FCC Radio Test Report

FCC ID	:	**XN6-SV210D0806**
Equipment	:	**2.1 Soundbar System**
Brand Name	:	**VIZIO**
Model Name	:	**SV210D-0806**
Applicant	:	**Zylux Acoustic Corporation 7F, 70, Rui Guang Road, Neihu District, Taipei 114, Taiwan**
Manufacturer	:	**Zylux Acoustic Corporation 7F, 70, Rui Guang Road, Neihu District, Taipei 114, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Mar. 08, 2024, and testing was started from Mar. 14, 2024 and completed on Mar. 19, 2024. 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: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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

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PHOTOGRAPHS OF EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FR420503AL	01	Initial issue of report	Apr. 01, 2024

Summary of Test Result

Report Clause	Ref.Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	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: Ben Tseng

Report Producer: Ann Hou

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(2Mbps)	2.0	1TX

Note:
- Bluetooth LE uses a GFSK (1Mbps/2Mbps) modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	WIESON	ARY196-4044-003-00	Omni directional	MHF 1	2.36

Note 1: The EUT has one antenna.

For BT function:

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

Ant. 1 (port 1) could transmit/receive.

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)	0.851	0.7	2.129m	1k
BT-LE(2Mbps)	0.859	0.66	1.074m	1k

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

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	Simon Cheng	21.1~21.4°C / 50~52%	18/Mar/2024
RF Conducted	TH07-HY	Yuna Lin	22.4~23.2°C / 49~54%	14/Mar/2024
Radiated	03CH02-HY	Vasari Huang	21.5~23.1°C / 49~51%	14/Mar/2024~19/Mar/2024
☐ 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.				

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	FCC_Test_Tools_V2.25

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	10
2440MHz	10
2480MHz	10
BT-LE(2Mbps)	-
2402MHz	10
2440MHz	10
2480MHz	10

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral 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

2.3 Accessories

Accessories		
AC Power Cord	**Signal Line**	1.5 meter, Non-Shielded cable, without ferrite core
HDMI Cable	**Signal Line**	1.83 meter, Non-Shielded cable, without ferrite core

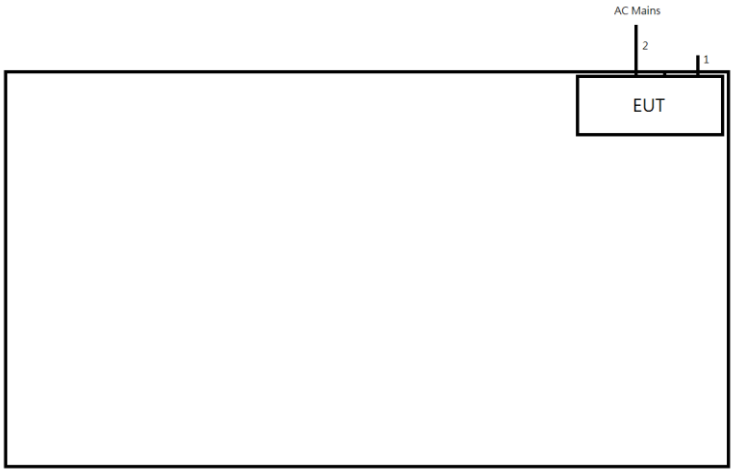
Reminder: Regarding to more detail and other information, please refer to user manual.

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	-	-
3	Test Fixture	ZYLUX	-	-	Provided by Customer

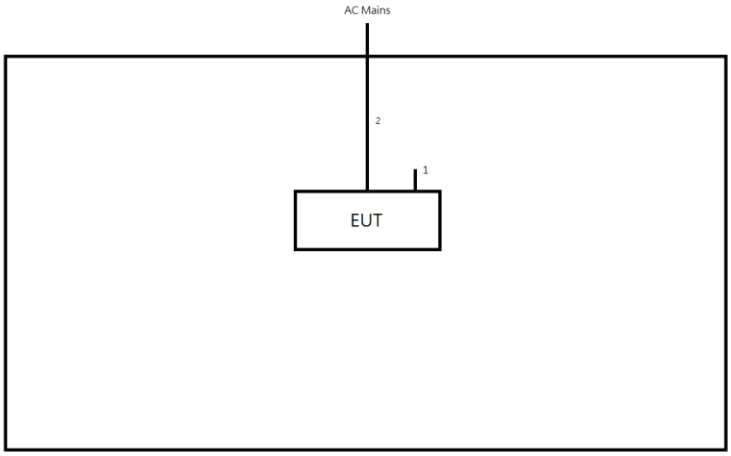
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length (m)
1	Fixture cable	No	0.05
2	AC Power Cord	No	1.5

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length (m)
1	Fixture cable	No	0.05
2	AC Power Cord	No	1.5

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

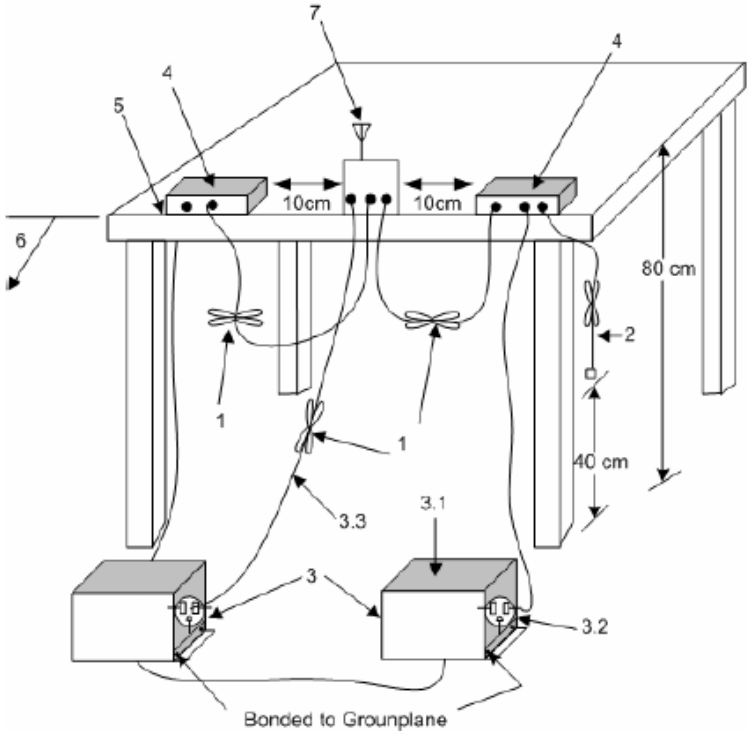
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

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

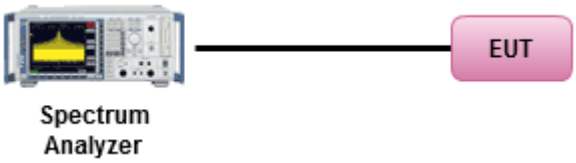
Refer a test equipment and calibration data table in this test report.

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 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

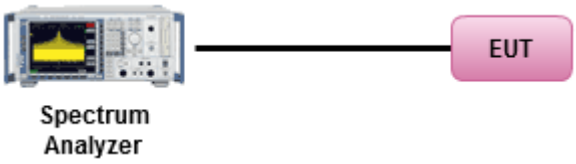
3.4.2 Measuring Instruments

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.	

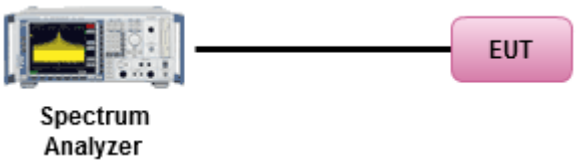
3.5.2 Measuring Instruments

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.

