



# RADIO TEST REPORT

**FCC ID** : RAXAIOS7  
**Equipment** : HEOS 7.0 Platform Module, HEOS 7.0 Platform Module Type DH  
**Brand Name** : Arcadyan  
**Model Name** : WN9722OAX22-DM (AIOS7.0), WN9722HAX22-DM (AIOS7.0-DH)  
**Applicant** : Arcadyan Technology Corporation  
No.8, Sec.2, Guangfu Rd., Hsinchu, 30071 Taiwan  
**Manufacturer** : Arcadyan Technology Corporation  
No.8, Sec.2, Guangfu Rd., Hsinchu, 30071 Taiwan  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Mar. 19, 2024, and testing was started from Mar. 25, 2024 and completed on Jun. 26, 2025. We, Sporton International Inc. Hsinchu 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 variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

**Sporton International Inc. Hsinchu Laboratory**

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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## History of this test report

TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB-A10\_6 Ver1.3

Page Number : 3 of 28  
Issued Date : Jul. 17, 2025  
Report Version : 01



## 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(d)	Emissions in Restricted Frequency Bands	PASS	-
Note: Reference to Sporton Project No.: 320110-03				

**Conformity Assessment Condition:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Sam Chen**

**Report Producer: Vicky Huang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(500Kb/s)	1.0	1TX
2.4-2.4835GHz	BT-LE(125Kb/s)	1.0	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

**Note:**

- ♦ Bluetooth LE uses a GFSK modulation.
- ♦ BWch is the nominal channel bandwidth.

**1.1.2 Antenna Information**

Set	Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)			
							2.4GHz	5GHz	6GHz	Bluetooth
1	1	1	WIESON	ARY196-0383-005-00	Dipole Antenna	I-PEX	-	-	-	2.1
	2	1	WIESON	ARY196-0383-006-00	Dipole Antenna	I-PEX	2.2	2.7	2.8	-
	3	2	WIESON	ARY196-0383-007-00	Dipole Antenna	I-PEX	1.7	1.6	1.7	-
2	1	1	WIESON	ARY196-0383-008-00	Dipole Antenna	I-PEX	-	-	-	1.7
	2	1	WIESON	ARY196-0383-009-00	Dipole Antenna	I-PEX	2.0	2.2	2.3	-
	3	2	WIESON	ARY196-0383-010-00	Dipole Antenna	I-PEX	1.1	1.0	0.9	-
3	1	1	WIESON	ARY196-0383-034-H0	PCB Antenna	I-PEX	-	-	-	2.84
	2	1	WIESON	ARY196-0383-035-H0	PCB Antenna	I-PEX	2.8	3.82	4.16	-
	3	2	WIESON	ARY196-0383-036-H0	PCB Antenna	I-PEX	2.66	3.78	4.23	-
4	1	1	WIESON	ARY196-0383-039-H0	PCB Antenna	I-PEX	-	-	-	2.75
	2	1	WIESON	ARY196-0383-037-H0	PCB Antenna	I-PEX	2.14	2.18	2.26	-
	3	2	WIESON	ARY196-0383-038-H0	PCB Antenna	I-PEX	2.54	3.38	3.75	-
5	1	1	WIESON	ARY196-0383-042-H0	PCB Antenna	I-PEX	-	-	-	1.82
	2	1	WIESON	ARY196-0383-040-H0	PCB Antenna	I-PEX	1.97	1.9	2.46	-
	3	2	WIESON	ARY196-0383-041-H0	PCB Antenna	I-PEX	1.15	2.85	3.5	-
6	1	1	INPAQ	WA-P-LA-01-106	PCB Antenna	I-PEX	-	-	-	2.98
	2	1	INPAQ	WA-P-LE-03-039	PCB Antenna	I-PEX	2.74	3.42	3.67	-
	3	2	INPAQ	WA-P-LE-02-353	PCB Antenna	I-PEX	4.78	5.45	4.64	-



7	1	1	INPAQ	WA-P-LA-01-107	PCB Antenna	I-PEX	-	-	-	3.4
	2	1	INPAQ	WA-P-LE-02-378	PCB Antenna	I-PEX	3.36	2.39	2.62	-
	3	2	INPAQ	WA-P-LE-03-041	PCB Antenna	I-PEX	2.53	5.87	4.69	-
8	1	1	INPAQ	WA-P-LA-01-108	PCB Antenna	I-PEX	-	-	-	3.04
	2	1	INPAQ	WA-P-LE-02-380	PCB Antenna	I-PEX	5.46	5.75	7.1	-
	3	2	INPAQ	WA-P-LE-03-042	PCB Antenna	I-PEX	5.41	6.09	6.67	-

Note1: The above information was declared by manufacturer.

Note2: The EUT has eight sets of antennas and there are three antennas for each set.

For EUT 1~2:

Set 1~2 are the same type antenna.

Only the highest gain Set 1 antenna was selected to test and record in original report.

For EUT 3:

Set 3~8 are the same type antenna.

Only the highest gain Set 8 antenna for WLAN and Set 7 antenna for Bluetooth was selected to test and record in this report.

Note3: Directional gain information

Type	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 $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ant}} \left( \sum_{k=1}^{N_{ant}} g_{j,k} \right)^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ant}} \left( \sum_{k=1}^{N_{ant}} g_{j,k} \right)^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ant}} \left( \sum_{k=1}^{N_{ant}} g_{j,k} \right)^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{ant}} \left( \sum_{k=1}^{N_{ant}} g_{j,k} \right)^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20} ; NSS1(g1,4) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

For Set 1~2:

2.4G G1= 2.2 dBi; G2= 1.7 dBi; DG= 4.96dBi

5G G1= 2.7 dBi; G2= 1.6 dBi; DG= 5.18dBi

6G G1= 2.8 dBi; G2= 1.7 dBi; DG= 5.28dBi

For Set 3~8:

2.4G G1= 5.46 dBi; G2= 5.41 dBi; DG = 8.45 dBi

5G G1 = 5.75 dBi; G2 = 6.09 dBi; DG = 8.93 dBi

**For 2.4GHz function:**

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

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For 5GHz function:**

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

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For 6GHz function:**

**For IEEE 802.11ax (2TX/2RX):**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For Bluetooth function (1TX/1RX):**

Only Port 1 can be used as transmitting/receiving antenna.



**1.1.3 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.853	0.69	2.134m	1k
BT-LE(2Mbps)	0.579	2.37	1.073m	1k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

**1.1.4 EUT Operational Condition**

EUT Power Type	Form host system			
Function	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Test Software Version	DOS [ver 6.1.7601]			
Support Mode	<input checked="" type="checkbox"/>	LE 1M PHY: 1 Mb/s		
	<input checked="" type="checkbox"/>	LE Coded PHY (S=2): 500 Kb/s		
	<input checked="" type="checkbox"/>	LE Coded PHY (S=8): 125 Kb/s		
	<input checked="" type="checkbox"/>	LE 2M PHY: 2 Mb/s		

Note: The above information was declared by manufacturer.

**1.1.5 Table for EUT Information**

The EUTs are identical to each other in all aspects except for the following table:

EUT	Equipment Name	Model Name	GPIO Source	The Material of the Shielded Case	Set Ant.
1	HEOS 7.0 Platform Module	WN9722OAX22-DM (AIO57.0)	Main	Tinplate	1~2
2				Stainless steel	1~2
3	HEOS 7.0 Platform Module Type DH	WN9722HAX22-DM (AIO57.0-DH)	Second	Stainless steel	3~8

Note1: From the above, EUT 2 has selected to execute the Emissions in Restricted Frequency Bands below 1GHz and Emissions in Restricted Frequency Bands above 1GHz-BT-LE(1Mbps) 2480MHz tests and EUT 3 has selected to execute the AC power-line conducted emissions and Emissions in Restricted Frequency Bands tests.

Note2: The above information was declared by manufacturer.

**1.1.6 Source Table**

Source		Main	Second
Item			
GPIO		-	Disconnect one of its GPIO6 pins and route GPIO3 to the pin out instead, with corresponding changes made to the layout.

Note: The above information was declared by manufacturer.



### 1.1.7 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR320110AC

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

Modifications	Performance Checking
1. Adding the EUT 2 (Please refer to section 1.1.5 for detailed information)	1. Emissions in Restricted Frequency Bands below 1GHz 2. BT-LE(1Mbps) 2480MHz generated the worst case from original, thus only test BT-LE(1Mbps) 2480MHz for below items: Emissions in Restricted Frequency Bands above 1GHz
2. Adding the EUT 3 (Equipment Name: HEOS 7.0 Platform Module Type DH / Model Name: WN9722HAX22-DM (AIOS7.0-DH)) (Please refer to section 1.1.5 for detailed information) 3. Adding the Set 3~8 antenna for EUT 3 use (Please refer to section 1.1.2 and section 1.1.5 for detailed information)	1. AC Power-line Conducted Emissions 2. Emissions in Restricted Frequency Bands

Note: The above test items will be based on original output power to re-test.



## 1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15.247
- ♦ ANSI C63.10-2013

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

- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 414788 D01 v01r01

## 1.3 Testing Location Information

Testing Location Information				
Test Lab. : Sporton International Inc. Hsinchu Laboratory				
Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)				
(TAF: 3787) TEL: 886-3-656-9065 FAX: 886-3-656-9085				
Test site Designation No. TW3787 with FCC.				
Conformity Assessment Body Identifier (CABID) TW3787 with ISED.				

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
Radiated (Below 1GHz- Test Mode: Mode 1)	03CH05-CB	Roy Mai	21.9-22.4 / 55-58	Mar. 25, 2024
Radiated (Below 1GHz- Test Mode: Mode 2~4)	03CH03-CB	Edmund Tsai	21.6~23.1 / 58~62	Apr. 24, 2025
Radiated (Above 1GHz- Test Mode: Mode 1)	03CH05-CB	Jackson Peng	21.9-22.4 / 55-58	Mar. 26, 2024~ Mar. 28, 2024
	03CH06-CB	Jackson Peng	21.4-22.5 / 55-58	
Radiated (Above 1GHz- Test Mode: Mode 2)	03CH01-CB	Stim Sung	22.1-23.1 / 60-62	Apr. 29, 2025~ Jun. 26, 2025
AC Conduction	CO01-CB	Tim Chen	20~21 / 58~60	Apr. 29, 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))

**For Radiated(Below 1GHz-Test Mode: Mode 1) and Radiated(Above 1GHz-Test Mode: Mode 1)**

Test Items	Uncertainty	Remark
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%

**For other tests:**

**Test Date: Before May 28, 2025**

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.8 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.0 dB	Confidence levels of 95%

**Test Date: After May 27, 2025**

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%



## **2 Test Configuration of EUT**

### **2.1 Test Channel Mode**

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

## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	Normal Link
1	EUT 3 + 2.4GHz with antenna set 8 + Bluetooth with antenna set 7
2	EUT 3 + 5GHz with antenna set 8 + Bluetooth with antenna set 7
3	EUT 3 + 6GHz with antenna set 8 + Bluetooth with antenna set 7
For operating mode 3 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	Normal Link
1. After evaluating, the worst case was found at Y axis, thus the measurement will follow this same test configuration. 2. For mode 1: There are three modes of EUT: 2.4GHz + Bluetooth, 5GHz + Bluetooth, and 6GHz + Bluetooth. 2.4GHz + Bluetooth mode has been evaluated to be the worst case after evaluating. So the measurement will follow this same test configuration.	
1	EUT 2 at Y axis with antenna set 1 + 2.4GHz + Bluetooth
2	EUT 3 at Y axis + 2.4GHz with antenna set 8 + Bluetooth with antenna set 7
3	EUT 3 at Y axis + 5GHz with antenna set 8 + Bluetooth with antenna set 7
4	EUT 3 at Y axis + 6GHz with antenna set 8 + Bluetooth with antenna set 7
For operating mode 1 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX
After evaluating, and the worst case was found as below. So the measurement will follow this same test configuration.	
1	EUT 2 with antenna set 1 + Bluetooth (Harmonic in X axis-only BT-LE(1Mbps) 2480MHz) test)
2	EUT 3 at Y axis with antenna set 7 + Bluetooth



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT 1-WLAN 2.4GHz + Bluetooth
2	EUT 1-WLAN 5GHz + Bluetooth
3	EUT 1-WLAN 6GHz + Bluetooth
4	EUT 3-WLAN 2.4GHz + Bluetooth
5	EUT 3-WLAN 5GHz + Bluetooth
6	EUT 3-WLAN 6GHz + Bluetooth
Refer to Sporton Test Report No.: FA320110-06 for Co-location RF Exposure Evaluation.	

