

FCC Radio Test Report

FCC ID : 2AVVV-A1
Equipment : 2x2x2 Indoor Wi-Fi 7 Access Point
Brand Name : Meter
Model Name : A1
Applicant : Meter Inc.
2700 18th St., San Francisco, California 94110 United States
Manufacturer : Meter Inc.
2700 18th St., San Francisco, California 94110 United States
Standard : 47 CFR FCC Part 15.247

The product was received on Mar. 24, 2026, and testing was started from Apr. 16, 2026 and completed on Apr. 16, 2026. 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 C63.10-2020 + Cor.1-2023 + C63.10a-2024 and shown compliance with the applicable technical standards.

The test results in this variant 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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History of this test report

TEL : 886-3-3273456
FAX : 886-3-3270973
Report Template No.: HE1-C10 Ver4.4
FCC ID: 2AVVV-A1

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	15.247(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: Barry Hsiao

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 (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX

Note:

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



1.1.2 Antenna Information

Ant.	Brand Name	Model Name	Antenna Type	Connector	Support	Radio
1	GrandTek	BT	PIFA	I-Pex	BT	BT
2	GrandTek	2G-1	PIFA	I-Pex	2.4G	Radio 1
3	GrandTek	2G-2	PIFA	I-Pex	2.4G	Radio 1
4	GrandTek	5G-1	PIFA	I-Pex	5G	Radio 2
5	GrandTek	5G-2	Dipole	I-Pex	5G	Radio 2
6	GrandTek	6G-1	PIFA	I-Pex	6G	Radio 3
7	GrandTek	6G-2	Dipole	I-Pex	6G	Radio 3
8	GrandTek	TB1	PIFA	I-Pex	RX Only	Scan Radio
9	GrandTek	TB2	PIFA	I-Pex	RX Only	Scan Radio

Ant.	Port	Gain (dBi)			
		2.4G	5G	6G	BT
1	1	-	-	-	4.4
2	1	2.9	-	-	-
3	2	4.7	-	-	-
4	1	-	5.3	-	-
5	2	-	4.9	-	-
6	1	-	-	4.9	-
7	2	-	-	5.3	-
8	1	3.9	6.1	6.4	-
9	2	4.8	5.9	7.0	-

Note 1: The EUT has nine antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/2RX) **(Radio 1)**

Ant. 2 (port 1), Ant. 3 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax (2RX) **(Scan Radio)**

Ant. 8 (port 1), Ant. 9 (port 2) could transmit/receive simultaneously.

For 5GHz function:

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

Ant. 4 (port 1), Ant. 5 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (2RX) **(Scan Radio)**

Ant. 8 (port 1), Ant. 9 (port 2) could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 a/ax/be mode (2TX/2RX) **(Radio 3)**

Ant. 6 (port 1), Ant. 7 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/ax mode (2RX) **(Scan Radio)**

Ant. 8 (port 1), Ant. 9 (port 2) could transmit/receive simultaneously.

For BT function:

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

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

Note 2: Directional gain information

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

1.1.3 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR590410AL

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Shielding Case Design Change 2. DC Converter Vendor Change 3. Crystal (XTAL) Vendor Change 4. The circuit of the scan radio has been redesigned. 5. These changes are limited to hardware components only. There is no modification to the software or firmware (FW) as part of this design change.	The worst case of Radiated Unwanted Emissions above 1GHz was evaluated, and the test result of original report was found to be the worst case scenario.

