CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 ISSUE 3 (U-NII)

TEST REPORT

For

Vest Personnel Terminal, Vest Clothing Personnel

MODEL NUMBER: VPTA1H

FCC ID: 2BBEG-VPTA1H

IC: 31079-VPTA1H

REPORT NUMBER: E04A23080794F00304

ISSUE DATE: May 11, 2024

Prepared for

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Prepared by

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This report is based on a single evaluation of the submitted sample(s) of the above mentioned Product, it does not imply an assessment of the production of the products.
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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	May 11, 2024	Initial Issue	

Summary of Test Results			
Test Item	**Clause**	**Limit/Requirement**	**Result**
ON TIME AND DUTY CYCLE	ANSI C63.10-2013, Clause 12.2	None; for reporting purposes only.	Note 1
6dB AND 26dB EMISSION BANDWIDTH AND 99% OCCUPIED BANDWIDTH	KDB 789033 D02 v02r01 Section C.1	FCC Part 15.407 (a)(2)(5), RSS-247 Issue 2, Clause 6.2.1.2 RSS-Gen Clause 6.6	Note 1
CONDUCTED OUTPUT POWER	KDB 789033 D02 v02r01 Section E.3.a (Method PM)	FCC 15.407 (a) RSS-247 Clause 6.2	Note 1
POWER SPECTRAL DENSITY	KDB 789033 D02 v02r01 Section F	FCC 15.407 (a) RSS-247 Clause 6.2	Note 1
AC Power Line Conducted Emission	ANSI C63.10-2013, Clause 6.2.	FCC 15.207 RSS-GEN Clause 8.8	N/A
Radiated Emissions and Band Edge Measurement	KDB 789033 D02 v02r01 Section G.3, G.4, G.5, and G.6	FCC 15.407 (b) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	Pass
FREQUENCY STABILITY		FCC 15.407 (g)	Note 1
Dynamic Frequency Selection (Slave)	KDB 905462 D03 Client Without DFS New Rules v01r02	FCC Part 15.407 (h), RSS-247 Issue 2 Clause6.3	Note 1
Dynamic Frequency Selection (Master)	KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02	FCC Part 15.407 (h), RSS-247 Issue 2 Clause6.3	N/A
Antenna Requirement	N/A	FCC 47 CFR Part 15.203/ 15.407(a)(1) (2), RSS-Gen Issue 5, Clause 6.8	Note 1

Note:
1. Please refer to the report: **RLK200203002-00E, FCC ID: XF6-M7DB7 Granted date: 07/27/2020**; **IC: 8407A-M7DB7, Granted date: 07/30/2020.**
2. N/A: In this whole report not applicable.

*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART E
ISED RSS-247 ISSUE 3 (U-NII)> when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	HAI ROBOTICS Co., Ltd.
Address:	Room 201,301,401,Building B,Anluo Technology Industrial Park,Nanchang Community,Xixiang Street,Bao'an District, Shenzhen City,Guangdong Province, P.R. China

Manufacturer Information

Company Name:	HAI ROBOTICS Co., Ltd.
Address:	Room 201,301,401,Building B,Anluo Technology Industrial Park,Nanchang Community,Xixiang Street,Bao'an District, Shenzhen City,Guangdong Province, P.R. China

EUT Information

EUT Name:	Vest Personnel Terminal, Vest Clothing Personnel
Model:	VPTA1H
Serial Model:	VCPA01H
Brand:	N/A
Sample Received Date:	Aug. 25, 2023
Sample Status:	Normal
Sample ID:	A23080794 004
Date of Tested:	Aug. 25, 2023 to May 11, 2024

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART E **ISED RSS-247 ISSUE 3 (U-NII)**	**Pass**

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART E ISED RSS-247 ISSUE 3 (U-NII)

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 6947.01)** Guangdong Global Testing Technology Co., Ltd. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1343)** Guangdong Global Testing Technology Co., Ltd. has been recognized to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification rules **ISED (Company No.: 30714)** Guangdong Global Testing Technology Co., Ltd. has been registered and fully described in a report filed with ISED. The Company Number is 30714 and the test lab Conformity Assessment Body Identifier (CABID) is CN0148.

Note: All tests measurement facilities use to collect the measurement data are located at Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People’s Republic of China, 523808

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Items	k	Uncertainty
Emission Bandwidth	1.96	±9.0 PPM
Conduct Output Power	1.96	± 1.12 dB
Power Spectral Density	1.96	± 2.1 dB
Conducted Spurious Emission	1.96	9 kHz-30 MHz: ± 0.95 dB 30 MHz-1 GHz: ± 1.5 dB 1GHz-12.75GHz: ± 1.8 dB 12.75 GHz-26.5 GHz: ± 2.1dB 26.5 GHz-40 GHz: ± 2.6 dB
Frequency Stability	1.96	±9.0 PPM
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.		

Test Item	Frequency Range	k	U(dB)
Conducted emissions from the AC mains power ports (AMN)	150 kHz ~ 30 MHz	2	3.37
Radiated emissions	9 kHz ~ 30 MHz	2	4.16
Radiated emissions	30 MHz ~ 1 GHz	2	3.79
Radiated emissions	1 GHz ~ 18 GHz	2	5.62
Radiated emissions	18 GHz ~ 40 GHz	2	5.54
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name		Vest Personnel Terminal, Vest Clothing Personnel
Model		VPTA1H
Series Model		VCPA01H
Product Discrepancy:		VCPA01H consists of two VPTA1H. The two VPTA1H are connected through communication cables.
Hardware Version		SVF4A_PTM1_C230628(PTM-H-A)
Software Version		V2.0
Ratings		4W
Power Supply	DC	14.40V
	Battery	DC 14.40V 3450mAh 49.68Wh

Frequency Band:	5150 MHz to 5250 MHz (U-NII-1) 5250 MHz to 5350 MHz (U-NII-2A) 5470 MHz to 5725 MHz (U-NII-2C) 5 725 MHz to 5 850 MHz (U-NII-3)
Frequency Range:	5180 MHz to 5240 MHz 5260 MHz to 5320 MHz 5500 MHz to 5700 MHz(5600MHz to 5650MHz Not used in Canada) 5745 MHz to 5 825 MHz
Support Standards:	IEEE 802.11a/n
TPC Function:	Not Support
DFS Operational mode:	Slave without radar Interference detection function
Type of Modulation:	IEEE 802.11a: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM(64QAM, 16QAM, QPSK, BPSK)
Channel Spacing:	IEEE 802.11a/n-HT20: 20 MHz IEEE 802.11n-HT40: 40 MHz
Data Rate:	IEEE 802.11a: Up to 54Mbps IEEE 802.11n-HT20: Up to MCS 7 IEEE 802.11n-HT40: Up to MCS 7
Number of Channels:	5150 MHz to 5250 MHz: 4 for IEEE 802.11a/n-HT20 2 for IEEE 802.11n-HT40) 5250 MHz to 5350 MHz: 4 for IEEE 802.11a/n-HT20 2 for IEEE 802.11n-HT40) 5470 MHz to 5725 MHz: 11 for IEEE 802.11a/n-HT20 5 for IEEE 802.11n-HT40 5725 MHz to 5850 MHz: 5 for IEEE 802.11a/n-HT20 2 for IEEE 802.11n-HT40
Maximum conducted output power:	For UNII-1: IEEE 802.11a:12.78 dBm (0.0190 W) IEEE 802.11n HT20: 13.61 dBm (0.0230 W) IEEE 802.11n HT40: 9.59 dBm (0.0091 W)

	For UNII-2a: IEEE 802.11a: 12.31 dBm (0.0170 W) IEEE 802.11n HT20: 12.55 dBm (0.0180 W) IEEE 802.11n HT40: 9.53 dBm(0.0090 W) For UNII-2c: IEEE 802.11a: 13.18 dBm (0.0208 W) IEEE 802.11n HT20: 13.14 dBm(0.0206 W) IEEE 802.11n HT40: 10.75 dBm (0.0119 W) For UNII-3: IEEE 802.11a:13.98 dBm (0.0250 W) IEEE 802.11n HT20: 14.18 dBm (0.0262 W) IEEE 802.11n HT40: 11.82 dBm (0.0152 W)
Antenna Type:	PCB Antenna
Antenna Gain:	1.25dBi
Directional Gain:	N/A
Normal Test Voltage:	3.3 Vdc
EUT Test software:	FCC_PER_TEST_GUI.py

5.2. CHANNEL LIST

UNII-1 (For Bandwidth=20MHz)		UNII-1 (For Bandwidth=40MHz)		UNII-1 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190		
40	5200	46	5230		
44	5220				
48	5240				

UNII-2A (For Bandwidth=20MHz)		UNII-2A (For Bandwidth=40MHz)		UNII-2A (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	54	5270		
56	5280	62	5310		
60	5300				
64	5320				

UNII-2C (For Bandwidth=20MHz)		UNII-2C (For Bandwidth=40MHz)		UNII-2C (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510		
104	5520	110	5550		
108	5540	118	5590		
112	5560	126	5610		
116	5580	134	5670		
120	5600				
124	5620				
128	5640				

132	5660				
136	5680				
140	5700				

UNII-3 (For Bandwidth=20MHz)		UNII-3 (For Bandwidth=40MHz)		UNII-3 (For Bandwidth=80MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755		
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

5.3. MAXIMUM AVERAGE EIRP

UNII-1 BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)	Max Average EIRP (dBm)
a	5150 ~ 5250	12.78	14.03
n HT20		13.61	14.86
n HT40		9.59	10.84

UNII-2A BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)	Max Average EIRP (dBm)
a	5250 ~ 5350	12.31	13.56
n HT20		12.55	13.80
n HT40		9.53	10.78

UNII-2C BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)	Max Average EIRP (dBm)
a	5470 ~ 5725	13.18	14.43
n HT20		13.14	14.39
n HT40		10.75	12.00

UNII-3 BAND(FCC&ISED)

IEEE Std. 802.11	Frequency (MHz)	Maximum Average Conducted Power (dBm)	Max Average EIRP (dBm)
a	5725 ~ 5850	13.98	15.23

n HT20		14.18	15.43
n HT40		11.82	13.07

5.4. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter	
Test Software	FCC_PER_TEST_GUI.py

UNII-1

Mode	Rate	Channel	Soft set value
			ANT 1
11a	6M	36	22
		40	22
		48	22
11n HT20	MCS0	36	22
		40	22
		48	22
11n HT40	MCS0	38	7
		46	22

UNII-2A

Mode	Rate	Channel	Soft set value
			ANT 1
11a	6M	52	22
		56	22
		64	22
11n HT20	MCS0	52	22
		56	22
		64	22
11n HT40	MCS0	54	22
		62	8

UNII-2C

Mode	Rate	Channel	Soft set value
			ANT 1
11a	6M	100	22
		116	22
		140	7
11n HT20	MCS0	100	22
		116	22
		140	6
11n HT40	MCS0	102	10
		118	22
		134	10

UNII-3

Mode	Rate	Channel	Soft set value
			ANT1
11a	6M	149	22

		157	22
		165	22
11n HT20	MCS0	149	22
		157	22
		165	22
11n HT40	MCS0	151	22
		159	22

THE WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.4.

Maximum power setting referring to section 5.6.