## 2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

## 2.4 Accessories

N/A



## 2.5 Support Equipment

### For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Test Fixture	Arcadyan	N0IDM9922001J	N/A
B	LAN PC	ASUS	S300TA	TX2-RTL8821CE
C	Wireless Connectivity Tester	R&S	CMW270	N/A
D	AP Router	ASUS	GT-AXE16000	MSQ-RTAX5D00
E	AP PC	ASUS	S300TA	TX2-RTL8821CE
F	Test Fixture	MASIMO HEOS	AIOS7 LPP	N/A
G	AC Adapter	APD	WA-30P12FU	N/A

### For Radiated (below 1GHz):

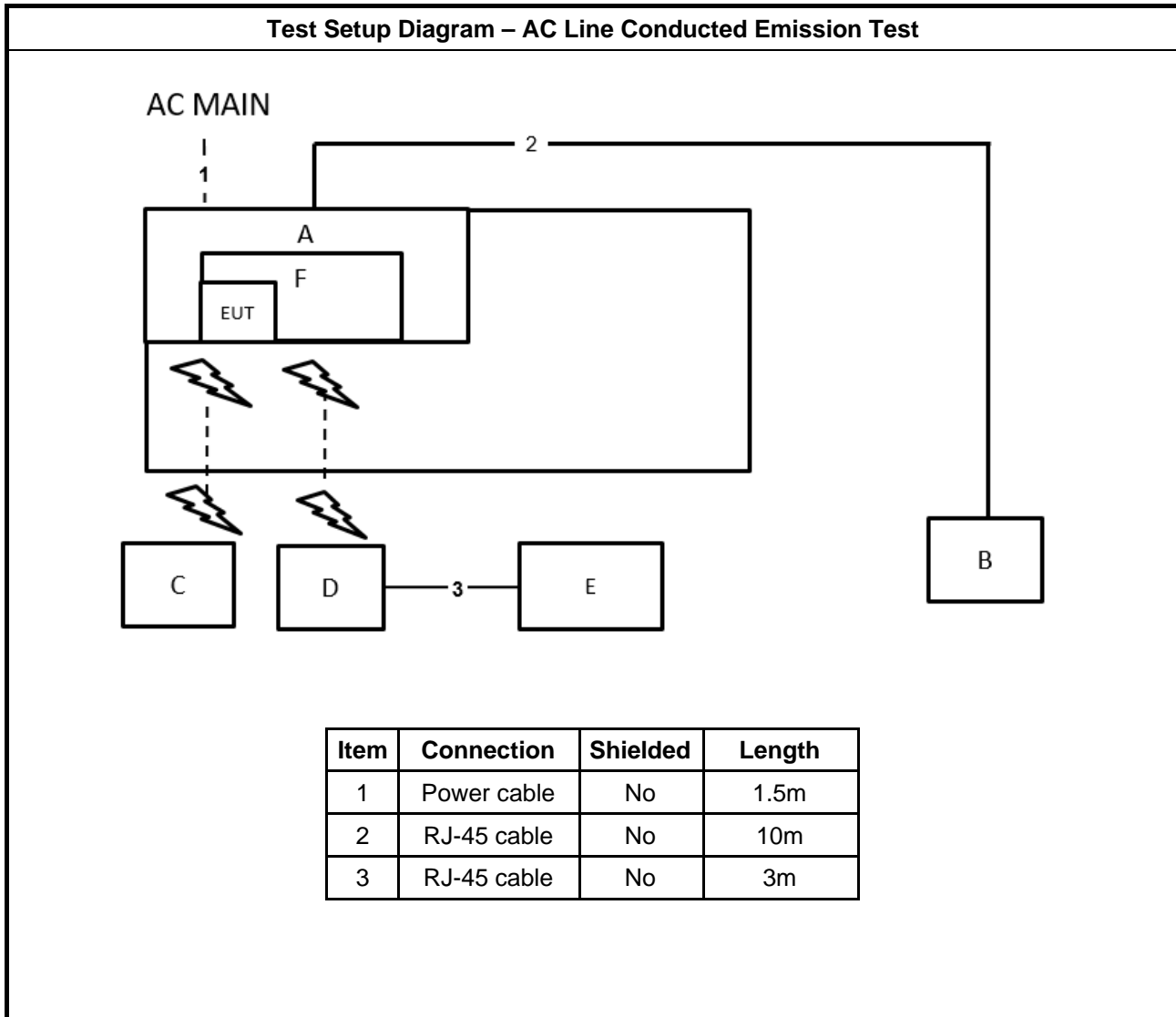
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Test Fixture	Arcadyan	N0IDM9922001J	N/A
B	NB	DELL	E4300	N/A
C	BT Test Set	Anritsu	MT8852B	N/A
D	WLAN AP	ASUS	RT-AX88U	N/A
E	NB	DELL	E4300	N/A
F	Test Fixture	MASIMO HEOS	AIOS7 LPP	N/A

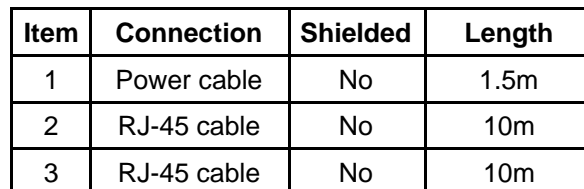
### For Radiated (above 1GHz):

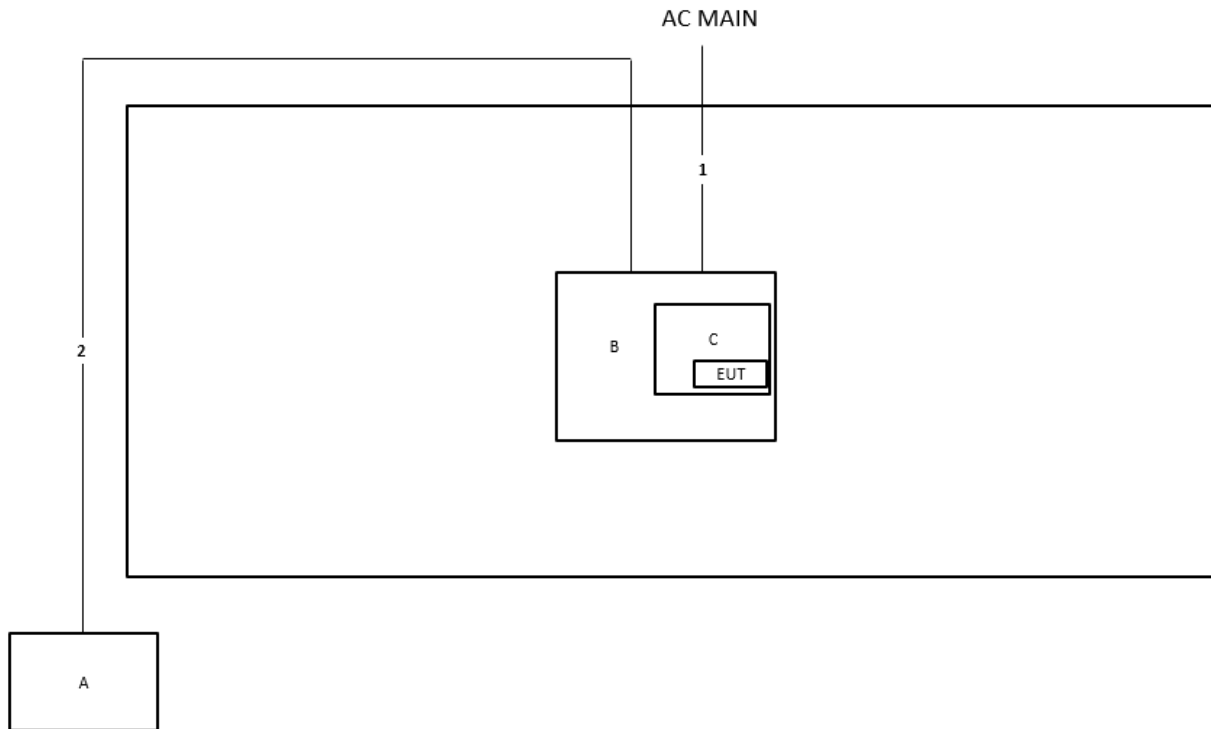
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Test Fixture	Arcadyan	N0IDM9922001J	N/A
C	Test Fixture	MASIMO HEOS	AIOS7 LPP	N/A



## 2.6 Test Setup Diagram





**Test Setup Diagram - Radiated Test > 1GHz**


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m



### 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.

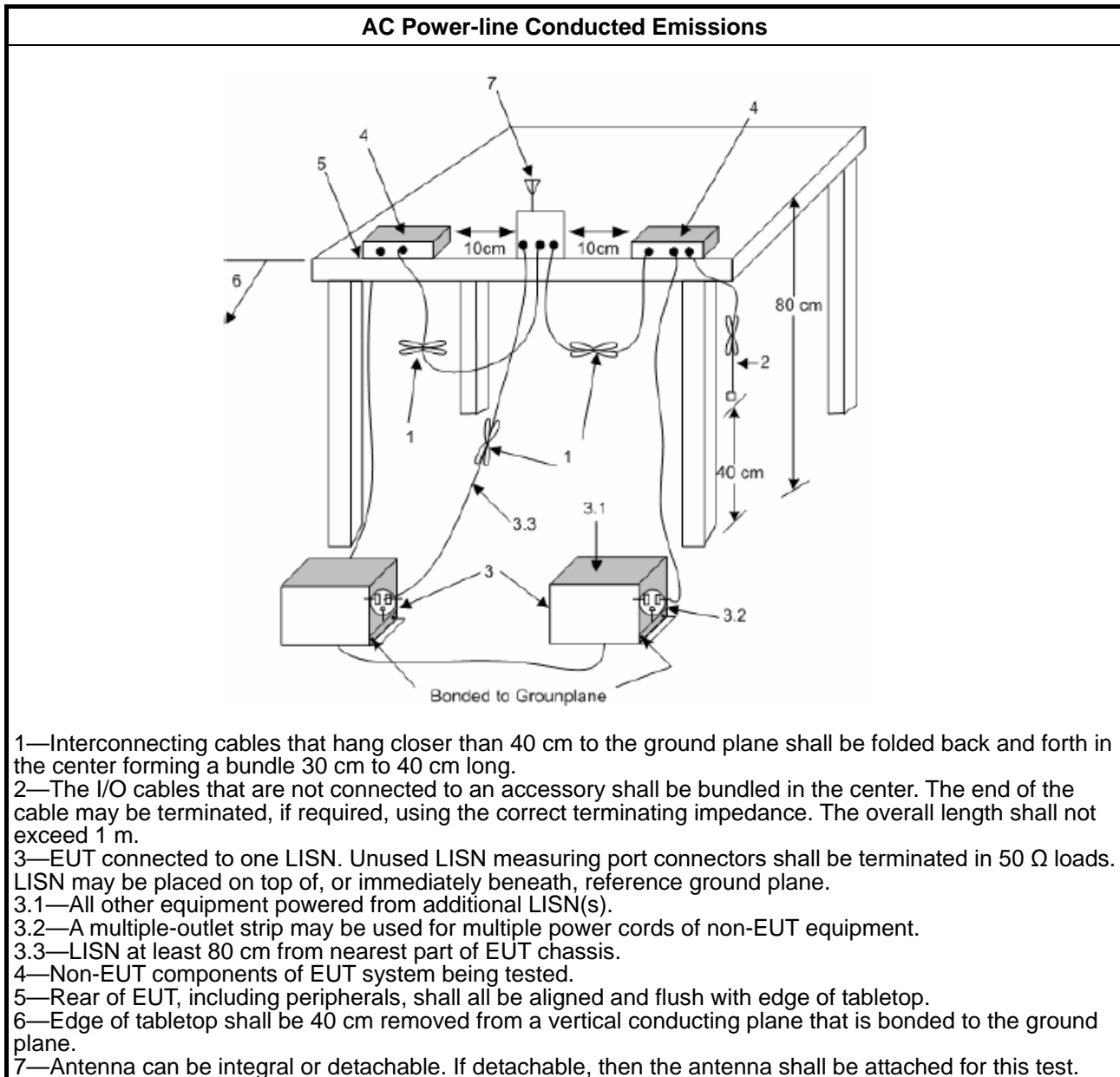
##### 3.1.2 Measuring Instruments

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 for AC power-line conducted emissions.