**1.1.4 EUT Information**

Operational Condition			
EUT Power Type	From PoE		
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:		

1.2 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 C63.10-2020 + Cor.1-2023 + C63.10a-2024

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.				
☒	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	03CH25-HY	Rian Chung	20.8~23.3°C / 51~55%	16/Apr/2026

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
Radiated Emission (1 GHz ~ 18 GHz)	4.94 dB	Confidence levels of 95%
Radiated Emission (18 GHz ~ 40 GHz)	4.92 dB	Confidence levels of 95%

2 Test Configuration of EUT

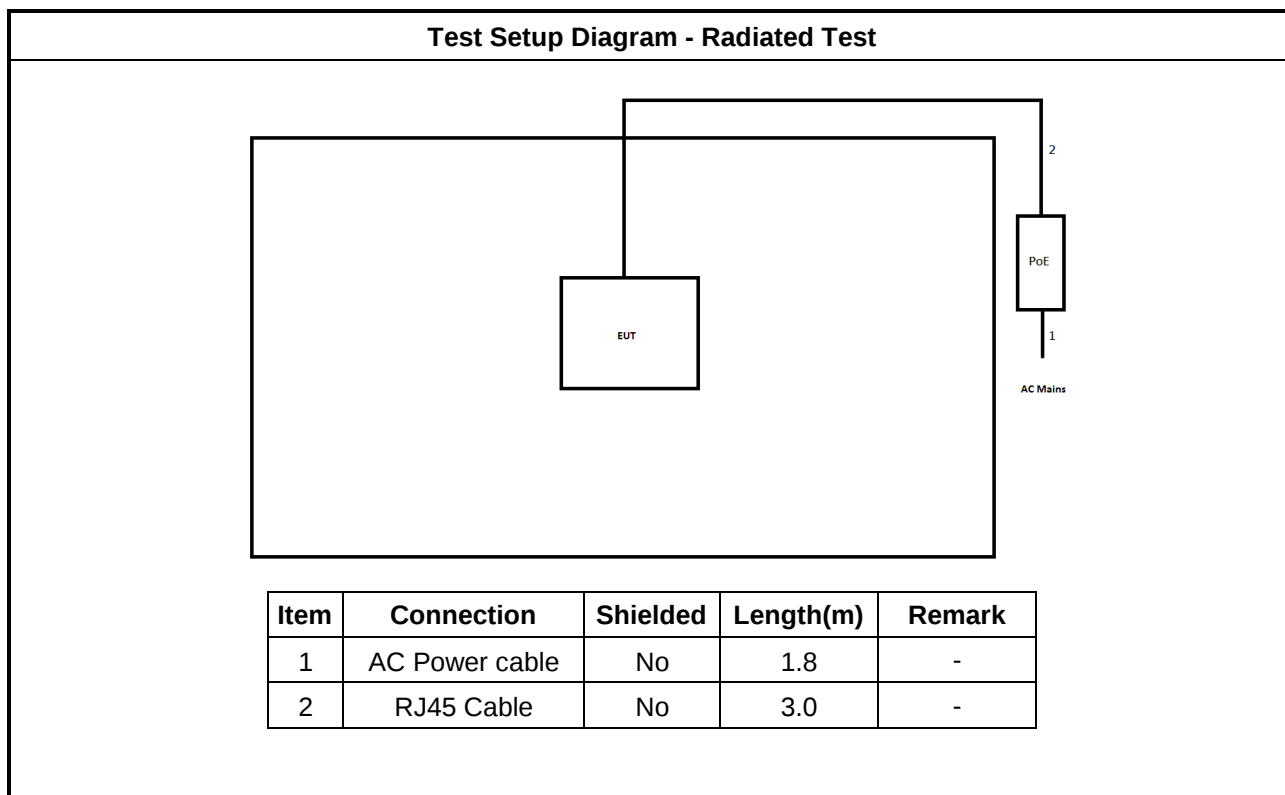
2.1 The Worst Case Measurement Configuration

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.		
1	PoE Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.2 Support Equipment

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power sync	CAT-6E-03	-	-
2	PoE	PHIHONG	POE29U-1AT(PL)	-	Remote Provided by Customer
3	AC Power Cable	Power Sync	PW-GPC180-3	-	Remote

2.3 Test Setup Diagram



3 Transmitter Test Result

3.1 Emissions in Restricted Frequency Bands

3.1.1 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.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

