

FCC Test Report

FCC ID : QXO-AP5022
Equipment : Access Point
Brand Name : Extreme Networks
Model Name : AP5022
Applicant : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Manufacturer : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Standard : 47 CFR FCC Part 15.517

The product was received on Oct. 15, 2025, and testing was started from Nov. 13, 2025 and completed on Jan. 13, 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 + Errata to C63.10a-2024 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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Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
1.1.5	15.517(a)	Operational Restriction	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.503 (d) /15.517(b)	UWB Bandwidth	PASS	-
3.3	15.517(e)	Peak Emissions within a 50 MHz Bandwidth	PASS	-
3.4	15.517(c) /15.517(d)	Radiated Emissions	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:

According to FCC §15.521(c), emission from digital circuitry used to enable the operation of the UWB transmitter shall comply with the limits in § 15.209. Limit for given spurs at 1.129 GHz / 1.1305 GHz / 1.144 GHz / 1.145 GHz are 500uV/m, which is 53.98dBuV/m. Relative to this limit the spurs are PASS.

Reviewed by: Sam Tsai

Report Producer: Amber Chiu



1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information					
Frequency Range (GHz)	Mode	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	EIRP (dBm/50MHz)
3.1-10.6	UWB	7987.2	9	1	-0.05
Note 1: TransferJet uses Pi/2 shift BPSK + DSSS modulation.					

Band	Mode	BWch (MHz)	Nant
3.1-10.6 GHz	Ultra Wide Band	499.2	1TX

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Support	Radio	Remark
1	1	WNC	95XPAM15.G49	PIFA	I-Pex	2.4G + 5G Full & High	Radio 1+Radio 2	-
2	2	WNC	95XPAM15.G50	PIFA	I-Pex	2.4G + 5G Full & High	Radio 1+Radio 2	-
3	3	WNC	95XPAM15.G51	PIFA	I-Pex	2.4G + 5G Full & High	Radio 1+Radio 2	-
4	4	WNC	95XPAM15.G52	PIFA	I-Pex	2.4G + 5G Full & High	Radio 1+Radio 2	-
5	1	WNC	95XPAM15.G45	PIFA	I-Pex	5G Low & 6G High	Radio 1	-
6	2	WNC	95XPAM15.G46	PIFA	I-Pex	5G Low & 6G High	Radio 1	-
7	3	WNC	95XPAM15.G47	Alford loop	I-Pex	5G Low & 6G High	Radio 1	-
8	4	WNC	95XPAM15.G48	Alford loop	I-Pex	5G Low & 6G High	Radio 1	-
9	1	WNC	95XPAM15.G41	PIFA	I-Pex	6G Full & 6G Low	Radio 3	-
10	2	WNC	95XPAM15.G42	PIFA	I-Pex	6G Full & 6G Low	Radio 3	-
11	3	WNC	95XPAM15.G43	Alford loop	I-Pex	6G Full & 6G Low	Radio 3	-
12	4	WNC	95XPAM15.G44	Alford loop	I-Pex	6G Full & 6G Low	Radio 3	-
13	1	WNC	95XPAM15.G56	PIFA	I-Pex	Scan 2.4G & 5G & 6G	Radio 4	-
14	2	WNC	95XPAM15.G57	PIFA	I-Pex	Scan 2.4G & 5G & 6G	Radio 4	-
15	1	WNC	95XPAM15.G53	PIFA	I-Pex	BT+802.15.4	Radio 5	-
16	2	WNC	95XPAM15.G54	PIFA	I-Pex	BT+802.15.4	Radio 5	-
17	3	WNC	95XPAM15.GAM	Alford loop	I-Pex	BT+802.15.4	Radio 5	-
18	1	WNC	95XPAM15.G81	Alford loop	I-Pex	UWB	Radio 6	-
19	2	WNC	95XPAM15.G82	Alford loop	I-Pex	UWB	Radio 6	-
20	3	WNC	95XPAM15.G82	Alford loop	I-Pex	UWB	Radio 6	-
21	4	WNC	95XPAM15.G82	Alford loop	I-Pex	UWB	Radio 6	-

Ant.	Port	Gain (dBi)											
		2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8	BT	802.15.4	UWB
1	1	2.15	5.74	5.77	5.3	4.82	-	-	-	-	-	-	-
2	2	3.45	5.99	6.45	6.41	6.34	-	-	-	-	-	-	-
3	3	2.18	6.63	6.66	6.27	5.95	-	-	-	-	-	-	-
4	4	2.63	6.04	5.63	4.26	2.27	-	-	-	-	-	-	-
5	1	-	4.93	5.19	-	-	-	-	5.06	4.82	-	-	-
6	2	-	4.65	5.24	-	-	-	-	4.77	4.35	-	-	-
7	3	-	4.82	5.08	-	-	-	-	2.58	3.71	-	-	-
8	4	-	2.81	2.66	-	-	-	-	2.57	2.5	-	-	-
9	1	-	-	-	-	-	4.97	3.84	4.55	4.79	-	-	-
10	2	-	-	-	-	-	5.69	5.41	5.56	5.02	-	-	-
11	3	-	-	-	-	-	4.2	5.01	3.8	5.01	-	-	-
12	4	-	-	-	-	-	3.94	4.32	3.2	4.54	-	-	-
13	1	3.1	3.54	3.26	3.65	2.58	3.03	3.21	3.62	3.22	-	-	-
14	2	2.91	4.08	3.88	4.3	4.67	6.04	5.01	5.64	5.24	-	-	-
15	1	-	-	-	-	-	-	-	-	-	4	4	-
16	2	-	-	-	-	-	-	-	-	-	5.1	5.1	-
17	3	-	-	-	-	-	-	-	-	-	3.6	3.6	-
18	1	-	-	-	-	-	-	-	-	-	-	-	5.8
19	2	-	-	-	-	-	-	-	-	-	-	-	4.8
20	3	-	-	-	-	-	-	-	-	-	-	-	3.9
21	4	-	-	-	-	-	-	-	-	-	-	-	4.8

Ant.		Composite Gain (dBi) for 4TX								
		2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8
1~4	DG [1SS]	6.82	10.36	10.35	9.83	9.17	-	-	-	-
	DG [2SS]	3.82	7.36	7.35	6.83	6.34	-	-	-	-
	DG [4SS]	3.45	6.63	6.66	6.41	6.34	-	-	-	-
5~8	DG [1SS]	-	5.69	5.63	-	-	-	-	5.77	5.61
	DG [2SS]	-	4.93	5.24	-	-	-	-	5.06	4.82
	DG [4SS]	-	4.93	5.24	-	-	-	-	5.06	4.82
9~12	DG [1SS]	-	-	-	-	-	5.91	6.8	5.56	6.06
	DG [2SS]	-	-	-	-	-	5.69	5.41	5.56	5.02
	DG [4SS]	-	-	-	-	-	5.69	5.41	5.56	5.02

Ant.		Composite Gain (dBi) for 2TX								
		2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8
1~2	DG [1SS]	5.29	6.92	7.56	7.4	6.45	-	-	-	-
	DG [2SS]	3.45	5.99	6.45	6.41	6.34	-	-	-	-
5~6	DG [1SS]	-	7.49	7.94	-	-	-	-	7.87	7.36
	DG [2SS]	-	4.93	5.24	-	-	-	-	5.06	4.82
9~10	DG [1SS]	-	-	-	-	-	6.85	6.13	6.51	5.83
	DG [2SS]	-	-	-	-	-	5.69	5.41	5.56	5.02
13~14	DG [1SS]	3.95	6.62	6.37	6.99	5.33	6.09	5.99	6.72	5.49
	DG [2SS]	3.1	4.08	3.88	4.3	4.67	6.04	5.01	5.64	5.24

Note 1: The EUT has Twenty-one antennas.

Note 2: The composite gain is derived as KDB 662911 D03 v02 which was used as directional gain. For more detail information, please refer to the Antenna Pattern Report AP5O0964A.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/4RX) (Radio 1)

Ant. 1 could transmit/receive.

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/4RX) (Radio 1)

Ant. 1~2 could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax/be mode (4TX/4RX) (Radio 1)

Ant. 1~4 could transmit/receive simultaneously.

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

Ant. 13~14 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be mode (1TX/4RX) (Radio 1_Low Band)

Ant. 5 could transmit/receive.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/4RX) (Radio 1_Low Band)

Ant. 5~6 could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (4TX/4RX) (Radio 1_Low Band)

Ant. 5~8 could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (1TX/4RX) (Radio 2)

Ant. 1 could transmit/receive.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/4RX) (Radio 2)

Ant. 1~2 could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (4TX/4RX) (Radio 2)

Ant. 1~4 could transmit/receive simultaneously.

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

Ant. 13~14 could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax/be mode (1TX/4RX) (Radio 1)

Ant. 5 could transmit/receive.

For IEEE 802.11 ax/be mode (2TX/4RX) (Radio 1)

Ant. 5~6 could transmit/receive simultaneously.

For IEEE 802.11 ax/be mode (4TX/4RX) (Radio 1)

Ant. 5~8 could transmit/receive simultaneously.

For IEEE 802.11 ax/be mode (1TX/4RX) (Radio 3)

Ant. 9 could transmit/receive.

For IEEE 802.11 ax/be mode (2TX/4RX) (Radio 3)
 Ant. 9~10 could transmit/receive simultaneously.
 For IEEE 802.11 ax/be mode (4TX/4RX) (Radio 3)
 Ant. 9~12 could transmit/receive simultaneously.
 For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/2RX) (Scan Radio)
 Ant. 13~14 could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)
 Ant. 15 or Ant.16 or Ant 17 could transmit/receive.
 Support diversity function and pre-tested on each single chain, the worst case was port 2 and it was recorded in this test report.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)
 Ant. 15 or Ant.16 or Ant 17 could transmit/receive.
 Support diversity function and pre-tested on each single chain, the worst case was port 2 and it was recorded in this test report.

For UWB function(2TX/4RX):

Ant. 18 and Ant 20 could transmit.
 Ant. 18~21 could receive.

1.1.3 Type of EUT

Operational Condition	
EUT Power Type	From AC Adapter / PoE
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 Test Signal Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	0.161	7.93	321.875u	5k
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	0.158	8.01	318.75u	5k

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

1.1.5 Operational Restriction

Operation Restriction	Informed the applicant	Not applicable	User Manual Informed	Passed
☒ Indoor UWB devices & Fixed indoor infrastructure				
Must be capable of operation only indoors. The necessity to operate with a fixed indoor infrastructure. [A transmitter that had been connected to the AC power lines and operates solely through the AC mains. Or The device under test operates solely through USB port of a PC. It is not intended to operate from any other power source and be considered sufficient to demonstrate a fixed indoor infrastructure]	☒	☐	☐	☒
☒ Emissions from equipment				
The emissions from equipment operated shall not be intentionally directed outside of the building in which the equipment is located, such as through a window or a doorway, to perform an outside function, such as the detection of persons about to enter a building. [The applicant has been informed of this requirement.]	☒	☐	☐	☒
☒ Outdoor mounted antennas				
The use of outdoor mounted antennas, e.g., antennas mounted on the outside of a building or on a telephone pole, or any other outdoors infrastructure is prohibited. [The applicant has been informed without any outdoor mounted antennas.]	☒	☐	☐	☒
☒ Field disturbance sensors install				
Field disturbance sensors installed inside of metal or underground storage tanks are considered to operate indoors provided the emissions are directed towards the ground. [Not applicable for this client.]	☐	☒	☐	☒
☒ A communications system shall transmit only				
A communications system shall transmit only when the intentional radiator is sending information to an associated receiver. [The applicant has been informed of this requirement and is clearly stated on the user manual.]	☒	☐	☒	☐

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 + Errata to C63.10a-2024

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 393764 D01 v02
- ♦ KDB 412172 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	Andy Wang	23.1~23.9℃ / 56~62%	13/Jan/2026
Radiated_ above 1G	03CH02-HY	Vasari Huang	22.2~23.4℃ / 50~52%	13/Nov/2025~26/Nov/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_ Below 1G	03CH25-HY	Henry Ho	23.2~23.7℃ / 52~55%	18/Nov/2025~26/Nov/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	3.44 dB	Confidence levels of 95%
UWB Bandwidth	0.05 MHz	Confidence levels of 95%
Unwanted Emissions (9 kHz ~ 30 MHz)	2.9 dB	Confidence levels of 95%
Unwanted Emissions (30 MHz ~ 1 GHz)	5.64 dB	Confidence levels of 95%
Unwanted Emissions (1 GHz ~ 18 GHz)	5.02 dB	Confidence levels of 95%
Unwanted Emissions (18 GHz ~ 40 GHz)	5.28 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 The Worst Case Configuration

Worst Modulation Used for Conformance Testing			
Mode	Transmit Chains (N _{TX})	Data Rate	Test Channel Frequencies (MHz)
UWB	1	499.2Mbps	7987.2

2.3 The Worse Case Power Setting Parameter

Test Software Version	Putty Release 0.62
-----------------------	--------------------

Mode	Power Setting
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	-
7987.2MHz	71
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	
7987.2MHz	62

2.4 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
Operating Mode	CTX
1	PoE mode; UWB TX (Port 1)
2	Adapter mode; UWB TX (Port 1)
3	PoE mode; UWB TX (Port 2)
4	Adapter mode; UWB TX (Port 2)

The Worst Case Mode for Following Conformance Tests			
Tests Item	UWB Bandwidth, Peak Emissions within a 50 MHz Bandwidth, Radiated Emissions		
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	CTX		
1	PoE mode		
2	Adapter mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		

2.5 Accessories

Accessories				
Bracket	Brand Name	Extreme	Model Name	AH-ACC-BKT-TB

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

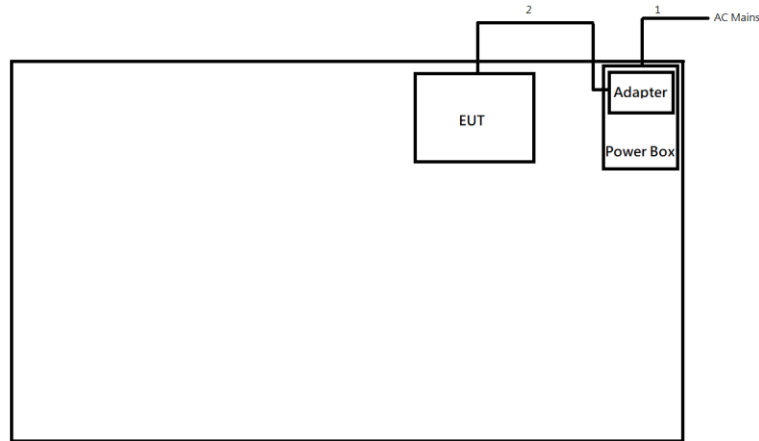
2.6 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ-45 Cable	Power sync	CAT-6E-03	-	-
2	Adapter	Powertron	PA1045-120HIB300	-	Provided by Customer
3	PoE	Microsemi	PD-9501-10GC/AC	-	Provided by Customer
4	AC power cable	Power sync	PW-GPC180-3	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ-45 Cable	Power sync	CAT-6E-03	-	-
2	Adapter	Powertron	PA1045-120HIB300	-	Provided by Customer
3	PoE (Remote)	Microsemi Corp.	PD-9501-10GC/AC	-	Provided by Customer
4	AC power cable (Remote)	Power sync	PW-GPC180-3	-	-

