



中认信通

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

Applicant: Xiamen Milesight IoT Co., Ltd.

Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China

FCC ID: 2AYHY-VS135POE

Product Name: Ultra ToF People Counter

Standard(s): 47 CFR Part 15, Subpart C(15.249)
ANSI C63.10-2013

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: CR240102704-00A

Date Of Issue: 2024/2/28

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Title: RF Engineer

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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR240102704-00A	Original Report	2024/2/28

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Ultra ToF People Counter
EUT Model:	VS135-P
Multiple Models:	NF135-P,VS135,NF135
Operation Frequency:	5765.3 MHz
Modulation Type:	CW
Rated Input Voltage:	DC 12V From Adapter DC 56V From POE
Serial Number:	2GJV_1
EUT Received Date:	2024/1/10
EUT Received Status:	Good
Note: The Multiple models are electrically identical with the test model. Please refer to as below for more detail, which was provided by manufacturer.	

Antenna Information Detail▲:

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
PCB	50	5.745~5.875GHz	4.48 dBi
The Method of §15.203 Compliance: ☒ Antenna was permanently attached to the unit. ☐ Antenna use a unique type of connector to attach to the EUT. ☐ Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.			

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter	SHENZHEN FUJIA APPLIANCE CO.,LTD.	FJ-SW126G1202000U	Input: 100-240V,50/60Hz ,0.6A Max Output: 12.0V ,2.0A, 24W
POE Adapter	Unknown	P030U05	Input: 100-240Vac,50-60Hz,0.7A Output: 56.0V ,0.535A, 30.0W

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	No
The engineering mode was provided by manufacturer ▲. The maximum power was configured default setting.	

1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	G510	CB30920865

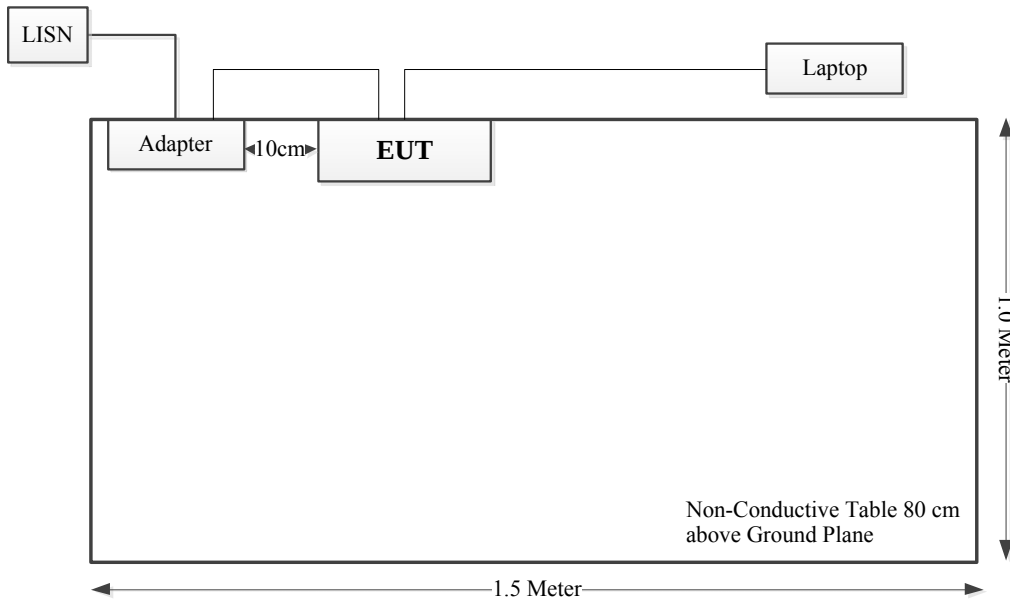
1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Cable	No	No	1	Adapter	EUT
RJ45 Cable	No	No	3	Laptop	EUT

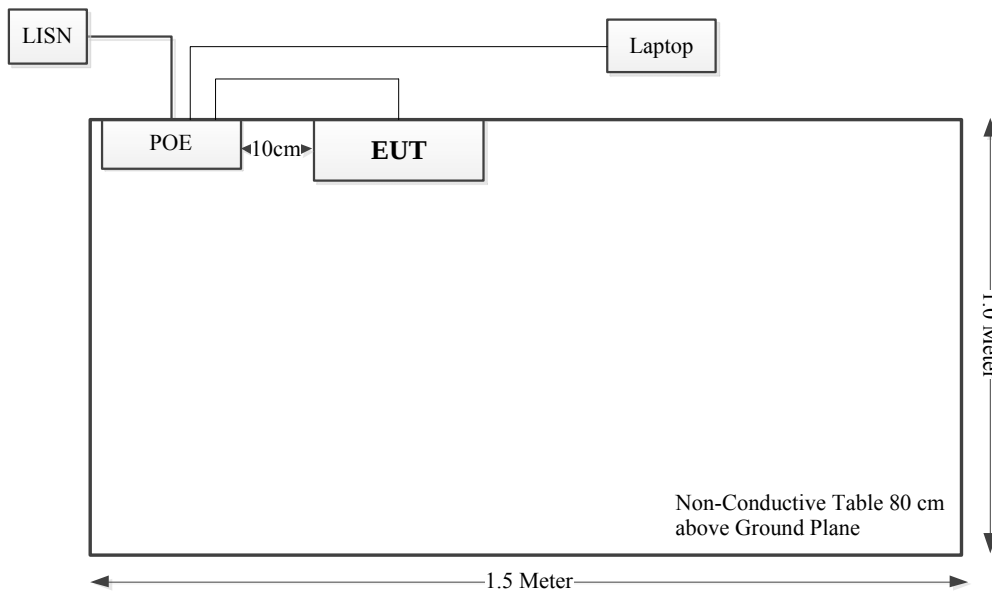
1.2.4 Block Diagram of Test Setup

AC Line Conducted Emissions:

Adapter:

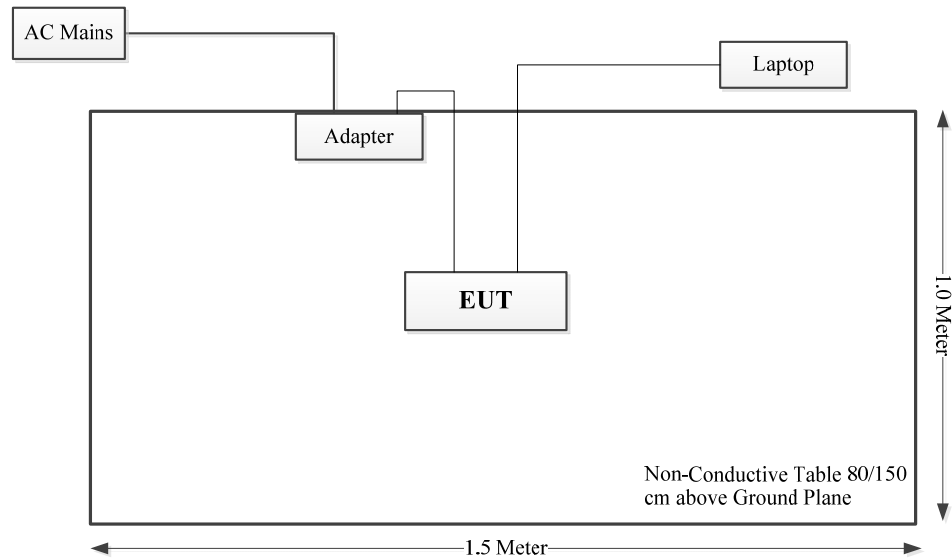


POE:

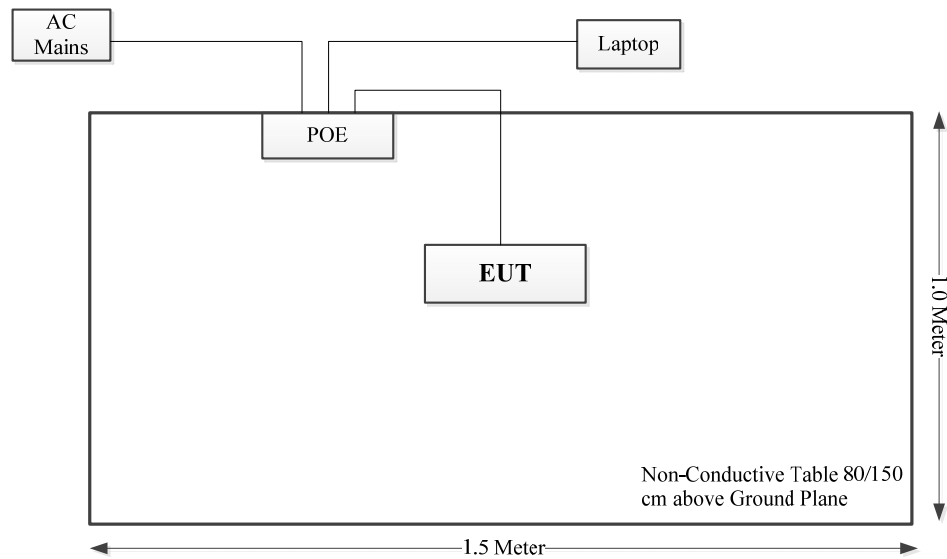


Radiation Spurious Emissions:

Adapter:



POE:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	$\pm 5\%$
Unwanted Emissions, radiated	9k~30MHz: 4.12dB, 30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Temperature	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
DC and low frequency voltages	$\pm 0.4\%$
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s)/Rule(s)	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207(a)	Conduction Emissions	Compliant
15.205, §15.209, §15.249	Radiated Emissions	Compliant
§15.215 (c)	20 dB Bandwidth	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

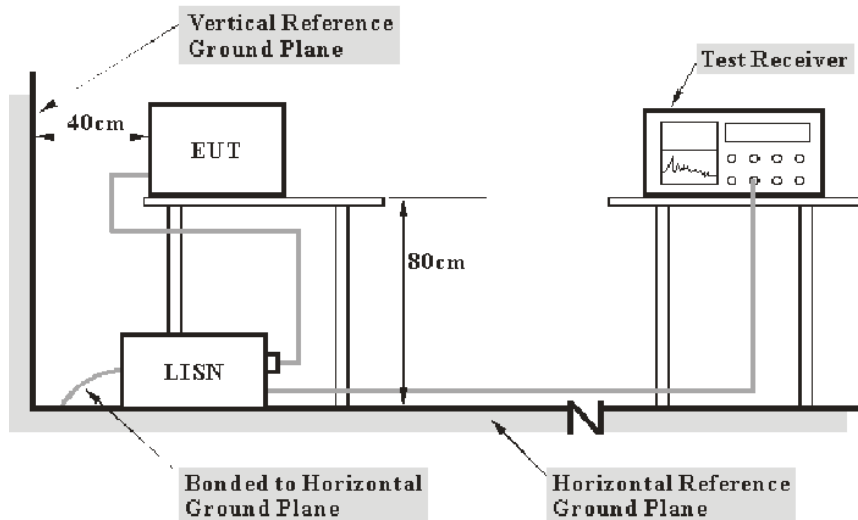
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2 EUT Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4 Test Procedure

During the conducted emission test, the EUT was connected to the outlet of the first LISN.

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiated Emissions

3.2.1 Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

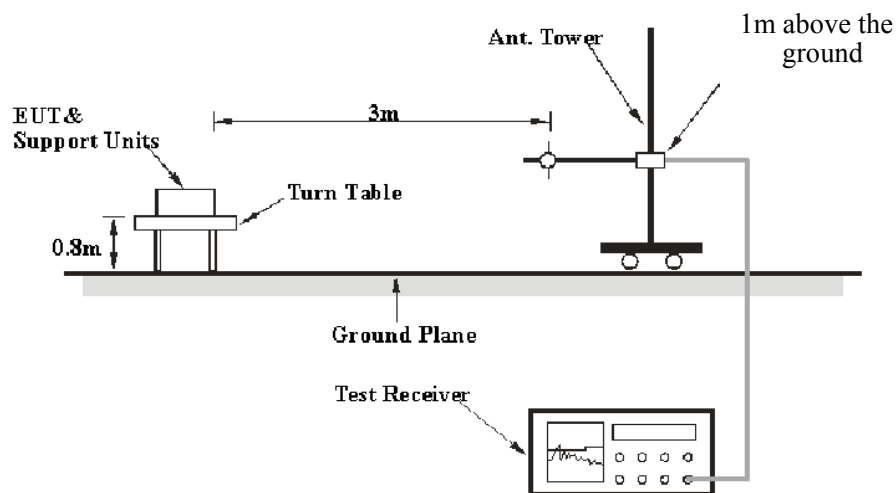
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

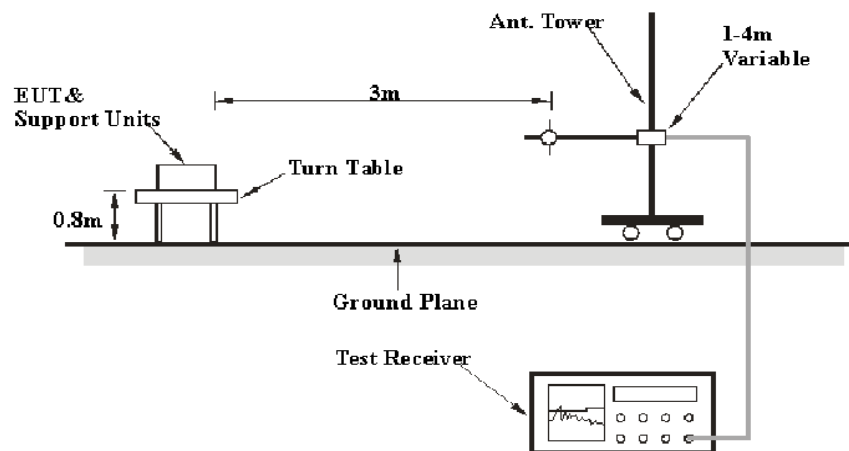
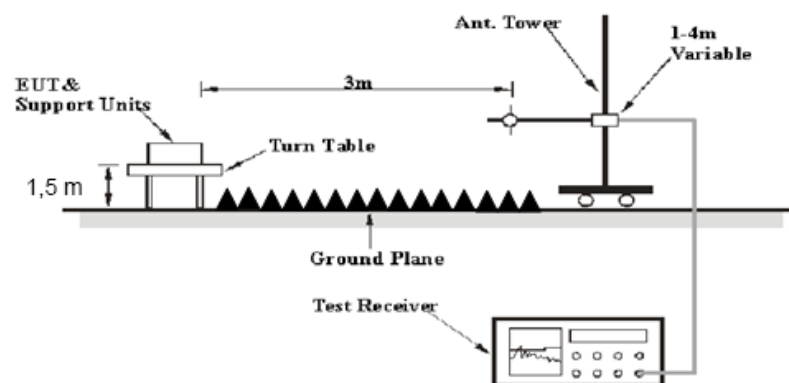
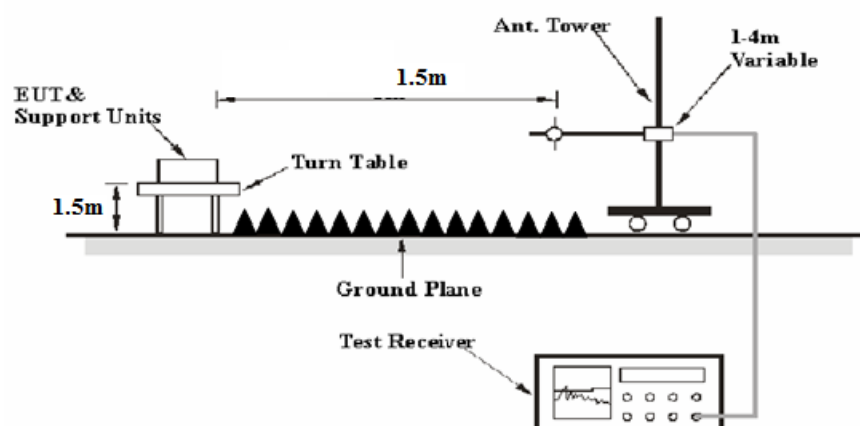
As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

3.2.2 EUT Setup

9kHz - 30MHz:



30MHz - 1GHz:**1GHz – 26.5GHz:****26.5GHz - 40 GHz:**

The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.249 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	/	PK
	/	/	200 Hz	QP/AV
150 kHz – 30 MHz	10 kHz	30 kHz	/	PK
	/	/	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	/	PK
	/	/	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9–90 kHz, 110–490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/decade from 3m to 1.5m

Distance extrapolation Factor = $20 \log (\text{specific distance [3m]}/\text{test distance [1.5m]})$ dB= 6.02 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$\text{Result} = \text{Reading} + \text{Factor}$$

For 9kHz-26.5GHz:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

For 26.5GHz-40GHz

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain} - \text{Distance extrapolation Factor}$$

