

FCC Radio Test Report

FCC ID : XPYNORAB2

Equipment : NORA-B2 stand-alone Bluetooth Low Energy module

Brand Name : u-blox

Model Name : NORA-B201, NORA-B206, NORA-B211, NORA-B216,
NORA-B261, NORA-B266, NORA-B221, NORA-B226,
NORA-B271, NORA-B276, NORA-B281, NORA-B286

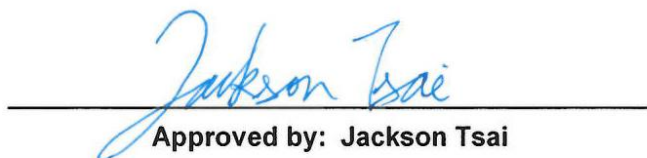
Applicant : u-blox AG
Zürcherstrasse 68, 8800 Thalwil, Switzerland

Manufacturer : u-blox AG
Zürcherstrasse 68, 8800 Thalwil, Switzerland

Standard : 47 CFR FCC Part 15.247

The product was received on Apr. 07, 2025, and testing was started from Apr. 15, 2025 and completed on May 01, 2025. 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

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History of this test report

[illegible]

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: Debby Hung

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	Nant
2.4-2.4835GHz	BT-LE(125kbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(500kbps)	1.0	1TX
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/125kbps/500kbps) modulation.
- BWch is the nominal channel bandwidth.
- Bluetooth LE 125k/500k/1Mbps uses the same modulation, and 1Mbps was found to be the worst case scenario which was performed full test and recorded in this test report.

1.1.2 Antenna Information

External Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	ABRACON	PRO-EX-296	Monopole	u.fl	BLE + 802.15.4
2	ABRACON	PRO-IS-237	PCB Patch	u.fl	BLE + 802.15.4
3	ABRACON	PRO-IS-299	PCB Patch	u.fl	BLE + 802.15.4
4	molex	2144150011	Dipole	Reverse SMA	802.15.4

Ant.	Port	Gain (dBi)	
		BT	802.15.4
1	1	3	3
2	1	3	3
3	1	2.5	2.5
4	1	-	5.3

Note 1: The antenna mentioned above will not be sold with the EUT in the market.

For BT function:

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

Ant. 1 (port 1) ~ Ant. 3 (port 1) could transmit/receive.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

Ant. 1 (port 1) ~Ant. 4 (port 1) could transmit/receive.

Integrated Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Support
1	U-Blox	NORA-B2	PCB trace	u.fl	3	BLE + 802.15.4

Note 1: The antenna mentioned above will not be sold with the EUT in the market.

For BT function:

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

Ant. 1 could transmit/receive.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

Ant. 1 could transmit/receive.

1.1.3 EUT Information

Operational Condition	
EUT Power Type	From Host system
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)	1	0	100.003m	10Hz (DC>=0.98)
BT-LE(2Mbps)	1	0	100.003m	10Hz (DC>=0.98)

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	Antenna	Memory	NVM/RAM	SW Varina
NORA-B201	RF-port available at solder land (antenna pin)	nRF54L15	1.5MB /256 KB	Open CPU version
NORA-B206	integrated PCB trace antenna	nRF54L15	1.5MB /256 KB	Open CPU version
NORA-B281	RF-port available at solder land (antenna pin)	nRF54L15	1.5MB /256 KB	UCX version
NORA-B286	integrated PCB trace antenna	nRF54L15	1.5MB /256 KB	UCX version
NORA-B211	RF-port available at solder land (antenna pin)	nRF54L10	1.0 MB /192 KB	Open CPU version
NORA-B216	integrated PCB trace antenna	nRF54L10	1.0 MB /192 KB	Open CPU version
NORA-B261	RF-port available at solder land (antenna pin)	nRF54L10	1.0 MB /192 KB	UCX version
NORA-B266	integrated PCB trace antenna	nRF54L10	1.0 MB /192 KB	UCX version
NORA-B221	RF-port available at solder land (antenna pin)	nRF54L05	0.5 MB /96 KB	Open CPU version
NORA-B226	integrated PCB trace antenna	nRF54L05	0.5 MB /96 KB	Open CPU version
NORA-B271	RF-port available at solder land (antenna pin)	nRF54L05	0.5 MB /96 KB	UCX version
NORA-B276	integrated PCB trace antenna	nRF54L05	0.5 MB /96 KB	UCX version

From the above models, model: NORA-B201, NORA-B206 was selected as representative model for the test and its data was recorded in this report.

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	22.5~24.6°C / 52~55%	01/May/2025
RF Conducted	TH01-HY	Sonic Li	22.9~23.4°C / 54~56%	15/Apr/2025~24/Apr/2025
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH24-HY	Simon Cheng	22.2~23.4°C / 50~52%	16/Apr/2025~25/Apr/2025

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 Tool Software Version	Tera Term v4.76
Test Software Version	SDK v2.9.0

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	8
2440MHz	8
2480MHz	8
BT-LE(2Mbps)	-
2402MHz	8
2440MHz	8
2480MHz	8

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	Fixture 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	Fixture mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V (Integrated)		V (Monopole, PCB)

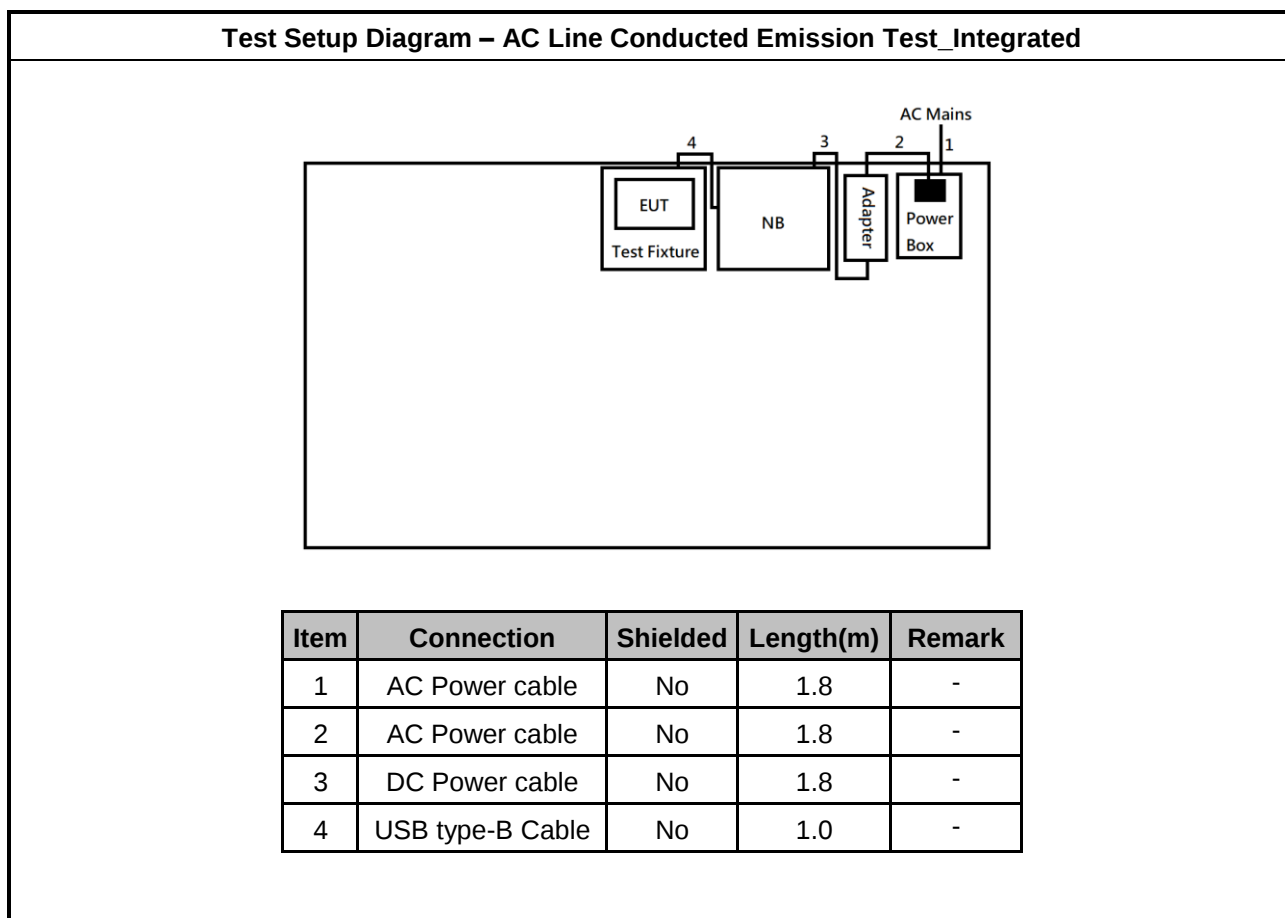
2.3 Support Equipment

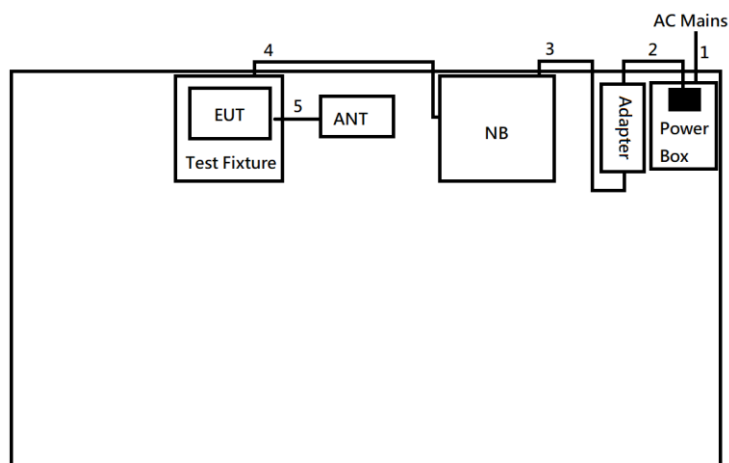
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	EVB-NORA-B2 Board	U-blox	NORA-B201	-	Provided by Customer
2	EVB-NORA-B2 Board	U-blox	NORA-B206	-	Provided by Customer
3	USB type-B Cable	U-blox	USB-01	-	Provided by Customer
4	Notebook	DELL	Latitude7290	-	-
5	Adapter For NB	DELL	HA65NM130	-	-
6	RF Cable	Sporton	Sporton	-	-
7	AC Power cable	Power Sync	TPCMRN0018	-	-
8	Antenna	ABRACON	PRO-EX-296	-	-
9	Antenna	ABRACON	PRO-IS-237	-	-
10	Antenna	ABRACON	2144150011	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	USB type-B Cable	U-blox	USB-01	-	Provided by Customer
4	EVB-NORA-B2 Board	U-blox	NORA-B201	-	Provided by Customer

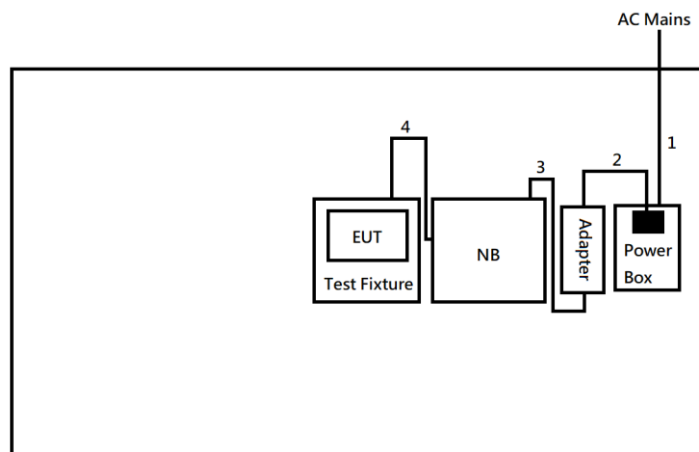
Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	EVB-NORA-B2 Board	U-blox	NORA-B201	-	Provided by Customer
2	EVB-NORA-B2 Board	U-blox	NORA-B206	-	Provided by Customer
3	USB type-B Cable	U-blox	USB-01	-	Provided by Customer
4	Notebook	DELL	Latitude7290	-	-
5	Adapter For NB	DELL	HA65NM130	-	-
6	RF Cable	Sporton	Sporton	-	-
7	AC Power cable	Power Sync	TPCMRN0018	-	-
8	Antenna	ABRACON	PRO-EX-296	-	-
9	Antenna	ABRACON	PRO-IS-237	-	-
10	Antenna	ABRACON	2144150011	-	-

2.4 Test Setup Diagram

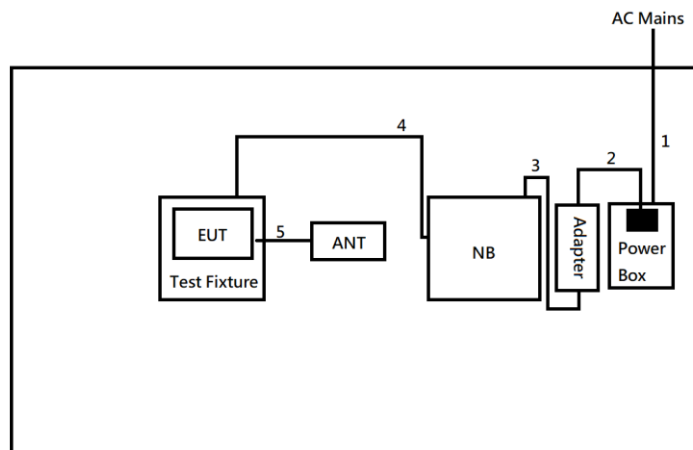


Test Setup Diagram – AC Line Conducted Emission Test_Monopole, PCB


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.8	-
3	DC Power cable	No	1.8	-
4	USB type-B Cable	No	1.0	-
5	RF Cable	No	0.1	-

Test Setup Diagram - Radiated Test_Integrated


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.8	-
3	DC Power cable	No	1.8	-
4	USB type-B Cable	No	1.0	-

Test Setup Diagram - Radiated Test_Monopole, PCB


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC Power cable	No	1.8	-
3	DC Power cable	No	1.8	-
4	USB type-B Cable	No	1.0	-
5	RF Cable	No	0.1	-

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

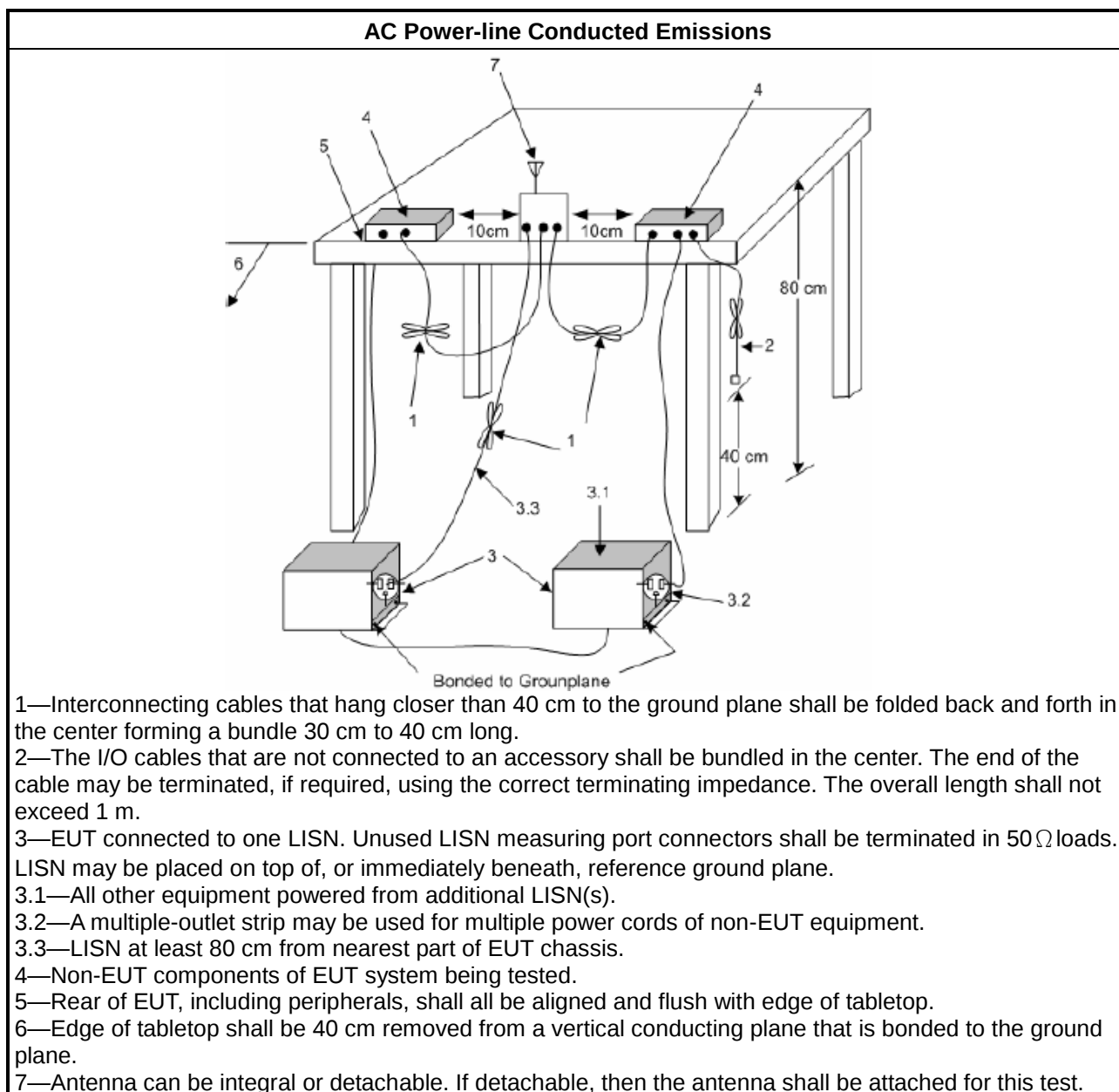
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

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



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 $\geq$ 500 kHz.

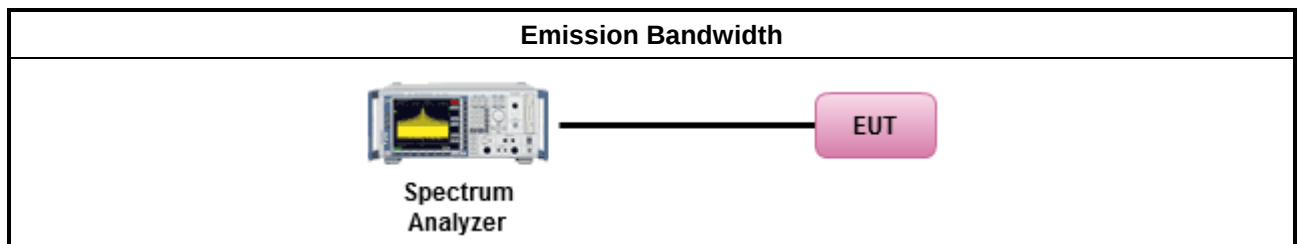
3.2.2 Measuring Instruments

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



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ 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.	

