FCC Radio Test Report

FCC ID	:	HDC-17600023F1
Equipment	:	WiFi 6 Gigabit Router
Brand Name	:	ADTRAN
Model Name	:	834-v6YYYYYY(Y can be 0-9, a-z, A-Z, blank, "+" or "-" or "#") (With voice) 834-6YYYYYY(Y can be 0-9, a-z, A-Z, blank, "+" or "-" or "#") (Without voice)
Part Number	:	17600023FYYYYYYY(Y can be 0-9, a-z, A-Z, blank, "+" or "-" or "#") for 834-v6YYYYYY 17600022FYYYYYYY(Y can be 0-9, a-z, A-Z, blank, "+" or "-" or "#") for 834-6YYYYYY
Applicant	:	Adtran 901 Explorer Blvd., Huntsville, AL 35806, USA
Manufacturer	:	XAVi Technologies Corporation 22F., No.69, Sec. 2, Guangfu Rd., Sanchong Dist., New Taipei City 241, Taiwan (R.O.C.)
Standard	:	47 CFR FCC Part 15.247

The product was received on Oct. 29, 2021, and testing was started from Nov. 25, 2021 and completed on Dec. 02, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR1O2025AL	01	Initial issue of report	Dec. 24, 2021
FR1O2025AL	02	Antenna brand name was modified. (This report is the latest version replacing for the report issued on Dec. 24, 2021)	Jan. 03, 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:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Sam Tsai

Report Producer: Amber Chiu

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

Note:
- Bluetooth LE uses a GFSK (1Mbps) modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	Galtronics	60-2961-03	PCB	U.FL	2.4G
2	Galtronics	60-2961-03	PCB	U.FL	2.4G
3	Galtronics	60-2888-03	PCB	U.FL	5G
4	Galtronics	60-2888-03	PCB	U.FL	5G
5	Galtronics	60-2773-03	Chip	N/A	BT
6	Galtronics	02036142-07357-1	Chip	N/A	5G DFS RX

Non-Beamforming

Ant.	Gain (dBi)		
	2.4G	5G	BT
1	2.5	-	-
2	2.5	-	-
3	-	3.9	-
4	-	3.9	-
5	-	-	2.0
6	-	4.7	-

Note 1: The EUT has six antennas.

For 2.4GHz function:

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

Ant. 1 and Ant. 2 could transmit/receive simultaneously.

For BT function:

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

Ant. 5 can be used as transmitting/receiving antenna.

For 5GHz function:

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

Ant. 3 and Ant. 4 could transmit/receive simultaneously.

1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.85	0.71	2.124m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
834-v6YYYYYY(Y can be 0-9, a-z, A-Z, blank, “+” or “-” or “#”) (With voice) 834-6YYYYYY(Y can be 0-9, a-z, A-Z, blank, “+” or “-” or “#”) (Without voice)	All the models are identical, the different model served as marketing strategy.

1.2 Testing Applied 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:

- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua **(TAF:** 3785**)**	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Daniel Lin	20.1~21.4°C / 46~50%	02/Dec/2021
RF Conducted	TH01-HY	Johnny Yu	20.1~26.9°C / 50~60%	26/Nov/2021
☒ Wen 33rd.St. **(TAF:** 3785**)**	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
Radiated	03CH09-HY	Daniel Hsu	22.1~23.9°C / 45~58%	25/Nov/2021~01/Dec/2021

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)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 ℃	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	WCN Combo Tool [2.1942.00]

Mode	Power Setting
BT-LE(1Mbps)	-
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	CTX
1	Adapter Mode

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

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	Adapter Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT			V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz+WLAN 5GHz + Bluetooth
Refer to Sporton Test Report No.: FA1O2025 for Co-location RF Exposure Evaluation.	

2.3 Accessories

Accessories				
AC Adapter (US Plug)	**Brand Name**	MASS POWER	**Model Name**	S030-1A120250VU
	Power Rating	I/P: 100 – 240 Vac, 0.8A, O/P: 12.0 Vdc, 2.5 A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		
AC Adapter (EU Plug)	**Brand Name**	MASS POWER	**Model Name**	S030-1A120250VE
	Power Rating	I/P: 100 – 240 Vac, 0.8A, O/P: 12.0 Vdc, 2.5 A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		
AC Adapter (UK Plug)	**Brand Name**	MASS POWER	**Model Name**	S030-1A120250VK
	Power Rating	I/P: 100 – 240 Vac, 0.8A, O/P: 12.0 Vdc, 2.5 A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		
AC Adapter (AUS/NZ Plug)	**Brand Name**	MASS POWER	**Model Name**	S030-1A120250VA
	Power Rating	I/P: 100 – 240 Vac, 0.8A, O/P: 12.0 Vdc, 2.5 A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		

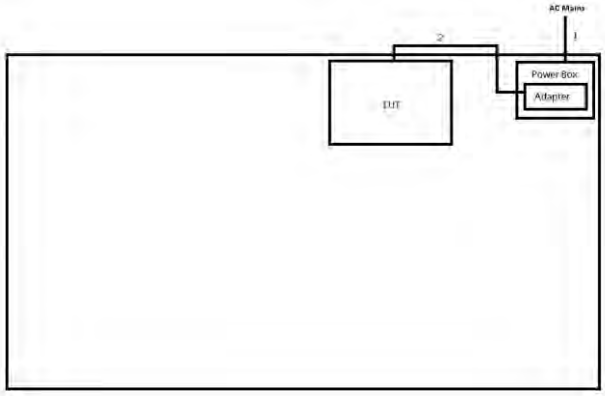
Reminder: Regarding to more detail and other information, please refer to user manual.

2.4 Support Equipment

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

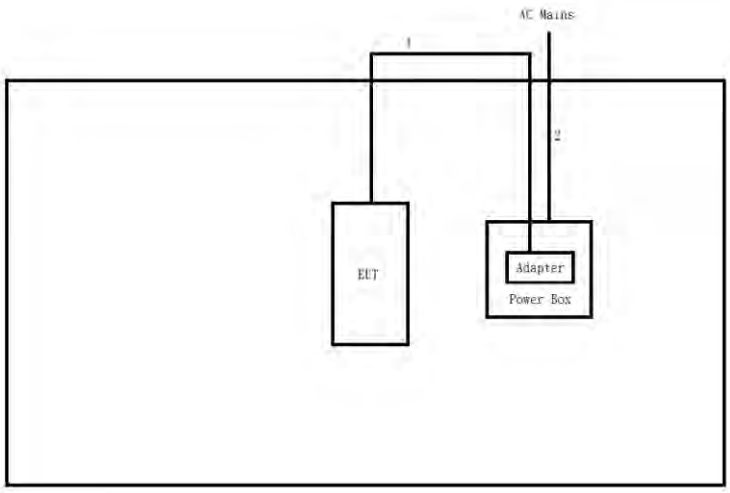
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.45	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	DC Power cable	No	1.45	-
2	AC Power cable	No	1.80	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

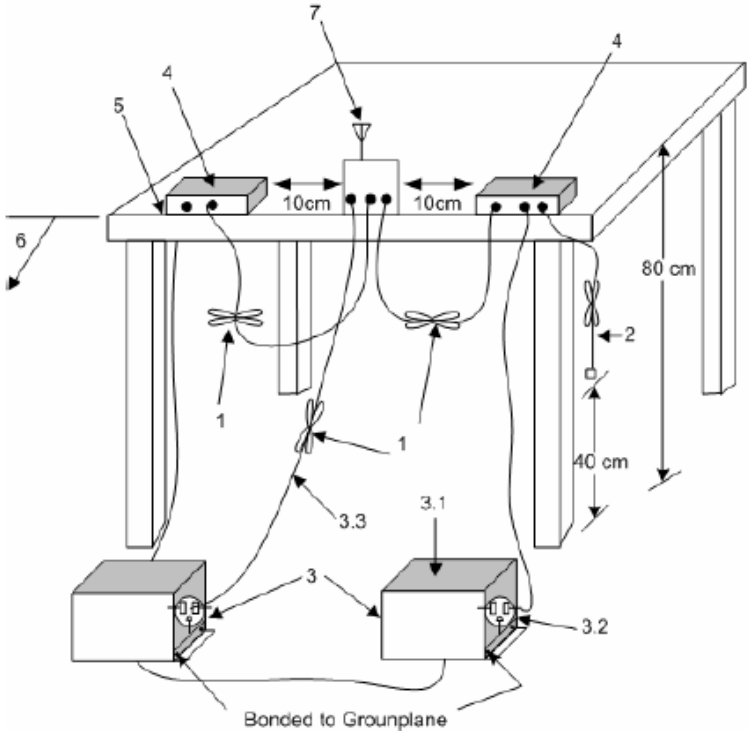
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 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 50Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.6 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

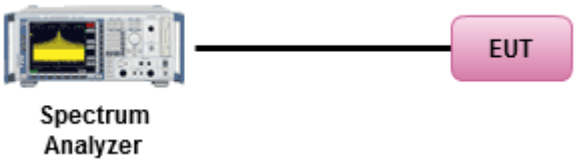
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 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} ≤ 6 dBi, then P_{Out} ≤ 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 + 8dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)	
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Aggregate power on all beams: P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX} + 8]) 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 KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	☐ Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	☐ Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
▪ Maximum Average Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	☒ Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as 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

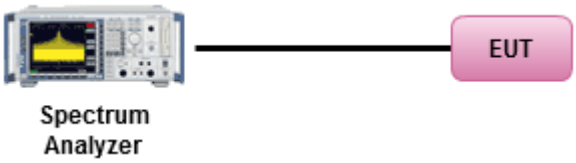
3.4.2 Measuring Instruments

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 KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as 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.

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 (dB)**
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 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 level.	

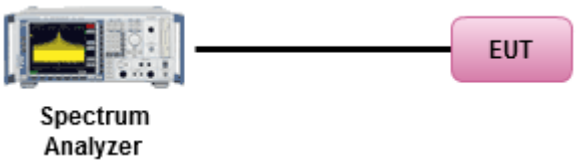
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency 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.