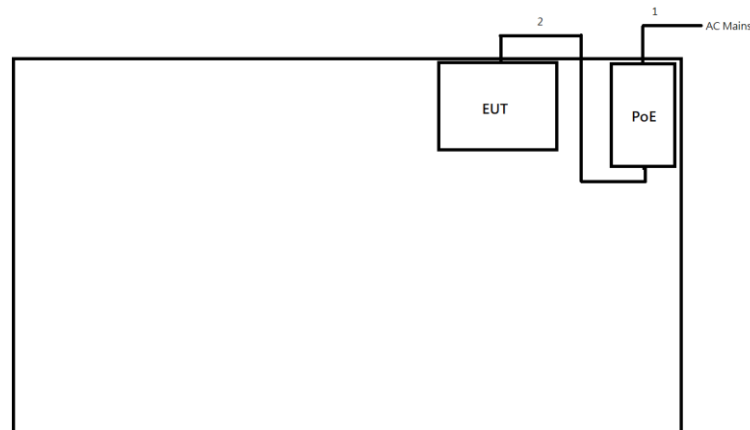
2.7 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test_Adapter mode

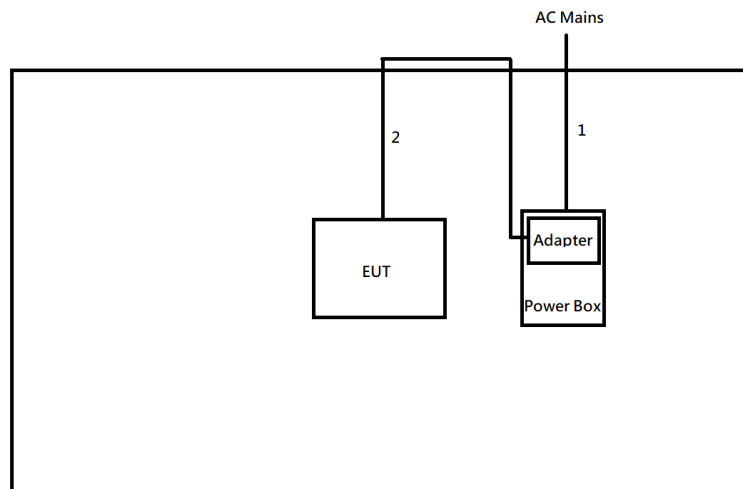


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.0	-
2	DC Power Cable	No	1.5	-

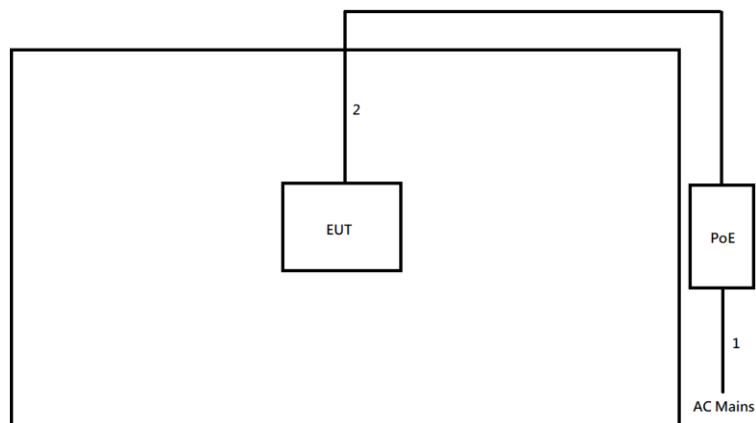
Test Setup Diagram – AC Line Conducted Emission Test_PoE mode



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.0	-
2	RJ-45 Cable	No	3.0	-

Test Setup Diagram - Radiated Test_Adapter mode


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-

Test Setup Diagram - Radiated Test_PoE mode


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	RJ-45 Cable	No	3.0	-

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

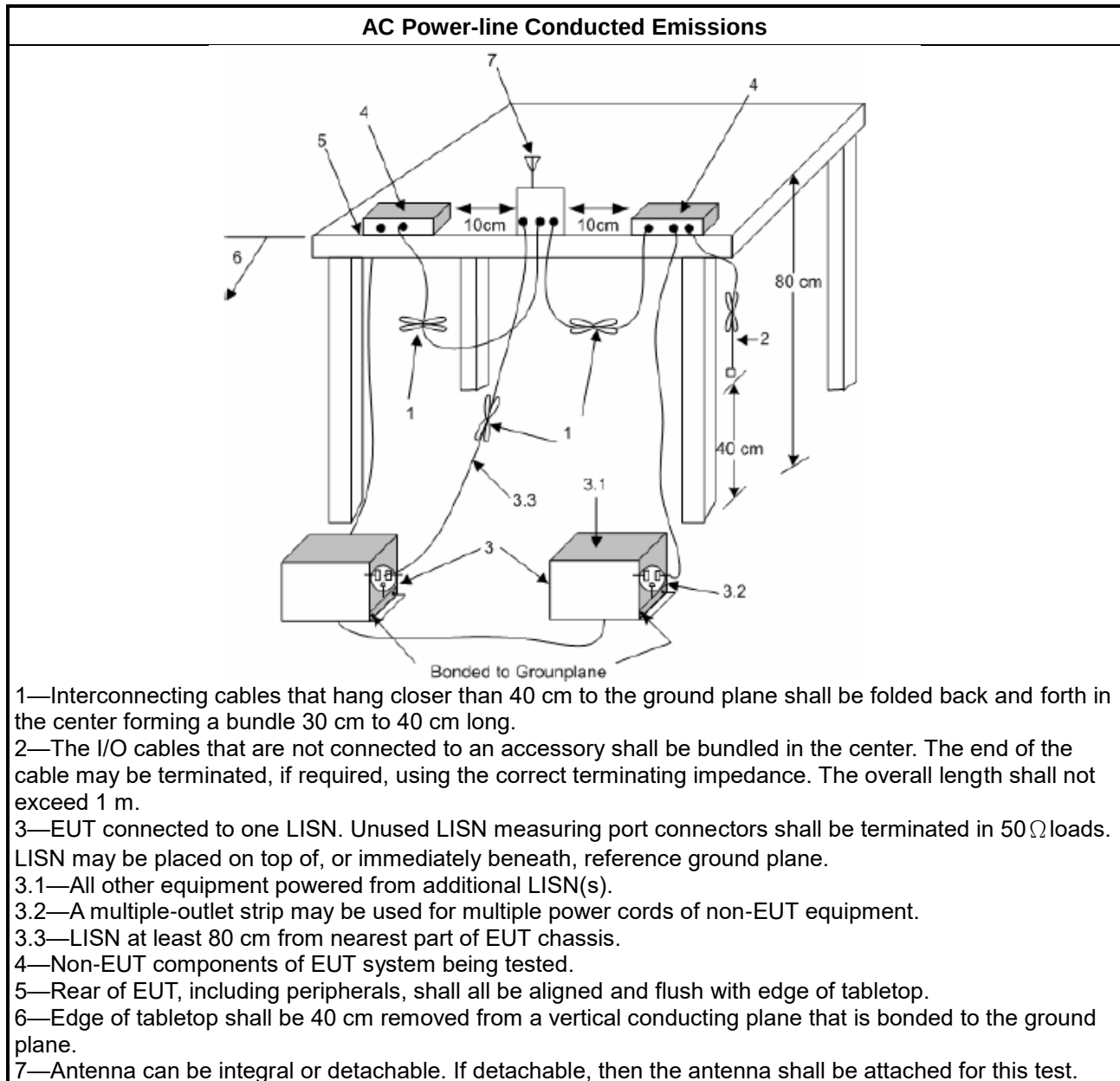
Test Method
☒ Refer as ANSI C63.10, clause 6.2 for AC power-line conducted emissions.

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 UWB bandwidth

3.2.1 UWB bandwidth Limit

UWB bandwidth Limit	
☒	UWB bandwidth ≥ 500 MHz or Fractional bandwidth ≥ 0.2 ; Fractional bandwidth = $2(f_H - f_L) / (f_H + f_L)$
☒	The UWB bandwidth of a UWB system operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

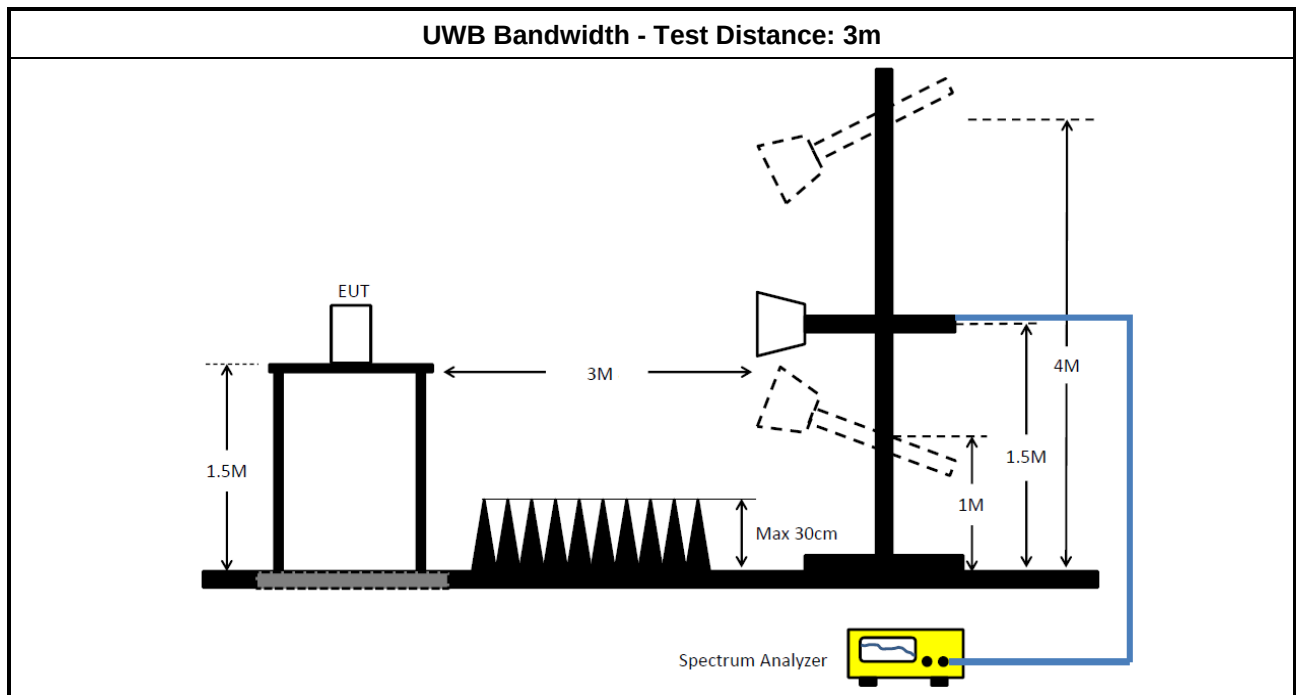
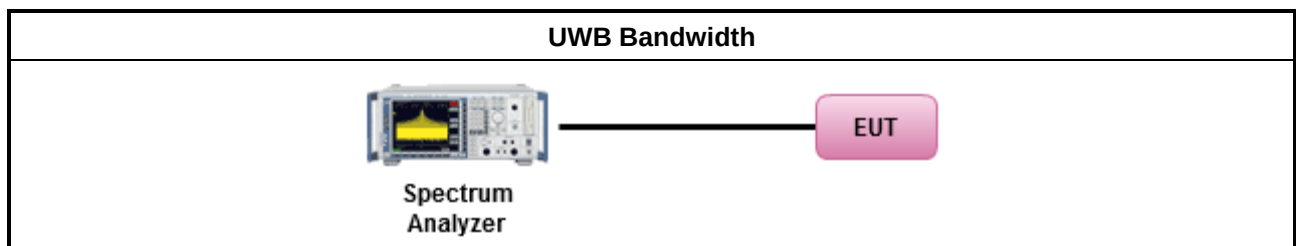
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
☒	For the UWB bandwidth shall be measured using one of the options below:
☒	Refer as ANSI C63.10, clause 6.9.3 and clause 10.1 for UWB bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of UWB Bandwidth

Refer as Appendix B

3.3 Peak Emissions within a 50 MHz Bandwidth

3.3.1 Peak Emissions within a 50 MHz Bandwidth Limit

Peak Emissions within a 50 MHz Bandwidth Limit
$P_{eirp} = 0 \text{ dBm/50MHz}$

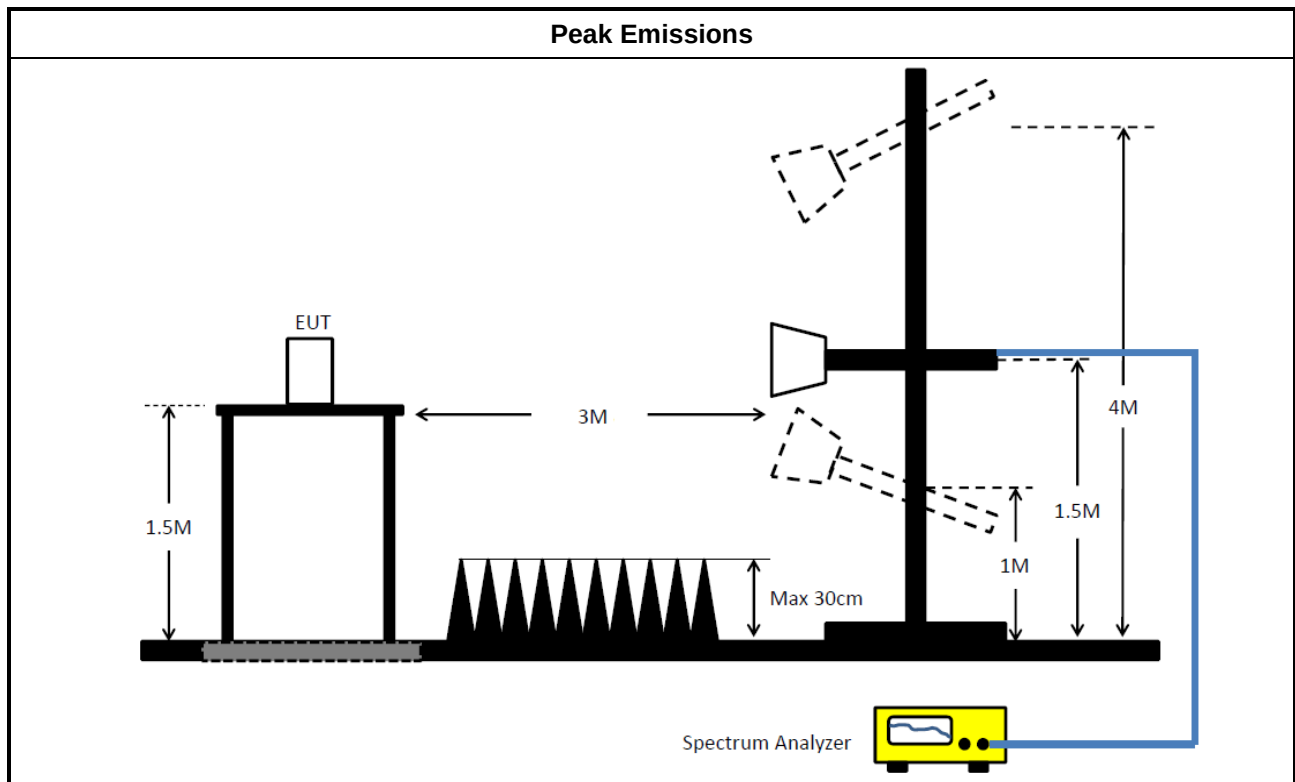
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method
☒ Peak Emissions within a 50 MHz Bandwidth
☒ Refer as ANSI C63.10, clause 10.3.1 for radiated measurement procedure testing.
☒ Refer as ANSI C63.10, clause 10.3.2 for measurement distance is 3m.
☒ Refer as ANSI C63.10, clause 10.3.5 for peak detector procedure testing.
☐ Refer as ANSI C63.10, clause 10.3.6 for bandwidth conversion of peak power. $EIRP_{50MHz} = EIRP_{1MHz} - 20 \log(1MHz/50MHz)$

3.3.4 Test Setup



3.3.5 Test Result of Peak Emissions within a 50 MHz Bandwidth

Refer as Appendix C

3.4 Radiated Emissions

3.4.1 Radiated Emissions Limit

Radiated Emissions below 960MHz and Emissions from Digital Circuitry 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

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.