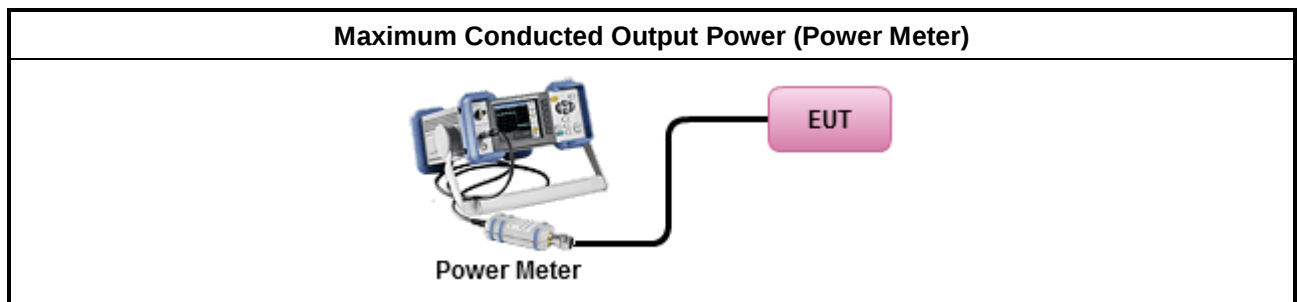
3.3.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



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

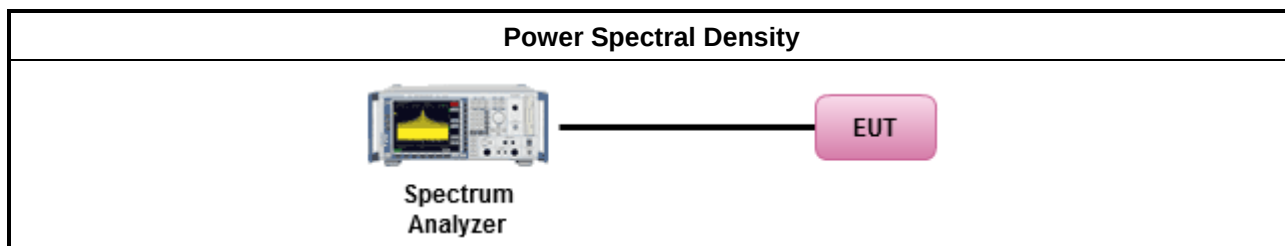
3.4.2 Measuring Instruments

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



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.	

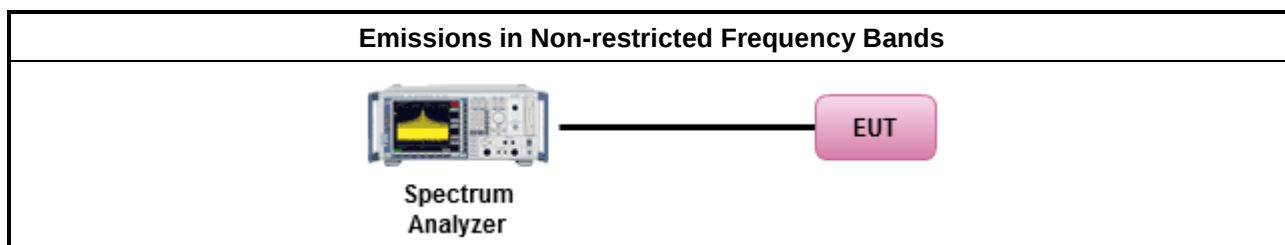
3.5.2 Measuring Instruments

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



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 below 30 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

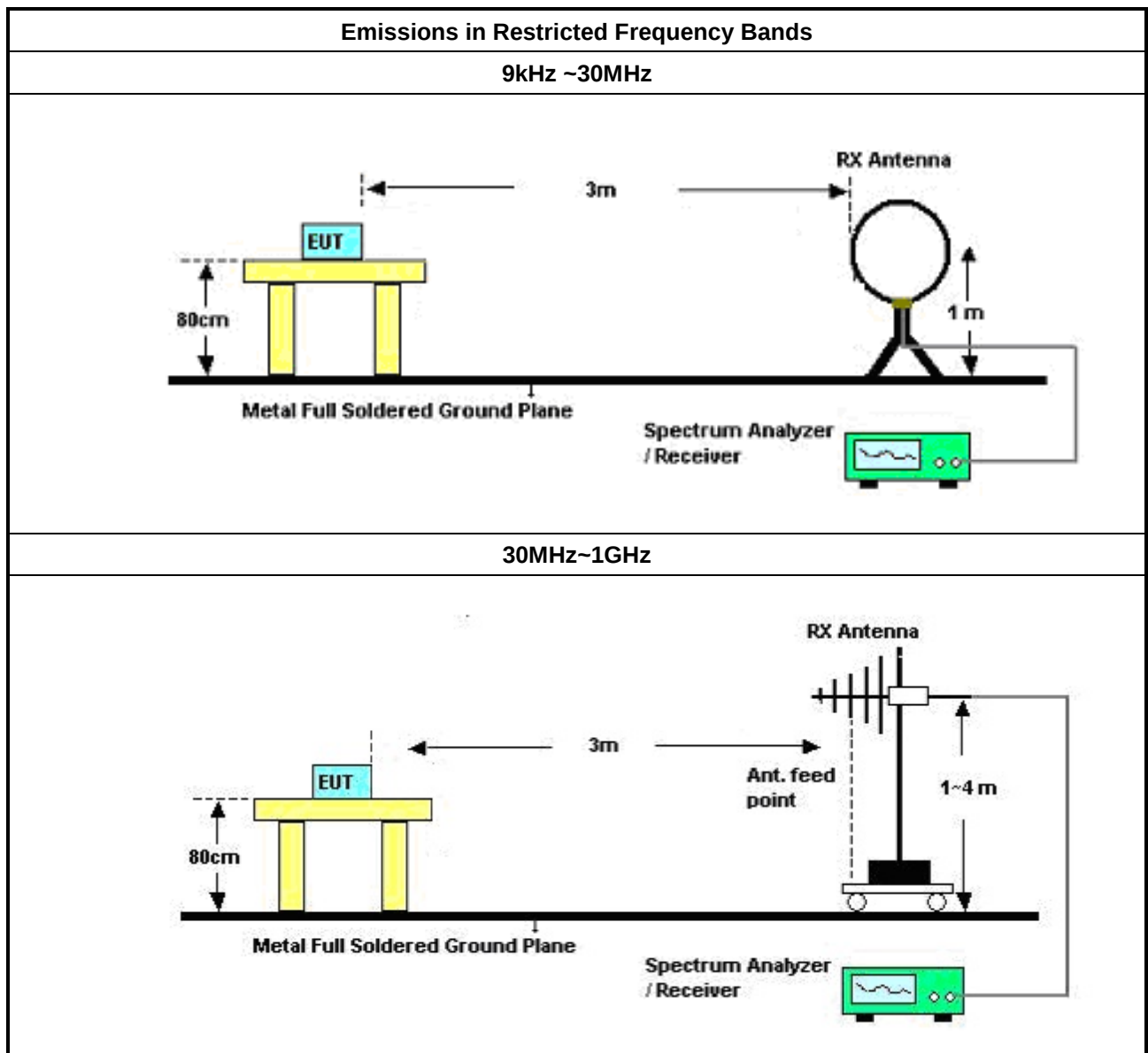
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted 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 $f \geq 1$ 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.

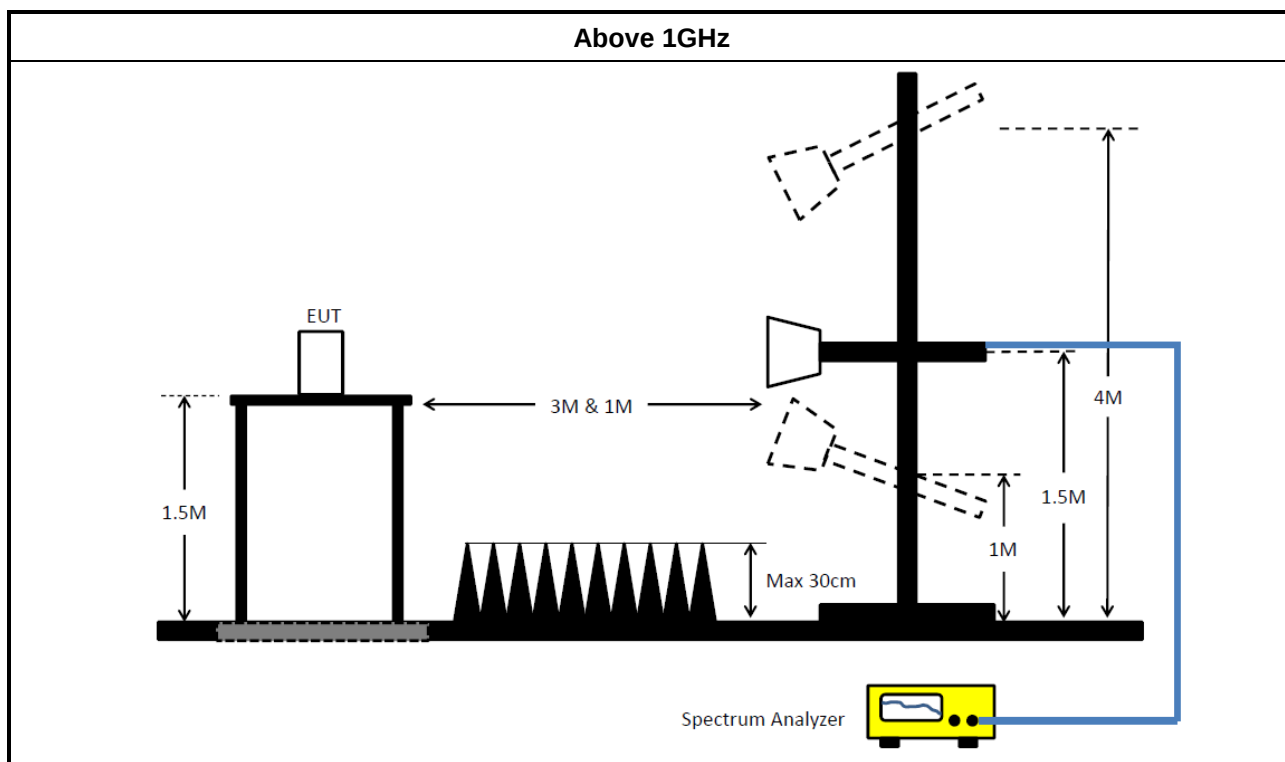
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





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	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	100003	9kHz ~ 30MHz	18/Apr/2025	17/Apr/2026
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	26/Feb/2025	25/Feb/2026
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	17/Oct/2024	16/Oct/2025
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	FSV3044	101439	10Hz~44GHz	23/Dec/2024	22/Dec/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	18/Dec/2024	17/Dec/2025
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	18/Dec/2024	17/Dec/2025
SENSE-15247_FS	Sporton	V5.11.23	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	TDK	SAC-3M	03CH24-HY	30MHz~1GHz 3m	16/Aug/2024	15/Aug/2025
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH24-HY	1GHz~18GHz 3m	30/Jul/2024	29/Jul/2025
EMI Test Receiver	ROHDE & SCHWARZ	ESR	102318	9kHz~3.6GHz	06/Dec/2024	05/Dec/2025
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101345	10Hz~44GHz	27/Aug/2024	26/Aug/2025
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	20/Mar/2025	19/Mar/2026
Bilog Antenna & 6dB Attenuator	TESEQ / Woken	CBL 6112D / 00800N1D01N-06	35376 / 02	30MHz~1GHz	13/Apr/2025	12/Apr/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02744	1GHz~18GHz	15/Aug/2024	14/Aug/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	04/Oct/2024	03/Oct/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	03CH24-cable-01	9kHz~40GHz	01/Oct/2024	30/Sep/2025
Pre-Amplifier	Aglient	8447D	2944A06292	30MHz~1GHz	08/Apr/2025	07/Apr/2026
Amplifier	EM	EM01G18G	060870	1GHz ~18GHz	12/Aug/2024	11/Aug/2025
Amplifier	EM	EM18G40GA	060887	18GHz ~40GHz	07/Oct/2024	06/Oct/2025
SENSE-15247-DTS	Sporton	V5.11.20	NA	NA	NA	NA



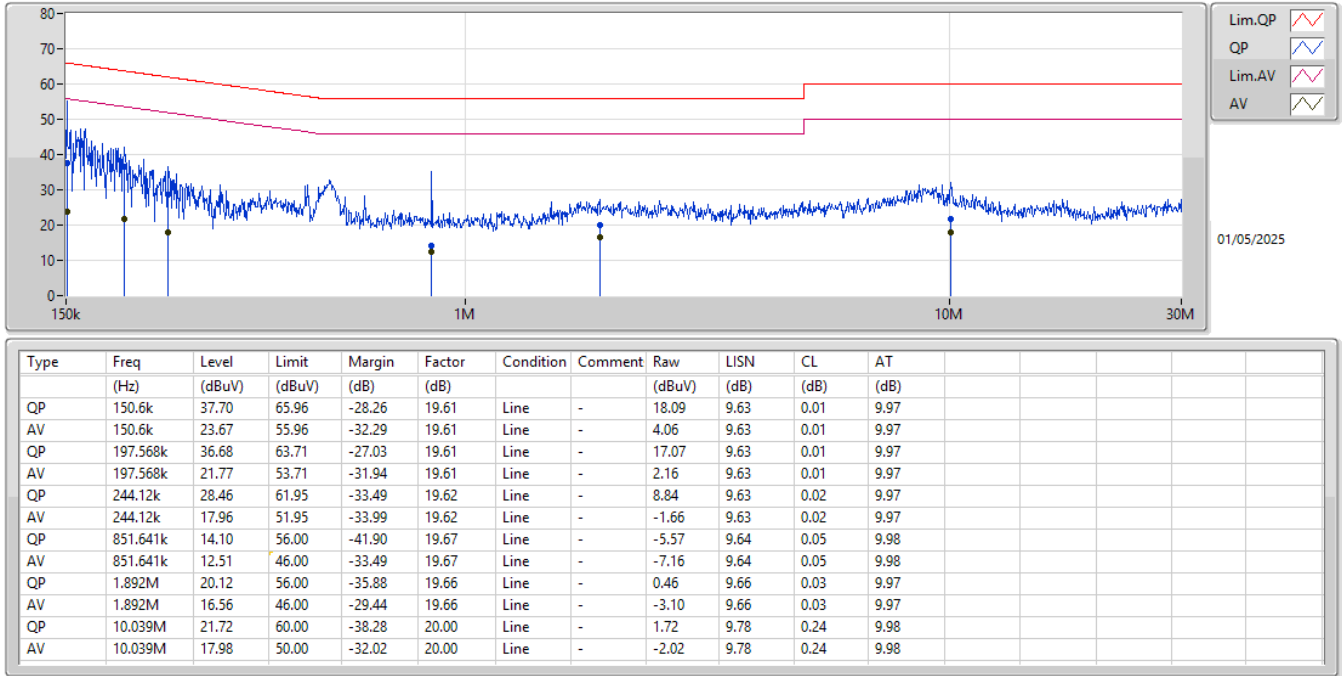
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	519.13k	31.61	46.00	-14.39	Neutral

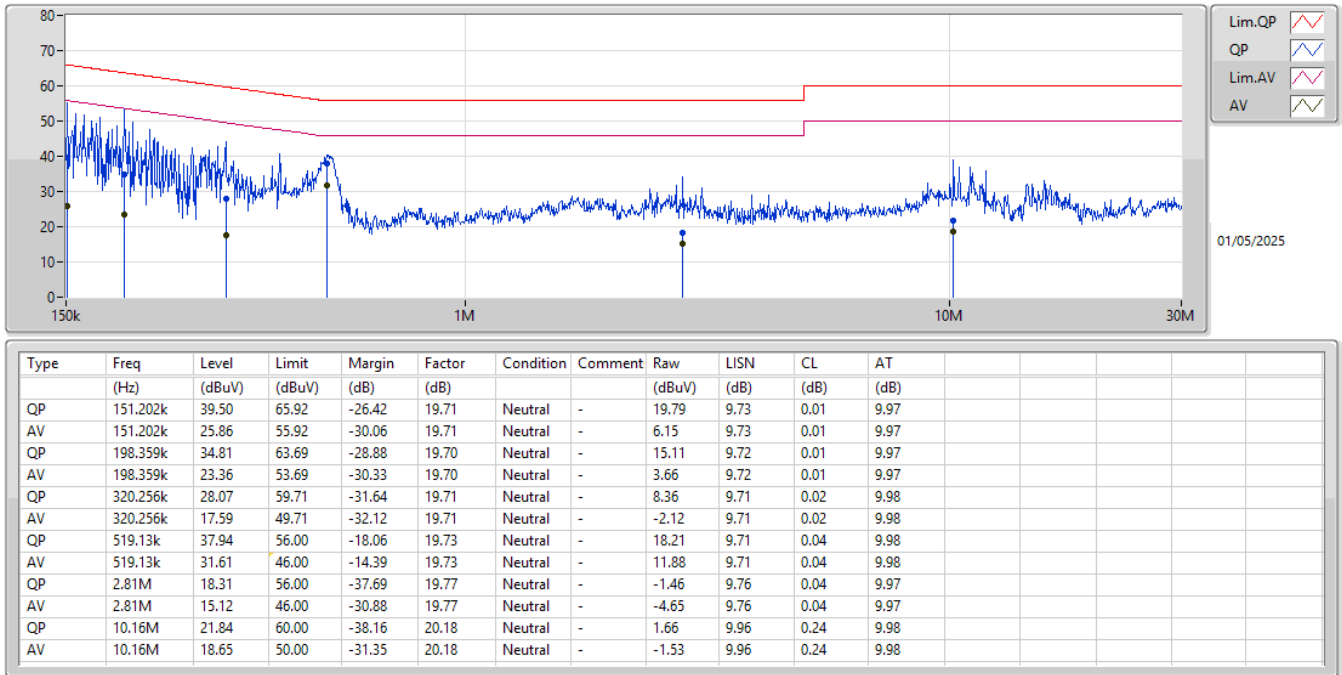
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	150.6k	37.70	65.96	-28.26	Line
Mode 1	Pass	AV	150.6k	23.67	55.96	-32.29	Line
Mode 1	Pass	QP	197.568k	36.68	63.71	-27.03	Line
Mode 1	Pass	AV	197.568k	21.77	53.71	-31.94	Line
Mode 1	Pass	QP	244.12k	28.46	61.95	-33.49	Line
Mode 1	Pass	AV	244.12k	17.96	51.95	-33.99	Line
Mode 1	Pass	QP	851.641k	14.10	56.00	-41.90	Line
Mode 1	Pass	AV	851.641k	12.51	46.00	-33.49	Line
Mode 1	Pass	QP	1.892M	20.12	56.00	-35.88	Line
Mode 1	Pass	AV	1.892M	16.56	46.00	-29.44	Line
Mode 1	Pass	QP	10.039M	21.72	60.00	-38.28	Line
Mode 1	Pass	AV	10.039M	17.98	50.00	-32.02	Line
Mode 1	Pass	QP	151.202k	39.50	65.92	-26.42	Neutral
Mode 1	Pass	AV	151.202k	25.86	55.92	-30.06	Neutral
Mode 1	Pass	QP	198.359k	34.81	63.69	-28.88	Neutral
Mode 1	Pass	AV	198.359k	23.36	53.69	-30.33	Neutral
Mode 1	Pass	QP	320.256k	28.07	59.71	-31.64	Neutral
Mode 1	Pass	AV	320.256k	17.59	49.71	-32.12	Neutral
Mode 1	Pass	QP	519.13k	37.94	56.00	-18.06	Neutral
Mode 1	Pass	AV	519.13k	31.61	46.00	-14.39	Neutral
Mode 1	Pass	QP	2.81M	18.31	56.00	-37.69	Neutral
Mode 1	Pass	AV	2.81M	15.12	46.00	-30.88	Neutral
Mode 1	Pass	QP	10.16M	21.84	60.00	-38.16	Neutral
Mode 1	Pass	AV	10.16M	18.65	50.00	-31.35	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1