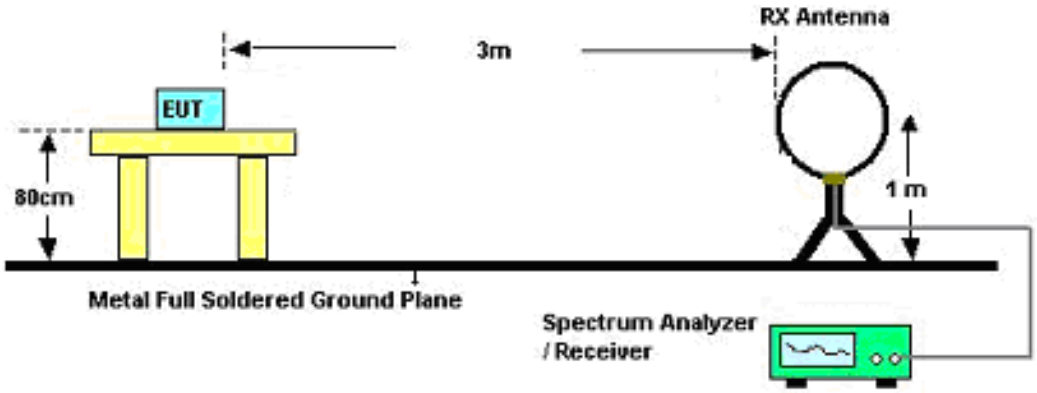
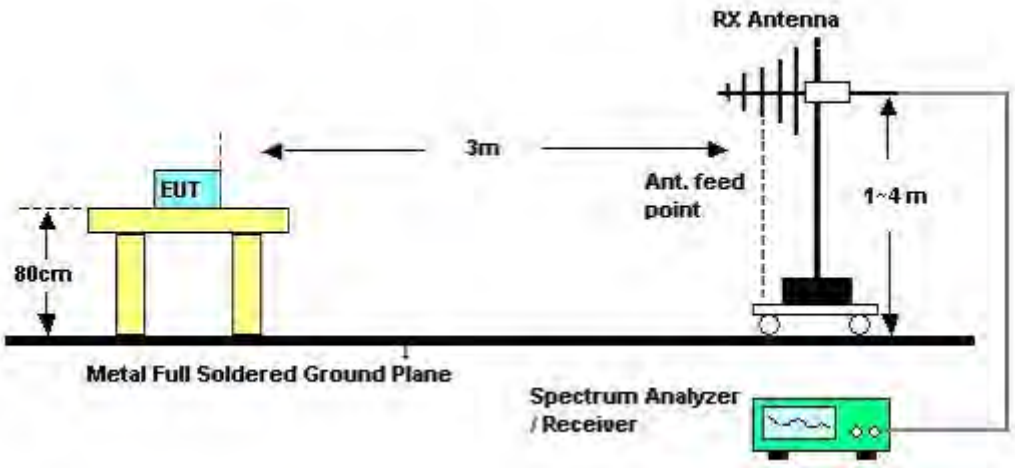
3.6.3 Test Procedures

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 KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪	For the transmitter band-edge emissions shall be measured using following options below:
	▪ Refer as KDB 558074 clause 8.7.1, 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 KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	▪ Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
▪	Use the following spectrum analyzer settings:
	▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
▪	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
	▪ Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

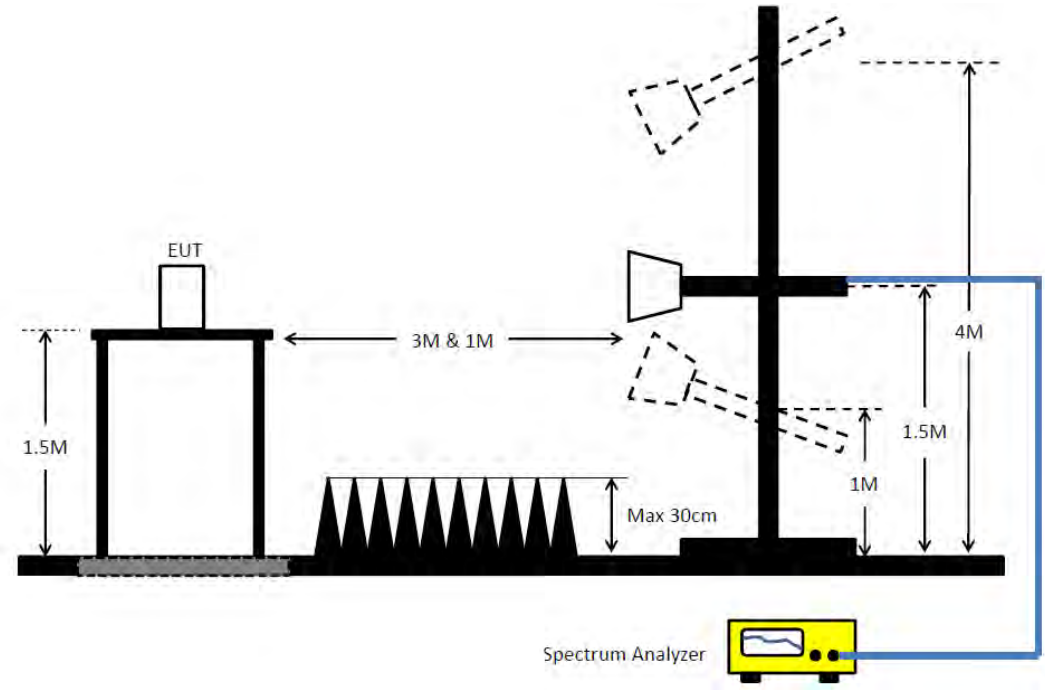
3.6.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.6.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	21/May/2021	20/May/2022
LISN	R&S	ENV216	100003	9kHz ~ 30MHz	15/Dec/2020	14/Dec/2021
RF Cable 5m	TITAN	TITAN	CO04-cable-01	0.1MHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	15/Sep/2021	14/Sep/2022

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	30/Mar/2021	29/Mar/2022
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	21/Oct/2021	20/Oct/2022
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	23/Feb/2021	22/Feb/2022
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	23/Feb/2021	22/Feb/2022

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz 3m	26/Mar/2021	25/Mar/2022
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	18/Mar/2021	17/Mar/2022
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	13/Aug/2021	12/Aug/2022
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	12/Apr/2021	11/Apr/2022
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	23/Jul/2021	22/Jul/2022
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MT J6102-05	35418 & 3	30MHz~1GHz	04/Sep/2021	03/Sep/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	18/May/2021	17/May/2022
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	30/Aug/2021	29/Aug/2022
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	09/Feb/2021	08/Feb/2022
RF CABLE 5m+3m+1m	HUBER+SUHNER	SUCOFLEX104	CB009	1GHz~40GHz	13/Aug/2021	12/Aug/2022
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	11/Mar/2021	10/Mar/2022
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	09/Mar/2021	08/Mar/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	19/Apr/2021	18/Apr/2022

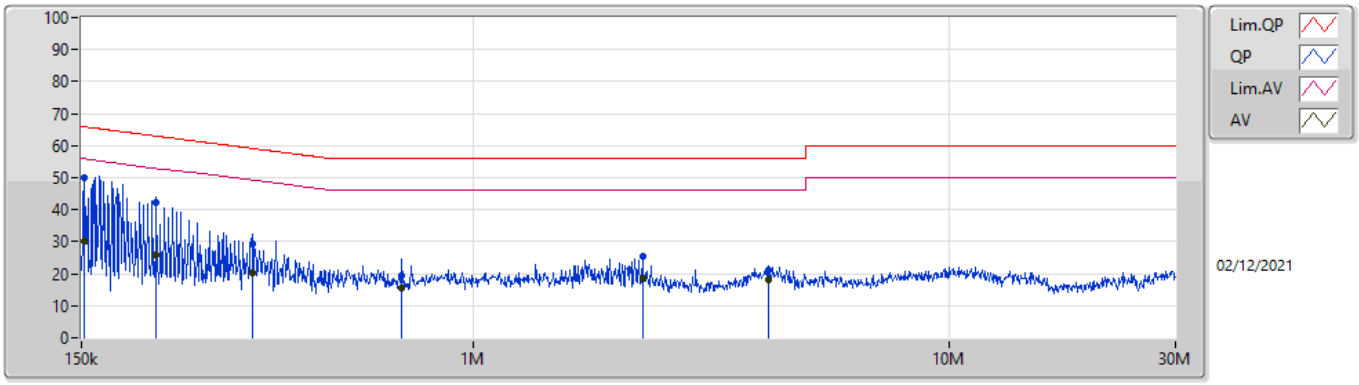
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	157.99k	50.91	65.56	-14.65	Neutral

Mode Configure

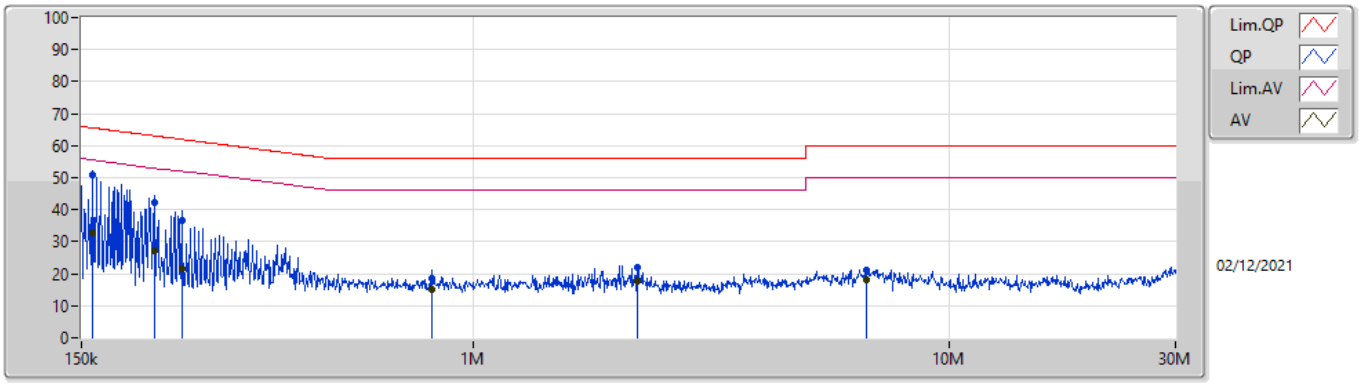
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	151.807k	49.97	65.90	-15.93	Line	-
Mode 1	Pass	AV	151.807k	30.19	55.90	-25.71	Line	-
Mode 1	Pass	QP	215.704k	42.40	62.98	-20.58	Line	-
Mode 1	Pass	AV	215.704k	25.93	52.98	-27.05	Line	-
Mode 1	Pass	QP	342.744k	29.11	59.14	-30.03	Line	-
Mode 1	Pass	AV	342.744k	20.16	49.14	-28.98	Line	-
Mode 1	Pass	QP	708.77k	19.43	56.00	-36.57	Line	-
Mode 1	Pass	AV	708.77k	15.45	46.00	-30.55	Line	-
Mode 1	Pass	QP	2.274M	25.48	56.00	-30.52	Line	-
Mode 1	Pass	AV	2.274M	18.56	46.00	-27.44	Line	-
Mode 1	Pass	QP	4.171M	21.10	56.00	-34.90	Line	-
Mode 1	Pass	AV	4.171M	18.31	46.00	-27.69	Line	-
Mode 1	Pass	QP	157.99k	50.91	65.56	-14.65	Neutral	-
Mode 1	Pass	AV	157.99k	32.97	55.56	-22.59	Neutral	-
Mode 1	Pass	QP	213.137k	42.11	63.07	-20.96	Neutral	-
Mode 1	Pass	AV	213.137k	27.06	53.07	-26.01	Neutral	-
Mode 1	Pass	QP	244.12k	36.65	61.95	-25.30	Neutral	-
Mode 1	Pass	AV	244.12k	21.67	51.95	-30.28	Neutral	-
Mode 1	Pass	QP	818.313k	18.68	56.00	-37.32	Neutral	-
Mode 1	Pass	AV	818.313k	15.29	46.00	-30.71	Neutral	-
Mode 1	Pass	QP	2.211M	22.10	56.00	-33.90	Neutral	-
Mode 1	Pass	AV	2.211M	17.48	46.00	-28.52	Neutral	-
Mode 1	Pass	QP	6.708M	21.13	60.00	-38.87	Neutral	-
Mode 1	Pass	AV	6.708M	18.25	50.00	-31.75	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.807k	49.97	65.90	-15.93	19.64	Line	-	30.33	9.69	0.04	9.91
AV	151.807k	30.19	55.90	-25.71	19.64	Line	-	10.55	9.69	0.04	9.91
QP	215.704k	42.40	62.98	-20.58	19.63	Line	-	22.77	9.68	0.04	9.91
AV	215.704k	25.93	52.98	-27.05	19.63	Line	-	6.30	9.68	0.04	9.91
QP	342.744k	29.11	59.14	-30.03	19.64	Line	-	9.47	9.67	0.06	9.91
AV	342.744k	20.16	49.14	-28.98	19.64	Line	-	0.52	9.67	0.06	9.91
QP	708.77k	19.43	56.00	-36.57	19.67	Line	-	-0.24	9.68	0.07	9.92
AV	708.77k	15.45	46.00	-30.55	19.67	Line	-	-4.22	9.68	0.07	9.92
QP	2.274M	25.48	56.00	-30.52	19.72	Line	-	5.76	9.69	0.11	9.92
AV	2.274M	18.56	46.00	-27.44	19.72	Line	-	-1.16	9.69	0.11	9.92
QP	4.171M	21.10	56.00	-34.90	19.76	Line	-	1.34	9.70	0.14	9.92
AV	4.171M	18.31	46.00	-27.69	19.76	Line	-	-1.45	9.70	0.14	9.92