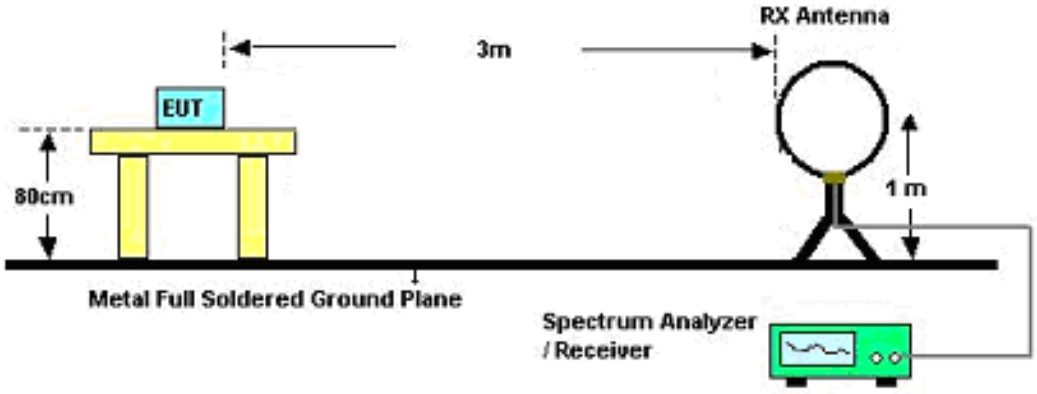
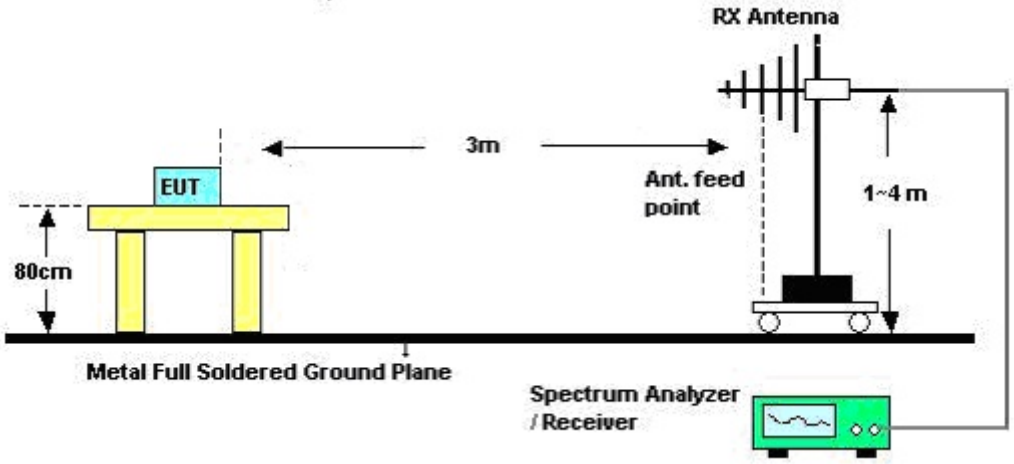
3.6.3 Test Procedures

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.

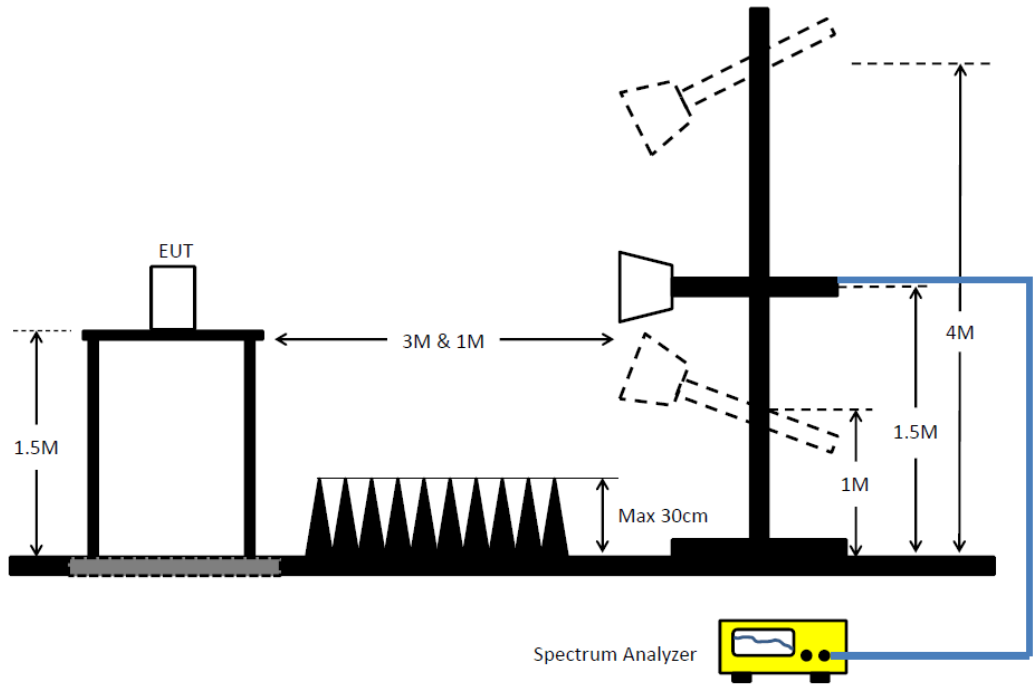
3.6.4 Measurement Results Calculation

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	ESR	102051	9kHz ~ 3.6GHz	16/May/2023	15/May/2024
Two-Line V-Network	R&S	ENV 216	101295	9kHz ~ 30MHz	05/Feb/2024	04/Feb/2025
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	27/Feb/2024	26/Feb/2025
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	18/Oct/2023	17/Oct/2024
Software	Sporton	SENSE-EMI	V5.11.3	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	9kHz~40GHz	02/Feb/2024	01/Feb/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	20/Oct/2023	19/Oct/2024
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	15/Dec/2023	14/Dec/2024
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	15/Dec/2023	14/Dec/2024
SENSE-15247_FS	Sporton	V5.11.17	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	29/Jul/2023	28/Jul/2024
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	28/Jul/2023	27/Jul/2024
EMI Test Receiver	R&S	ESR	102052	9kHz~3.6GHz	26/May/2023	25/May/2024
Signal Analyzer	R&S	FSP 40	100593	9kHz~40GHz	17/Mar/2023	16/Mar/2024
Signal Analyzer	R&S	FSV 40	100500	9kHz~40GHz	26/Oct/2023	25/Oct/2024
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723/2	30MHz~1GHz	27/Aug/2023	26/Aug/2024
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	23/Sep/2023	22/Sep/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	21/Aug/2023	20/Aug/2024
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	9kHz~30MHz	19/Dec/2023	18/Dec/2024
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	30MHz~1GHz	19/Dec/2023	18/Dec/2024
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable-01	1GHz~40GHz	15/Feb/2024	14/Feb/2025
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	27/Jun/2023	26/Jun/2024
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	24/Oct/2023	23/Oct/2024
Amplifier	EM	EM18G40GA	060874	18GHz ~40GHz	18/Aug/2023	17/Aug/2024
SENSE-15247_FS	Sporton	V5.11.17	N/A	N/A	N/A	N/A

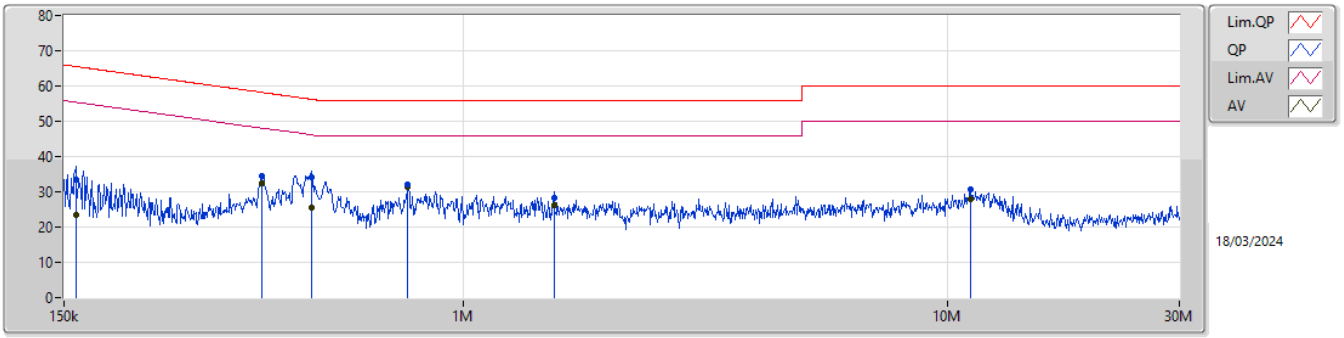
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	767.679k	31.26	46.00	-14.74	Line

