Testing Laboratory
3787

RADIO TEST REPORT

FCC ID	:	UDX-600148010
Equipment	:	Wi-Fi 6 Access Point
Brand Name	:	Cisco
Model Name	:	MR28-HW,GR12-HW
Applicant	:	Cisco Systems, Inc. 170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer	:	Cisco Systems, Inc. 170 West Tasman Drive, San Jose, CA 95134 USA
Standard	:	47 CFR FCC Part 15.247

The product was received on Mar. 22, 2022, and testing was started from Apr. 01, 2022 and completed on May 11, 2022. 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.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR232206AC	01	Initial issue of report	Jul. 12, 2022
FR232206AC	02	Updating the section 1.1.2 Antenna Information	Jul. 18, 2022

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)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:
1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results. 2. The measurement uncertainty please refer to report "Measurement Uncertainty".
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Sandy Chuang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(500Kb/s)	1.0	1TX
2.4-2.4835GHz	BT-LE(125Kb/s)	1.0	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

Note:
- Bluetooth LE uses a GFSK modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4 GHz	WLAN 5 GHz	Bluetooth					
1	1	1	-	CISCO	95XEAK15.004	PIFA	I-PEX	Note 1
2	2	2	-	CISCO	95XEAK15.003	PIFA	I-PEX	
3	-	-	1	CISCO	95XEAK15.005	PIFA	I-PEX	

Note 1

Ant.	Port			Gain (dBi)			
	WLAN 2.4 GHz	WLAN 5 GHz	Bluetooth	WLAN 2.4 GHz	WLAN 5 GHz		Bluetooth
					UNII 1	UNII 3	
1	**1**	**1**	**-**	3.63	1.56	2.22	-
2	2	2	-	5.52	1.11	3.41	-
3	-	-	1	-	-	-	4.4

Note 2: The above information was declared by manufacturer.

Note 3:

WLAN 2.4GHz/5GHz(UNII 1 / UNII 3): The directional gain is measured which follows the procedure of KDB 662911 D03.

Frequency (Hz)	2.45G	5.2G	5.785G
DG [1SS] (dBi)	3.9	2.11	2.28

<For 2.4GHz function>

For IEEE 802.11b/g/n/VHT/ax (1TX/2RX)

Only Port 1 can be use as transmitting antenna

Port 1 and Port 2 could receive simultaneously.

For IEEE 802.11b/g/n/VHT/ax (2TX/2RX):

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

Pot 1 and Port 2 could transmit/receive simultaneously.

<For 5GHz function>

For IEEE 802.11a/n/ac/ax (1TX/2RX)

Only Port 1 can be use as transmitting antenna

Port 1 and Port 2 could receive simultaneously.

For IEEE 802.11a/n/ac/ax (2TX/2RX):

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

Pot 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-LE(1Mbps)	0.686	1.64	428.75u	3k
BT-LE(2Mbps)	0.391	4.08	247.5u	10k

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	QSPR (ver.5.0-00199)			
Support Mode	☒	LE 1M PHY: 1 Mb/s		
	☒	LE Coded PHY (S=2): 500 Kb/s		
	☒	LE Coded PHY (S=8): 125 Kb/s		
	☒	LE 2M PHY: 2 Mb/s		

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

Model Name	Description
MR28-HW	All the models are identical; the difference model served as marketing strategy.
GR12-HW	

Note 1: From the above models, model: MR28-HW 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

EUT	Source	LAN Chip
1	Main	Brand Name: Qualcomm / Model Name: QCA8081
2	Second	Brand Name: Qualcomm / Model Name: QCA8080

Note 1: From the above, after evaluation, EUT 1 was selected to test all test items, and the EUT 2 was been selected to test Radiated Emission below 1GHz only.

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
- ANSI C63.10-2013

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	Caster Chang	24.7~25.5 / 56~59	Apr. 09, 2022
Radiated <Below 1GHz>	03CH05-CB	Eason Chen	24.5-25.6 / 56-59	Apr. 01, 2022~ May 11, 2022
Radiated <Above 1GHz>	03CH03-CB	KJ Chang	23.8-24.9 / 55-58	Apr. 02, 2022~ May 02, 2022
AC Conduction	CO01-CB	Ryan Huang	21~23 / 56~58	Apr. 09, 2022

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)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	200
2480MHz	125
BT-LE(2Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	200
2480MHz	93

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 1 + Adapter 1
2	EUT 1 + Adapter 2
3	EUT 1 + PoE
For operating mode 3 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
1	EUT 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 in Z axis + Adapter 1
2	EUT 1 in Y axis + Adapter 1
3	EUT 1 in X axis + Adapter 1
Mode 1 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4~5 will follow this same test mode.	
4	EUT 1 in Z axis + Adapter 2
5	EUT 1 in Z axis + PoE
Mode 1 has been evaluated to be the worst case among Mode 1~5, thus measurement for Mode 6 will follow this same test mode.	
6	EUT 2 in Z axis + Adapter 1
For operating mode 6 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case as below:	
1	EUT 1 in X axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1_WLAN 2.4GHz + WLAN 5GHz + Bluetooth
Refer to Sporton Test Report No.: FA232206 for Co-location RF Exposure Evaluation.	

Note: The PoE below is for measurement only, would not be marketed.

The PoE information as below:

Support Unit	Brand Name	Model Model
PoE	PHIHONG	POEA33U-1ATE

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

Power	Brand	Model	Rating
Adapter 1	Meraki	GA-PWR-12W-US	Input: 100-240V~50/60Hz, 0.4A MAX. Output: +12.0V, 1.0A, 12.0W MAX.
Adapter 2	UMEC	MA-PWR-30WAC	Input: 100-240V~0.8A, 50-60Hz Output: 12.0V, 2.5A, 30.0W
Others			
Wall-mounted rack*1 RJ-45 cable*1: Non-Shielded, 1.8m			

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	PoE LAN PC	DELL	T3400	N/A
B	PoE	PHIHONG	POEA33U-1ATE	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G NB	DELL	E6430	N/A

For Radiated (below 1GHz):

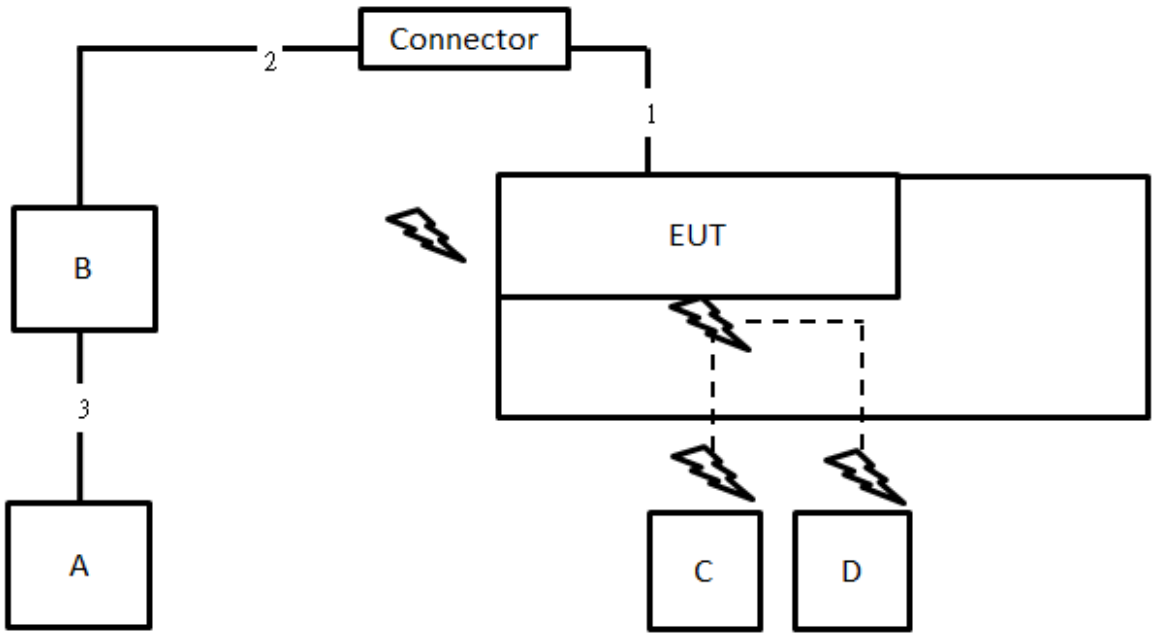
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	LAN NB	DELL	E4300	N/A
B	2.4G NB	DELL	E4300	N/A
C	5G NB	DELL	E4300	N/A

For Radiated (above 1GHz) and RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

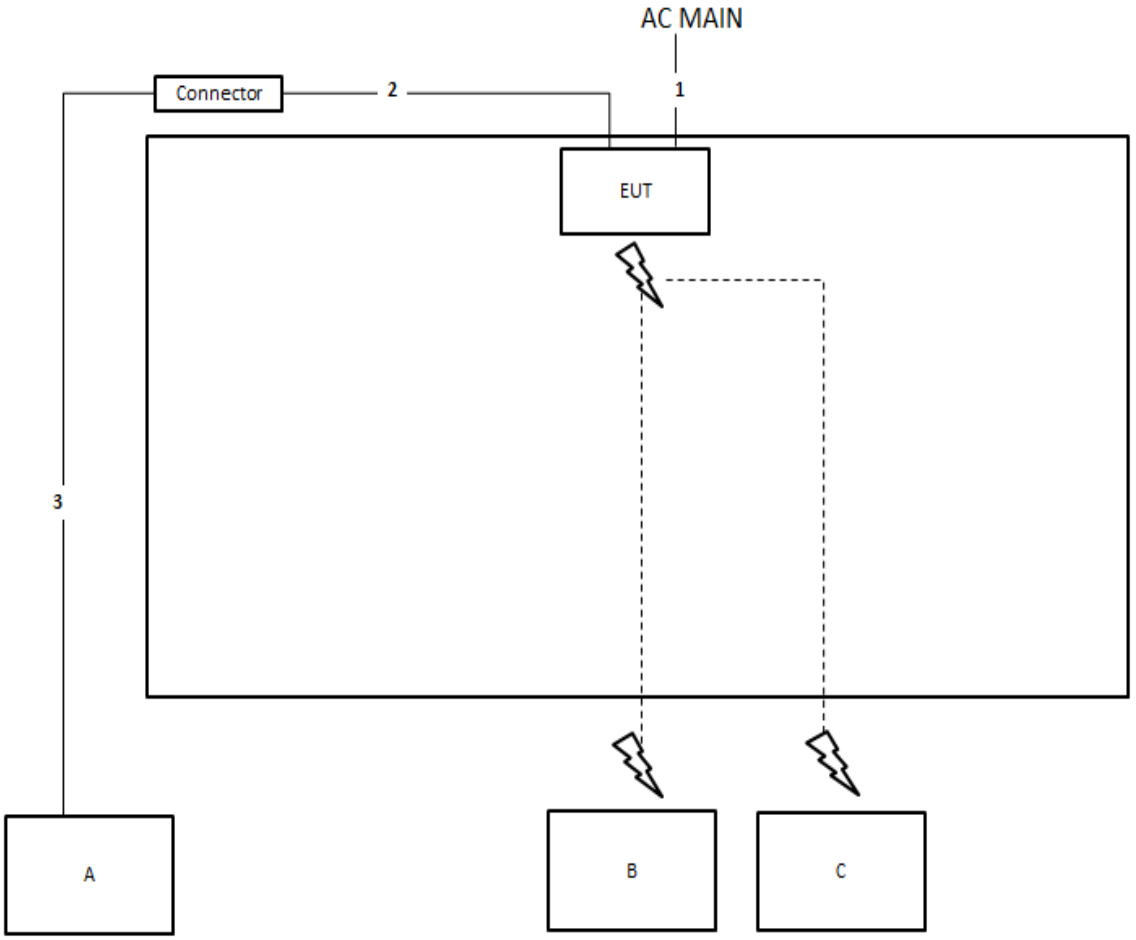
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



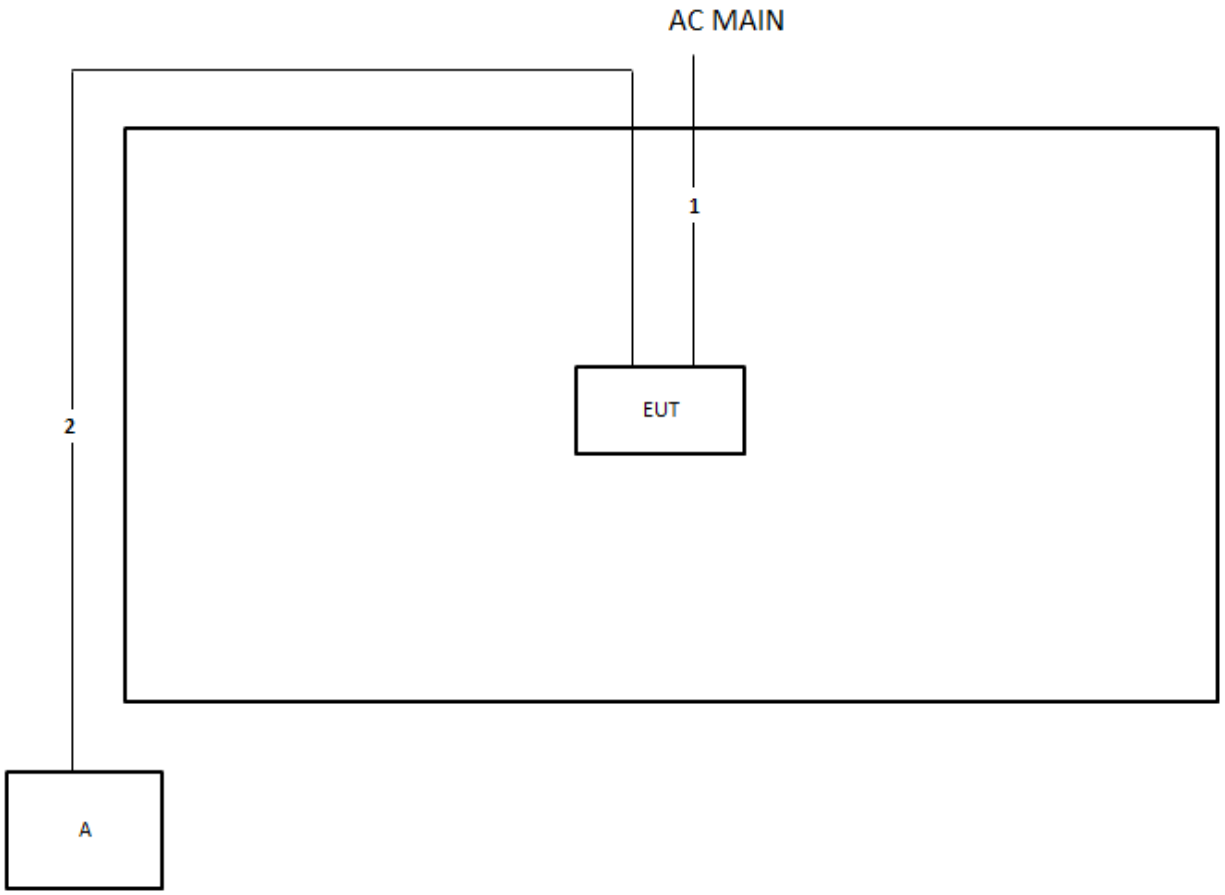
Item	Connection	Shielded	Length
1	RJ-45 cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	1.8m
3	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

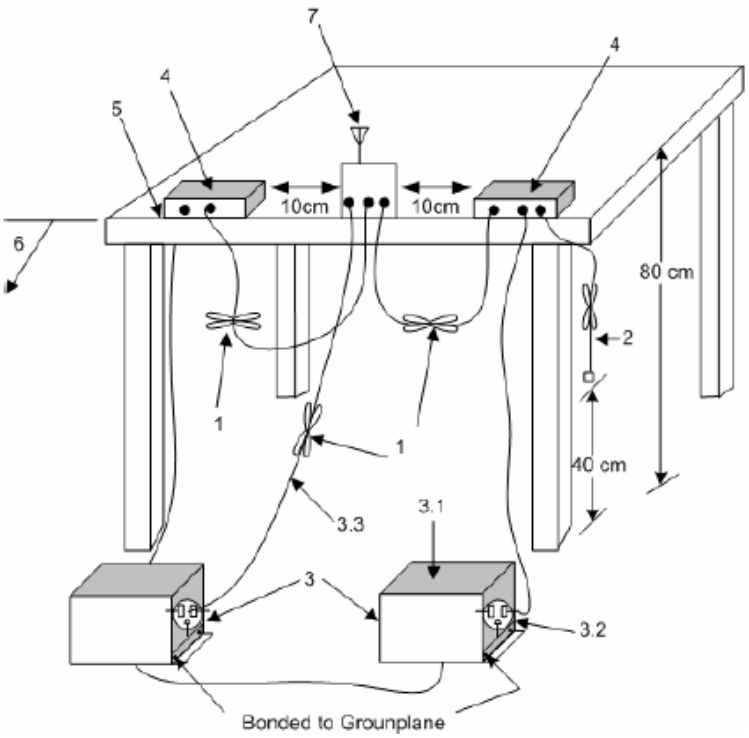
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



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

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 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

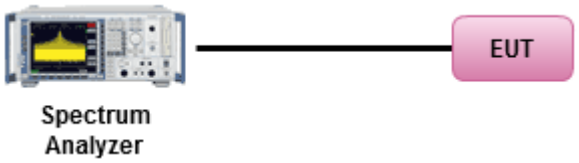
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm	
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.		

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☐ Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
	Measurement using a power meter (PM)
	☐ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	☒ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD)≤8 dBm/3kHz

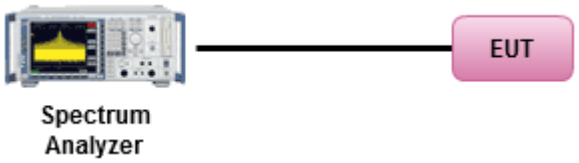
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method			
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).			
	☒ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.		
	[duty cycle ≥ 98% or external video / power trigger]		
▪ For conducted measurement.			
	▪ If The EUT supports multiple transmit chains using options given below:		
		☐	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dBc)**
Peak output power procedure	20
Average output power procedure	30

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.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

3.5.2 Measuring Instruments

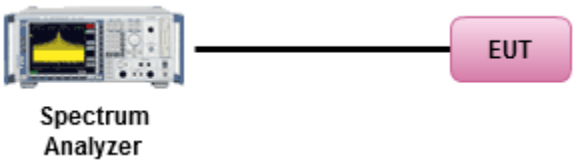
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
▪ Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 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.