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	157.99k	50.91	65.56	-14.65	19.64	Neutral	-	31.27	9.69	0.04	9.91
AV	157.99k	32.97	55.56	-22.59	19.64	Neutral	-	13.33	9.69	0.04	9.91
QP	213.137k	42.11	63.07	-20.96	19.63	Neutral	-	22.48	9.68	0.04	9.91
AV	213.137k	27.06	53.07	-26.01	19.63	Neutral	-	7.43	9.68	0.04	9.91
QP	244.12k	36.65	61.95	-25.30	19.64	Neutral	-	17.01	9.68	0.05	9.91
AV	244.12k	21.67	51.95	-30.28	19.64	Neutral	-	2.03	9.68	0.05	9.91
QP	818.313k	18.68	56.00	-37.32	19.67	Neutral	-	-0.99	9.67	0.08	9.92
AV	818.313k	15.29	46.00	-30.71	19.67	Neutral	-	-4.38	9.67	0.08	9.92
QP	2.211M	22.10	56.00	-33.90	19.72	Neutral	-	2.38	9.69	0.11	9.92
AV	2.211M	17.48	46.00	-28.52	19.72	Neutral	-	-2.24	9.69	0.11	9.92
QP	6.708M	21.13	60.00	-38.87	19.87	Neutral	-	1.26	9.77	0.17	9.93
AV	6.708M	18.25	50.00	-31.75	19.87	Neutral	-	-1.62	9.77	0.17	9.93

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)	665k	1.044M	1M04F1D	661.25k	1.042M

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

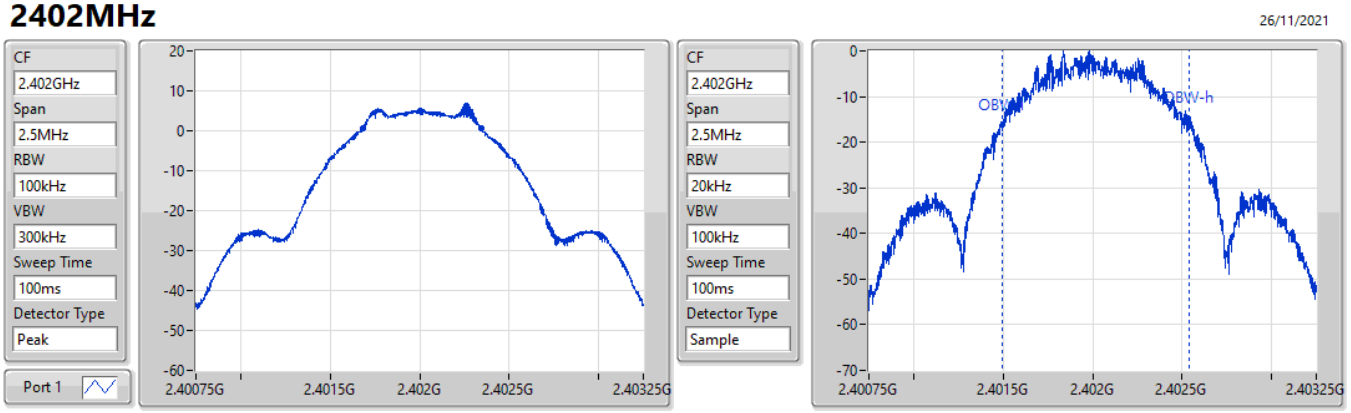
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	661.25k	1.043M
2440MHz	Pass	500k	665k	1.042M
2480MHz	Pass	500k	663.75k	1.044M

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

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

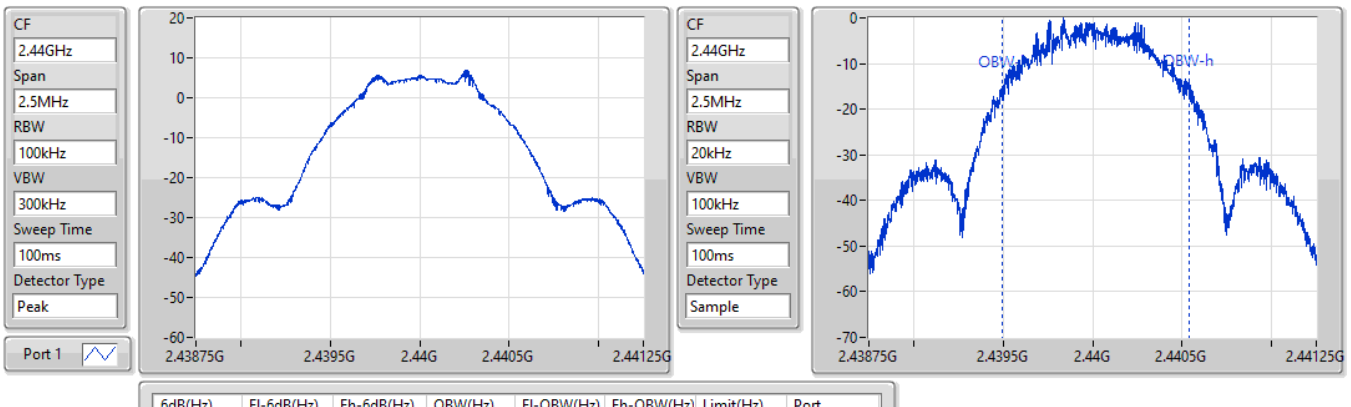
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
661.25k	2.40168G	2.402341G	1.043M	2.401495G	2.402538G	500k	1

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

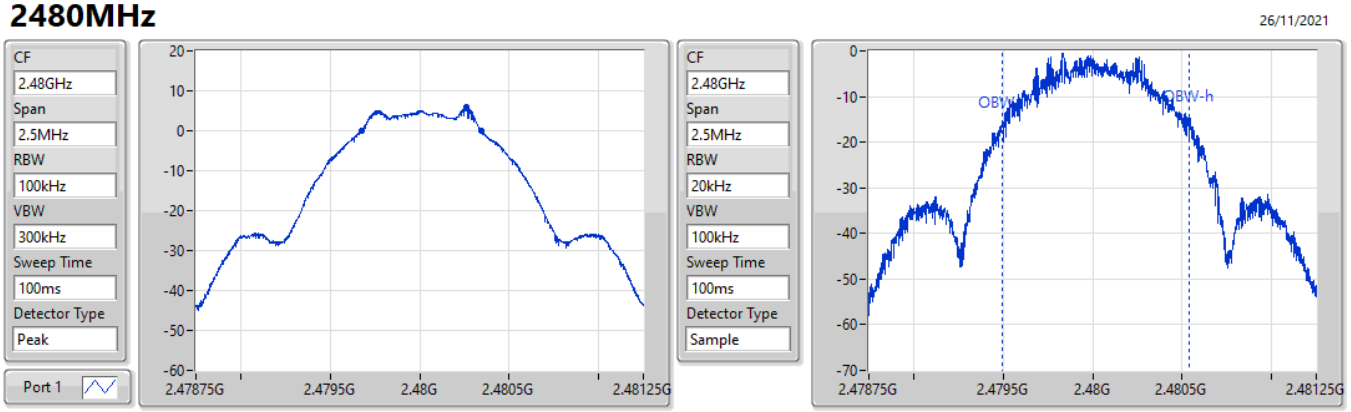
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
665k	2.439679G	2.440344G	1.042M	2.439497G	2.440538G	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
663.75k	2.479678G	2.480341G	1.044M	2.479495G	2.48054G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	7.21	0.00526

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.00	7.14	30.00
2440MHz	Pass	2.00	7.21	30.00
2480MHz	Pass	2.00	6.74	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-10.47

RBW = 3kHz;