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Result}$$

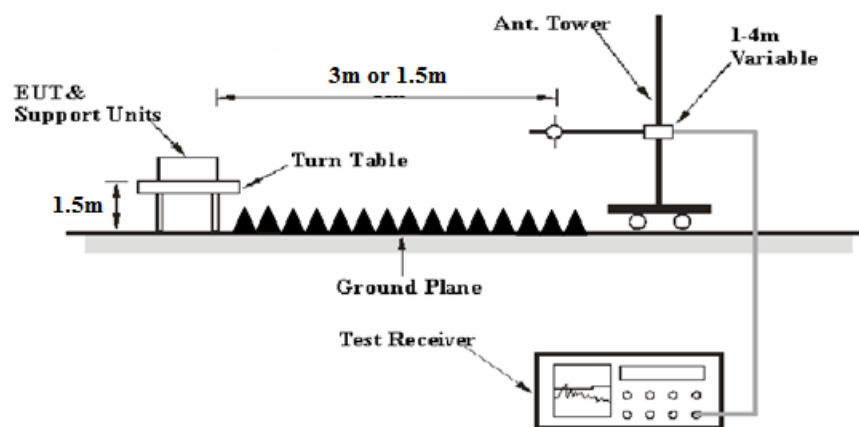
3.3 20 dB Emission Bandwidth:

3.3.1 Applicable Standard

FCC §15.215

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

3.3.2 EUT Setup



3.3.3 Test Procedure

1. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
2. Repeat above procedures until all frequencies measured were complete.

3.4 Antenna Requirement

3.4.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

3.4.2 Judgment

Please refer to the Antenna Information detail in Section 1.

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2GJV_1	Test Date:	2024/2/5
Test Site:	CE	Test Mode:	Transmitting
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.1	Relative Humidity: (%)	57	ATM Pressure: (kPa)	101.3
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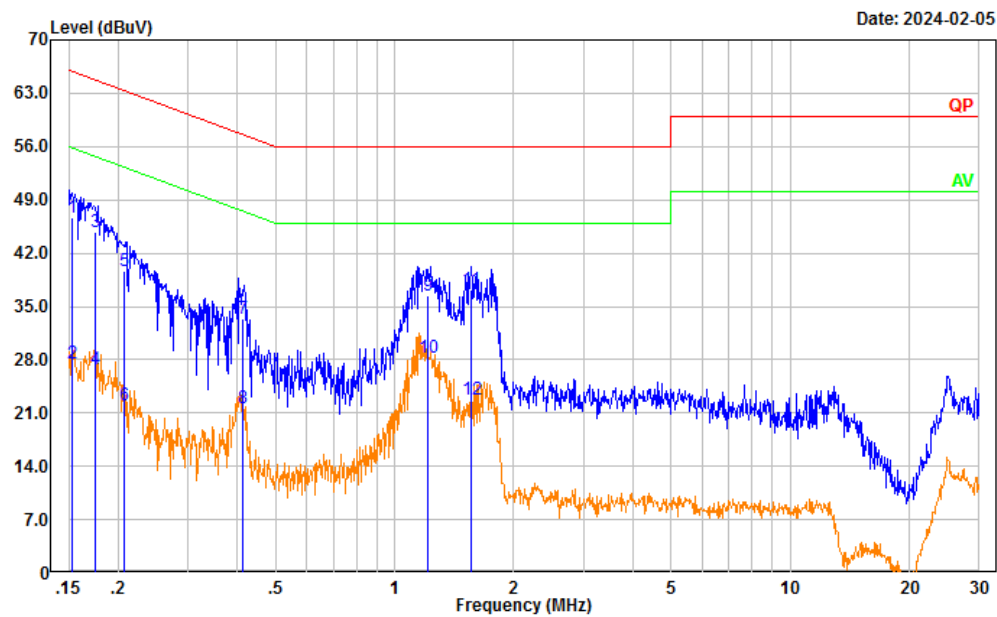
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Adapter mode was the worst:

Project No.: CR240102704-RF
Tester: David Huang
Port: Line
Note: Transmitting(5.8G Radar Adapter)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.153	36.25	10.50	46.75	65.83	19.08	QP
2	0.153	16.98	10.50	27.48	55.83	28.35	Average
3	0.175	34.44	10.41	44.85	64.72	19.87	QP
4	0.175	16.24	10.41	26.65	54.72	28.07	Average
5	0.206	29.39	10.31	39.70	63.35	23.65	QP
6	0.206	11.71	10.31	22.02	53.35	31.33	Average
7	0.414	23.13	10.31	33.44	57.56	24.12	QP
8	0.414	11.29	10.31	21.60	47.56	25.96	Average
9	1.212	25.89	10.54	36.43	56.00	19.57	QP
10	1.212	17.72	10.54	28.26	46.00	17.74	Average
11	1.560	26.73	10.41	37.14	56.00	18.86	QP
12	1.560	12.33	10.41	22.74	46.00	23.26	Average

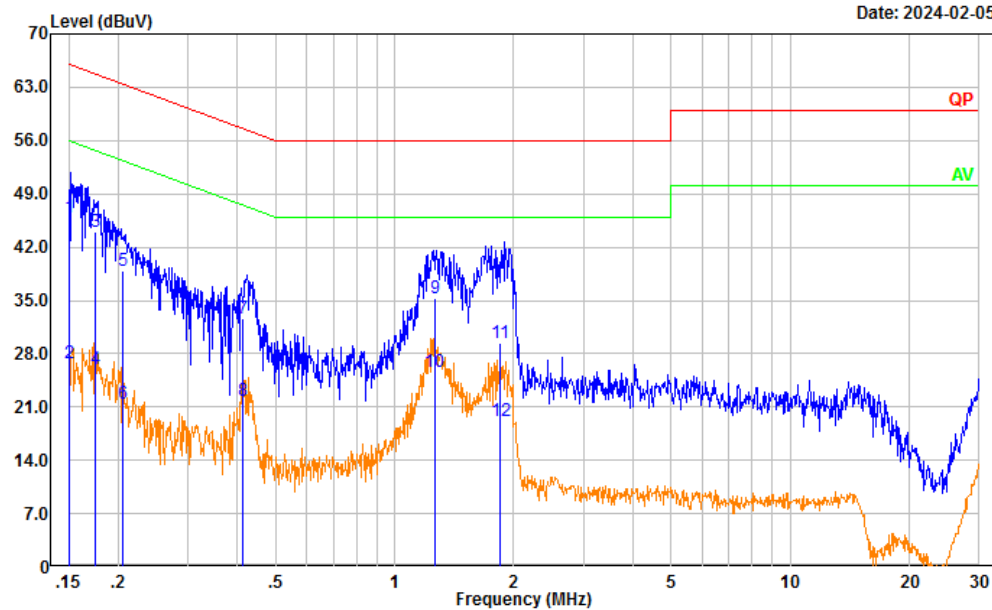
Project No.: CR240102704-RF

Tester: David Huang

Port: neutral

Note: Transmitting(5.8G Radar Adapter)

Date: 2024-02-05



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.151	35.54	10.41	45.95	65.97	20.02	QP
2	0.151	16.30	10.41	26.71	55.97	29.26	Average
3	0.176	33.66	10.36	44.02	64.70	20.68	QP
4	0.176	15.64	10.36	26.00	54.70	28.70	Average
5	0.206	28.64	10.31	38.95	63.36	24.41	QP
6	0.206	11.11	10.31	21.42	53.36	31.94	Average
7	0.414	22.27	10.45	32.72	57.58	24.86	QP
8	0.414	11.37	10.45	21.82	47.58	25.76	Average
9	1.260	24.85	10.47	35.32	56.00	20.68	QP
10	1.260	15.17	10.47	25.64	46.00	20.36	Average
11	1.841	19.02	10.36	29.38	56.00	26.62	QP
12	1.841	8.79	10.36	19.15	46.00	26.85	Average

4.2 Radiation Spurious Emissions

Serial Number:	2GJV_1	Test Date:	2024/1/31~2024/2/20
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Jeff Luo, Mack Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.6~24.7	Relative Humidity: (%)	50~61	ATM Pressure: (kPa)	100.8~101.3
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0300-01	2024/1/11	2025/1/10
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0500-01	2024/1/11	2025/1/10
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2024/1/15	2025/1/14
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2024/1/15	2025/1/14
A.H	Preamplifier	PAM-0118P	628	2024/1/15	2025/1/14
Audix	Test Software	E3	191218 (V9)	N/A	N/A
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2022/2/4	2025/2/5
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	5150-5850MHz	OE01902423	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
PASTERNAK	Horn Antenna	PE9850/2F-20	072001	2022/2/4	2025/2/5

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to plots.