Result

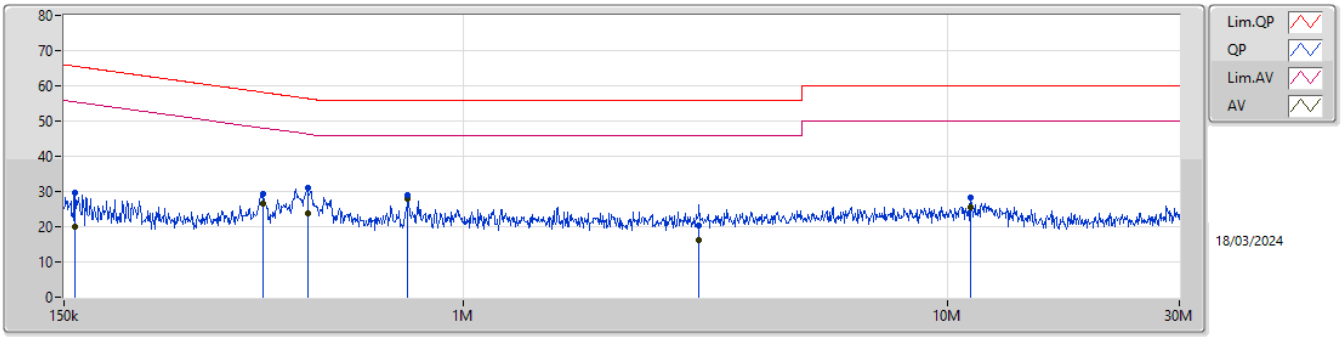
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	158.622k	33.47	65.54	-32.07	Line
Mode 1	Pass	AV	158.622k	23.50	55.54	-32.04	Line
Mode 1	Pass	QP	383.278k	34.37	58.20	-23.83	Line
Mode 1	Pass	AV	383.278k	32.56	48.20	-15.64	Line
Mode 1	Pass	QP	487.008k	34.17	56.21	-22.04	Line
Mode 1	Pass	AV	487.008k	25.57	46.21	-20.64	Line
Mode 1	Pass	QP	767.679k	32.15	56.00	-23.85	Line
Mode 1	Pass	AV	767.679k	31.26	46.00	-14.74	Line
Mode 1	Pass	QP	1.538M	28.21	56.00	-27.79	Line
Mode 1	Pass	AV	1.538M	26.37	46.00	-19.63	Line
Mode 1	Pass	QP	11.137M	30.53	60.00	-29.47	Line
Mode 1	Pass	AV	11.137M	27.97	50.00	-22.03	Line
Mode 1	Pass	QP	157.99k	29.50	65.56	-36.06	Neutral
Mode 1	Pass	AV	157.99k	19.94	55.56	-35.62	Neutral
Mode 1	Pass	QP	386.35k	29.15	58.14	-28.99	Neutral
Mode 1	Pass	AV	386.35k	26.72	48.14	-21.42	Neutral
Mode 1	Pass	QP	477.384k	31.04	56.38	-25.34	Neutral
Mode 1	Pass	AV	477.384k	23.85	46.38	-22.53	Neutral
Mode 1	Pass	QP	767.679k	28.96	56.00	-27.04	Neutral
Mode 1	Pass	AV	767.679k	28.02	46.00	-17.98	Neutral
Mode 1	Pass	QP	3.067M	20.23	56.00	-35.77	Neutral
Mode 1	Pass	AV	3.067M	16.29	46.00	-29.71	Neutral
Mode 1	Pass	QP	11.137M	28.26	60.00	-31.74	Neutral
Mode 1	Pass	AV	11.137M	25.64	50.00	-24.36	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	158.622k	33.47	65.54	-32.07	19.42	Line	-	14.05	9.61	0.07	9.74
AV	158.622k	23.50	55.54	-32.04	19.42	Line	-	4.08	9.61	0.07	9.74
QP	383.278k	34.37	58.20	-23.83	19.49	Line	-	14.88	9.61	0.12	9.76
AV	383.278k	32.56	48.20	-15.64	19.49	Line	-	13.07	9.61	0.12	9.76
QP	487.008k	34.17	56.21	-22.04	19.49	Line	-	14.68	9.61	0.11	9.77
AV	487.008k	25.57	46.21	-20.64	19.49	Line	-	6.08	9.61	0.11	9.77
QP	767.679k	32.15	56.00	-23.85	19.50	Line	-	12.65	9.61	0.10	9.79
AV	767.679k	31.26	46.00	-14.74	19.50	Line	-	11.76	9.61	0.10	9.79
QP	1.538M	28.21	56.00	-27.79	19.52	Line	-	8.69	9.62	0.10	9.80
AV	1.538M	26.37	46.00	-19.63	19.52	Line	-	6.85	9.62	0.10	9.80
QP	11.137M	30.53	60.00	-29.47	19.51	Line	-	11.02	9.65	0.06	9.80
AV	11.137M	27.97	50.00	-22.03	19.51	Line	-	8.46	9.65	0.06	9.80

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	29.50	65.56	-36.06	19.43	Neutral	-	10.07	9.62	0.07	9.74
AV	157.99k	19.94	55.56	-35.62	19.43	Neutral	-	0.51	9.62	0.07	9.74
QP	386.35k	29.15	58.14	-28.99	19.49	Neutral	-	9.66	9.61	0.12	9.76
AV	386.35k	26.72	48.14	-21.42	19.49	Neutral	-	7.23	9.61	0.12	9.76
QP	477.384k	31.04	56.38	-25.34	19.49	Neutral	-	11.55	9.61	0.11	9.77
AV	477.384k	23.85	46.38	-22.53	19.49	Neutral	-	4.36	9.61	0.11	9.77
QP	767.679k	28.96	56.00	-27.04	19.50	Neutral	-	9.46	9.61	0.10	9.79
AV	767.679k	28.02	46.00	-17.98	19.50	Neutral	-	8.52	9.61	0.10	9.79
QP	3.067M	20.23	56.00	-35.77	19.51	Neutral	-	0.72	9.63	0.09	9.79
AV	3.067M	16.29	46.00	-29.71	19.51	Neutral	-	-3.22	9.63	0.09	9.79
QP	11.137M	28.26	60.00	-31.74	19.55	Neutral	-	8.71	9.69	0.06	9.80
AV	11.137M	25.64	50.00	-24.36	19.55	Neutral	-	6.09	9.69	0.06	9.80

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)	672.5k	1.039M	1M04F1D	652.5k	1.023M
BT-LE(2Mbps)	1.353M	1.943M	1M94F1D	1.125M	1.927M

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

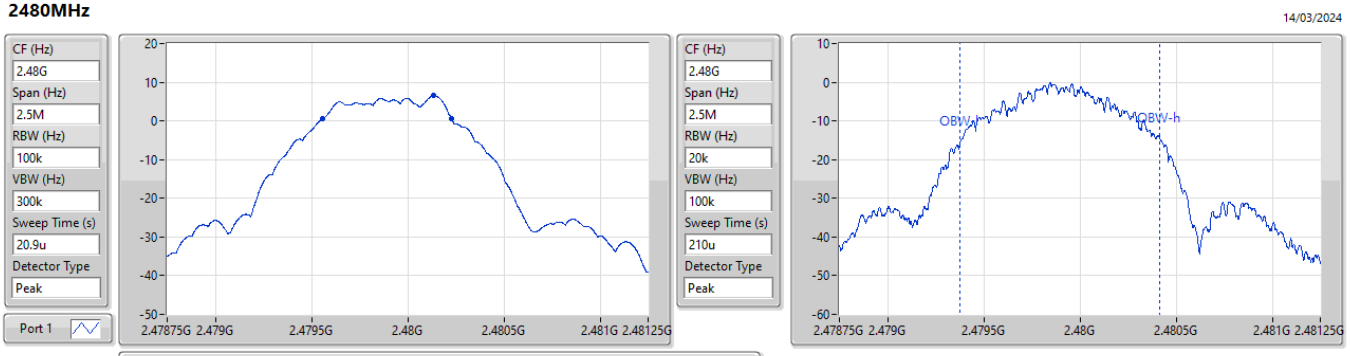
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	668.75k	1.025M
2440MHz	Pass	500k	652.5k	1.023M
2480MHz	Pass	500k	672.5k	1.039M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.125M	1.943M
2440MHz	Pass	500k	1.338M	1.931M
2480MHz	Pass	500k	1.353M	1.927M

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

2.4-2.4835GHz_BT-LE(1Mbps) **EBW-DTS**

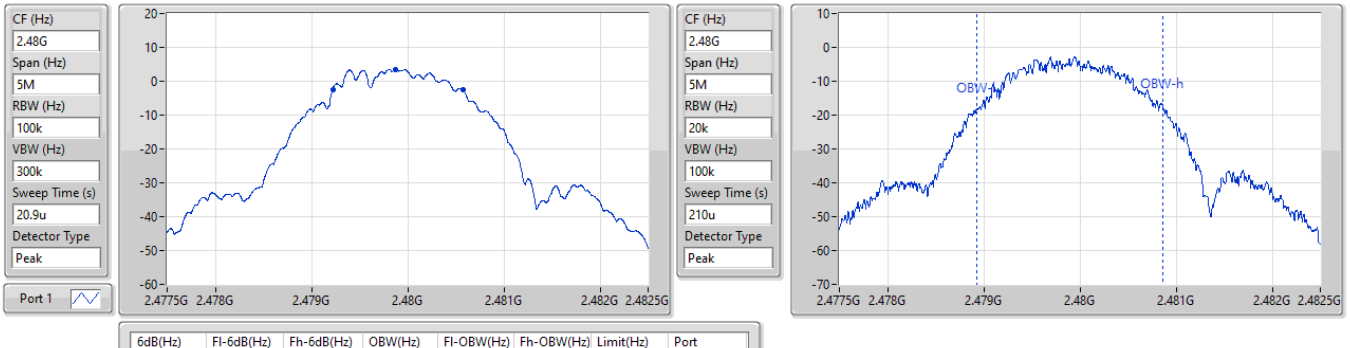
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
672.5k	2.479556G	2.480229G	1.039M	2.479379G	2.480417G	500k	1