Worst case Data Rates declared by the customer:

802.11a mode: 6 Mbps
802.11n HT20 mode: MCS0
802.11n HT40 mode: MCS0

5.5. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna No.	Frequency Band	Antenna Type	Max Antenna Gain (dBi)
1	5150-5850	External Antenna	1.25

IEE Std. 802.11	Transmit and Receive Mode	Description
802.11a	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11n HT20	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
802.11n HT40	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
Note:		

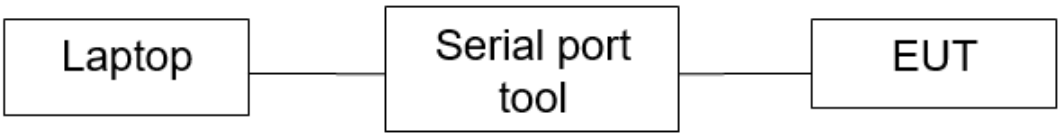
5.6. SUPPORT UNITS FOR SYSTEM TEST

The EUT has been tested as an independent unit

Equipment	**Manufacturer**	**Model No.**
Test board	HAI ROBOTICS	VPTA1H
PC	Lenovo	T14
Serial port tool	N/A	NOOPLOOP NUTT-B V10

5.7. SETUP DIAGRAM

Radiated emissions:


Laptop
Serial port tool
EUT

6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Radiated emissions below 1GHz					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Due Date**
3m Semi-anechoic Chamber	ETS	9m*6m*6m	Q2146	2022/08/30	2025/08/29
EMI Test Receiver	Rohde & Schwarz	ESCI3	101409	2023/09/18	2024/09/17
Spectrum Analyzer	KEYSIGHT	N9020A	MY51283932	2023/09/18	2024/09/17
Pre-Amplifier	HzEMC	HPA-9K0130	HYPA21001	2023/09/18	2024/09/17
Biconilog Antenna	Schwarzbeck	VULB 9168	01315	2022/10/10	2025/10/09
Biconilog Antenna	ETS	3142E	00243646	2022/03/23	2025/03/22
Loop Antenna	ETS	6502	243668	2022/03/30	2025/03/29
Test Software	Farad	EZ-EMC (Ver.FA-03A2 RE)	N/A	N/A	N/A

Test Equipment of Radiated emissions above 1GHz					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Due Date**
3m Semi-anechoic Chamber	ETS	9m*6m*6m	Q2149	2022/08/30	2025/08/29
Spectrum Analyzer	Rohde & Schwarz	FSV40	101413	2023/09/18	2024/09/17
Spectrum Analyzer	KEYSIGHT	N9020A	MY51283932	2023/09/18	2024/09/17
Pre-Amplifier	A-INFO	HPA-1G1850	HYPA21003	2023/09/18	2024/09/17
Horn antenna	A-INFO	3117	246069	2022/03/11	2025/03/10
Pre-Amplifier	ZKJC	HPA-184057	HYPA21004	2023/09/18	2024/09/17
Horn antenna	ZKJC	3116C	246265	2022/03/29	2025/03/28
Test Software	Farad	EZ-EMC (Ver.FA-03A2 RE+)	N/A	N/A	N/A

7. RADIATED TEST RESULTS

LIMITS

Refer to CFR 47 FCC §15.205, §15.209 and §15.407 (b).

Refer to ISED RSS-GEN Clause 8.9, Clause 8.10 and ISED RSS-247 6.2.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

ISED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz

Frequency	Magnetic field strength (H-Field) (µA/m)	Measurement distance (m)
9 - 490 kHz[Note 1]	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands refer to ISED RSS-GEN Clause 8.10

Table 7 – Restricted frequency bands[Note 1]		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

Limits of unwanted/undesirable emission out of the restricted bands refer to CFR 47 FCC §15.407 (b) and ISED RSS-247 6.2.

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz)

Frequency Range (MHz)	EIRP Limit	Field Strength Limit (dBuV/m) at 3 m
5150~5250 MHz	PK: -27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz		
5470~5725 MHz		
5725~5850 MHz	PK: -27 (dBm/MHz) *1 PK: 10 (dBm/MHz) *2 PK: 15.6 (dBm/MHz) *3 PK: 27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK: 105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK: 122.2 (dBμV/m) *4
Note: *1 beyond 75 MHz or more above of the band edge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

TEST PROCEDURE

Below 30 MHz

The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω. For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1 GHz

The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.G.3 ~ II.G.6.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

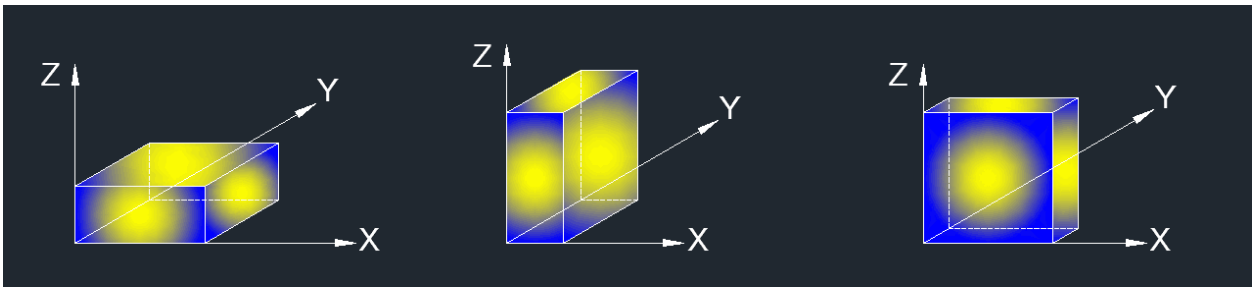
3. The EUT was placed on a turntable with 1.5 m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

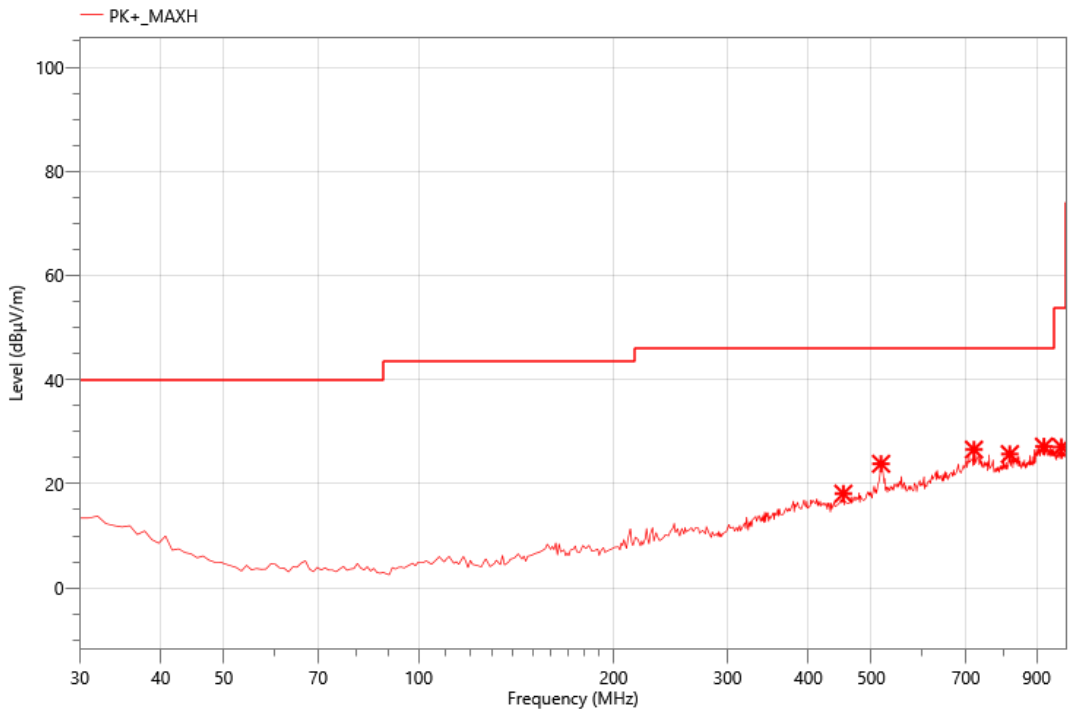
Temperature	24.2℃	Relative Humidity	53%
Atmosphere Pressure	101kPa		

TEST RESULTS

- Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)

The worst result as bellow:

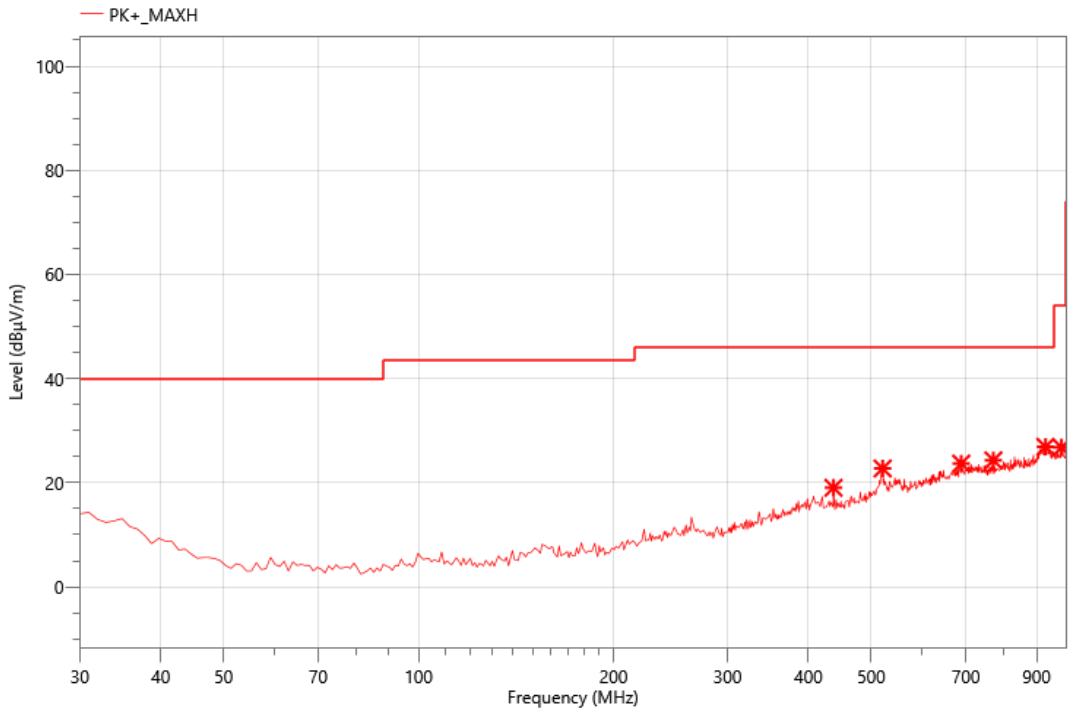
Mode:	5.8G WIFI n20 5745
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	452.920	31.95	-13.84	18.11	46.00	27.89	PK+	H
2	517.910	35.18	-11.34	23.84	46.00	22.16	PK+	H
3	720.640	33.51	-6.94	26.57	46.00	19.43	PK+	H
4	818.610	31.86	-6.16	25.70	46.00	20.30	PK+	H
5	924.340	30.42	-3.27	27.15	46.00	18.85	PK+	H
6	983.510	30.79	-3.73	27.06	53.90	26.84	PK+	H

Mode:	5.8G WIFI n20 5745
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



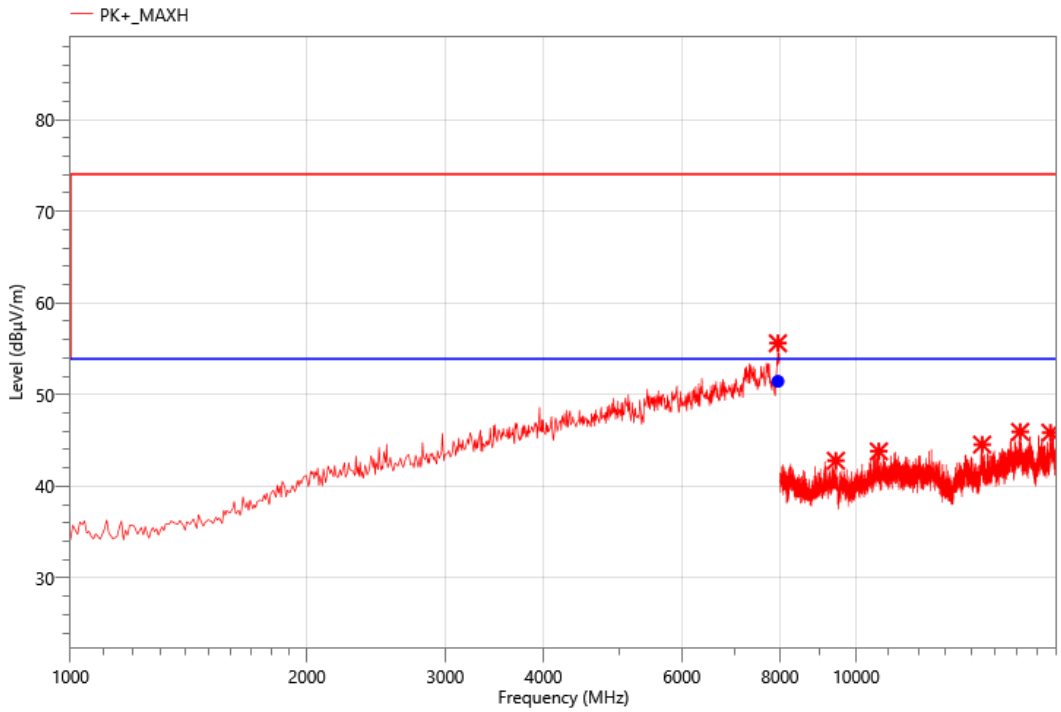
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	437.400	33.29	-14.26	19.03	46.00	26.97	PK+	V
2	520.820	33.91	-11.17	22.74	46.00	23.26	PK+	V
3	688.630	31.35	-7.67	23.68	46.00	22.32	PK+	V
4	772.050	31.38	-7.06	24.32	46.00	21.68	PK+	V
5	929.190	29.92	-3.02	26.90	46.00	19.10	PK+	V
6	983.510	30.51	-3.73	26.78	53.90	27.12	PK+	V