Radiated Emissions above 960MHz Limit	
Frequency Range (MHz)	EIRP (dBm)
960-1610	-75.3
1610-1990	-53.3
1990-3100	-51.3
3100-10600	-41.3
Above 10600	-51.3

Radiated Emissions in GPS Bands Limit	
Frequency Range (MHz)	EIRP (dBm)
1164-1240	-85.3
1559-1610	-85.3

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method for Radiated Emissions above 960MHz	
☒	Radiated Emissions above 960MHz
☒	Refer as ANSI C63.10, clause 10.3.1 for radiated measurement procedure testing.
☒	Refer as ANSI C63.10, clause 10.3.2 for measurement distance is 3m. In some cases, it may be necessary to measure the radiated UWB emissions at a closer distance to obtain enough signal and margin to overcome the measurement system noise floor. Distance extrapolation factor = 20 log (test distance [X m]/specific distance [3 m]) (dB)
☒	Refer as ANSI C63.10, clause 10.3.4 for rms detector procedure testing.
☒	Refer as ANSI C63.10, clause 10.3.7 for evaluating AVG-PSD (RBW=1MHz).
☒	Refer as ANSI C63.10, clause 10.3.10 for evaluating AVG-PSD in GPS Band (RBW≥1kHz).
☒	For radiated measurement.
☒	Refer as KDB 412172, clause 2.2 following eirp can be used radiated test configuration.
☒	Refer as KDB 412172, clause 5 following eirp can be directly determined using the field strength.
☐	Refer as KDB 412172, clause 6 following eirp can be used signal/antenna substitution techniques.

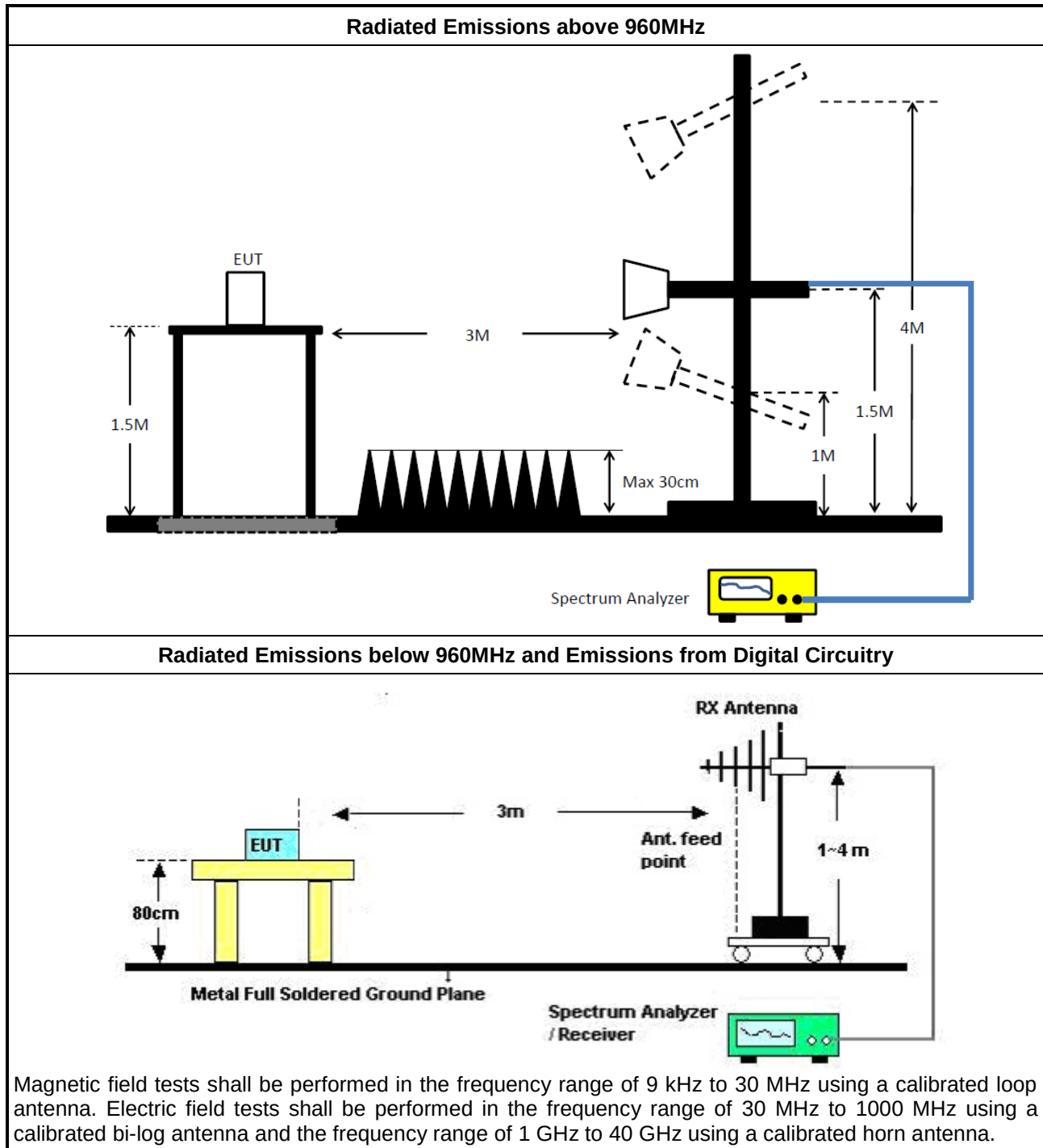
Test Method for Radiated Emissions below 960MHz and Emissions from Digital Circuitry	
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing 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).
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as ANSI C63.10, clause 4.1.5.2.3 (Reduced VBW) – Duty cycle ≥ 100%.
☐	Refer as ANSI C63.10, clause 4.1.5.2.5 average value of pulsed emissions. Adjusted by a “duty cycle correction factor”, derived from 20log (dwell time/100 ms). Average emission = peak emission + 20 log (duty cycle).
☒	Refer as ANSI C63.10, clause 4.1.5.2.2 measurement procedure peak limit.
☒	For radiated measurement.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1 GHz and test distance is 3m.
☒	The any unwanted emissions level shall not exceed the fundamental emission level.

3.4.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.4.5 Test Setup



3.4.6 Radiated Emissions (Below 30MHz)

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

3.4.7 Test Result of Radiated Emissions

Refer as Appendix D

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	21/May/2025	20/May/2026
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101578	9kHz ~ 30MHz	24/Aug/2025	23/Aug/2026
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	26/Feb/2025	25/Feb/2026
Pulse Limiter	SCHWARZBECK	VTSD 9561F-N	1056	9kHz ~ 30MHz	25/Jun/2025	24/Jun/2026
SENSE-EMI	Sporton	N/A	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Site V.S.W.R	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3M	12/Jul/2025	11/Jul/2026
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz~18GHz	03/Oct/2025	02/Oct/2026
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	02/Jul/2025	01/Jul/2026
RF Cable HUBER+SUHNER	HUBER+SUHNER	SUCOFLEX 104	03CH02-cable-06	1GHz~40GHz	15/Aug/2025	14/Aug/2026
Amplifier	EM	EM01G18GA	060933	1GHz~18GHz	14/Jul/2025	13/Jul/2026
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	30/Sep/2025	29/Sep/2026
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~40GHz	26/Apr/2025	25/Apr/2026
SENSE-UWB	Sporton	V5.11.15	NA	NA	NA	NA

**Instrument for Radiated Test (03CH25-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	18/Jul/2025	17/Jul/2026
ESR7 EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102956	9kHz~3.6GHz	26/Aug/2025	25/Aug/2026
Signal Analyzer	ROHDE& SCHWARZ	FSV3044	101345	10Hz~44GHz	26/Aug/2025	25/Aug/2026
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	20/Mar/2025	19/Mar/2026
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63537/001	30MHz~1GHz	23/May/2025	22/May/2026
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	9kHz~1GHz	23/Apr/2025	22/Apr/2026
Preamplifier	SGH	PRAMP 903	20230515-1	25MHz~3GHz	21/May/2025	20/May/2026
SENSE-UWB	Sporton	V5.11.15	NA	NA	NA	NA

Summary

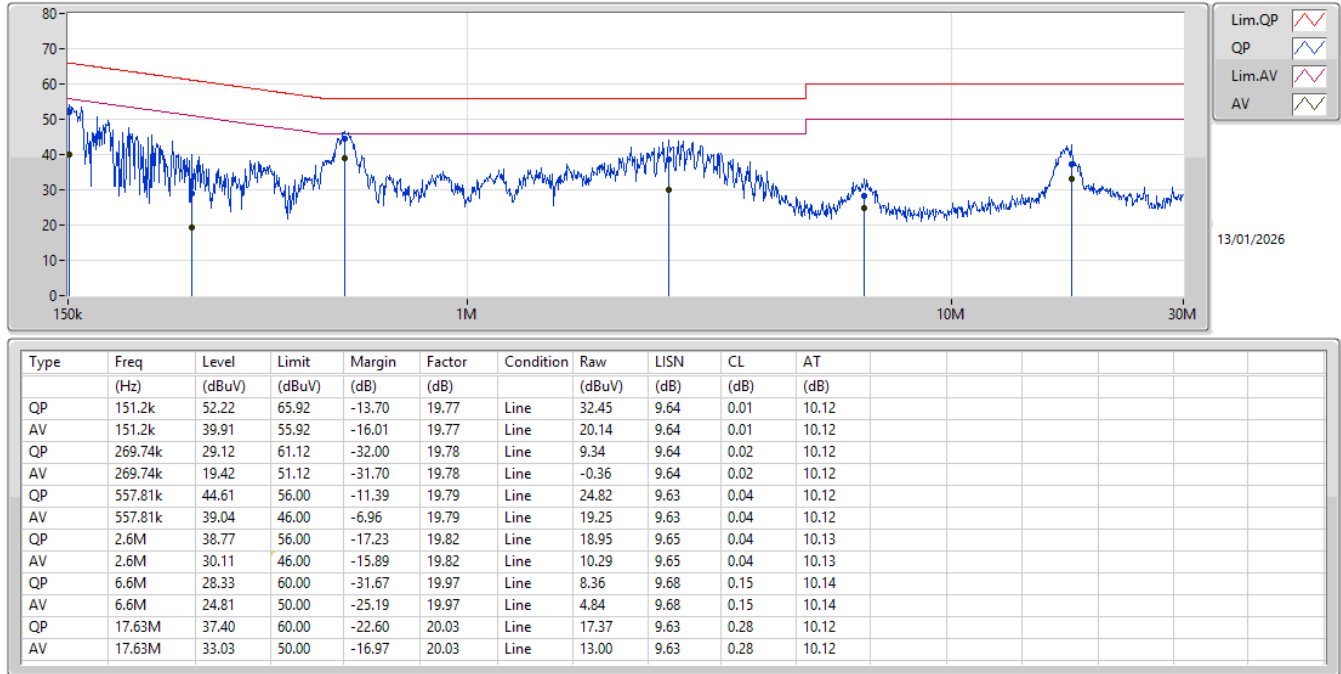
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	557.81k	39.04	46.00	-6.96	Line
Mode 2	Pass	QP	156.11k	42.26	65.67	-23.41	Line
Mode 3	Pass	AV	553.37k	38.02	46.00	-7.98	Line
Mode 4	Pass	QP	168.41k	51.36	65.04	-13.68	Neutral

Result

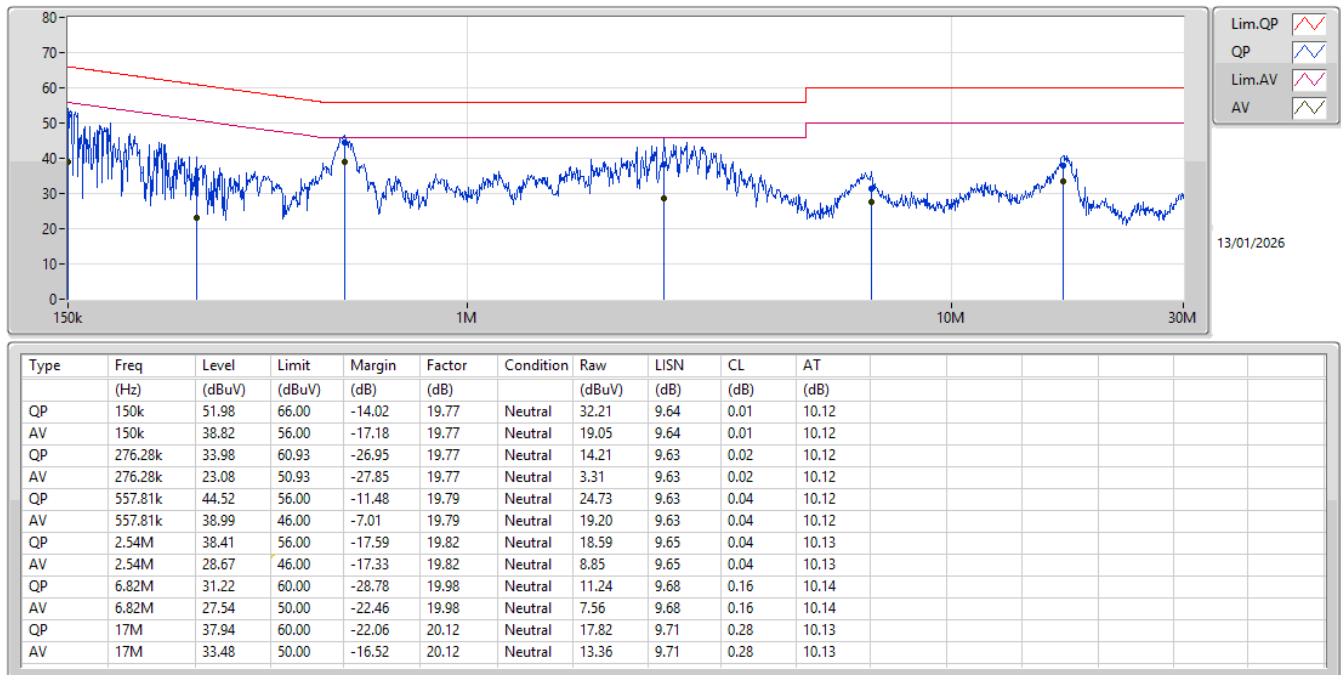
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	151.2k	52.22	65.92	-13.70	Line
Mode 1	Pass	AV	151.2k	39.91	55.92	-16.01	Line
Mode 1	Pass	QP	269.74k	29.12	61.12	-32.00	Line
Mode 1	Pass	AV	269.74k	19.42	51.12	-31.70	Line
Mode 1	Pass	QP	557.81k	44.61	56.00	-11.39	Line
Mode 1	Pass	AV	557.81k	39.04	46.00	-6.96	Line
Mode 1	Pass	QP	2.6M	38.77	56.00	-17.23	Line
Mode 1	Pass	AV	2.6M	30.11	46.00	-15.89	Line
Mode 1	Pass	QP	6.6M	28.33	60.00	-31.67	Line
Mode 1	Pass	AV	6.6M	24.81	50.00	-25.19	Line
Mode 1	Pass	QP	17.63M	37.40	60.00	-22.60	Line
Mode 1	Pass	AV	17.63M	33.03	50.00	-16.97	Line
Mode 1	Pass	QP	150k	51.98	66.00	-14.02	Neutral
Mode 1	Pass	AV	150k	38.82	56.00	-17.18	Neutral
Mode 1	Pass	QP	276.28k	33.98	60.93	-26.95	Neutral
Mode 1	Pass	AV	276.28k	23.08	50.93	-27.85	Neutral
Mode 1	Pass	QP	557.81k	44.52	56.00	-11.48	Neutral
Mode 1	Pass	AV	557.81k	38.99	46.00	-7.01	Neutral
Mode 1	Pass	QP	2.54M	38.41	56.00	-17.59	Neutral
Mode 1	Pass	AV	2.54M	28.67	46.00	-17.33	Neutral
Mode 1	Pass	QP	6.82M	31.22	60.00	-28.78	Neutral
Mode 1	Pass	AV	6.82M	27.54	50.00	-22.46	Neutral
Mode 1	Pass	QP	17M	37.94	60.00	-22.06	Neutral
Mode 1	Pass	AV	17M	33.48	50.00	-16.52	Neutral
Mode 2	Pass	QP	156.11k	42.26	65.67	-23.41	Line
Mode 2	Pass	AV	156.11k	21.81	55.67	-33.86	Line
Mode 2	Pass	QP	389.45k	31.87	58.08	-26.21	Line
Mode 2	Pass	AV	389.45k	21.66	48.08	-26.42	Line
Mode 2	Pass	QP	708.77k	26.70	56.00	-29.30	Line
Mode 2	Pass	AV	708.77k	18.98	46.00	-27.02	Line
Mode 2	Pass	QP	1.81M	24.47	56.00	-31.53	Line
Mode 2	Pass	AV	1.81M	19.58	46.00	-26.42	Line
Mode 2	Pass	QP	5.98M	26.49	60.00	-33.51	Line
Mode 2	Pass	AV	5.98M	20.54	50.00	-29.46	Line
Mode 2	Pass	QP	14.44M	22.75	60.00	-37.25	Line
Mode 2	Pass	AV	14.44M	18.99	50.00	-31.01	Line
Mode 2	Pass	QP	150k	41.95	66.00	-24.05	Neutral
Mode 2	Pass	AV	150k	23.49	56.00	-32.51	Neutral
Mode 2	Pass	QP	387.9k	31.97	58.10	-26.13	Neutral
Mode 2	Pass	AV	387.9k	22.64	48.10	-25.46	Neutral
Mode 2	Pass	QP	641.45k	26.86	56.00	-29.14	Neutral
Mode 2	Pass	AV	641.45k	20.80	46.00	-25.20	Neutral
Mode 2	Pass	QP	2.04M	26.70	56.00	-29.30	Neutral
Mode 2	Pass	AV	2.04M	21.42	46.00	-24.58	Neutral
Mode 2	Pass	QP	4.93M	26.52	56.00	-29.48	Neutral
Mode 2	Pass	AV	4.93M	21.12	46.00	-24.88	Neutral
Mode 2	Pass	QP	14.27M	22.88	60.00	-37.12	Neutral
Mode 2	Pass	AV	14.27M	19.10	50.00	-30.90	Neutral
Mode 3	Pass	QP	154.25k	54.01	65.77	-11.76	Line
Mode 3	Pass	AV	154.25k	41.02	55.77	-14.75	Line