1) 9kHz~30MHz

POE mode was the worst:

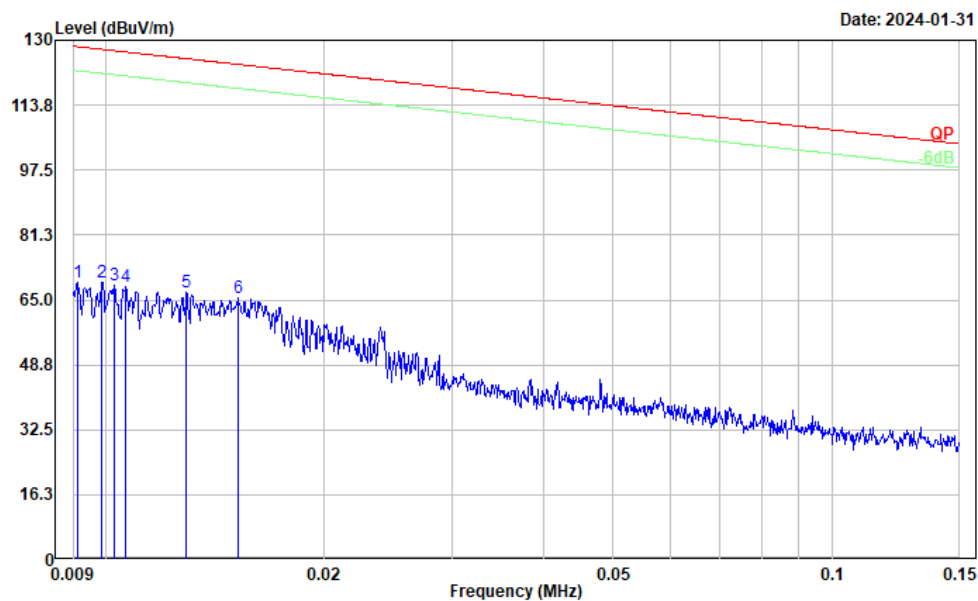
Parallel:

Project No.: CR240102704-RF

Tester: Vic Du

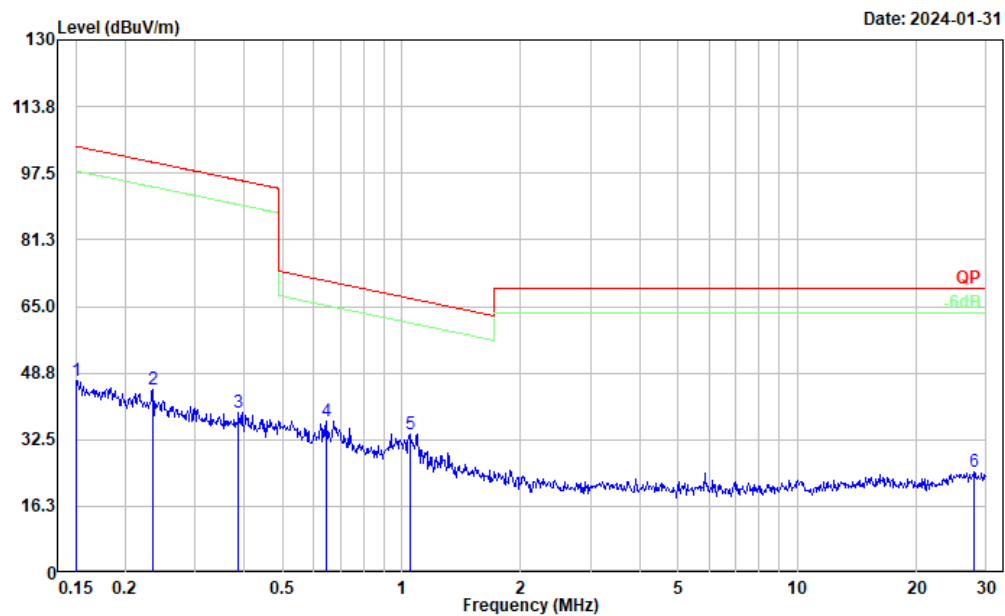
Polarization: Parallel

Note: Transmitting & Powered by POE 5.8G Radar



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.009	33.92	35.56	69.48	128.40	58.92	Peak
2	0.010	34.99	34.59	69.58	127.71	58.13	Peak
3	0.010	34.45	34.31	68.76	127.40	58.64	Peak
4	0.011	34.24	34.11	68.35	127.05	58.70	Peak
5	0.013	33.76	33.01	66.77	125.39	58.62	Peak
6	0.015	33.65	31.89	65.54	123.97	58.43	Peak

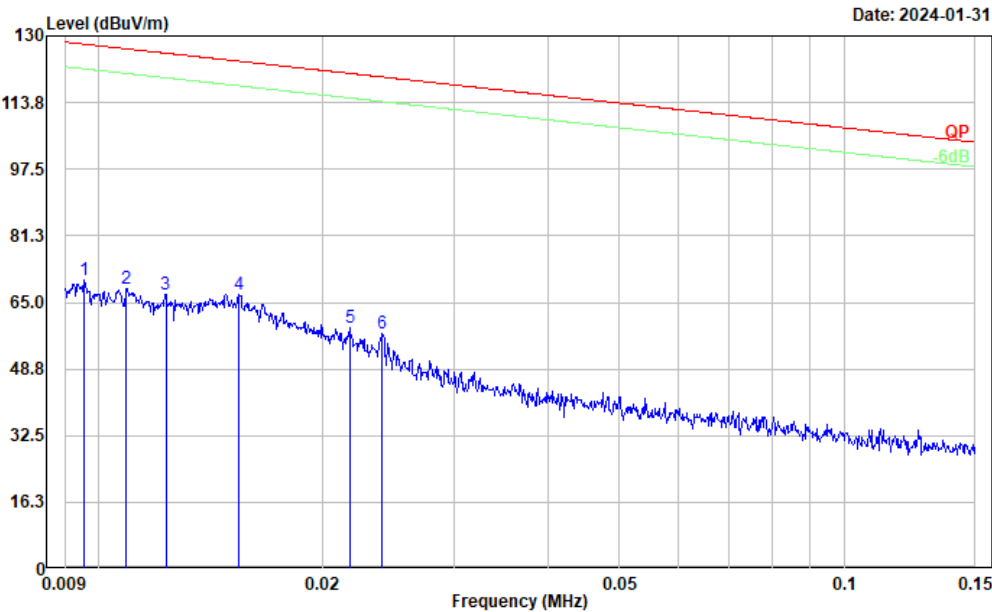
Project No.: CR240102704-RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting & Powered by POE 5.8G Radar



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.151	34.54	12.28	46.82	104.04	57.22	Peak
2	0.235	36.37	8.35	44.72	100.17	55.45	Peak
3	0.387	35.83	3.43	39.26	95.84	56.58	Peak
4	0.647	37.79	-0.75	37.04	71.33	34.29	Peak
5	1.049	38.29	-4.38	33.91	67.05	33.14	Peak
6	27.855	32.13	-7.45	24.68	69.54	44.86	Peak

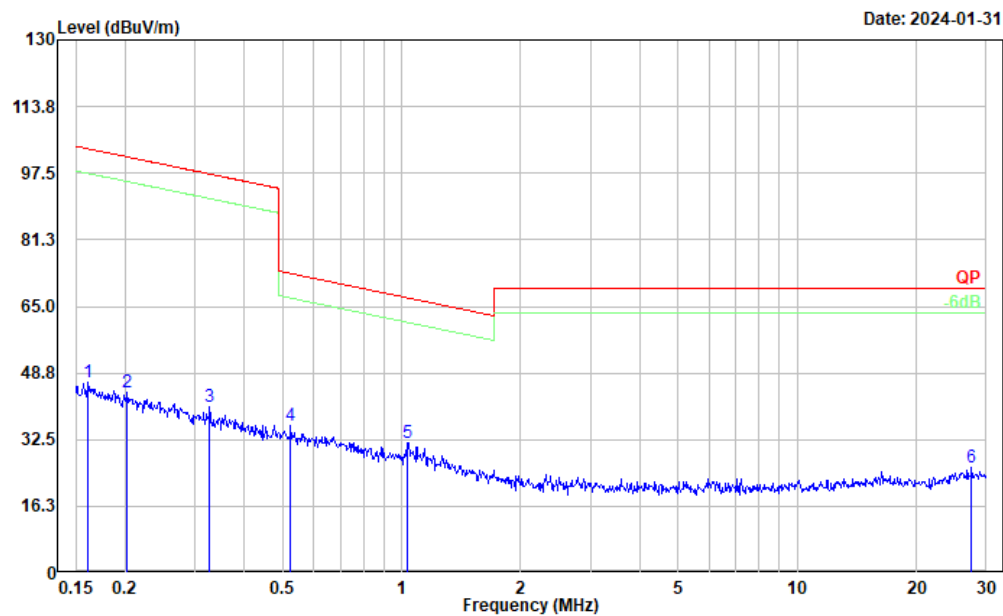
Perpendicular:

Project No.: CR240102704-RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting & Powered by POE 5.8G Radar



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.010	35.41	34.98	70.39	127.98	57.59	Peak
2	0.011	34.38	33.99	68.37	126.86	58.49	Peak
3	0.012	33.70	33.30	67.00	125.81	58.81	Peak
4	0.015	35.18	31.78	66.96	123.85	56.89	Peak
5	0.022	30.22	28.69	58.91	120.87	61.96	Peak
6	0.024	29.74	27.59	57.33	120.02	62.69	Peak

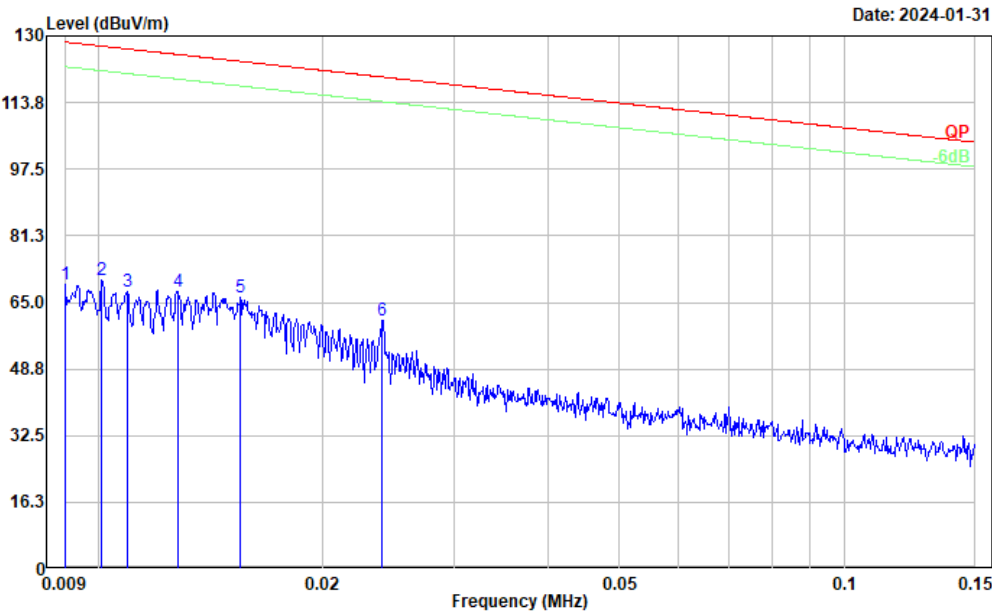
Project No.: CR240102704-RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting & Powered by POE 5.8G Radar



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.162	34.55	11.78	46.33	103.44	57.11	Peak
2	0.203	34.01	9.86	43.87	101.46	57.59	Peak
3	0.327	35.67	4.76	40.43	97.32	56.89	Peak
4	0.524	35.30	0.68	35.98	73.21	37.23	Peak
5	1.037	36.17	-4.34	31.83	67.15	35.32	Peak
6	27.562	33.33	-7.46	25.87	69.54	43.67	Peak

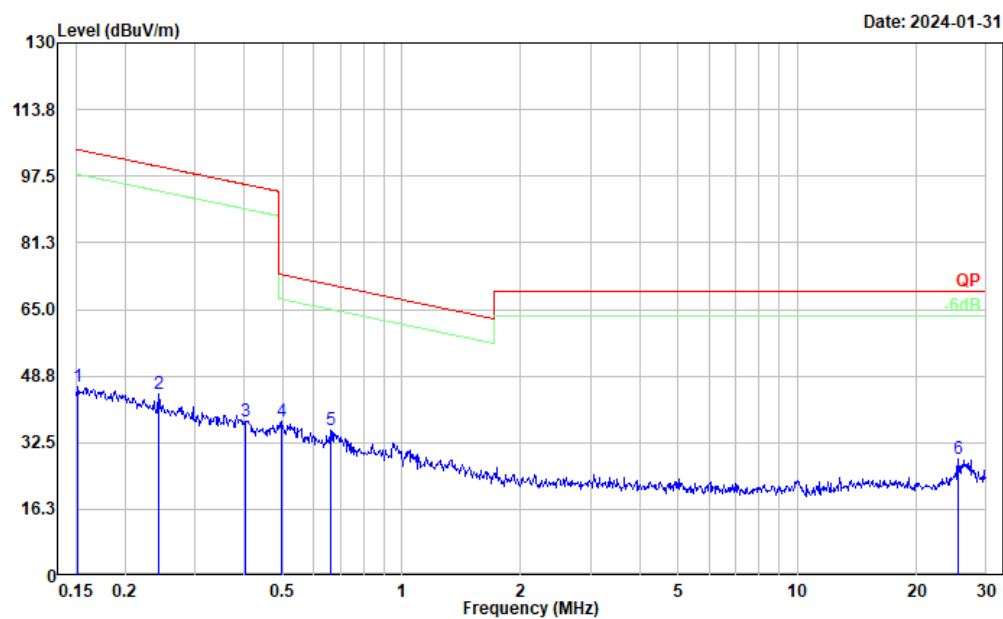
Ground-parallel:

Project No.: CR240102704-RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting & Powered by POE 5.8G Radar



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.009	33.59	35.73	69.32	128.52	59.20	Peak
2	0.010	35.91	34.38	70.29	127.52	57.23	Peak
3	0.011	33.80	33.98	67.78	126.83	59.05	Peak
4	0.013	34.48	33.08	67.56	125.49	57.93	Peak
5	0.015	34.50	31.74	66.24	123.80	57.56	Peak
6	0.024	33.20	27.56	60.76	119.99	59.23	Peak

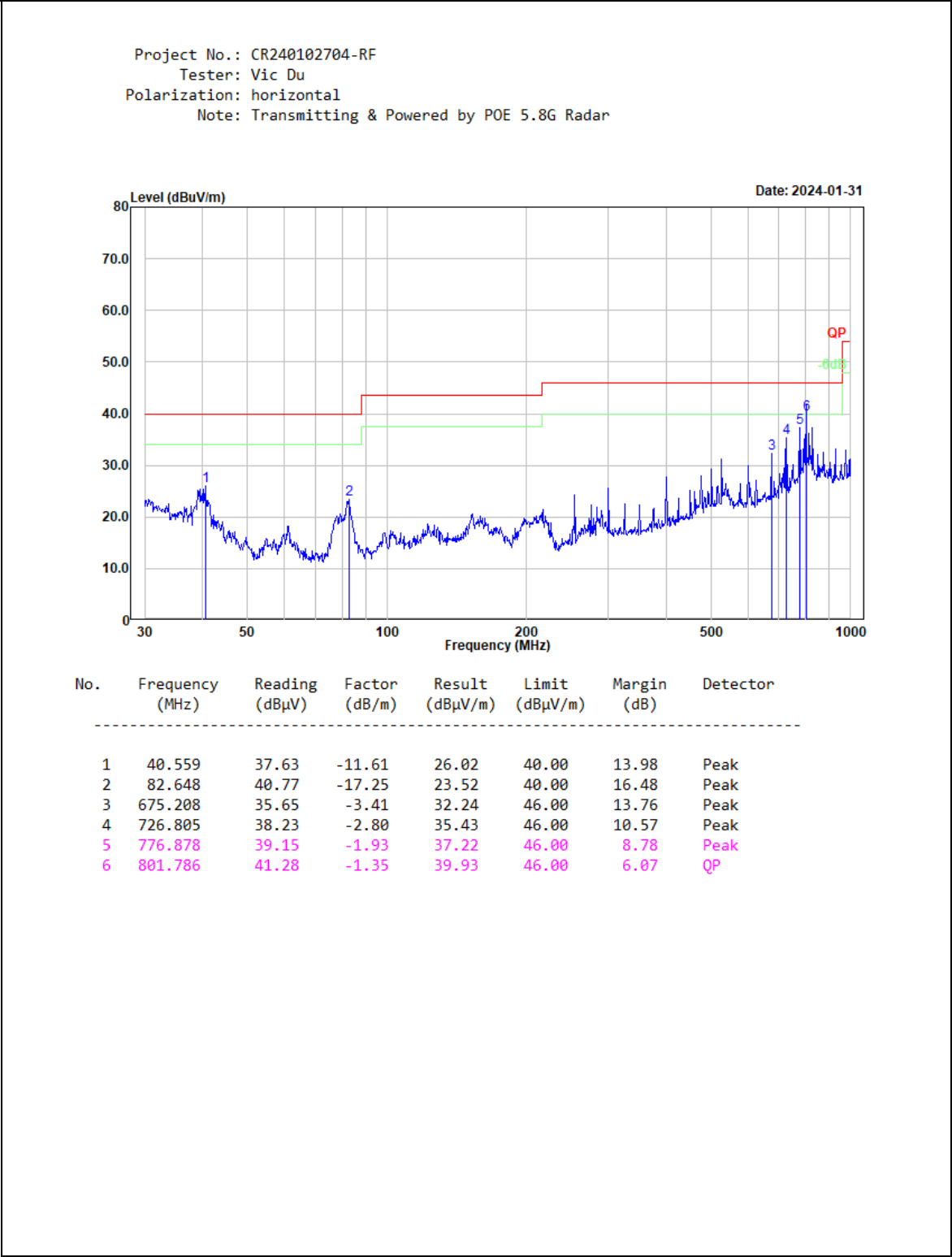
Project No.: CR240102704-RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting & Powered by POE 5.8G Radar