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- Amp. Factor

- Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

Mode:	5.1G WIFI n20 5180
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



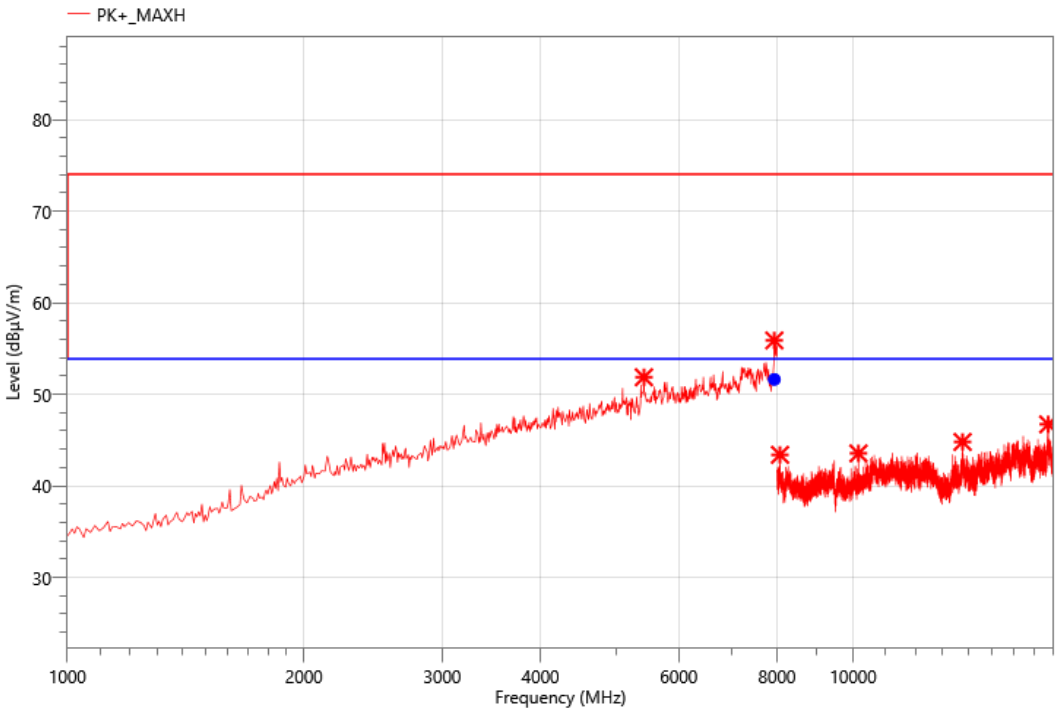
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7951.000	38.04	17.57	55.61	74.00	18.39	PK+	V
2	9424.000	49.65	-6.86	42.79	74.00	31.21	PK+	V
3	10689.000	48.13	-4.32	43.81	74.00	30.19	PK+	V
4	14467.000	48.08	-3.53	44.55	74.00	29.45	PK+	V
5	16172.000	46.08	-0.14	45.94	74.00	28.06	PK+	V
6	17678.000	46.24	-0.39	45.85	74.00	28.15	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7951.000	33.88	17.57	51.45	53.90	2.45	AVG	V	PASS

Mode:	5.1G WIFI n20 5200
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



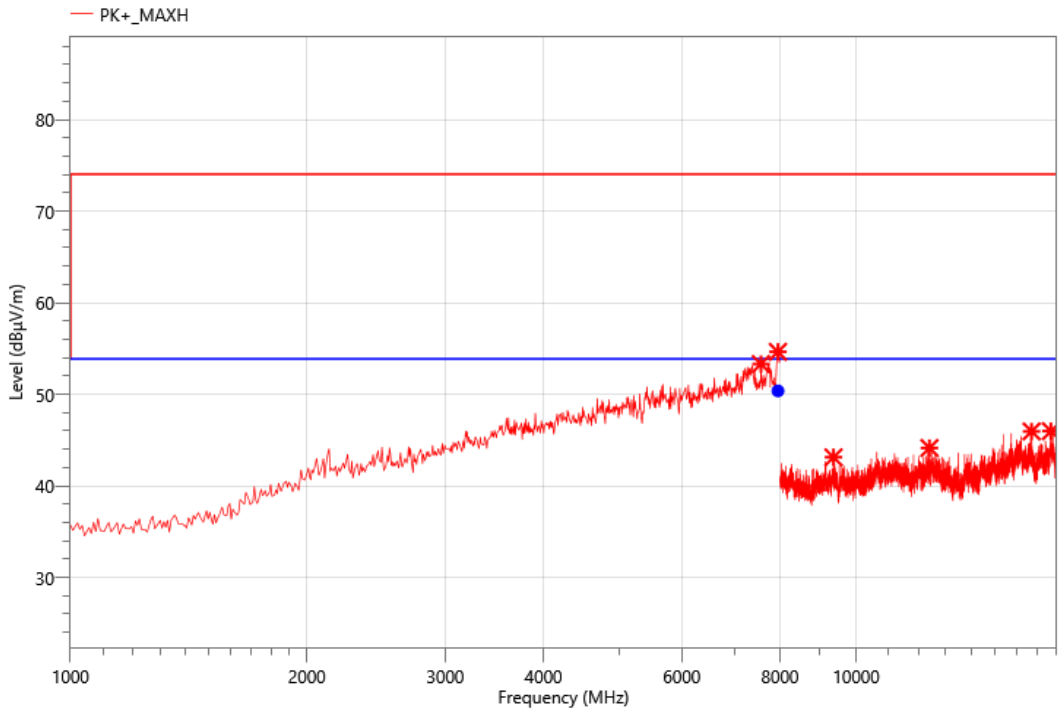
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	5417.000	51.92	-0.05	51.87	74.00	22.13	PK+	V
2	7937.000	38.55	17.34	55.89	74.00	18.11	PK+	V
3	8071.000	50.81	-7.42	43.39	74.00	30.61	PK+	V
4	10158.000	49.91	-6.36	43.55	74.00	30.45	PK+	V
5	13782.000	48.24	-3.44	44.80	74.00	29.20	PK+	V
6	17716.000	47.32	-0.6	46.72	74.00	27.28	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7937.000	34.29	17.34	51.63	53.90	2.27	AVG	V	PASS

Mode:	5.1G WIFI n20 5200
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



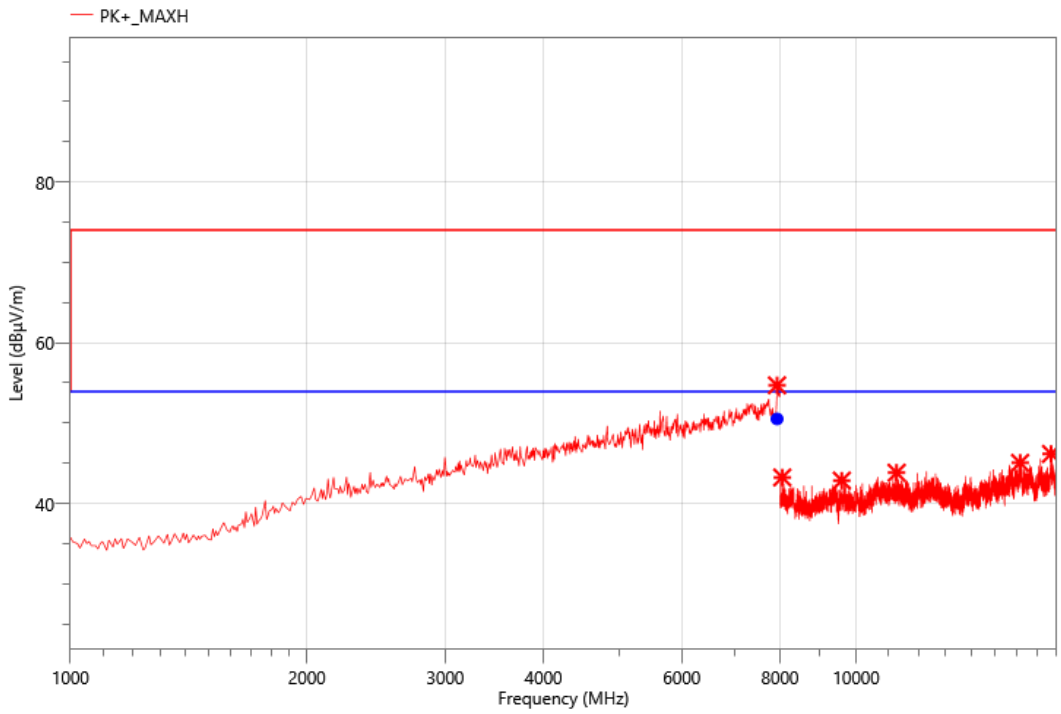
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7566.000	41.94	11.37	53.31	74.00	20.69	PK+	H
2	7951.000	37.07	17.57	54.64	74.00	19.36	PK+	H
3	9357.000	50.33	-7.21	43.12	74.00	30.88	PK+	H
4	12398.000	48.73	-4.59	44.14	74.00	29.86	PK+	H
5	16723.000	47.90	-1.95	45.95	74.00	28.05	PK+	H
6	17699.000	46.39	-0.41	45.98	74.00	28.02	PK+	H

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7951.000	32.81	17.57	50.38	53.90	3.52	AVG	H	PASS

Mode:	5.1G WIFI n20 5240
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



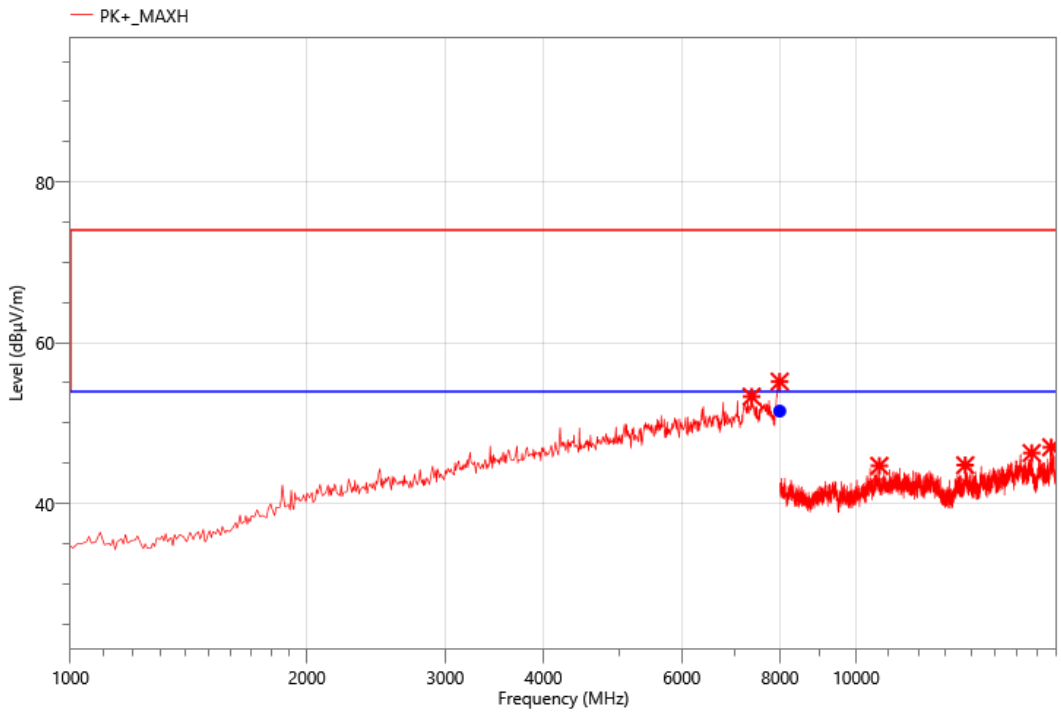
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7930.000	37.51	17.19	54.70	74.00	19.30	PK+	H
2	8054.000	50.57	-7.34	43.23	74.00	30.77	PK+	H
3	9589.000	49.25	-6.4	42.85	74.00	31.15	PK+	H
4	11259.000	48.31	-4.48	43.83	74.00	30.17	PK+	H
5	16170.000	45.20	-0.15	45.05	74.00	28.95	PK+	H
6	17705.000	46.64	-0.48	46.16	74.00	27.84	PK+	H

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7930.000	33.33	17.19	50.52	53.90	3.38	AVG	H	PASS