2.4-2.4835GHz_BT-LE(2Mbps) **EBW-DTS**

2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.353M	2.47922G	2.480573G	1.927M	2.47893G	2.480857G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	7.75	0.00596
BT-LE(2Mbps)	7.35	0.00543

Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.36	7.69	30.00
2440MHz	Pass	2.36	7.75	30.00
2480MHz	Pass	2.36	7.60	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.36	7.32	30.00
2440MHz	Pass	2.36	7.35	30.00
2480MHz	Pass	2.36	7.22	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-9.24
BT-LE(2Mbps)	-11.63

RBW = 3kHz;

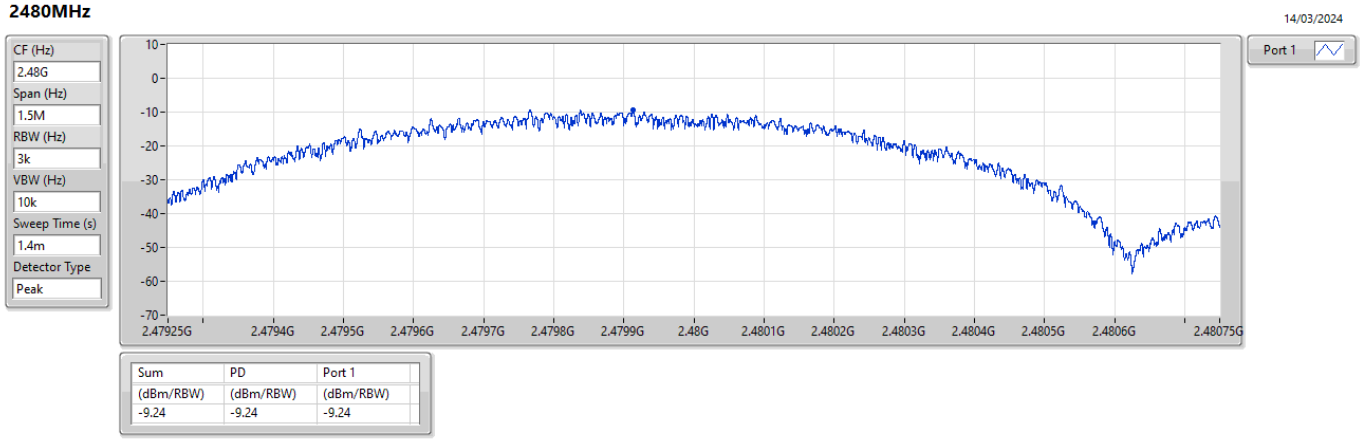
Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.36	-9.39	8.00
2440MHz	Pass	2.36	-9.98	8.00
2480MHz	Pass	2.36	-9.24	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.36	-11.90	8.00
2440MHz	Pass	2.36	-11.63	8.00
2480MHz	Pass	2.36	-12.02	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;

2.4-2.4835GHz_BT-LE(1Mbps) **PSD**

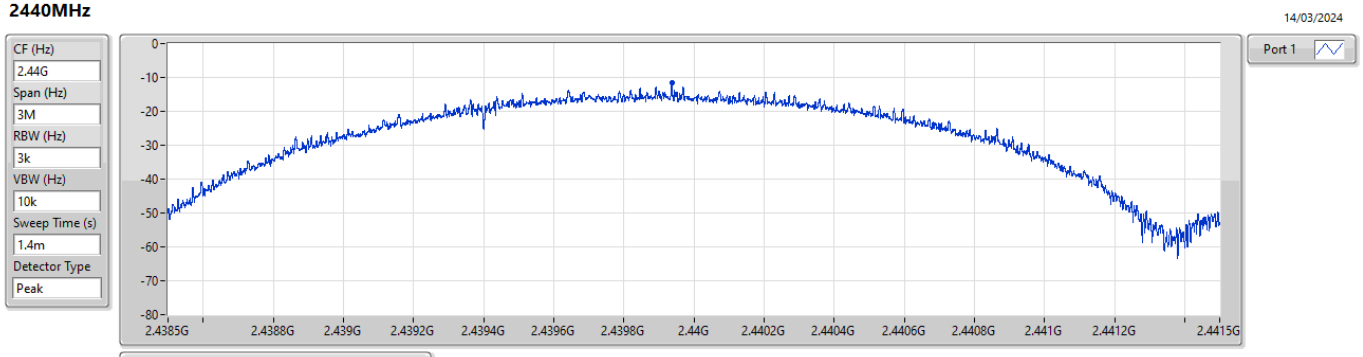
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.24	-9.24	-9.24

2.4-2.4835GHz_BT-LE(2Mbps) **PSD**

2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.63	-11.63	-11.63

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	2.43991G	7.11	-22.89	2.17555G	-54.79	2.39988G	-49.07	2.4G	-50.51	2.50314G	-52.98	23.52367G	-27.46	1
BT-LE(2Mbps)	Pass	2.43991G	6.75	-23.25	1.9476G	-55.81	2.39992G	-29.55	2.4G	-29.12	2.50102G	-53.31	21.53835G	-28.02	1

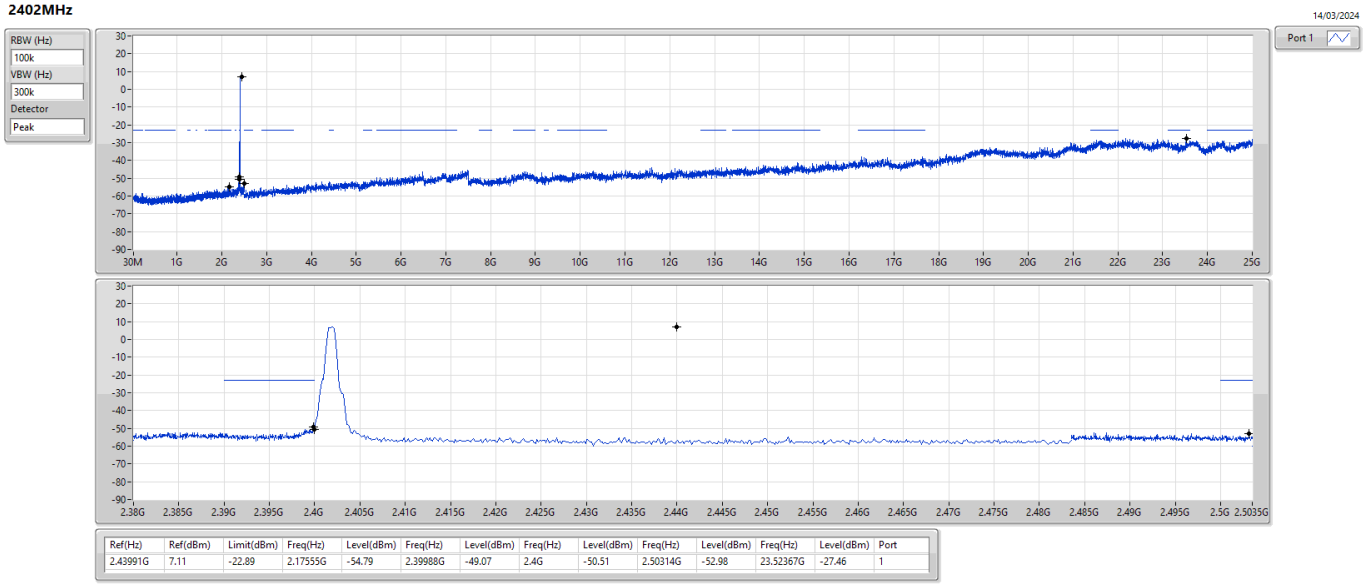
Result

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	2.43991G	7.11	-22.89	2.17555G	-54.79	2.39988G	-49.07	2.4G	-50.51	2.50314G	-52.98	23.52367G	-27.46	1
2440MHz	Pass	2.43991G	7.11	-22.89	2.06158G	-55.79	2.39912G	-52.92	2.4G	-55.96	2.5011G	-53.71	24.9072G	-26.74	1
2480MHz	Pass	2.43991G	7.11	-22.89	2.04748G	-55.44	2.39656G	-53.31	2.4G	-57.64	2.50106G	-53.02	21.61146G	-27.19	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.43991G	6.75	-23.25	1.9476G	-55.81	2.39992G	-29.55	2.4G	-29.12	2.50102G	-53.31	21.53835G	-28.02	1
2440MHz	Pass	2.43991G	6.75	-23.25	2.13913G	-55.46	2.39208G	-52.51	2.4G	-56.94	2.50286G	-52.77	24.82003G	-28.16	1
2480MHz	Pass	2.43991G	6.75	-23.25	2.3048G	-55.71	2.39756G	-52.87	2.4G	-57.93	2.50194G	-52.69	24.98594G	-27.23	1