3.6.2 Measuring Instruments

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

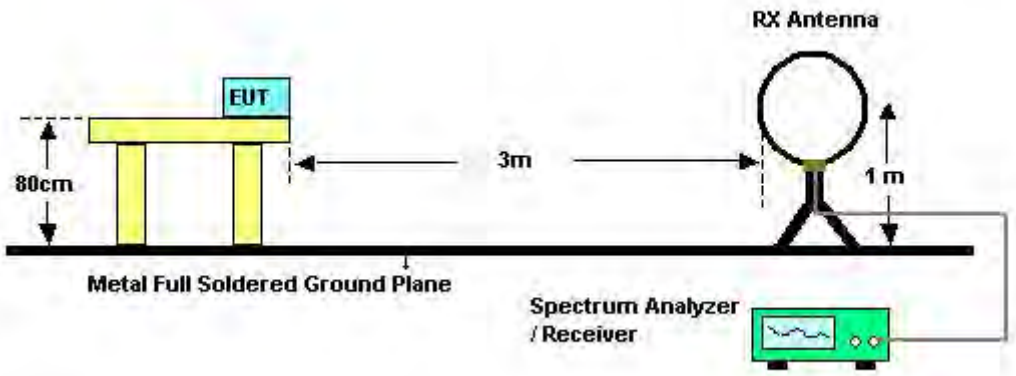
3.6.3 Test Procedures

Test Method			
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or 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 FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.		
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.		
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.		
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB		
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.		

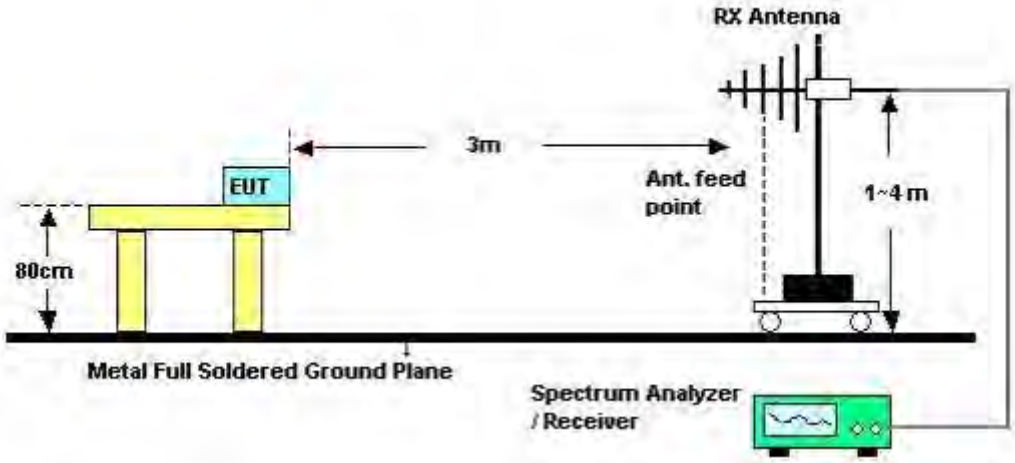
3.6.4 Test Setup

Emissions in Restricted Frequency Bands

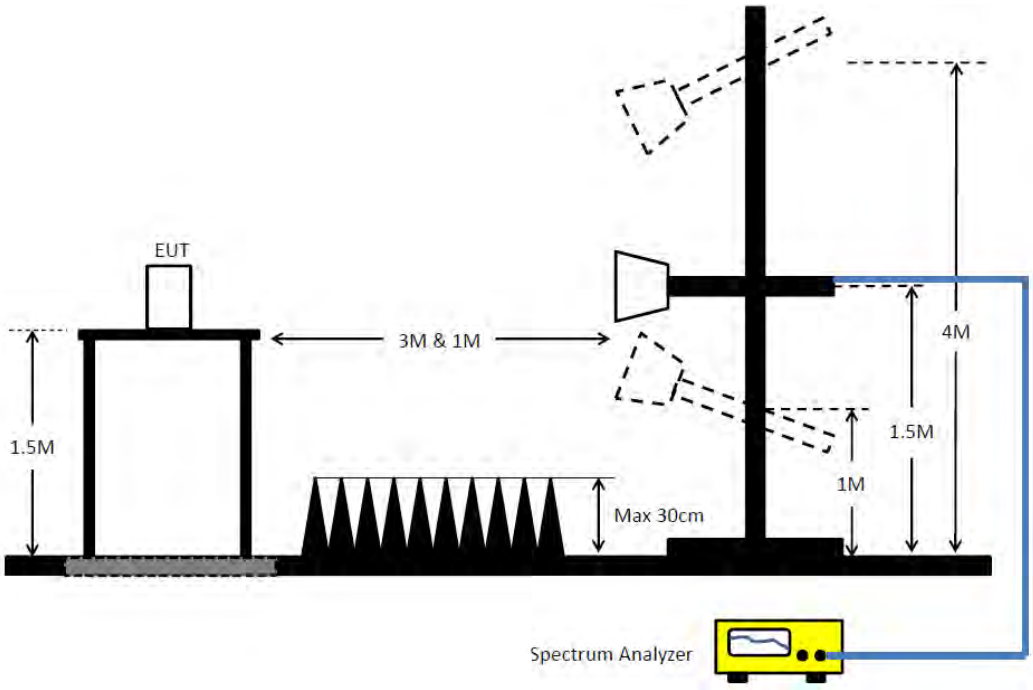
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.6.5 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.

3.6.6 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.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

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	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 18, 2022	Mar. 17, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	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	03CH03-CB	1GHz ~18GHz 3m	May 06, 2021	May 05, 2022	Radiation (03CH03-CB)
Horn Antenna	ETS・Lindgren	3115	6821	750MHz~18GHz	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 02, 2021	Jul. 01, 2022	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 04, 2021	Jun. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-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. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
High Cable	Woken	RG402	40G#4	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
Test Software	Audix	E3	6.2009-10-8b	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)

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

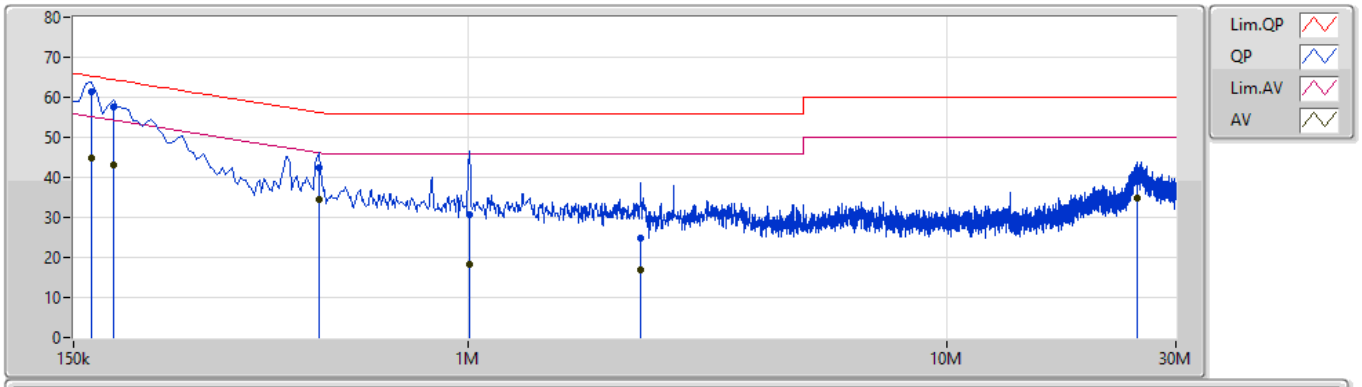
NCR means Non-Calibration required.

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 3	Pass	QP	163.5k	61.25	65.27	-4.02	Line

Mode 3

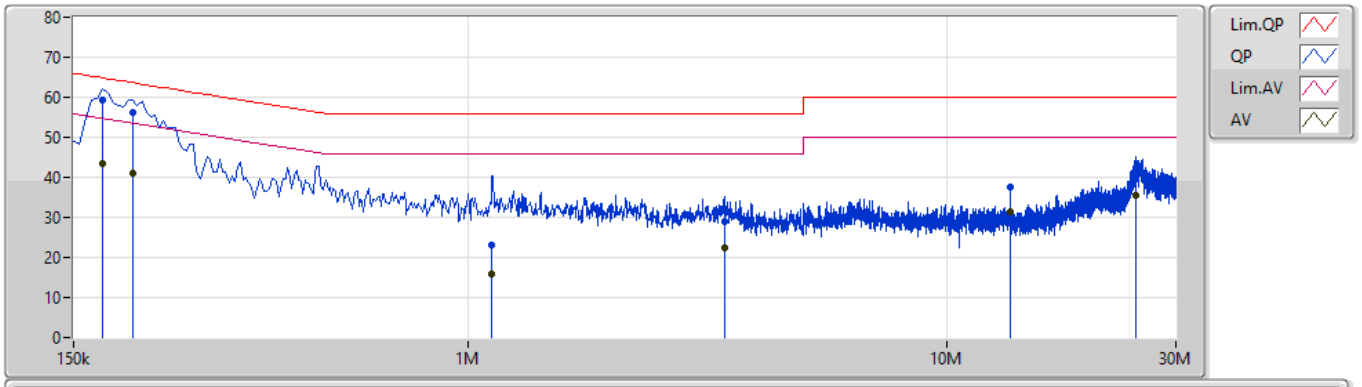
09/04/2022



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	163.5k	61.25	65.27	-4.02	10.03	Line	"Worst"	51.22	0.12	0.02	9.89
AV	163.5k	44.79	55.27	-10.48	10.03	Line	-	34.76	0.12	0.02	9.89
QP	181.5k	57.55	64.41	-6.86	10.03	Line	-	47.52	0.12	0.02	9.89
AV	181.5k	42.97	54.41	-11.44	10.03	Line	-	32.94	0.12	0.02	9.89
QP	487.5k	42.26	56.21	-13.95	10.03	Line	-	32.23	0.12	0.02	9.89
AV	487.5k	34.47	46.21	-11.74	10.03	Line	-	24.44	0.12	0.02	9.89
QP	1.005M	30.84	56.00	-25.16	10.05	Line	-	20.79	0.14	0.02	9.89
AV	1.005M	18.29	46.00	-27.71	10.05	Line	-	8.24	0.14	0.02	9.89
QP	2.292M	25.00	56.00	-31.00	10.12	Line	-	14.88	0.18	0.05	9.89
AV	2.292M	17.06	46.00	-28.94	10.12	Line	-	6.94	0.18	0.05	9.89
QP	24.945M	41.25	60.00	-18.75	10.57	Line	-	30.68	0.40	0.20	9.97
AV	24.945M	34.94	50.00	-15.06	10.57	Line	-	24.37	0.40	0.20	9.97

Mode 3

09/04/2022



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	172.5k	59.47	64.83	-5.36	10.07	Neutral	"Worst"	49.40	0.16	0.02	9.89
AV	172.5k	43.42	54.83	-11.41	10.07	Neutral	-	33.35	0.16	0.02	9.89
QP	199.5k	56.04	63.63	-7.59	10.07	Neutral	-	45.97	0.16	0.02	9.89
AV	199.5k	41.07	53.63	-12.56	10.07	Neutral	-	31.00	0.16	0.02	9.89
QP	1.122M	23.01	56.00	-32.99	10.08	Neutral	-	12.93	0.17	0.02	9.89
AV	1.122M	15.93	46.00	-30.07	10.08	Neutral	-	5.85	0.17	0.02	9.89
QP	3.422M	28.84	56.00	-27.16	10.17	Neutral	-	18.67	0.21	0.07	9.89
AV	3.422M	22.33	46.00	-23.67	10.17	Neutral	-	12.16	0.21	0.07	9.89
QP	13.56M	37.42	60.00	-22.58	10.33	Neutral	-	27.09	0.30	0.10	9.93
AV	13.56M	31.37	50.00	-18.63	10.33	Neutral	-	21.04	0.30	0.10	9.93
QP	24.824M	41.78	60.00	-18.22	10.52	Neutral	-	31.26	0.35	0.20	9.97
AV	24.824M	35.56	50.00	-14.44	10.52	Neutral	-	25.04	0.35	0.20	9.97

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	636.25k	1.028M	1M03F1D	635k	1.022M
BT-LE(2Mbps)	1.09M	2.054M	2M05F1D	1.088M	2.049M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

Result

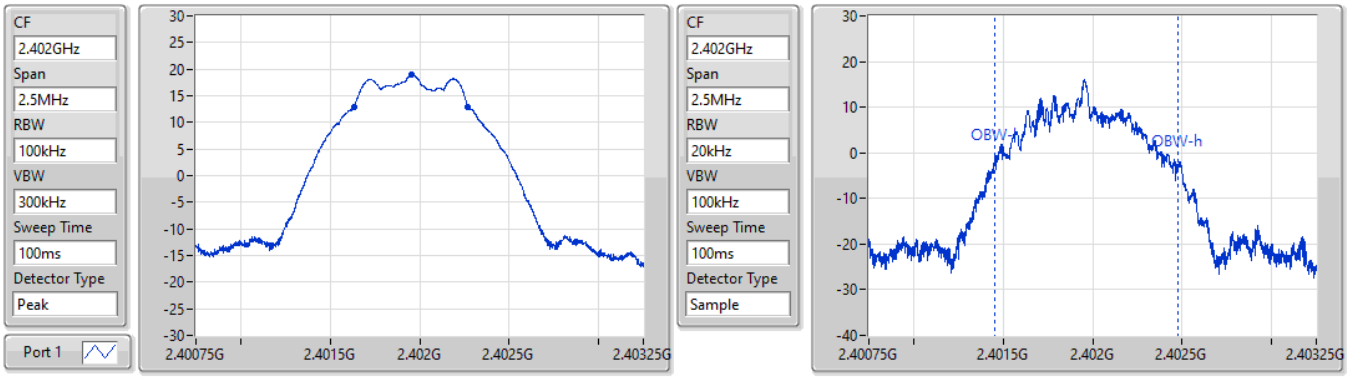
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	636.25k	1.028M
2440MHz	Pass	500k	635k	1.026M
2480MHz	Pass	500k	635k	1.022M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.09M	2.054M
2440MHz	Pass	500k	1.088M	2.054M
2480MHz	Pass	500k	1.088M	2.049M

Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

BT-LE(1Mbps) EBW-DTS

2402MHz

09/04/2022

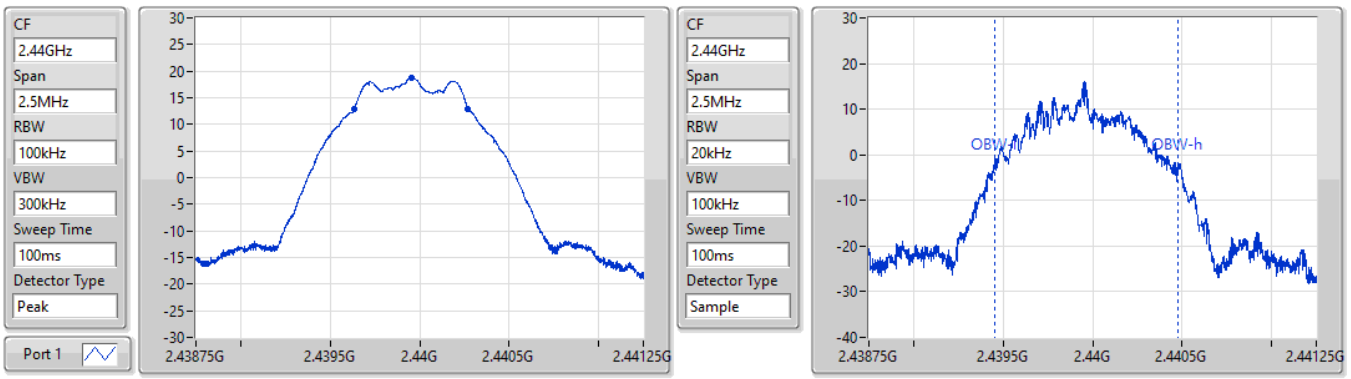


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
636.25k	2.401635G	2.402271G	1.028M	2.401452G	2.40248G	500k	1

BT-LE(1Mbps) EBW-DTS

2440MHz

09/04/2022

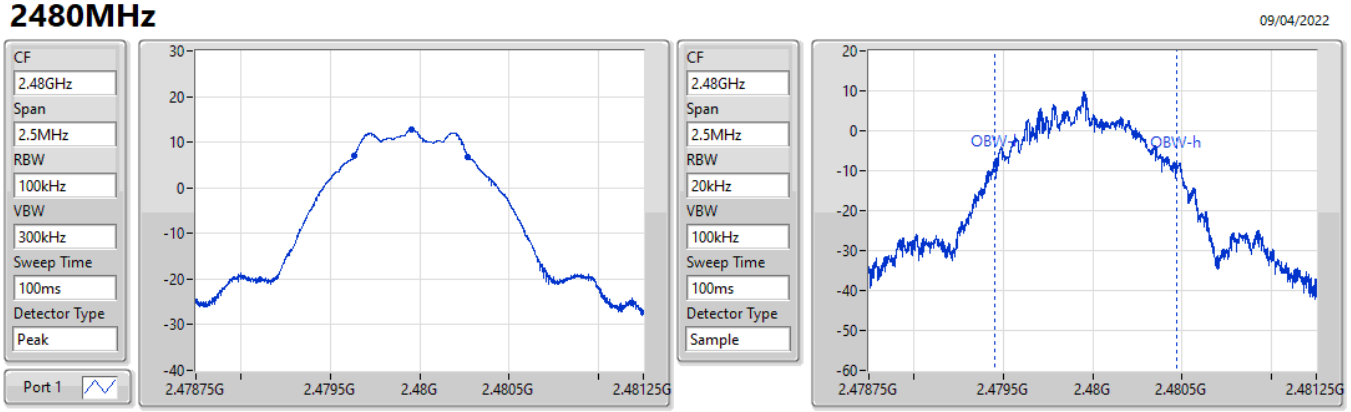


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
635k	2.439635G	2.44027G	1.026M	2.43945G	2.440476G	500k	1