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 3	Pass	QP	256.1k	38.50	61.56	-23.06	Line
Mode 3	Pass	AV	256.1k	27.27	51.56	-24.29	Line
Mode 3	Pass	QP	553.37k	44.20	56.00	-11.80	Line
Mode 3	Pass	AV	553.37k	38.02	46.00	-7.98	Line
Mode 3	Pass	QP	2.71M	38.48	56.00	-17.52	Line
Mode 3	Pass	AV	2.71M	29.42	46.00	-16.58	Line
Mode 3	Pass	QP	6.52M	27.98	60.00	-32.02	Line
Mode 3	Pass	AV	6.52M	24.41	50.00	-25.59	Line
Mode 3	Pass	QP	17.14M	39.64	60.00	-20.36	Line
Mode 3	Pass	AV	17.14M	35.08	50.00	-14.92	Line
Mode 3	Pass	QP	155.49k	53.92	65.69	-11.77	Neutral
Mode 3	Pass	AV	155.49k	41.25	55.69	-14.44	Neutral
Mode 3	Pass	QP	288.68k	34.90	60.57	-25.67	Neutral
Mode 3	Pass	AV	288.68k	25.03	50.57	-25.54	Neutral
Mode 3	Pass	QP	555.58k	44.17	56.00	-11.83	Neutral
Mode 3	Pass	AV	555.58k	38.01	46.00	-7.99	Neutral
Mode 3	Pass	QP	2.55M	38.63	56.00	-17.37	Neutral
Mode 3	Pass	AV	2.55M	28.51	46.00	-17.49	Neutral
Mode 3	Pass	QP	6.71M	32.42	60.00	-27.58	Neutral
Mode 3	Pass	AV	6.71M	28.66	50.00	-21.34	Neutral
Mode 3	Pass	QP	17.14M	38.68	60.00	-21.32	Neutral
Mode 3	Pass	AV	17.14M	34.06	50.00	-15.94	Neutral
Mode 4	Pass	QP	165.74k	49.76	65.18	-15.42	Line
Mode 4	Pass	AV	165.74k	29.93	55.18	-25.25	Line
Mode 4	Pass	QP	387.9k	31.88	58.10	-26.22	Line
Mode 4	Pass	AV	387.9k	21.88	48.10	-26.22	Line
Mode 4	Pass	QP	606.58k	27.56	56.00	-28.44	Line
Mode 4	Pass	AV	606.58k	20.97	46.00	-25.03	Line
Mode 4	Pass	QP	1.5M	24.60	56.00	-31.40	Line
Mode 4	Pass	AV	1.5M	19.11	46.00	-26.89	Line
Mode 4	Pass	QP	5.88M	26.03	60.00	-33.97	Line
Mode 4	Pass	AV	5.88M	20.34	50.00	-29.66	Line
Mode 4	Pass	QP	13.17M	22.82	60.00	-37.18	Line
Mode 4	Pass	AV	13.17M	19.22	50.00	-30.78	Line
Mode 4	Pass	QP	168.41k	51.36	65.04	-13.68	Neutral
Mode 4	Pass	AV	168.41k	33.16	55.04	-21.88	Neutral
Mode 4	Pass	QP	392.57k	31.93	58.01	-26.08	Neutral
Mode 4	Pass	AV	392.57k	21.49	48.01	-26.52	Neutral
Mode 4	Pass	QP	606.58k	28.70	56.00	-27.30	Neutral
Mode 4	Pass	AV	606.58k	22.28	46.00	-23.72	Neutral
Mode 4	Pass	QP	1.64M	27.58	56.00	-28.42	Neutral
Mode 4	Pass	AV	1.64M	21.97	46.00	-24.03	Neutral
Mode 4	Pass	QP	5.13M	27.11	60.00	-32.89	Neutral
Mode 4	Pass	AV	5.13M	21.28	50.00	-28.72	Neutral
Mode 4	Pass	QP	23.31M	23.84	60.00	-36.16	Neutral
Mode 4	Pass	AV	23.31M	19.51	50.00	-30.49	Neutral

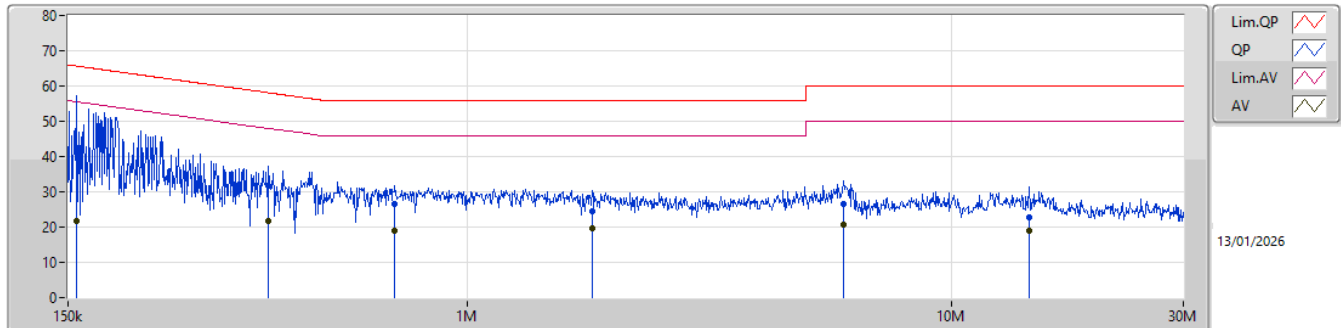
Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1

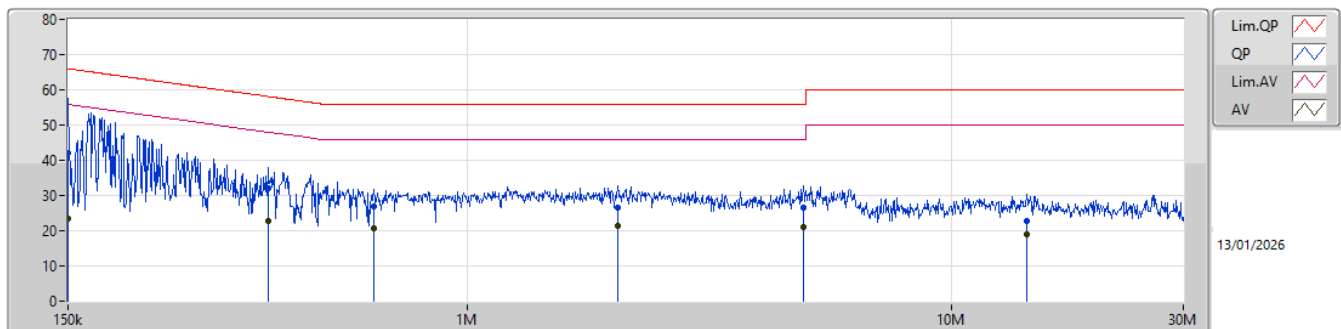


Conducted Emissions at Powerline_Mode 2



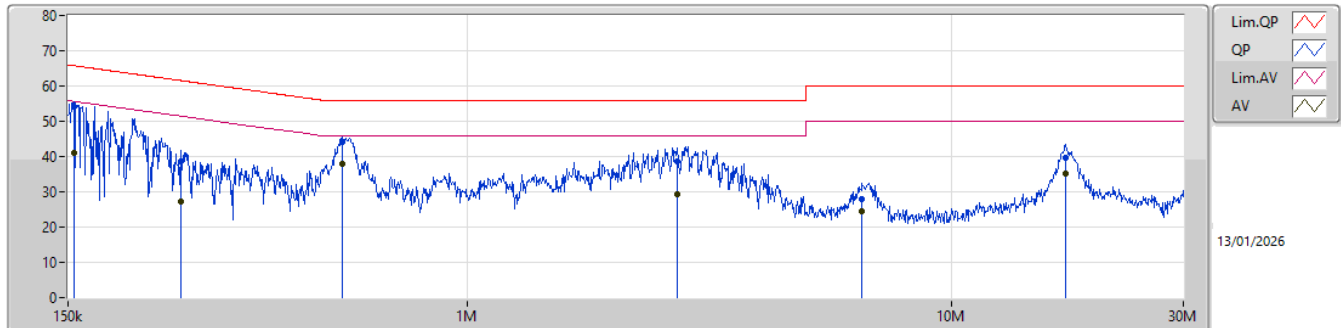
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	156.11k	42.26	65.67	-23.41	19.77	Line	22.49	9.64	0.01	10.12
AV	156.11k	21.81	55.67	-33.86	19.77	Line	2.04	9.64	0.01	10.12
QP	389.45k	31.87	58.08	-26.21	19.78	Line	12.09	9.63	0.03	10.12
AV	389.45k	21.66	48.08	-26.42	19.78	Line	1.88	9.63	0.03	10.12
QP	708.77k	26.70	56.00	-29.30	19.80	Line	6.90	9.64	0.04	10.12
AV	708.77k	18.98	46.00	-27.02	19.80	Line	-0.82	9.64	0.04	10.12
QP	1.81M	24.47	56.00	-31.53	19.81	Line	4.66	9.65	0.03	10.13
AV	1.81M	19.58	46.00	-26.42	19.81	Line	-0.23	9.65	0.03	10.13
QP	5.98M	26.49	60.00	-33.51	19.93	Line	6.56	9.67	0.13	10.13
AV	5.98M	20.54	50.00	-29.46	19.93	Line	0.61	9.67	0.13	10.13
QP	14.44M	22.75	60.00	-37.25	20.06	Line	2.69	9.65	0.28	10.13
AV	14.44M	18.99	50.00	-31.01	20.06	Line	-1.07	9.65	0.28	10.13

Conducted Emissions at Powerline_Mode 2



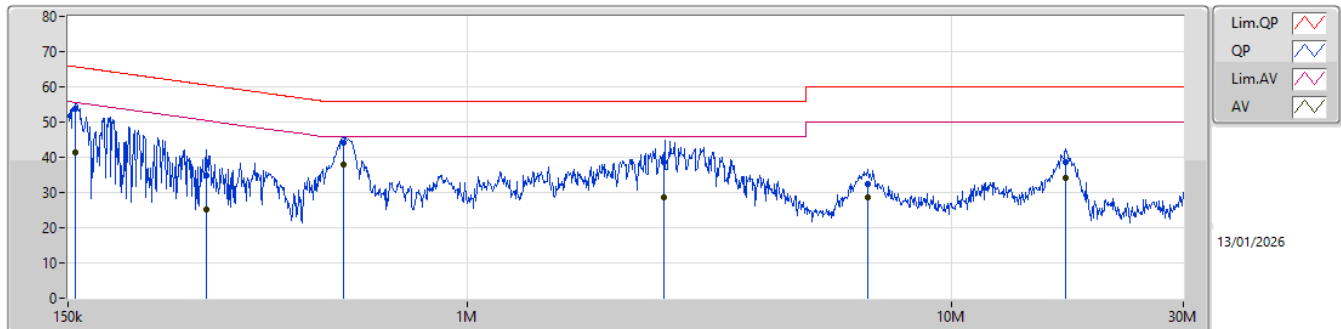
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	150k	41.95	66.00	-24.05	19.77	Neutral	22.18	9.64	0.01	10.12
AV	150k	23.49	56.00	-32.51	19.77	Neutral	3.72	9.64	0.01	10.12
QP	387.9k	31.97	58.10	-26.13	19.78	Neutral	12.19	9.63	0.03	10.12
AV	387.9k	22.64	48.10	-25.46	19.78	Neutral	2.86	9.63	0.03	10.12
QP	641.45k	26.86	56.00	-29.14	19.80	Neutral	7.06	9.64	0.04	10.12
AV	641.45k	20.80	46.00	-25.20	19.80	Neutral	1.00	9.64	0.04	10.12
QP	2.04M	26.70	56.00	-29.30	19.81	Neutral	6.89	9.65	0.03	10.13
AV	2.04M	21.42	46.00	-24.58	19.81	Neutral	1.61	9.65	0.03	10.13
QP	4.93M	26.52	56.00	-29.48	19.89	Neutral	6.63	9.67	0.09	10.13
AV	4.93M	21.12	46.00	-24.88	19.89	Neutral	1.23	9.67	0.09	10.13
QP	14.27M	22.88	60.00	-37.12	20.11	Neutral	2.77	9.71	0.27	10.13
AV	14.27M	19.10	50.00	-30.90	20.11	Neutral	-1.01	9.71	0.27	10.13