Mode:	5.1G WIFI n20 5240
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



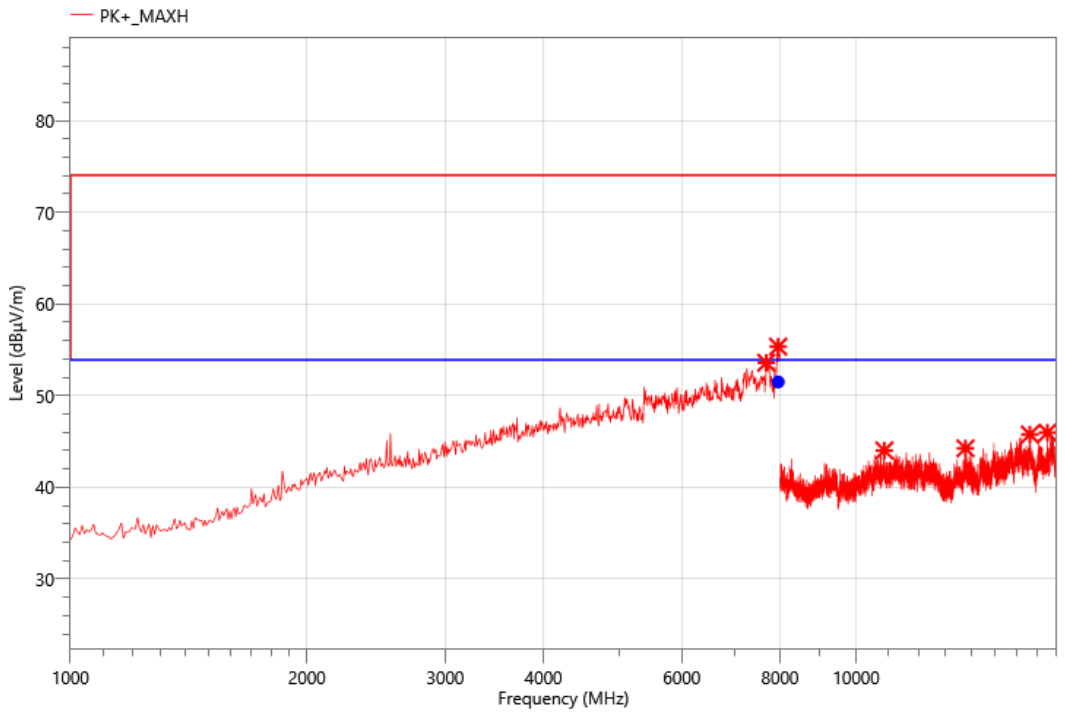
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7363.000	42.40	10.9	53.30	74.00	20.70	PK+	V
2	7993.000	38.63	16.53	55.16	74.00	18.84	PK+	V
3	10705.000	49.33	-4.65	44.68	74.00	29.32	PK+	V
4	13770.000	48.07	-3.31	44.76	74.00	29.24	PK+	V
5	16727.000	48.18	-1.91	46.27	74.00	27.73	PK+	V
6	17715.000	47.58	-0.59	46.99	74.00	27.01	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7993.000	34.96	16.53	51.49	53.90	2.41	AVG	V	PASS

Mode:	5.2G WIFI n20 5260
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



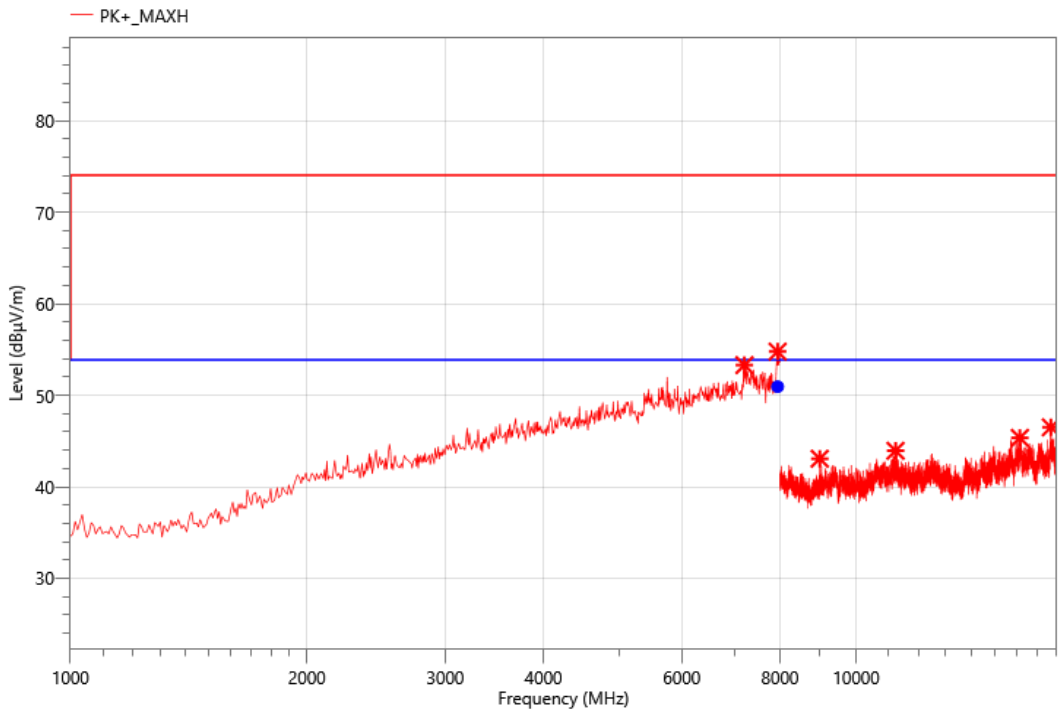
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7685.000	42.58	11.02	53.60	74.00	20.40	PK+	V
2	7958.000	38.02	17.34	55.36	74.00	18.64	PK+	V
3	10862.000	49.01	-4.98	44.03	74.00	29.97	PK+	V
4	13777.000	47.64	-3.38	44.26	74.00	29.74	PK+	V
5	16642.000	46.60	-0.83	45.77	74.00	28.23	PK+	V
6	17517.000	46.61	-0.64	45.97	74.00	28.03	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7958.000	34.16	17.34	51.50	53.90	2.40	AVG	V	PASS

Mode:	5.2G WIFI n20 5260
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



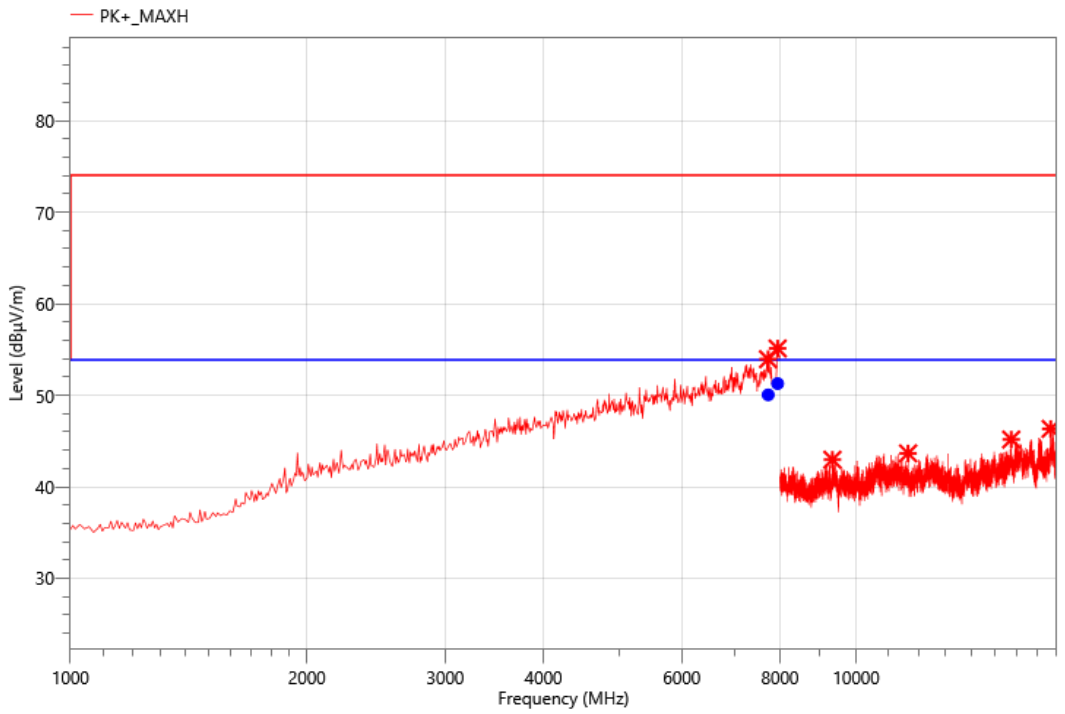
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7209.000	42.21	11.09	53.30	74.00	20.70	PK+	H
2	7944.000	37.29	17.48	54.77	74.00	19.23	PK+	H
3	8988.000	50.79	-7.72	43.07	74.00	30.93	PK+	H
4	11224.000	48.28	-4.34	43.94	74.00	30.06	PK+	H
5	16157.000	45.58	-0.23	45.35	74.00	28.65	PK+	H
6	17698.000	46.91	-0.41	46.50	74.00	27.50	PK+	H

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7944.000	33.46	17.48	50.94	53.90	2.96	AVG	H	PASS

Mode:	5.2G WIFI n20 5300
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



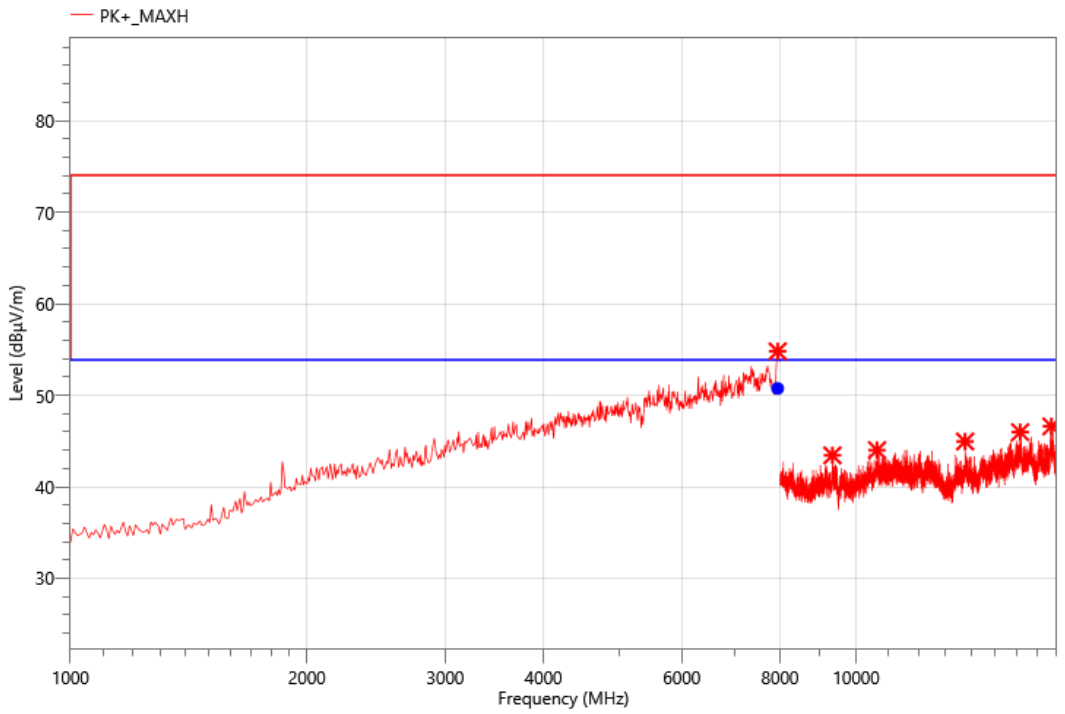
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7727.000	41.13	12.81	53.94	74.00	20.06	PK+	H
2	7944.000	37.63	17.48	55.11	74.00	18.89	PK+	H
3	9329.000	49.79	-6.83	42.96	74.00	31.04	PK+	H
4	11645.000	48.53	-4.87	43.66	74.00	30.34	PK+	H
5	15756.000	47.21	-2.04	45.17	74.00	28.83	PK+	H
6	17685.000	46.73	-0.4	46.33	74.00	27.67	PK+	H

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7727.000	37.24	12.81	50.05	53.90	3.85	AVG	H	PASS
2	7944.000	33.80	17.48	51.28	53.90	2.62	AVG	H	PASS