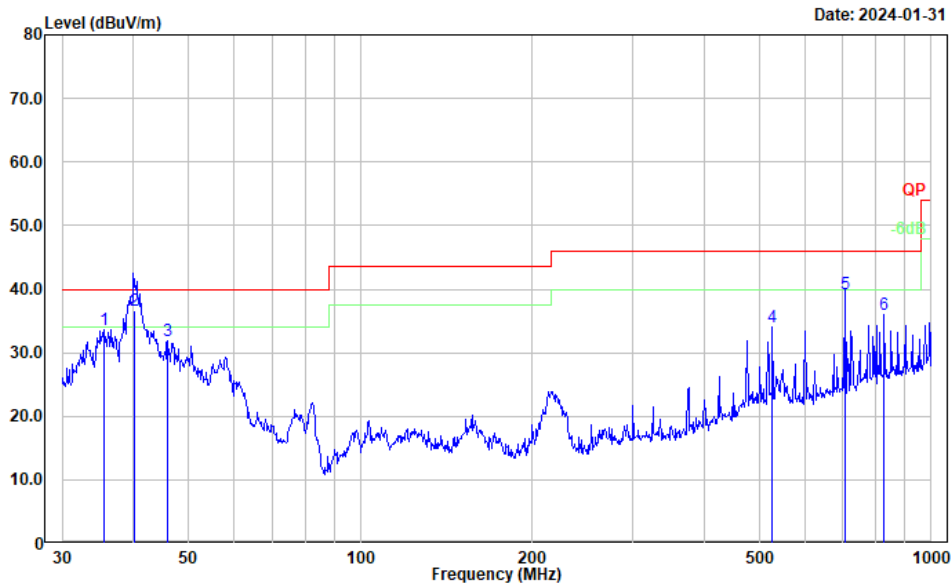
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.152	33.95	12.20	46.15	103.94	57.79	Peak
2	0.243	36.29	7.99	44.28	99.89	55.61	Peak
3	0.404	34.74	3.06	37.80	95.48	57.68	Peak
4	0.497	36.68	1.03	37.71	73.68	35.97	Peak
5	0.661	36.59	-0.91	35.68	71.14	35.46	Peak
6	25.456	36.21	-7.70	28.51	69.54	41.03	Peak

2) 30MHz-1GHz

POE mode was the worst:

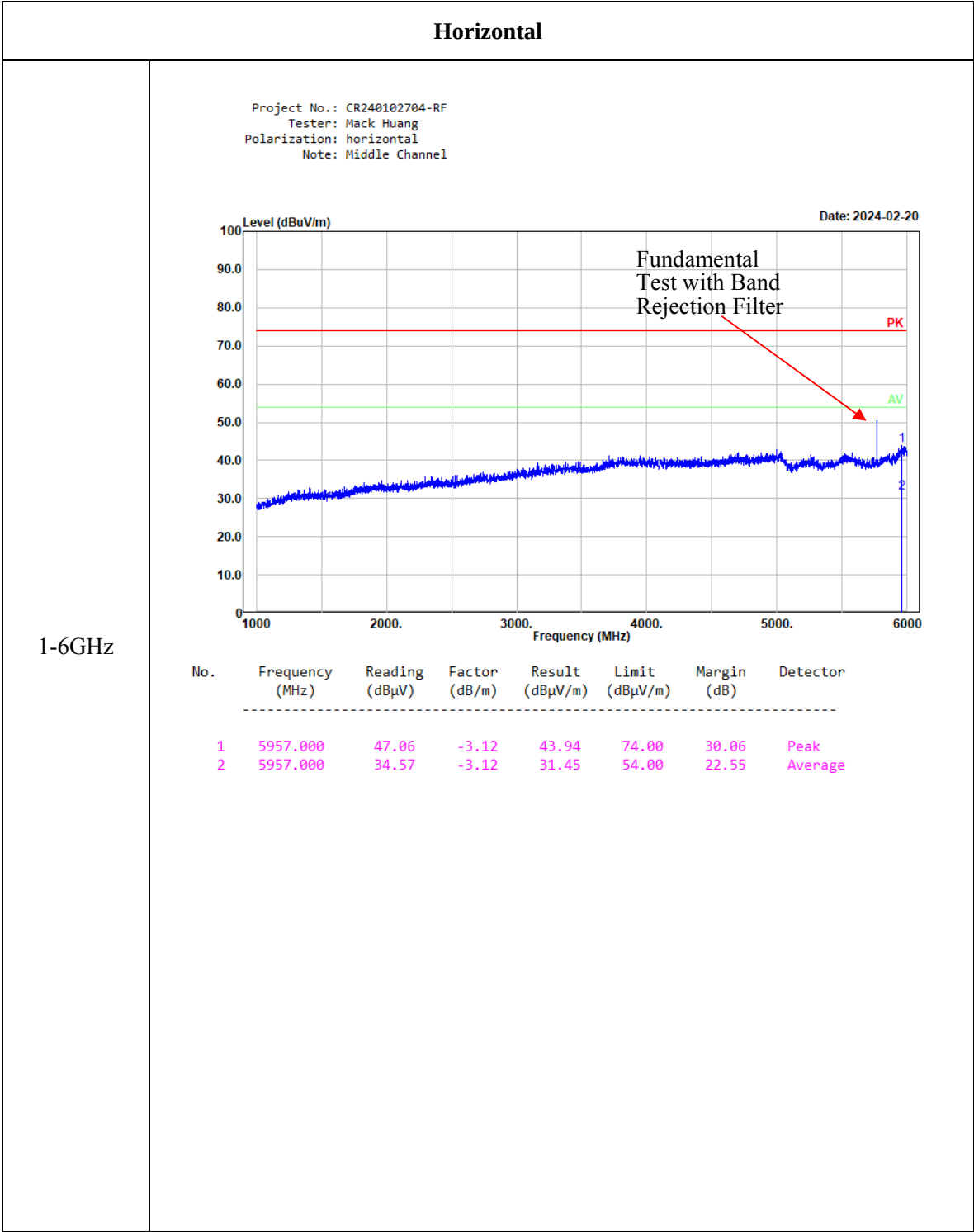


Project No.: CR240102704-RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting & Powered by POE 5.8G Radar



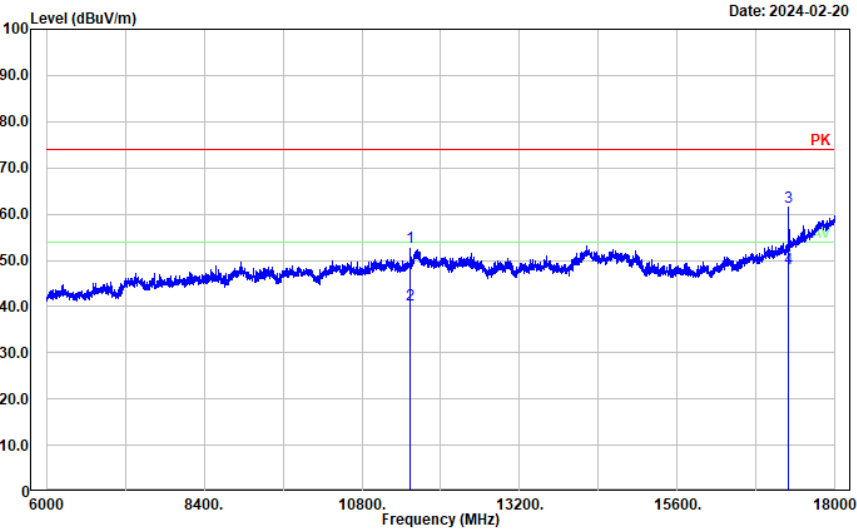
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	35.499	41.34	-7.80	33.54	40.00	6.46	Peak
2	40.146	47.84	-11.25	36.59	40.00	3.41	QP
3	46.016	47.26	-15.31	31.95	40.00	8.05	Peak
4	526.397	39.38	-5.44	33.94	46.00	12.06	Peak
5	706.700	42.07	-2.87	39.20	46.00	6.80	QP
6	827.493	37.11	-1.06	36.05	46.00	9.95	Peak