BT-LE(1Mbps)

EBW-DTS

2480MHz

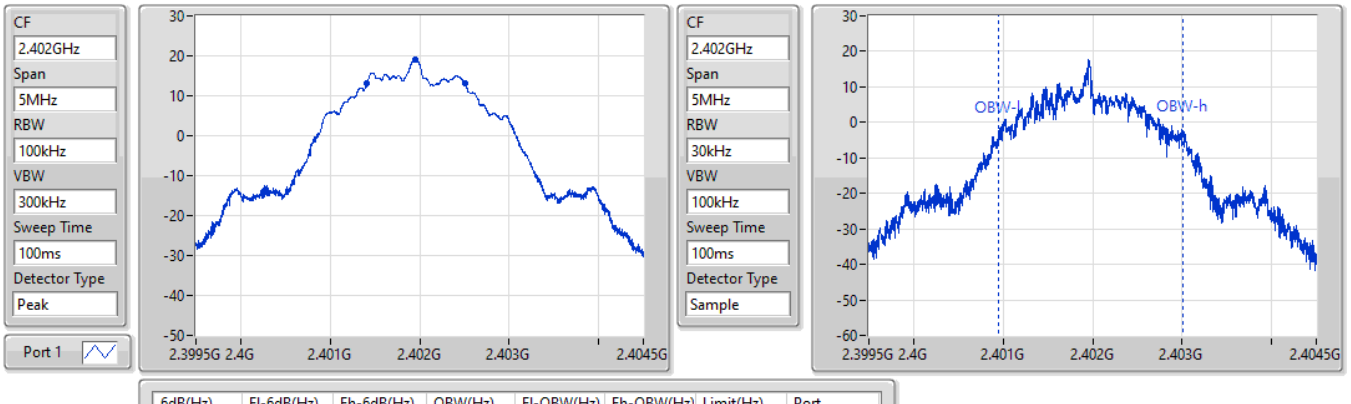


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
635k	2.479635G	2.48027G	1.022M	2.479452G	2.480474G	500k	1

BT-LE(2Mbps)

EBW-DTS

2402MHz

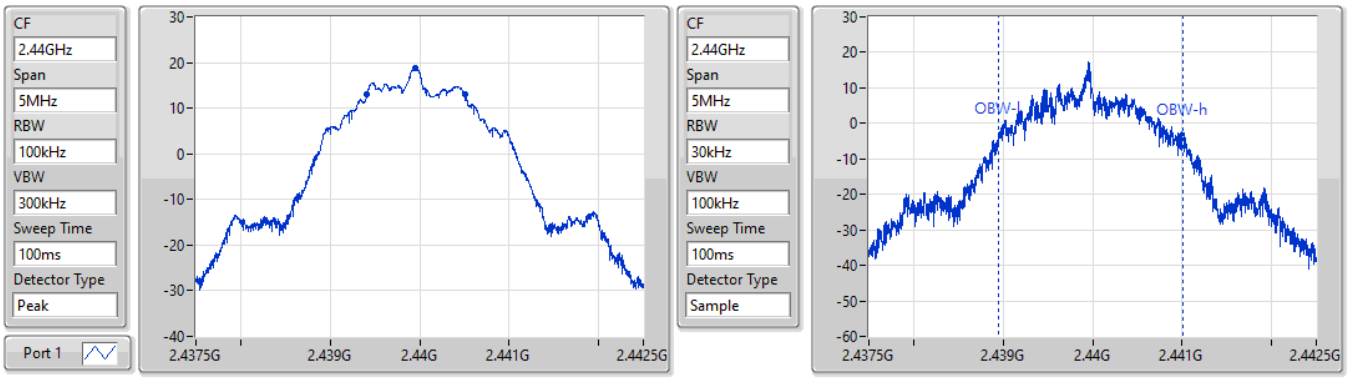


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.09M	2.401415G	2.402505G	2.054M	2.400951G	2.403004G	500k	1

BT-LE(2Mbps) **EBW-DTS**

2440MHz

09/04/2022

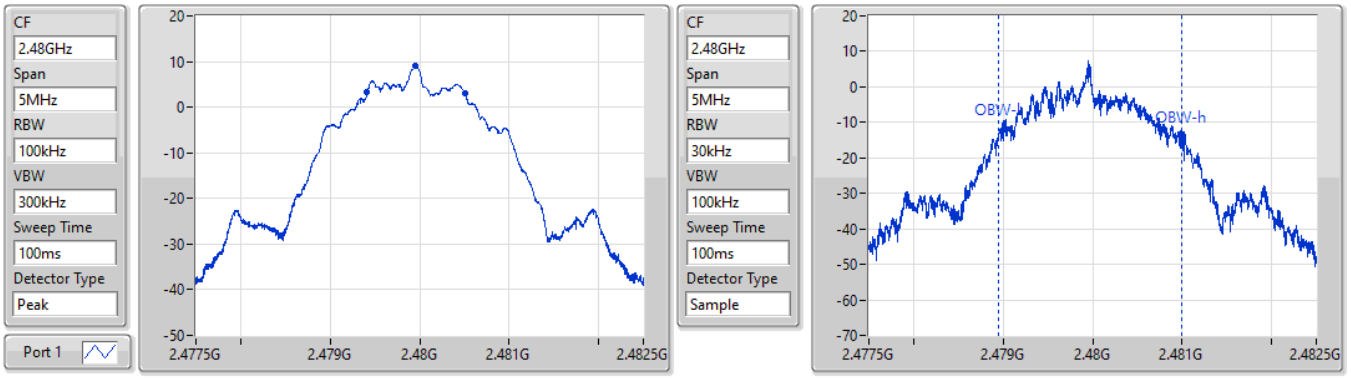


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.088M	2.439415G	2.440503G	2.054M	2.438953G	2.441007G	500k	1

BT-LE(2Mbps) **EBW-DTS**

2480MHz

09/04/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.088M	2.479415G	2.480503G	2.049M	2.478948G	2.480997G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.23	0.08375
BT-LE(2Mbps)	19.13	0.08185

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.40	19.23	30.00
2440MHz	Pass	4.40	19.11	30.00
2478MHz	Pass	4.40	19.04	30.00
2480MHz	Pass	4.40	13.01	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.40	19.13	30.00
2440MHz	Pass	4.40	18.99	30.00
2478MHz	Pass	4.40	5.84	30.00
2480MHz	Pass	4.40	9.03	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	3.89
BT-LE(2Mbps)	3.07

RBW = 3kHz;

Result

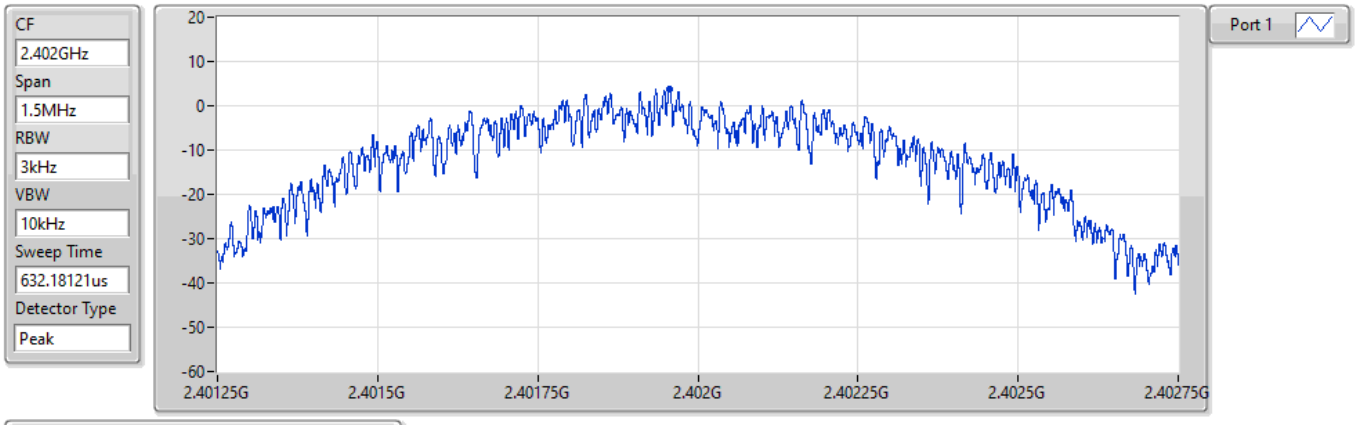
Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.40	3.89	8.00
2440MHz	Pass	4.40	3.75	8.00
2480MHz	Pass	4.40	-2.61	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.40	2.86	8.00
2440MHz	Pass	4.40	3.07	8.00
2480MHz	Pass	4.40	-6.54	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

BT-LE(1Mbps) PSD

2402MHz

09/04/2022

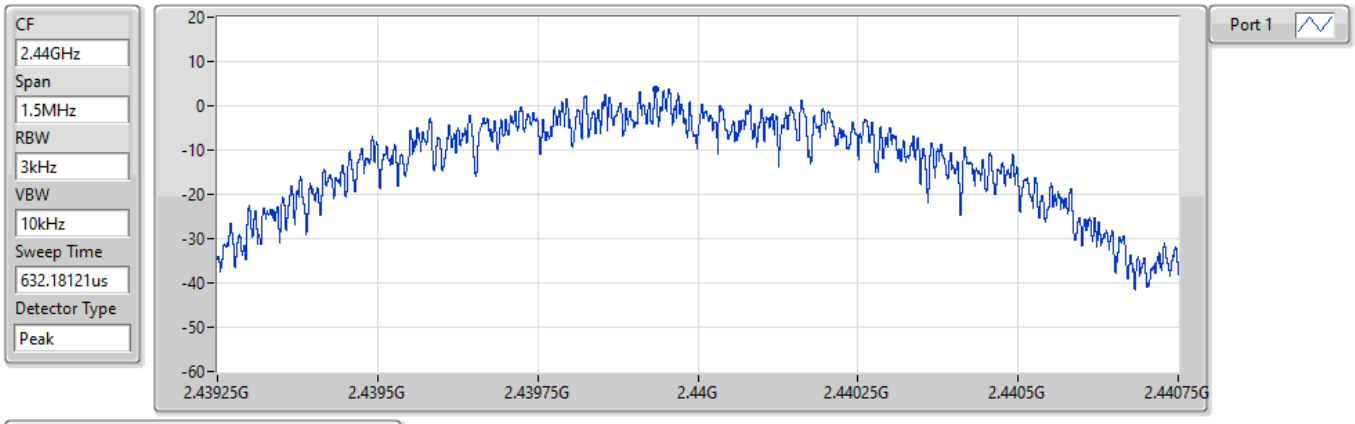


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.89	3.89	3.89

BT-LE(1Mbps) PSD

2440MHz

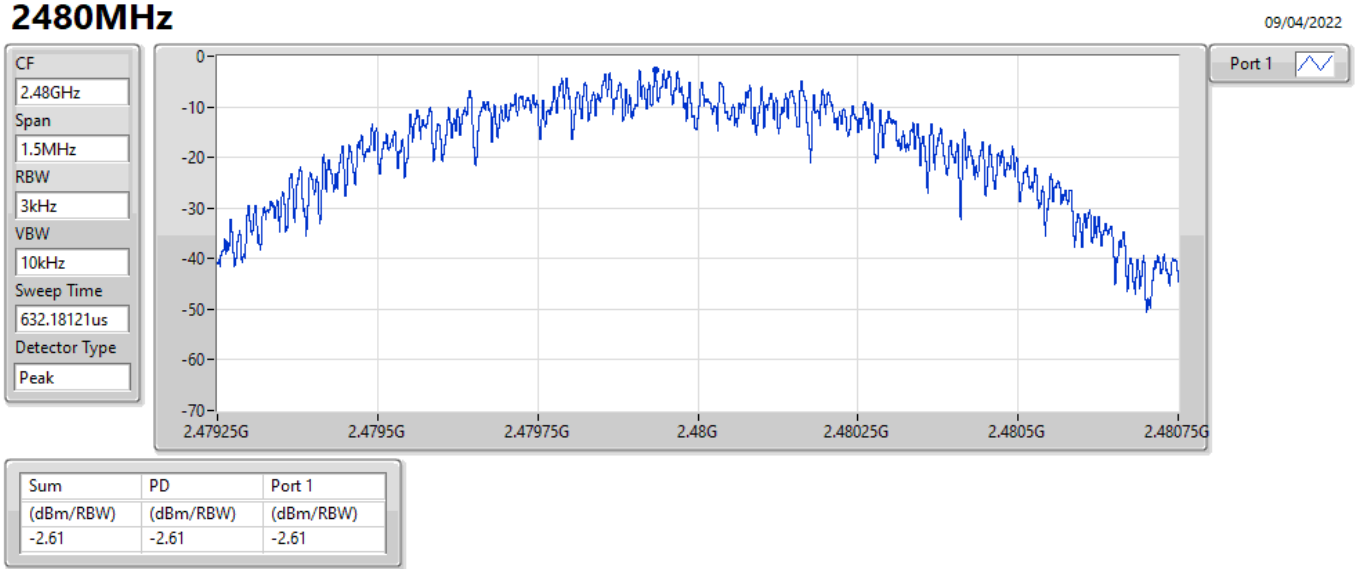
09/04/2022



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.75	3.75	3.75

BT-LE(1Mbps) PSD

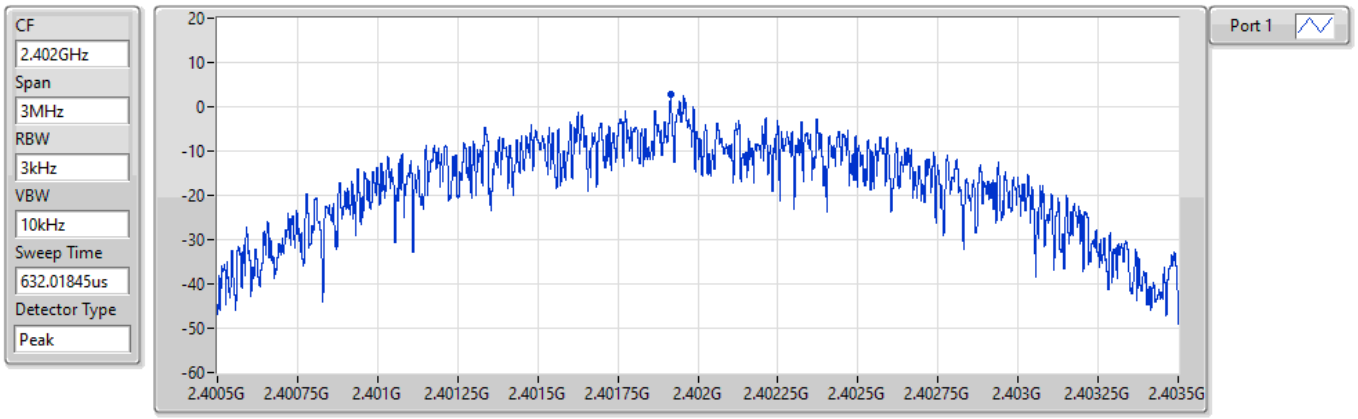
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.61	-2.61	-2.61

BT-LE(2Mbps) PSD

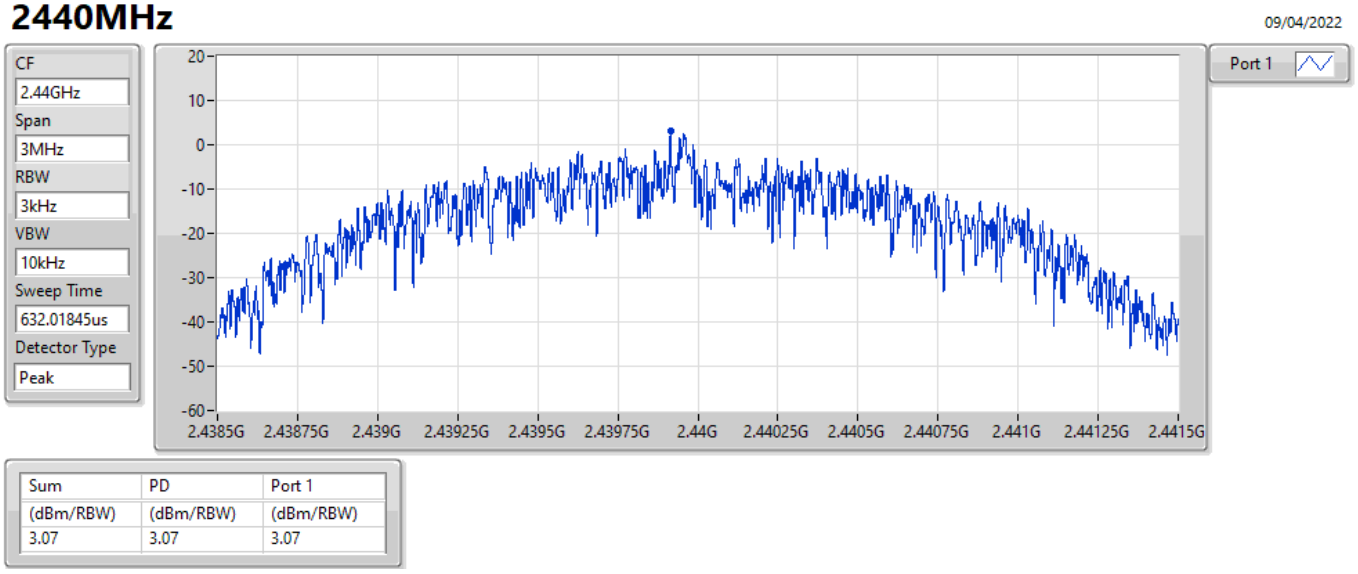
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.86	2.86	2.86