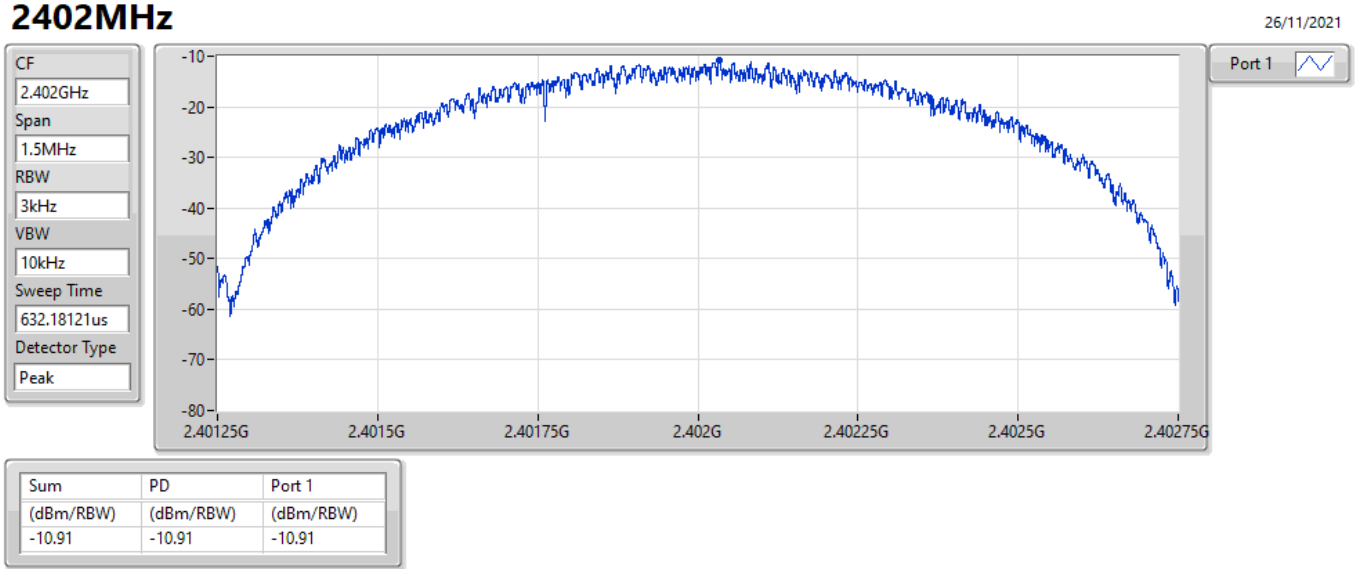
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.00	-10.91	8.00
2440MHz	Pass	2.00	-10.47	8.00
2480MHz	Pass	2.00	-10.94	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

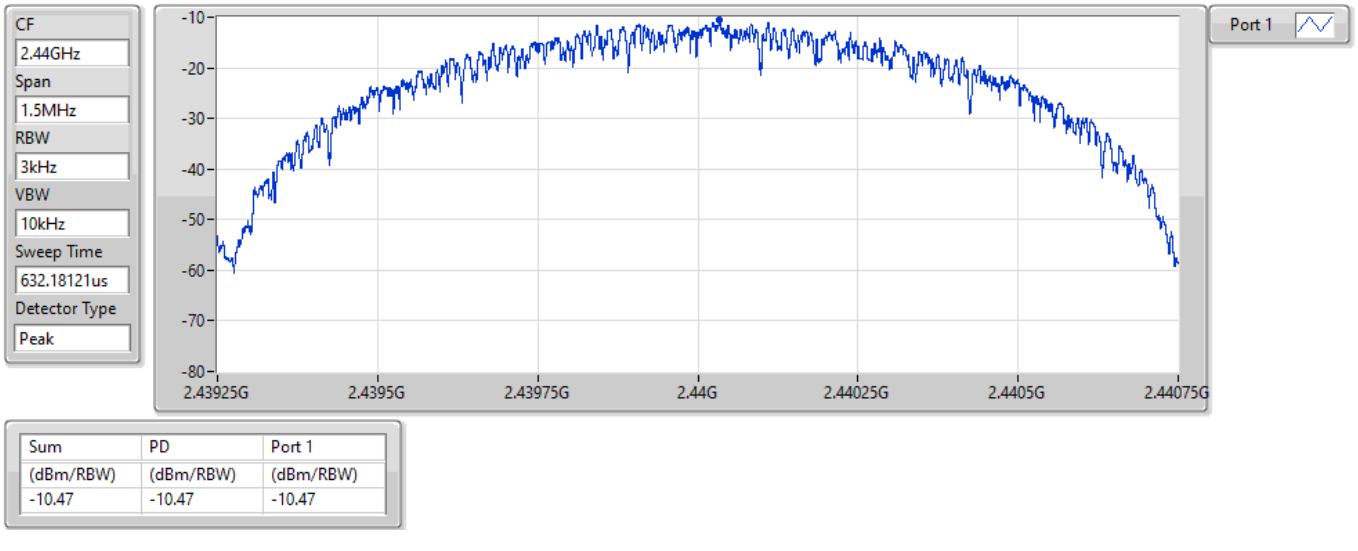
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.91	-10.91	-10.91

BT-LE(1Mbps) PSD

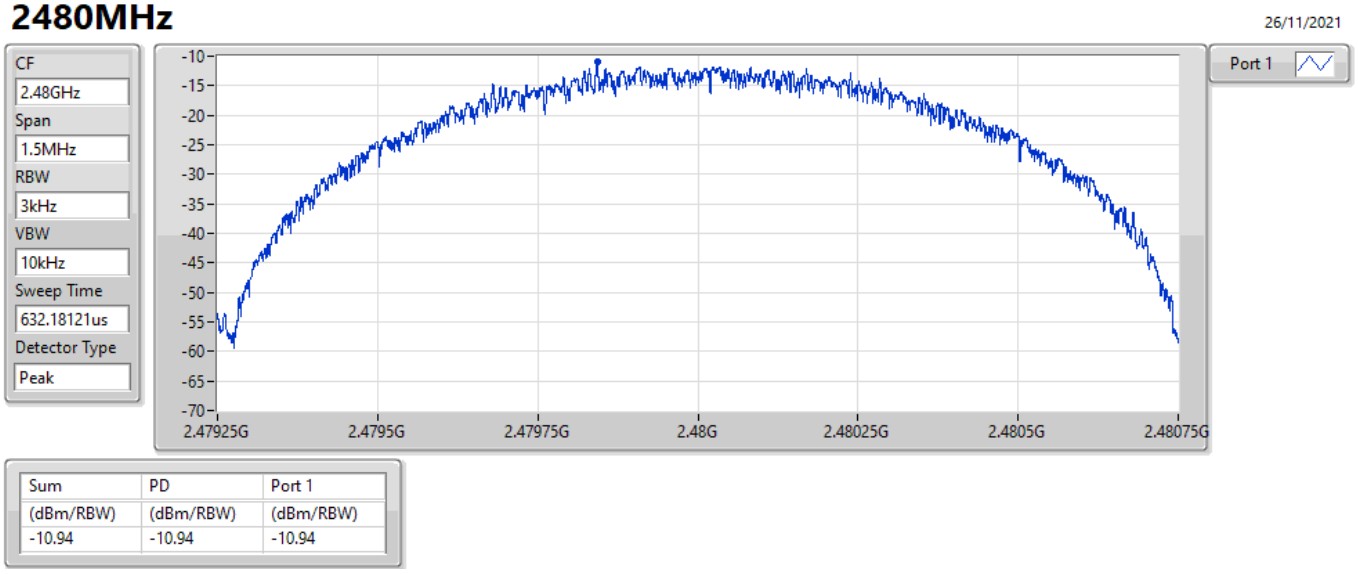
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.47	-10.47	-10.47

BT-LE(1Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.94	-10.94	-10.94

Summary

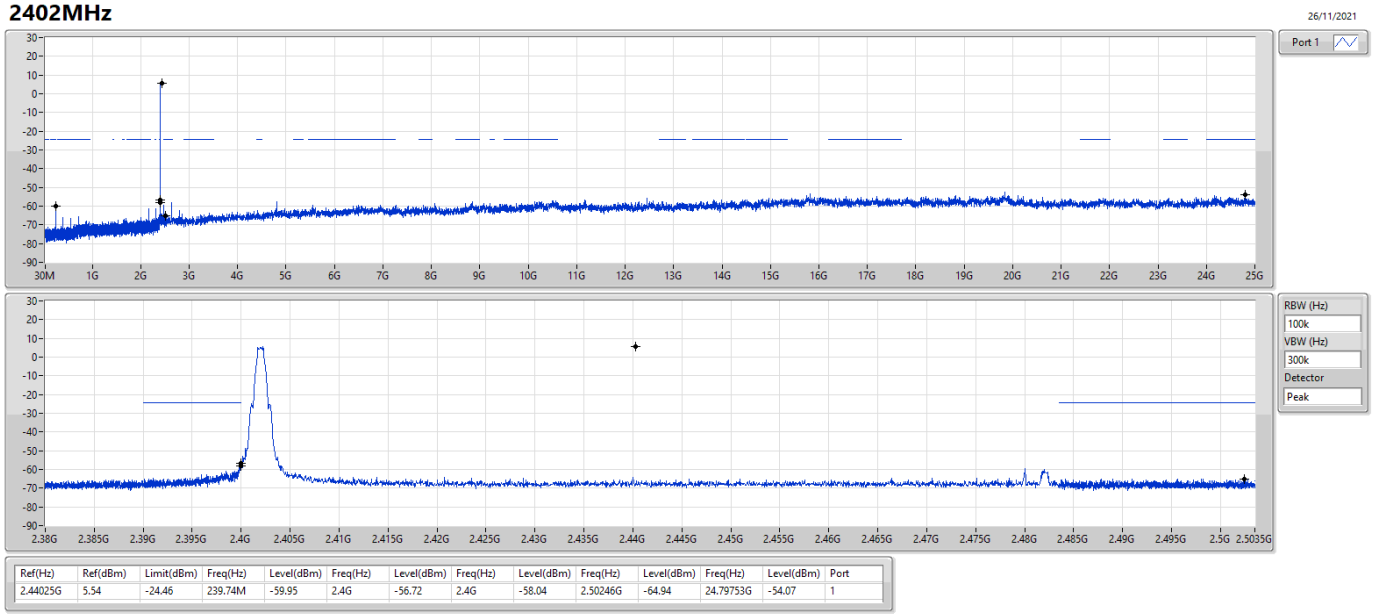
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.44025G	5.54	-24.46	239.74M	-59.95	2.4G	-56.72	2.4G	-58.04	2.50246G	-64.94	24.79753G	-54.07	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	2.44025G	5.54	-24.46	239.74M	-59.95	2.4G	-56.72	2.4G	-58.04	2.50246G	-64.94	24.79753G	-54.07	1
2440MHz	Pass	2.44025G	5.54	-24.46	239.74M	-60.10	2.39997G	-63.31	2.4G	-63.57	2.49365G	-64.73	17.51148G	-54.49	1
2480MHz	Pass	2.44025G	5.54	-24.46	239.74M	-59.75	2.4G	-61.41	2.4G	-59.79	2.48417G	-61.80	16.53007G	-53.53	1