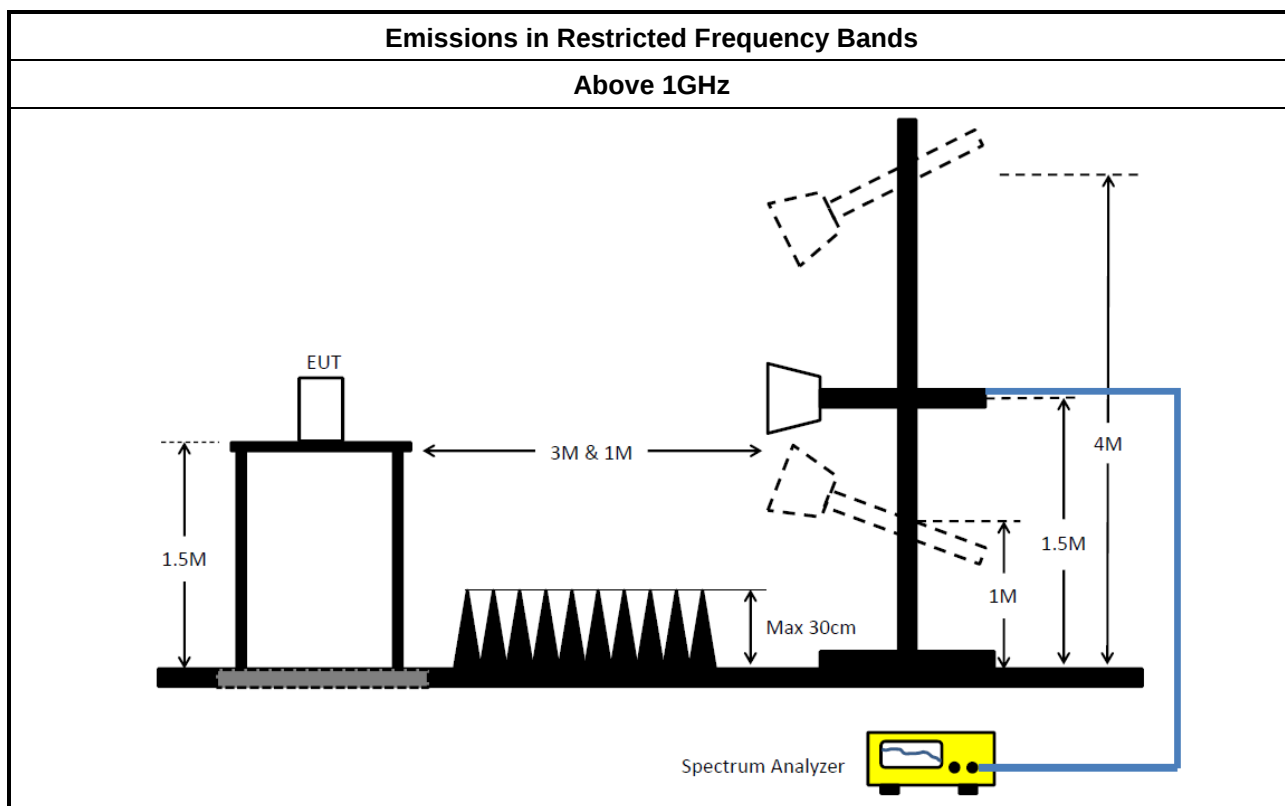
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted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

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix A

4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	07/Aug/2025	06/Aug/2026
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	19/Nov/2025	18/Nov/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	02/Jul/2025	01/Jul/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	07/Oct/2025	06/Oct/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	10/Feb/2026	09/Feb/2027
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	21/May/2025	20/May/2026
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	26/Apr/2025	25/Apr/2026
SENSE-15407-NII	Sporton	V5.11.27	NA	NA	NA	NA