2.4-2.4835GHz_BT-LE(1Mbps)

CSENdB-DTS

2402MHz

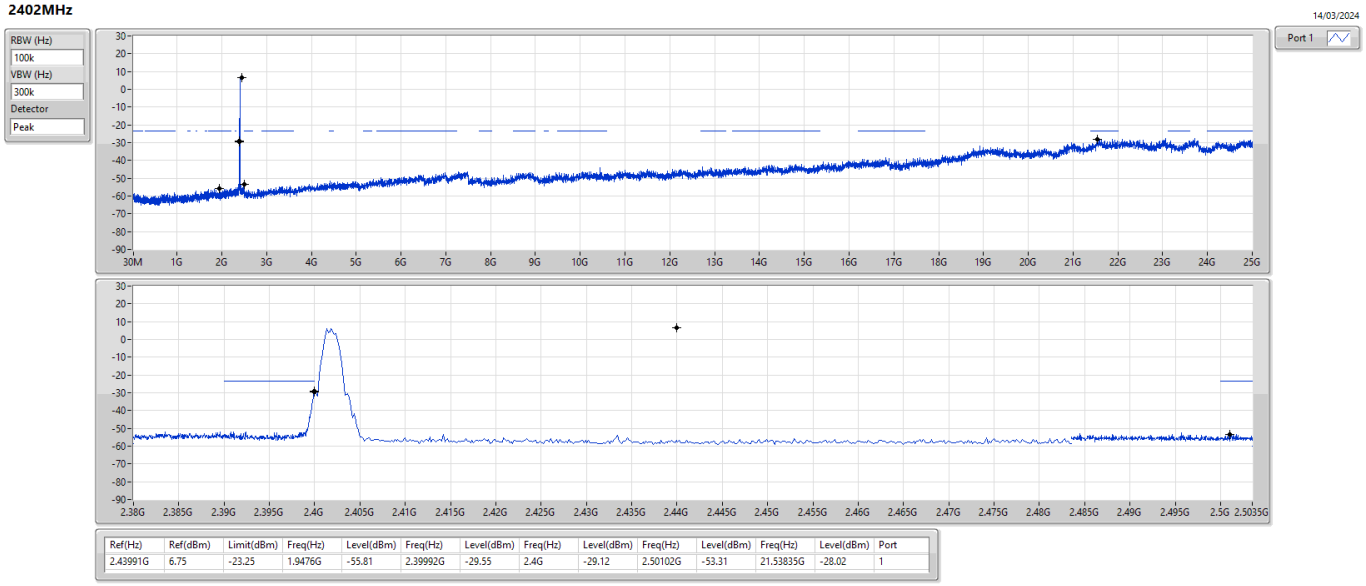


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43991G	7.11	-22.89	2.17555G	-54.79	2.39988G	-49.07	2.4G	-50.51	2.50314G	-52.98	23.52367G	-27.46	1

2.4-2.4835GHz_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
2.43991G	6.75	-23.25	1.9476G	-55.81	2.39992G	-29.55	2.4G	-29.12	2.50102G	-53.31	21.53835G	-28.02	1

Summary

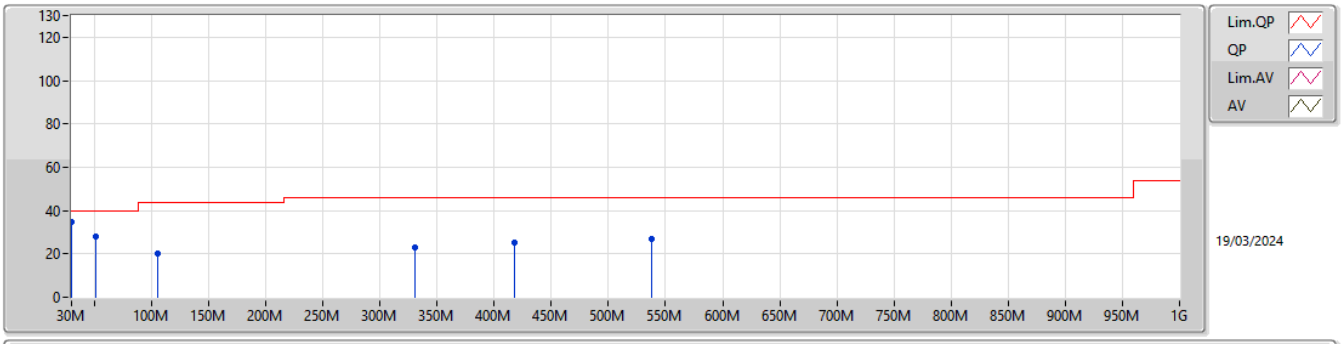
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	90.14M	38.91	43.50	-4.59	3	Horizontal	0	3.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	PK	30M	34.47	40.00	-5.53	3	Vertical	360	3.00
2480MHz	Pass	PK	51.34M	27.92	40.00	-12.08	3	Vertical	360	3.00
2480MHz	Pass	PK	105.66M	20.23	43.50	-23.27	3	Vertical	360	3.00
2480MHz	Pass	PK	330.7M	23.25	46.00	-22.75	3	Vertical	360	3.00
2480MHz	Pass	PK	418M	25.41	46.00	-20.59	3	Vertical	360	3.00
2480MHz	Pass	PK	538.28M	26.66	46.00	-19.34	3	Vertical	360	3.00
2480MHz	Pass	PK	90.14M	38.91	43.50	-4.59	3	Horizontal	0	3.00
2480MHz	Pass	PK	113.42M	33.75	43.50	-9.75	3	Horizontal	0	3.00
2480MHz	Pass	PK	224M	26.69	46.00	-19.31	3	Horizontal	0	3.00
2480MHz	Pass	PK	386.96M	33.63	46.00	-12.37	3	Horizontal	0	3.00
2480MHz	Pass	PK	493.66M	26.59	46.00	-19.41	3	Horizontal	0	3.00
2480MHz	Pass	PK	559.62M	28.35	46.00	-17.65	3	Horizontal	0	3.00

2.4-2.4835GHz_BT-LE(2Mbps)

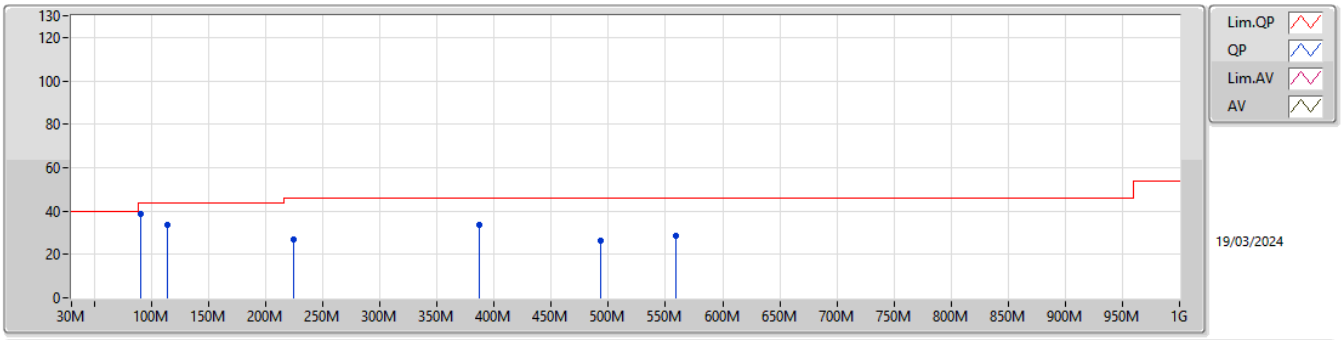
2480MHz_Switching Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	30M	34.47	40.00	-5.53	-3.19	3	Vertical	360	3.00	37.66	22.98	1.23	27.40
PK	51.34M	27.92	40.00	-12.08	-12.28	3	Vertical	360	3.00	40.20	13.15	1.55	26.98
PK	105.66M	20.23	43.50	-23.27	-9.18	3	Vertical	360	3.00	29.41	16.60	2.06	27.84
PK	330.7M	23.25	46.00	-22.75	-4.85	3	Vertical	360	3.00	28.10	18.84	3.78	27.47
PK	418M	25.41	46.00	-20.59	-1.88	3	Vertical	360	3.00	27.29	21.83	4.36	28.07
PK	538.28M	26.66	46.00	-19.34	-0.35	3	Vertical	360	3.00	27.01	23.21	5.07	28.63