### 3.1.4 Test Setup



#### 1.1.1. Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- Margin = -Limit + Level

### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



## 3.2 Emissions in Restricted Frequency Bands

### 3.2.1 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.

### 3.2.2 Measuring Instruments

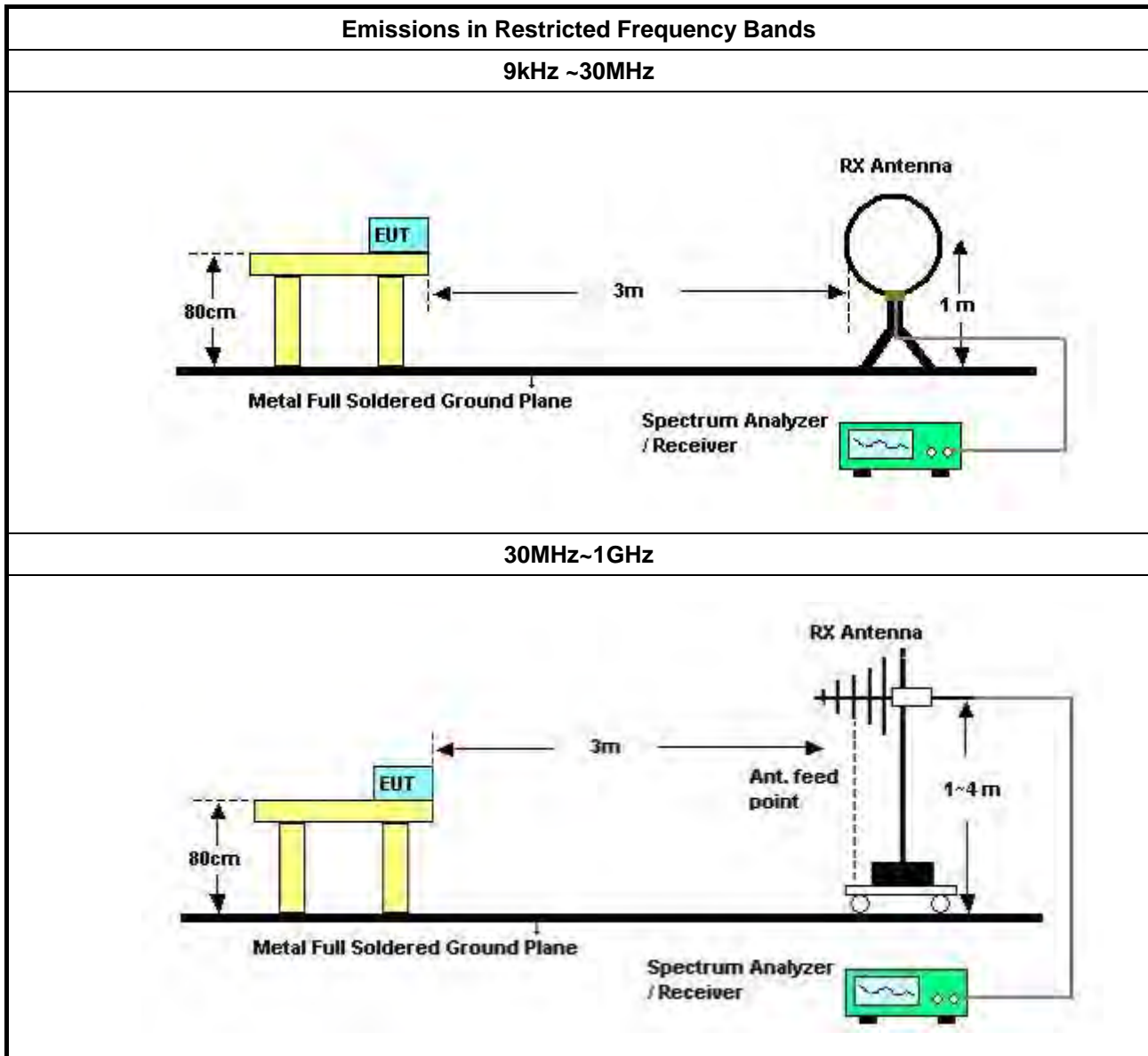
Refer a test equipment and calibration data table in this test report.



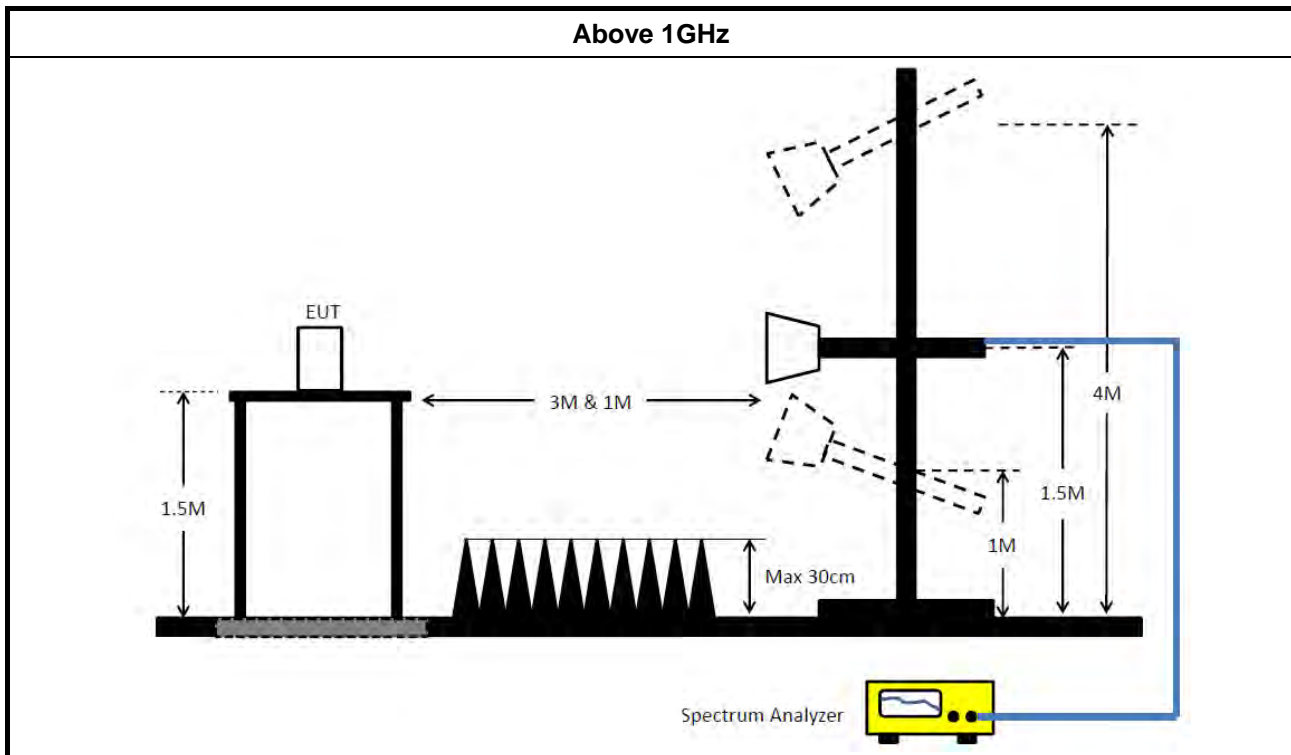
### 3.2.3 Test Procedures

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 FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq 98\%$ ).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq 1/T$ ).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq 1/T$ , where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, 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 FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

### 3.2.4 Test Setup







### 3.2.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

### 3.2.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

### 3.2.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix B



## 4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 06, 2025	Mar. 05, 2026	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-5 0-16-2	04083	150kHz ~ 100MHz	Feb. 18, 2025	Feb. 17, 2026	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Feb. 06, 2025	Feb. 05, 2026	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
COND Cable	Woken	Cable	CO01	9kHz ~ 30MHz	Oct. 16, 2024	Oct. 15, 2025	Conduction (CO01-CB)
Test Software	SPORTON	SENSE-EMI	V5.11	150kHz-30MHz	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30 MHz	Oct. 13, 2023	Oct. 12, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 02, 2023	Aug. 01, 2024	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Sep. 29, 2023	Sep. 28, 2024	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 23, 2024	Mar. 22, 2025	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120 D	BBHA 9120 D-1291	1GHz~18GHz	Jun. 08, 2023	Jun. 07, 2024	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH05-CB)
Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 03, 2023	May 02, 2024	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630 SE	980287	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH05-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Apr. 18, 2023	Apr. 17, 2024	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Dec. 06, 2023	Dec. 05, 2024	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH05-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH05-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE-152 47_FS	V5.11.23	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120 D	BBHA 9120D-1292	1GHz~18GHz	Jul. 31, 2023	Jul. 30, 2024	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 16, 2025	May 15, 2026	Radiation (03CH06-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 25, 2024	Nov. 24, 2025	Radiation (03CH06-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 21, 2023	Apr. 20, 2024	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE-152 47_FS	V5.11.23	2.4GHz-2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Loop Antenna	Teseq	HLA 6121	65417	9kHz - 30MHz	Oct. 17, 2024	Oct. 16, 2025	Radiation (03CH03-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH03-CB	30MHz ~ 1 GHz	Jan. 17, 2025	Jan. 16, 2026	Radiation (03CH03-CB)
Bilog Antenna with 6dB Attenuator	Schaffner & EMCI	CBL6112B& N-6-06	2888&AT-N060 5	30MHz ~ 1GHz	Jan. 17, 2025	Jan. 16, 2026	Radiation (03CH03-CB)
Amplifier	SGH	SGH301	20240606-1	30MHz ~ 1GHz	Jun. 04, 2024	Jun. 03, 2025	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jul. 11, 2024	Jul. 10, 2025	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESR7	102172	9kHz ~ 7GHz	Oct. 21, 2024	Oct. 20, 2025	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+29	30MHz ~ 1GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE-EMI	V5.11.8	30MHz-40GHz	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 04, 2024	May 03, 2025	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 03, 2025	May 02, 2026	Radiation (03CH01-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 18, 2024	Oct. 17, 2025	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 23, 2024	Sep. 22, 2025	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 17, 2024	May 16, 2025	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 16, 2025	May 15, 2026	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 25, 2024	Nov. 24, 2025	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Dec. 12, 2024	Dec. 11, 2025	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Oct. 01, 2024	Sep. 30, 2025	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE-152 47_FS	V5.11.23	2.4GHz- 2.4835GHz	N.C.R.	N.C.R.	Radiation (03CH01-CB)

Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.