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

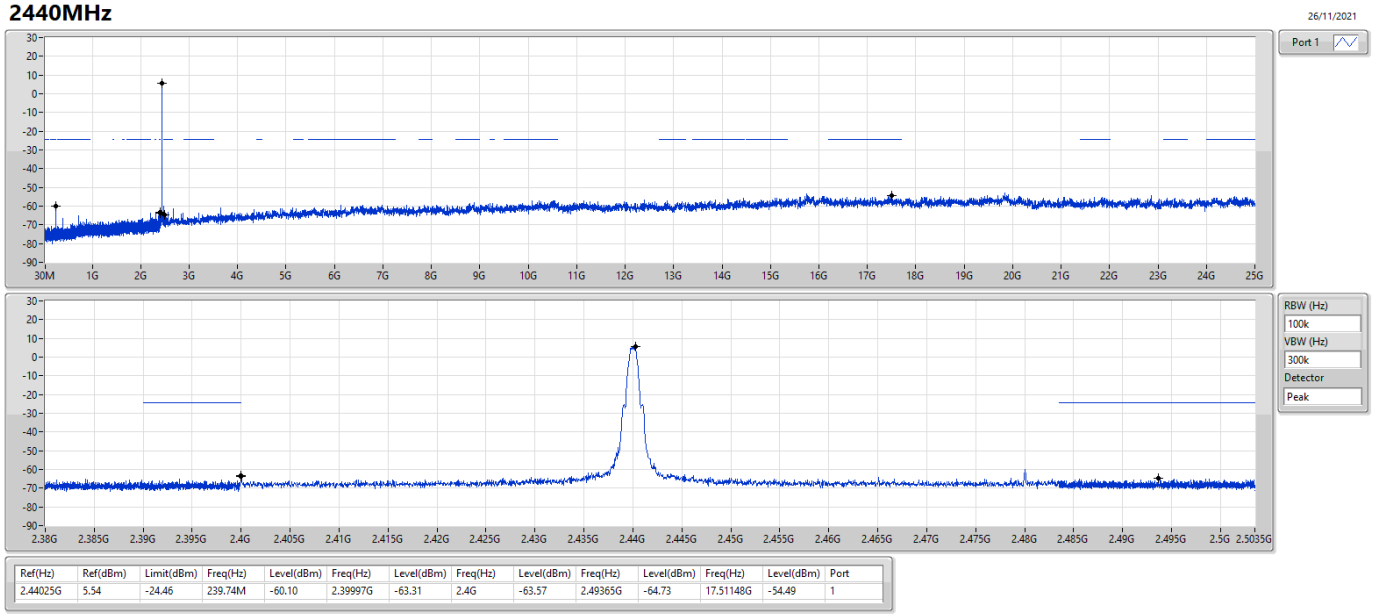
2402MHz



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
2.44025G	5.54	-24.46	239.74M	-59.95	2.4G	-56.72	2.4G	-58.04	2.50246G	-64.94	24.79753G	-54.07	1

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

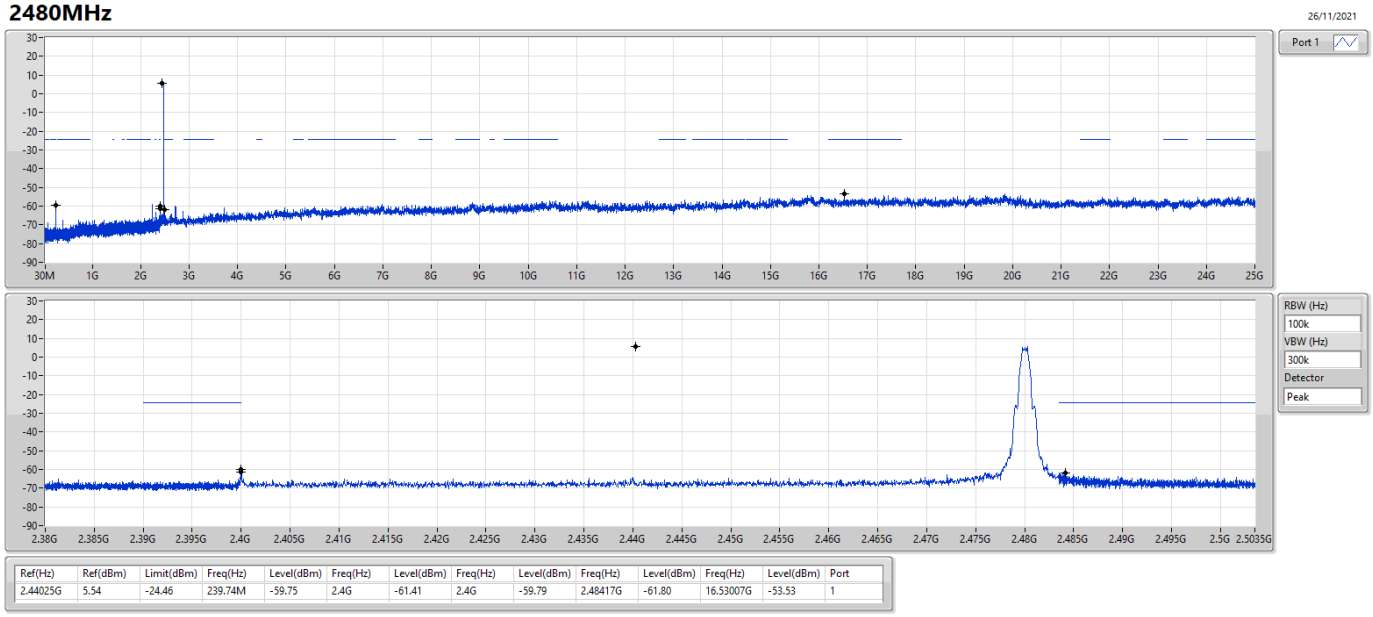
2440MHz



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
2.44025G	5.54	-24.46	239.74M	-60.10	2.39997G	-63.31	2.4G	-63.57	2.49365G	-64.73	17.51148G	-54.49	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
2.44025G	5.54	-24.46	239.74M	-59.75	2.4G	-61.41	2.4G	-59.79	2.48417G	-61.80	16.53007G	-53.53	1

Summary

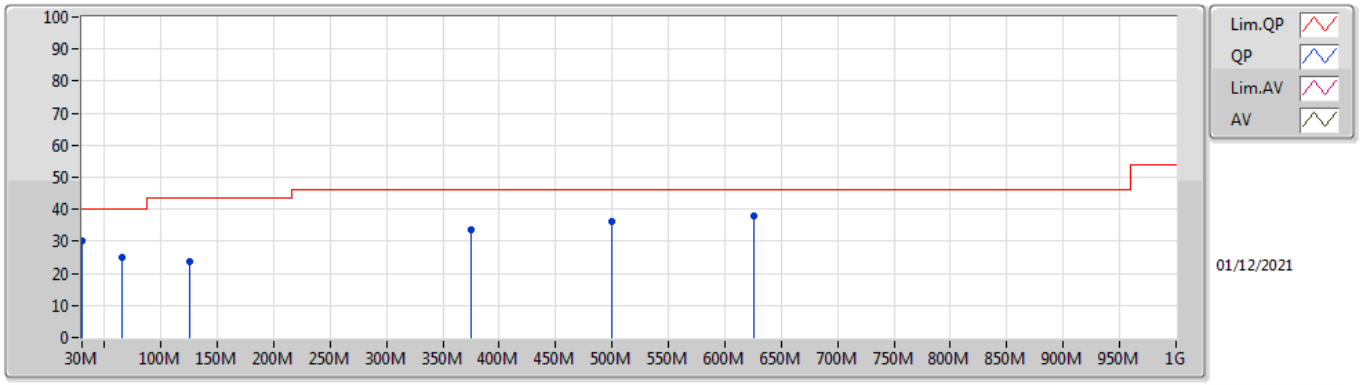
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	PK	625.58M	37.99	46.00	-8.01	3	Vertical	360	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	30M	30.37	40.00	-9.63	3	Vertical	360	1.00	-
2440MHz	Pass	PK	64.92M	24.91	40.00	-15.09	3	Vertical	360	1.00	-
2440MHz	Pass	PK	125.06M	23.75	43.50	-19.75	3	Vertical	360	1.00	-
2440MHz	Pass	PK	375.32M	33.50	46.00	-12.50	3	Vertical	360	1.00	-
2440MHz	Pass	PK	499.48M	36.41	46.00	-9.59	3	Vertical	360	1.00	-
2440MHz	Pass	PK	625.58M	37.99	46.00	-8.01	3	Vertical	360	1.00	-
2440MHz	Pass	PK	30M	22.54	40.00	-17.46	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	148.34M	29.00	43.50	-14.50	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	375.32M	35.59	46.00	-10.41	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	499.48M	35.40	46.00	-10.60	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	625.58M	35.33	46.00	-10.67	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	749.74M	35.38	46.00	-10.62	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

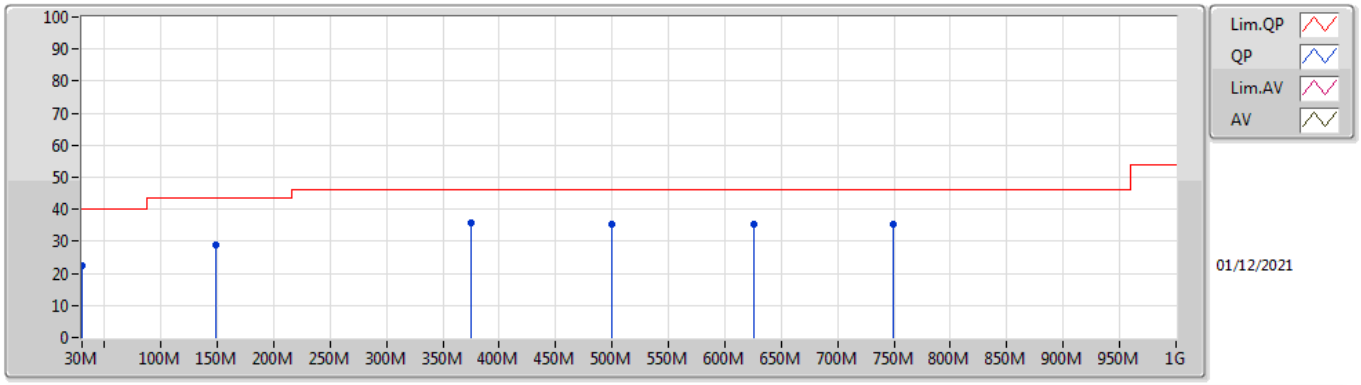
2440MHz_Adapter



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	30.37	40.00	-9.63	-12.86	3	Vertical	360	1.00	-	43.23	23.73	0.56	37.15
PK	64.92M	24.91	40.00	-15.09	-25.01	3	Vertical	360	1.00	-	49.92	11.20	0.82	37.03
PK	125.06M	23.75	43.50	-19.75	-18.75	3	Vertical	360	1.00	-	42.50	16.76	1.10	36.61
PK	375.32M	33.50	46.00	-12.50	-14.55	3	Vertical	360	1.00	-	48.05	20.16	1.84	36.55
PK	499.48M	36.41	46.00	-9.59	-11.65	3	Vertical	360	1.00	-	48.06	23.11	2.23	36.99
PK	625.58M	37.99	46.00	-8.01	-9.13	3	Vertical	360	1.00	-	47.12	25.51	2.55	37.19