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_Switching Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
PK	90.14M	38.91	43.50	-4.59	-11.81	3	Horizontal	0	3.00	50.72	14.14	1.88	27.83
PK	113.42M	33.75	43.50	-9.75	-8.47	3	Horizontal	0	3.00	42.22	17.20	2.15	27.82
PK	224M	26.69	46.00	-19.31	-9.62	3	Horizontal	0	3.00	36.31	14.66	3.08	27.36
PK	386.96M	33.63	46.00	-12.37	-3.35	3	Horizontal	0	3.00	36.98	20.35	4.13	27.83
PK	493.66M	26.59	46.00	-19.41	-0.96	3	Horizontal	0	3.00	27.55	22.60	4.84	28.40
PK	559.62M	28.35	46.00	-17.65	0.61	3	Horizontal	0	3.00	27.74	24.01	5.26	28.66

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4862G	48.94	54.00	-5.06	3	Vertical	161	2.22
BT-LE(2Mbps)	Pass	AV	2.4866G	48.95	54.00	-5.05	3	Horizontal	41	1.10

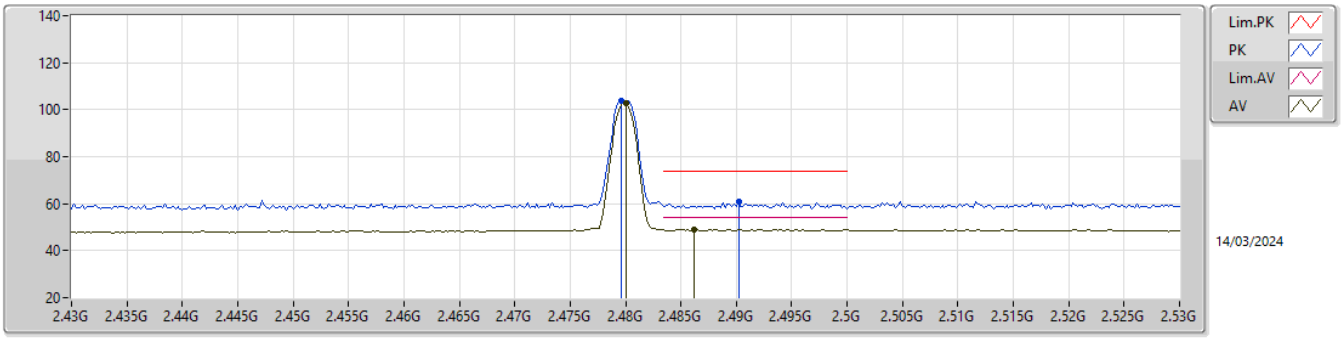
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3584G	47.53	54.00	-6.47	3	Vertical	179	1.53
2402MHz	Pass	AV	2.402G	100.89	Inf	-Inf	3	Vertical	179	1.53
2402MHz	Pass	PK	2.3656G	59.56	74.00	-14.44	3	Vertical	179	1.53
2402MHz	Pass	PK	2.4016G	101.80	Inf	-Inf	3	Vertical	179	1.53
2402MHz	Pass	AV	2.389G	47.74	54.00	-6.26	3	Horizontal	128	1.50
2402MHz	Pass	AV	2.4018G	99.92	Inf	-Inf	3	Horizontal	128	1.50
2402MHz	Pass	PK	2.3624G	59.80	74.00	-14.20	3	Horizontal	128	1.50
2402MHz	Pass	PK	2.4022G	100.82	Inf	-Inf	3	Horizontal	128	1.50
2402MHz	Pass	AV	4.80375G	36.06	54.00	-17.94	3	Vertical	132	1.23
2402MHz	Pass	PK	4.80375G	45.10	74.00	-28.90	3	Vertical	132	1.23
2402MHz	Pass	AV	4.80377G	33.80	54.00	-20.20	3	Horizontal	201	1.23
2402MHz	Pass	PK	4.80355G	43.73	74.00	-30.27	3	Horizontal	201	1.23
2440MHz	Pass	AV	2.358G	47.53	54.00	-6.47	3	Vertical	163	1.82
2440MHz	Pass	AV	2.44G	101.60	Inf	-Inf	3	Vertical	163	1.82
2440MHz	Pass	AV	2.498G	48.71	54.00	-5.29	3	Vertical	163	1.82
2440MHz	Pass	PK	2.348G	59.08	74.00	-14.92	3	Vertical	163	1.82
2440MHz	Pass	PK	2.4396G	102.49	Inf	-Inf	3	Vertical	163	1.82
2440MHz	Pass	PK	2.494G	59.81	74.00	-14.19	3	Vertical	163	1.82
2440MHz	Pass	AV	2.3856G	47.69	54.00	-6.31	3	Horizontal	125	1.53
2440MHz	Pass	AV	2.44G	101.15	Inf	-Inf	3	Horizontal	125	1.53
2440MHz	Pass	AV	2.4896G	48.74	54.00	-5.26	3	Horizontal	125	1.53
2440MHz	Pass	PK	2.3468G	59.49	74.00	-14.51	3	Horizontal	125	1.53
2440MHz	Pass	PK	2.44G	102.05	Inf	-Inf	3	Horizontal	125	1.53
2440MHz	Pass	PK	2.492G	59.82	74.00	-14.18	3	Horizontal	125	1.53
2440MHz	Pass	AV	4.87979G	34.82	54.00	-19.18	3	Vertical	130	2.51
2440MHz	Pass	PK	4.88001G	44.60	74.00	-29.40	3	Vertical	130	2.51
2440MHz	Pass	AV	4.87959G	34.19	54.00	-19.81	3	Horizontal	188	1.18
2440MHz	Pass	PK	4.88G	43.93	74.00	-30.07	3	Horizontal	188	1.18
2480MHz	Pass	AV	2.48G	102.85	Inf	-Inf	3	Vertical	161	2.22
2480MHz	Pass	AV	2.4862G	48.94	54.00	-5.06	3	Vertical	161	2.22
2480MHz	Pass	PK	2.4796G	103.77	Inf	-Inf	3	Vertical	161	2.22
2480MHz	Pass	PK	2.4902G	61.09	74.00	-12.91	3	Vertical	161	2.22
2480MHz	Pass	AV	2.48G	101.67	Inf	-Inf	3	Horizontal	126	3.00
2480MHz	Pass	AV	2.4902G	48.74	54.00	-5.26	3	Horizontal	126	3.00
2480MHz	Pass	PK	2.4796G	102.59	Inf	-Inf	3	Horizontal	126	3.00
2480MHz	Pass	PK	2.4982G	61.01	74.00	-12.99	3	Horizontal	126	3.00
2480MHz	Pass	AV	4.9598G	32.94	54.00	-21.06	3	Vertical	225	2.44
2480MHz	Pass	PK	4.95989G	44.09	74.00	-29.91	3	Vertical	225	2.44
2480MHz	Pass	AV	4.95973G	32.51	54.00	-21.49	3	Horizontal	184	1.40
2480MHz	Pass	PK	4.95963G	43.59	74.00	-30.41	3	Horizontal	184	1.40
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3548G	47.52	54.00	-6.48	3	Vertical	171	1.53
2402MHz	Pass	AV	2.402G	99.14	Inf	-Inf	3	Vertical	171	1.53
2402MHz	Pass	PK	2.3892G	59.45	74.00	-14.55	3	Vertical	171	1.53
2402MHz	Pass	PK	2.402G	101.45	Inf	-Inf	3	Vertical	171	1.53
2402MHz	Pass	AV	2.3632G	47.72	54.00	-6.28	3	Horizontal	118	1.85
2402MHz	Pass	AV	2.4018G	99.32	Inf	-Inf	3	Horizontal	118	1.85
2402MHz	Pass	PK	2.3854G	59.45	74.00	-14.55	3	Horizontal	118	1.85
2402MHz	Pass	PK	2.4018G	101.64	Inf	-Inf	3	Horizontal	118	1.85
2402MHz	Pass	AV	4.80398G	33.93	54.00	-20.07	3	Vertical	132	1.24
2402MHz	Pass	PK	4.80409G	44.21	74.00	-29.79	3	Vertical	132	1.24
2402MHz	Pass	AV	4.80375G	33.53	54.00	-20.47	3	Horizontal	214	2.83
2402MHz	Pass	PK	4.80402G	44.11	74.00	-29.89	3	Horizontal	214	2.83
2440MHz	Pass	AV	2.358G	47.53	54.00	-6.47	3	Vertical	156	1.82
2440MHz	Pass	AV	2.44G	99.79	Inf	-Inf	3	Vertical	156	1.82
2440MHz	Pass	AV	2.4896G	48.74	54.00	-5.26	3	Vertical	156	1.82
2440MHz	Pass	PK	2.3612G	59.29	74.00	-14.71	3	Vertical	156	1.82
2440MHz	Pass	PK	2.44G	102.09	Inf	-Inf	3	Vertical	156	1.82
2440MHz	Pass	PK	2.4964G	60.61	74.00	-13.39	3	Vertical	156	1.82
2440MHz	Pass	AV	2.36G	47.54	54.00	-6.46	3	Horizontal	126	2.83