BT-LE(2Mbps) PSD

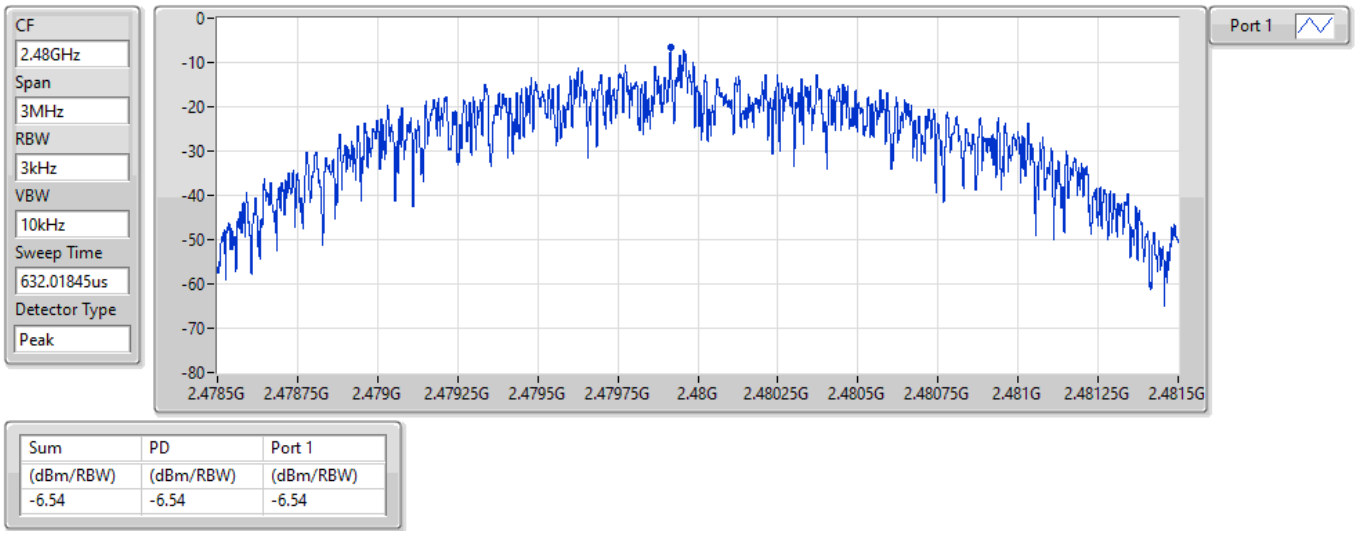
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.07	3.07	3.07

BT-LE(2Mbps) PSD

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.54	-6.54	-6.54

Summary

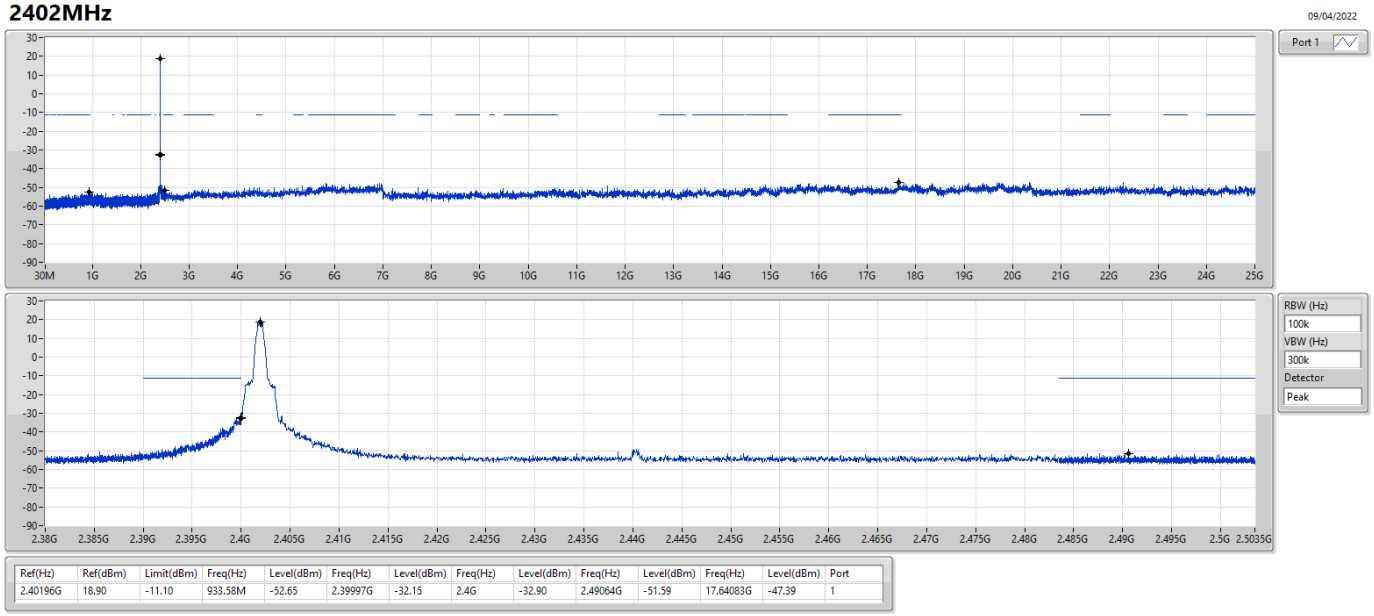
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40196G	18.90	-11.10	933.58M	-52.65	2.39997G	-32.15	2.4G	-32.90	2.49064G	-51.59	17.64083G	-47.39	1
BT-LE(2Mbps)	Pass	2.40192G	19.05	-10.95	925.06M	-53.48	2.39997G	-13.66	2.4G	-15.27	2.49594G	-51.79	16.29104G	-47.87	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-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40196G	18.90	-11.10	933.58M	-52.65	2.39997G	-32.15	2.4G	-32.90	2.49064G	-51.59	17.64083G	-47.39	1
2440MHz	Pass	2.40196G	18.90	-11.10	838.69M	-53.10	2.39687G	-51.34	2.4835G	-54.10	2.49354G	-51.06	16.42321G	-47.91	1
2480MHz	Pass	2.40196G	18.90	-11.10	2.13795G	-52.16	2.39835G	-52.52	2.4835G	-45.19	2.48352G	-45.42	16.46258G	-46.91	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40192G	19.05	-10.95	925.06M	-53.48	2.39997G	-13.66	2.4G	-15.27	2.49594G	-51.79	16.29104G	-47.87	1
2440MHz	Pass	2.40192G	19.05	-10.95	1.82334G	-52.28	2.39241G	-51.61	2.4G	-55.71	2.50061G	-52.06	17.01937G	-48.15	1
2480MHz	Pass	2.40192G	19.05	-10.95	2.07127G	-52.96	2.39214G	-52.23	2.4835G	-45.88	2.48382G	-46.26	16.74097G	-48.32	1

BT-LE(1Mbps) **CSENdB-DTS**

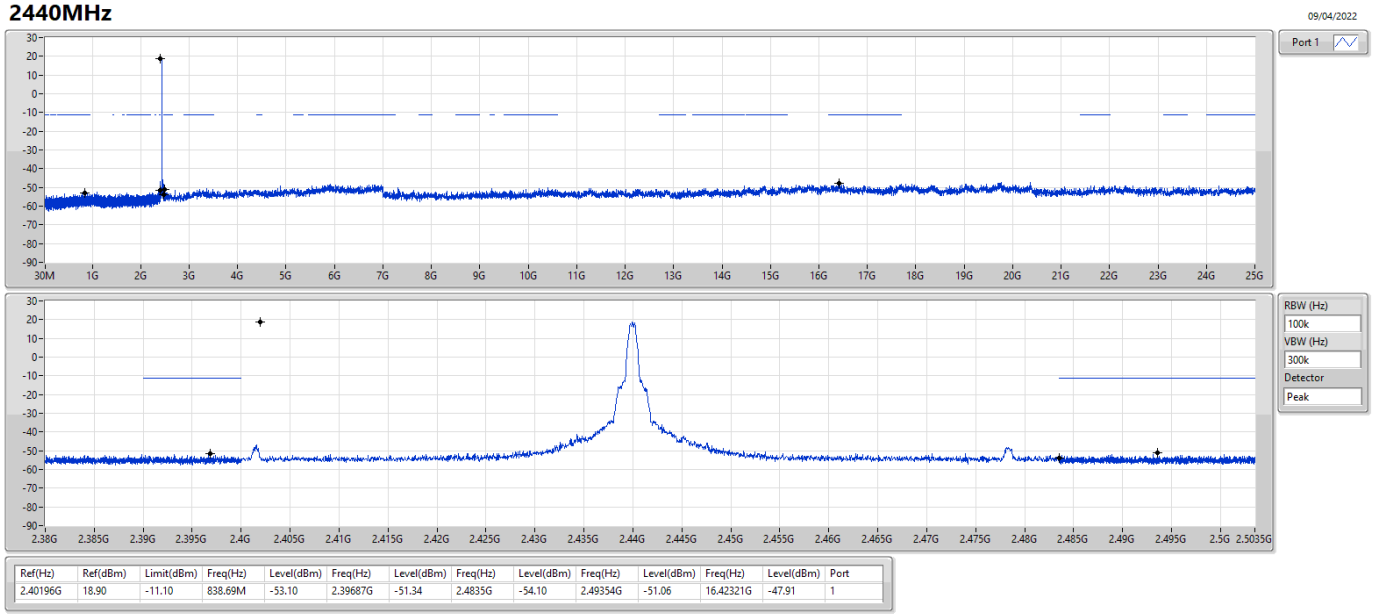
2402MHz



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
2.40196G	18.90	-11.10	933.58M	-52.65	2.39997G	-32.15	2.4G	-32.90	2.49064G	-51.59	17.64083G	-47.39	1

BT-LE(1Mbps) **CSENdB-DTS**

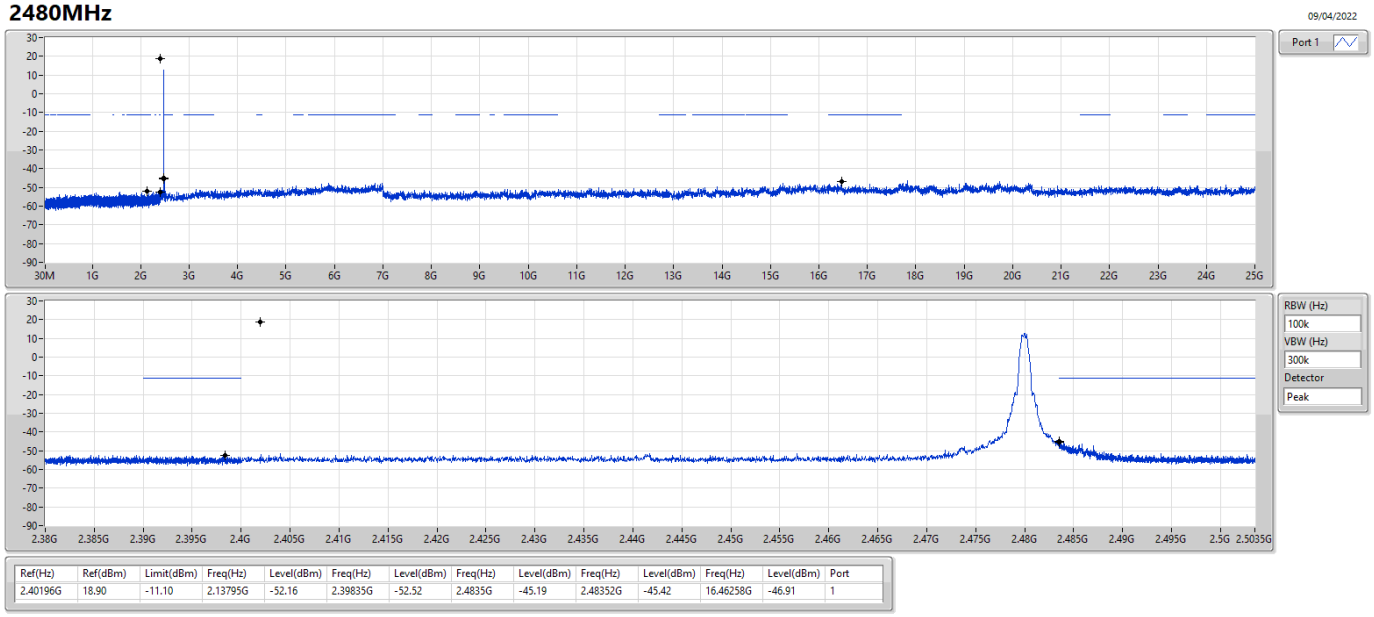
2440MHz



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
2.40196G	18.90	-11.10	838.69M	-53.10	2.39687G	-51.34	2.4835G	-54.10	2.49354G	-51.06	16.42321G	-47.91	1

BT-LE(1Mbps) **CSENdB-DTS**

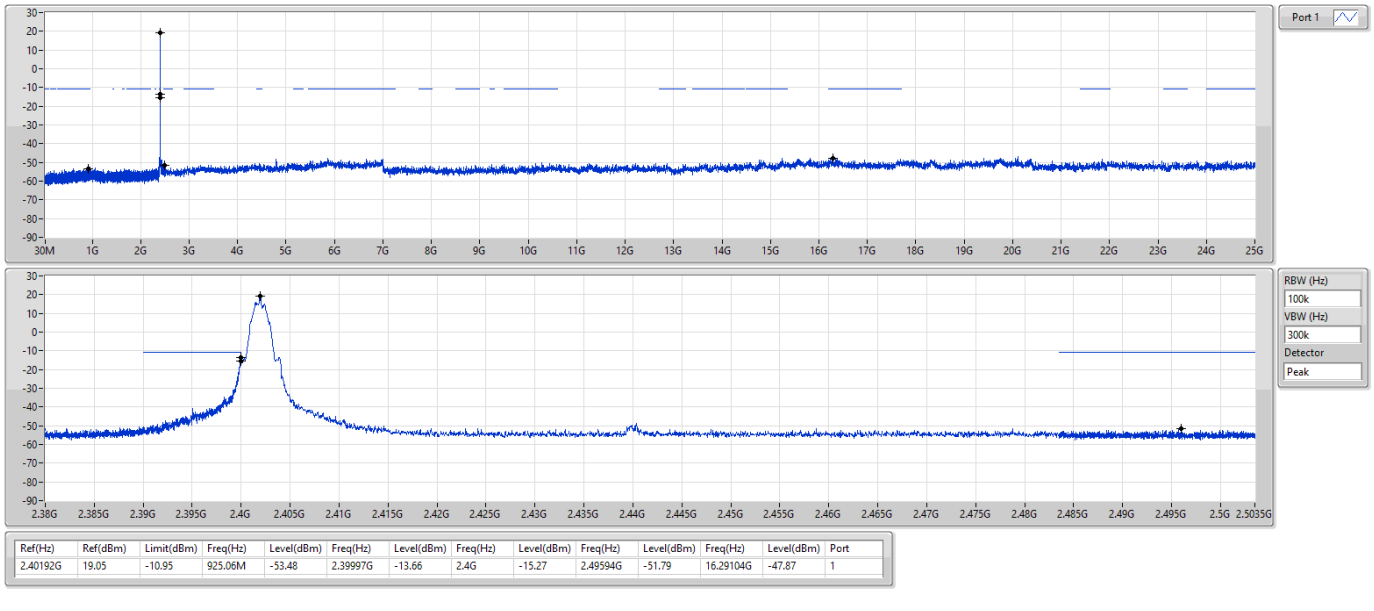
2480MHz



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
2.40196G	18.90	-11.10	2.13795G	-52.16	2.39835G	-52.52	2.4835G	-45.19	2.48352G	-45.42	16.46258G	-46.91	1

BT-LE(2Mbps) **CSENdB-DTS**

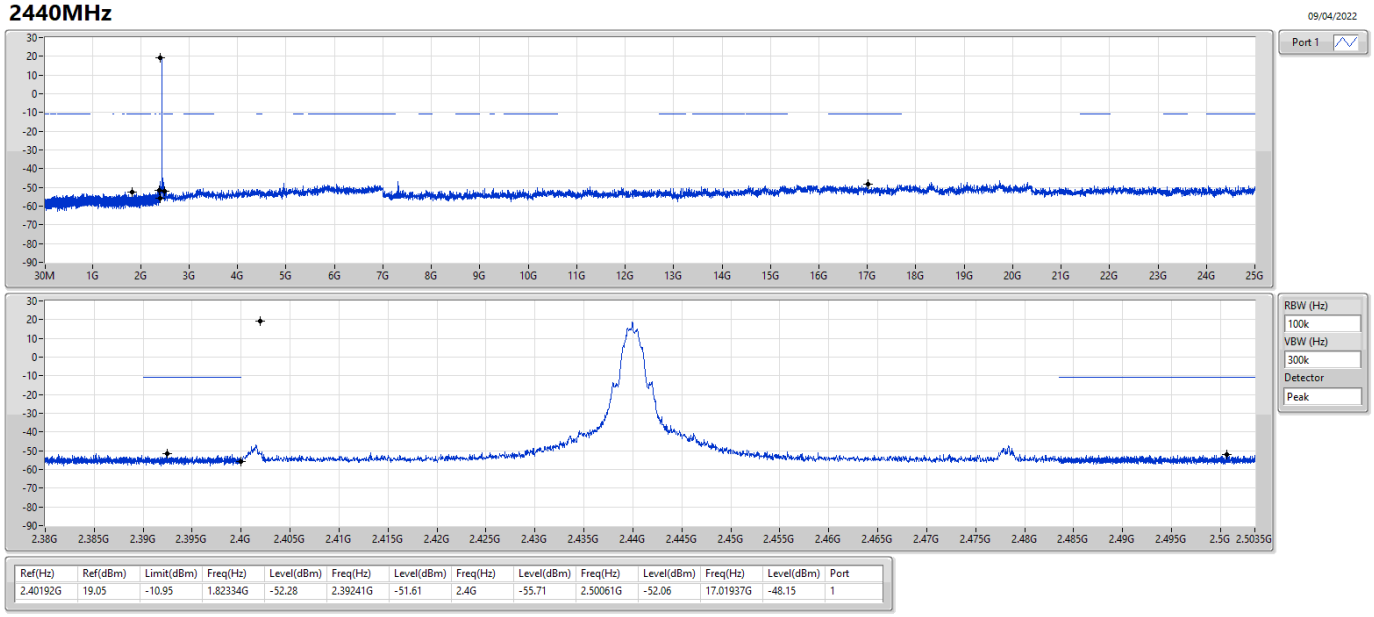
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40192G	19.05	-10.95	925.06M	-53.48	2.39997G	-13.66	2.4G	-15.27	2.49594G	-51.79	16.29104G	-47.87	1