BT-LE(1Mbps)

2440MHz_Adapter



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	30M	22.54	40.00	-17.46	-12.86	3	Horizontal	0	1.00	-	35.40	23.73	0.56	37.15
PK	148.34M	29.00	43.50	-14.50	-18.82	3	Horizontal	0	1.00	-	47.82	16.37	1.20	36.39
PK	375.32M	35.59	46.00	-10.41	-14.55	3	Horizontal	0	1.00	-	50.14	20.16	1.84	36.55
PK	499.48M	35.40	46.00	-10.60	-11.65	3	Horizontal	0	1.00	-	47.05	23.11	2.23	36.99
PK	625.58M	35.33	46.00	-10.67	-9.13	3	Horizontal	0	1.00	-	44.46	25.51	2.55	37.19
PK	749.74M	35.38	46.00	-10.62	-7.58	3	Horizontal	0	1.00	-	42.96	27.24	2.79	37.61

Summary

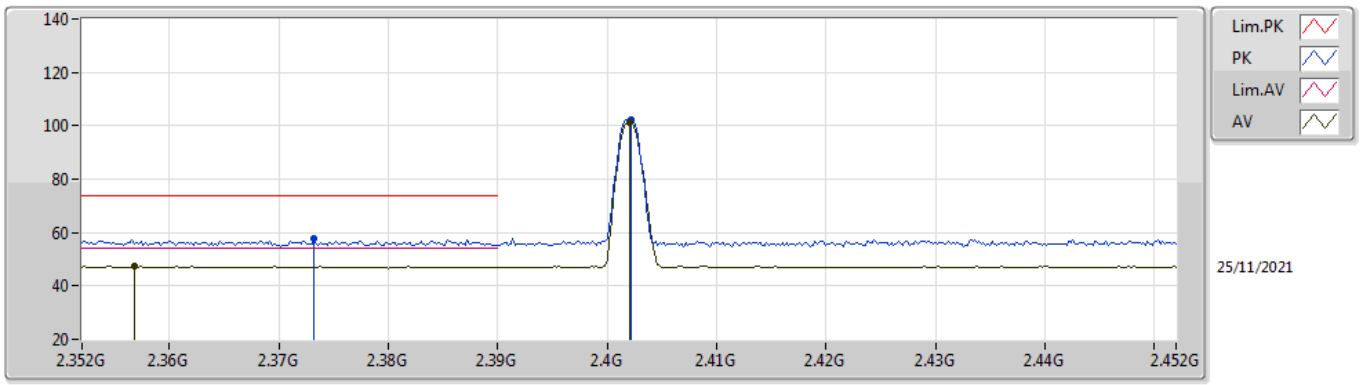
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4924G	47.62	54.00	-6.38	3	Vertical	44	2.12	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3568G	47.41	54.00	-6.59	3	Vertical	32	2.24	-
2402MHz	Pass	AV	2.402G	101.45	Inf	-Inf	3	Vertical	32	2.24	-
2402MHz	Pass	PK	2.3732G	57.53	74.00	-16.47	3	Vertical	32	2.24	-
2402MHz	Pass	PK	2.4022G	102.07	Inf	-Inf	3	Vertical	32	2.24	-
2402MHz	Pass	AV	2.3624G	47.42	54.00	-6.58	3	Horizontal	128	2.89	-
2402MHz	Pass	AV	2.402G	96.11	Inf	-Inf	3	Horizontal	128	2.89	-
2402MHz	Pass	PK	2.3652G	57.35	74.00	-16.65	3	Horizontal	128	2.89	-
2402MHz	Pass	PK	2.4018G	96.77	Inf	-Inf	3	Horizontal	128	2.89	-
2402MHz	Pass	AV	4.80185G	34.86	54.00	-19.14	3	Vertical	326	1.50	-
2402MHz	Pass	PK	4.80493G	45.44	74.00	-28.56	3	Vertical	326	1.50	-
2402MHz	Pass	AV	4.80444G	34.59	54.00	-19.41	3	Horizontal	16	2.42	-
2402MHz	Pass	PK	4.80416G	45.60	74.00	-28.40	3	Horizontal	16	2.42	-
2440MHz	Pass	AV	2.3512G	47.41	54.00	-6.59	3	Vertical	25	2.69	-
2440MHz	Pass	AV	2.44G	102.44	Inf	-Inf	3	Vertical	25	2.69	-
2440MHz	Pass	AV	2.4928G	47.50	54.00	-6.50	3	Vertical	25	2.69	-
2440MHz	Pass	PK	2.366G	57.17	74.00	-16.83	3	Vertical	25	2.69	-
2440MHz	Pass	PK	2.4404G	103.08	Inf	-Inf	3	Vertical	25	2.69	-
2440MHz	Pass	PK	2.4912G	57.13	74.00	-16.87	3	Vertical	25	2.69	-
2440MHz	Pass	AV	2.3468G	47.19	54.00	-6.81	3	Horizontal	285	3.02	-
2440MHz	Pass	AV	2.44G	96.76	Inf	-Inf	3	Horizontal	285	3.02	-
2440MHz	Pass	AV	2.494G	47.40	54.00	-6.60	3	Horizontal	285	3.02	-
2440MHz	Pass	PK	2.368G	57.48	74.00	-16.52	3	Horizontal	285	3.02	-
2440MHz	Pass	PK	2.4404G	97.42	Inf	-Inf	3	Horizontal	285	3.02	-
2440MHz	Pass	PK	2.5G	57.90	74.00	-16.10	3	Horizontal	285	3.02	-
2440MHz	Pass	AV	4.88864G	34.52	54.00	-19.48	3	Vertical	33	2.48	-
2440MHz	Pass	PK	4.88908G	44.95	74.00	-29.05	3	Vertical	33	2.48	-
2440MHz	Pass	AV	4.88041G	34.27	54.00	-19.73	3	Horizontal	322	1.50	-
2440MHz	Pass	PK	4.88049G	45.21	74.00	-28.79	3	Horizontal	322	1.50	-
2480MHz	Pass	AV	2.48G	102.44	Inf	-Inf	3	Vertical	44	2.12	-
2480MHz	Pass	AV	2.4924G	47.62	54.00	-6.38	3	Vertical	44	2.12	-
2480MHz	Pass	PK	2.4802G	103.08	Inf	-Inf	3	Vertical	44	2.12	-
2480MHz	Pass	PK	2.4836G	58.07	74.00	-15.93	3	Vertical	44	2.12	-
2480MHz	Pass	AV	2.48G	97.05	Inf	-Inf	3	Horizontal	122	3.01	-
2480MHz	Pass	AV	2.4884G	47.57	54.00	-6.43	3	Horizontal	122	3.01	-
2480MHz	Pass	PK	2.4802G	97.75	Inf	-Inf	3	Horizontal	122	3.01	-
2480MHz	Pass	PK	2.4998G	57.60	74.00	-16.40	3	Horizontal	122	3.01	-
2480MHz	Pass	AV	4.95961G	34.87	54.00	-19.13	3	Vertical	76	1.50	-
2480MHz	Pass	PK	4.95995G	45.92	74.00	-28.08	3	Vertical	76	1.50	-
2480MHz	Pass	AV	4.96294G	34.90	54.00	-19.10	3	Horizontal	2	1.17	-
2480MHz	Pass	PK	4.96344G	45.83	74.00	-28.17	3	Horizontal	2	1.17	-

BT-LE(1Mbps)

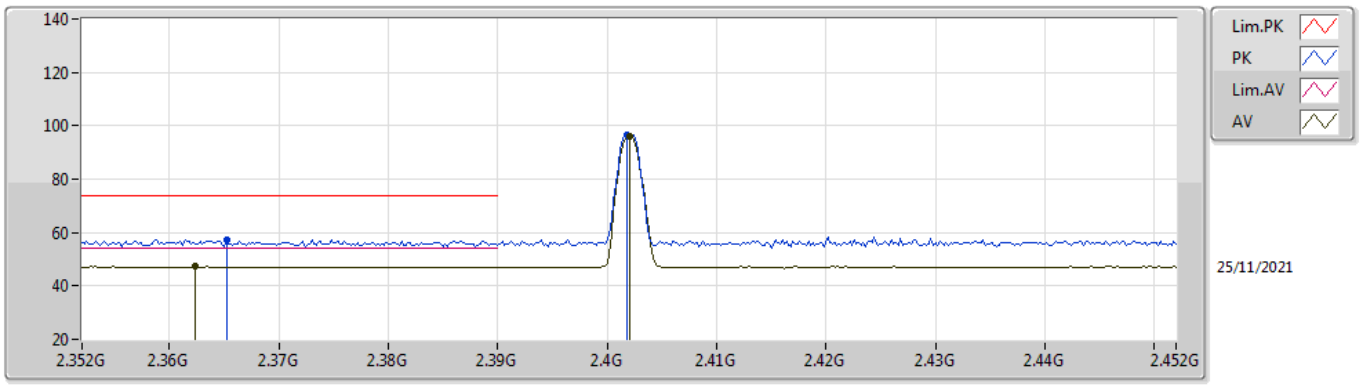
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3568G	47.41	54.00	-6.59	32.31	3	Vertical	32	2.24	-	15.10	27.77	4.54	-
AV	2.402G	101.45	Inf	-Inf	32.18	3	Vertical	32	2.24	-	69.27	27.60	4.58	-
PK	2.3732G	57.53	74.00	-16.47	32.26	3	Vertical	32	2.24	-	25.27	27.71	4.55	-
PK	2.4022G	102.07	Inf	-Inf	32.18	3	Vertical	32	2.24	-	69.89	27.60	4.58	-

BT-LE(1Mbps)