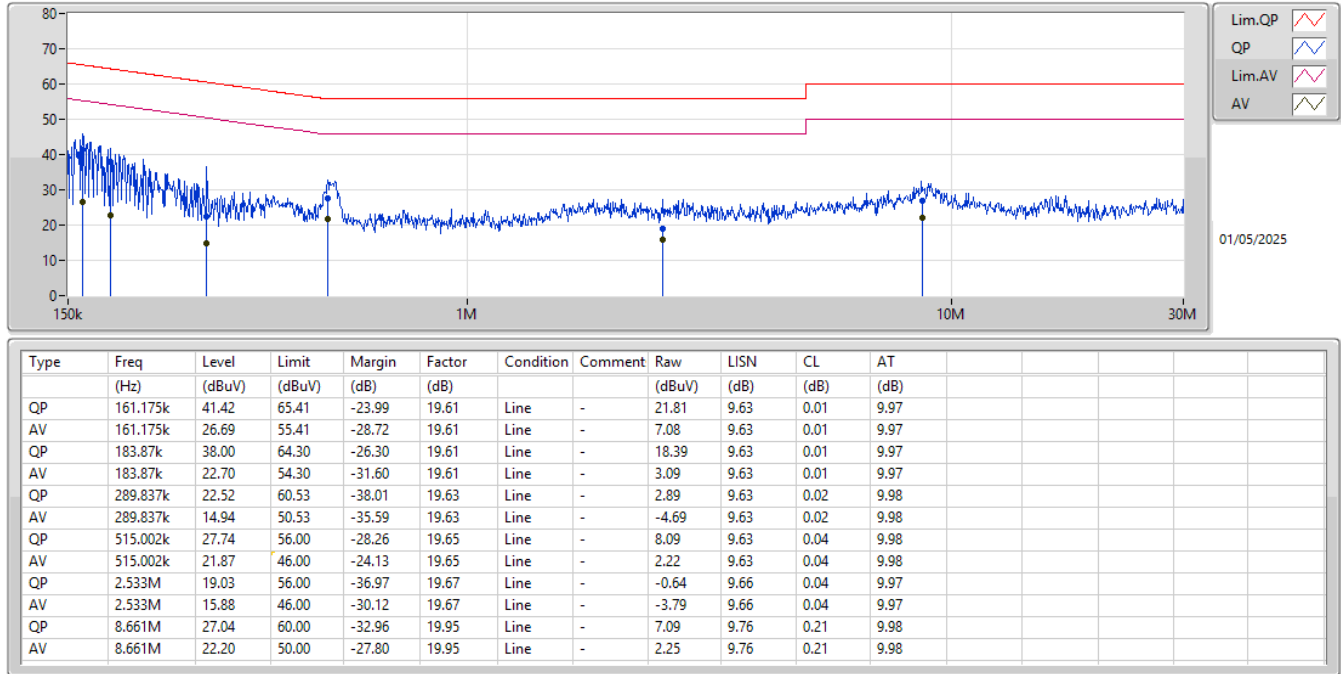
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	527.486k	31.26	46.00	-14.74	Neutral

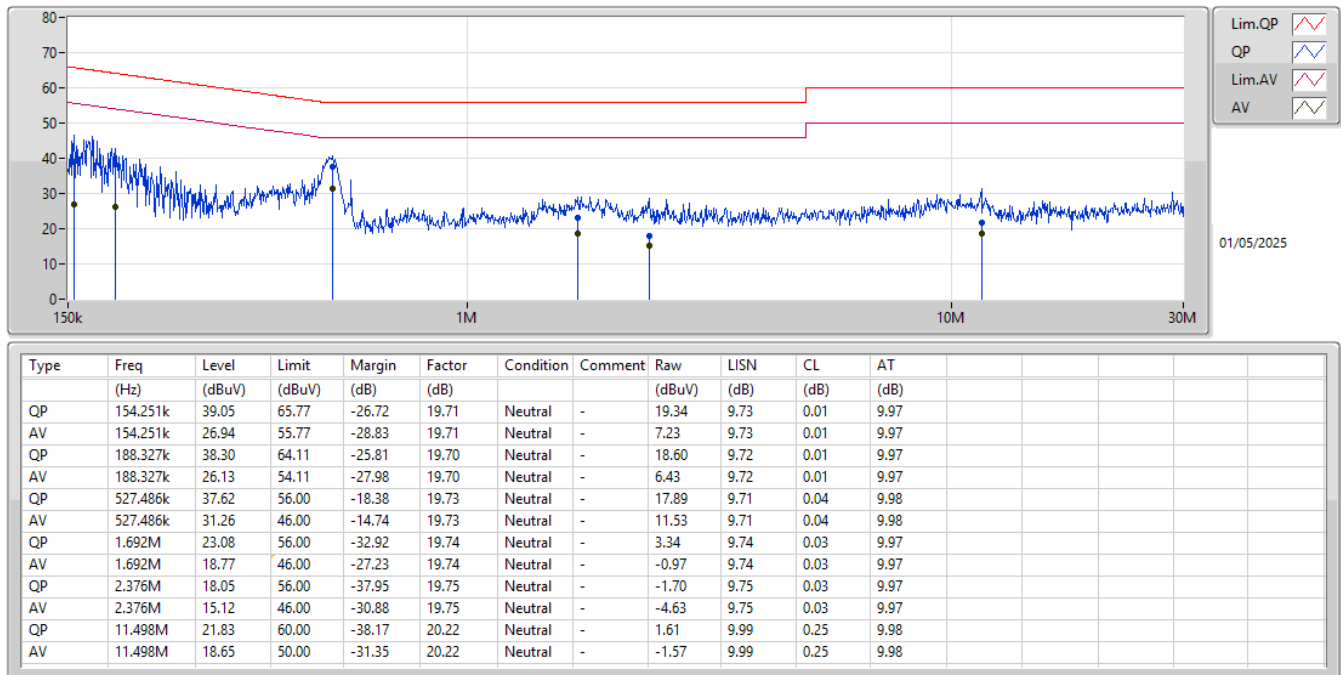
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	161.175k	41.42	65.41	-23.99	Line
Mode 1	Pass	AV	161.175k	26.69	55.41	-28.72	Line
Mode 1	Pass	QP	183.87k	38.00	64.30	-26.30	Line
Mode 1	Pass	AV	183.87k	22.70	54.30	-31.60	Line
Mode 1	Pass	QP	289.837k	22.52	60.53	-38.01	Line
Mode 1	Pass	AV	289.837k	14.94	50.53	-35.59	Line
Mode 1	Pass	QP	515.002k	27.74	56.00	-28.26	Line
Mode 1	Pass	AV	515.002k	21.87	46.00	-24.13	Line
Mode 1	Pass	QP	2.533M	19.03	56.00	-36.97	Line
Mode 1	Pass	AV	2.533M	15.88	46.00	-30.12	Line
Mode 1	Pass	QP	8.661M	27.04	60.00	-32.96	Line
Mode 1	Pass	AV	8.661M	22.20	50.00	-27.80	Line
Mode 1	Pass	QP	154.251k	39.05	65.77	-26.72	Neutral
Mode 1	Pass	AV	154.251k	26.94	55.77	-28.83	Neutral
Mode 1	Pass	QP	188.327k	38.30	64.11	-25.81	Neutral
Mode 1	Pass	AV	188.327k	26.13	54.11	-27.98	Neutral
Mode 1	Pass	QP	527.486k	37.62	56.00	-18.38	Neutral
Mode 1	Pass	AV	527.486k	31.26	46.00	-14.74	Neutral
Mode 1	Pass	QP	1.692M	23.08	56.00	-32.92	Neutral
Mode 1	Pass	AV	1.692M	18.77	46.00	-27.23	Neutral
Mode 1	Pass	QP	2.376M	18.05	56.00	-37.95	Neutral
Mode 1	Pass	AV	2.376M	15.12	46.00	-30.88	Neutral
Mode 1	Pass	QP	11.498M	21.83	60.00	-38.17	Neutral
Mode 1	Pass	AV	11.498M	18.65	50.00	-31.35	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1





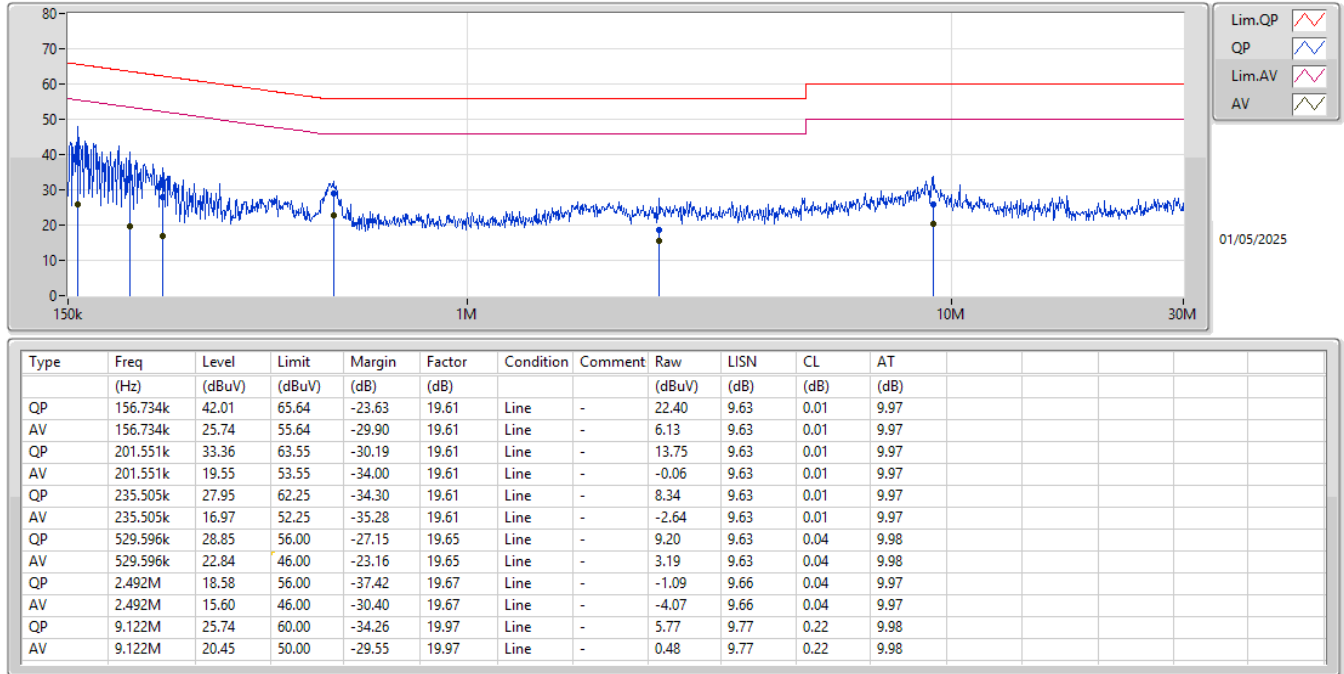
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	517.062k	31.35	46.00	-14.65	Neutral

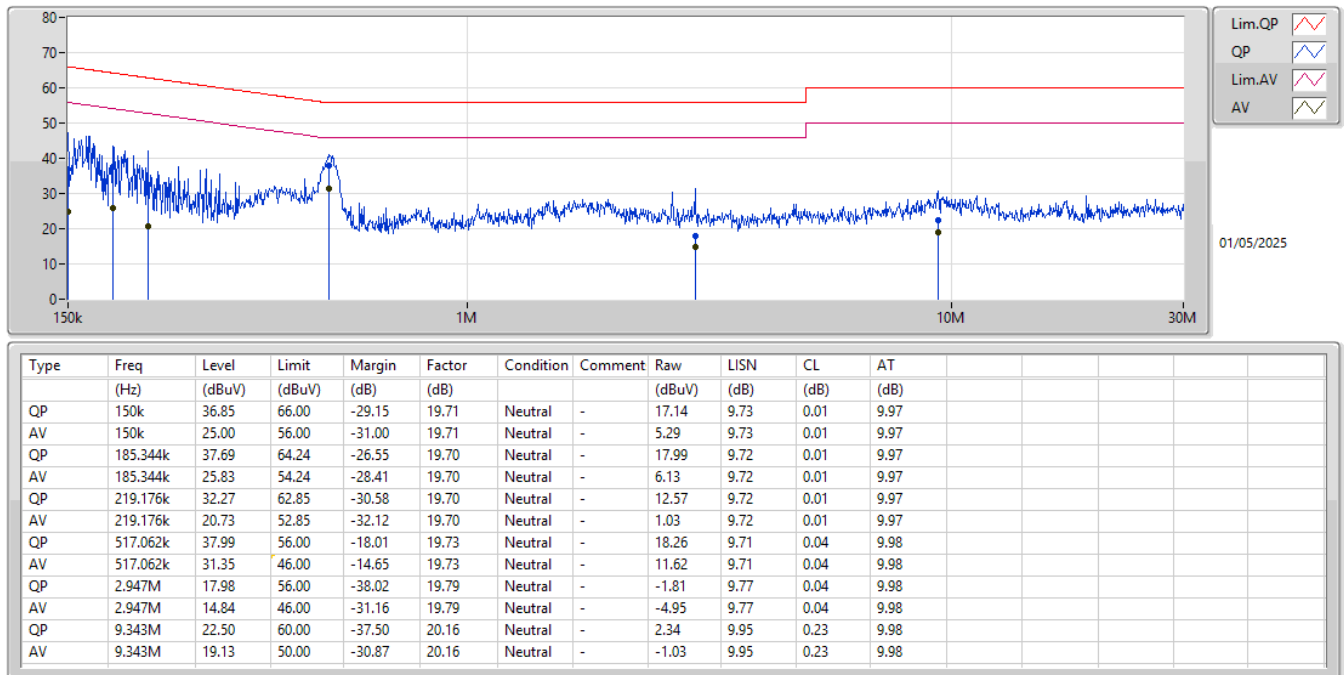
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	156.734k	42.01	65.64	-23.63	Line
Mode 1	Pass	AV	156.734k	25.74	55.64	-29.90	Line
Mode 1	Pass	QP	201.551k	33.36	63.55	-30.19	Line
Mode 1	Pass	AV	201.551k	19.55	53.55	-34.00	Line
Mode 1	Pass	QP	235.505k	27.95	62.25	-34.30	Line
Mode 1	Pass	AV	235.505k	16.97	52.25	-35.28	Line
Mode 1	Pass	QP	529.596k	28.85	56.00	-27.15	Line
Mode 1	Pass	AV	529.596k	22.84	46.00	-23.16	Line
Mode 1	Pass	QP	2.492M	18.58	56.00	-37.42	Line
Mode 1	Pass	AV	2.492M	15.60	46.00	-30.40	Line
Mode 1	Pass	QP	9.122M	25.74	60.00	-34.26	Line
Mode 1	Pass	AV	9.122M	20.45	50.00	-29.55	Line
Mode 1	Pass	QP	150k	36.85	66.00	-29.15	Neutral
Mode 1	Pass	AV	150k	25.00	56.00	-31.00	Neutral
Mode 1	Pass	QP	185.344k	37.69	64.24	-26.55	Neutral
Mode 1	Pass	AV	185.344k	25.83	54.24	-28.41	Neutral
Mode 1	Pass	QP	219.176k	32.27	62.85	-30.58	Neutral
Mode 1	Pass	AV	219.176k	20.73	52.85	-32.12	Neutral
Mode 1	Pass	QP	517.062k	37.99	56.00	-18.01	Neutral
Mode 1	Pass	AV	517.062k	31.35	46.00	-14.65	Neutral
Mode 1	Pass	QP	2.947M	17.98	56.00	-38.02	Neutral
Mode 1	Pass	AV	2.947M	14.84	46.00	-31.16	Neutral
Mode 1	Pass	QP	9.343M	22.50	60.00	-37.50	Neutral
Mode 1	Pass	AV	9.343M	19.13	50.00	-30.87	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1



**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)	720k	1.077M	1M08F1D	681.25k	1.07M
BT-LE(2Mbps)	1.235M	2.146M	2M15F1D	1.118M	2.105M

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

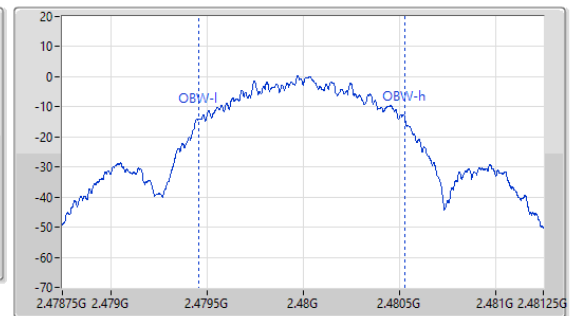
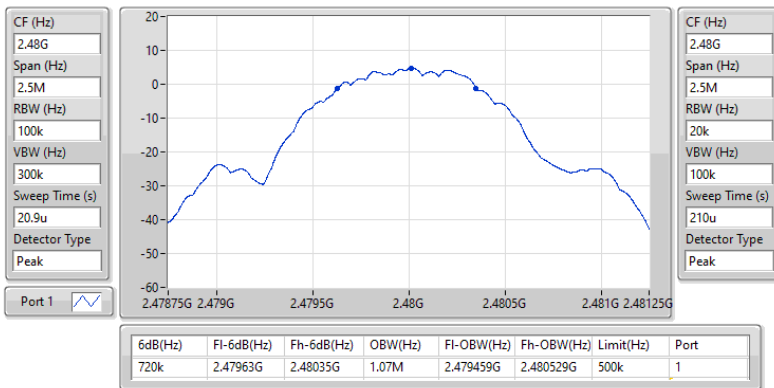
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	700k	1.074M
2440MHz	Pass	500k	681.25k	1.077M
2480MHz	Pass	500k	720k	1.07M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.235M	2.119M
2440MHz	Pass	500k	1.235M	2.146M
2480MHz	Pass	500k	1.118M	2.105M