BT-LE(2Mbps) **CSENdB-DTS**

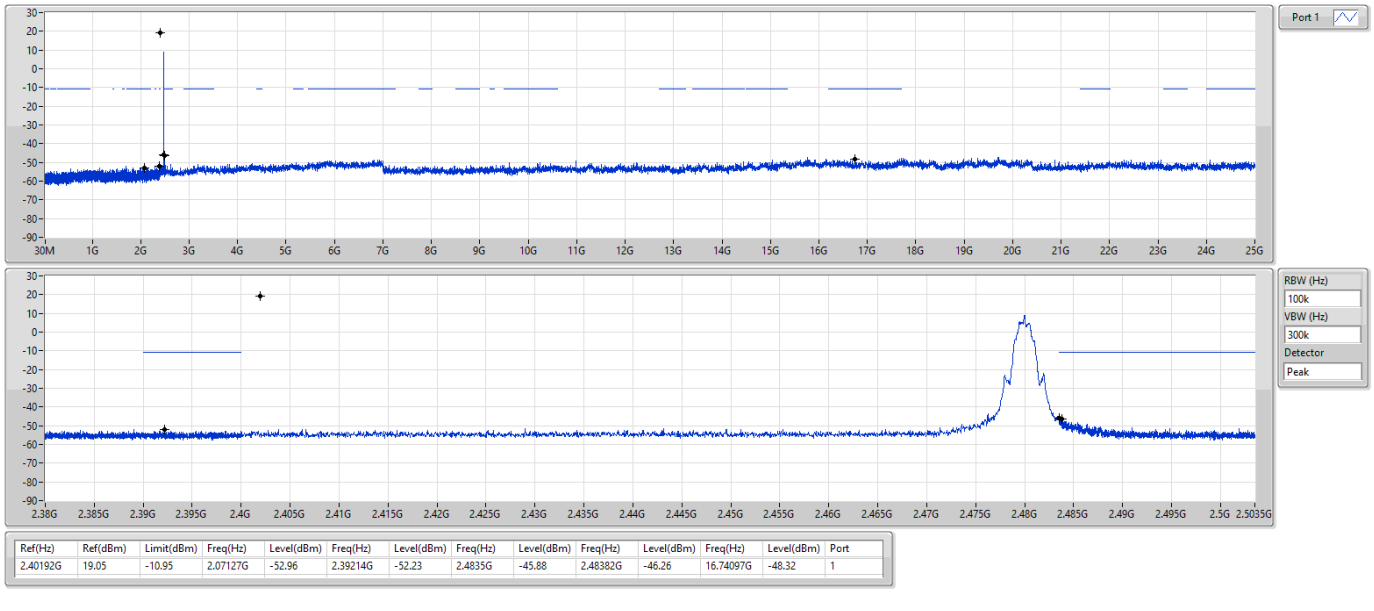
2440MHz



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
2.40192G	19.05	-10.95	1.82334G	-52.28	2.39241G	-51.61	2.4G	-55.71	2.50061G	-52.06	17.01937G	-48.15	1

BT-LE(2Mbps) **CSENdB-DTS**

2480MHz

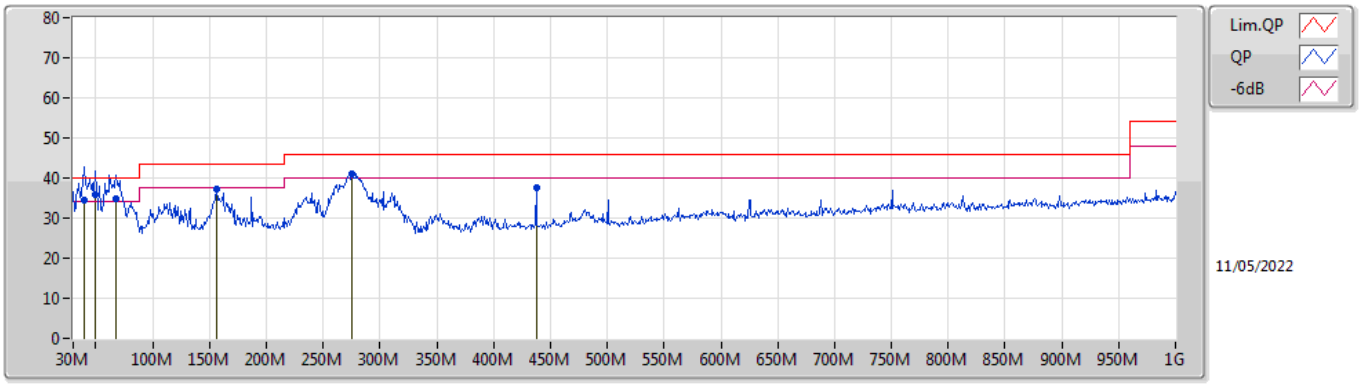


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40192G	19.05	-10.95	2.07127G	-52.96	2.39214G	-52.23	2.4835G	-45.88	2.48382G	-46.26	16.74097G	-48.32	1

Summary

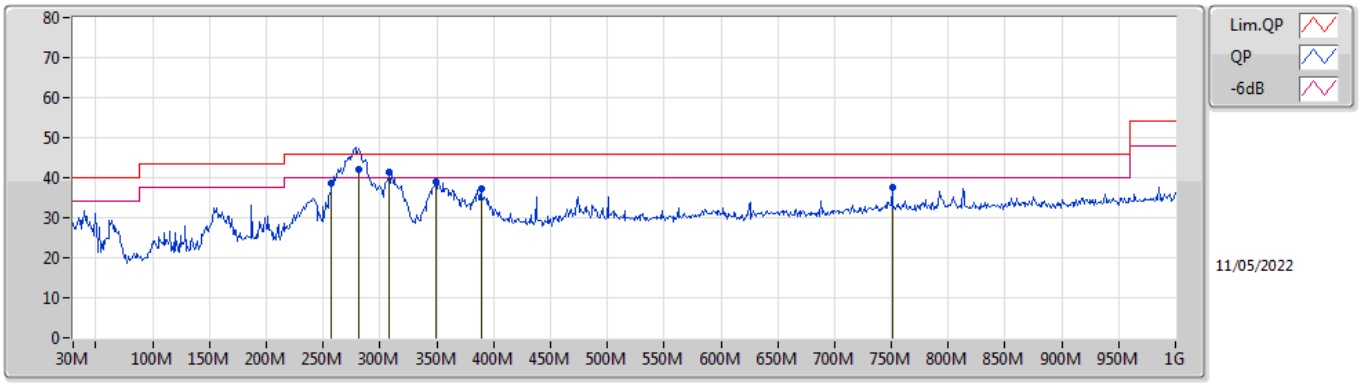
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 6	Pass	QP	281.23M	41.98	46.00	-4.02	Horizontal

Mode 6



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	39.7M	34.62	40.00	-5.38	-11.37	3	Vertical	225	1.00	-	45.99	19.29	1.80	32.46
QP	49.4M	35.95	40.00	-4.05	-16.10	3	Vertical	285	1.00	"Worst"	52.05	14.59	1.80	32.49
QP	67.83M	34.84	40.00	-5.16	-17.99	3	Vertical	214	1.25	-	52.83	12.34	2.10	32.43
PK	156.1M	37.08	43.50	-6.42	-13.42	3	Vertical	240	1.25	-	50.50	16.19	2.76	32.37
PK	275.41M	40.97	46.00	-5.03	-10.17	3	Vertical	0	1.50	-	51.14	18.57	3.60	32.34
PK	437.4M	37.46	46.00	-8.54	-5.33	3	Vertical	233	1.25	-	42.79	22.32	4.55	32.20

Mode 6



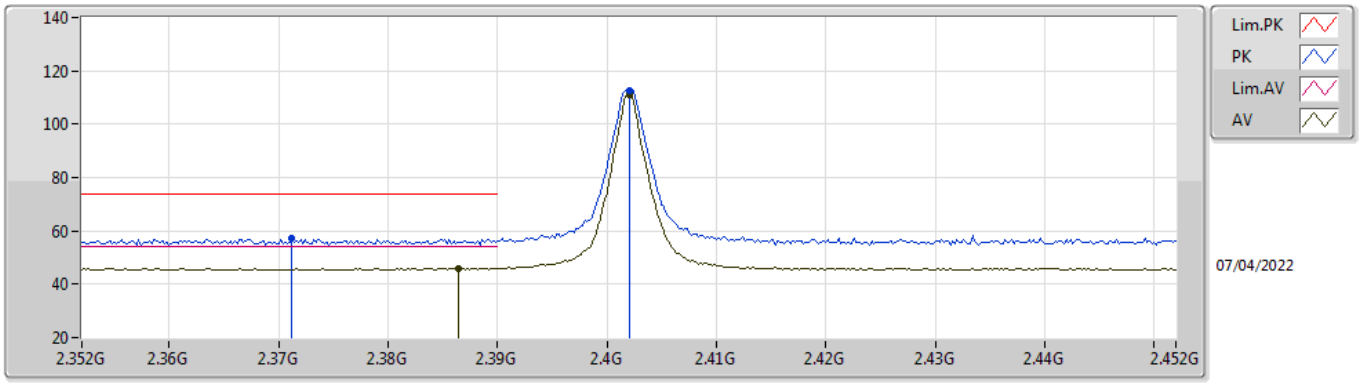
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	256.98M	38.78	46.00	-7.22	-9.59	3	Horizontal	271	1.00	-	48.37	19.26	3.46	32.31
QP	281.23M	41.98	46.00	-4.02	-10.05	3	Horizontal	289	1.00	"Worst"	52.03	18.64	3.65	32.34
PK	308.39M	41.29	46.00	-4.71	-9.33	3	Horizontal	278	1.25	-	50.62	19.18	3.82	32.33
PK	349.13M	38.84	46.00	-7.16	-8.16	3	Horizontal	184	1.25	-	47.00	20.10	3.90	32.16
PK	388.9M	37.25	46.00	-8.75	-6.93	3	Horizontal	203	1.00	-	44.18	21.09	4.29	32.31
PK	750.71M	37.51	46.00	-8.49	-0.64	3	Horizontal	232	1.25	-	38.15	25.54	5.80	31.98

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-LE(1Mbps)	Pass	AV	2.4835G	53.95	54.00	-0.05	3	Horizontal	28	1.80	-

BT-LE(1Mbps)

2402MHz_TX

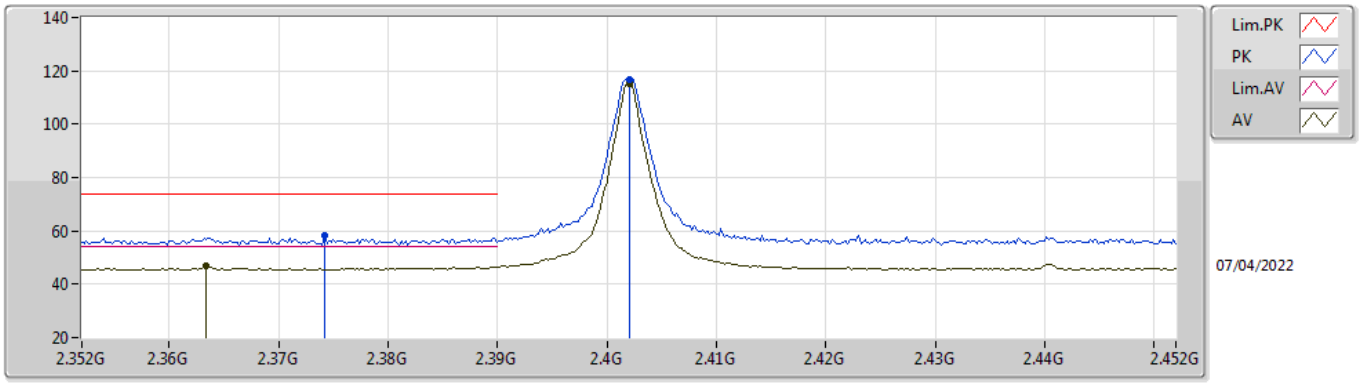


EUT X_1TX
Setting 200
03-C-E-2

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	2.3712G	57.14	74.00	-16.86	24.59	3	Vertical	9	1.16	-	28.18	4.37	-
AV	2.3864G	46.00	54.00	-8.00	13.36	3	Vertical	9	1.16	-	28.25	4.39	-
PK	2.402G	112.58	Inf	-Inf	79.88	3	Vertical	9	1.16	-	28.30	4.40	-
AV	2.402G	111.22	Inf	-Inf	78.52	3	Vertical	9	1.16	-	28.30	4.40	-

BT-LE(1Mbps)

2402MHz_TX

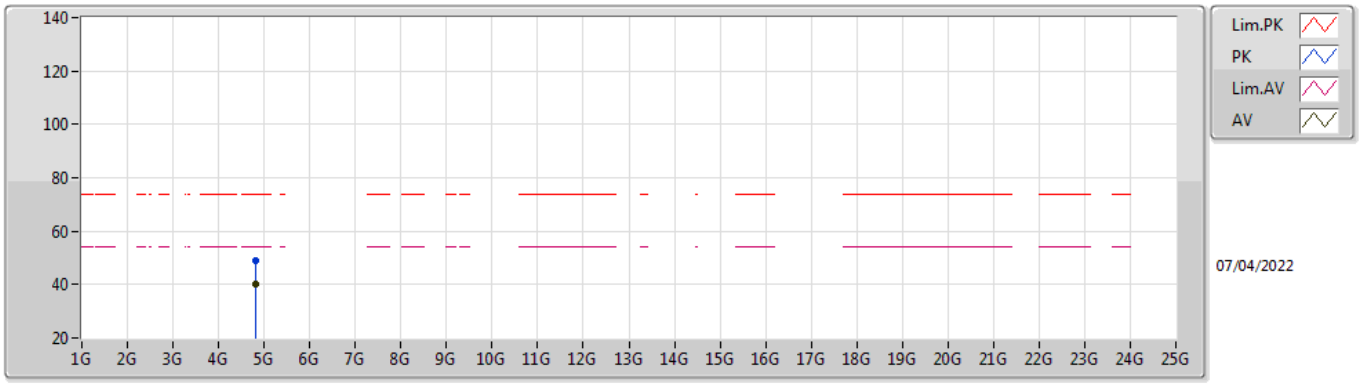


EUT X_1TX
Setting 200
03-C-E-2

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	2.3742G	58.16	74.00	-15.84	25.59	3	Horizontal	36	1.80	-	28.20	4.37	-
AV	2.3634G	46.68	54.00	-7.32	14.17	3	Horizontal	36	1.80	-	28.15	4.36	-
PK	2.402G	116.69	Inf	-Inf	83.99	3	Horizontal	36	1.80	-	28.30	4.40	-
AV	2.402G	115.29	Inf	-Inf	82.59	3	Horizontal	36	1.80	-	28.30	4.40	-

BT-LE(1Mbps)

2402MHz_TX

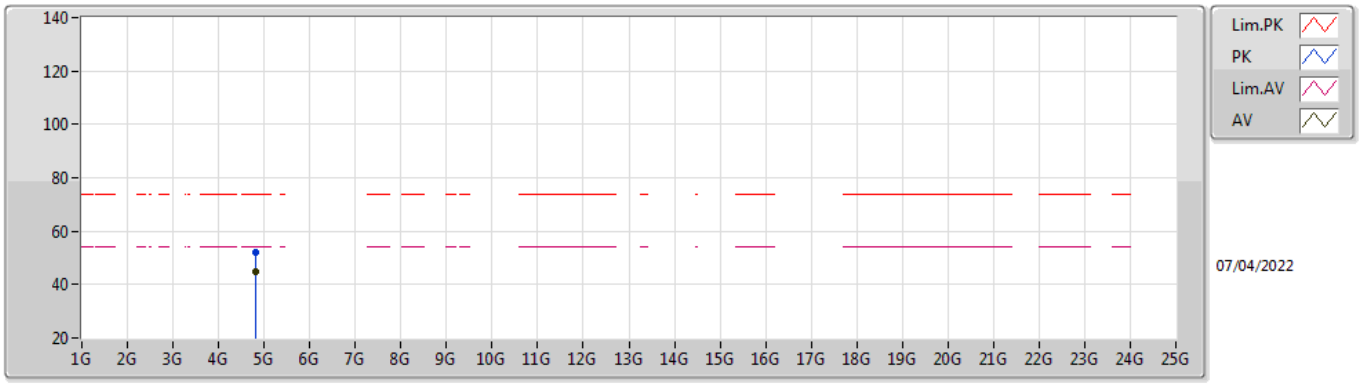


EUT X_1TX
Setting 200
03-C-E-2

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	4.80442G	49.16	74.00	-24.84	44.26	3	Vertical	279	2.63	-	33.23	7.10	35.43
AV	4.80382G	40.02	54.00	-13.98	35.13	3	Vertical	279	2.63	-	33.22	7.10	35.43

BT-LE(1Mbps)