Conducted Emissions at Powerline_Mode 3



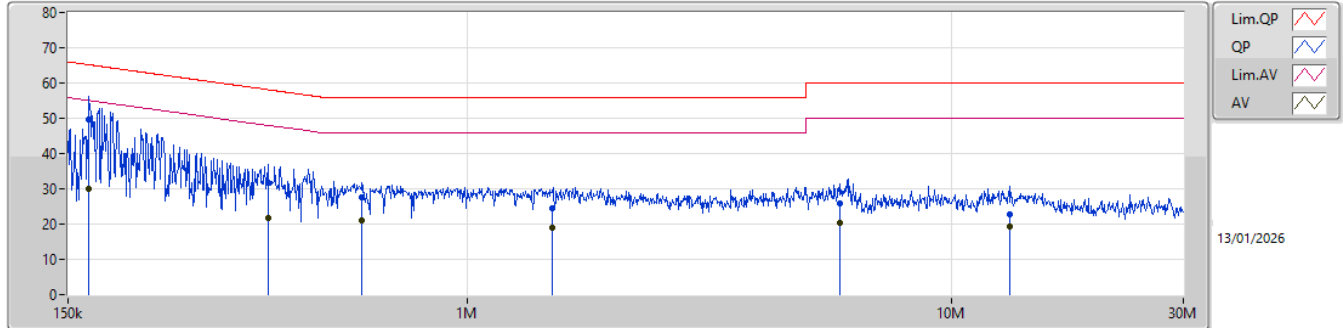
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	154.25k	54.01	65.77	-11.76	19.77	Line	34.24	9.64	0.01	10.12
AV	154.25k	41.02	55.77	-14.75	19.77	Line	21.25	9.64	0.01	10.12
QP	256.1k	38.50	61.56	-23.06	19.78	Line	18.72	9.64	0.02	10.12
AV	256.1k	27.27	51.56	-24.29	19.78	Line	7.49	9.64	0.02	10.12
QP	553.37k	44.20	56.00	-11.80	19.79	Line	24.41	9.63	0.04	10.12
AV	553.37k	38.02	46.00	-7.98	19.79	Line	18.23	9.63	0.04	10.12
QP	2.71M	38.48	56.00	-17.52	19.82	Line	18.66	9.65	0.04	10.13
AV	2.71M	29.42	46.00	-16.58	19.82	Line	9.60	9.65	0.04	10.13
QP	6.52M	27.98	60.00	-32.02	19.97	Line	8.01	9.68	0.15	10.14
AV	6.52M	24.41	50.00	-25.59	19.97	Line	4.44	9.68	0.15	10.14
QP	17.14M	39.64	60.00	-20.36	20.05	Line	19.59	9.64	0.28	10.13
AV	17.14M	35.08	50.00	-14.92	20.05	Line	15.03	9.64	0.28	10.13

Conducted Emissions at Powerline_Mode 3



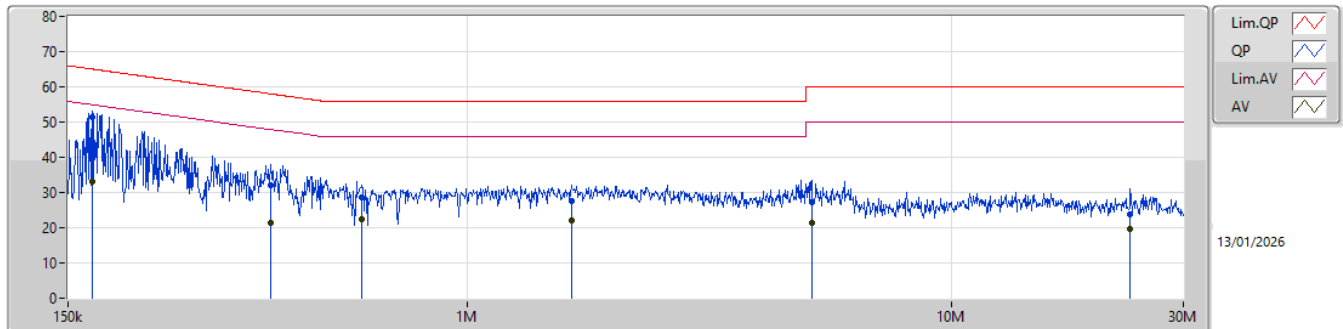
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	155.49k	53.92	65.69	-11.77	19.77	Neutral	34.15	9.64	0.01	10.12
AV	155.49k	41.25	55.69	-14.44	19.77	Neutral	21.48	9.64	0.01	10.12
QP	288.68k	34.90	60.57	-25.67	19.77	Neutral	15.13	9.63	0.02	10.12
AV	288.68k	25.03	50.57	-25.54	19.77	Neutral	5.26	9.63	0.02	10.12
QP	555.58k	44.17	56.00	-11.83	19.79	Neutral	24.38	9.63	0.04	10.12
AV	555.58k	38.01	46.00	-7.99	19.79	Neutral	18.22	9.63	0.04	10.12
QP	2.55M	38.63	56.00	-17.37	19.82	Neutral	18.81	9.65	0.04	10.13
AV	2.55M	28.51	46.00	-17.49	19.82	Neutral	8.69	9.65	0.04	10.13
QP	6.71M	32.42	60.00	-27.58	19.98	Neutral	12.44	9.68	0.16	10.14
AV	6.71M	28.66	50.00	-21.34	19.98	Neutral	8.68	9.68	0.16	10.14
QP	17.14M	38.68	60.00	-21.32	20.12	Neutral	18.56	9.71	0.28	10.13
AV	17.14M	34.06	50.00	-15.94	20.12	Neutral	13.94	9.71	0.28	10.13

Conducted Emissions at Powerline_Mode 4



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	165.74k	49.76	65.18	-15.42	19.77	Line	29.99	9.64	0.01	10.12
AV	165.74k	29.93	55.18	-25.25	19.77	Line	10.16	9.64	0.01	10.12
QP	387.9k	31.88	58.10	-26.22	19.78	Line	12.10	9.63	0.03	10.12
AV	387.9k	21.88	48.10	-26.22	19.78	Line	2.10	9.63	0.03	10.12
QP	606.58k	27.56	56.00	-28.44	19.79	Line	7.77	9.63	0.04	10.12
AV	606.58k	20.97	46.00	-25.03	19.79	Line	1.18	9.63	0.04	10.12
QP	1.5M	24.60	56.00	-31.40	19.82	Line	4.78	9.65	0.04	10.13
AV	1.5M	19.11	46.00	-26.89	19.82	Line	-0.71	9.65	0.04	10.13
QP	5.88M	26.03	60.00	-33.97	19.93	Line	6.10	9.67	0.13	10.13
AV	5.88M	20.34	50.00	-29.66	19.93	Line	0.41	9.67	0.13	10.13
QP	13.17M	22.82	60.00	-37.18	20.06	Line	2.76	9.66	0.27	10.13
AV	13.17M	19.22	50.00	-30.78	20.06	Line	-0.84	9.66	0.27	10.13

Conducted Emissions at Powerline_Mode 4



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	168.41k	51.36	65.04	-13.68	19.77	Neutral	31.59	9.64	0.01	10.12
AV	168.41k	33.16	55.04	-21.88	19.77	Neutral	13.39	9.64	0.01	10.12
QP	392.57k	31.93	58.01	-26.08	19.78	Neutral	12.15	9.63	0.03	10.12
AV	392.57k	21.49	48.01	-26.52	19.78	Neutral	1.71	9.63	0.03	10.12
QP	606.58k	28.70	56.00	-27.30	19.79	Neutral	8.91	9.63	0.04	10.12
AV	606.58k	22.28	46.00	-23.72	19.79	Neutral	2.49	9.63	0.04	10.12
QP	1.64M	27.58	56.00	-28.42	19.82	Neutral	7.76	9.65	0.04	10.13
AV	1.64M	21.97	46.00	-24.03	19.82	Neutral	2.15	9.65	0.04	10.13
QP	5.13M	27.11	60.00	-32.89	19.90	Neutral	7.21	9.67	0.10	10.13
AV	5.13M	21.28	50.00	-28.72	19.90	Neutral	1.38	9.67	0.10	10.13
QP	23.31M	23.84	60.00	-36.16	20.12	Neutral	3.72	9.69	0.31	10.12
AV	23.31M	19.51	50.00	-30.49	20.12	Neutral	-0.61	9.69	0.31	10.12

**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
3.1-10.6GHz	-	-	-	-	-
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	523.5M	901.84M	902MD1D	523.5M	901.84M
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	558M	946.497M	946MD1D	558M	946.497M

Max-N dB = Maximum 10dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 10dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	F _M (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	-	-		-	-	-	-
7987.2MHz	Pass	500M	7931.73M	523.5M	901.84M		
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	-	-		-	-	-	-
7987.2MHz	Pass	500M	8143.12M			558M	946.497M

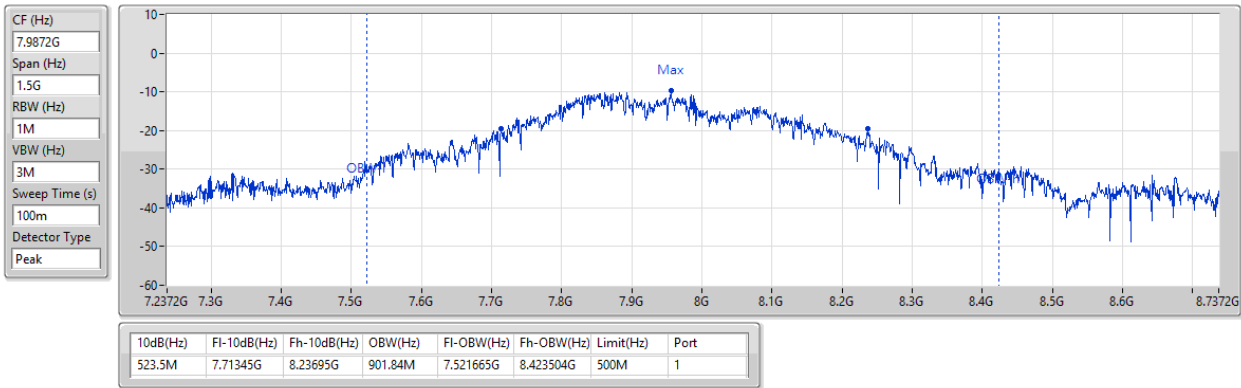
Port X-N dB = Port X 10dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

EBW

7987.2MHz

13/11/2025

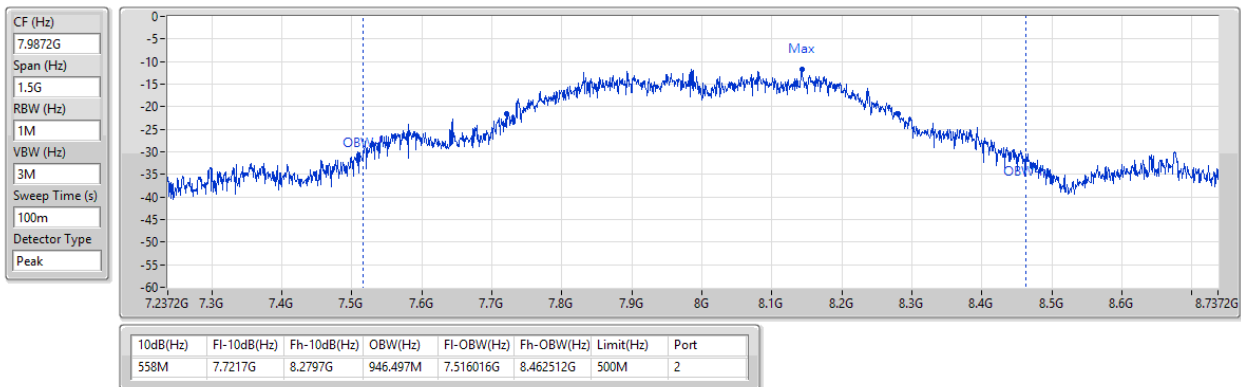


3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

EBW

7987.2MHz

13/11/2025





Summary

Mode	EIRP PD (dBm/50MHz)
3.1-10.6GHz	-
Ultra Wide Band_Nss1_1TX(Port2)	-0.05



Result

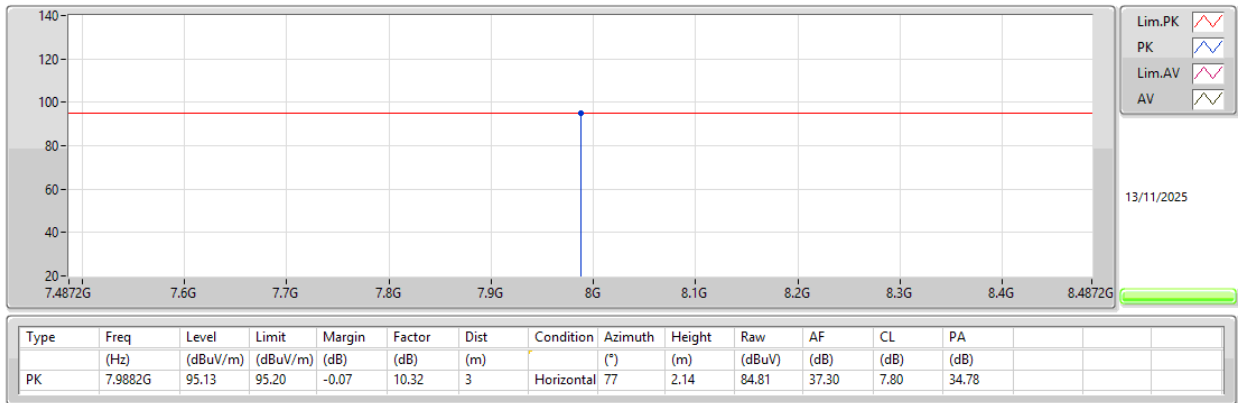
Mode	Result	Raw (dBuV/m)	RBW (MHz)	Factor (dB)	EIRP PD (dBm/50MHz)	EIRP PD Limit (dBm/50MHz)
Ultra Wide Band_Nss1_1TX(Port1)	-	-		-	-	-
7987.2 MHz	Pass	84.81	50	84.88	-0.07	0
Ultra Wide Band_Nss1_1TX(Port2)	-	-		-	-	-
7987.2 MHz	Pass	84.76	50	84.81	-0.05	0

Factor= $20 \times \log(\text{RBW}/50\text{MHz}) + 95.2 - (\text{AF} + \text{CL} - \text{PA})$

EIRP PD= RAW - Factor

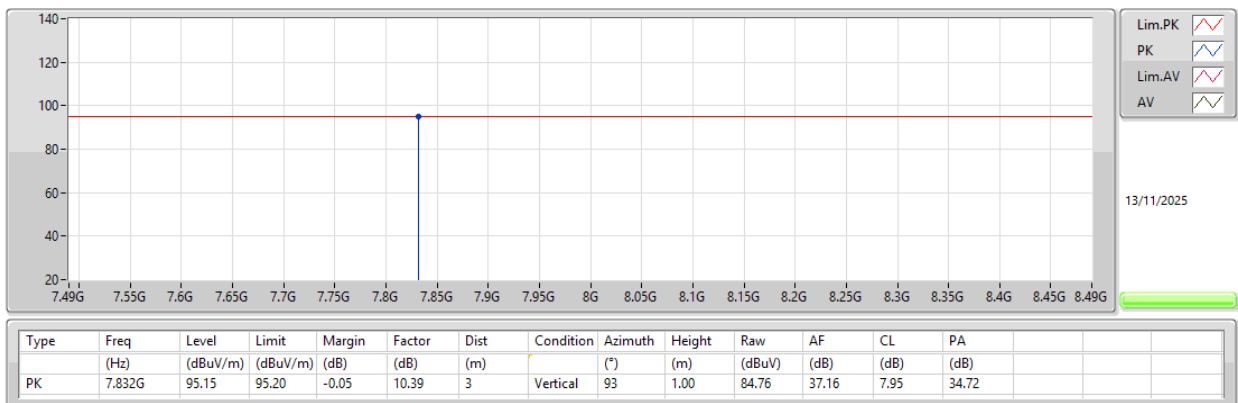
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX





Summary

Mode	EIRP PD (dBm/MHz)
3.1-10.6GHz	-
Ultra Wide Band_Nss1_1TX(Port2)	-45.92

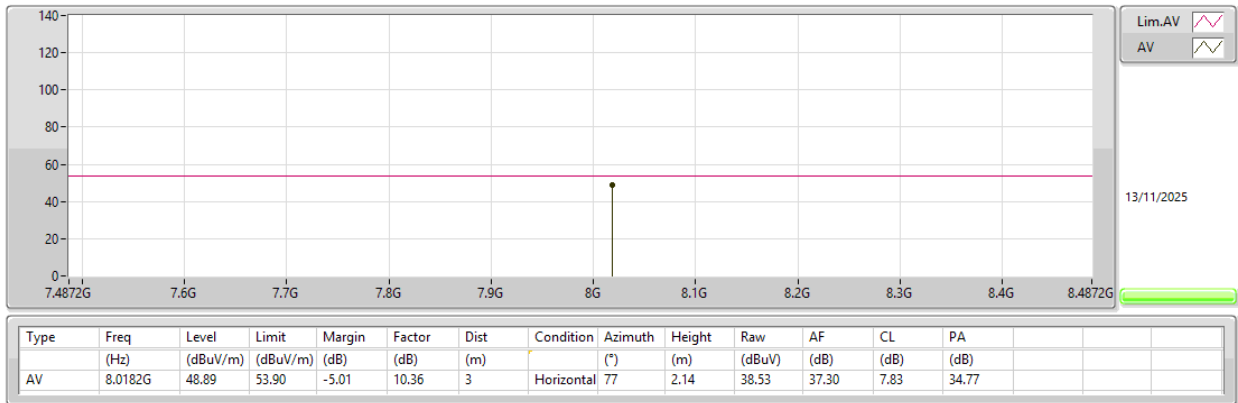
Result

Mode	Result	Raw (dBuV/m)	RBW (MHz)	Factor (dB)	EIRP PD (dBm/MHz)	EIRP PD Limit (dBm/MHz)
Ultra Wide Band_Nss1_1TX(Port1)	-	-		-	-	-
7987.2MHz	Pass	38.53	1	84.84	-46.31	-41.30
Ultra Wide Band_Nss1_1TX(Port2)	-				-	-
7987.2 MHz	Pass	38.89	1	84.81	-45.92	-41.30

EIRP PD= Raw - 95.2 + (AF + CL - PA)

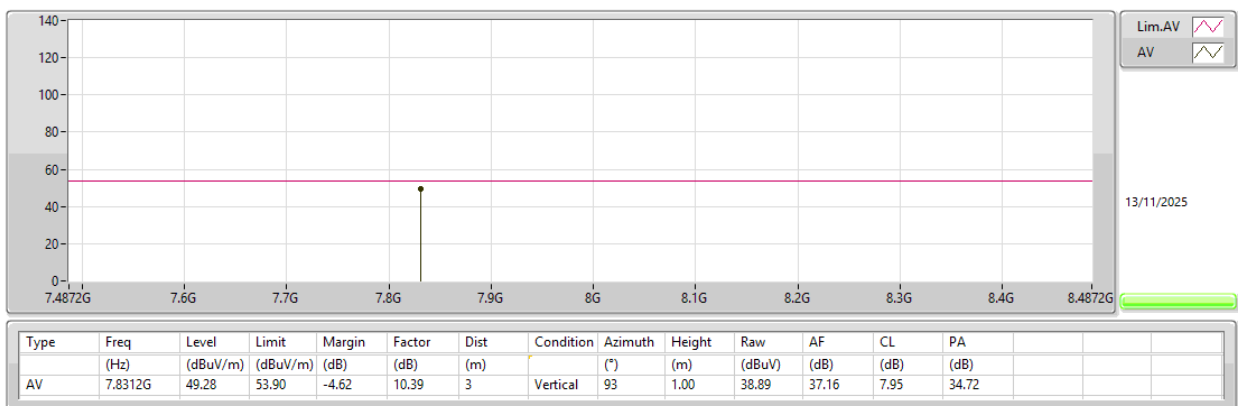
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
3.1-10.6GHz	-	-	-	-	-	-	-	-	-	-
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	Pass	PK	30M	35.73	40.00	-4.27	3	Vertical	0	1.00
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	Pass	PK	51.34M	35.16	40.00	-4.84	3	Vertical	360	1.00

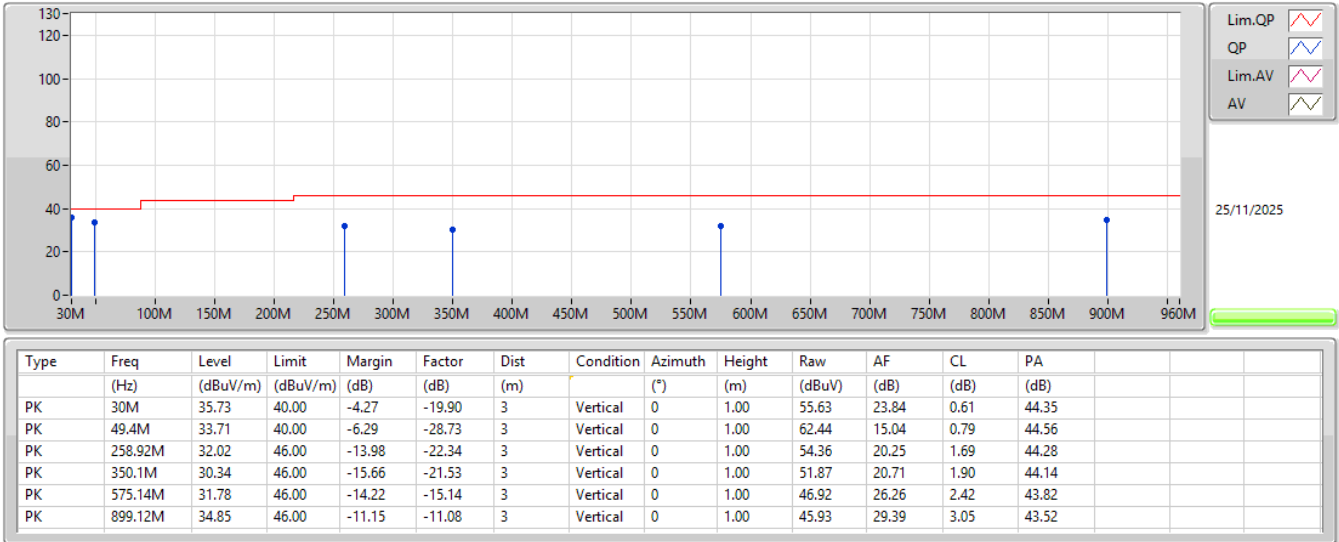
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-
7987.2MHz_Adapter	Pass	PK	33.88M	32.16	40.00	-7.84	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	123.12M	28.57	43.50	-14.93	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	249.22M	22.78	46.00	-23.22	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	449.04M	25.08	46.00	-20.92	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	573.2M	34.34	46.00	-11.66	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	885.54M	30.47	46.00	-15.53	3	Vertical	0	1.00
7987.2MHz_Adapter	Pass	PK	51.34M	28.79	40.00	-11.21	3	Horizontal	360	1.00
7987.2MHz_Adapter	Pass	PK	121.18M	28.48	43.50	-15.02	3	Horizontal	360	1.00
7987.2MHz_Adapter	Pass	PK	208.48M	29.26	43.50	-14.24	3	Horizontal	360	1.00
7987.2MHz_Adapter	Pass	PK	350.1M	29.37	46.00	-16.63	3	Horizontal	360	1.00
7987.2MHz_Adapter	Pass	PK	573.2M	36.63	46.00	-9.37	3	Horizontal	360	1.00
7987.2MHz_Adapter	Pass	PK	891.36M	34.26	46.00	-11.74	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	30M	35.73	40.00	-4.27	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	49.4M	33.71	40.00	-6.29	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	258.92M	32.02	46.00	-13.98	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	350.1M	30.34	46.00	-15.66	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	575.14M	31.78	46.00	-14.22	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	899.12M	34.85	46.00	-11.15	3	Vertical	0	1.00
7987.2MHz_PoE	Pass	PK	31.94M	27.47	40.00	-12.53	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	274.44M	33.47	46.00	-12.53	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	367.56M	34.16	46.00	-11.84	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	573.2M	34.64	46.00	-11.36	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	749.74M	34.50	46.00	-11.50	3	Horizontal	360	1.00
7987.2MHz_PoE	Pass	PK	903M	32.82	46.00	-13.18	3	Horizontal	360	1.00
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-
7987.2MHz_Adapter	Pass	PK	37.76M	35.07	40.00	-4.93	3	Vertical	360	1.00
7987.2MHz_Adapter	Pass	PK	123.12M	30.57	43.50	-12.93	3	Vertical	360	1.00
7987.2MHz_Adapter	Pass	PK	206.54M	21.16	43.50	-22.34	3	Vertical	360	1.00
7987.2MHz_Adapter	Pass	PK	449.04M	25.08	46.00	-20.92	3	Vertical	360	1.00
7987.2MHz_Adapter	Pass	PK	573.2M	34.34	46.00	-11.66	3	Vertical	360	1.00
7987.2MHz_Adapter	Pass	QP	49.4M	31.99	40.00	-8.01	3	Vertical	189	1.00
7987.2MHz_Adapter	Pass	PK	51.34M	27.79	40.00	-12.21	3	Horizontal	0	1.00
7987.2MHz_Adapter	Pass	PK	121.18M	27.48	43.50	-16.02	3	Horizontal	0	1.00
7987.2MHz_Adapter	Pass	PK	208.48M	26.76	43.50	-16.74	3	Horizontal	0	1.00
7987.2MHz_Adapter	Pass	PK	350.1M	26.37	46.00	-19.63	3	Horizontal	0	1.00
7987.2MHz_Adapter	Pass	PK	503.36M	27.89	46.00	-18.11	3	Horizontal	0	1.00
7987.2MHz_Adapter	Pass	PK	573.2M	35.13	46.00	-10.87	3	Horizontal	0	1.00
7987.2MHz_PoE	Pass	PK	31.94M	33.37	40.00	-6.63	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	51.34M	35.16	40.00	-4.84	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	127M	28.95	43.50	-14.55	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	256.98M	31.14	46.00	-14.86	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	575.14M	32.78	46.00	-13.22	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	897.18M	36.71	46.00	-9.29	3	Vertical	360	1.00
7987.2MHz_PoE	Pass	PK	51.34M	25.96	40.00	-14.04	3	Horizontal	0	1.00

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
7987.2MHz_PoE	Pass	PK	258.92M	36.75	46.00	-9.25	3	Horizontal	0	1.00
7987.2MHz_PoE	Pass	PK	350.1M	33.32	46.00	-12.68	3	Horizontal	0	1.00
7987.2MHz_PoE	Pass	PK	503.36M	29.62	46.00	-16.38	3	Horizontal	0	1.00
7987.2MHz_PoE	Pass	PK	573.2M	34.64	46.00	-11.36	3	Horizontal	0	1.00
7987.2MHz_PoE	Pass	PK	730.34M	37.08	46.00	-8.92	3	Horizontal	0	1.00

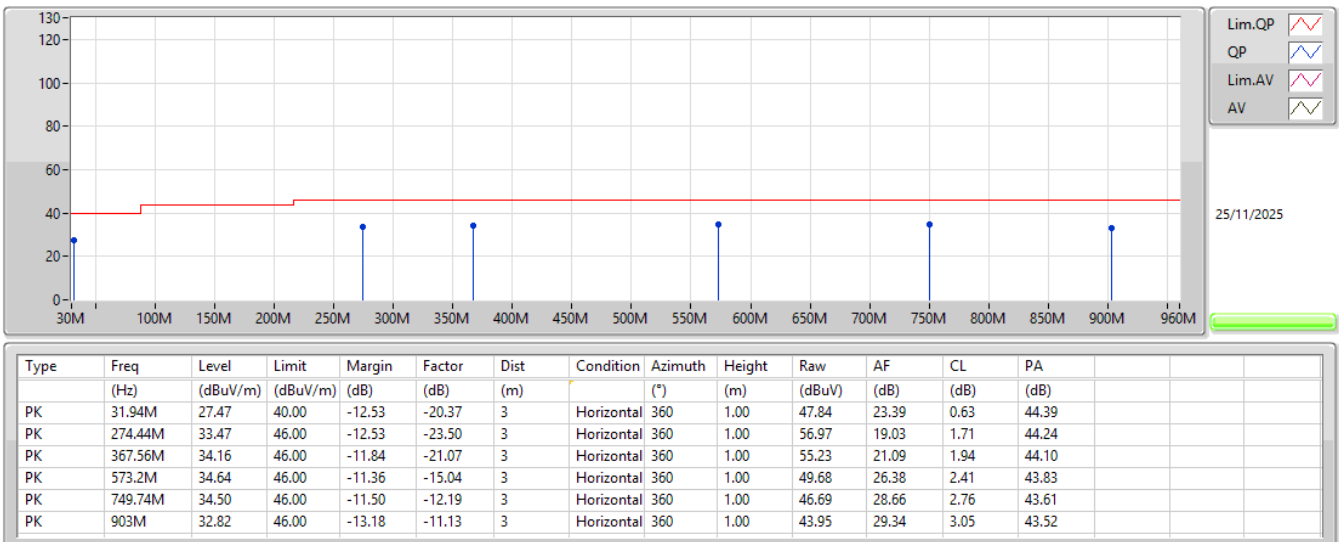
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_PoE



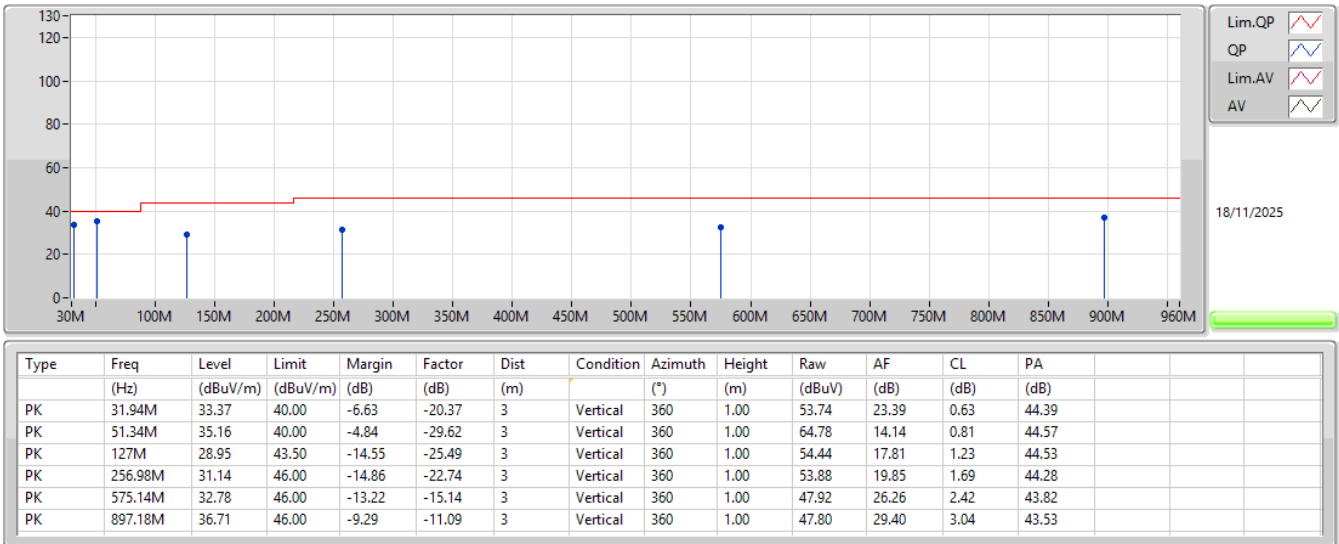
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_PoE