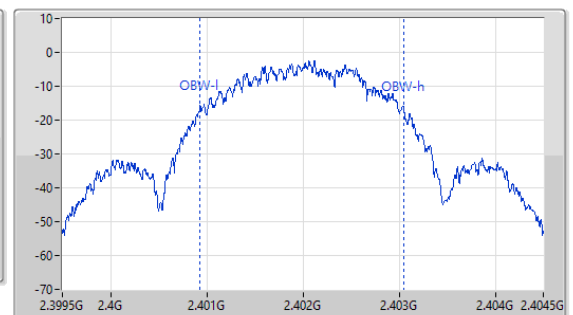
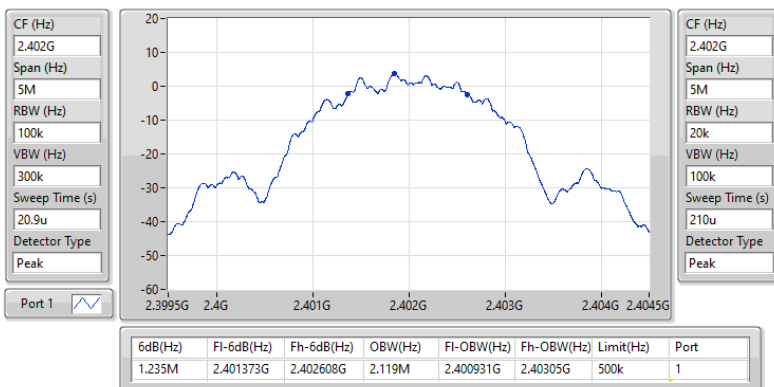
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(1Mbps)
EBW-DTS
2480MHz

15/05/2025


2.4-2.4835GHz_BT-LE(2Mbps)
EBW-DTS
2402MHz

15/05/2025





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	6.98	0.00499
BT-LE(2Mbps)	6.96	0.00497



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.98	30.00
2440MHz	Pass	3.00	6.94	30.00
2480MHz	Pass	3.00	6.83	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.96	30.00
2440MHz	Pass	3.00	6.94	30.00
2480MHz	Pass	3.00	6.84	30.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	6.85	0.00484
BT-LE(2Mbps)	6.83	0.00482

**Result**

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.85	30.00
2440MHz	Pass	3.00	6.81	30.00
2480MHz	Pass	3.00	6.69	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.00	6.83	30.00
2440MHz	Pass	3.00	6.81	30.00
2480MHz	Pass	3.00	6.69	30.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-7.41
BT-LE(2Mbps)	-9.44

RBW = 3kHz;



Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.00	-7.64	8.00
2440MHz	Pass	3.00	-8.08	8.00
2480MHz	Pass	3.00	-7.41	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.00	-9.44	8.00
2440MHz	Pass	3.00	-10.28	8.00
2480MHz	Pass	3.00	-9.86	8.00

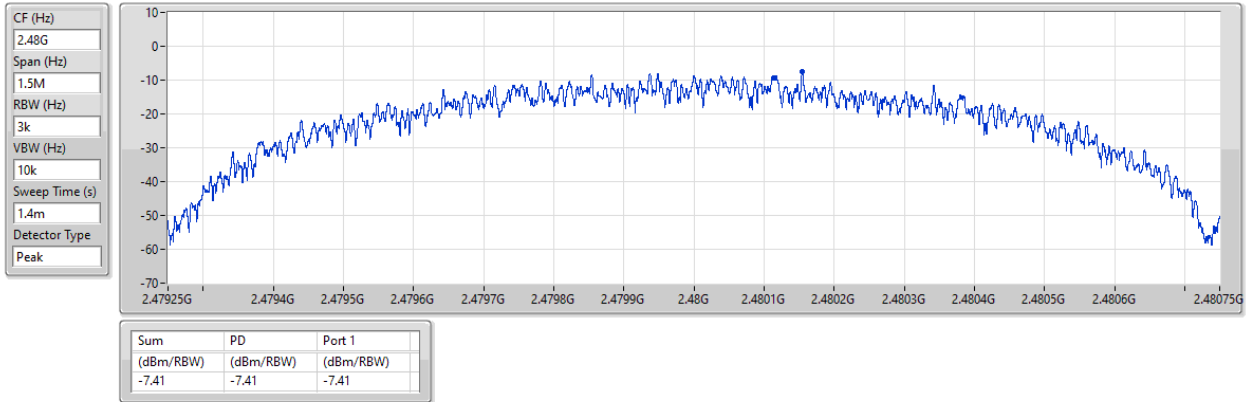
DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
Inf = There's no restriction for the limit.

2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2480MHz

15/05/2025

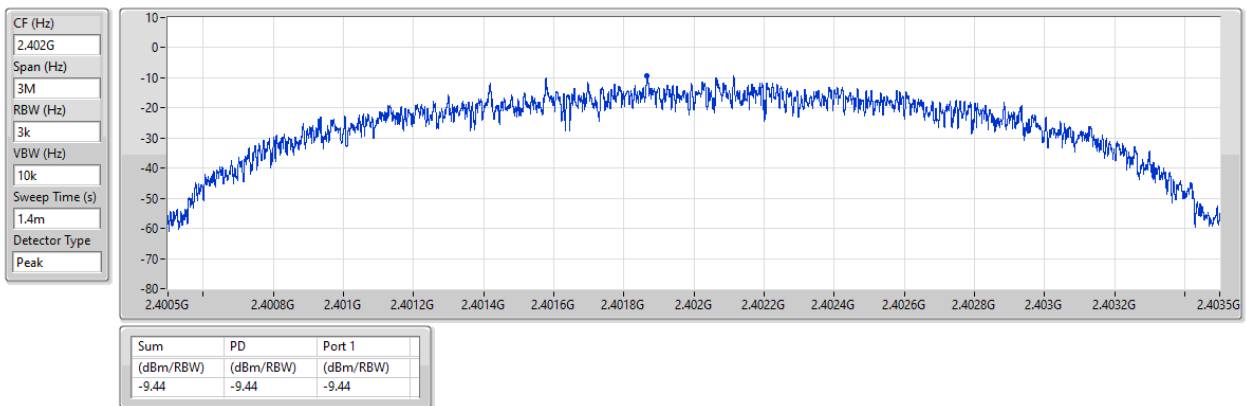


2.4-2.4835GHz_BT-LE(2Mbps)

PSD

2402MHz

15/05/2025



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	2.40167G	6.01	-13.99	1.76665G	-56.74	2.4G	-43.94	2.4G	-43.91	2.5031G	-57.41	21.94048G	-46.17	1
BT-LE(2Mbps)	Pass	2.402G	4.88	-15.12	2.19318G	-56.95	2.4G	-25.10	2.4G	-24.41	2.50146G	-57.45	21.95172G	-46.13	1

Result

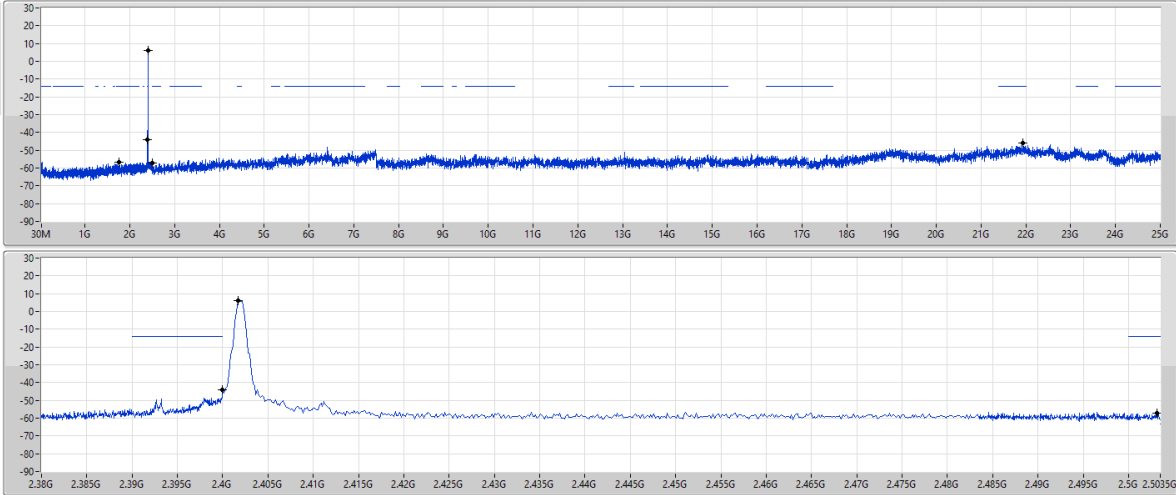
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40167G	6.01	-13.99	1.76665G	-56.74	2.4G	-43.94	2.4G	-43.91	2.5031G	-57.41	21.94048G	-46.17	1
2440MHz	Pass	2.40167G	6.01	-13.99	1.91118G	-57.14	2.39176G	-56.57	2.4G	-59.95	2.50262G	-56.67	21.95172G	-46.07	1
2480MHz	Pass	2.40167G	6.01	-13.99	1.94055G	-57.05	2.39504G	-56.76	2.4G	-59.28	2.50122G	-56.10	21.93204G	-45.75	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	4.88	-15.12	2.19318G	-56.95	2.4G	-25.10	2.4G	-24.41	2.50146G	-57.45	21.95172G	-46.13	1
2440MHz	Pass	2.402G	4.88	-15.12	2.14148G	-56.15	2.39916G	-56.32	2.4G	-58.49	2.5027G	-57.56	21.92079G	-46.69	1
2480MHz	Pass	2.402G	4.88	-15.12	1.84655G	-54.77	2.39448G	-56.64	2.4G	-59.19	2.50022G	-56.44	21.93204G	-46.23	1

2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

2402MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

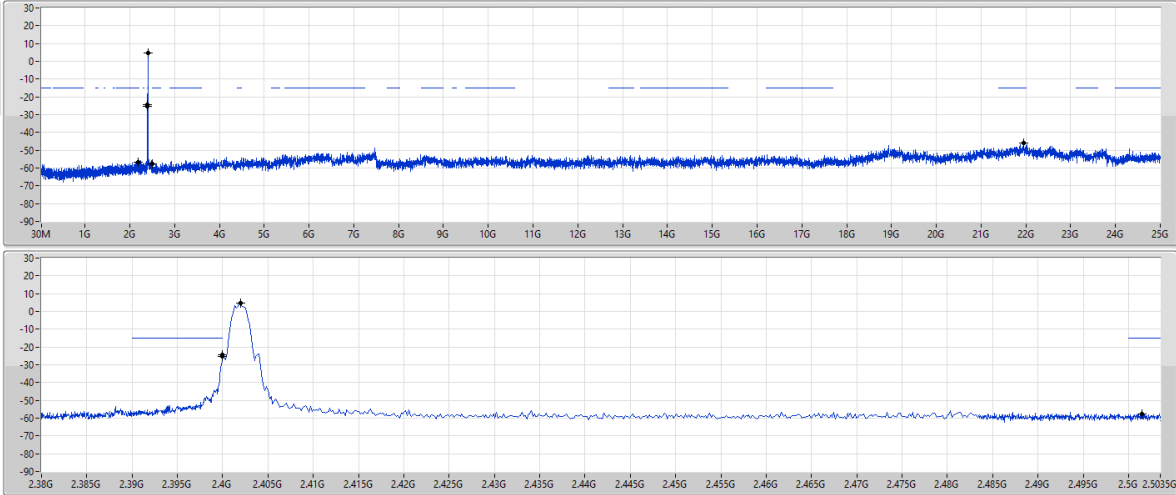


2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

2402MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak





Summary

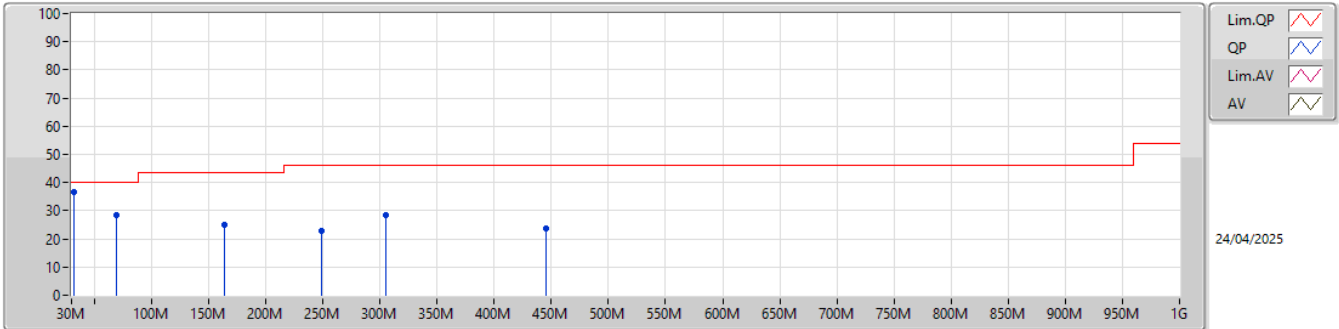
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	31.94M	36.83	40.00	-3.17	3	Vertical	0	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	31.94M	36.83	40.00	-3.17	3	Vertical	0	1.00
2440MHz	Pass	PK	68.8M	28.66	40.00	-11.34	3	Vertical	0	1.00
2440MHz	Pass	PK	163.86M	25.09	43.50	-18.41	3	Vertical	0	1.00
2440MHz	Pass	PK	249.22M	22.77	46.00	-23.23	3	Vertical	0	1.00
2440MHz	Pass	PK	305.48M	28.30	46.00	-17.70	3	Vertical	0	1.00
2440MHz	Pass	PK	445.16M	23.71	46.00	-22.29	3	Vertical	0	1.00
2440MHz	Pass	PK	68.8M	34.11	40.00	-5.89	3	Horizontal	360	1.00
2440MHz	Pass	PK	128.94M	29.47	43.50	-14.03	3	Horizontal	360	1.00
2440MHz	Pass	PK	154.16M	34.02	43.50	-9.48	3	Horizontal	360	1.00
2440MHz	Pass	PK	241.46M	27.36	46.00	-18.64	3	Horizontal	360	1.00
2440MHz	Pass	PK	313.24M	29.58	46.00	-16.42	3	Horizontal	360	1.00
2440MHz	Pass	PK	435.46M	24.68	46.00	-21.32	3	Horizontal	360	1.00

2.4-2.4835GHz_BT-LE(2Mbps)

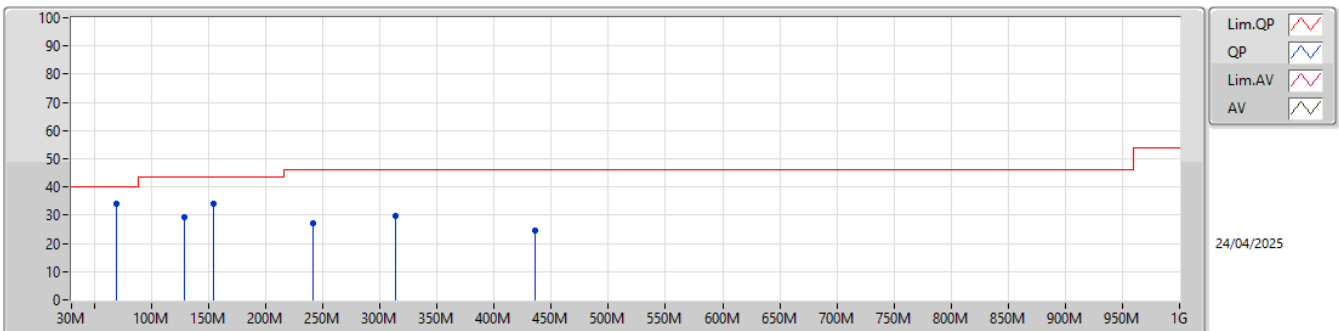
2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.94M	36.83	40.00	-3.17	-4.98	3	Vertical	0	1.00	41.81	21.98	0.43	27.39
PK	68.8M	28.66	40.00	-11.34	-15.08	3	Vertical	0	1.00	43.74	11.61	0.62	27.31
PK	163.86M	25.09	43.50	-18.41	-11.01	3	Vertical	0	1.00	36.10	14.99	0.97	26.97
PK	249.22M	22.77	46.00	-23.23	-7.90	3	Vertical	0	1.00	30.67	17.47	1.21	26.58
PK	305.48M	28.30	46.00	-17.70	-6.81	3	Vertical	0	1.00	35.11	18.52	1.32	26.65
PK	445.16M	23.71	46.00	-22.29	-4.52	3	Vertical	0	1.00	28.23	21.61	1.59	27.72

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	68.8M	34.11	40.00	-5.89	-15.08	3	Horizontal	360	1.00	49.19	11.61	0.62	27.31
PK	128.94M	29.47	43.50	-14.03	-9.32	3	Horizontal	360	1.00	38.79	16.94	0.86	27.12
PK	154.16M	34.02	43.50	-9.48	-10.59	3	Horizontal	360	1.00	44.61	15.48	0.94	27.01
PK	241.46M	27.36	46.00	-18.64	-8.83	3	Horizontal	360	1.00	36.19	16.60	1.19	26.62
PK	313.24M	29.58	46.00	-16.42	-6.67	3	Horizontal	360	1.00	36.25	18.68	1.34	26.69
PK	435.46M	24.68	46.00	-21.32	-4.61	3	Horizontal	360	1.00	29.29	21.46	1.58	27.65



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	12.01108G	49.54	54.00	-4.46	3	Horizontal	301	2.04
BT-LE(2Mbps)	Pass	AV	12.40215G	47.92	54.00	-6.08	3	Horizontal	301	1.96