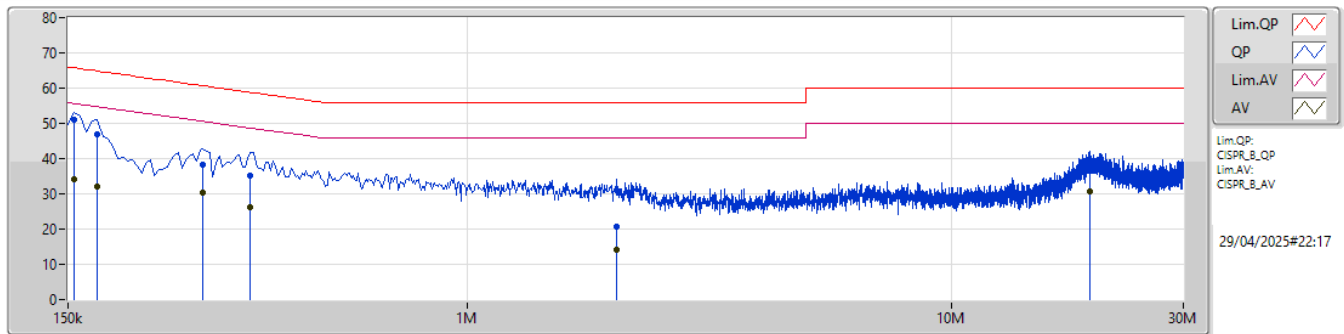
## Conducted Emissions at Powerline

## Appendix A

### Summary

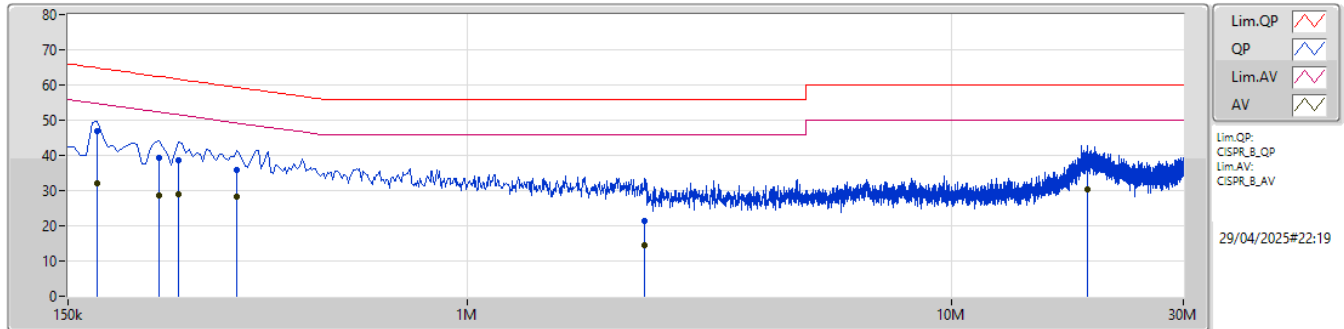
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 3	Pass	QP	154.5k	50.98	65.75	-14.77	Line

### Mode 3



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	154.5k	50.98	65.75	-14.77	10.04	Line	"Worst"	40.94	0.04	0.08	9.92						
AV	154.5k	34.01	55.75	-21.74	10.04	Line	-	23.97	0.04	0.08	9.92						
QP	172.5k	46.86	64.83	-17.97	10.04	Line	-	36.82	0.04	0.07	9.93						
AV	172.5k	32.23	54.83	-22.60	10.04	Line	-	22.19	0.04	0.07	9.93						
QP	285k	38.23	60.67	-22.44	10.14	Line	-	28.09	0.04	0.09	10.01						
AV	285k	30.21	50.67	-20.46	10.14	Line	-	20.07	0.04	0.09	10.01						
QP	357k	35.10	58.79	-23.69	10.18	Line	-	24.92	0.04	0.10	10.04						
AV	357k	26.27	48.79	-22.52	10.18	Line	-	16.09	0.04	0.10	10.04						
QP	2.031M	20.79	56.00	-35.21	10.18	Line	-	10.61	0.09	0.14	9.95						
AV	2.031M	14.03	46.00	-31.97	10.18	Line	-	3.85	0.09	0.14	9.95						
QP	19.262M	37.39	60.00	-22.61	10.57	Line	-	26.82	0.31	0.32	9.94						
AV	19.262M	30.53	50.00	-19.47	10.57	Line	-	19.96	0.31	0.32	9.94						

### Mode 3



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	172.5k	46.86	64.83	-17.97	10.04	Neutral	"Worst"	36.82	0.04	0.07	9.93						
AV	172.5k	32.24	54.83	-22.59	10.04	Neutral	-	22.20	0.04	0.07	9.93						
QP	231k	39.32	62.41	-23.09	10.09	Neutral	-	29.23	0.04	0.08	9.97						
AV	231k	28.61	52.41	-23.80	10.09	Neutral	-	18.52	0.04	0.08	9.97						
QP	253.5k	38.51	61.64	-23.13	10.11	Neutral	-	28.40	0.04	0.08	9.99						
AV	253.5k	29.01	51.64	-22.63	10.11	Neutral	-	18.90	0.04	0.08	9.99						
QP	334.5k	35.71	59.35	-23.64	10.16	Neutral	-	25.55	0.04	0.09	10.03						
AV	334.5k	28.12	49.35	-21.23	10.16	Neutral	-	17.96	0.04	0.09	10.03						
QP	2.324M	21.48	56.00	-34.52	10.15	Neutral	-	11.33	0.07	0.14	9.94						
AV	2.324M	14.56	46.00	-31.44	10.15	Neutral	-	4.41	0.07	0.14	9.94						
QP	18.987M	37.31	60.00	-22.69	10.58	Neutral	-	26.73	0.33	0.31	9.94						
AV	18.987M	30.39	50.00	-19.61	10.58	Neutral	-	19.81	0.33	0.31	9.94						



## ***Radiated Emissions below 1GHz***

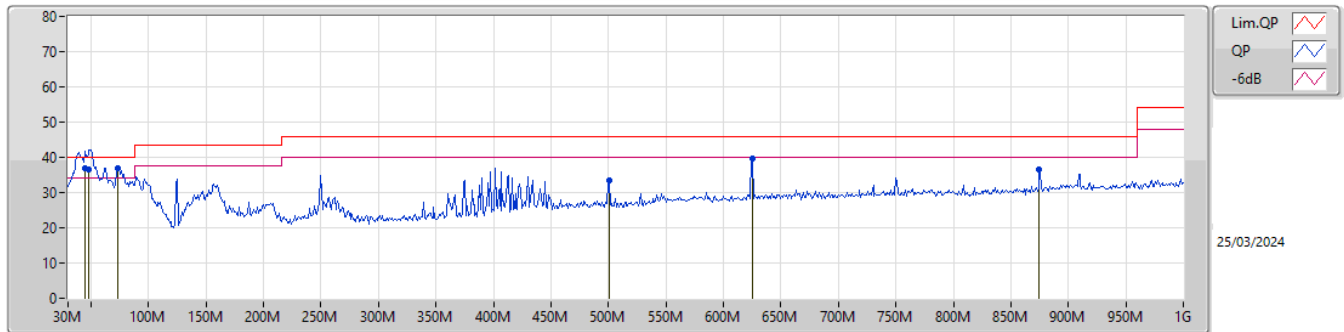
## ***Appendix B.1***

### **Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	44.55M	36.99	40.00	-3.01	Vertical

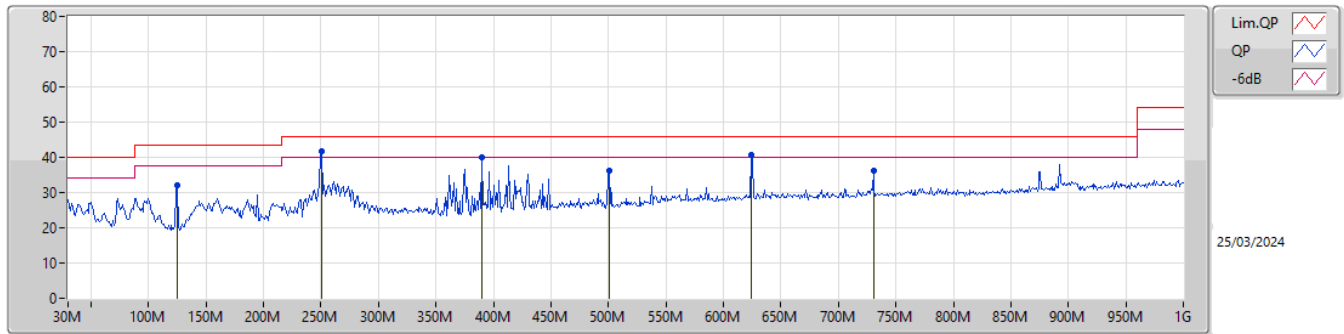


### Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
QP	44.55M	36.99	40.00	-3.01	-13.96	3	Vertical	249	1.00	"Worst"	50.95	16.63	1.22	31.81		
QP	48.43M	36.68	40.00	-3.32	-15.68	3	Vertical	161	1.00	-	52.36	14.92	1.26	31.86		
QP	73.65M	36.95	40.00	-3.05	-17.77	3	Vertical	284	1.00	-	54.72	12.64	1.52	31.93		
PK	500.45M	33.39	46.00	-12.61	-4.84	3	Vertical	38	1.25	-	38.23	23.26	4.17	32.27		
PK	625.58M	39.68	46.00	-6.32	-3.18	3	Vertical	156	1.00	-	42.86	24.64	4.72	32.54		
PK	874.87M	36.45	46.00	-9.55	-0.56	3	Vertical	346	1.50	-	37.01	26.26	5.72	32.54		

### Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)		
PK	125.06M	32.21	43.50	-11.29	-11.82	3	Horizontal	287	3.00	-	44.03	18.19	1.97	31.98		
PK	250.19M	41.62	46.00	-4.38	-10.94	3	Horizontal	202	1.25	"Worst"	52.56	18.27	2.83	32.04		
PK	389.87M	39.87	46.00	-6.13	-7.44	3	Horizontal	124	1.00	-	47.31	21.09	3.64	32.17		
PK	500.45M	36.09	46.00	-9.91	-4.84	3	Horizontal	122	2.00	-	40.93	23.26	4.17	32.27		
PK	624.61M	40.70	46.00	-5.30	-3.18	3	Horizontal	25	2.00	-	43.88	24.64	4.71	32.53		
PK	730.34M	36.24	46.00	-9.76	-2.18	3	Horizontal	68	2.00	-	38.42	25.29	5.15	32.62		



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	7.43934G	50.99	54.00	-3.01	3	Horizontal	4	2.23	-

## 2.4-2.4835GHz\_BT-LE(1Mbps)

### 2480MHz\_TX

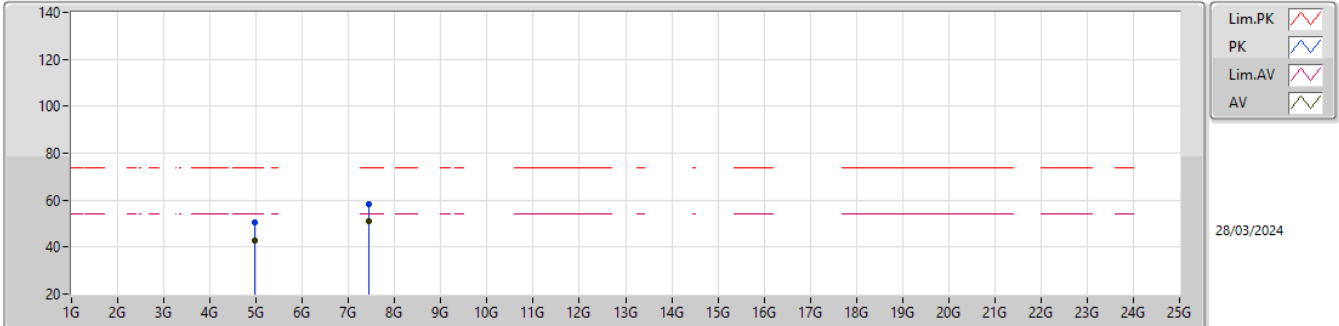


EUT\_X\_1TX  
Setting 14  
04-K-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.96021G	53.22	74.00	-20.78	47.95	3	Vertical	95	1.44	-	32.70	5.79	33.22			
AV	4.96003G	47.26	54.00	-6.74	41.99	3	Vertical	95	1.44	-	32.70	5.79	33.22			
PK	7.43964G	54.07	74.00	-19.93	43.81	3	Vertical	70	1.56	-	37.20	7.21	34.15			
AV	7.43914G	44.79	54.00	-9.21	34.53	3	Vertical	70	1.56	-	37.20	7.21	34.15			

## 2.4-2.4835GHz\_BT-LE(1Mbps)

### 2480MHz\_TX



EUT\_X\_1TX  
Setting 14  
04-K-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.96014G	50.68	74.00	-23.32	45.41	3	Horizontal	294	1.80	-	32.70	5.79	33.22			
AV	4.96002G	42.75	54.00	-11.25	37.48	3	Horizontal	294	1.80	-	32.70	5.79	33.22			
PK	7.44022G	58.23	74.00	-15.77	47.97	3	Horizontal	4	2.23	-	37.20	7.21	34.15			
AV	7.43934G	50.99	54.00	-3.01	40.73	3	Horizontal	4	2.23	-	37.20	7.21	34.15			