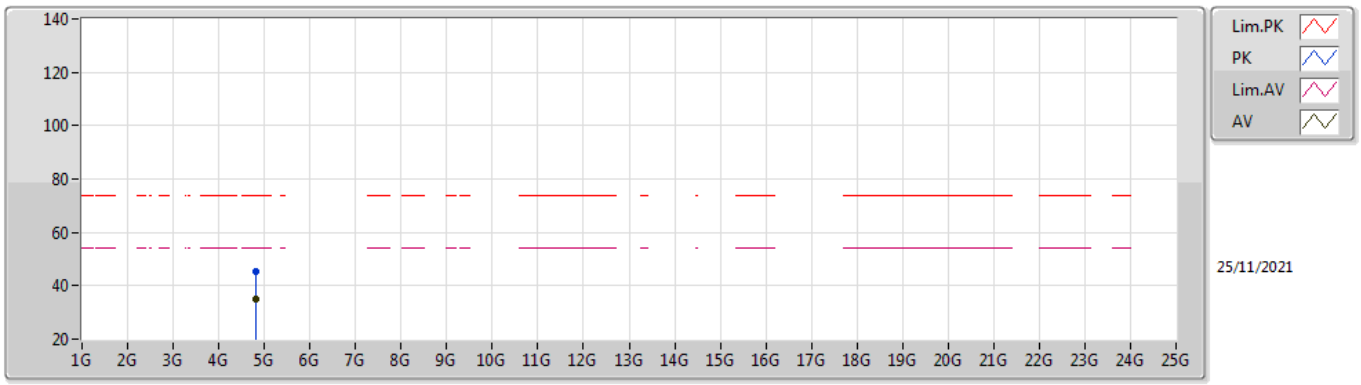
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3624G	47.42	54.00	-6.58	32.29	3	Horizontal	128	2.89	-	15.13	27.75	4.54	-
AV	2.402G	96.11	Inf	-Inf	32.18	3	Horizontal	128	2.89	-	63.93	27.60	4.58	-
PK	2.3652G	57.35	74.00	-16.65	32.29	3	Horizontal	128	2.89	-	25.06	27.74	4.55	-
PK	2.4018G	96.77	Inf	-Inf	32.18	3	Horizontal	128	2.89	-	64.59	27.60	4.58	-

BT-LE(1Mbps)

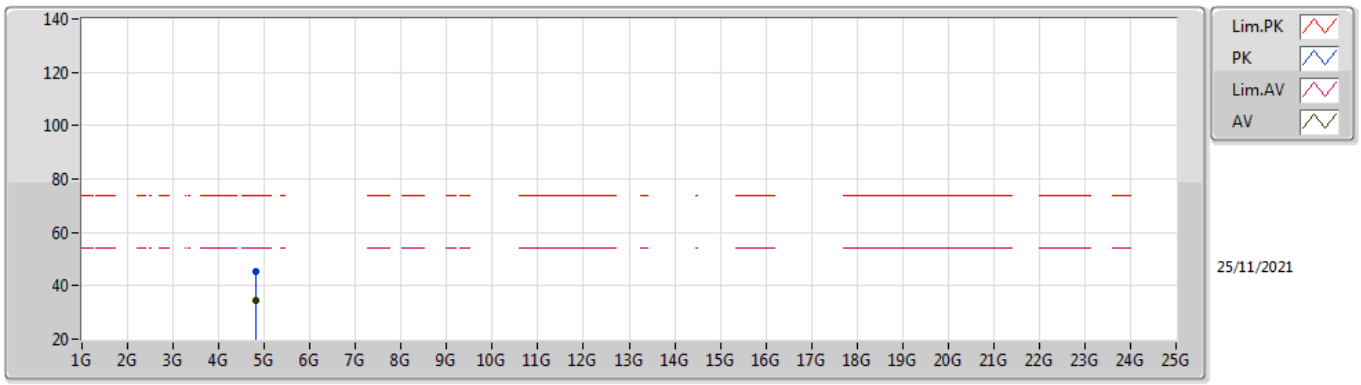
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80185G	34.86	54.00	-19.14	2.95	3	Vertical	326	1.50	-	31.91	31.10	6.66	34.81
PK	4.80493G	45.44	74.00	-28.56	2.95	3	Vertical	326	1.50	-	42.49	31.10	6.66	34.81

BT-LE(1Mbps)

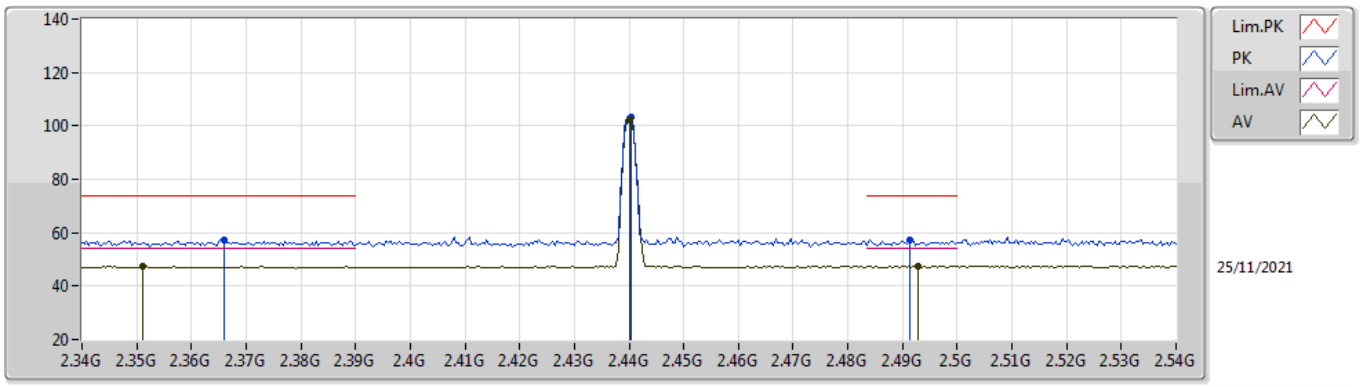
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80444G	34.59	54.00	-19.41	2.95	3	Horizontal	16	2.42	-	31.64	31.10	6.66	34.81
PK	4.80416G	45.60	74.00	-28.40	2.95	3	Horizontal	16	2.42	-	42.65	31.10	6.66	34.81

BT-LE(1Mbps)

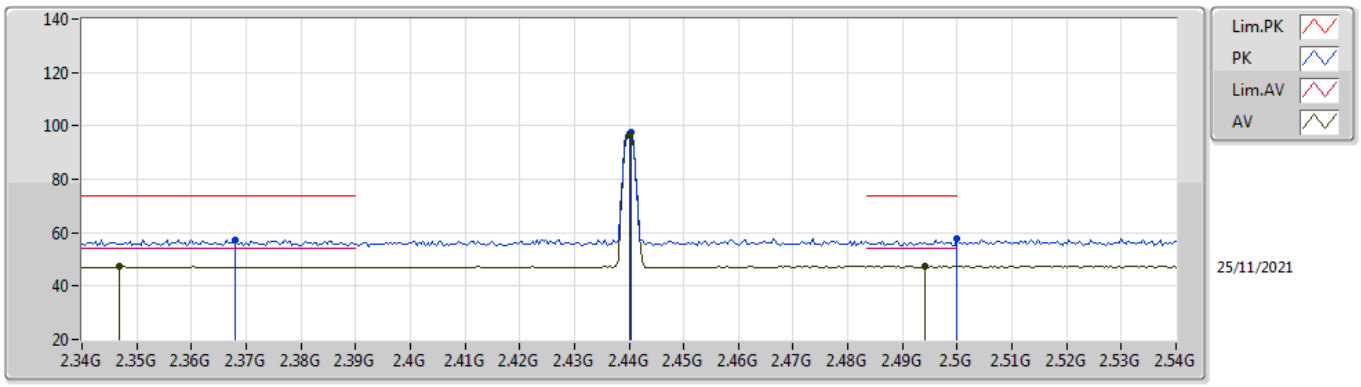
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3512G	47.41	54.00	-6.59	32.33	3	Vertical	25	2.69	-	15.08	27.80	4.53	-
AV	2.44G	102.44	Inf	-Inf	32.12	3	Vertical	25	2.69	-	70.32	27.52	4.60	-
AV	2.4928G	47.50	54.00	-6.50	32.12	3	Vertical	25	2.69	-	15.38	27.50	4.62	-
PK	2.366G	57.17	74.00	-16.83	32.29	3	Vertical	25	2.69	-	24.88	27.74	4.55	-
PK	2.4404G	103.08	Inf	-Inf	32.12	3	Vertical	25	2.69	-	70.96	27.52	4.60	-
PK	2.4912G	57.13	74.00	-16.87	32.12	3	Vertical	25	2.69	-	25.01	27.50	4.62	-

BT-LE(1Mbps)

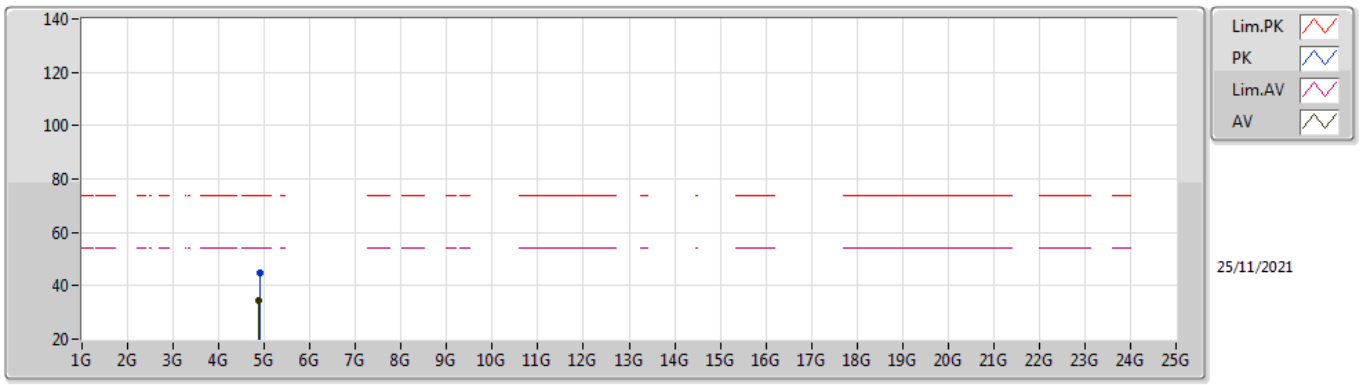
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3468G	47.19	54.00	-6.81	32.33	3	Horizontal	285	3.02	-	14.86	27.80	4.53	-
AV	2.44G	96.76	Inf	-Inf	32.12	3	Horizontal	285	3.02	-	64.64	27.52	4.60	-
AV	2.494G	47.40	54.00	-6.60	32.12	3	Horizontal	285	3.02	-	15.28	27.50	4.62	-
PK	2.368G	57.48	74.00	-16.52	32.28	3	Horizontal	285	3.02	-	25.20	27.73	4.55	-
PK	2.4404G	97.42	Inf	-Inf	32.12	3	Horizontal	285	3.02	-	65.30	27.52	4.60	-
PK	2.5G	57.90	74.00	-16.10	32.12	3	Horizontal	285	3.02	-	25.78	27.50	4.62	-

BT-LE(1Mbps)