Result

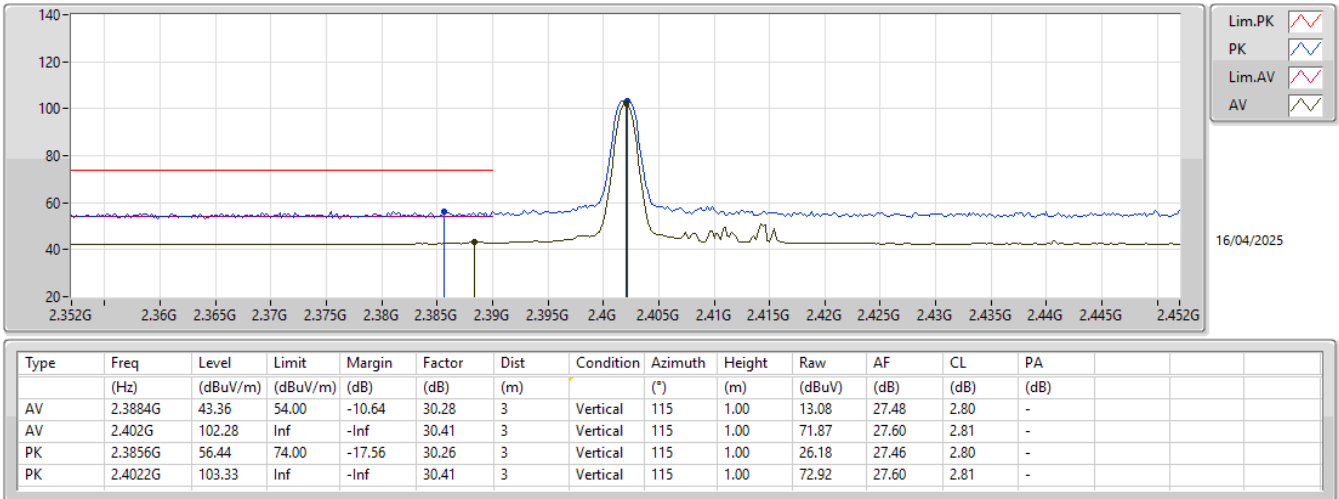
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3884G	43.36	54.00	-10.64	3	Vertical	115	1.00
2402MHz	Pass	AV	2.402G	102.28	Inf	-Inf	3	Vertical	115	1.00
2402MHz	Pass	PK	2.3856G	56.44	74.00	-17.56	3	Vertical	115	1.00
2402MHz	Pass	PK	2.4022G	103.33	Inf	-Inf	3	Vertical	115	1.00
2402MHz	Pass	AV	4.80406G	28.88	54.00	-25.12	3	Vertical	177	2.23
2402MHz	Pass	AV	12.01115G	42.04	54.00	-11.96	3	Vertical	184	1.86
2402MHz	Pass	PK	4.80447G	41.38	74.00	-32.62	3	Vertical	177	2.23
2402MHz	Pass	PK	12.01168G	54.16	74.00	-19.84	3	Vertical	184	1.86
2402MHz	Pass	AV	4.80407G	30.31	54.00	-23.69	3	Horizontal	48	1.13
2402MHz	Pass	AV	12.01108G	49.54	54.00	-4.46	3	Horizontal	301	2.04
2402MHz	Pass	PK	4.80468G	41.69	74.00	-32.31	3	Horizontal	48	1.13
2402MHz	Pass	PK	12.01079G	60.63	74.00	-13.37	3	Horizontal	301	2.04
2440MHz	Pass	AV	2.3868G	42.38	54.00	-11.62	3	Vertical	115	1.15
2440MHz	Pass	AV	2.44G	102.74	Inf	-Inf	3	Vertical	115	1.15
2440MHz	Pass	AV	2.5G	42.85	54.00	-11.15	3	Vertical	115	1.15
2440MHz	Pass	PK	2.3692G	55.95	74.00	-18.05	3	Vertical	115	1.15
2440MHz	Pass	PK	2.4396G	103.78	Inf	-Inf	3	Vertical	115	1.15
2440MHz	Pass	PK	2.4976G	56.42	74.00	-17.58	3	Vertical	115	1.15
2440MHz	Pass	AV	4.88011G	30.68	54.00	-23.32	3	Vertical	176	1.15
2440MHz	Pass	AV	12.19876G	41.22	54.00	-12.78	3	Vertical	85	2.02
2440MHz	Pass	PK	4.87996G	43.25	74.00	-30.75	3	Vertical	176	1.15
2440MHz	Pass	PK	12.20112G	53.67	74.00	-20.33	3	Vertical	85	2.02
2440MHz	Pass	AV	4.87992G	29.07	54.00	-24.93	3	Horizontal	360	1.22
2440MHz	Pass	AV	12.19888G	45.49	54.00	-8.51	3	Horizontal	312	2.01
2440MHz	Pass	PK	4.88037G	42.35	74.00	-31.65	3	Horizontal	360	1.22
2440MHz	Pass	PK	12.1988G	57.43	74.00	-16.57	3	Horizontal	312	2.01
2480MHz	Pass	AV	2.48G	101.92	Inf	-Inf	3	Vertical	116	1.12
2480MHz	Pass	AV	2.4848G	45.19	54.00	-8.81	3	Vertical	116	1.12
2480MHz	Pass	PK	2.4802G	102.97	Inf	-Inf	3	Vertical	116	1.12
2480MHz	Pass	PK	2.4846G	57.66	74.00	-16.34	3	Vertical	116	1.12
2480MHz	Pass	AV	4.95996G	29.96	54.00	-24.04	3	Vertical	85	1.78
2480MHz	Pass	AV	12.39925G	41.05	54.00	-12.95	3	Vertical	73	2.25
2480MHz	Pass	PK	4.95985G	42.74	74.00	-31.26	3	Vertical	85	1.78
2480MHz	Pass	PK	12.40006G	55.19	74.00	-18.81	3	Vertical	73	2.25
2480MHz	Pass	AV	4.95984G	28.72	54.00	-25.28	3	Horizontal	360	1.00
2480MHz	Pass	AV	12.39925G	46.76	54.00	-7.24	3	Horizontal	309	1.90
2480MHz	Pass	PK	4.95984G	42.08	74.00	-31.92	3	Horizontal	360	1.00
2480MHz	Pass	PK	12.39979G	58.79	74.00	-15.21	3	Horizontal	309	1.90
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3896G	42.50	54.00	-11.50	3	Vertical	118	1.34
2402MHz	Pass	AV	2.402G	100.17	Inf	-Inf	3	Vertical	118	1.34
2402MHz	Pass	PK	2.3896G	55.96	74.00	-18.04	3	Vertical	118	1.34
2402MHz	Pass	PK	2.4026G	103.03	Inf	-Inf	3	Vertical	118	1.34
2402MHz	Pass	AV	4.80461G	27.06	54.00	-26.94	3	Vertical	175	1.65
2402MHz	Pass	AV	12.00927G	39.34	54.00	-14.66	3	Vertical	173	1.30
2402MHz	Pass	PK	4.80325G	41.39	74.00	-32.61	3	Vertical	175	1.65
2402MHz	Pass	PK	12.00983G	54.68	74.00	-19.32	3	Vertical	173	1.30
2402MHz	Pass	AV	4.80475G	28.64	54.00	-25.36	3	Horizontal	57	1.17
2402MHz	Pass	AV	12.00925G	44.10	54.00	-9.90	3	Horizontal	304	2.08
2402MHz	Pass	PK	4.80382G	41.81	74.00	-32.19	3	Horizontal	57	1.17
2402MHz	Pass	PK	12.00997G	61.01	74.00	-12.99	3	Horizontal	304	2.08
2440MHz	Pass	AV	2.3868G	42.40	54.00	-11.60	3	Vertical	117	1.13
2440MHz	Pass	AV	2.44G	101.08	Inf	-Inf	3	Vertical	117	1.13
2440MHz	Pass	AV	2.4912G	42.81	54.00	-11.19	3	Vertical	117	1.13
2440MHz	Pass	PK	2.346G	55.86	74.00	-18.14	3	Vertical	117	1.13
2440MHz	Pass	PK	2.4396G	104.07	Inf	-Inf	3	Vertical	117	1.13
2440MHz	Pass	PK	2.4904G	55.78	74.00	-18.22	3	Vertical	117	1.13
2440MHz	Pass	AV	4.87911G	29.21	54.00	-24.79	3	Vertical	173	1.00
2440MHz	Pass	AV	12.1976G	39.95	54.00	-14.05	3	Vertical	184	1.19
2440MHz	Pass	PK	4.87952G	42.22	74.00	-31.78	3	Vertical	173	1.00



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	PK	12.19784G	52.64	74.00	-21.36	3	Vertical	184	1.19
2440MHz	Pass	AV	4.87907G	29.18	54.00	-24.82	3	Horizontal	59	1.02
2440MHz	Pass	AV	12.19776G	43.58	54.00	-10.42	3	Horizontal	24	1.00
2440MHz	Pass	PK	4.87892G	42.84	74.00	-31.16	3	Horizontal	59	1.02
2440MHz	Pass	PK	12.20249G	55.64	74.00	-18.36	3	Horizontal	24	1.00
2480MHz	Pass	AV	2.48G	100.19	Inf	-Inf	3	Vertical	116	1.12
2480MHz	Pass	AV	2.4835G	47.80	54.00	-6.20	3	Vertical	116	1.12
2480MHz	Pass	PK	2.4796G	103.10	Inf	-Inf	3	Vertical	116	1.12
2480MHz	Pass	PK	2.4835G	58.70	74.00	-15.30	3	Vertical	116	1.12
2480MHz	Pass	AV	4.96095G	28.77	54.00	-25.23	3	Vertical	93	2.21
2480MHz	Pass	AV	12.40226G	40.47	54.00	-13.53	3	Vertical	156	2.77
2480MHz	Pass	PK	4.95907G	42.92	74.00	-31.08	3	Vertical	93	2.21
2480MHz	Pass	PK	12.40238G	52.71	74.00	-21.29	3	Vertical	156	2.77
2480MHz	Pass	AV	4.9609G	28.68	54.00	-25.32	3	Horizontal	360	1.04
2480MHz	Pass	AV	12.40215G	47.92	54.00	-6.08	3	Horizontal	301	1.96
2480MHz	Pass	PK	4.95896G	42.19	74.00	-31.81	3	Horizontal	360	1.04
2480MHz	Pass	PK	12.40241G	58.93	74.00	-15.07	3	Horizontal	301	1.96

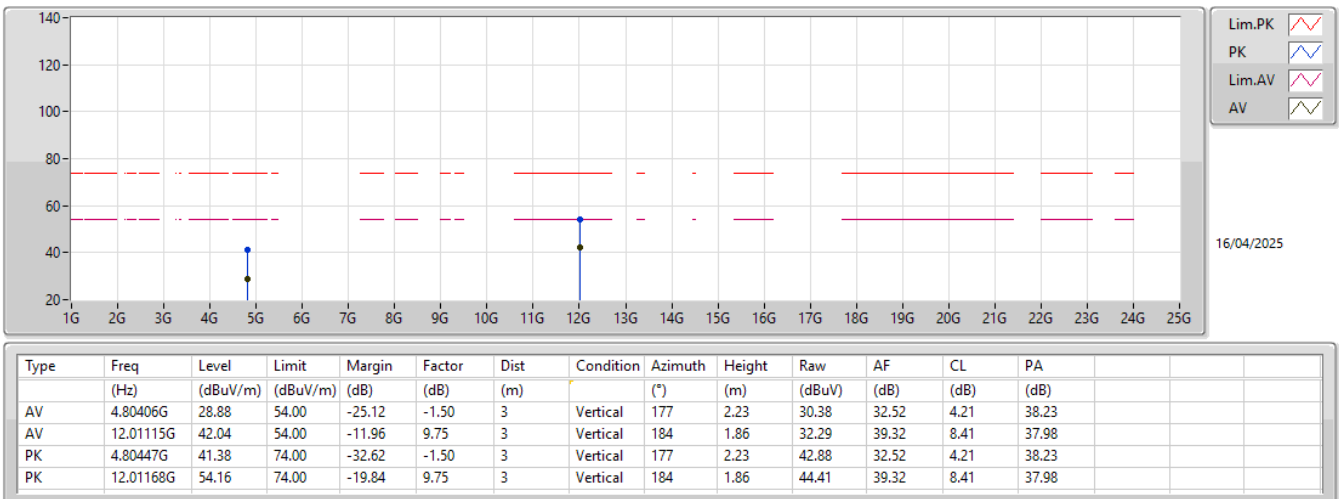
2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX



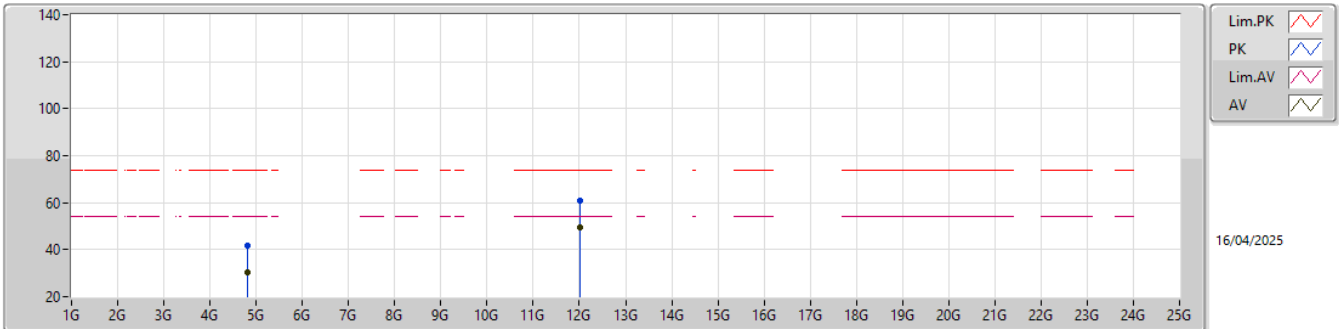
2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX



2.4-2.4835GHz_BT-LE(1Mbps)

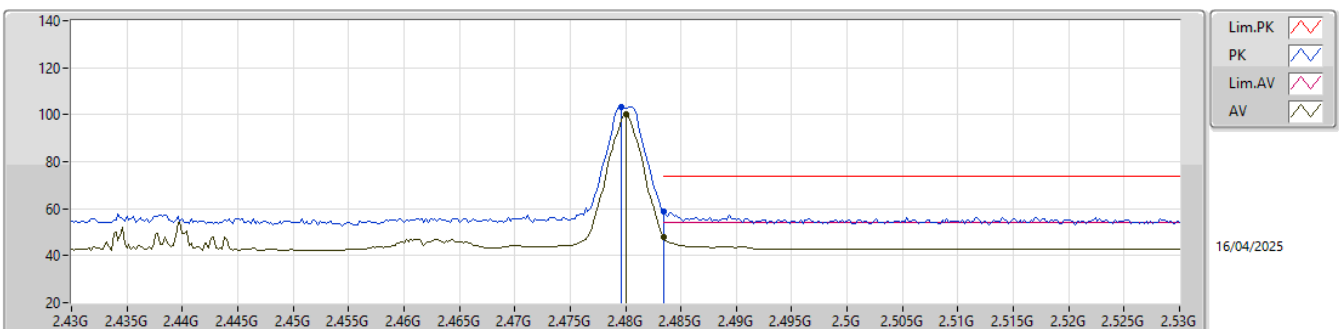
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80407G	30.31	54.00	-23.69	-1.50	3	Horizontal	48	1.13	31.81	32.52	4.21	38.23
AV	12.01108G	49.54	54.00	-4.46	9.75	3	Horizontal	301	2.04	39.79	39.32	8.41	37.98
PK	4.80468G	41.69	74.00	-32.31	-1.50	3	Horizontal	48	1.13	43.19	32.52	4.21	38.23
PK	12.01079G	60.63	74.00	-13.37	9.75	3	Horizontal	301	2.04	50.88	39.32	8.41	37.98

2.4-2.4835GHz_BT-LE(2Mbps)

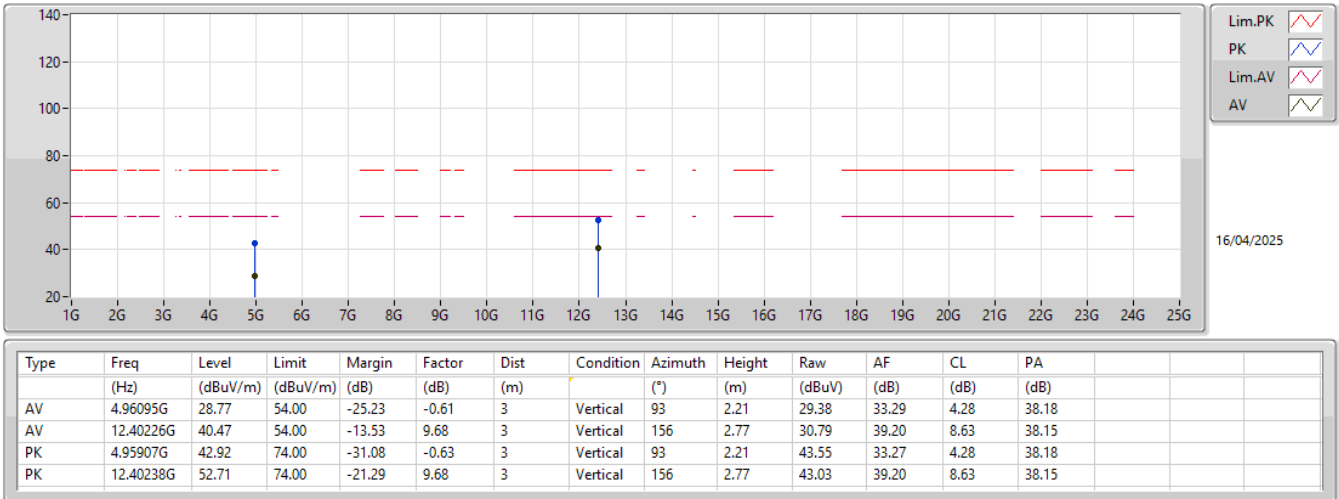
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	100.19	Inf	-Inf	30.71	3	Vertical	116	1.12	69.48	27.90	2.81	-
AV	2.4835G	47.80	54.00	-6.20	30.71	3	Vertical	116	1.12	17.09	27.90	2.81	-
PK	2.4796G	103.10	Inf	-Inf	30.71	3	Vertical	116	1.12	72.39	27.90	2.81	-
PK	2.4835G	58.70	74.00	-15.30	30.71	3	Vertical	116	1.12	27.99	27.90	2.81	-