3) 1GHz-40GHz:



Horizontal

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: horizontal
Note: Middle Channel



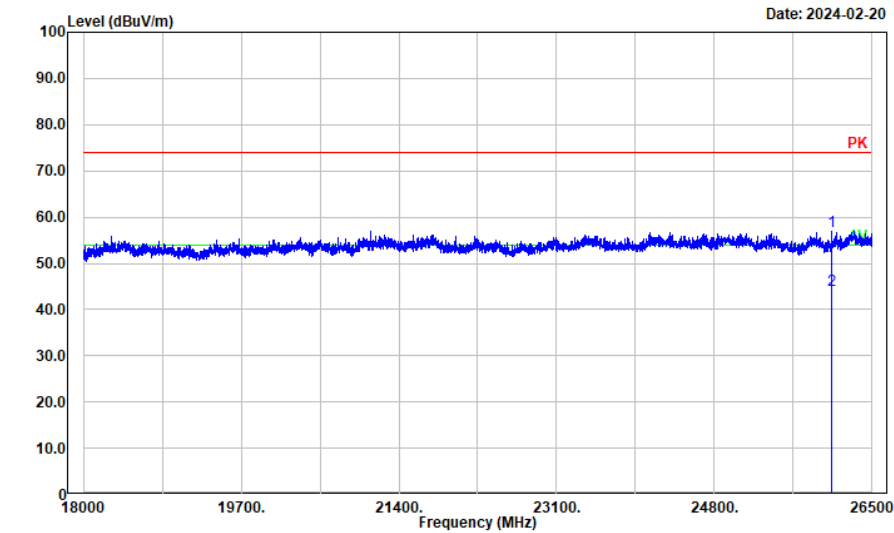
6-18GHz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11530.600	45.69	7.22	52.91	74.00	21.09	Peak
2	11530.600	33.16	7.22	40.38	54.00	13.62	Average
3	17295.900	50.77	10.84	61.61	74.00	12.39	Peak
4	17295.900	37.47	10.84	48.31	54.00	5.69	Average

Horizontal

18-26.5GHz

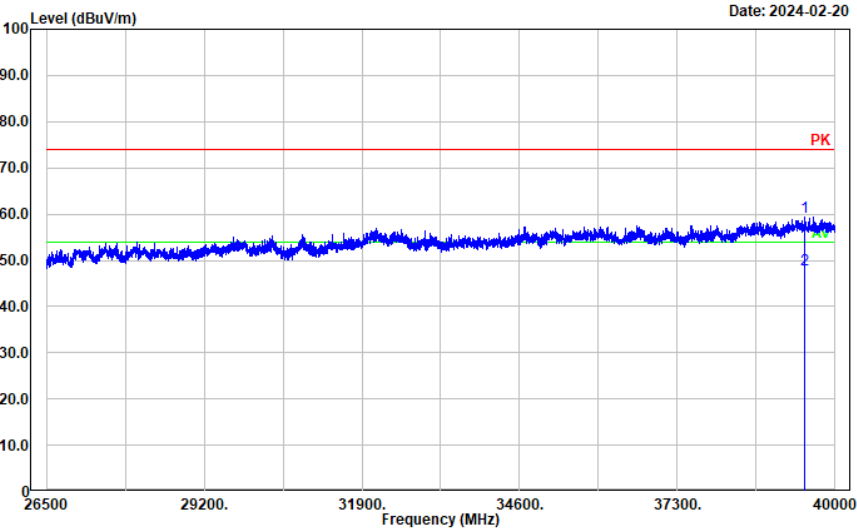
Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: Horizontal
Note: Middle Channel



Horizontal

26.5-40GHz

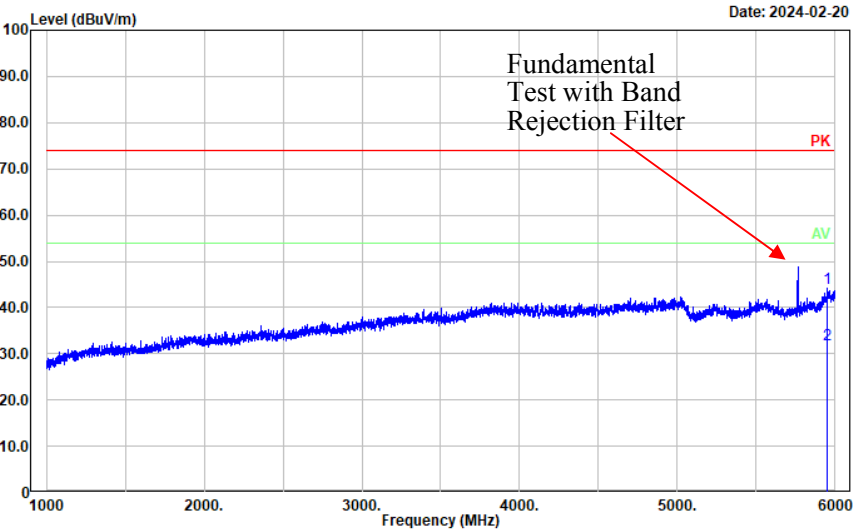
Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: Horizontal
Note: Middle Channel



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	39473.500	49.28	10.17	59.45	74.00	14.55	Peak
2	39473.500	37.72	10.17	47.89	54.00	6.11	Average

Vertical

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: vertical
Note: Middle Channel

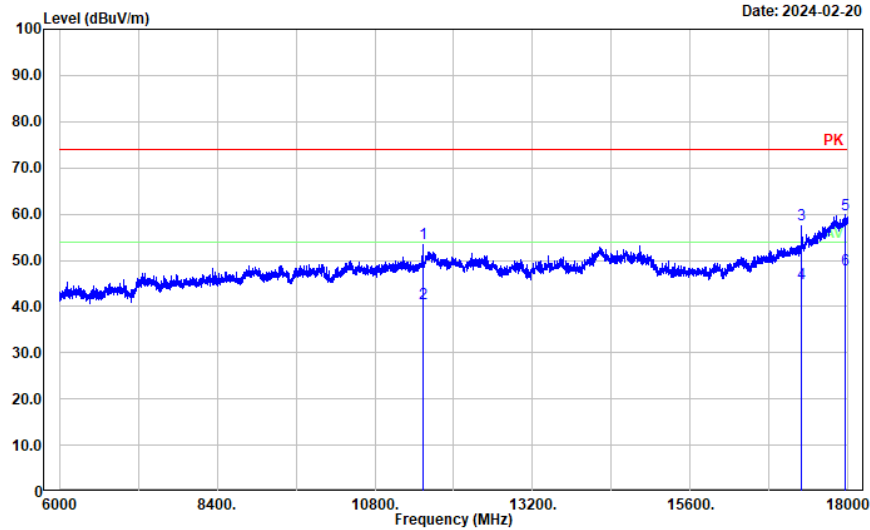


1-6GHz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5952.000	47.20	-3.12	44.08	74.00	29.92	Peak
2	5952.000	35.22	-3.12	32.10	54.00	21.90	Average

Vertical

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: vertical
Note: Middle Channel