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	AV	2.44G	100.03	Inf	-Inf	3	Horizontal	126	2.83
2440MHz	Pass	AV	2.4872G	48.72	54.00	-5.28	3	Horizontal	126	2.83
2440MHz	Pass	PK	2.37G	59.39	74.00	-14.61	3	Horizontal	126	2.83
2440MHz	Pass	PK	2.44G	102.35	Inf	-Inf	3	Horizontal	126	2.83
2440MHz	Pass	PK	2.486G	59.86	74.00	-14.14	3	Horizontal	126	2.83
2440MHz	Pass	AV	4.87989G	33.37	54.00	-20.63	3	Vertical	133	1.45
2440MHz	Pass	PK	4.87975G	44.58	74.00	-29.42	3	Vertical	133	1.45
2440MHz	Pass	AV	4.87997G	33.15	54.00	-20.85	3	Horizontal	190	1.19
2440MHz	Pass	PK	4.87975G	44.08	74.00	-29.92	3	Horizontal	190	1.19
2480MHz	Pass	AV	2.4798G	101.44	Inf	-Inf	3	Vertical	152	1.68
2480MHz	Pass	AV	2.4852G	48.94	54.00	-5.06	3	Vertical	152	1.68
2480MHz	Pass	PK	2.4798G	103.74	Inf	-Inf	3	Vertical	152	1.68
2480MHz	Pass	PK	2.4942G	60.85	74.00	-13.15	3	Vertical	152	1.68
2480MHz	Pass	AV	2.48G	95.01	Inf	-Inf	3	Horizontal	41	1.10
2480MHz	Pass	AV	2.4866G	48.95	54.00	-5.05	3	Horizontal	41	1.10
2480MHz	Pass	PK	2.4798G	97.38	Inf	-Inf	3	Horizontal	41	1.10
2480MHz	Pass	PK	2.4938G	60.19	74.00	-13.81	3	Horizontal	41	1.10
2480MHz	Pass	AV	4.95975G	31.48	54.00	-22.52	3	Vertical	211	2.29
2480MHz	Pass	PK	4.95943G	43.00	74.00	-31.00	3	Vertical	211	2.29
2480MHz	Pass	AV	4.95974G	32.06	54.00	-21.94	3	Horizontal	191	1.28
2480MHz	Pass	PK	4.95996G	43.81	74.00	-30.19	3	Horizontal	191	1.28

2.4-2.4835GHz_BT-LE(1Mbps)

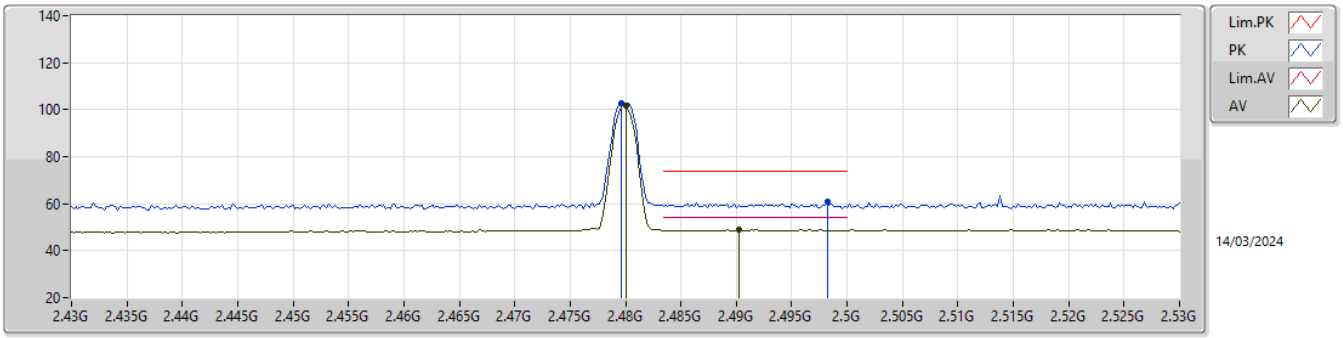
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	102.85	Inf	-Inf	32.13	3	Vertical	161	2.22	70.72	27.50	4.63	-
AV	2.4862G	48.94	54.00	-5.06	32.20	3	Vertical	161	2.22	16.74	27.56	4.64	-
PK	2.4796G	103.77	Inf	-Inf	32.13	3	Vertical	161	2.22	71.64	27.50	4.63	-
PK	2.4902G	61.09	74.00	-12.91	32.24	3	Vertical	161	2.22	28.85	27.60	4.64	-

2.4-2.4835GHz_BT-LE(1Mbps)

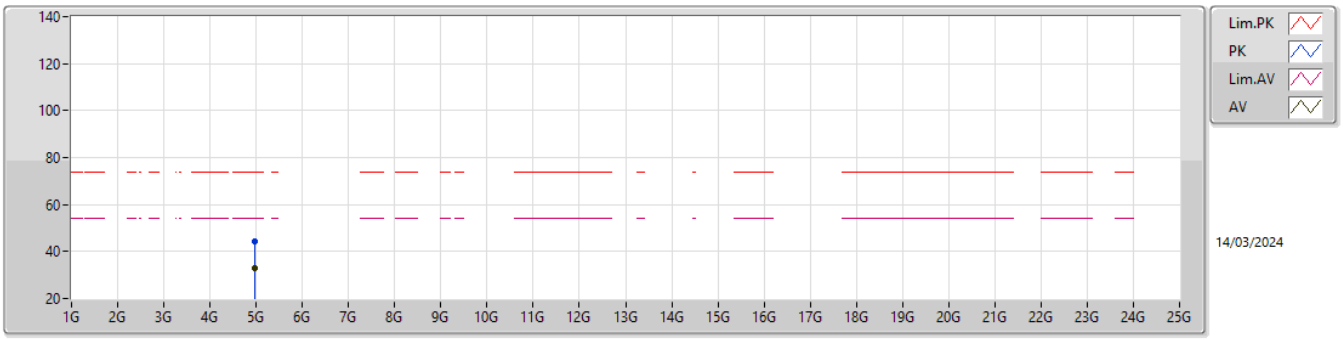
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	101.67	Inf	-Inf	32.13	3	Horizontal	126	3.00	69.54	27.50	4.63	-
AV	2.4902G	48.74	54.00	-5.26	32.24	3	Horizontal	126	3.00	16.50	27.60	4.64	-
PK	2.4796G	102.59	Inf	-Inf	32.13	3	Horizontal	126	3.00	70.46	27.50	4.63	-
PK	2.4982G	61.01	74.00	-12.99	32.25	3	Horizontal	126	3.00	28.76	27.60	4.65	-

2.4-2.4835GHz_BT-LE(1Mbps)

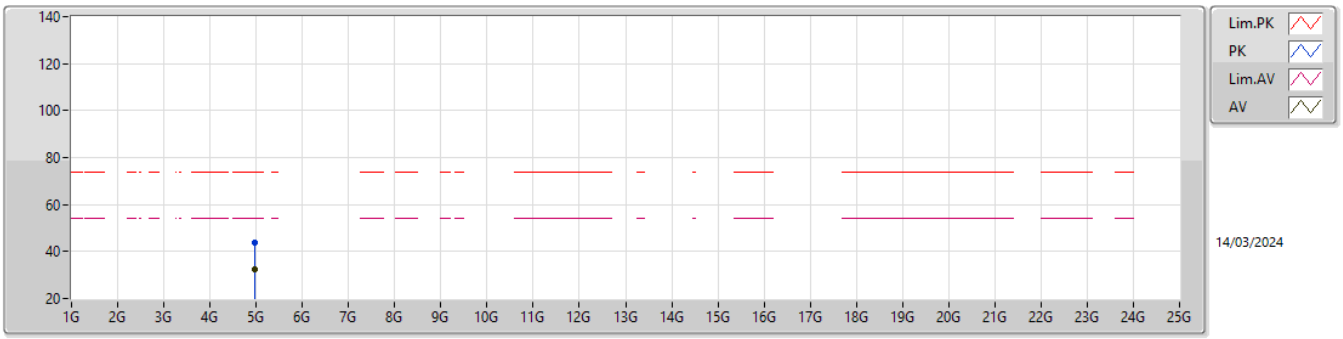
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.9598G	32.94	54.00	-21.06	4.84	3	Vertical	225	2.44	28.10	32.94	6.68	34.78
PK	4.95989G	44.09	74.00	-29.91	4.84	3	Vertical	225	2.44	39.25	32.94	6.68	34.78