Mode:	5.2G WIFI n20 5300
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



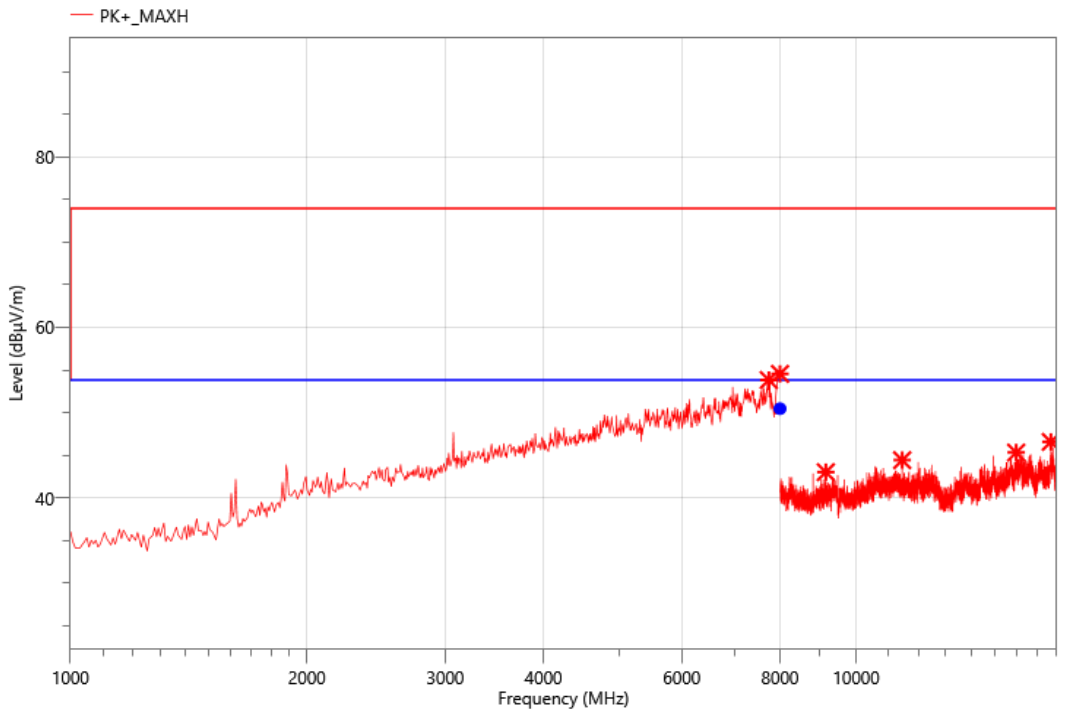
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7944.000	37.32	17.48	54.80	74.00	19.20	PK+	V
2	9329.000	50.27	-6.83	43.44	74.00	30.56	PK+	V
3	10633.000	48.43	-4.42	44.01	74.00	29.99	PK+	V
4	13763.000	48.33	-3.38	44.95	74.00	29.05	PK+	V
5	16176.000	46.18	-0.21	45.97	74.00	28.03	PK+	V
6	17726.000	47.30	-0.7	46.60	74.00	27.40	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7944.000	33.26	17.48	50.74	53.90	3.16	AVG	V	PASS

Mode:	5.2G WIFI n20 5320
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



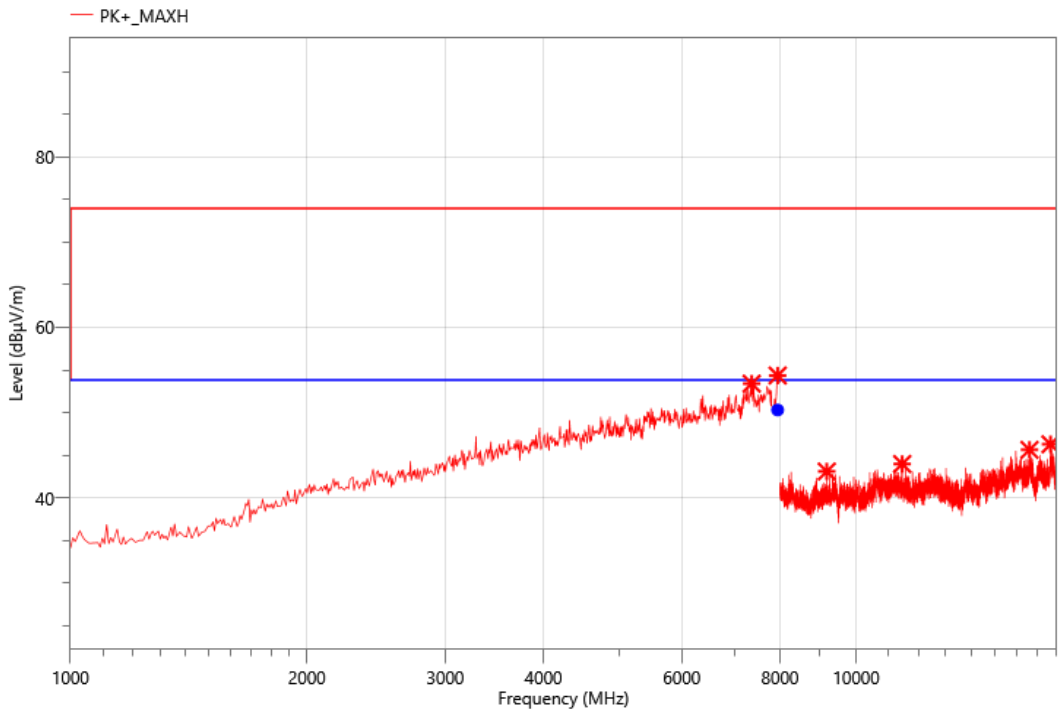
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7741.000	41.16	12.67	53.83	74.00	20.17	PK+	V
2	8000.000	38.12	16.42	54.54	74.00	19.46	PK+	V
3	9149.000	49.83	-6.81	43.02	74.00	30.98	PK+	V
4	11446.000	49.04	-4.61	44.43	74.00	29.57	PK+	V
5	15982.000	47.06	-1.74	45.32	74.00	28.68	PK+	V
6	17692.000	46.98	-0.41	46.57	74.00	27.43	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	8000.000	34.05	16.42	50.47	53.90	3.43	AVG	V	PASS

Mode:	5.2G WIFI n20 5320
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



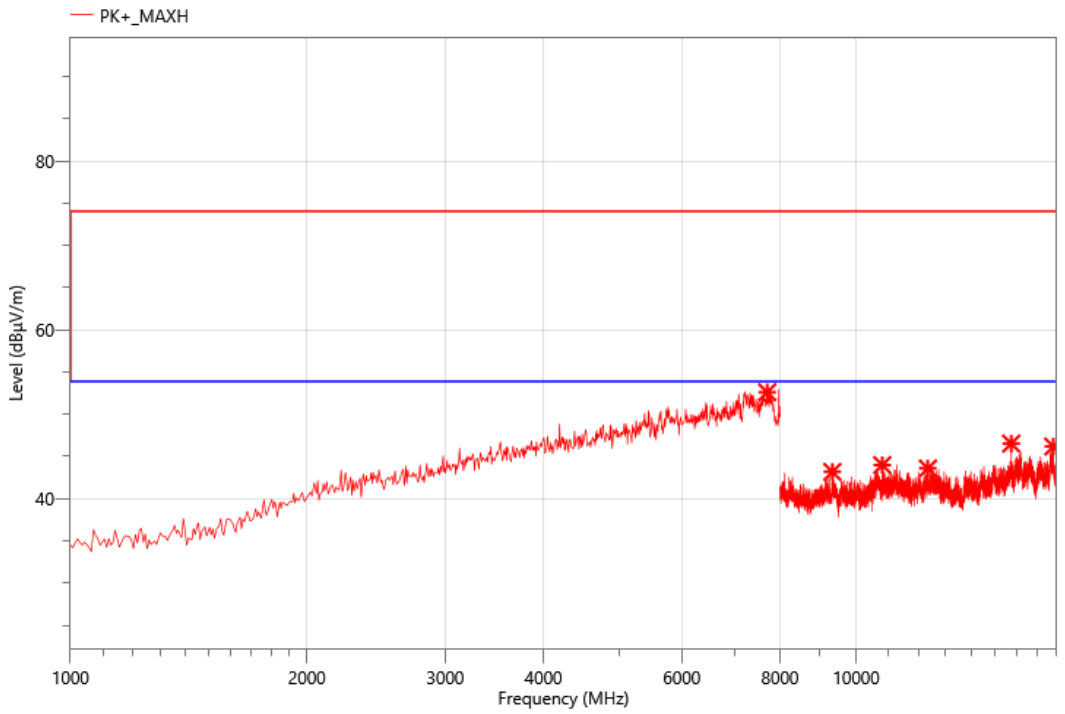
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7363.000	42.50	10.9	53.40	74.00	20.60	PK+	H
2	7944.000	36.88	17.48	54.36	74.00	19.64	PK+	H
3	9174.000	49.98	-6.88	43.10	74.00	30.90	PK+	H
4	11445.000	48.60	-4.62	43.98	74.00	30.02	PK+	H
5	16624.000	46.46	-0.82	45.64	74.00	28.36	PK+	H
6	17678.000	46.68	-0.39	46.29	74.00	27.71	PK+	H

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7944.000	32.83	17.48	50.31	53.90	3.59	AVG	H	PASS

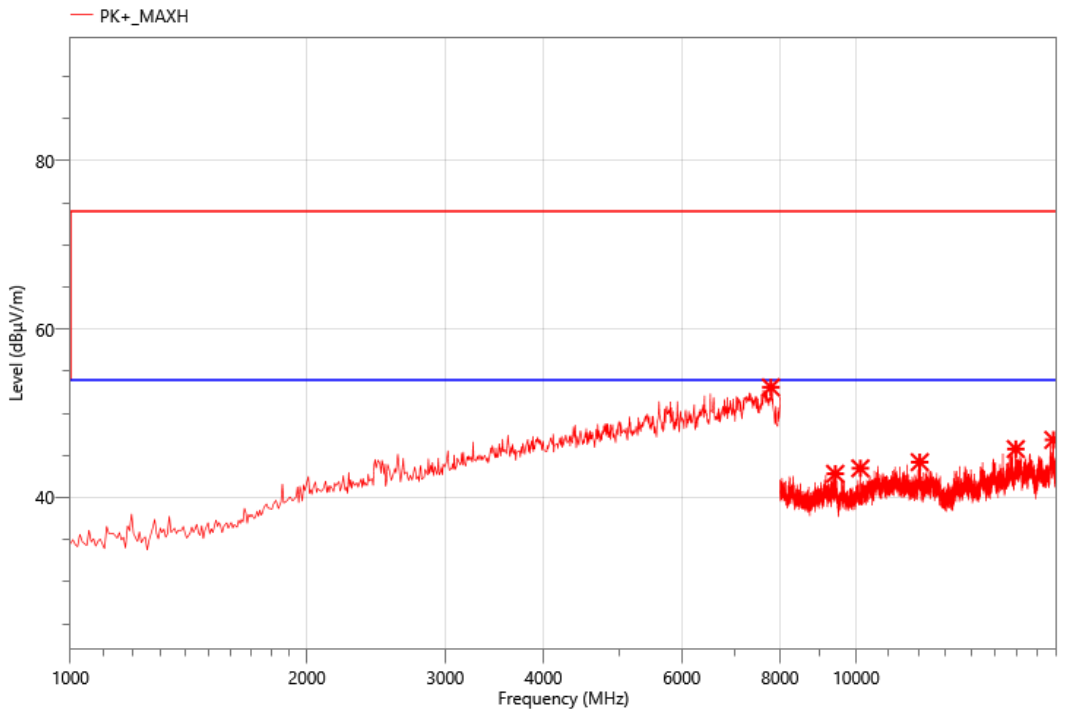
Mode:	5.2G WIFI n20 5500
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7706.000	41.31	11.29	52.60	74.00	21.40	PK+	H
2	9327.000	50.04	-6.87	43.17	74.00	30.83	PK+	H
3	10796.000	48.97	-4.99	43.98	74.00	30.02	PK+	H
4	12339.000	47.98	-4.4	43.58	74.00	30.42	PK+	H
5	15756.000	48.56	-2.04	46.52	74.00	27.48	PK+	H
6	17824.000	46.18	-0.01	46.17	74.00	27.83	PK+	H