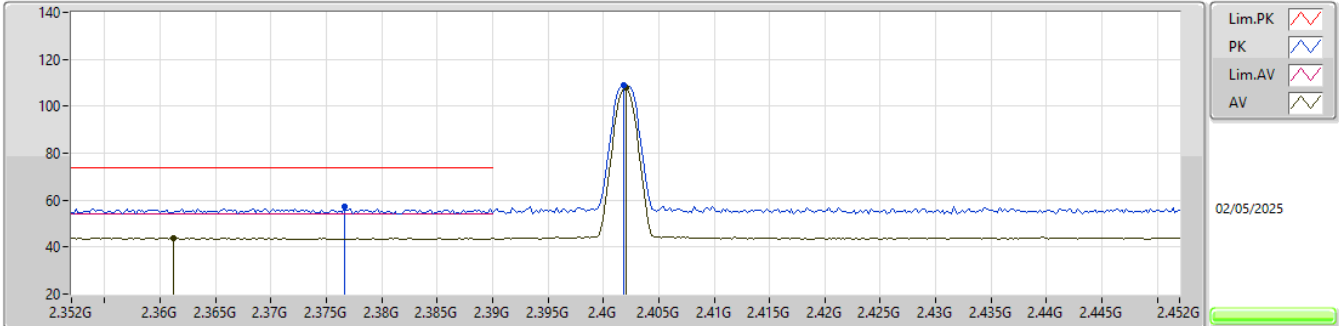


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	AV	4.8035G	50.98	54.00	-3.02	3	Horizontal	15	1.80	-

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2402MHz\_TX

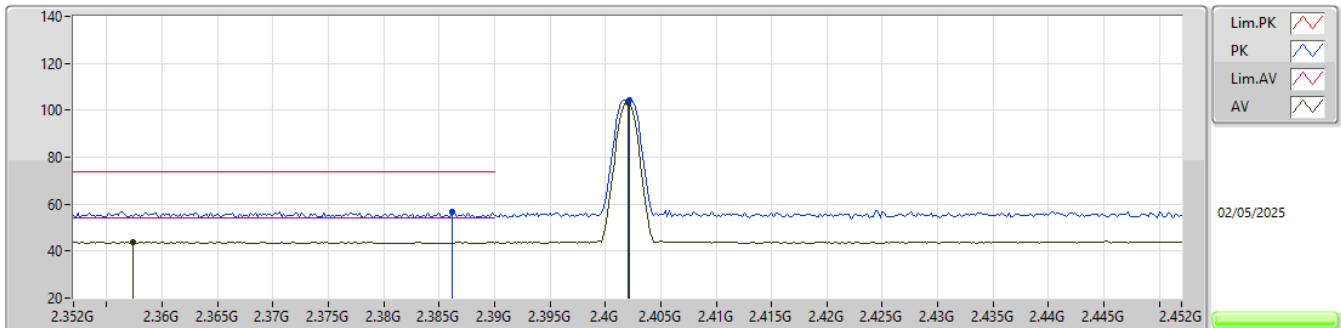


EUT\_Y\_1TX  
Setting 15  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.3766G	57.34	74.00	-16.66	26.29	3	Vertical	28	2.59	-	27.33	3.72	-				
AV	2.3612G	43.99	54.00	-10.01	12.79	3	Vertical	28	2.59	-	27.49	3.71	-				
PK	2.4018G	108.73	Inf	-Inf	77.51	3	Vertical	28	2.59	-	27.50	3.72	-				
AV	2.402G	107.72	Inf	-Inf	76.50	3	Vertical	28	2.59	-	27.50	3.72	-				

## 2.4-2.4835GHz\_BT-LE(1Mbps)

## 2402MHz\_TX



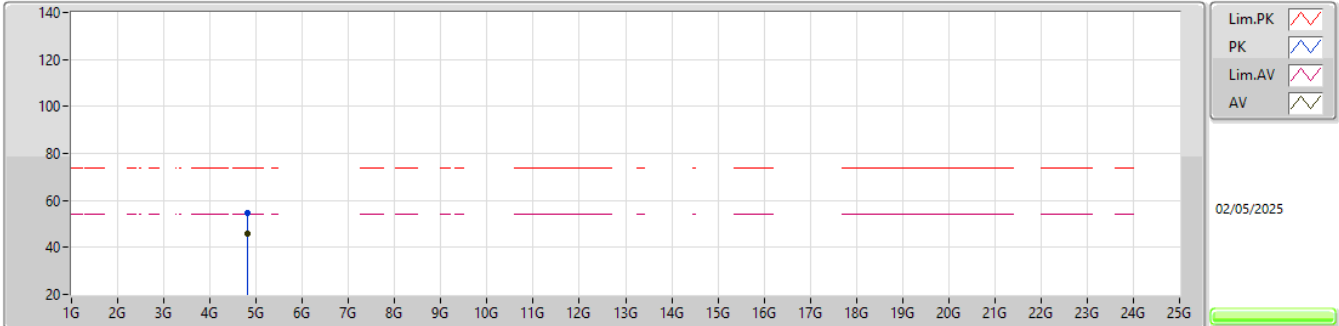
EUT\_Y\_1TX  
Setting 15  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3862G	56.77	74.00	-17.23	25.69	3	Horizontal	343	1.70	-	27.36	3.72	-			
AV	2.3574G	43.90	54.00	-10.10	12.69	3	Horizontal	343	1.70	-	27.50	3.71	-			
PK	2.4022G	104.56	Inf	-Inf	73.34	3	Horizontal	343	1.70	-	27.50	3.72	-			
AV	2.402G	103.32	Inf	-Inf	72.10	3	Horizontal	343	1.70	-	27.50	3.72	-			



### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2402MHz\_TX

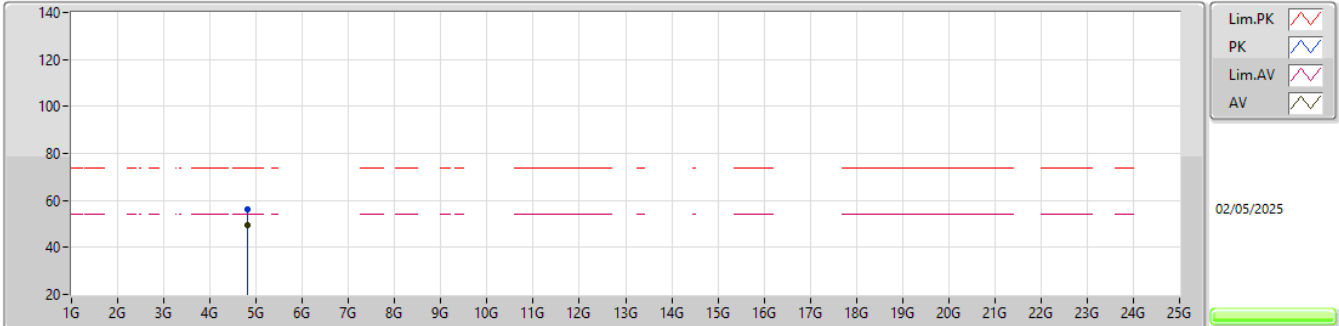


EUT\_V\_1TX  
Setting 15  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA			
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)			
PK	4.80324G	54.76	74.00	-19.24	48.42	3	Vertical	292	1.80	-	32.51	6.40	32.57			
AV	4.80404G	45.95	54.00	-8.05	39.59	3	Vertical	292	1.80	-	32.52	6.41	32.57			

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2402MHz\_TX

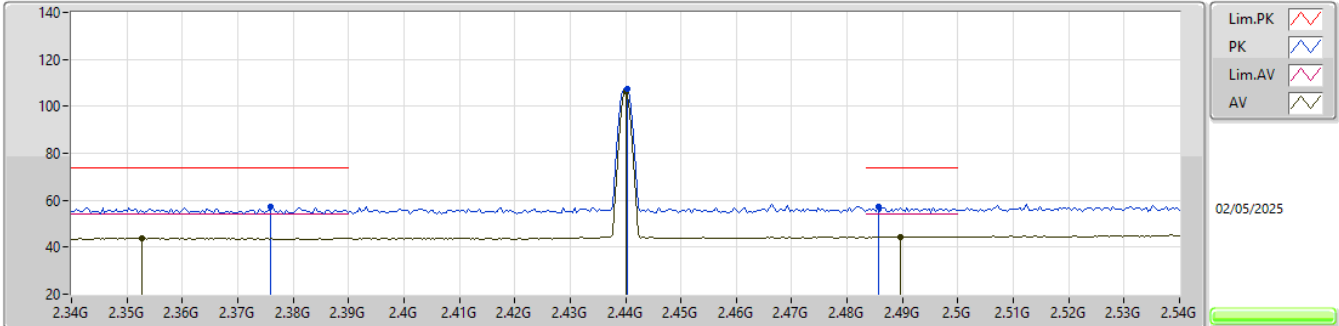


EUT\_Y\_1TX  
Setting 15  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.80386G	56.16	74.00	-17.84	49.80	3	Horizontal	20	1.80	-	32.52	6.41	32.57			
AV	4.80394G	49.29	54.00	-4.71	42.93	3	Horizontal	20	1.80	-	32.52	6.41	32.57			

## 2.4-2.4835GHz\_BT-LE(1Mbps)

### 2440MHz\_TX

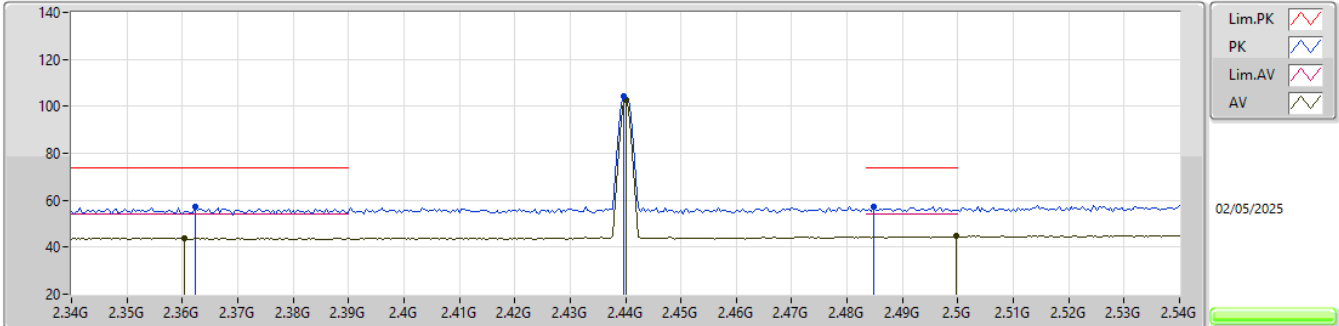


EUT\_Y\_1TX  
Setting 13.5  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.376G	57.15	74.00	-16.85	26.09	3	Vertical	29	2.79	-	27.34	3.72	-				
AV	2.3528G	43.89	54.00	-10.11	12.68	3	Vertical	29	2.79	-	27.50	3.71	-				
PK	2.4404G	107.65	Inf	-Inf	76.29	3	Vertical	29	2.79	-	27.60	3.76	-				
AV	2.44G	106.62	Inf	-Inf	75.26	3	Vertical	29	2.79	-	27.60	3.76	-				
PK	2.4856G	57.13	74.00	-16.87	25.46	3	Vertical	29	2.79	-	27.86	3.81	-				
AV	2.4896G	44.53	54.00	-9.47	12.81	3	Vertical	29	2.79	-	27.90	3.82	-				