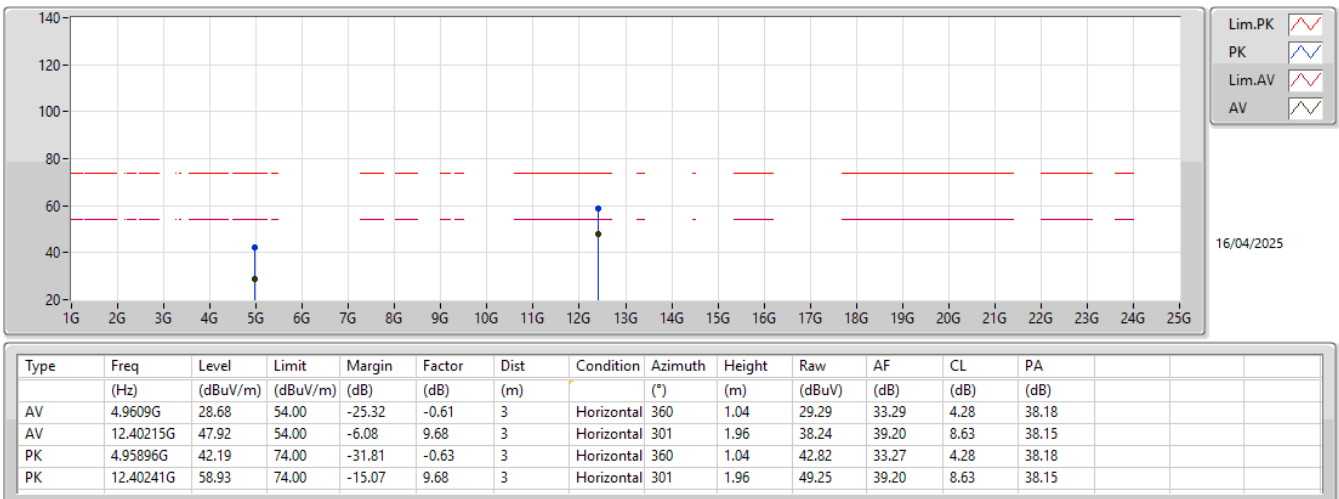
2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX





Summary

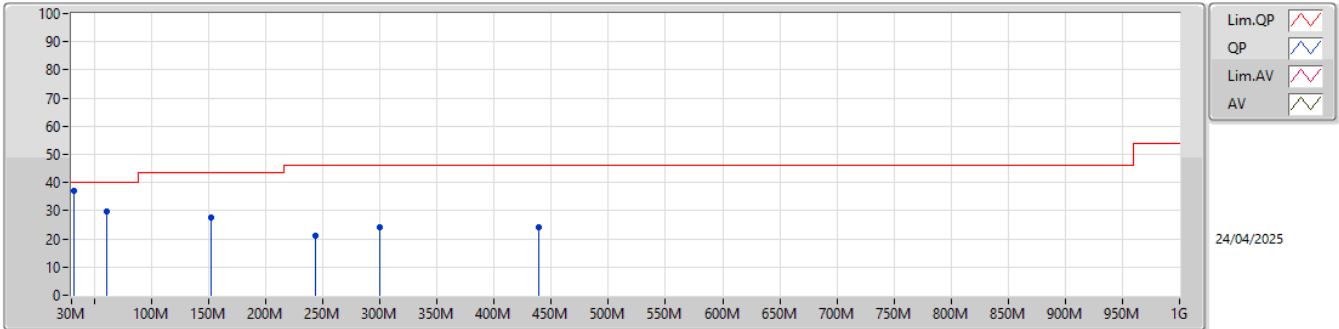
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	31.94M	36.96	40.00	-3.04	3	Vertical	360	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	31.94M	36.96	40.00	-3.04	3	Vertical	360	1.00
2440MHz	Pass	PK	61.04M	29.91	40.00	-10.09	3	Vertical	360	1.00
2440MHz	Pass	PK	152.22M	27.56	43.50	-15.94	3	Vertical	360	1.00
2440MHz	Pass	PK	243.4M	21.00	46.00	-25.00	3	Vertical	360	1.00
2440MHz	Pass	PK	299.66M	24.08	46.00	-21.92	3	Vertical	360	1.00
2440MHz	Pass	PK	439.34M	24.18	46.00	-21.82	3	Vertical	360	1.00
2440MHz	Pass	PK	66.86M	33.78	40.00	-6.22	3	Horizontal	0	1.00
2440MHz	Pass	PK	154.16M	35.66	43.50	-7.84	3	Horizontal	0	1.00
2440MHz	Pass	PK	235.64M	26.73	46.00	-19.27	3	Horizontal	0	1.00
2440MHz	Pass	PK	315.18M	29.15	46.00	-16.85	3	Horizontal	0	1.00
2440MHz	Pass	PK	416.06M	24.87	46.00	-21.13	3	Horizontal	0	1.00
2440MHz	Pass	PK	549.92M	26.65	46.00	-19.35	3	Horizontal	0	1.00

2.4-2.4835GHz_BT-LE(2Mbps)

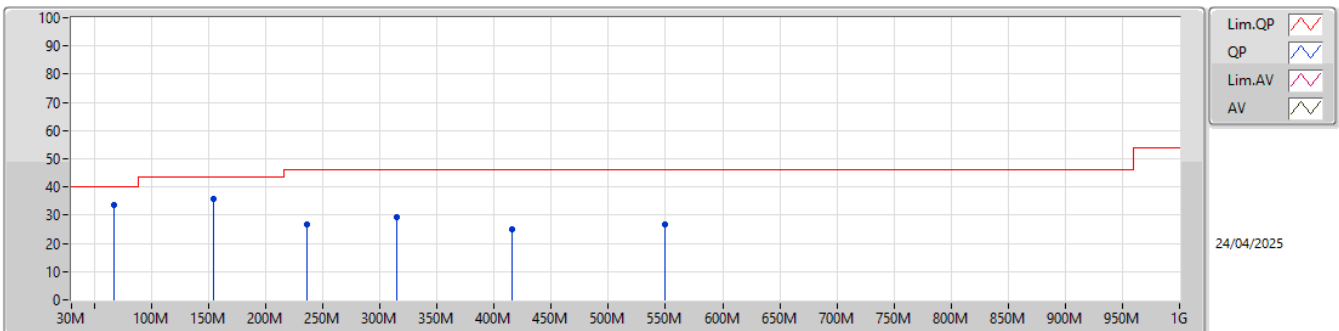
2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.94M	36.96	40.00	-3.04	-4.98	3	Vertical	360	1.00	41.94	21.98	0.43	27.39
PK	61.04M	29.91	40.00	-10.09	-15.32	3	Vertical	360	1.00	45.23	11.43	0.58	27.33
PK	152.22M	27.56	43.50	-15.94	-10.59	3	Vertical	360	1.00	38.15	15.50	0.93	27.02
PK	243.4M	21.00	46.00	-25.00	-8.62	3	Vertical	360	1.00	29.62	16.80	1.19	26.61
PK	299.66M	24.08	46.00	-21.92	-6.95	3	Vertical	360	1.00	31.03	18.35	1.31	26.61
PK	439.34M	24.18	46.00	-21.82	-4.58	3	Vertical	360	1.00	28.76	21.52	1.58	27.68

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	66.86M	33.78	40.00	-6.22	-15.23	3	Horizontal	0	1.00	49.01	11.48	0.61	27.32
PK	154.16M	35.66	43.50	-7.84	-10.59	3	Horizontal	0	1.00	46.25	15.48	0.94	27.01
PK	235.64M	26.73	46.00	-19.27	-9.51	3	Horizontal	0	1.00	36.24	15.95	1.18	26.64
PK	315.18M	29.15	46.00	-16.85	-6.62	3	Horizontal	0	1.00	35.77	18.74	1.35	26.71
PK	416.06M	24.87	46.00	-21.13	-4.45	3	Horizontal	0	1.00	29.32	21.53	1.55	27.53
PK	549.92M	26.65	46.00	-19.35	-2.38	3	Horizontal	0	1.00	29.03	23.99	1.74	28.11



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	2.4835G	44.30	54.00	-9.70	3	Vertical	69	1.50
BT-LE(2Mbps)	Pass	AV	2.4835G	46.97	54.00	-7.03	3	Vertical	292	1.29

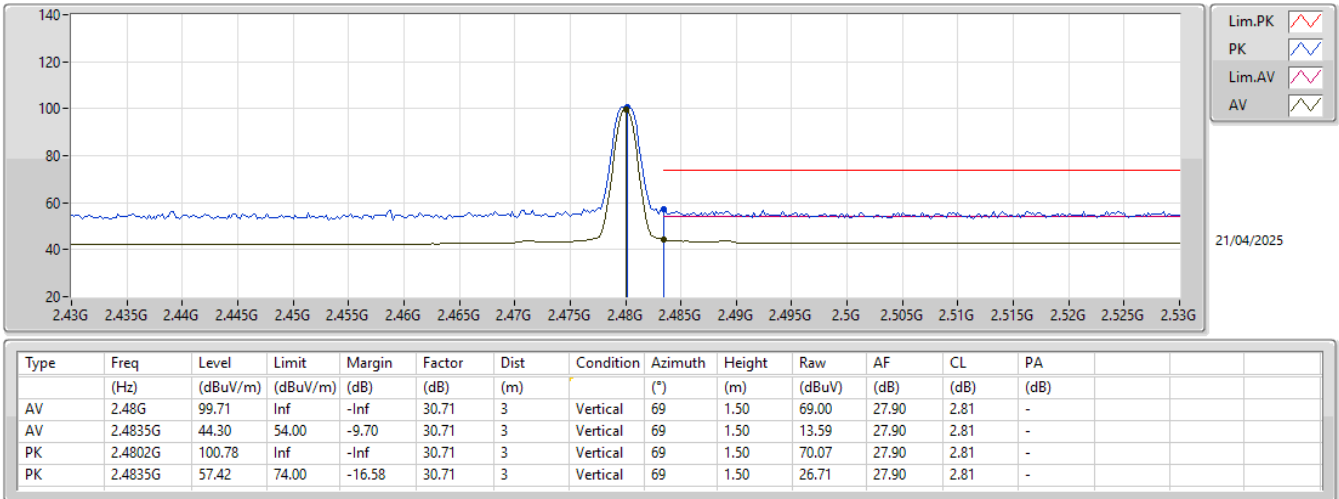
Result

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	2.3896G	42.64	54.00	-11.36	3	Vertical	67	1.50
2402MHz	Pass	AV	2.402G	100.83	Inf	-Inf	3	Vertical	67	1.50
2402MHz	Pass	PK	2.3844G	57.02	74.00	-16.98	3	Vertical	67	1.50
2402MHz	Pass	PK	2.4018G	101.88	Inf	-Inf	3	Vertical	67	1.50
2402MHz	Pass	AV	2.3892G	42.45	54.00	-11.55	3	Horizontal	62	1.50
2402MHz	Pass	AV	2.402G	97.20	Inf	-Inf	3	Horizontal	62	1.50
2402MHz	Pass	PK	2.3776G	56.19	74.00	-17.81	3	Horizontal	62	1.50
2402MHz	Pass	PK	2.4022G	98.27	Inf	-Inf	3	Horizontal	62	1.50
2402MHz	Pass	AV	4.80398G	39.56	54.00	-14.44	3	Vertical	24	1.07
2402MHz	Pass	PK	4.8035G	47.63	74.00	-26.37	3	Vertical	24	1.07
2402MHz	Pass	AV	4.80396G	36.69	54.00	-17.31	3	Horizontal	287	2.46
2402MHz	Pass	PK	4.80369G	45.91	74.00	-28.09	3	Horizontal	287	2.46
2402MHz	Pass	AV	2.3888G	42.12	54.00	-11.88	3	Vertical	294	1.11
2440MHz	Pass	AV	2.44G	101.99	Inf	-Inf	3	Vertical	294	1.11
2440MHz	Pass	AV	2.4852G	42.61	54.00	-11.39	3	Vertical	294	1.11
2440MHz	Pass	PK	2.346G	55.67	74.00	-18.33	3	Vertical	294	1.11
2440MHz	Pass	PK	2.4396G	103.09	Inf	-Inf	3	Vertical	294	1.11
2440MHz	Pass	PK	2.4916G	55.71	74.00	-18.29	3	Vertical	294	1.11
2440MHz	Pass	AV	2.3892G	42.29	54.00	-11.71	3	Horizontal	61	1.43
2440MHz	Pass	AV	2.44G	96.84	Inf	-Inf	3	Horizontal	61	1.43
2440MHz	Pass	AV	2.4892G	42.82	54.00	-11.18	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.3816G	56.17	74.00	-17.83	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.4396G	97.90	Inf	-Inf	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.4835G	57.24	74.00	-16.76	3	Horizontal	61	1.43
2440MHz	Pass	AV	4.87998G	35.13	54.00	-18.87	3	Vertical	20	1.01
2440MHz	Pass	AV	7.31939G	39.18	54.00	-14.82	3	Vertical	280	2.84
2440MHz	Pass	PK	4.87945G	45.13	74.00	-28.87	3	Vertical	20	1.01
2440MHz	Pass	PK	7.31927G	51.33	74.00	-22.67	3	Vertical	280	2.84
2440MHz	Pass	AV	4.88G	33.15	54.00	-20.85	3	Horizontal	286	2.51
2440MHz	Pass	AV	7.31939G	38.31	54.00	-15.69	3	Horizontal	301	1.01
2440MHz	Pass	PK	4.88058G	44.64	74.00	-29.36	3	Horizontal	286	2.51
2440MHz	Pass	PK	7.31941G	50.82	74.00	-23.18	3	Horizontal	301	1.01
2480MHz	Pass	AV	2.48G	99.71	Inf	-Inf	3	Vertical	69	1.50
2480MHz	Pass	AV	2.4835G	44.30	54.00	-9.70	3	Vertical	69	1.50
2480MHz	Pass	PK	2.4802G	100.78	Inf	-Inf	3	Vertical	69	1.50
2480MHz	Pass	PK	2.4835G	57.42	74.00	-16.58	3	Vertical	69	1.50
2480MHz	Pass	AV	2.48G	97.58	Inf	-Inf	3	Horizontal	67	1.09
2480MHz	Pass	AV	2.4835G	43.65	54.00	-10.35	3	Horizontal	67	1.09
2480MHz	Pass	PK	2.4798G	98.64	Inf	-Inf	3	Horizontal	67	1.09
2480MHz	Pass	PK	2.4835G	56.76	74.00	-17.24	3	Horizontal	67	1.09
2480MHz	Pass	AV	4.96001G	33.54	54.00	-20.46	3	Vertical	15	2.59
2480MHz	Pass	AV	7.44056G	39.85	54.00	-14.15	3	Vertical	279	2.64
2480MHz	Pass	PK	4.96043G	44.87	74.00	-29.13	3	Vertical	15	2.59
2480MHz	Pass	PK	7.43927G	51.81	74.00	-22.19	3	Vertical	279	2.64
2480MHz	Pass	AV	4.96007G	31.33	54.00	-22.67	3	Horizontal	31	2.69
2480MHz	Pass	AV	7.44061G	36.57	54.00	-17.43	3	Horizontal	290	2.74
2480MHz	Pass	PK	4.96047G	43.97	74.00	-30.03	3	Horizontal	31	2.69
2480MHz	Pass	PK	7.44047G	49.43	74.00	-24.57	3	Horizontal	290	2.74
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3882G	42.75	54.00	-11.25	3	Vertical	65	1.41
2402MHz	Pass	AV	2.402G	99.15	Inf	-Inf	3	Vertical	65	1.41
2402MHz	Pass	PK	2.3616G	55.73	74.00	-18.27	3	Vertical	65	1.41
2402MHz	Pass	PK	2.4026G	102.24	Inf	-Inf	3	Vertical	65	1.41
2402MHz	Pass	AV	2.3882G	42.56	54.00	-11.44	3	Horizontal	61	1.49
2402MHz	Pass	AV	2.402G	95.23	Inf	-Inf	3	Horizontal	61	1.49
2402MHz	Pass	PK	2.3786G	55.97	74.00	-18.03	3	Horizontal	61	1.49
2402MHz	Pass	PK	2.4016G	98.33	Inf	-Inf	3	Horizontal	61	1.49
2402MHz	Pass	AV	4.804G	39.26	54.00	-14.74	3	Vertical	24	1.00
2402MHz	Pass	PK	4.80462G	47.43	74.00	-26.57	3	Vertical	24	1.00
2402MHz	Pass	AV	4.80402G	36.94	54.00	-17.06	3	Horizontal	287	2.44

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2402MHz	Pass	PK	4.80356G	45.78	74.00	-28.22	3	Horizontal	287	2.44
2440MHz	Pass	AV	2.3884G	42.12	54.00	-11.88	3	Vertical	293	1.13
2440MHz	Pass	AV	2.44G	100.01	Inf	-Inf	3	Vertical	293	1.13
2440MHz	Pass	AV	2.4988G	42.61	54.00	-11.39	3	Vertical	293	1.13
2440MHz	Pass	PK	2.3548G	55.32	74.00	-18.68	3	Vertical	293	1.13
2440MHz	Pass	PK	2.4396G	103.09	Inf	-Inf	3	Vertical	293	1.13
2440MHz	Pass	PK	2.5G	56.27	74.00	-17.73	3	Vertical	293	1.13
2440MHz	Pass	AV	2.3892G	42.11	54.00	-11.89	3	Horizontal	61	1.43
2440MHz	Pass	AV	2.44G	94.89	Inf	-Inf	3	Horizontal	61	1.43
2440MHz	Pass	AV	2.498G	42.60	54.00	-11.40	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.3704G	55.96	74.00	-18.04	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.4396G	97.94	Inf	-Inf	3	Horizontal	61	1.43
2440MHz	Pass	PK	2.4892G	55.87	74.00	-18.13	3	Horizontal	61	1.43
2440MHz	Pass	AV	4.88075G	32.17	54.00	-21.83	3	Vertical	20	1.11
2440MHz	Pass	AV	7.31925G	36.36	54.00	-17.64	3	Vertical	278	2.82
2440MHz	Pass	PK	4.88052G	44.00	74.00	-30.00	3	Vertical	20	1.11
2440MHz	Pass	PK	7.31999G	49.82	74.00	-24.18	3	Vertical	278	2.82
2440MHz	Pass	AV	4.88075G	30.69	54.00	-23.31	3	Horizontal	287	2.88
2440MHz	Pass	AV	7.31926G	35.66	54.00	-18.34	3	Horizontal	300	1.00
2440MHz	Pass	PK	4.88074G	43.50	74.00	-30.50	3	Horizontal	287	2.88
2440MHz	Pass	PK	7.31933G	49.60	74.00	-24.40	3	Horizontal	300	1.00
2480MHz	Pass	AV	2.48G	99.24	Inf	-Inf	3	Vertical	292	1.29
2480MHz	Pass	AV	2.4835G	46.97	54.00	-7.03	3	Vertical	292	1.29
2480MHz	Pass	PK	2.4796G	102.22	Inf	-Inf	3	Vertical	292	1.29
2480MHz	Pass	PK	2.484G	58.07	74.00	-15.93	3	Vertical	292	1.29
2480MHz	Pass	AV	2.48G	95.64	Inf	-Inf	3	Horizontal	67	1.10
2480MHz	Pass	AV	2.4835G	45.07	54.00	-8.93	3	Horizontal	67	1.10
2480MHz	Pass	PK	2.4806G	98.62	Inf	-Inf	3	Horizontal	67	1.10
2480MHz	Pass	PK	2.4836G	56.55	74.00	-17.45	3	Horizontal	67	1.10
2480MHz	Pass	AV	4.96075G	30.94	54.00	-23.06	3	Vertical	9	2.61
2480MHz	Pass	AV	7.43925G	36.77	54.00	-17.23	3	Vertical	281	2.76
2480MHz	Pass	PK	4.95997G	44.56	74.00	-29.44	3	Vertical	9	2.61
2480MHz	Pass	PK	7.44011G	50.17	74.00	-23.83	3	Vertical	281	2.76
2480MHz	Pass	AV	4.96074G	29.40	54.00	-24.60	3	Horizontal	29	2.67
2480MHz	Pass	AV	7.44075G	34.26	54.00	-19.74	3	Horizontal	289	2.77
2480MHz	Pass	PK	4.95933G	43.13	74.00	-30.87	3	Horizontal	29	2.67
2480MHz	Pass	PK	7.4394G	48.99	74.00	-25.01	3	Horizontal	289	2.77