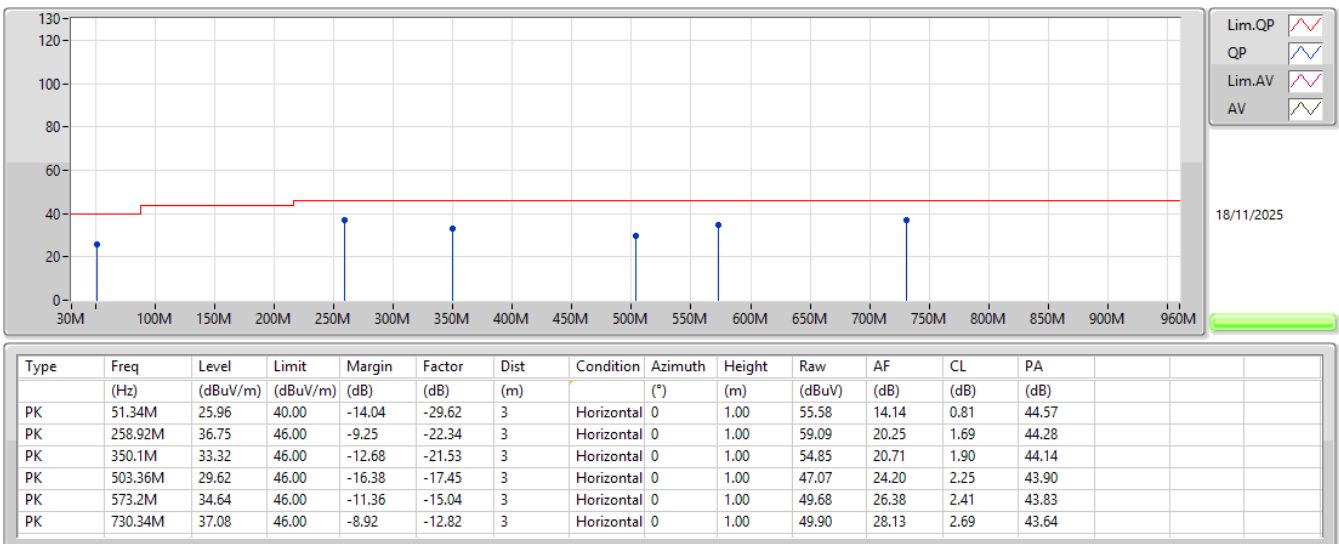
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_PoE



3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_PoE





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
3.1-10.6GHz	-	-	-	-	-	-	-	-	-	-
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	Pass	AV	1.129G	23.99	-	-	3	Vertical	360	1.00
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	Pass	AV	1.1305G	23.74	-	-	3	Vertical	0	1.00

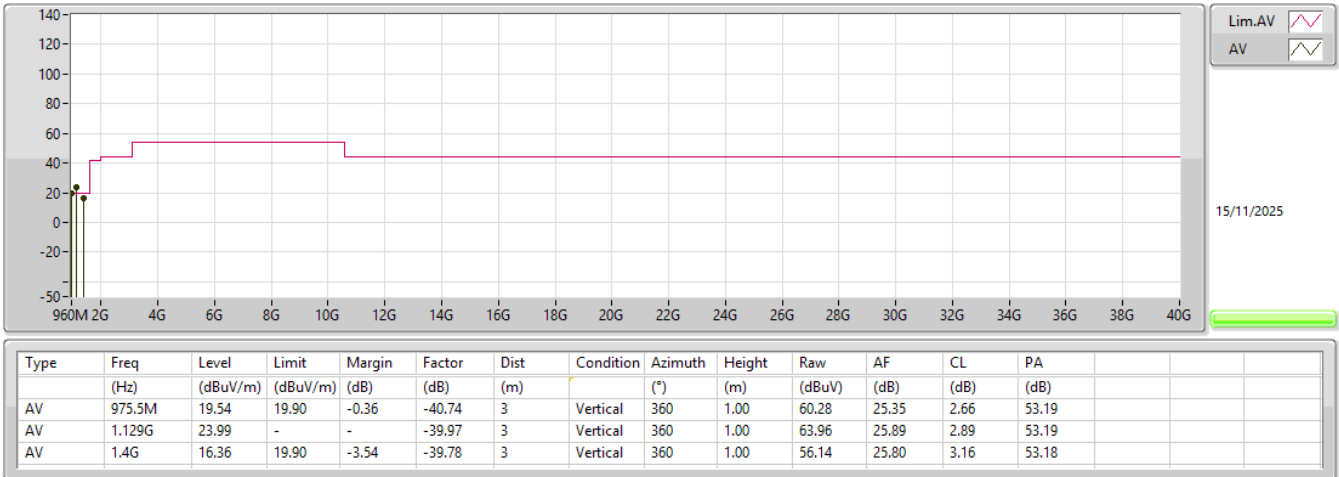
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Ultra Wide Band_Nss1,(HRP)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-
7987.2MHz	Pass	AV	975.5M	19.54	19.90	-0.36	3	Vertical	360	1.00
7987.2MHz	Pass	AV	1.129G	23.99	-	-	3	Vertical	360	1.00
7987.2MHz	Pass	AV	1.4G	16.36	19.90	-3.54	3	Vertical	360	1.00
7987.2MHz	Pass	AV	975.5M	19.56	19.90	-0.34	3	Horizontal	0	1.00
7987.2MHz	Pass	AV	1.145G	25.62	-	-	3	Horizontal	0	1.00
7987.2MHz	Pass	AV	1.4G	14.90	19.90	-5.00	3	Horizontal	0	1.00
7987.2MHz	Pass	AV	1.16445G	-4.00	9.90	-13.90	3	Vertical	253	1.52
7987.2MHz	Pass	AV	1.18013G	-1.87	9.90	-11.77	3	Vertical	40	1.75
7987.2MHz	Pass	AV	1.21547G	-9.76	9.90	-19.66	3	Vertical	3	2.00
7987.2MHz	Pass	AV	1.16595G	0.72	9.90	-9.18	3	Horizontal	88	1.50
7987.2MHz	Pass	AV	1.17296G	-0.25	9.90	-10.15	3	Horizontal	60	1.48
7987.2MHz	Pass	AV	1.17923G	-2.36	9.90	-12.26	3	Horizontal	314	1.53
7987.2MHz	Pass	AV	1.5661G	-10.98	9.90	-20.88	3	Vertical	84	1.50
7987.2MHz	Pass	AV	1.5745G	-10.13	9.90	-20.03	3	Vertical	76	1.50
7987.2MHz	Pass	AV	1.6G	-5.37	9.90	-15.27	3	Vertical	0	1.28
7987.2MHz	Pass	AV	1.56252G	-6.70	9.90	-16.60	3	Horizontal	298	1.66
7987.2MHz	Pass	AV	1.57595G	-8.53	9.90	-18.43	3	Horizontal	311	1.92
7987.2MHz	Pass	AV	1.6G	1.48	9.90	-8.42	3	Horizontal	62	1.58
Ultra Wide Band_Nss1,(HRP)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-
7987.2MHz	Pass	AV	974M	19.39	19.90	-0.51	3	Vertical	0	1.00
7987.2MHz	Pass	AV	1.1305G	23.74	-	-	3	Vertical	0	1.00
7987.2MHz	Pass	AV	1.4G	15.92	19.90	-3.98	3	Vertical	0	1.00
7987.2MHz	Pass	AV	975.5M	17.83	19.90	-2.07	3	Horizontal	360	1.00
7987.2MHz	Pass	AV	1.144G	25.21	-	-	3	Horizontal	360	1.00
7987.2MHz	Pass	AV	1.4G	15.27	19.90	-4.63	3	Horizontal	360	1.00
7987.2MHz	Pass	AV	1.16779G	-2.63	9.90	-12.53	3	Vertical	243	1.43
7987.2MHz	Pass	AV	1.17206G	-3.08	9.90	-12.98	3	Vertical	34	1.49
7987.2MHz	Pass	AV	1.17906G	-2.05	9.90	-11.95	3	Vertical	48	1.75
7987.2MHz	Pass	AV	1.16778G	2.94	9.90	-6.96	3	Horizontal	311	1.68
7987.2MHz	Pass	AV	1.17325G	0.65	9.90	-9.25	3	Horizontal	304	1.68
7987.2MHz	Pass	AV	1.18137G	-1.87	9.90	-11.77	3	Horizontal	311	1.50
7987.2MHz	Pass	AV	1.56465G	-12.69	9.90	-22.59	3	Vertical	312	1.50
7987.2MHz	Pass	AV	1.57973G	-10.47	9.90	-20.37	3	Vertical	98	1.50
7987.2MHz	Pass	AV	1.6G	-1.84	9.90	-11.74	3	Vertical	91	1.50
7987.2MHz	Pass	AV	1.5651G	-4.80	9.90	-14.70	3	Horizontal	307	1.53
7987.2MHz	Pass	AV	1.58557G	-10.01	9.90	-19.91	3	Horizontal	305	2.11
7987.2MHz	Pass	AV	1.6G	6.06	9.90	-3.84	3	Horizontal	64	1.60

*The frequencies mentioned in Comments and Explanations are not limited to this Limit.

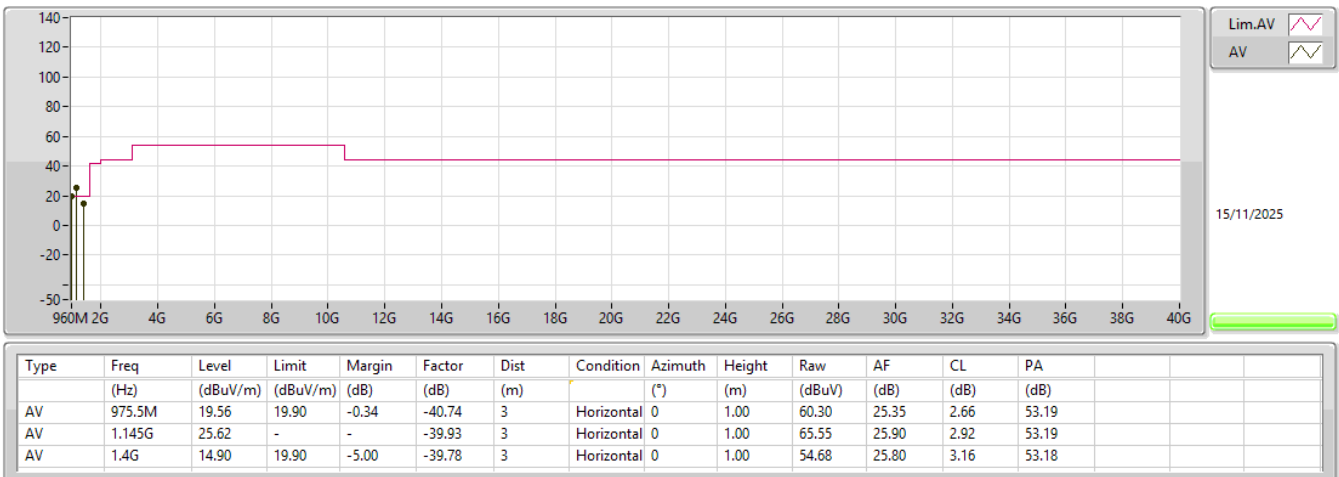
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



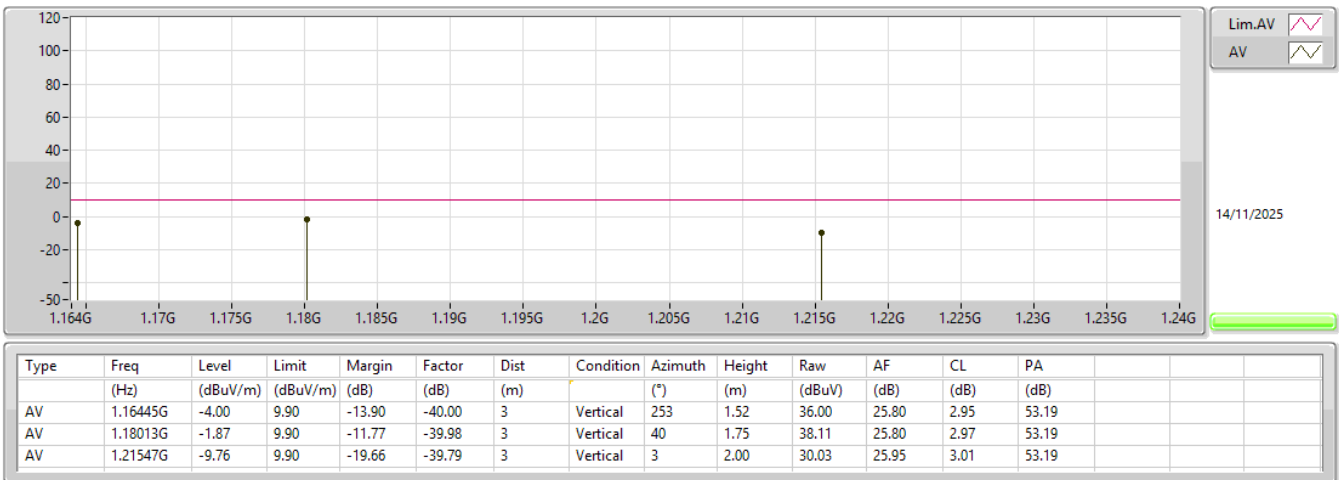
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



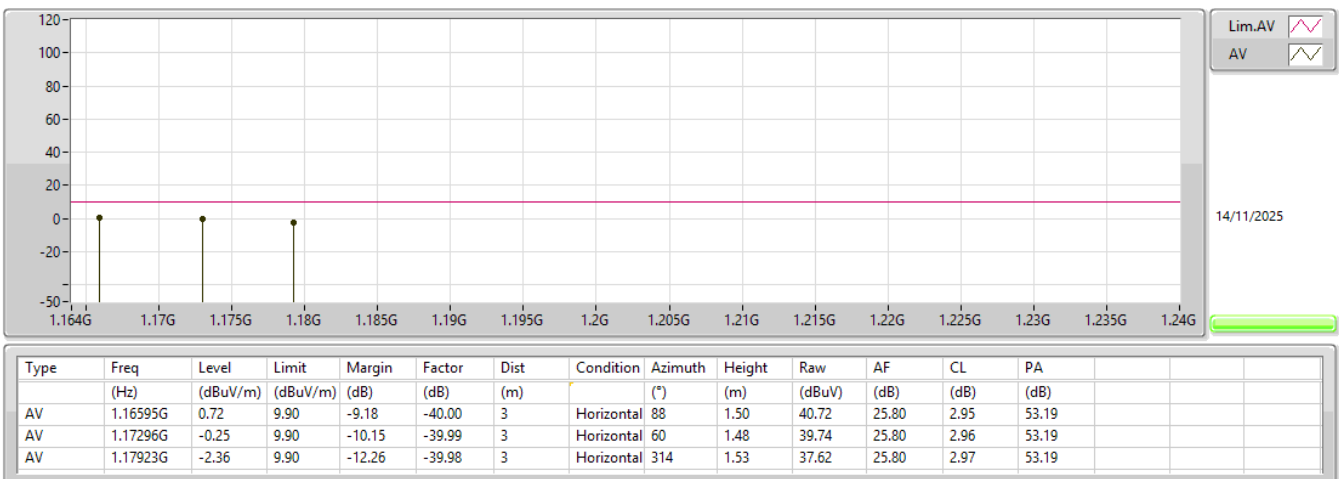
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