## 2.4-2.4835GHz\_BT-LE(1Mbps)

### 2440MHz\_TX

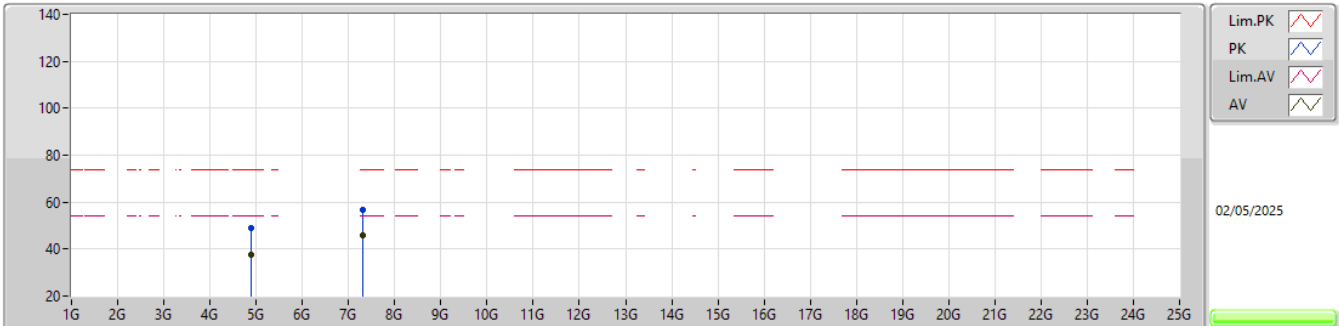


EUT\_Y\_1TX  
Setting 13.5  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.3624G	57.10	74.00	-16.90	25.91	3	Horizontal	343	1.84	-	27.48	3.71	-				
AV	2.3604G	43.86	54.00	-10.14	12.65	3	Horizontal	343	1.84	-	27.50	3.71	-				
PK	2.4396G	104.10	Inf	-Inf	72.74	3	Horizontal	343	1.84	-	27.60	3.76	-				
AV	2.44G	102.97	Inf	-Inf	71.61	3	Horizontal	343	1.84	-	27.60	3.76	-				
PK	2.4848G	57.48	74.00	-16.52	25.82	3	Horizontal	343	1.84	-	27.85	3.81	-				
AV	2.4996G	44.72	54.00	-9.28	12.89	3	Horizontal	343	1.84	-	28.00	3.83	-				

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2440MHz\_TX

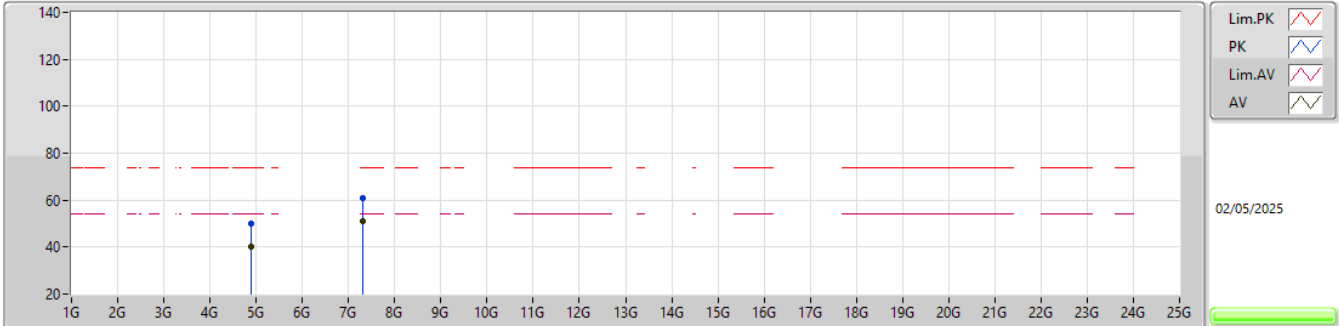


EUT\_Y\_1TX  
Setting 13.5  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.87956G	48.84	74.00	-25.16	42.09	3	Vertical	296	1.80	-	32.82	6.51	32.58			
AV	4.8801G	37.46	54.00	-16.54	30.71	3	Vertical	296	1.80	-	32.82	6.51	32.58			
PK	7.3194G	56.51	74.00	-17.49	43.62	3	Vertical	29	1.80	-	37.54	7.98	32.63			
AV	7.32054G	45.79	54.00	-8.21	32.90	3	Vertical	29	1.80	-	37.54	7.98	32.63			

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2440MHz\_TX

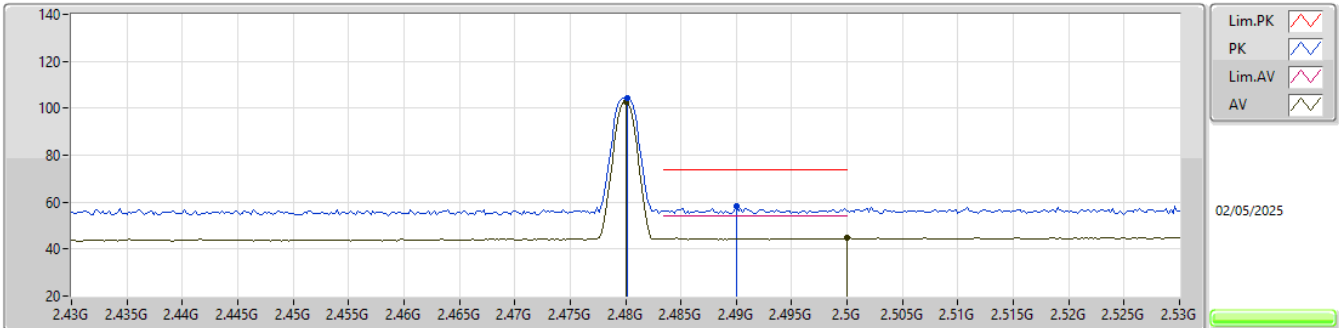


EUT\_Y\_1TX  
Setting 13.5  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.88012G	49.95	74.00	-24.05	43.20	3	Horizontal	18	1.80	-	32.82	6.51	32.58				
AV	4.88002G	40.21	54.00	-13.79	33.46	3	Horizontal	18	1.80	-	32.82	6.51	32.58				
PK	7.32084G	60.68	74.00	-13.32	47.79	3	Horizontal	19	1.80	-	37.54	7.98	32.63				
AV	7.31952G	50.82	54.00	-3.18	37.93	3	Horizontal	19	1.80	-	37.54	7.98	32.63				

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2480MHz\_TX

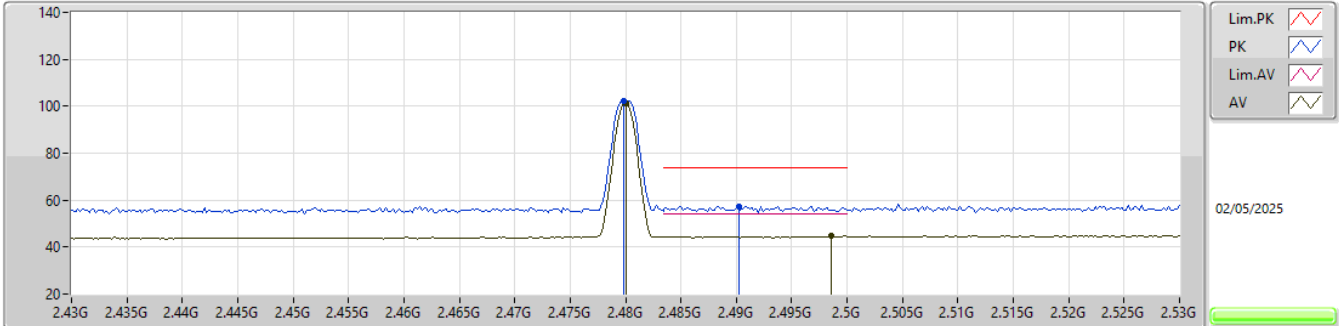


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.4802G	104.07	Inf	-Inf	72.46	3	Vertical	26	1.80	-	27.80	3.81	-				
AV	2.48G	103.01	Inf	-Inf	71.40	3	Vertical	26	1.80	-	27.80	3.81	-				
PK	2.49G	58.05	74.00	-15.95	26.33	3	Vertical	26	1.80	-	27.90	3.82	-				
AV	2.5G	44.74	54.00	-9.26	12.91	3	Vertical	26	1.80	-	28.00	3.83	-				

## 2.4-2.4835GHz\_BT-LE(1Mbps)

### 2480MHz\_TX



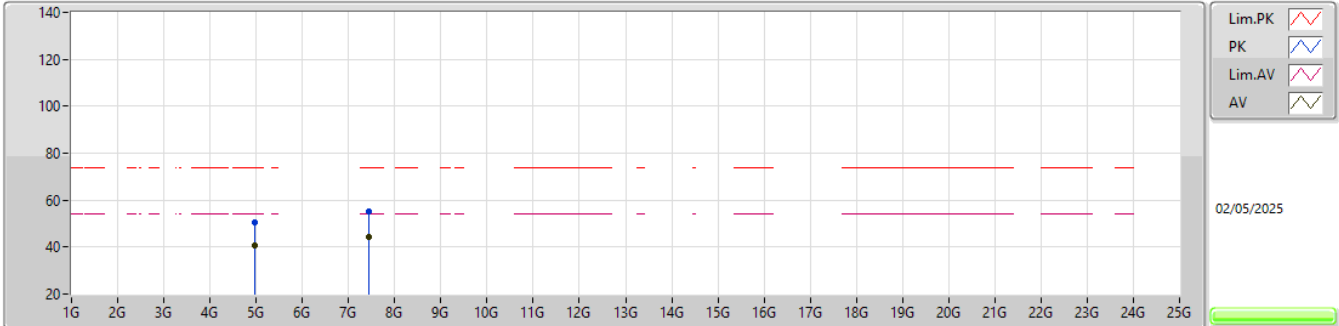
EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.4798G	102.32	Inf	-Inf	70.71	3	Horizontal	345	1.86	-	27.80	3.81	-				
AV	2.48G	101.35	Inf	-Inf	69.74	3	Horizontal	345	1.86	-	27.80	3.81	-				
PK	2.4902G	57.46	74.00	-16.54	25.74	3	Horizontal	345	1.86	-	27.90	3.82	-				
AV	2.4986G	44.58	54.00	-9.42	12.76	3	Horizontal	345	1.86	-	27.99	3.83	-				



### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2480MHz\_TX

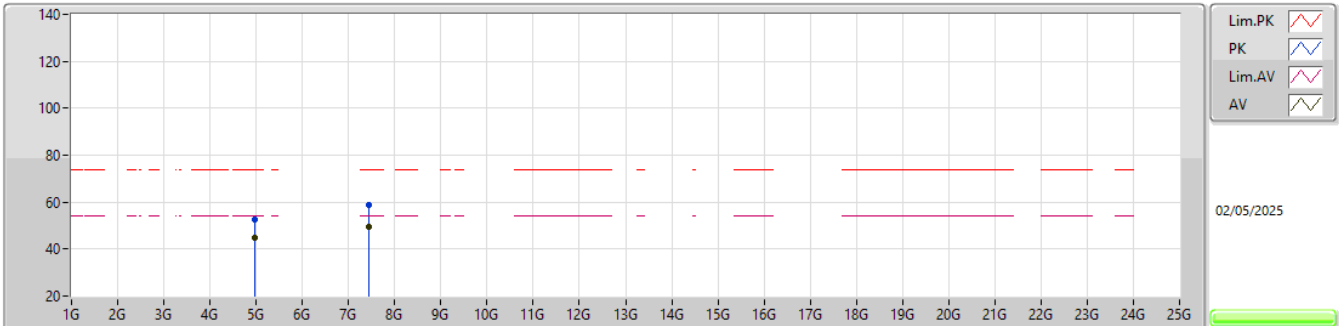


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.96036G	50.54	74.00	-23.46	43.52	3	Vertical	335	1.80	-	32.98	6.62	32.58				
AV	4.95998G	40.65	54.00	-13.35	33.63	3	Vertical	335	1.80	-	32.98	6.62	32.58				
PK	7.44014G	55.28	74.00	-18.72	42.28	3	Vertical	43	1.80	-	37.52	8.06	32.58				
AV	7.44G	44.16	54.00	-9.84	31.16	3	Vertical	43	1.80	-	37.52	8.06	32.58				