Summary

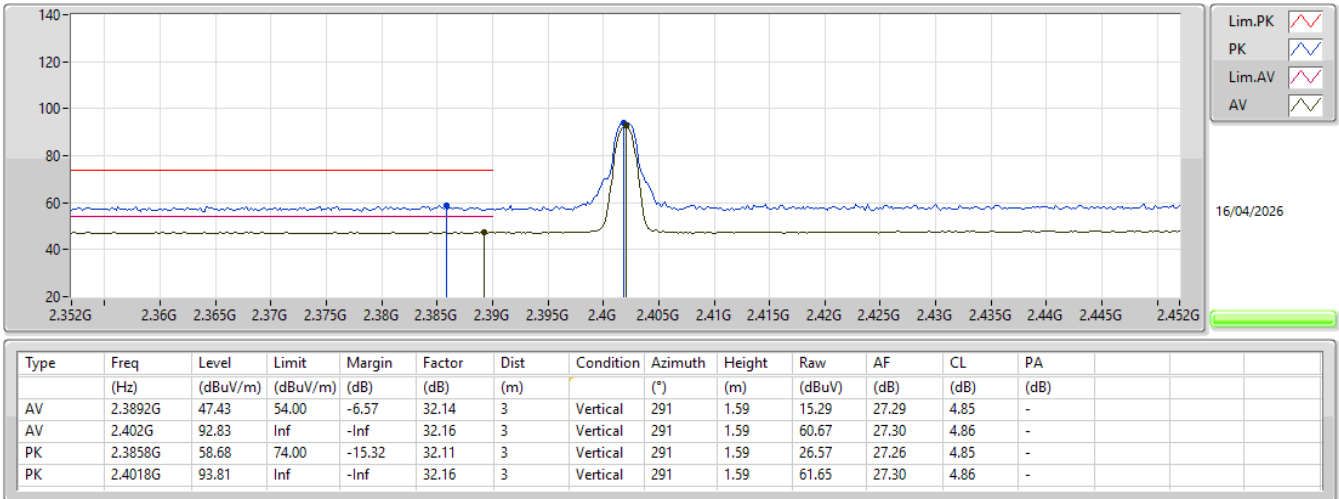
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.3742G	47.51	54.00	-6.49	3	Horizontal	348	2.10

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	2.3892G	47.43	54.00	-6.57	3	Vertical	291	1.59
2402MHz	Pass	AV	2.402G	92.83	Inf	-Inf	3	Vertical	291	1.59
2402MHz	Pass	PK	2.3858G	58.68	74.00	-15.32	3	Vertical	291	1.59
2402MHz	Pass	PK	2.4018G	93.81	Inf	-Inf	3	Vertical	291	1.59
2402MHz	Pass	AV	2.3742G	47.51	54.00	-6.49	3	Horizontal	348	2.10
2402MHz	Pass	AV	2.402G	99.27	Inf	-Inf	3	Horizontal	348	2.10
2402MHz	Pass	PK	2.3826G	59.20	74.00	-14.80	3	Horizontal	348	2.10
2402MHz	Pass	PK	2.4018G	100.19	Inf	-Inf	3	Horizontal	348	2.10
2402MHz	Pass	AV	4.80388G	35.06	54.00	-18.94	3	Vertical	42	1.50
2402MHz	Pass	PK	4.80344G	44.05	74.00	-29.95	3	Vertical	42	1.50
2402MHz	Pass	AV	4.80344G	34.82	54.00	-19.18	3	Horizontal	42	1.50
2402MHz	Pass	PK	4.80468G	43.98	74.00	-30.02	3	Horizontal	42	1.50

