_1TX
Setting default
02-E-G-4

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	4.9554G	45.56	74.00	-28.44	37.70	3	Vertical	22	1.41	-	33.31	5.14	30.59
AV	4.95772G	32.74	54.00	-21.26	24.87	3	Vertical	22	1.41	-	33.32	5.14	30.59
PK	7.4353G	49.73	74.00	-24.27	38.63	3	Vertical	157	1.37	-	36.70	6.58	32.18
AV	7.44392G	36.98	54.00	-17.02	25.89	3	Vertical	157	1.37	-	36.70	6.58	32.19

2.4-2.4835GHz_BT-EDR(3Mbps)

2480MHz_TX



EUT Y_1TX
Setting default
02-E-G-4

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	4.96184G	46.06	74.00	-27.94	38.19	3	Horizontal	12	1.43	-	33.32	5.14	30.59
AV	4.95852G	32.88	54.00	-21.12	25.01	3	Horizontal	12	1.43	-	33.32	5.14	30.59
PK	7.4406G	50.32	74.00	-23.68	39.23	3	Horizontal	282	1.34	-	36.70	6.58	32.19
AV	7.43534G	36.86	54.00	-17.14	25.76	3	Horizontal	282	1.34	-	36.70	6.58	32.18