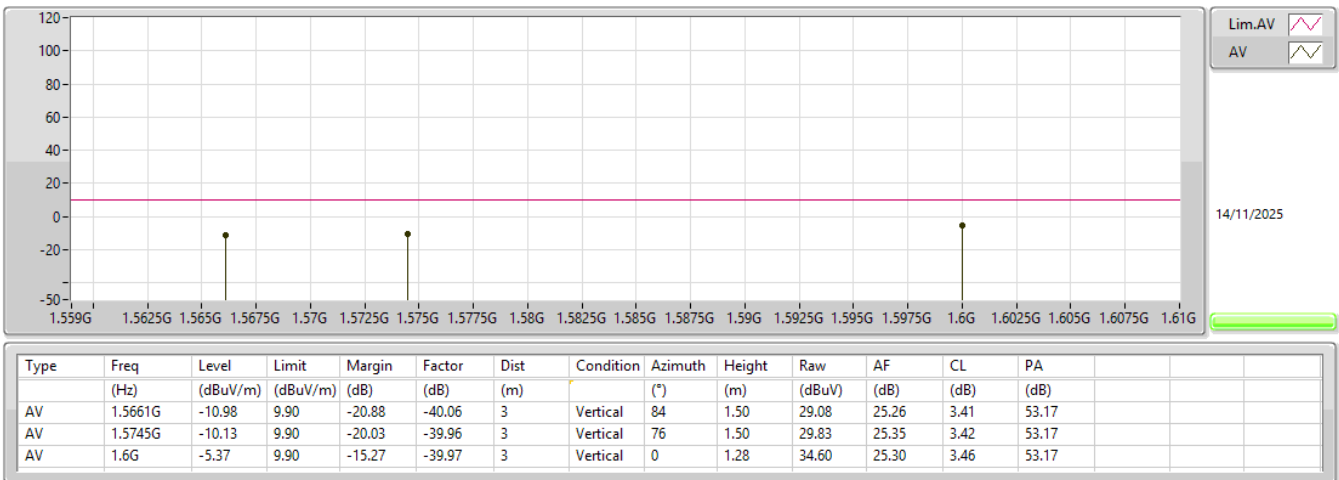
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



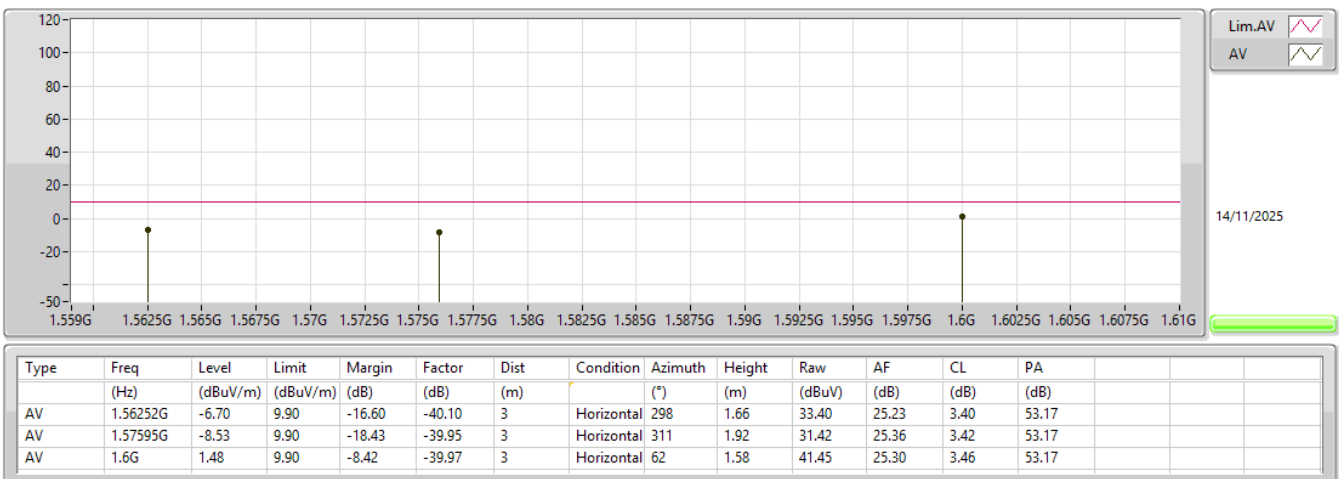
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



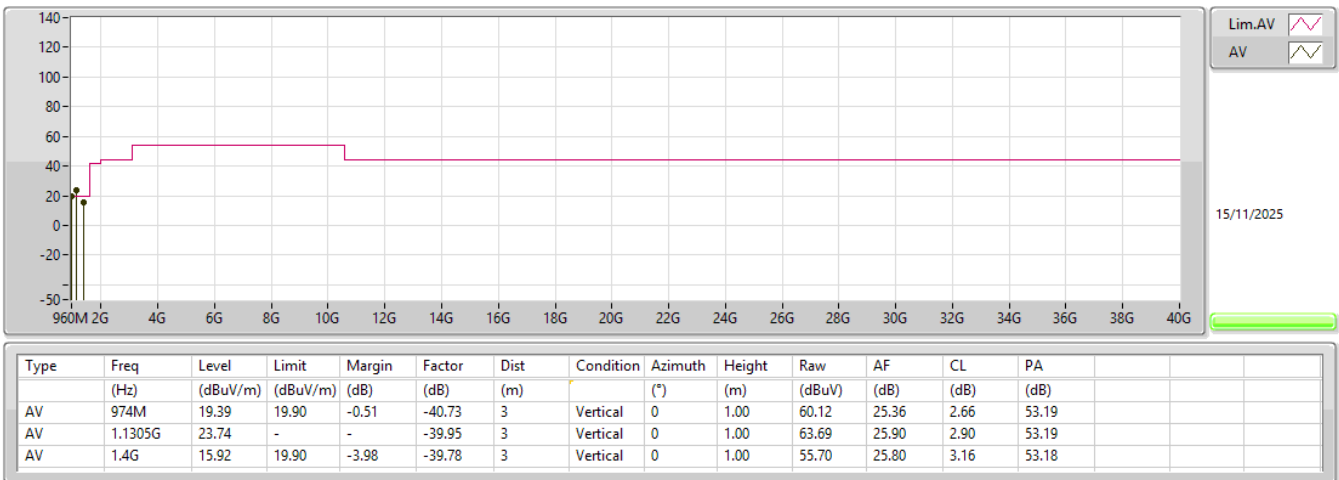
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port1)

7987.2MHz_TX



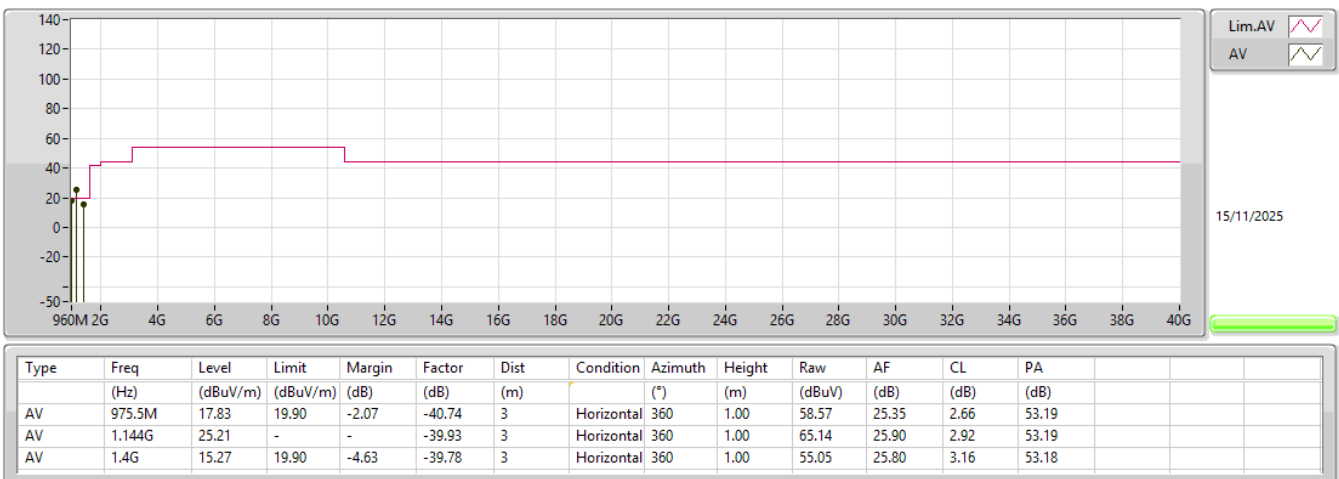
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX



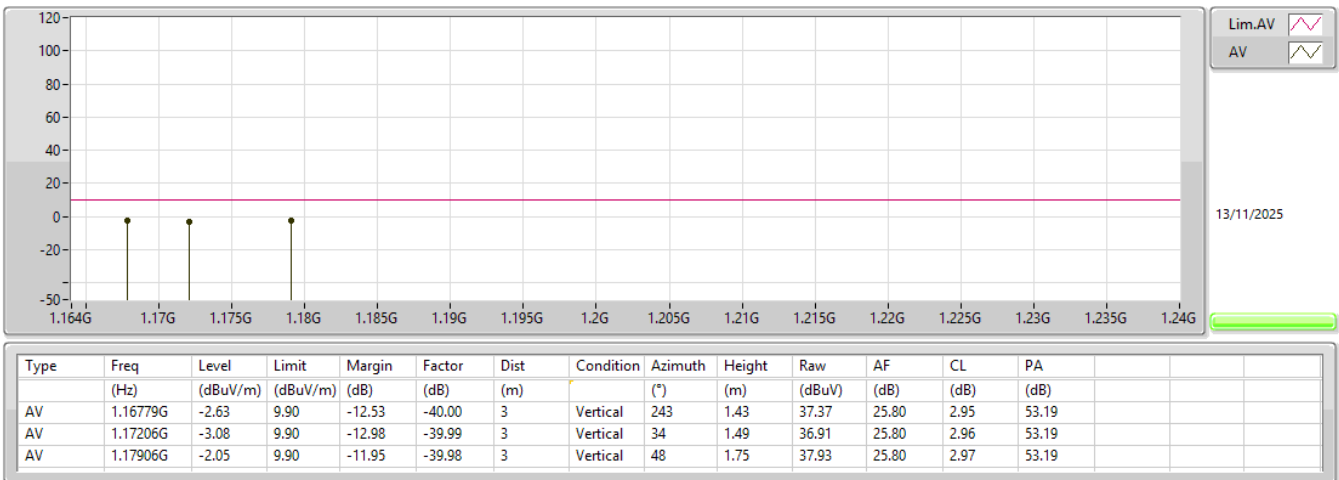
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX



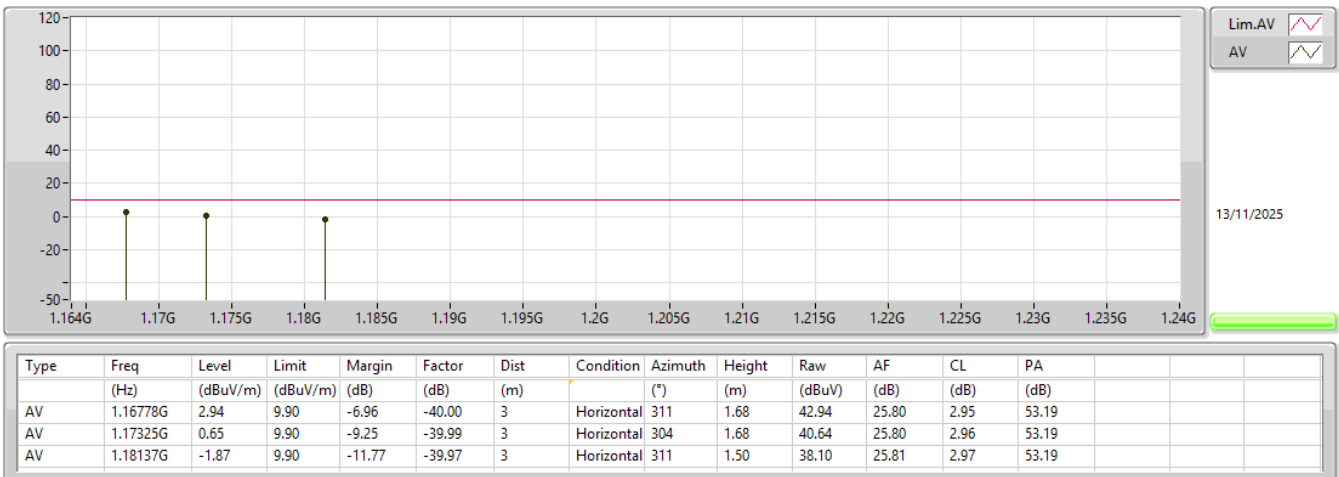
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX



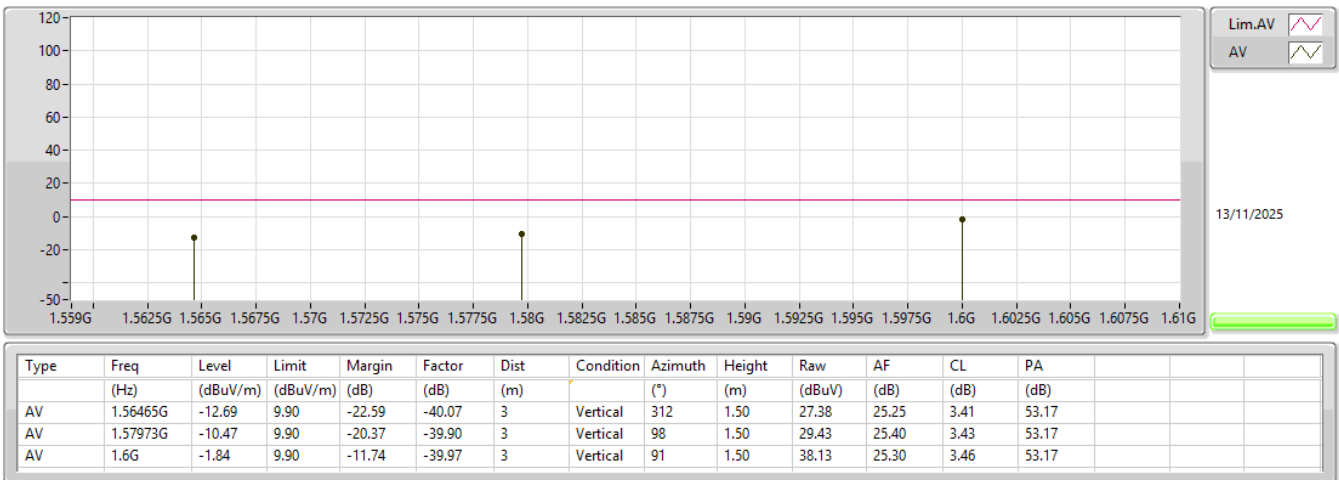
3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX



3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX



3.1-10.6GHz_Ultra Wide Band_Nss1,(HRP)_1TX(Port2)

7987.2MHz_TX