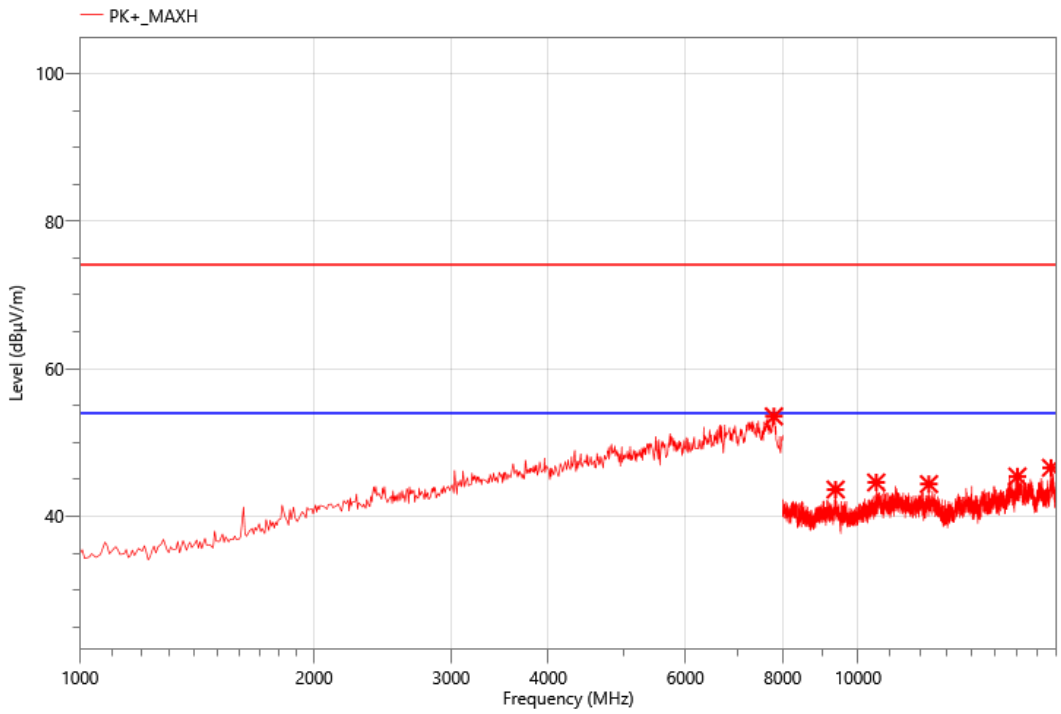
Mode:	5.2G WIFI n20 5500
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7790.000	40.84	12.25	53.09	74.00	20.91	PK+	V
2	9407.000	49.63	-6.8	42.83	74.00	31.17	PK+	V
3	10124.000	49.86	-6.38	43.48	74.00	30.52	PK+	V
4	12051.000	48.79	-4.58	44.21	74.00	29.79	PK+	V
5	15966.000	47.40	-1.64	45.76	74.00	28.24	PK+	V
6	17829.000	46.92	-0.07	46.85	74.00	27.15	PK+	V

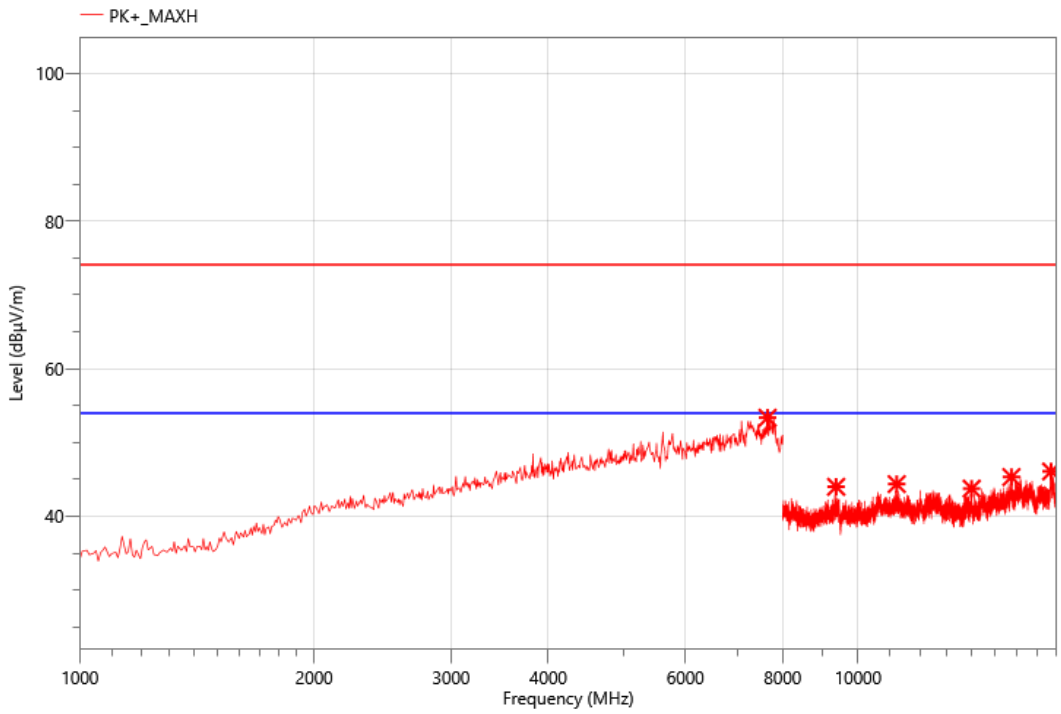
Mode:	5.2G WIFI n20 5600
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7797.000	41.08	12.47	53.55	74.00	20.45	PK+	V
2	9357.000	50.84	-7.21	43.63	74.00	30.37	PK+	V
3	10555.000	50.00	-5.41	44.59	74.00	29.41	PK+	V
4	12334.000	48.58	-4.21	44.37	74.00	29.63	PK+	V
5	16025.000	47.05	-1.65	45.40	74.00	28.60	PK+	V
6	17700.000	47.00	-0.42	46.58	74.00	27.42	PK+	V

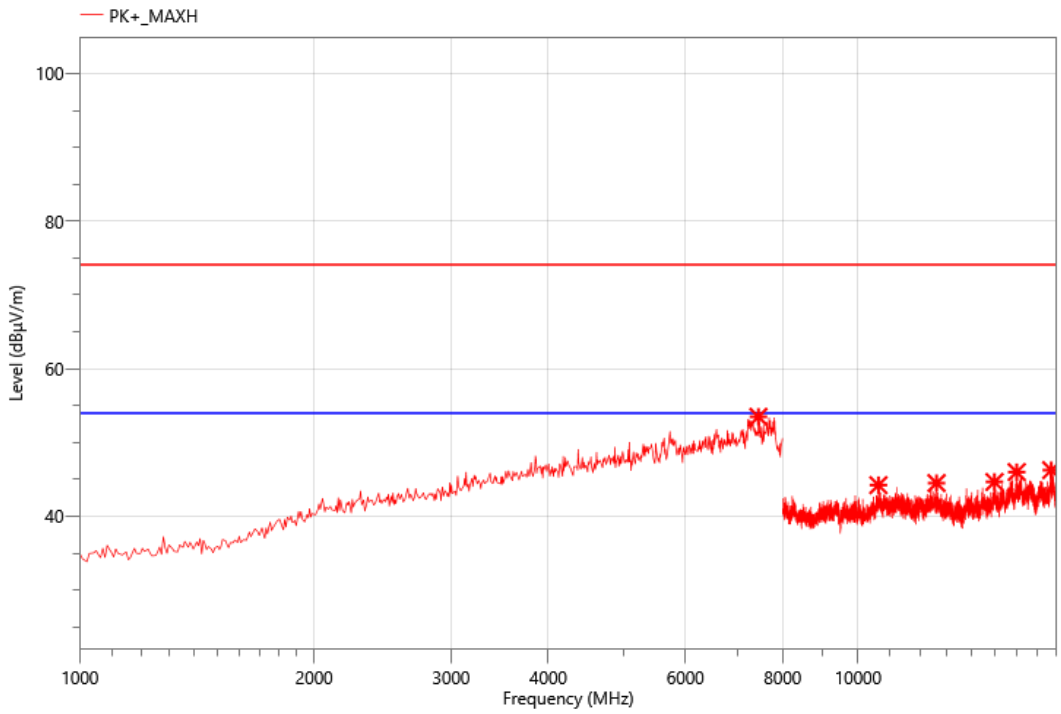
Mode:	5.2G WIFI n20 5600
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7650.000	41.49	11.87	53.36	74.00	20.64	PK+	H
2	9372.000	51.15	-7.15	44.00	74.00	30.00	PK+	H
3	11210.000	48.70	-4.33	44.37	74.00	29.63	PK+	H
4	13997.000	47.39	-3.64	43.75	74.00	30.25	PK+	H
5	15745.000	47.30	-1.98	45.32	74.00	28.68	PK+	H
6	17706.000	46.57	-0.49	46.08	74.00	27.92	PK+	H

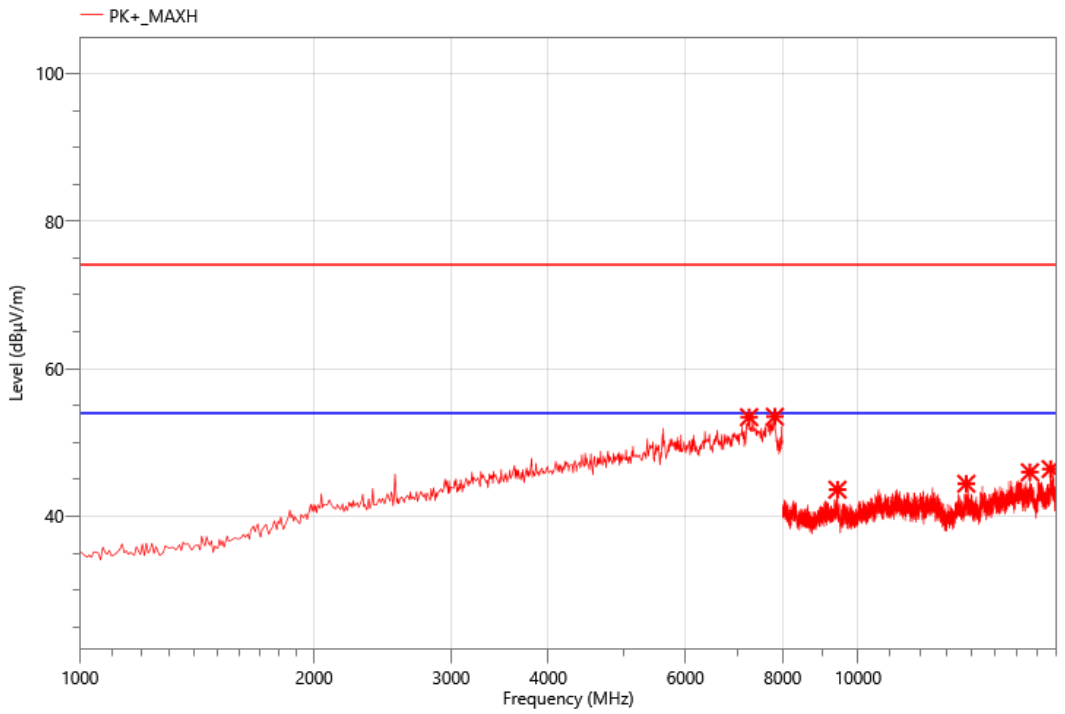
Mode:	5.2G WIFI n20 5700
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7447.000	42.59	10.89	53.48	74.00	20.52	PK+	H
2	10621.000	48.87	-4.65	44.22	74.00	29.78	PK+	H
3	12614.000	48.55	-4.05	44.50	74.00	29.50	PK+	H
4	14974.000	47.03	-2.38	44.65	74.00	29.35	PK+	H
5	15990.000	47.78	-1.79	45.99	74.00	28.01	PK+	H
6	17714.000	46.83	-0.58	46.25	74.00	27.75	PK+	H

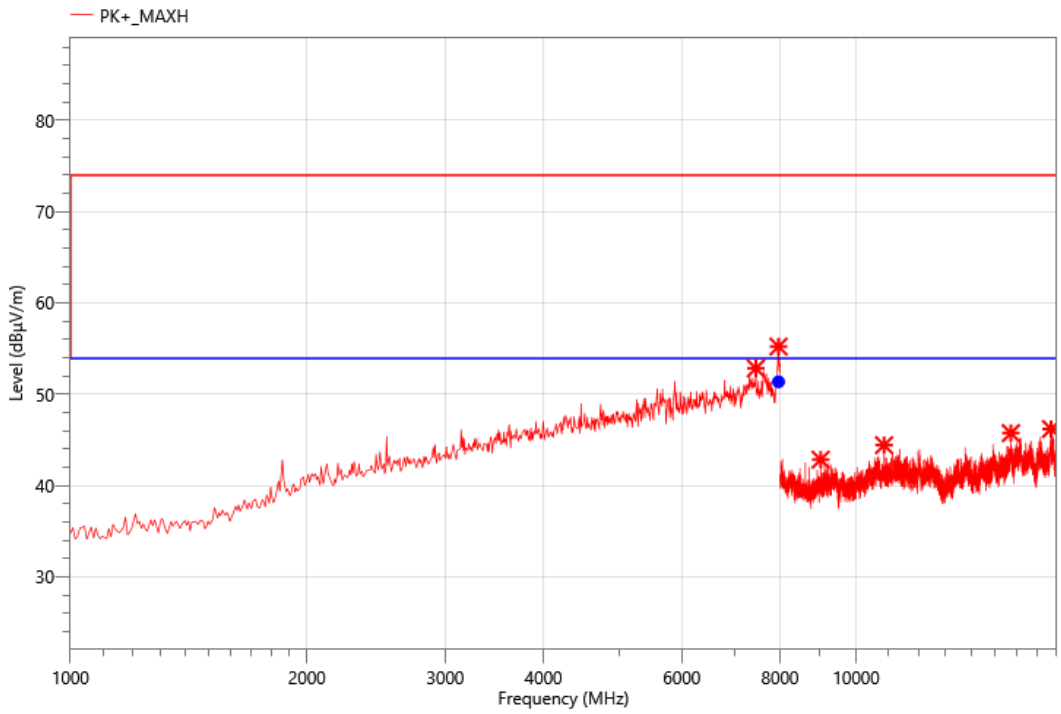
Mode:	5.2G WIFI n20 5700
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7244.000	42.66	10.77	53.43	74.00	20.57	PK+	V
2	7818.000	40.86	12.64	53.50	74.00	20.50	PK+	V
3	9409.000	50.40	-6.8	43.60	74.00	30.40	PK+	V
4	13778.000	47.80	-3.39	44.41	74.00	29.59	PK+	V
5	16628.000	46.79	-0.82	45.97	74.00	28.03	PK+	V
6	17684.000	46.80	-0.4	46.40	74.00	27.60	PK+	V