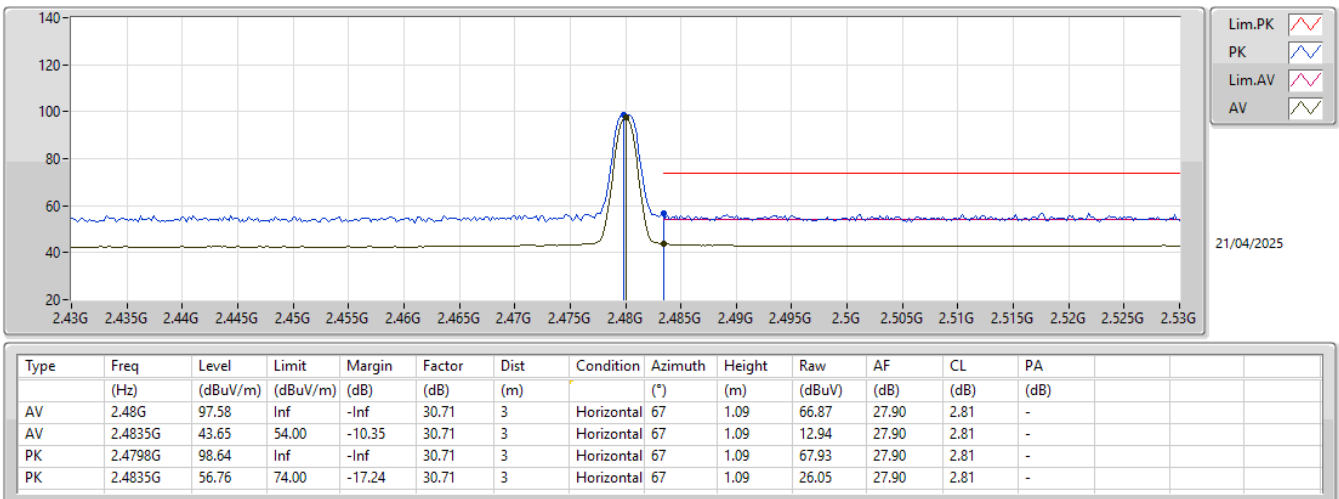
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



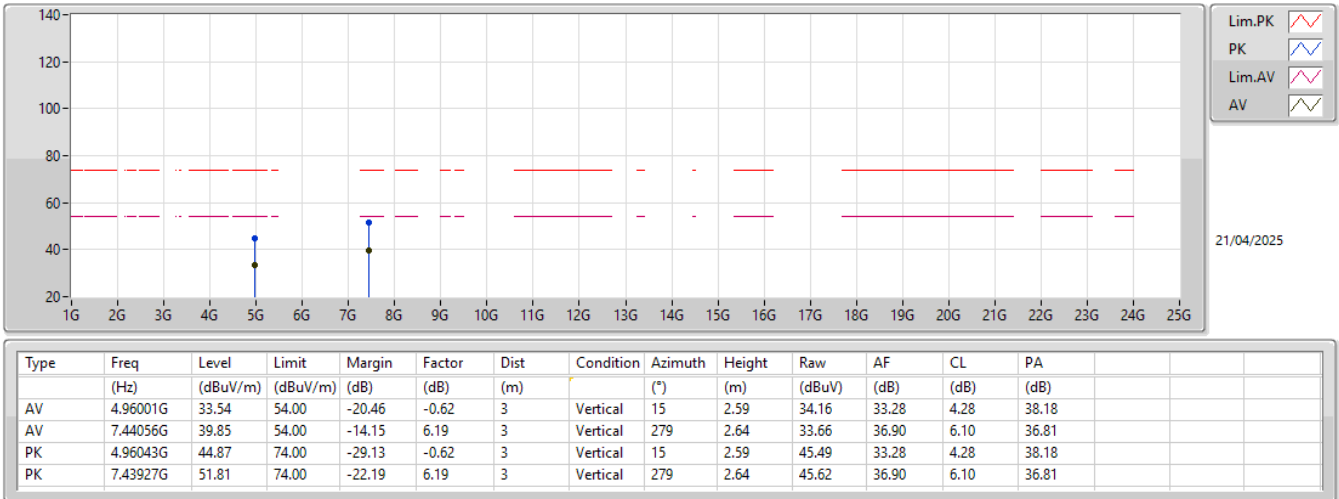
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



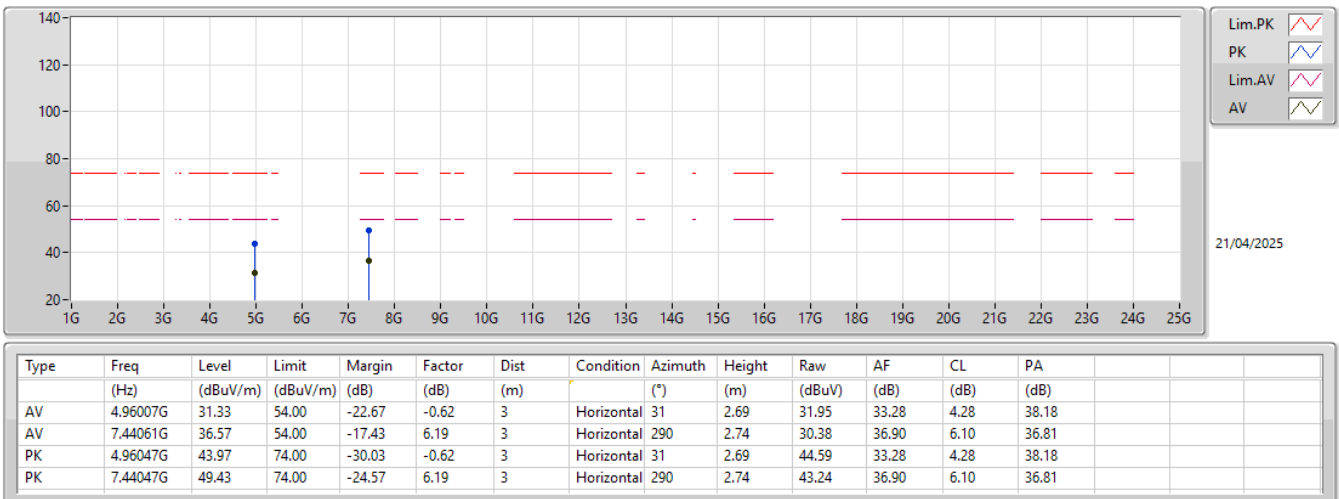
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2480MHz_TX



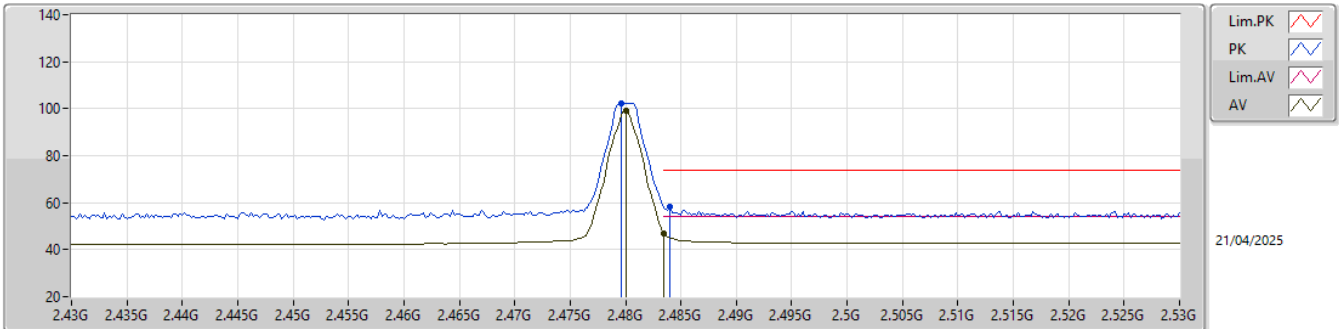
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-LE(2Mbps)

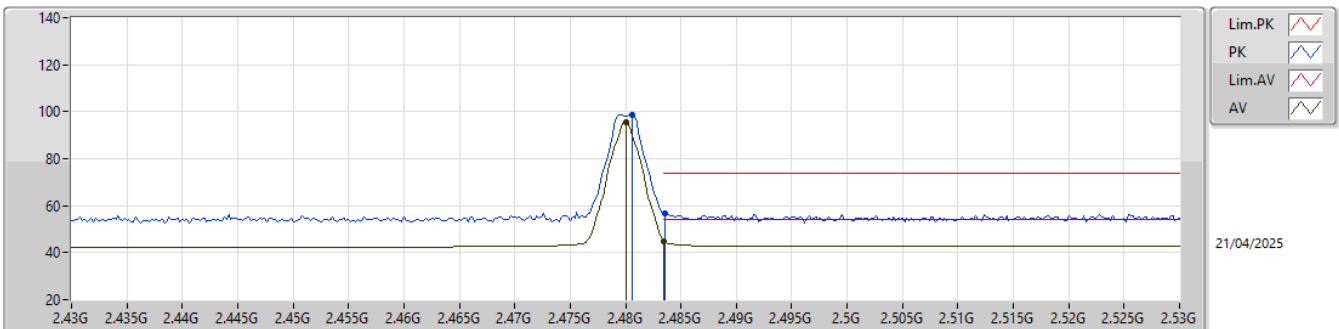
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Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	99.24	Inf	-Inf	30.71	3	Vertical	292	1.29	68.53	27.90	2.81	-
AV	2.4835G	46.97	54.00	-7.03	30.71	3	Vertical	292	1.29	16.26	27.90	2.81	-
PK	2.4796G	102.22	Inf	-Inf	30.71	3	Vertical	292	1.29	71.51	27.90	2.81	-
PK	2.484G	58.07	74.00	-15.93	30.71	3	Vertical	292	1.29	27.36	27.90	2.81	-

2.4-2.4835GHz_BT-LE(2Mbps)

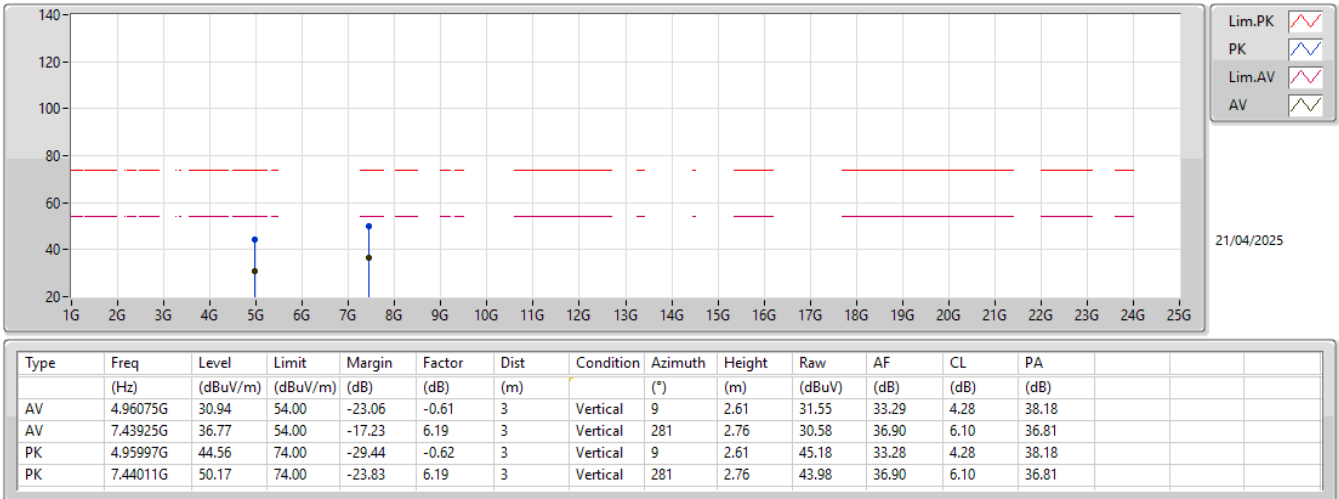
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Raw	AF	CL	PA
(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(dB)	(m)		(°)	(m)	(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	95.64	Inf	-Inf	30.71	3	Horizontal	67	1.10	64.93	27.90	2.81	-
AV	2.4835G	45.07	54.00	-8.93	30.71	3	Horizontal	67	1.10	14.36	27.90	2.81	-
PK	2.4806G	98.62	Inf	-Inf	30.71	3	Horizontal	67	1.10	67.91	27.90	2.81	-
PK	2.4836G	56.55	74.00	-17.45	30.71	3	Horizontal	67	1.10	25.84	27.90	2.81	-

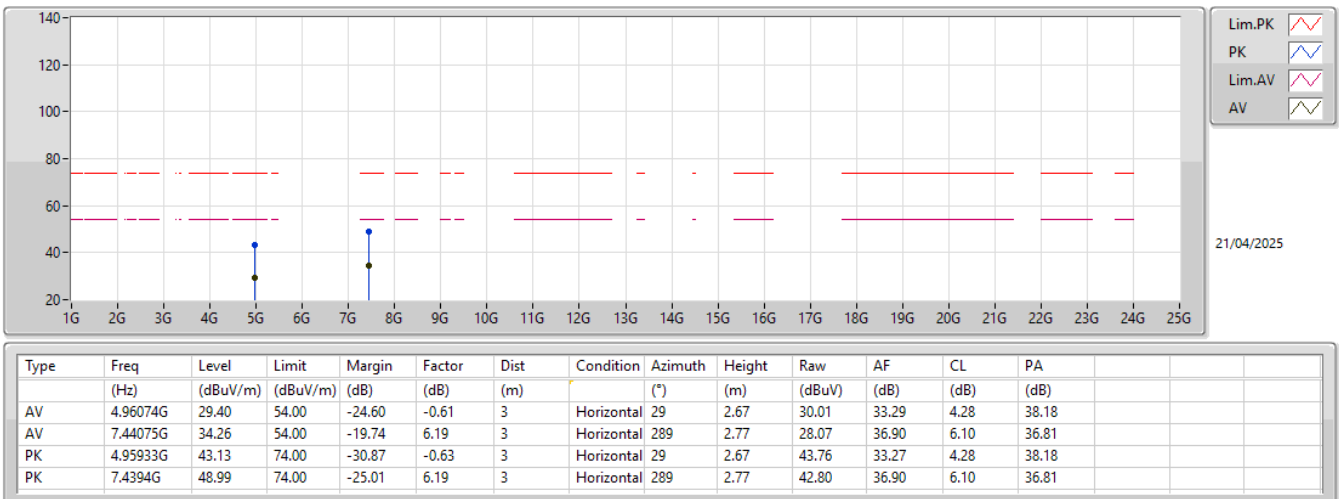
2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX





Summary

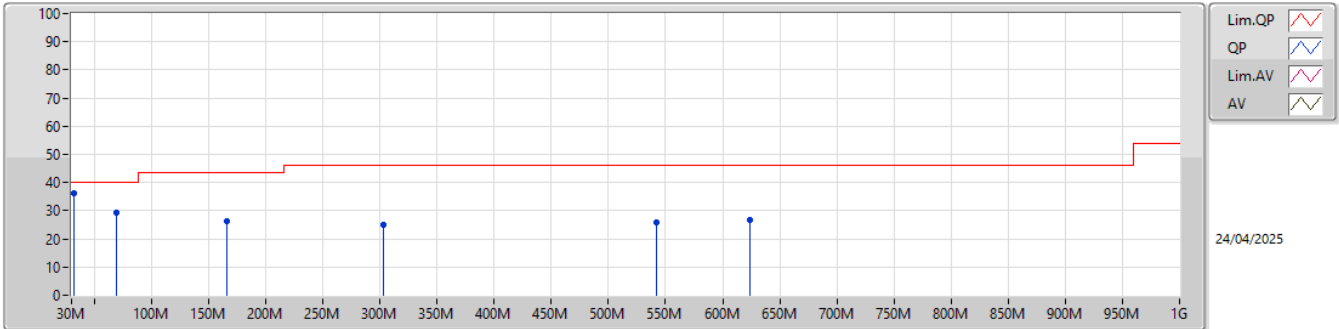
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	31.94M	36.37	40.00	-3.63	3	Vertical	0	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	31.94M	36.37	40.00	-3.63	3	Vertical	0	1.00
2440MHz	Pass	PK	68.8M	29.18	40.00	-10.82	3	Vertical	0	1.00
2440MHz	Pass	PK	165.8M	26.36	43.50	-17.14	3	Vertical	0	1.00
2440MHz	Pass	PK	303.54M	25.06	46.00	-20.94	3	Vertical	0	1.00
2440MHz	Pass	PK	542.16M	25.74	46.00	-20.26	3	Vertical	0	1.00
2440MHz	Pass	PK	623.64M	26.60	46.00	-19.40	3	Vertical	0	1.00
2440MHz	Pass	PK	68.8M	33.04	40.00	-6.96	3	Horizontal	360	1.00
2440MHz	Pass	PK	152.22M	36.37	43.50	-7.13	3	Horizontal	360	1.00
2440MHz	Pass	PK	233.7M	29.30	46.00	-16.70	3	Horizontal	360	1.00
2440MHz	Pass	PK	307.42M	27.17	46.00	-18.83	3	Horizontal	360	1.00
2440MHz	Pass	PK	571.26M	26.31	46.00	-19.69	3	Horizontal	360	1.00
2440MHz	Pass	PK	720.64M	28.22	46.00	-17.78	3	Horizontal	360	1.00

2.4-2.4835GHz_BT-LE(2Mbps)