2402MHz_TX

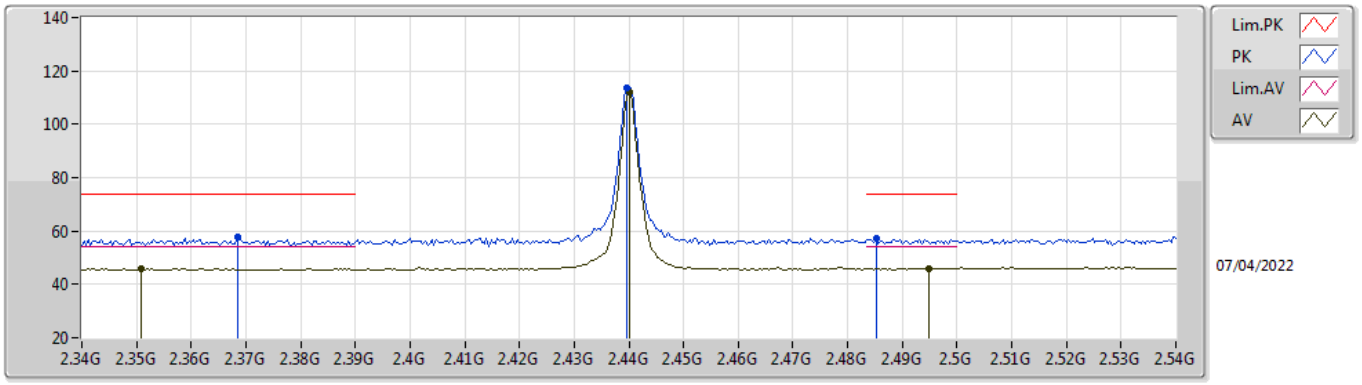


EUT X_1TX
Setting 200
03-C-E-2

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	4.80436G	51.85	74.00	-22.15	46.95	3	Horizontal	327	1.58	-	33.23	7.10	35.43
AV	4.80382G	44.59	54.00	-9.41	39.70	3	Horizontal	327	1.58	-	33.22	7.10	35.43

BT-LE(1Mbps)

2440MHz_TX

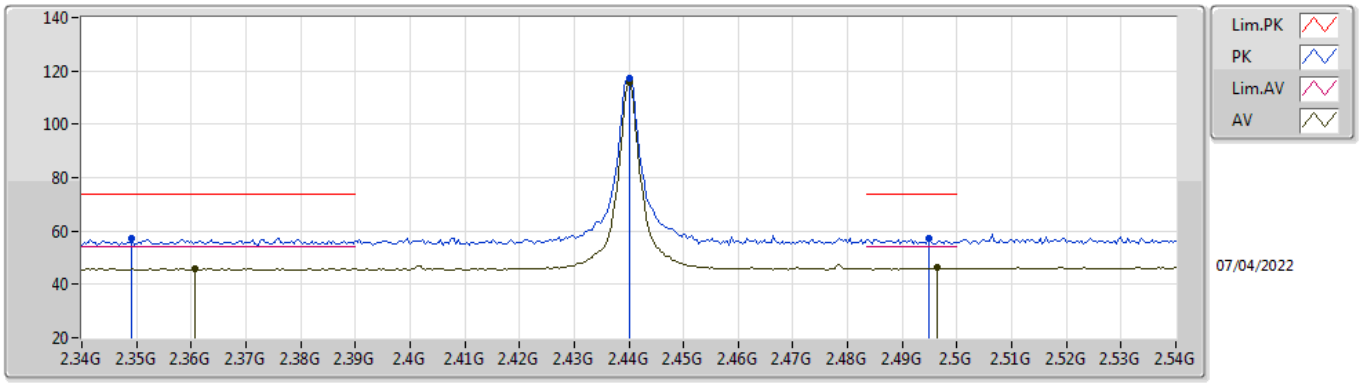


EUT X_1TX
Setting 200
03-C-E-2

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	2.3684G	57.76	74.00	-16.24	25.22	3	Vertical	29	1.26	-	28.17	4.37	-
AV	2.3508G	45.81	54.00	-8.19	13.36	3	Vertical	29	1.26	-	28.10	4.35	-
PK	2.4396G	113.42	Inf	-Inf	80.70	3	Vertical	29	1.26	-	28.30	4.42	-
AV	2.44G	112.06	Inf	-Inf	79.34	3	Vertical	29	1.26	-	28.30	4.42	-
PK	2.4852G	57.17	74.00	-16.83	24.29	3	Vertical	29	1.26	-	28.44	4.44	-
AV	2.4948G	46.09	54.00	-7.91	13.16	3	Vertical	29	1.26	-	28.48	4.45	-

BT-LE(1Mbps)

2440MHz_TX

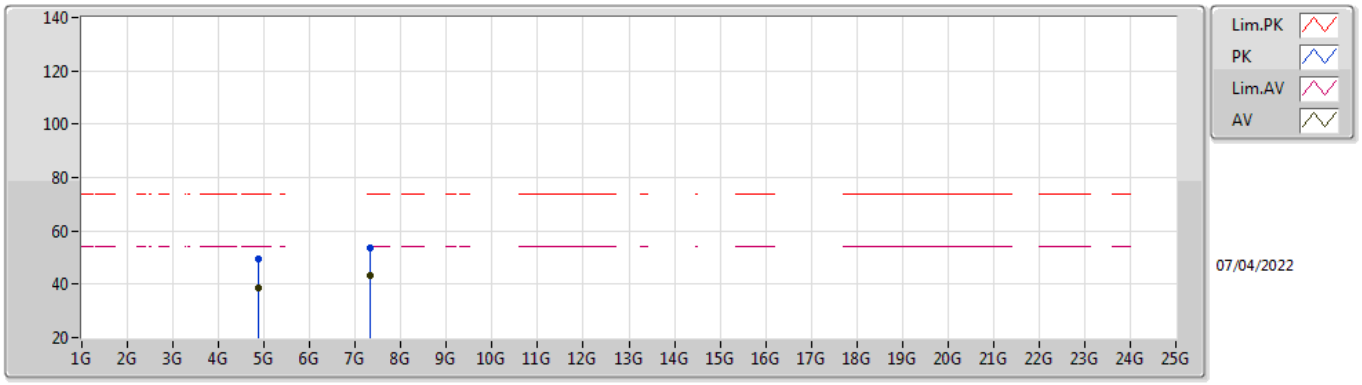


EUT X_1TX
Setting 200
03-C-E-2

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	2.3492G	57.25	74.00	-16.75	24.80	3	Horizontal	24	2.41	-	28.10	4.35	-
AV	2.3608G	45.98	54.00	-8.02	13.48	3	Horizontal	24	2.41	-	28.14	4.36	-
PK	2.44G	117.27	Inf	-Inf	84.55	3	Horizontal	24	2.41	-	28.30	4.42	-
AV	2.44G	115.75	Inf	-Inf	83.03	3	Horizontal	24	2.41	-	28.30	4.42	-
PK	2.4948G	57.26	74.00	-16.74	24.33	3	Horizontal	24	2.41	-	28.48	4.45	-
AV	2.4964G	46.18	54.00	-7.82	13.24	3	Horizontal	24	2.41	-	28.49	4.45	-

BT-LE(1Mbps)

2440MHz_TX

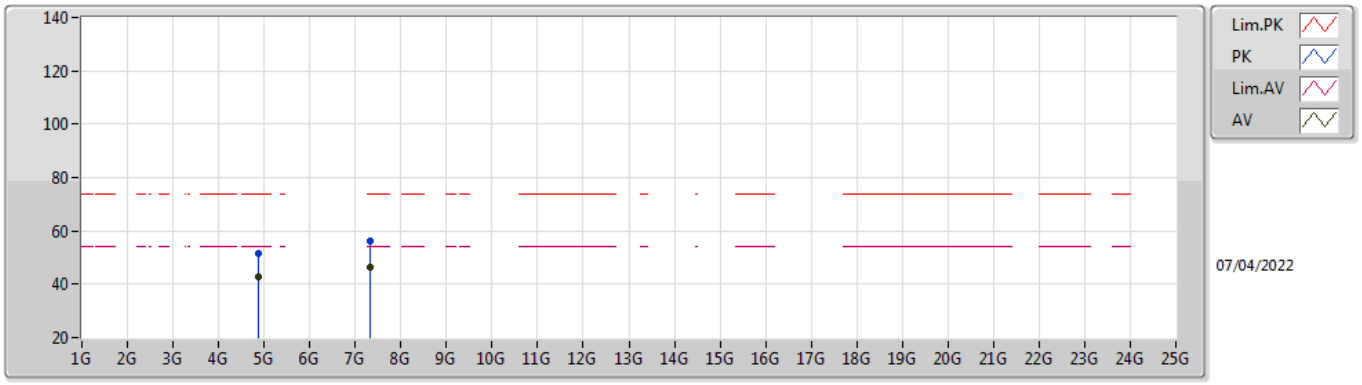


EUT X_1TX
Setting 200
03-C-E-2

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	4.88066G	49.70	74.00	-24.30	44.37	3	Vertical	268	3.00	-	33.62	7.10	35.39
AV	4.87958G	38.78	54.00	-15.22	33.45	3	Vertical	268	3.00	-	33.62	7.10	35.39
PK	7.32012G	53.86	74.00	-20.14	44.05	3	Vertical	76	1.80	-	36.94	8.44	35.57
AV	7.31922G	43.26	54.00	-10.74	33.45	3	Vertical	76	1.80	-	36.94	8.44	35.57

BT-LE(1Mbps)

2440MHz_TX

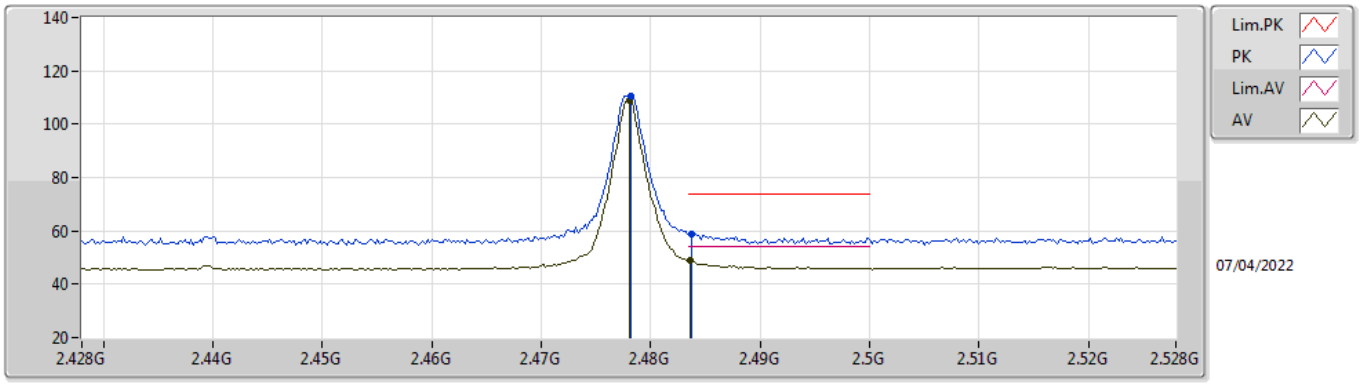


EUT X_1TX
Setting 200
03-C-E-2

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	4.87916G	51.57	74.00	-22.43	46.24	3	Horizontal	332	1.54	-	33.62	7.10	35.39
AV	4.8797G	43.00	54.00	-11.00	37.67	3	Horizontal	332	1.54	-	33.62	7.10	35.39
PK	7.31916G	55.99	74.00	-18.01	46.18	3	Horizontal	79	1.62	-	36.94	8.44	35.57
AV	7.31928G	46.42	54.00	-7.58	36.61	3	Horizontal	79	1.62	-	36.94	8.44	35.57

BT-LE(1Mbps)

2478MHz_TX

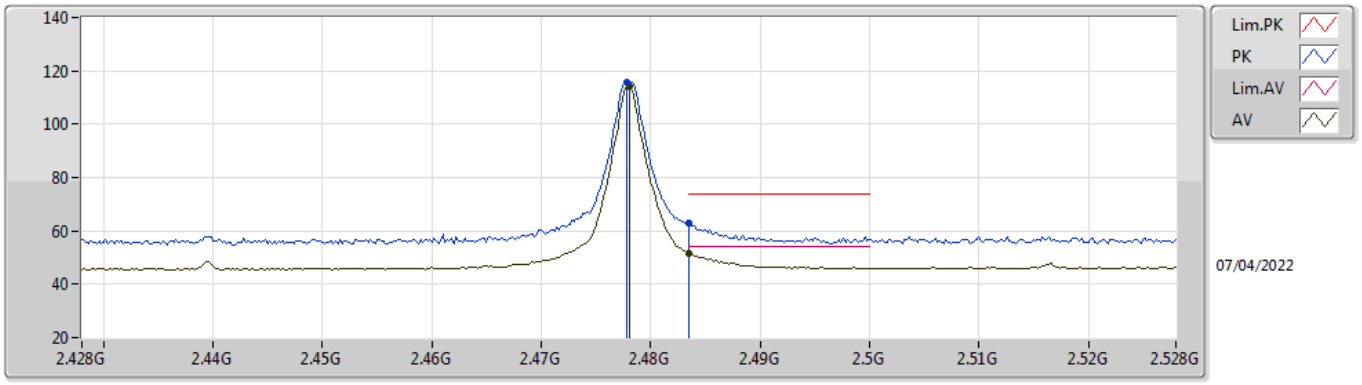


EUT X_1TX
Setting 200
03-C-E-2

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	2.4782G	110.53	Inf	-Inf	77.68	3	Vertical	6	1.27	-	28.41	4.44	-	
AV	2.478G	109.02	Inf	-Inf	76.17	3	Vertical	6	1.27	-	28.41	4.44	-	
PK	2.4838G	58.85	74.00	-15.15	25.97	3	Vertical	6	1.27	-	28.44	4.44	-	
AV	2.4836G	48.72	54.00	-5.28	15.85	3	Vertical	6	1.27	-	28.43	4.44	-	

BT-LE(1Mbps)

2478MHz_TX

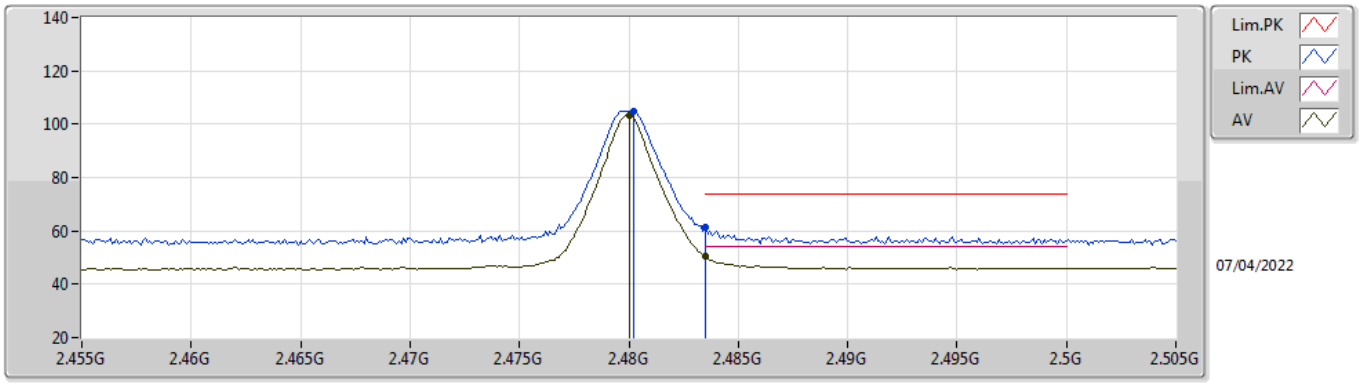


EUT X_1TX
Setting 200
03-C-E-2

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	2.4778G	115.67	Inf	-Inf	82.82	3	Horizontal	29	1.80	-	28.41	4.44	-
AV	2.478G	114.23	Inf	-Inf	81.38	3	Horizontal	29	1.80	-	28.41	4.44	-
PK	2.4835G	62.78	74.00	-11.22	29.91	3	Horizontal	29	1.80	-	28.43	4.44	-
AV	2.4835G	51.70	54.00	-2.30	18.83	3	Horizontal	29	1.80	-	28.43	4.44	-

BT-LE(1Mbps)

2480MHz_TX

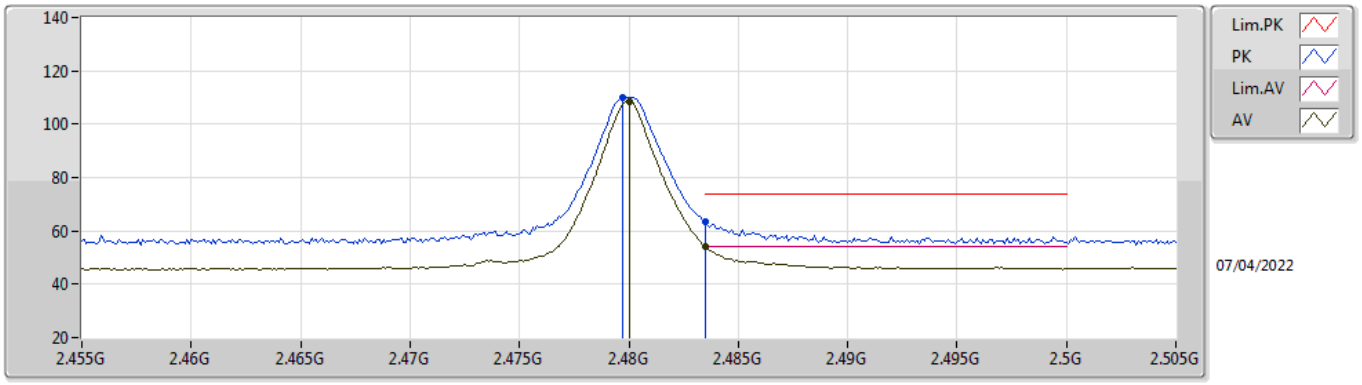


EUT X_1TX
Setting 125
03-C-E-2

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	104.84	Inf	-Inf	71.98	3	Vertical	6	1.29	-	28.42	4.44	-
AV	2.48G	103.53	Inf	-Inf	70.67	3	Vertical	6	1.29	-	28.42	4.44	-
PK	2.4835G	61.58	74.00	-12.42	28.71	3	Vertical	6	1.29	-	28.43	4.44	-
AV	2.4835G	50.34	54.00	-3.66	17.47	3	Vertical	6	1.29	-	28.43	4.44	-

BT-LE(1Mbps)