Mode:	5.8G WIFI n20 5745
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



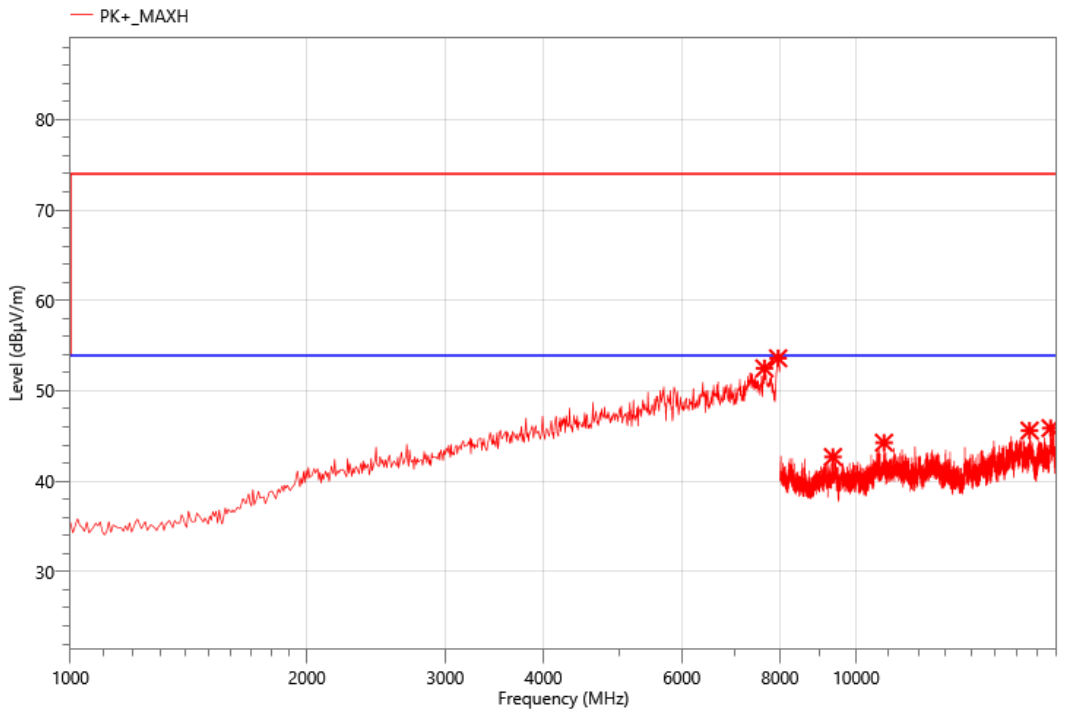
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7454.000	42.53	10.3	52.83	74.00	21.17	PK+	V
2	7965.000	38.99	16.23	55.22	74.00	18.78	PK+	V
3	9013.000	50.46	-7.63	42.83	74.00	31.17	PK+	V
4	10855.000	49.39	-4.97	44.42	74.00	29.58	PK+	V
5	15739.000	47.84	-2.1	45.74	74.00	28.26	PK+	V
6	17705.000	46.66	-0.48	46.18	74.00	27.82	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7965.000	35.13	16.23	51.36	53.90	2.54	AVG	V	PASS

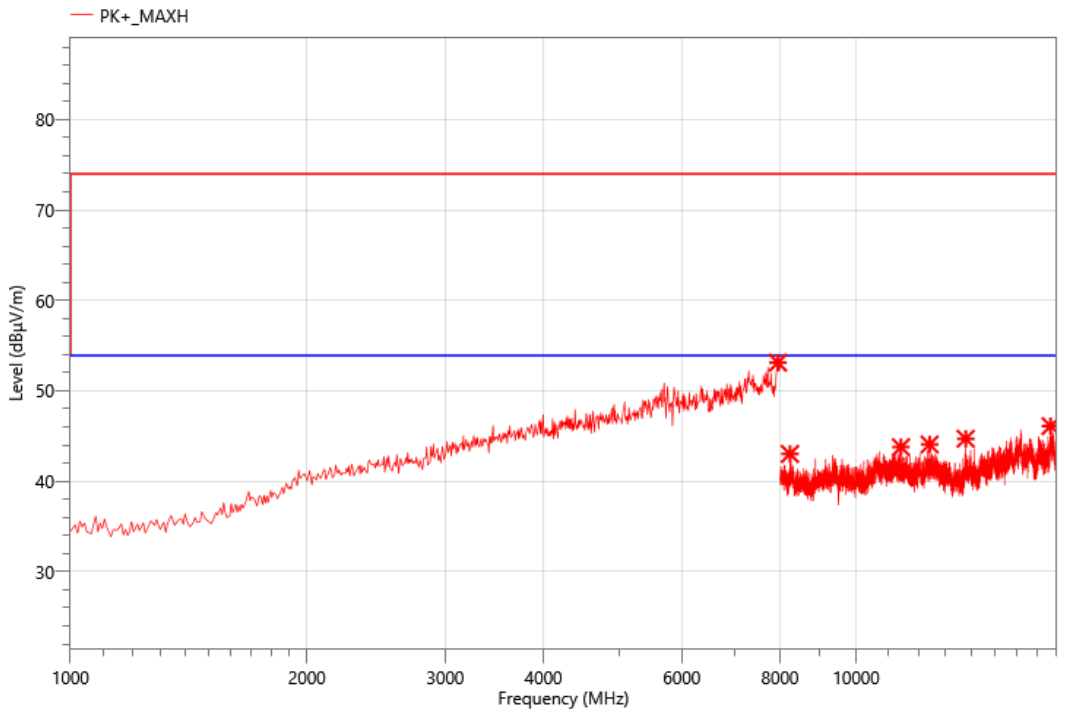
Mode:	5.8G WIFI n20 5745
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7643.000	41.12	11.37	52.49	74.00	21.51	PK+	H
2	7958.000	37.05	16.55	53.60	74.00	20.40	PK+	H
3	9344.000	49.52	-6.84	42.68	74.00	31.32	PK+	H
4	10853.000	49.22	-4.96	44.26	74.00	29.74	PK+	H
5	16625.000	46.42	-0.82	45.60	74.00	28.40	PK+	H
6	17682.000	46.27	-0.4	45.87	74.00	28.13	PK+	H

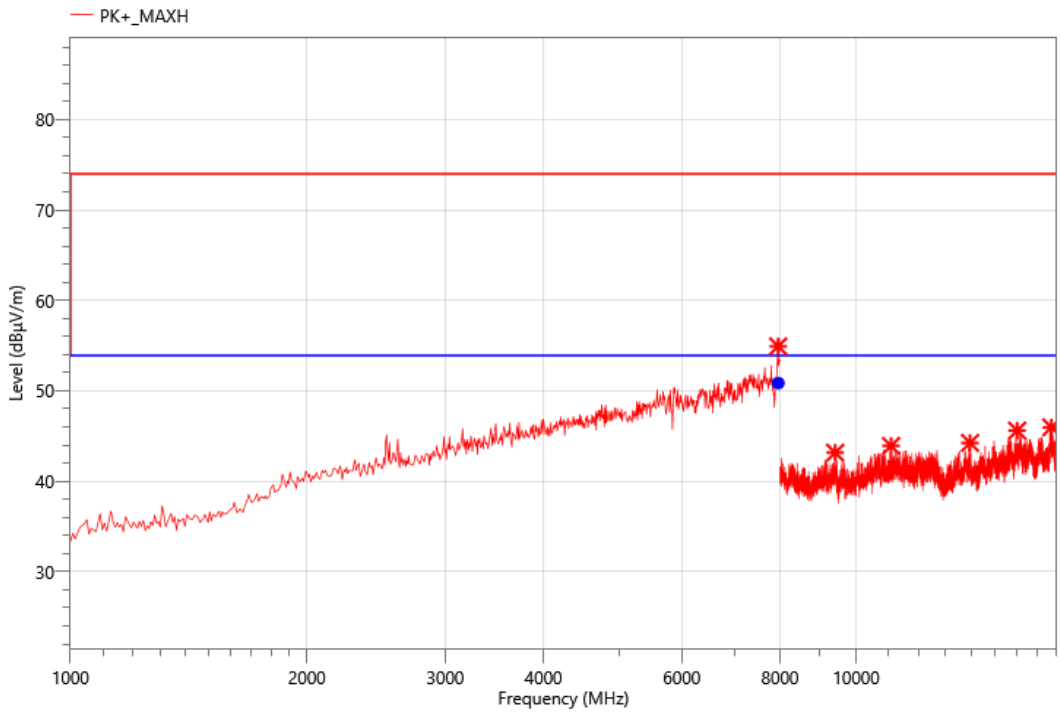
Mode:	5.8G WIFI n20 5785
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7951.000	36.24	16.88	53.12	74.00	20.88	PK+	H
2	8237.000	49.97	-6.95	43.02	74.00	30.98	PK+	H
3	11404.000	48.37	-4.6	43.77	74.00	30.23	PK+	H
4	12400.000	48.68	-4.61	44.07	74.00	29.93	PK+	H
5	13786.000	48.18	-3.48	44.70	74.00	29.30	PK+	H
6	17680.000	46.50	-0.4	46.10	74.00	27.90	PK+	H

Mode:	5.8G WIFI n20 5785
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



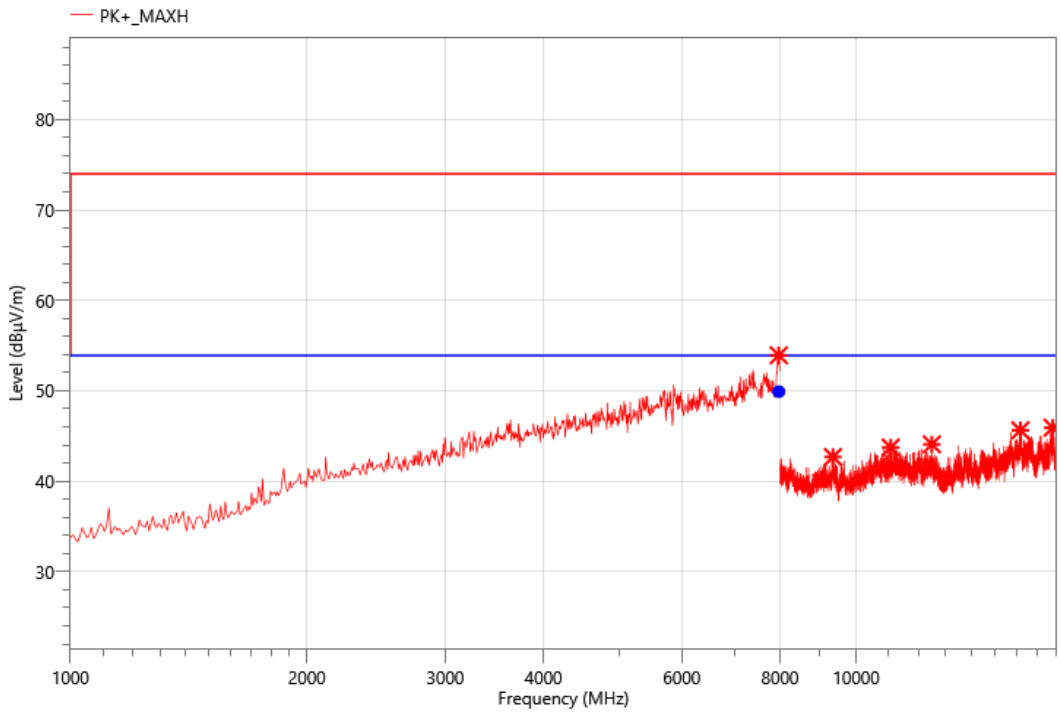
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7958.000	38.37	16.55	54.92	74.00	19.08	PK+	V
2	9405.000	49.97	-6.81	43.16	74.00	30.84	PK+	V
3	11079.000	48.32	-4.41	43.91	74.00	30.09	PK+	V
4	13962.000	48.07	-3.83	44.24	74.00	29.76	PK+	V
5	16030.000	47.23	-1.63	45.60	74.00	28.40	PK+	V
6	17721.000	46.62	-0.66	45.96	74.00	28.04	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7958.000	34.31	16.55	50.86	53.90	3.04	AVG	V	PASS