2.4-2.4835GHz_BT-LE(1Mbps)

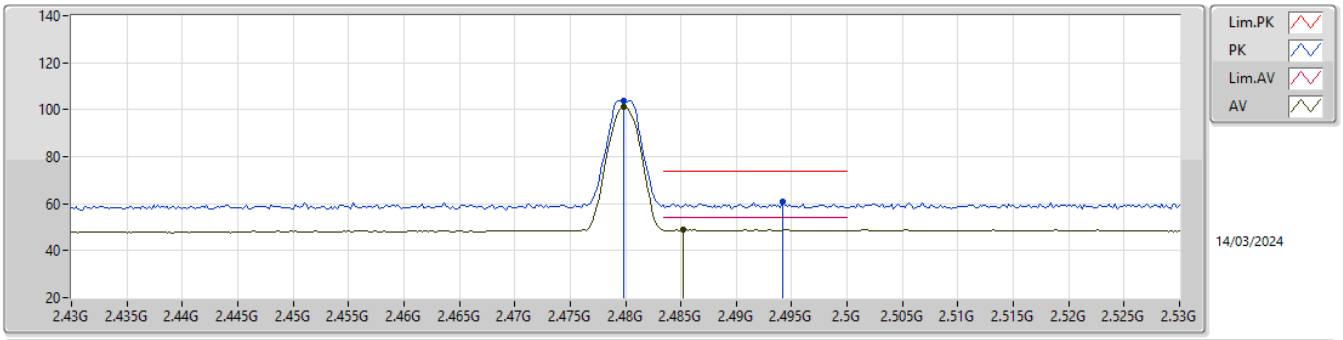
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.95973G	32.51	54.00	-21.49	4.84	3	Horizontal	184	1.40	27.67	32.94	6.68	34.78
PK	4.95963G	43.59	74.00	-30.41	4.84	3	Horizontal	184	1.40	38.75	32.94	6.68	34.78

2.4-2.4835GHz_BT-LE(2Mbps)

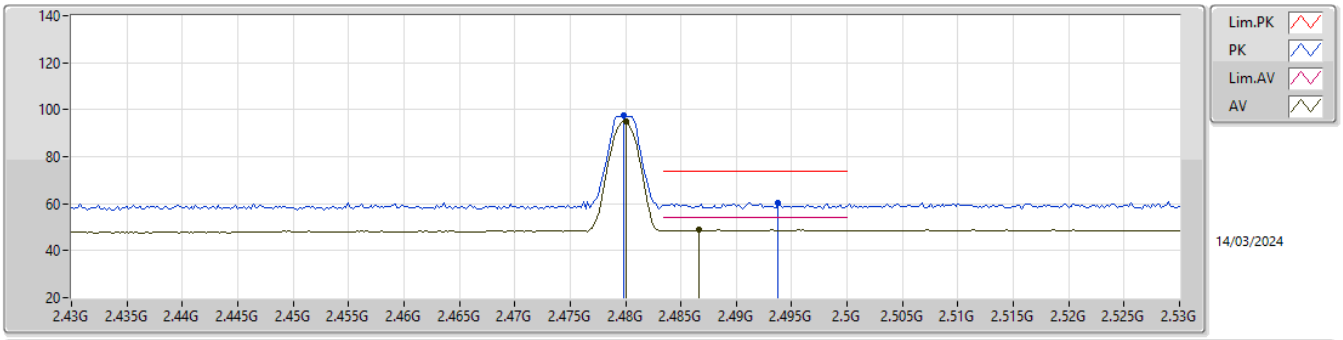
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.4798G	101.44	Inf	-Inf	32.13	3	Vertical	152	1.68	69.31	27.50	4.63	-
AV	2.4852G	48.94	54.00	-5.06	32.19	3	Vertical	152	1.68	16.75	27.55	4.64	-
PK	2.4798G	103.74	Inf	-Inf	32.13	3	Vertical	152	1.68	71.61	27.50	4.63	-
PK	2.4942G	60.85	74.00	-13.15	32.25	3	Vertical	152	1.68	28.60	27.60	4.65	-

2.4-2.4835GHz_BT-LE(2Mbps)

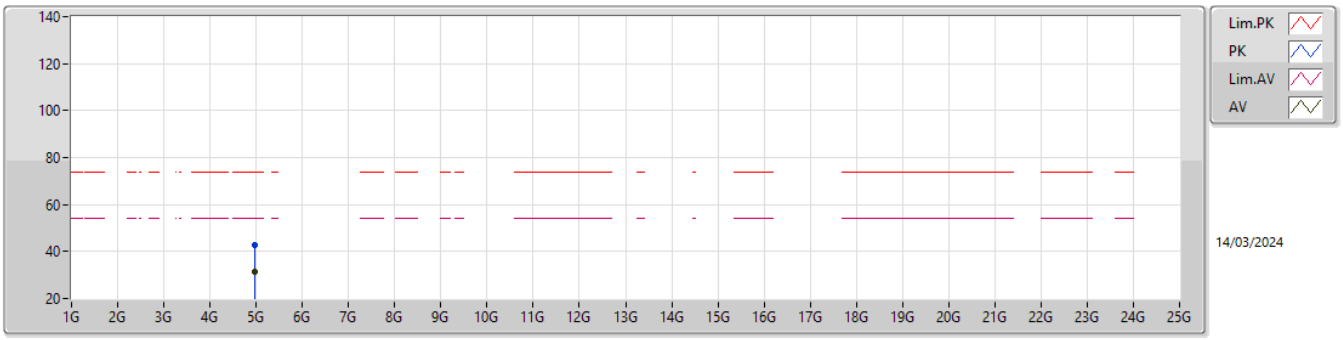
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	95.01	Inf	-Inf	32.13	3	Horizontal	41	1.10	62.88	27.50	4.63	-
AV	2.4866G	48.95	54.00	-5.05	32.21	3	Horizontal	41	1.10	16.74	27.57	4.64	-
PK	2.4798G	97.38	Inf	-Inf	32.13	3	Horizontal	41	1.10	65.25	27.50	4.63	-
PK	2.4938G	60.19	74.00	-13.81	32.25	3	Horizontal	41	1.10	27.94	27.60	4.65	-

2.4-2.4835GHz_BT-LE(2Mbps)

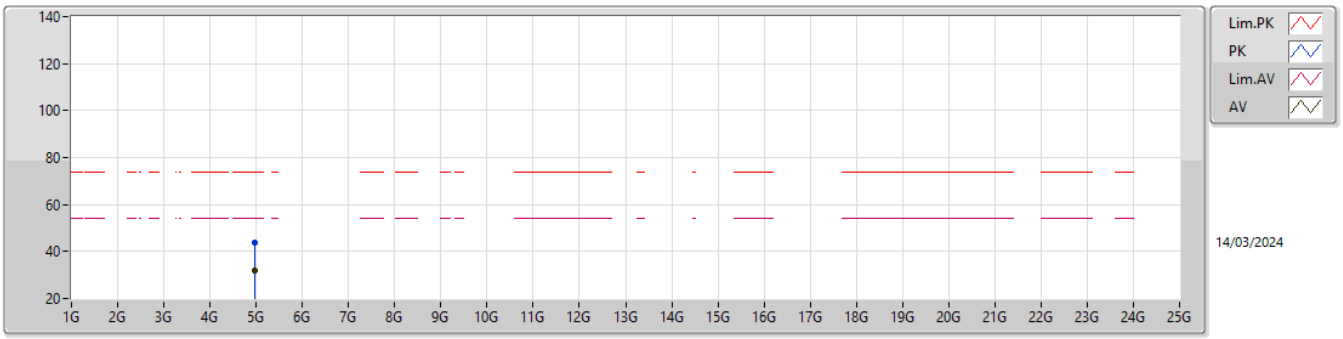
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.95975G	31.48	54.00	-22.52	4.84	3	Vertical	211	2.29	26.64	32.94	6.68	34.78
PK	4.95943G	43.00	74.00	-31.00	4.84	3	Vertical	211	2.29	38.16	32.94	6.68	34.78

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	4.95974G	32.06	54.00	-21.94	4.84	3	Horizontal	191	1.28	27.22	32.94	6.68	34.78
PK	4.95996G	43.81	74.00	-30.19	4.84	3	Horizontal	191	1.28	38.97	32.94	6.68	34.78