### 2.4-2.4835GHz\_BT-LE(1Mbps)

#### 2480MHz\_TX

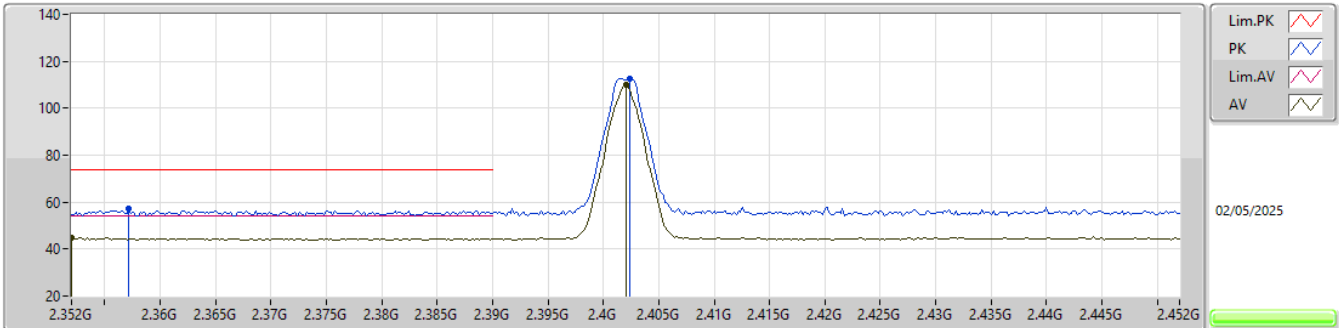


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.96014G	52.81	74.00	-21.19	45.79	3	Horizontal	204	2.56	-	32.98	6.62	32.58			
AV	4.96G	45.06	54.00	-8.94	38.04	3	Horizontal	204	2.56	-	32.98	6.62	32.58			
PK	7.43924G	58.96	74.00	-15.04	45.97	3	Horizontal	18	2.98	-	37.52	8.05	32.58			
AV	7.43972G	49.34	54.00	-4.66	36.34	3	Horizontal	18	2.98	-	37.52	8.06	32.58			

## 2.4-2.4835GHz\_BT-LE(2Mbps)

### 2402MHz\_TX

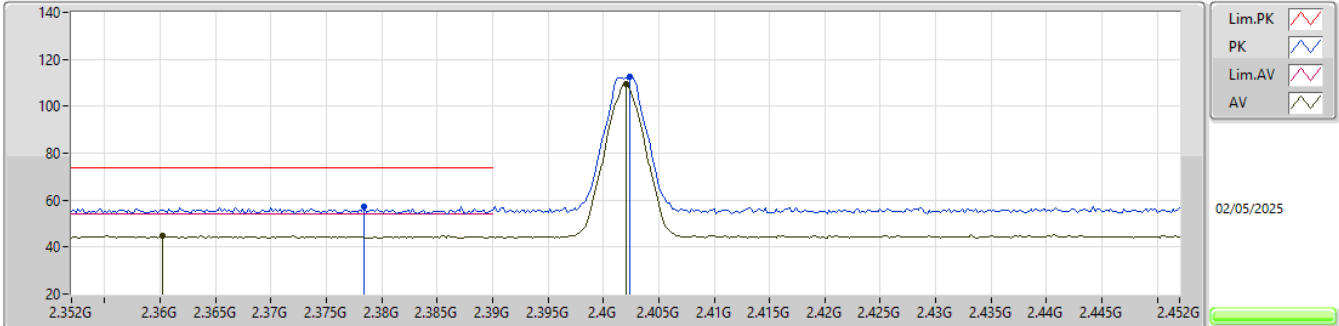


EUT\_Y\_1TX  
Setting 18  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.3572G	57.39	74.00	-16.61	26.18	3	Vertical	32	2.58	-	27.50	3.71	-				
AV	2.352G	44.76	54.00	-9.24	13.55	3	Vertical	32	2.58	-	27.50	3.71	-				
PK	2.4024G	112.57	Inf	-Inf	81.35	3	Vertical	32	2.58	-	27.50	3.72	-				
AV	2.402G	109.88	Inf	-Inf	78.66	3	Vertical	32	2.58	-	27.50	3.72	-				

## 2.4-2.4835GHz\_BT-LE(2Mbps)

### 2402MHz\_TX

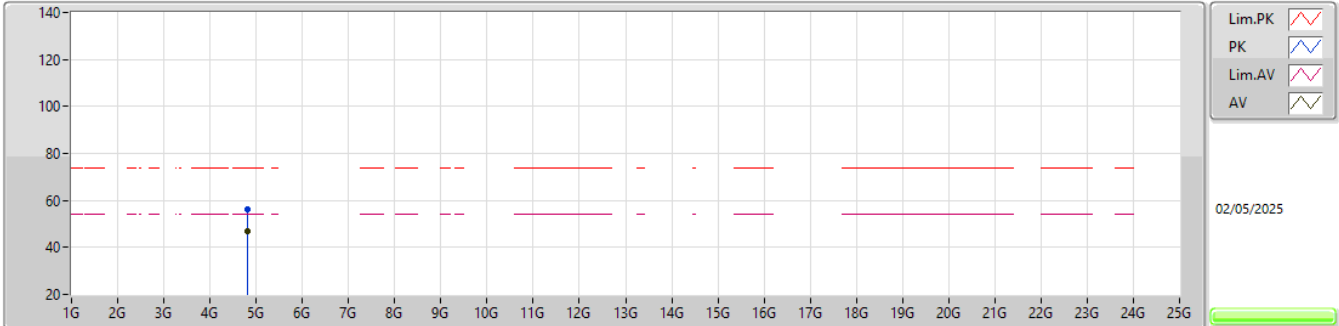


EUT\_Y\_1TX  
Setting 18  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.3784G	57.22	74.00	-16.78	26.18	3	Horizontal	106	2.94	-	27.32	3.72	-				
AV	2.3602G	44.83	54.00	-9.17	13.62	3	Horizontal	106	2.94	-	27.50	3.71	-				
PK	2.4024G	112.36	Inf	-Inf	81.14	3	Horizontal	106	2.94	-	27.50	3.72	-				
AV	2.402G	109.68	Inf	-Inf	78.46	3	Horizontal	106	2.94	-	27.50	3.72	-				

2.4-2.4835GHz\_BT-LE(2Mbps)

2402MHz\_TX

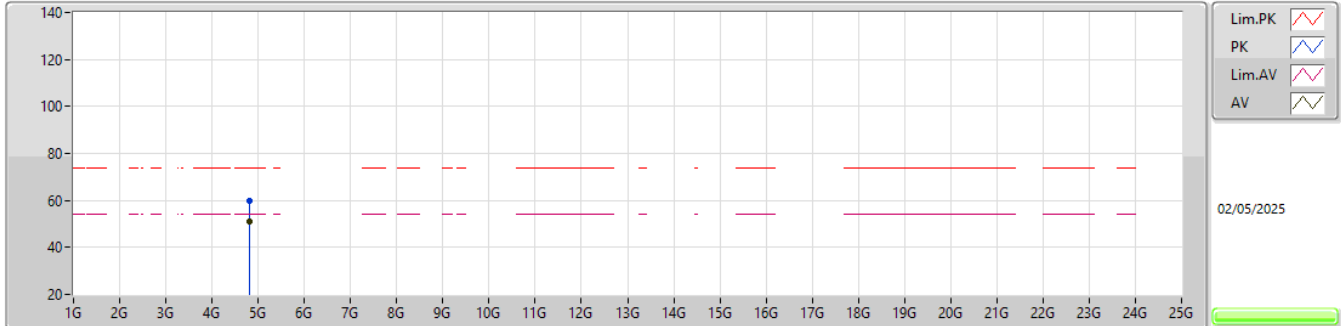


EUT\_V\_1TX  
Setting 18  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.80496G	55.96	74.00	-18.04	49.60	3	Vertical	291	1.80	-	32.52	6.41	32.57			
AV	4.80444G	46.73	54.00	-7.27	40.37	3	Vertical	291	1.80	-	32.52	6.41	32.57			

2.4-2.4835GHz\_BT-LE(2Mbps)

2402MHz\_TX

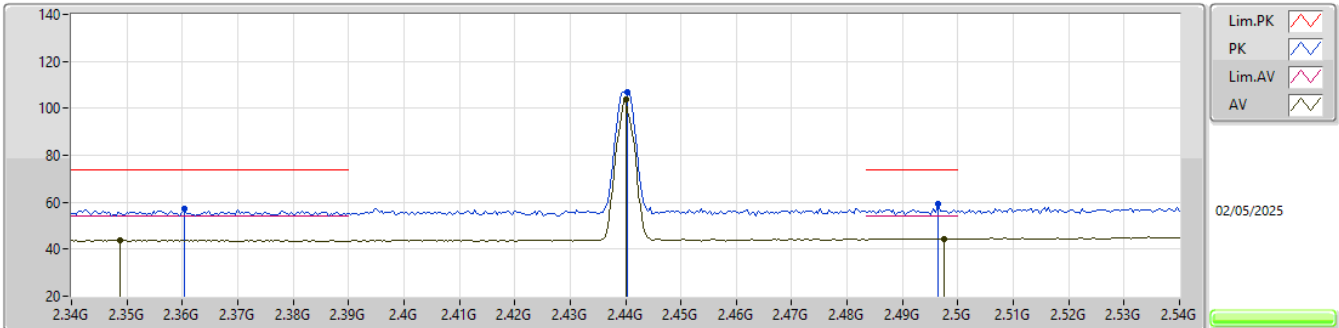


EUT\_V\_1TX  
Setting 18  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.80304G	60.02	74.00	-13.98	53.68	3	Horizontal	15	1.80	-	32.51	6.40	32.57			
AV	4.8035G	50.98	54.00	-3.02	44.64	3	Horizontal	15	1.80	-	32.51	6.40	32.57			

## 2.4-2.4835GHz\_BT-LE(2Mbps)

## 2440MHz\_TX

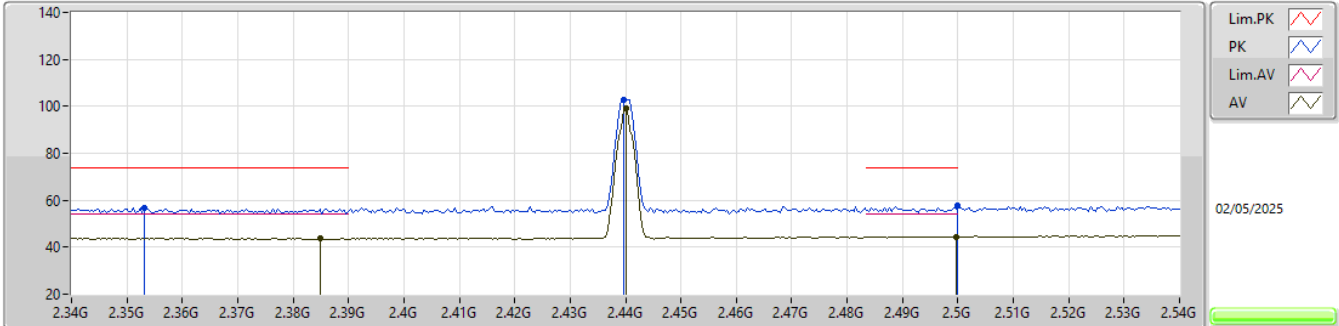


EUT\_Y\_1TX  
Setting 12  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	2.3604G	57.24	74.00	-16.76	26.03	3	Vertical	26	2.80	-	27.50	3.71	-			
AV	2.3488G	43.95	54.00	-10.05	12.75	3	Vertical	26	2.80	-	27.49	3.71	-			
PK	2.4404G	106.82	Inf	-Inf	75.46	3	Vertical	26	2.80	-	27.60	3.76	-			
AV	2.44G	103.92	Inf	-Inf	72.56	3	Vertical	26	2.80	-	27.60	3.76	-			
PK	2.4964G	59.33	74.00	-14.67	27.54	3	Vertical	26	2.80	-	27.96	3.83	-			
AV	2.4976G	44.56	54.00	-9.44	12.75	3	Vertical	26	2.80	-	27.98	3.83	-			