Mode:	5.8G WIFI n20 5825
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



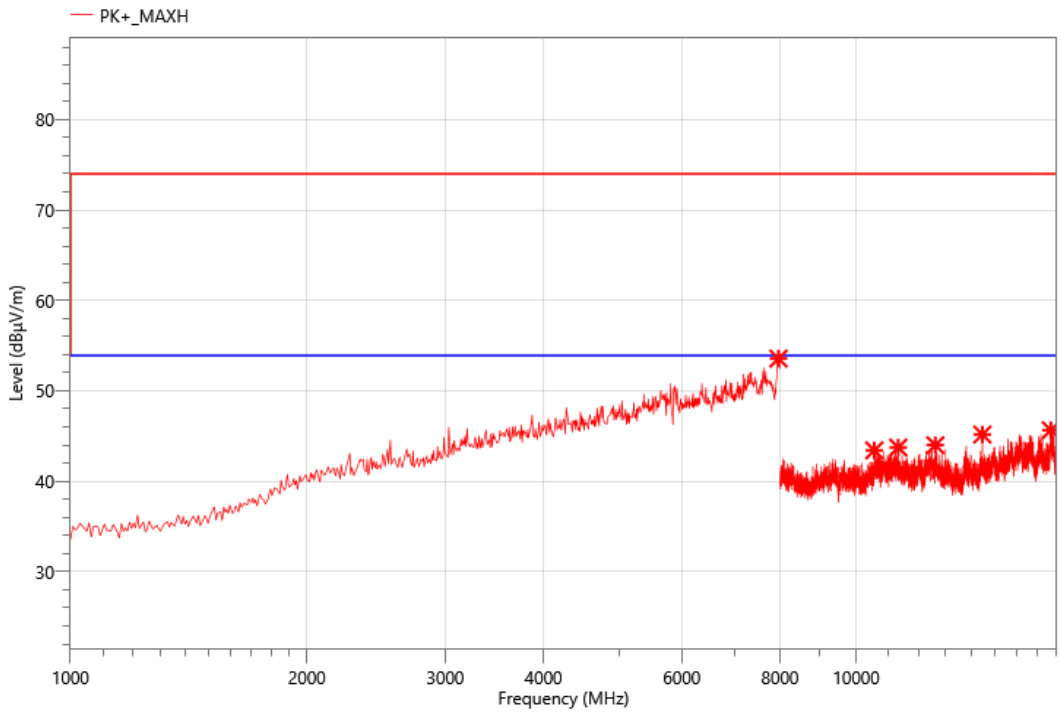
Critical_Freqs

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7972.000	38.02	15.91	53.93	74.00	20.07	PK+	V
2	9343.000	49.49	-6.81	42.68	74.00	31.32	PK+	V
3	11066.000	48.24	-4.5	43.74	74.00	30.26	PK+	V
4	12484.000	48.08	-4	44.08	74.00	29.92	PK+	V
5	16182.000	45.95	-0.32	45.63	74.00	28.37	PK+	V
6	17791.000	45.82	0.1	45.92	74.00	28.08	PK+	V

Final_Result

No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Verdict
1	7972.000	34.00	15.91	49.91	53.90	3.99	AVG	V	PASS

Mode:	5.8G WIFI n20 5825
Power:	DC 14.4V
TE:	Vier
Date	2024/05/10
T/A/P	24.2℃/53%/101Kpa



Critical_Freqs

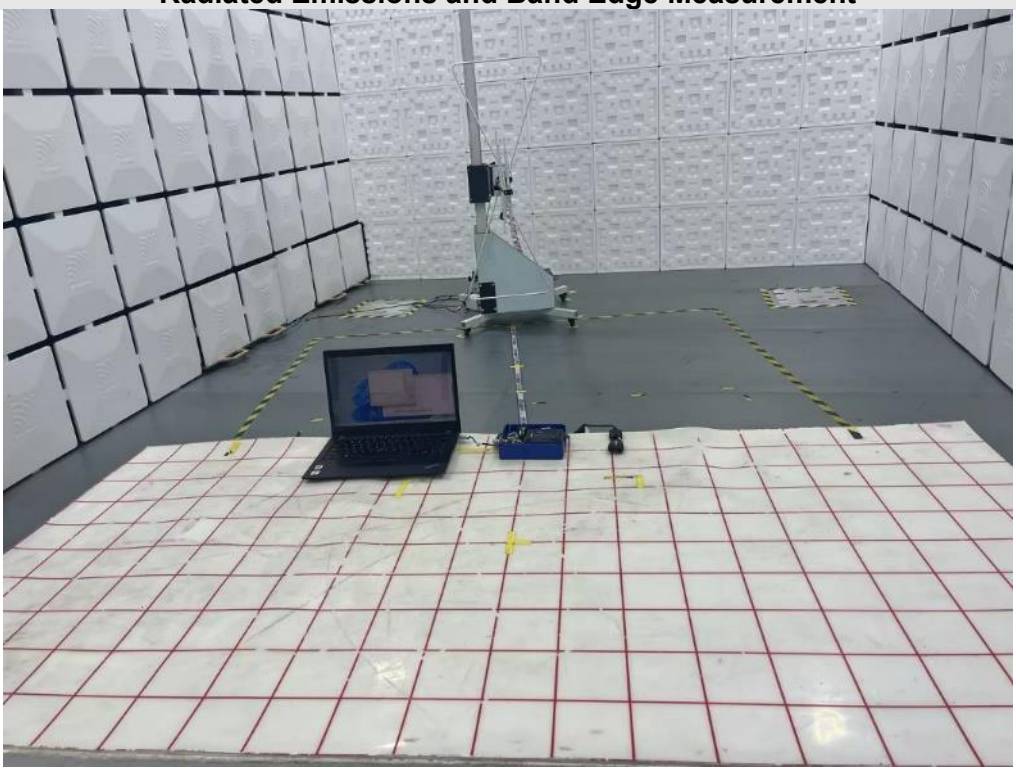
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.
1	7965.000	37.34	16.23	53.57	74.00	20.43	PK+	H
2	10548.000	48.98	-5.56	43.42	74.00	30.58	PK+	H
3	11314.000	48.45	-4.72	43.73	74.00	30.27	PK+	H
4	12613.000	48.04	-4.05	43.99	74.00	30.01	PK+	H
5	14478.000	48.73	-3.56	45.17	74.00	28.83	PK+	H
6	17694.000	46.06	-0.41	45.65	74.00	28.35	PK+	H

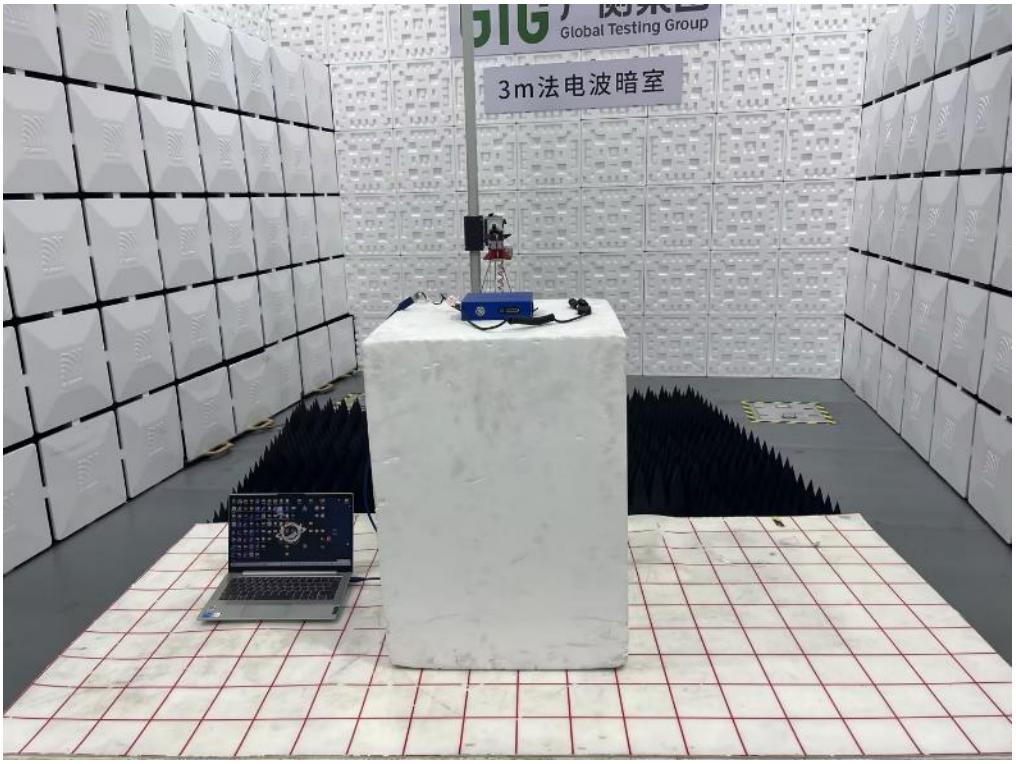
No others harmonics emissions are higher than 20 dB below the limits of 47 CFR Part 15.407.

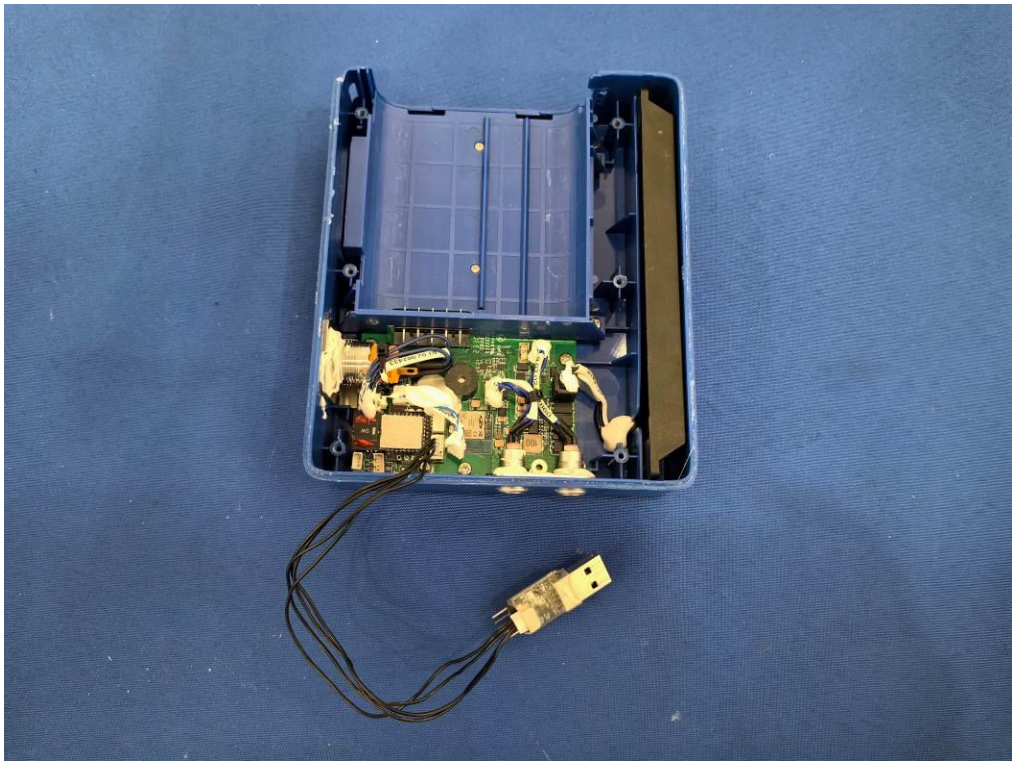
802.11a, 802.11n HT20, 802.11n HT40 were all tested, and only was recorded in the report as the worst mode.

APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

Radiated Emissions and Band Edge Measurement







APPENDIX: PHOTOGRAPHS OF THE EUT

Please refer to the report: E04A23080794F00301.

END OF REPORT