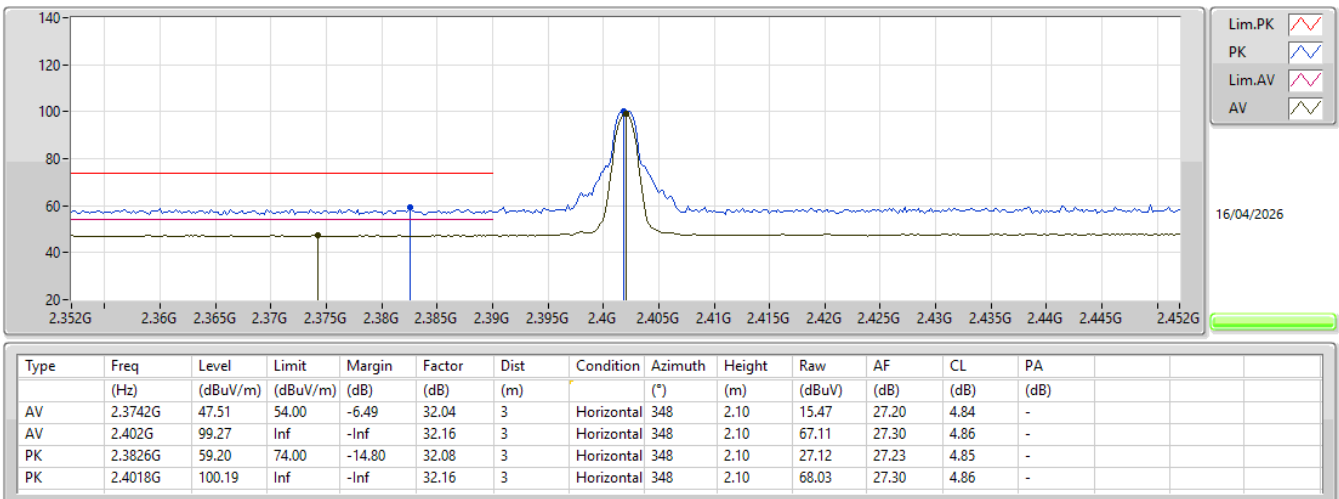
2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX



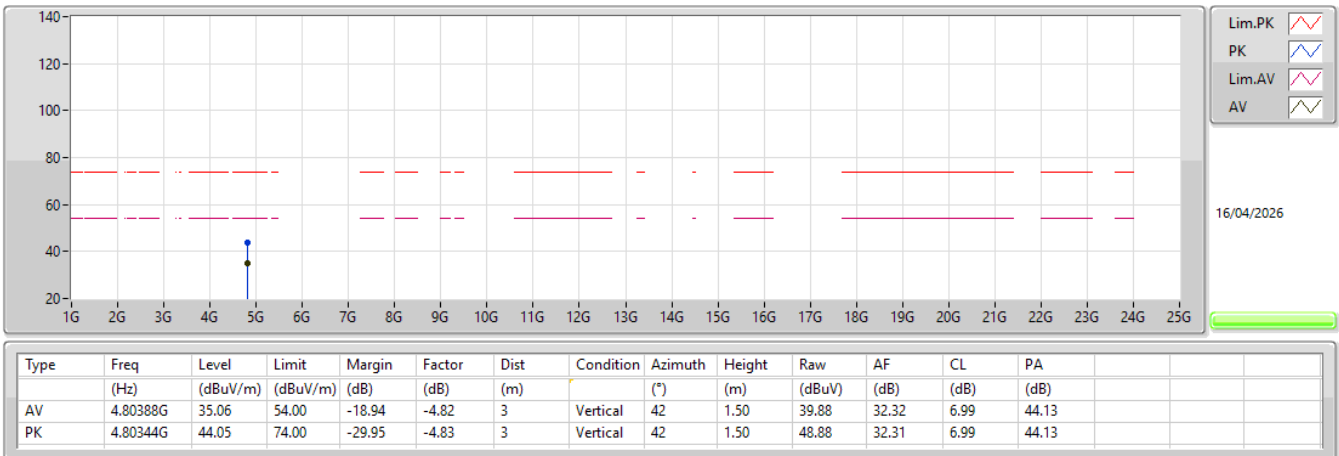
2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX



2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX



2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