2480MHz_TX

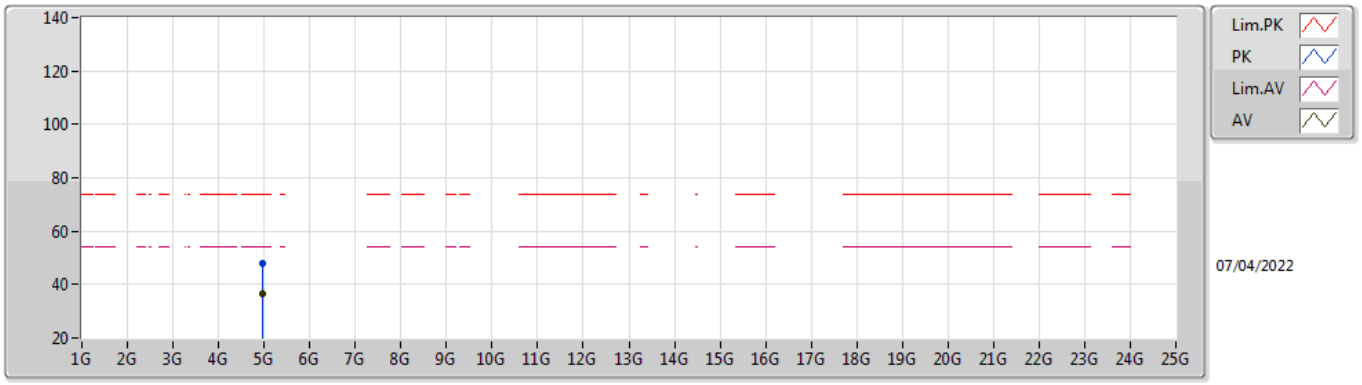


EUT X_1TX
Setting 125
03-C-E-2

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	2.4797G	109.89	Inf	-Inf	77.03	3	Horizontal	28	1.80	-	28.42	4.44	-
AV	2.48G	108.58	Inf	-Inf	75.72	3	Horizontal	28	1.80	-	28.42	4.44	-
PK	2.4835G	63.59	74.00	-10.41	30.72	3	Horizontal	28	1.80	-	28.43	4.44	-
AV	2.4835G	53.95	54.00	-0.05	21.08	3	Horizontal	28	1.80	-	28.43	4.44	-

BT-LE(1Mbps)

2480MHz_TX

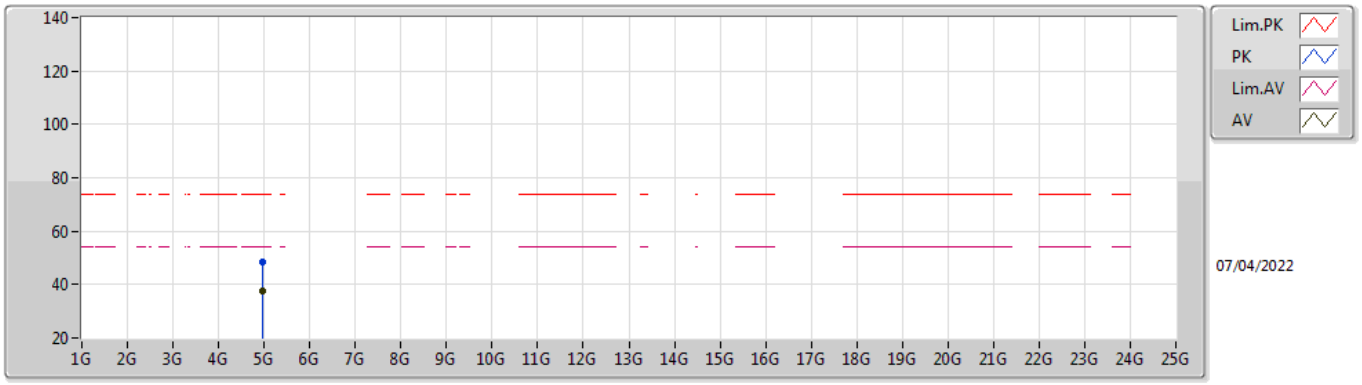


EUT X_1TX
Setting 125
03-C-E-2

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	4.96036G	47.90	74.00	-26.10	42.37	3	Vertical	311	2.47	-	33.78	7.10	35.35
AV	4.95988G	36.44	54.00	-17.56	30.91	3	Vertical	311	2.47	-	33.78	7.10	35.35

BT-LE(1Mbps)

2480MHz_TX

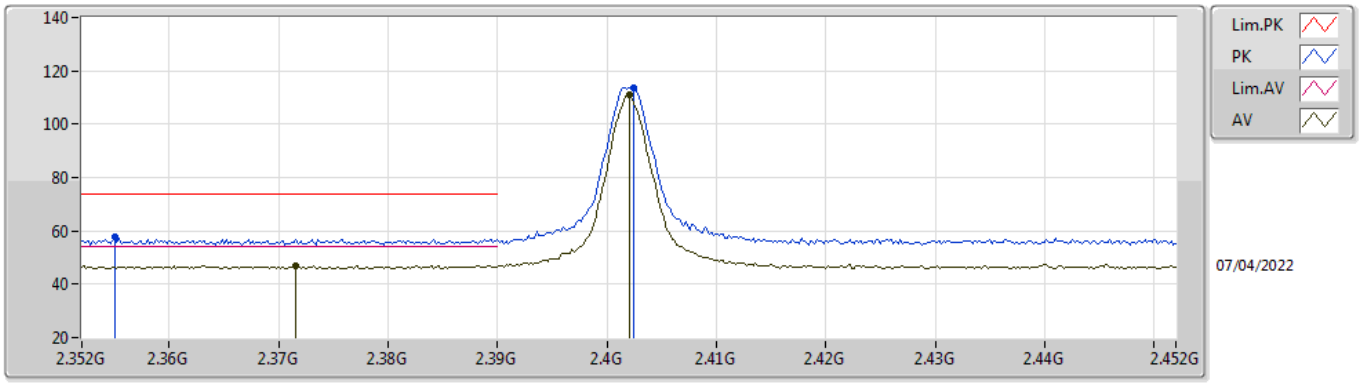


EUT X_1TX
Setting 125
03-C-E-2

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	4.97146G	48.29	74.00	-25.71	42.77	3	Horizontal	325	2.15	-	33.76	7.10	35.34
AV	4.96006G	37.57	54.00	-16.43	32.04	3	Horizontal	325	2.15	-	33.78	7.10	35.35

BT-LE(2Mbps)

2402MHz_TX

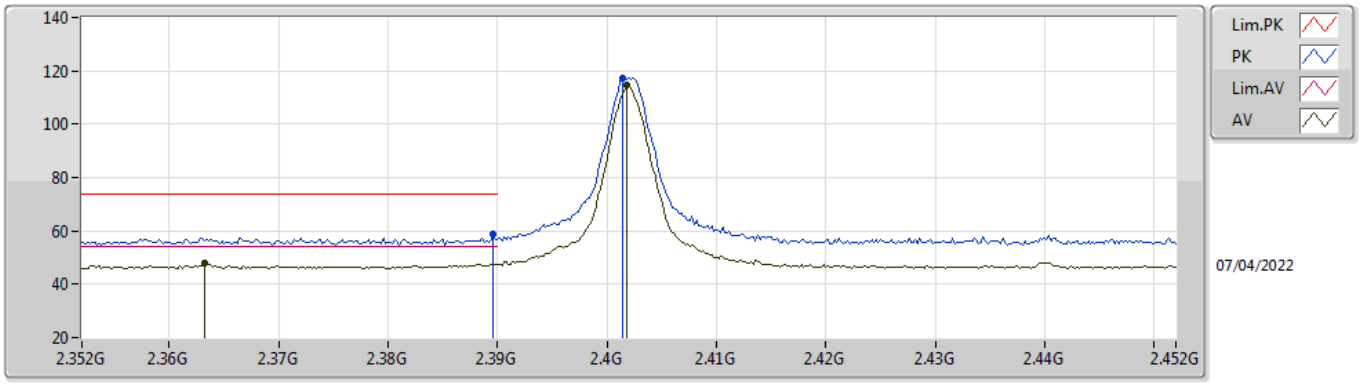


EUT X_1TX
Setting 200
03-C-E-2

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	2.355G	57.82	74.00	-16.18	25.34	3	Vertical	320	3.00	-	28.12	4.36	-
AV	2.3716G	47.08	54.00	-6.92	14.52	3	Vertical	320	3.00	-	28.19	4.37	-
PK	2.4024G	113.81	Inf	-Inf	81.11	3	Vertical	320	3.00	-	28.30	4.40	-
AV	2.402G	111.23	Inf	-Inf	78.53	3	Vertical	320	3.00	-	28.30	4.40	-

BT-LE(2Mbps)

2402MHz_TX

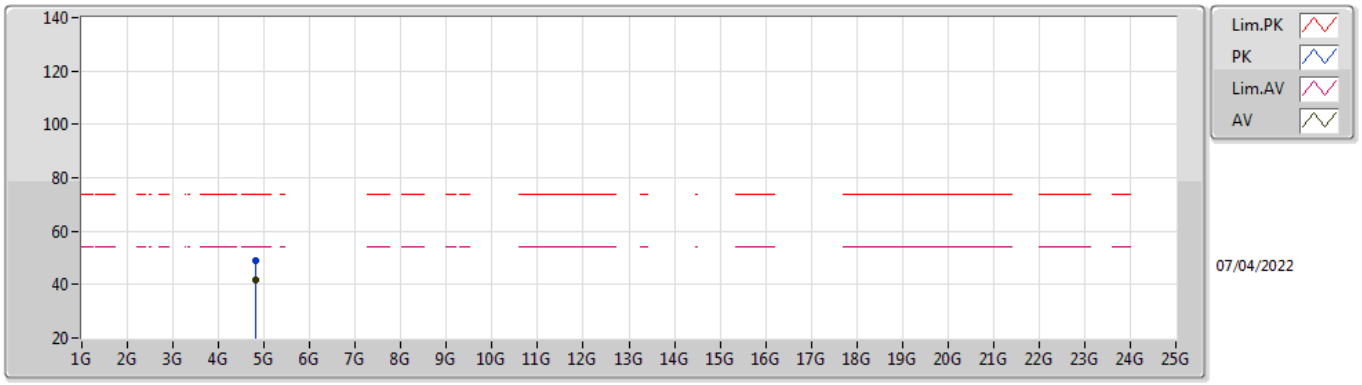


EUT X_1TX
Setting 200
03-C-E-2

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	58.59	74.00	-15.41	25.94	3	Horizontal	34	1.80	-	28.26	4.39	-
AV	2.3632G	47.98	54.00	-6.02	15.47	3	Horizontal	34	1.80	-	28.15	4.36	-
PK	2.4014G	117.15	Inf	-Inf	84.45	3	Horizontal	34	1.80	-	28.30	4.40	-
AV	2.4018G	114.52	Inf	-Inf	81.82	3	Horizontal	34	1.80	-	28.30	4.40	-

BT-LE(2Mbps)

2402MHz_TX

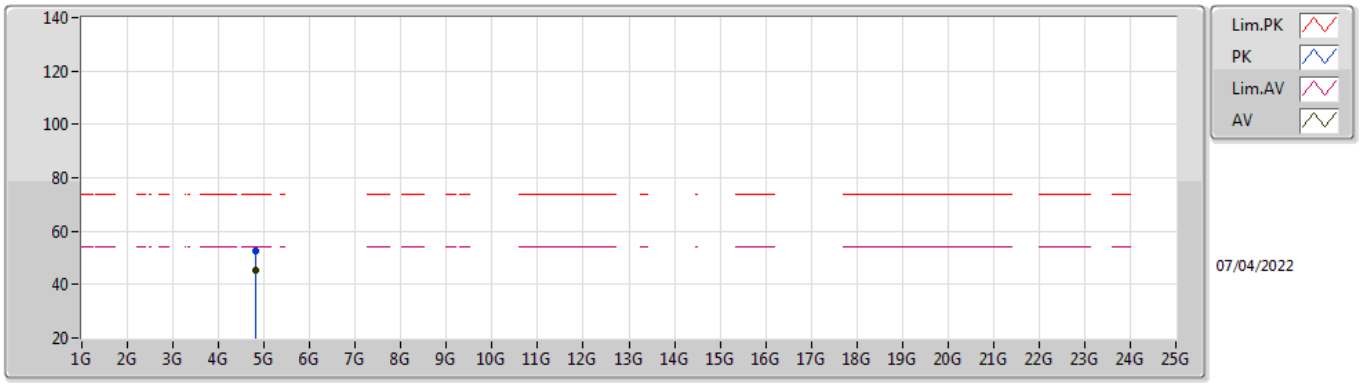


EUT X_1TX
Setting 200
03-C-E-2

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	4.80406G	49.22	74.00	-24.78	44.33	3	Vertical	260	2.78	-	33.22	7.10	35.43
AV	4.804G	41.65	54.00	-12.35	36.76	3	Vertical	260	2.78	-	33.22	7.10	35.43

BT-LE(2Mbps)

2402MHz_TX

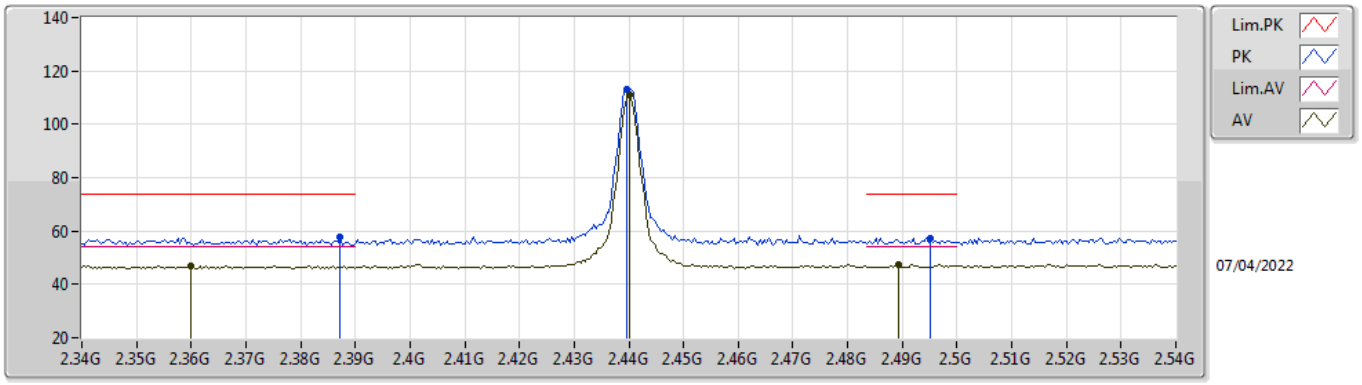


EUT X_1TX
Setting 200
03-C-E-2

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	4.80382G	52.34	74.00	-21.66	47.45	3	Horizontal	327	1.58	-	33.22	7.10	35.43
AV	4.80394G	45.47	54.00	-8.53	40.58	3	Horizontal	327	1.58	-	33.22	7.10	35.43

BT-LE(2Mbps)

2440MHz_TX

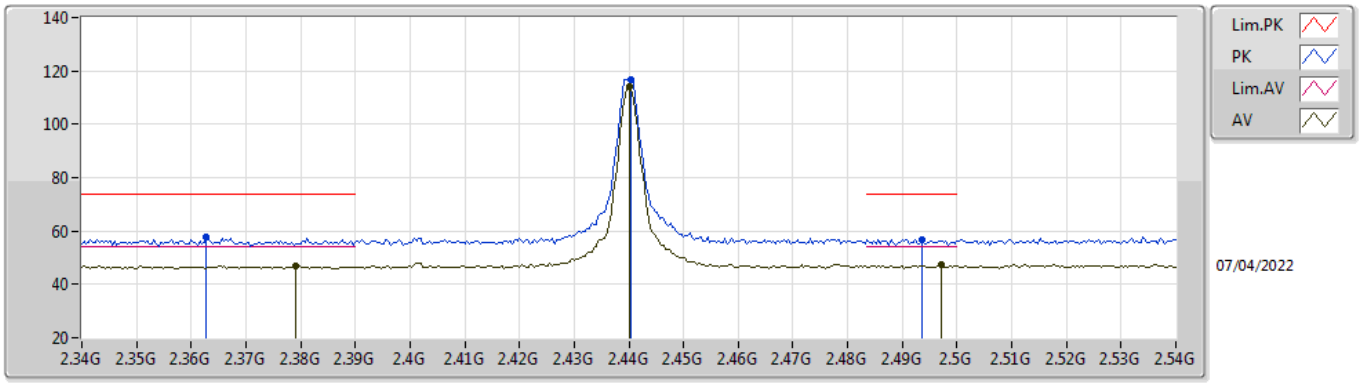


EUT X_1TX
Setting 200
03-C-E-2

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	2.3872G	57.64	74.00	-16.36	25.00	3	Vertical	28	1.29	-	28.25	4.39	-	
AV	2.36G	47.14	54.00	-6.86	14.64	3	Vertical	28	1.29	-	28.14	4.36	-	
PK	2.4396G	113.15	Inf	-Inf	80.43	3	Vertical	28	1.29	-	28.30	4.42	-	
AV	2.44G	110.97	Inf	-Inf	78.25	3	Vertical	28	1.29	-	28.30	4.42	-	
PK	2.4952G	57.38	74.00	-16.62	24.45	3	Vertical	28	1.29	-	28.48	4.45	-	
AV	2.4892G	47.21	54.00	-6.79	14.31	3	Vertical	28	1.29	-	28.46	4.44	-	

BT-LE(2Mbps)

2440MHz_TX

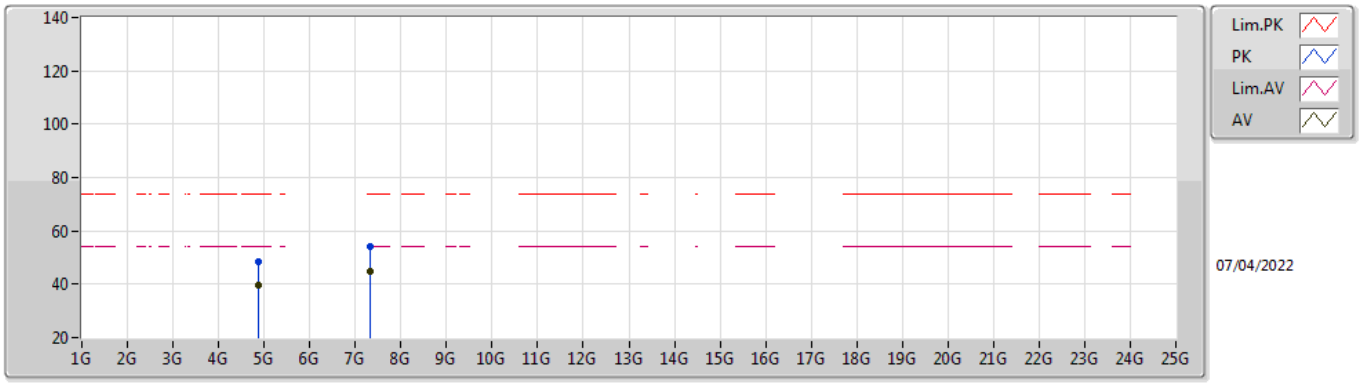


EUT X_1TX
Setting 200
03-C-E-2

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	2.3628G	57.68	74.00	-16.32	25.17	3	Horizontal	39	1.92	-	28.15	4.36	-
AV	2.3792G	46.89	54.00	-7.11	14.29	3	Horizontal	39	1.92	-	28.22	4.38	-
PK	2.4404G	116.97	Inf	-Inf	84.25	3	Horizontal	39	1.92	-	28.30	4.42	-
AV	2.44G	114.17	Inf	-Inf	81.45	3	Horizontal	39	1.92	-	28.30	4.42	-
PK	2.4936G	56.83	74.00	-17.17	23.91	3	Horizontal	39	1.92	-	28.47	4.45	-
AV	2.4972G	47.23	54.00	-6.77	14.29	3	Horizontal	39	1.92	-	28.49	4.45	-

BT-LE(2Mbps)

2440MHz_TX

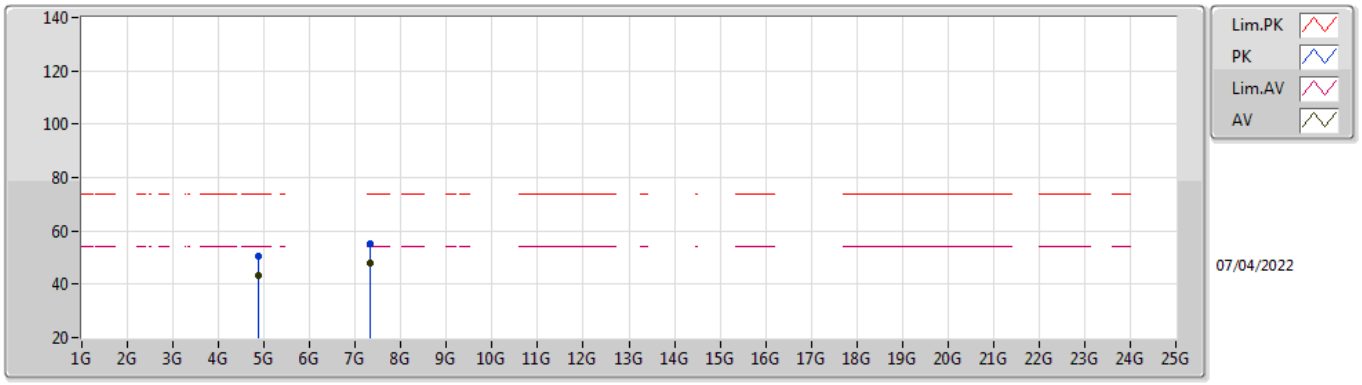


EUT X_1TX
Setting 200
03-C-E-2

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	4.88072G	48.68	74.00	-25.32	43.35	3	Vertical	280	2.70	-	33.62	7.10	35.39
AV	4.88G	39.49	54.00	-14.51	34.16	3	Vertical	280	2.70	-	33.62	7.10	35.39
PK	7.3185G	54.04	74.00	-19.96	44.23	3	Vertical	79	1.80	-	36.94	8.44	35.57
AV	7.31988G	44.57	54.00	-9.43	34.76	3	Vertical	79	1.80	-	36.94	8.44	35.57

BT-LE(2Mbps)

2440MHz_TX

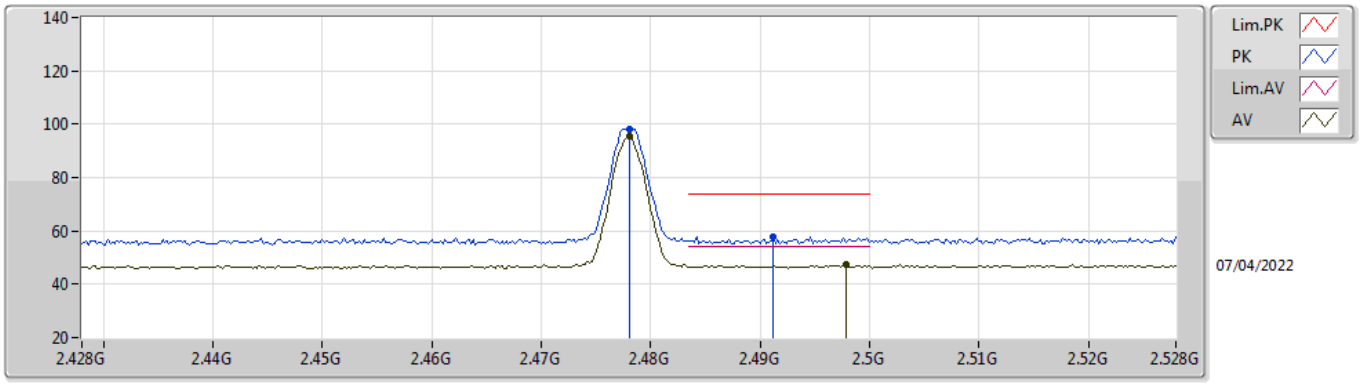


EUT X_1TX
Setting 200
03-C-E-2

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	4.87982G	50.67	74.00	-23.33	45.34	3	Horizontal	337	1.44	-	33.62	7.10	35.39
AV	4.87982G	43.13	54.00	-10.87	37.80	3	Horizontal	337	1.44	-	33.62	7.10	35.39
PK	7.31832G	55.27	74.00	-18.73	45.46	3	Horizontal	75	1.57	-	36.94	8.44	35.57
AV	7.31994G	48.04	54.00	-5.96	38.23	3	Horizontal	75	1.57	-	36.94	8.44	35.57

BT-LE(2Mbps)

2478MHz_TX

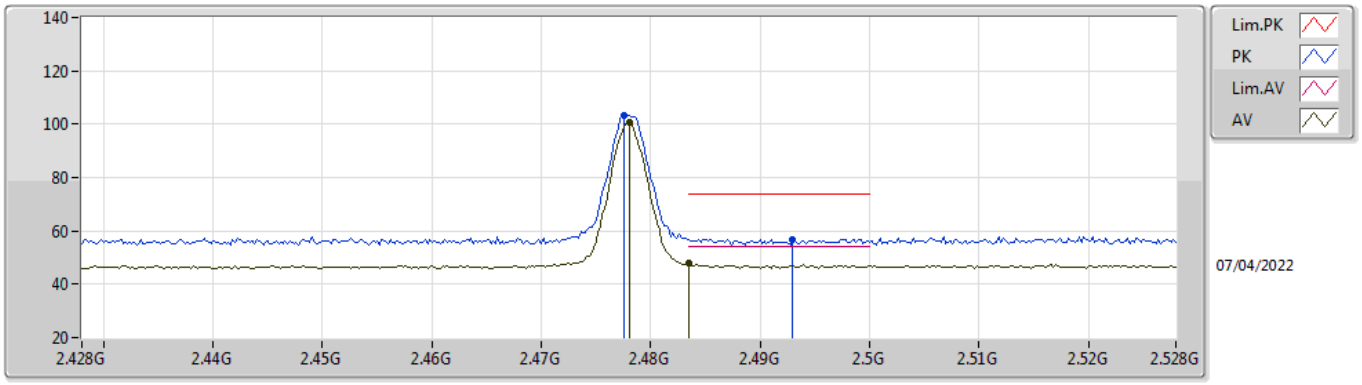


EUT X_1TX
Setting 200
03-C-E-2

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	2.478G	98.10	Inf	-Inf	65.25	3	Vertical	7	1.30	-	28.41	4.44	-
AV	2.478G	95.47	Inf	-Inf	62.62	3	Vertical	7	1.30	-	28.41	4.44	-
PK	2.4912G	57.92	74.00	-16.08	25.01	3	Vertical	7	1.30	-	28.46	4.45	-
AV	2.4978G	47.45	54.00	-6.55	14.51	3	Vertical	7	1.30	-	28.49	4.45	-

BT-LE(2Mbps)

2478MHz_TX

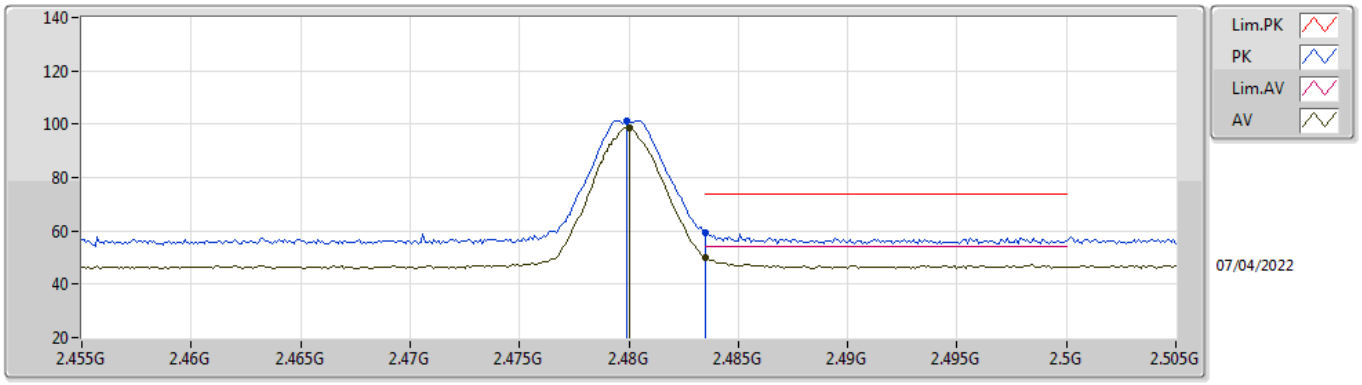


EUT X_1TX
Setting 200
03-C-E-2

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	2.4776G	103.12	Inf	-Inf	70.27	3	Horizontal	25	1.80	-	28.41	4.44	-	
AV	2.478G	100.62	Inf	-Inf	67.77	3	Horizontal	25	1.80	-	28.41	4.44	-	
PK	2.493G	56.95	74.00	-17.05	24.03	3	Horizontal	25	1.80	-	28.47	4.45	-	
AV	2.4835G	47.78	54.00	-6.22	14.91	3	Horizontal	25	1.80	-	28.43	4.44	-	

BT-LE(2Mbps)

2480MHz_TX

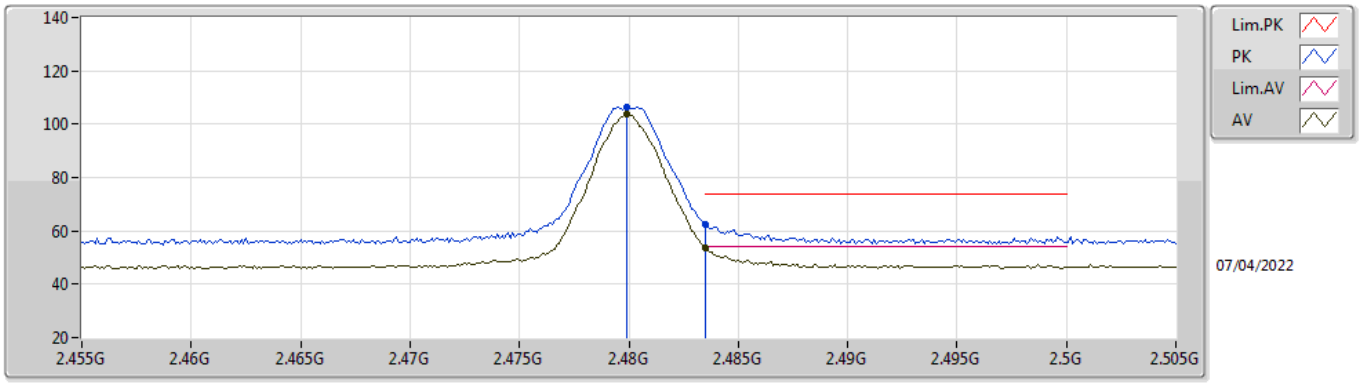


EUT X_1TX
Setting 93
03-C-E-2

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	2.4799G	101.20	Inf	-Inf	68.34	3	Vertical	6	1.29	-	28.42	4.44	-
AV	2.48G	98.81	Inf	-Inf	65.95	3	Vertical	6	1.29	-	28.42	4.44	-
PK	2.4835G	59.32	74.00	-14.68	26.45	3	Vertical	6	1.29	-	28.43	4.44	-
AV	2.4835G	49.87	54.00	-4.13	17.00	3	Vertical	6	1.29	-	28.43	4.44	-

BT-LE(2Mbps)

2480MHz_TX

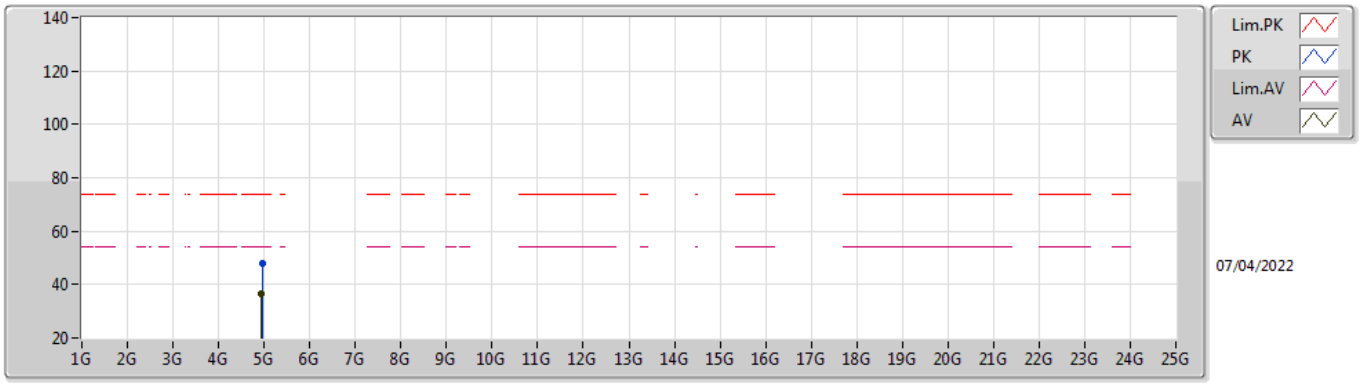


EUT X_1TX
Setting 93
03-C-E-2

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	2.4799G	106.18	Inf	-Inf	73.32	3	Horizontal	28	1.78	-	28.42	4.44	-
AV	2.4799G	103.82	Inf	-Inf	70.96	3	Horizontal	28	1.78	-	28.42	4.44	-
PK	2.4835G	62.34	74.00	-11.66	29.47	3	Horizontal	28	1.78	-	28.43	4.44	-
AV	2.4835G	53.76	54.00	-0.24	20.89	3	Horizontal	28	1.78	-	28.43	4.44	-

BT-LE(2Mbps)

2480MHz_TX

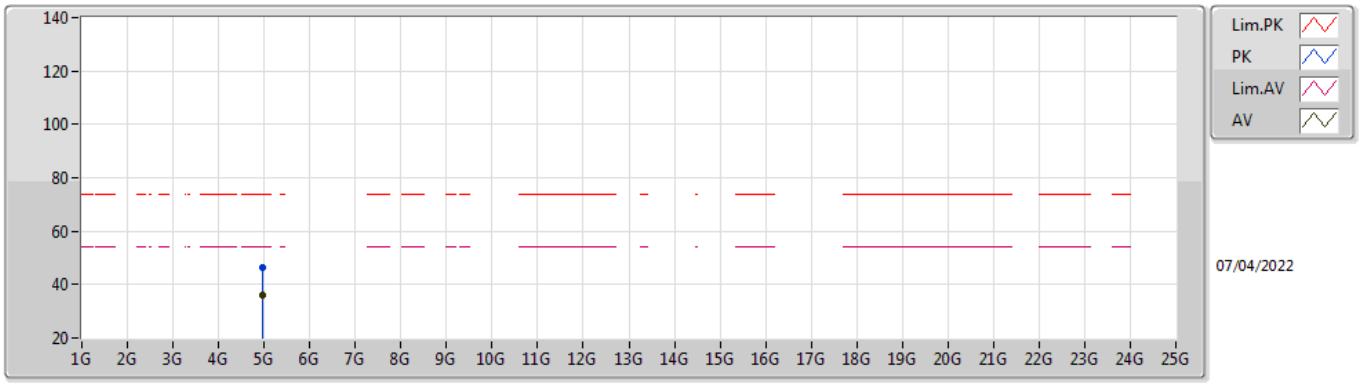


EUT X_1TX
Setting 93
03-C-E-2

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	4.9702G	47.75	74.00	-26.25	42.24	3	Vertical	13	1.00	-	33.76	7.10	35.35
AV	4.94548G	36.81	54.00	-17.19	31.28	3	Vertical	13	1.00	-	33.79	7.10	35.36

BT-LE(2Mbps)

2480MHz_TX



EUT X_1TX
Setting 93
03-C-E-2

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	4.95436G	46.57	74.00	-27.43	41.03	3	Horizontal	14	2.37	-	33.79	7.10	35.35
AV	4.96042G	36.26	54.00	-17.74	30.73	3	Horizontal	14	2.37	-	33.78	7.10	35.35