## 2.4-2.4835GHz\_BT-LE(2Mbps)

## 2440MHz\_TX



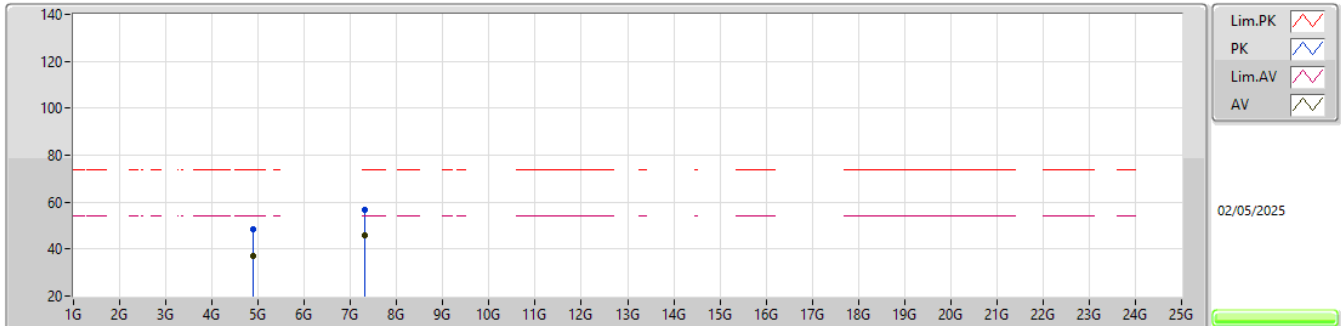
EUT\_Y\_1TX  
Setting 12  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.3532G	56.67	74.00	-17.33	25.46	3	Horizontal	342	1.87	-	27.50	3.71	-				
AV	2.3848G	43.97	54.00	-10.03	12.90	3	Horizontal	342	1.87	-	27.35	3.72	-				
PK	2.4396G	102.92	Inf	-Inf	71.56	3	Horizontal	342	1.87	-	27.60	3.76	-				
AV	2.44G	99.39	Inf	-Inf	68.03	3	Horizontal	342	1.87	-	27.60	3.76	-				
PK	2.5G	57.51	74.00	-16.49	25.68	3	Horizontal	342	1.87	-	28.00	3.83	-				
AV	2.4996G	44.56	54.00	-9.44	12.73	3	Horizontal	342	1.87	-	28.00	3.83	-				



### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2440MHz\_TX

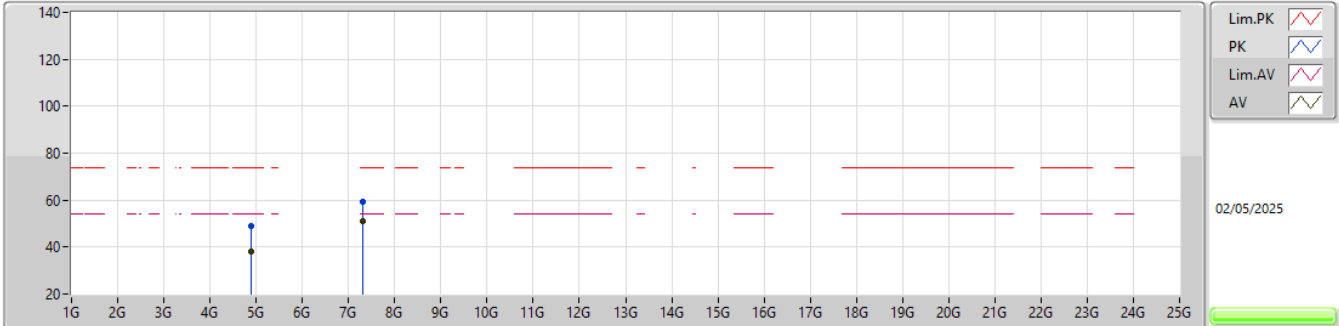


EUT\_Y\_1TX  
Setting 12  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.88078G	48.57	74.00	-25.43	41.82	3	Vertical	293	1.80	-	32.82	6.51	32.58				
AV	4.87976G	37.10	54.00	-16.90	30.35	3	Vertical	293	1.80	-	32.82	6.51	32.58				
PK	7.32128G	56.84	74.00	-17.16	43.95	3	Vertical	300	1.80	-	37.54	7.98	32.63				
AV	7.31876G	46.03	54.00	-7.97	33.14	3	Vertical	300	1.80	-	37.54	7.98	32.63				

### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2440MHz\_TX

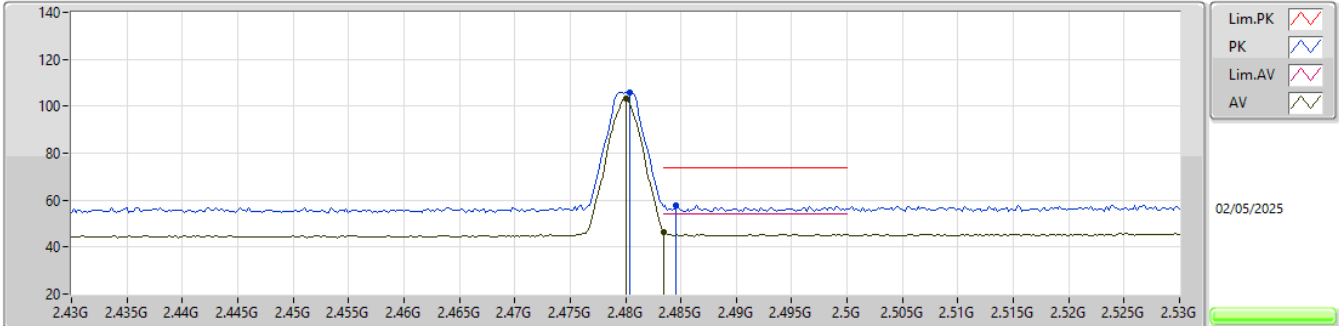


EUT\_Y\_1TX  
Setting 12  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)			
PK	4.87932G	48.80	74.00	-25.20	42.05	3	Horizontal	183	1.80	-	32.82	6.51	32.58			
AV	4.87996G	38.26	54.00	-15.74	31.51	3	Horizontal	183	1.80	-	32.82	6.51	32.58			
PK	7.31846G	59.56	74.00	-14.44	46.67	3	Horizontal	16	3.00	-	37.54	7.98	32.63			
AV	7.31882G	50.80	54.00	-3.20	37.91	3	Horizontal	16	3.00	-	37.54	7.98	32.63			

### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2480MHz\_TX

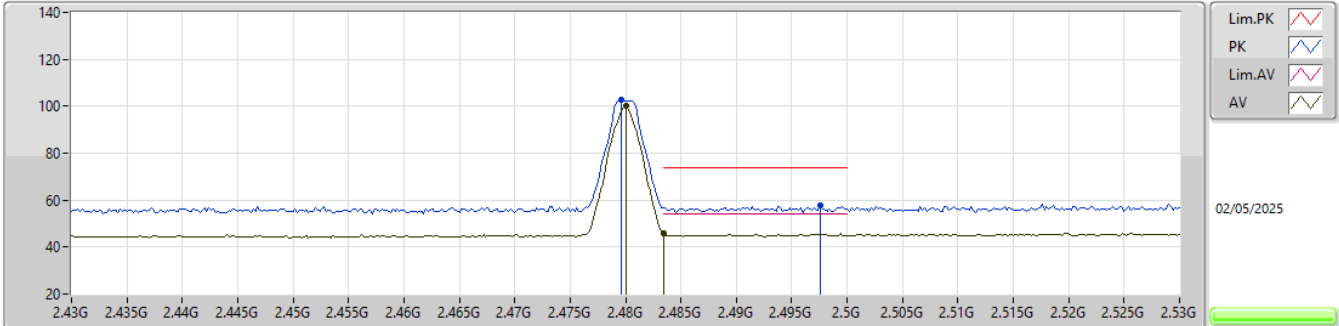


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	2.4804G	106.07	Inf	-Inf	74.46	3	Vertical	34	2.75	-	27.80	3.81	-				
AV	2.48G	103.41	Inf	-Inf	71.80	3	Vertical	34	2.75	-	27.80	3.81	-				
PK	2.4846G	57.92	74.00	-16.08	26.26	3	Vertical	34	2.75	-	27.85	3.81	-				
AV	2.4835G	46.33	54.00	-7.67	14.68	3	Vertical	34	2.75	-	27.84	3.81	-				

### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2480MHz\_TX

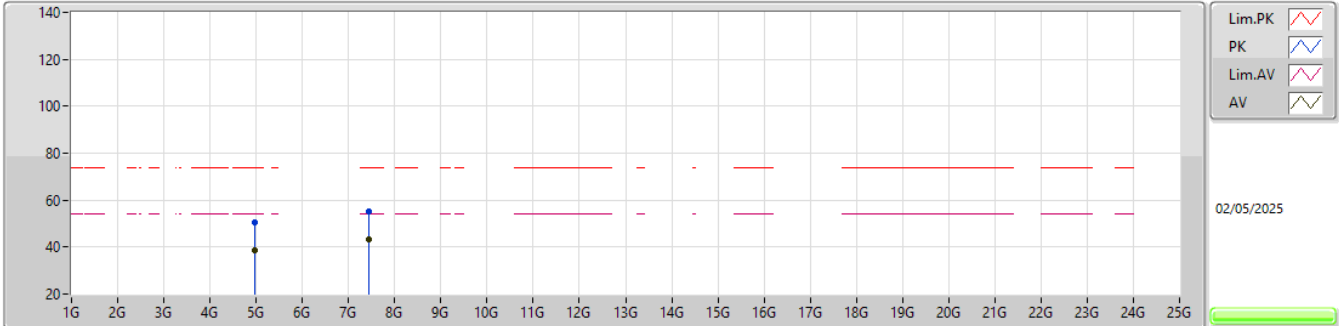


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)				
PK	2.4796G	102.58	Inf	-Inf	70.97	3	Horizontal	340	1.84	-	27.80	3.81	-				
AV	2.48G	99.92	Inf	-Inf	68.31	3	Horizontal	340	1.84	-	27.80	3.81	-				
PK	2.4976G	57.56	74.00	-16.44	25.75	3	Horizontal	340	1.84	-	27.98	3.83	-				
AV	2.4835G	45.75	54.00	-8.25	14.10	3	Horizontal	340	1.84	-	27.84	3.81	-				

### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2480MHz\_TX

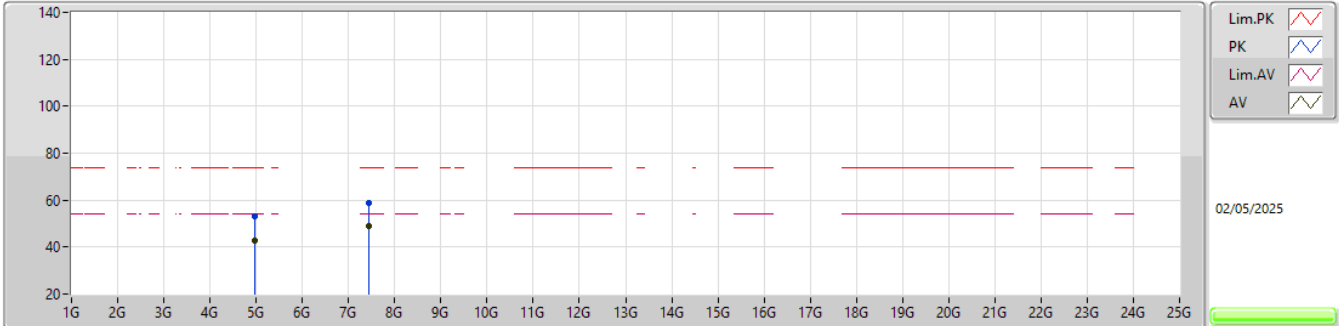


EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.95884G	50.44	74.00	-23.56	43.43	3	Vertical	0	1.80	-	32.98	6.61	32.58				
AV	4.96082G	38.74	54.00	-15.26	31.72	3	Vertical	0	1.80	-	32.98	6.62	32.58				
PK	7.43838G	55.36	74.00	-18.64	42.37	3	Vertical	29	1.80	-	37.52	8.05	32.58				
AV	7.44116G	43.24	54.00	-10.76	30.24	3	Vertical	29	1.80	-	37.52	8.06	32.58				

### 2.4-2.4835GHz\_BT-LE(2Mbps)

#### 2480MHz\_TX



EUT\_Y\_1TX  
Setting 10  
01-U-S-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)				
PK	4.9608G	52.85	74.00	-21.15	45.83	3	Horizontal	197	2.90	-	32.98	6.62	32.58				
AV	4.95896G	42.95	54.00	-11.05	35.94	3	Horizontal	197	2.90	-	32.98	6.61	32.58				
PK	7.43846G	58.63	74.00	-15.37	45.64	3	Horizontal	356	2.58	-	37.52	8.05	32.58				
AV	7.43986G	48.89	54.00	-5.11	35.89	3	Horizontal	356	2.58	-	37.52	8.06	32.58				