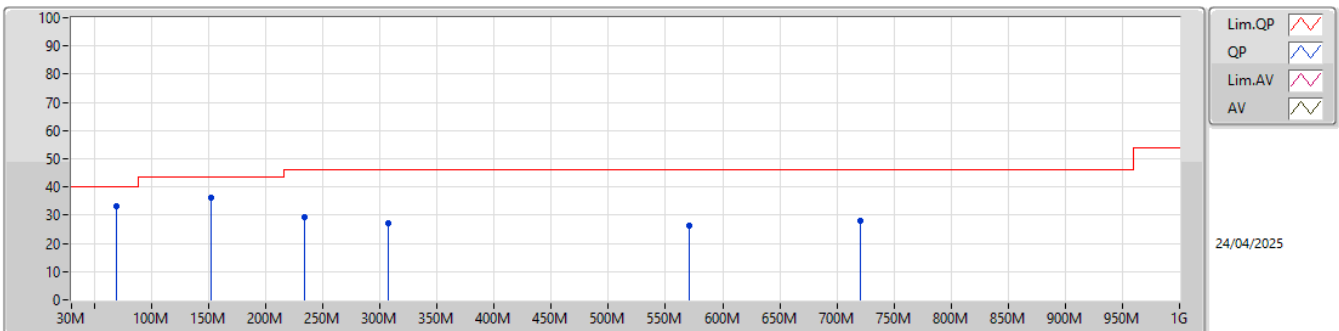
2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	31.94M	36.37	40.00	-3.63	-4.98	3	Vertical	0	1.00	41.35	21.98	0.43	27.39
PK	68.8M	29.18	40.00	-10.82	-15.08	3	Vertical	0	1.00	44.26	11.61	0.62	27.31
PK	165.8M	26.36	43.50	-17.14	-11.01	3	Vertical	0	1.00	37.37	14.98	0.97	26.96
PK	303.54M	25.06	46.00	-20.94	-6.84	3	Vertical	0	1.00	31.90	18.47	1.32	26.63
PK	542.16M	25.74	46.00	-20.26	-2.68	3	Vertical	0	1.00	28.42	23.70	1.73	28.11
PK	623.64M	26.60	46.00	-19.40	-2.22	3	Vertical	0	1.00	28.82	24.13	1.87	28.22

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_Test Fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	68.8M	33.04	40.00	-6.96	-15.08	3	Horizontal	360	1.00	48.12	11.61	0.62	27.31
PK	152.22M	36.37	43.50	-7.13	-10.59	3	Horizontal	360	1.00	46.96	15.50	0.93	27.02
PK	233.7M	29.30	46.00	-16.70	-9.74	3	Horizontal	360	1.00	39.04	15.74	1.17	26.65
PK	307.42M	27.17	46.00	-18.83	-6.76	3	Horizontal	360	1.00	33.93	18.57	1.33	26.66
PK	571.26M	26.31	46.00	-19.69	-2.50	3	Horizontal	360	1.00	28.81	23.88	1.78	28.16
PK	720.64M	28.22	46.00	-17.78	-1.72	3	Horizontal	360	1.00	29.94	24.41	2.01	28.14



Summary

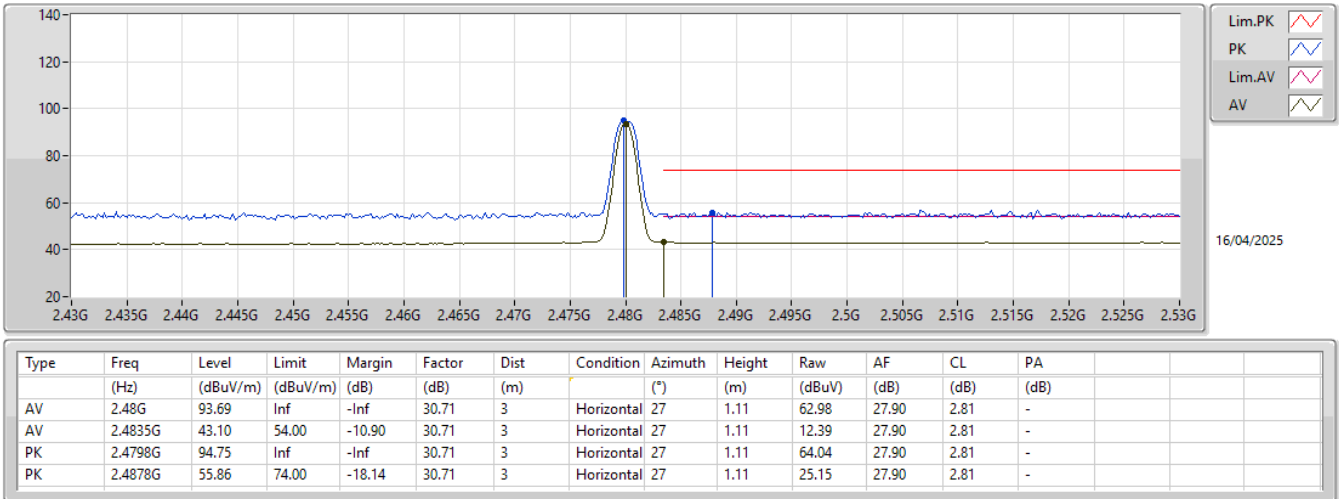
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	43.10	54.00	-10.90	3	Horizontal	27	1.11
BT-LE(2Mbps)	Pass	AV	2.4835G	43.99	54.00	-10.01	3	Horizontal	27	1.12

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	2.39G	42.40	54.00	-11.60	3	Horizontal	17	1.18
2402MHz	Pass	AV	2.402G	92.86	Inf	-Inf	3	Horizontal	17	1.18
2402MHz	Pass	PK	2.3882G	55.96	74.00	-18.04	3	Horizontal	17	1.18
2402MHz	Pass	PK	2.4022G	93.93	Inf	-Inf	3	Horizontal	17	1.18
2402MHz	Pass	AV	4.80396G	34.01	54.00	-19.99	3	Vertical	187	1.03
2402MHz	Pass	PK	4.80347G	44.27	74.00	-29.73	3	Vertical	187	1.03
2402MHz	Pass	AV	4.80398G	32.83	54.00	-21.17	3	Horizontal	334	1.00
2402MHz	Pass	PK	4.80387G	43.90	74.00	-30.10	3	Horizontal	334	1.00
2440MHz	Pass	AV	2.3884G	42.32	54.00	-11.68	3	Horizontal	24	1.14
2440MHz	Pass	AV	2.44G	92.48	Inf	-Inf	3	Horizontal	24	1.14
2440MHz	Pass	AV	2.4972G	42.88	54.00	-11.12	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.3556G	56.20	74.00	-17.80	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.4396G	93.55	Inf	-Inf	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.498G	55.93	74.00	-18.07	3	Horizontal	24	1.14
2440MHz	Pass	AV	4.87993G	29.18	54.00	-24.82	3	Vertical	28	1.22
2440MHz	Pass	PK	4.88033G	42.26	74.00	-31.74	3	Vertical	28	1.22
2440MHz	Pass	AV	4.88001G	30.31	54.00	-23.69	3	Horizontal	332	1.15
2440MHz	Pass	PK	4.87937G	42.33	74.00	-31.67	3	Horizontal	332	1.15
2480MHz	Pass	AV	2.48G	93.69	Inf	-Inf	3	Horizontal	27	1.11
2480MHz	Pass	AV	2.4835G	43.10	54.00	-10.90	3	Horizontal	27	1.11
2480MHz	Pass	PK	2.4798G	94.75	Inf	-Inf	3	Horizontal	27	1.11
2480MHz	Pass	PK	2.4878G	55.86	74.00	-18.14	3	Horizontal	27	1.11
2480MHz	Pass	AV	4.96G	30.48	54.00	-23.52	3	Vertical	22	1.00
2480MHz	Pass	PK	4.95929G	42.55	74.00	-31.45	3	Vertical	22	1.00
2480MHz	Pass	AV	4.96009G	31.56	54.00	-22.44	3	Horizontal	332	1.15
2480MHz	Pass	PK	4.96066G	43.29	74.00	-30.71	3	Horizontal	332	1.15
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.389G	42.41	54.00	-11.59	3	Horizontal	17	1.18
2402MHz	Pass	AV	2.402G	90.99	Inf	-Inf	3	Horizontal	17	1.18
2402MHz	Pass	PK	2.3538G	55.65	74.00	-18.35	3	Horizontal	17	1.18
2402MHz	Pass	PK	2.4024G	93.93	Inf	-Inf	3	Horizontal	17	1.18
2402MHz	Pass	AV	4.80304G	31.55	54.00	-22.45	3	Vertical	186	1.03
2402MHz	Pass	PK	4.80496G	43.26	74.00	-30.74	3	Vertical	186	1.03
2402MHz	Pass	AV	4.80316G	30.71	54.00	-23.29	3	Horizontal	332	1.00
2402MHz	Pass	PK	4.80307G	42.47	74.00	-31.53	3	Horizontal	332	1.00
2440MHz	Pass	AV	2.388G	42.35	54.00	-11.65	3	Horizontal	24	1.14
2440MHz	Pass	AV	2.44G	90.61	Inf	-Inf	3	Horizontal	24	1.14
2440MHz	Pass	AV	2.4964G	42.80	54.00	-11.20	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.3404G	55.36	74.00	-18.64	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.4396G	93.51	Inf	-Inf	3	Horizontal	24	1.14
2440MHz	Pass	PK	2.49G	56.19	74.00	-17.81	3	Horizontal	24	1.14
2440MHz	Pass	AV	4.88096G	28.44	54.00	-25.56	3	Vertical	28	1.36
2440MHz	Pass	PK	4.88007G	41.24	74.00	-32.76	3	Vertical	28	1.36
2440MHz	Pass	AV	4.88086G	29.44	54.00	-24.56	3	Horizontal	308	1.00
2440MHz	Pass	PK	4.88065G	41.82	74.00	-32.18	3	Horizontal	308	1.00
2480MHz	Pass	AV	2.48G	91.70	Inf	-Inf	3	Horizontal	27	1.12
2480MHz	Pass	AV	2.4835G	43.99	54.00	-10.01	3	Horizontal	27	1.12
2480MHz	Pass	PK	2.4796G	94.75	Inf	-Inf	3	Horizontal	27	1.12
2480MHz	Pass	PK	2.492G	55.88	74.00	-18.12	3	Horizontal	27	1.12
2480MHz	Pass	AV	4.96092G	29.34	54.00	-24.66	3	Vertical	17	1.46
2480MHz	Pass	PK	4.96059G	42.34	74.00	-31.66	3	Vertical	17	1.46
2480MHz	Pass	AV	4.96101G	30.14	54.00	-23.86	3	Horizontal	330	1.09
2480MHz	Pass	PK	4.96094G	43.04	74.00	-30.96	3	Horizontal	330	1.09

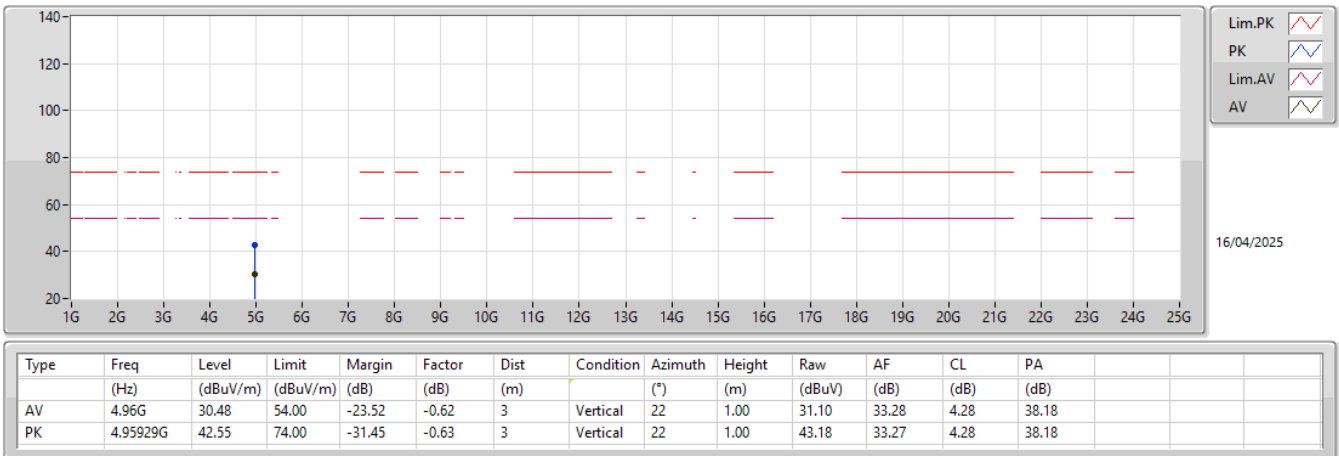
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



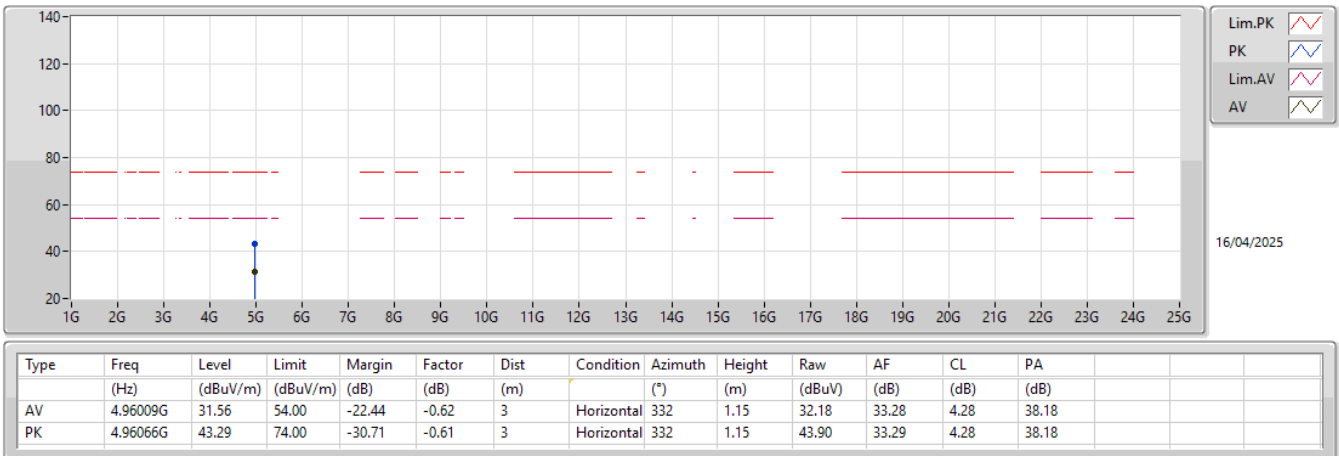
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



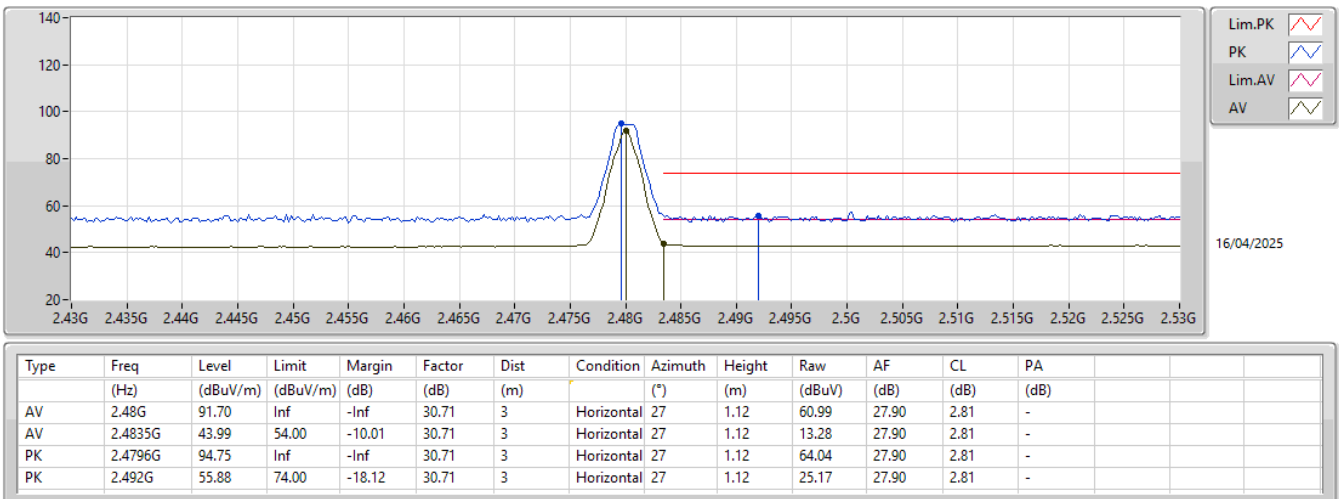
2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



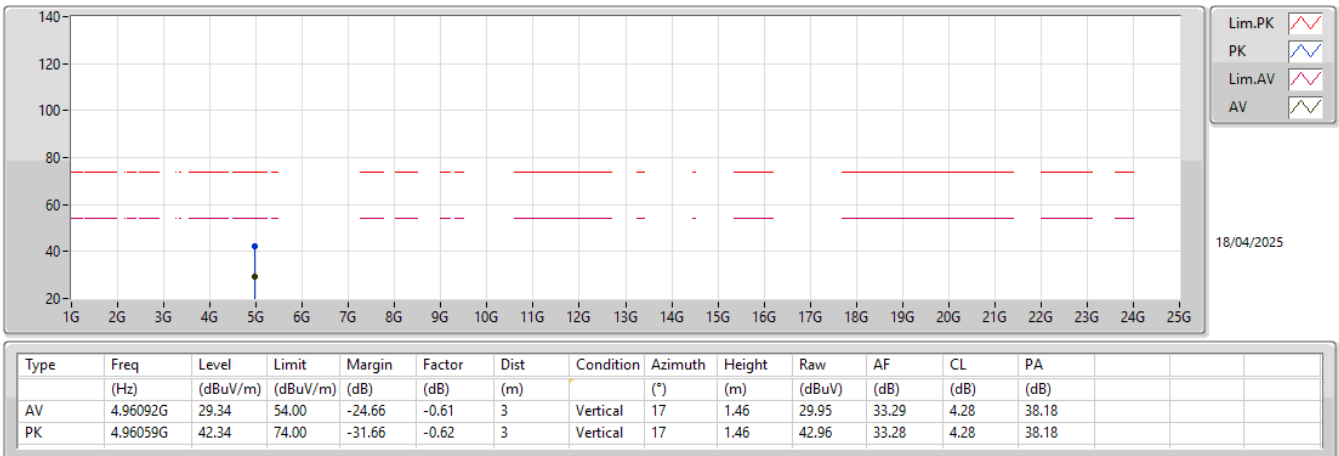
2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX