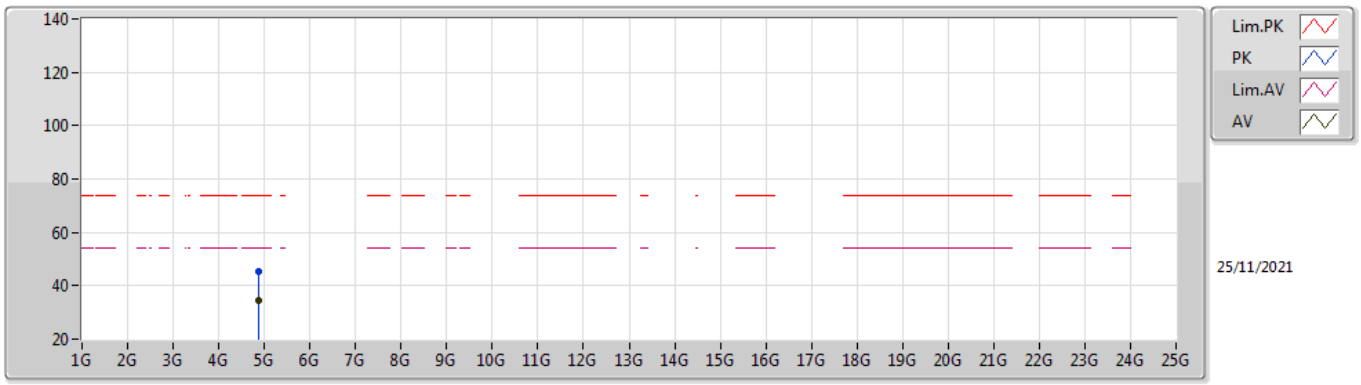
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88864G	34.52	54.00	-19.48	3.04	3	Vertical	33	2.48	-	31.48	31.10	6.73	34.79
PK	4.88908G	44.95	74.00	-29.05	3.04	3	Vertical	33	2.48	-	41.91	31.10	6.73	34.79

BT-LE(1Mbps)

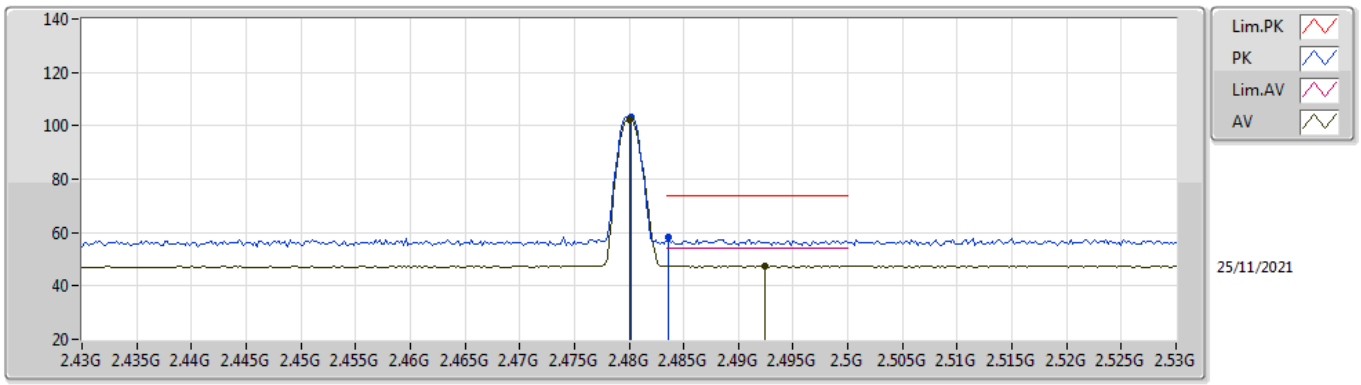
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.88041G	34.27	54.00	-19.73	3.03	3	Horizontal	322	1.50	-	31.24	31.10	6.72	34.79
PK	4.88049G	45.21	74.00	-28.79	3.03	3	Horizontal	322	1.50	-	42.18	31.10	6.72	34.79

BT-LE(1Mbps)

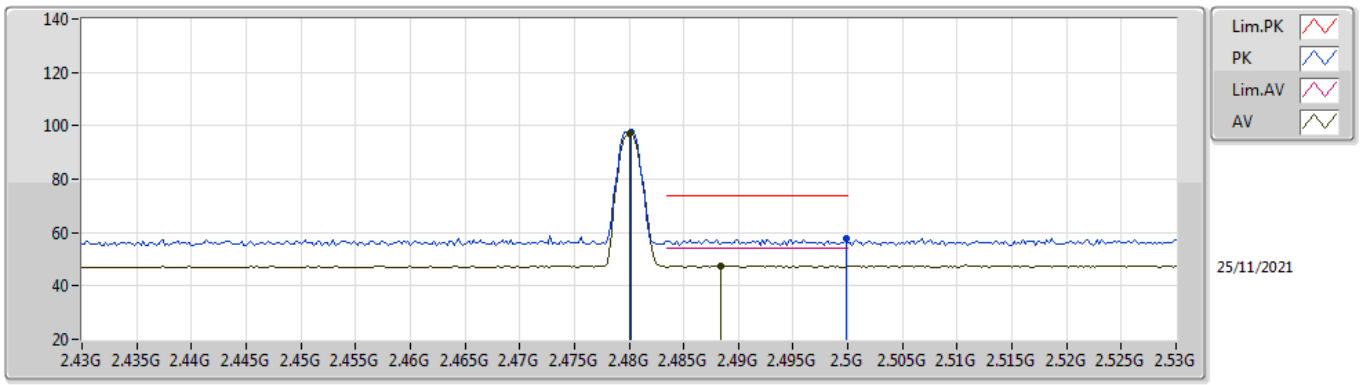
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	102.44	Inf	-Inf	32.11	3	Vertical	44	2.12	-	70.33	27.50	4.61	-
AV	2.4924G	47.62	54.00	-6.38	32.12	3	Vertical	44	2.12	-	15.50	27.50	4.62	-
PK	2.4802G	103.08	Inf	-Inf	32.11	3	Vertical	44	2.12	-	70.97	27.50	4.61	-
PK	2.4836G	58.07	74.00	-15.93	32.11	3	Vertical	44	2.12	-	25.96	27.50	4.61	-

BT-LE(1Mbps)

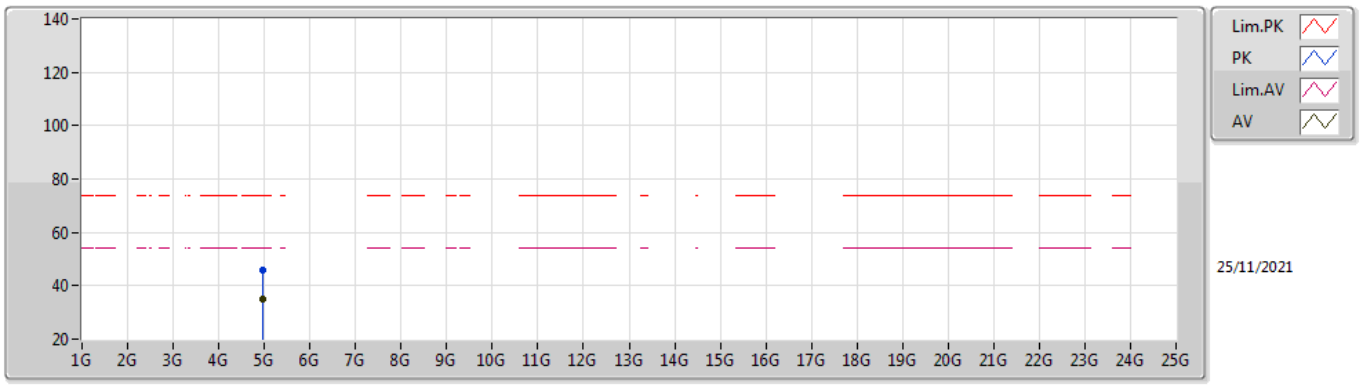
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	97.05	Inf	-Inf	32.11	3	Horizontal	122	3.01	-	64.94	27.50	4.61	-
AV	2.4884G	47.57	54.00	-6.43	32.12	3	Horizontal	122	3.01	-	15.45	27.50	4.62	-
PK	2.4802G	97.75	Inf	-Inf	32.11	3	Horizontal	122	3.01	-	65.64	27.50	4.61	-
PK	2.4998G	57.60	74.00	-16.40	32.12	3	Horizontal	122	3.01	-	25.48	27.50	4.62	-

BT-LE(1Mbps)

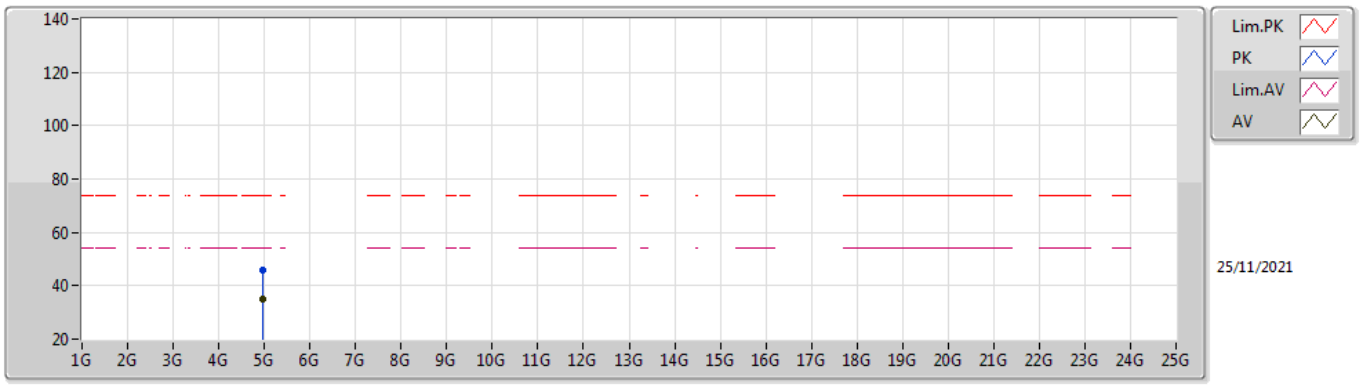
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95961G	34.87	54.00	-19.13	3.35	3	Vertical	76	1.50	-	31.52	31.34	6.78	34.77
PK	4.95995G	45.92	74.00	-28.08	3.35	3	Vertical	76	1.50	-	42.57	31.34	6.78	34.77

BT-LE(1Mbps)

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.96294G	34.90	54.00	-19.10	3.36	3	Horizontal	2	1.17	-	31.54	31.35	6.78	34.77
PK	4.96344G	45.83	74.00	-28.17	3.36	3	Horizontal	2	1.17	-	42.47	31.35	6.78	34.77