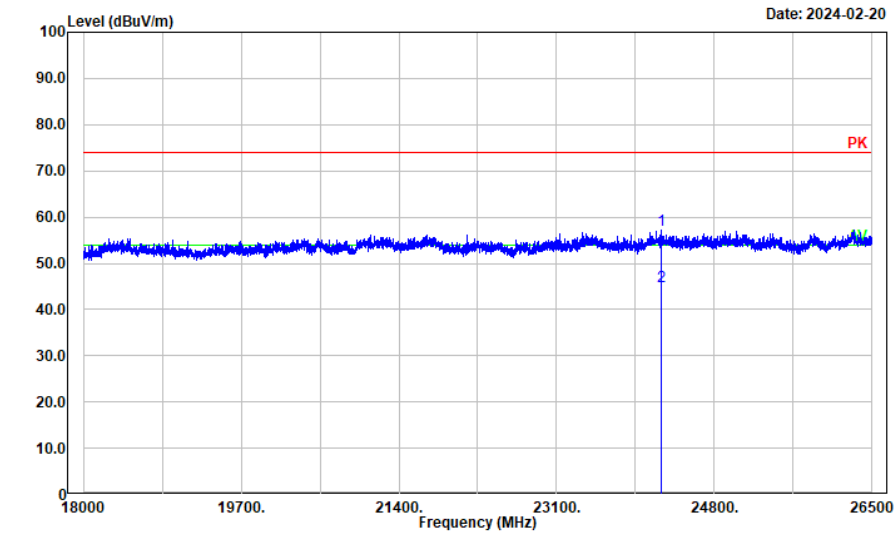
6-18GHz

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	11530.600	46.36	7.22	53.58	74.00	20.42	Peak
2	11530.600	33.41	7.22	40.63	54.00	13.37	Average
3	17295.900	46.89	10.84	57.73	74.00	16.27	Peak
4	17295.900	34.10	10.84	44.94	54.00	9.06	Average
5	17954.400	43.93	16.07	60.00	74.00	14.00	Peak
6	17954.400	31.82	16.07	47.89	54.00	6.11	Average

Vertical

18-26.5GHz

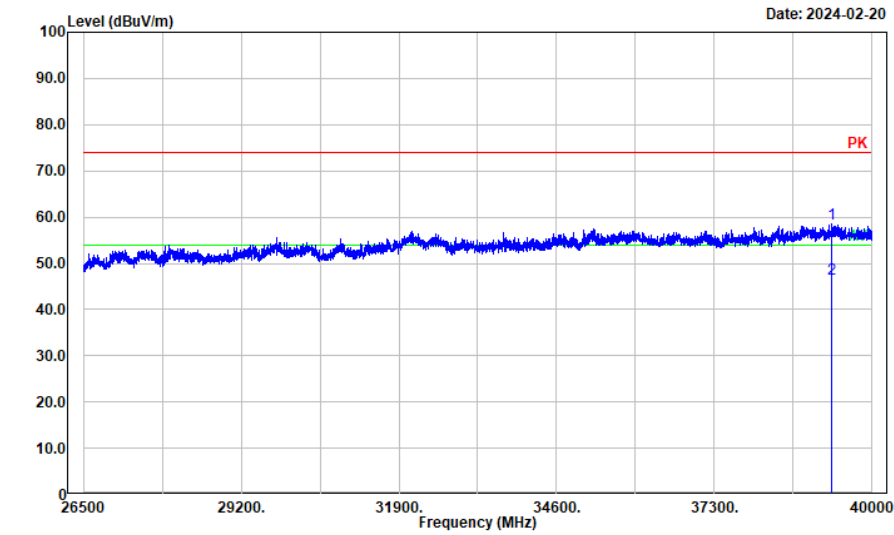
Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: vertical
Note: Middle Channel



Vertical

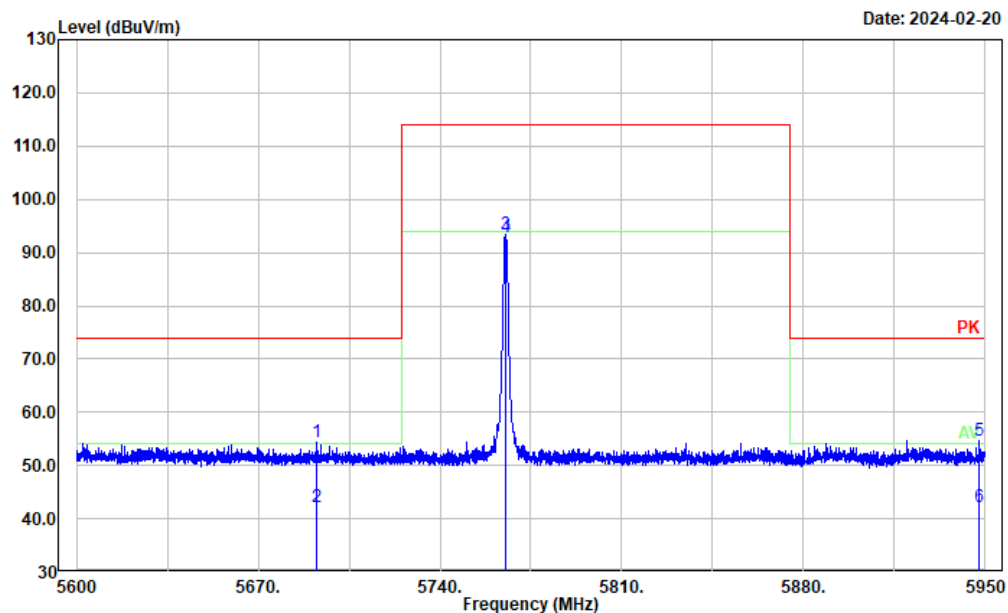
26.5-40GHz

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: Vertical
Note: Middle Channel



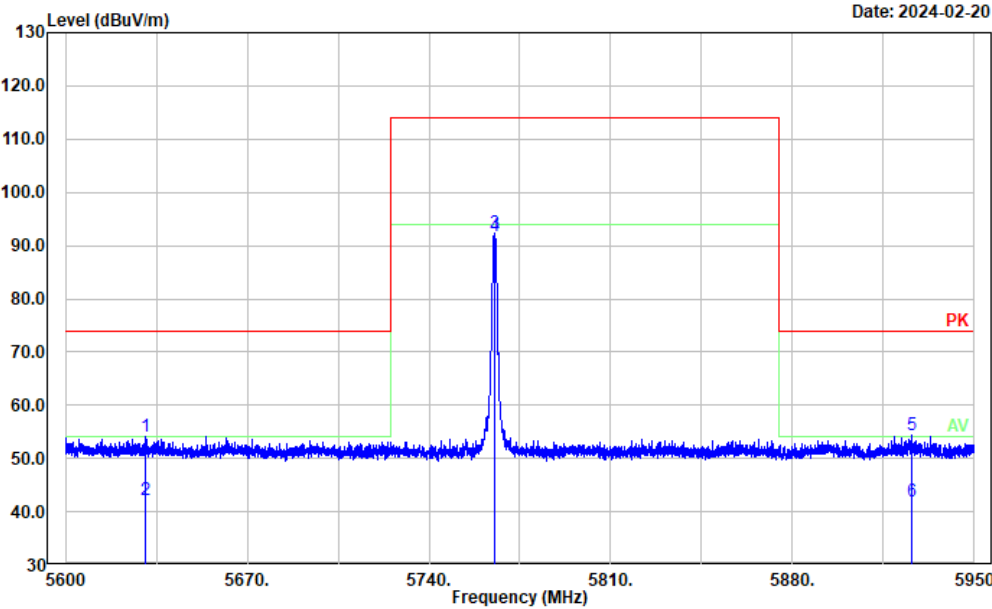
Test plots for Fundamental and Band Edge Measurements

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: Horizontal
Note: Middle Channel Edge



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	5692.540	57.89	-3.55	54.34	74.00	19.66	Peak
2	5692.540	45.87	-3.55	42.32	54.00	11.68	Average
3	5765.270	96.98	-3.60	93.38	113.98	20.60	Peak
4	5765.270	96.43	-3.60	92.83	93.98	1.15	Average
5	5947.410	57.89	-3.12	54.77	74.00	19.23	Peak
6	5947.410	45.22	-3.12	42.10	54.00	11.90	Average

Project No.: CR240102704-RF
Tester: Mack Huang
Polarization: Vertical
Note: Middle Channel Edge



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	5630.800	57.58	-3.33	54.25	74.00	19.75	Peak
2	5630.800	45.43	-3.33	42.10	54.00	11.90	Average
3	5765.270	95.80	-3.60	92.20	113.98	21.78	Peak
4	5765.270	95.31	-3.60	91.71	93.98	2.27	Average
5	5925.710	57.73	-3.23	54.50	74.00	19.50	Peak
6	5925.710	45.12	-3.23	41.89	54.00	12.11	Average

4.3 20 dB Emission Bandwidth:

Serial Number:	2GJV_1	Test Date:	2024/2/20
Test Site:	966-1	Test Mode:	Transmitting
Tester:	Mack Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.7	Relative Humidity: (%)	61	ATM Pressure: (kPa)	100.8
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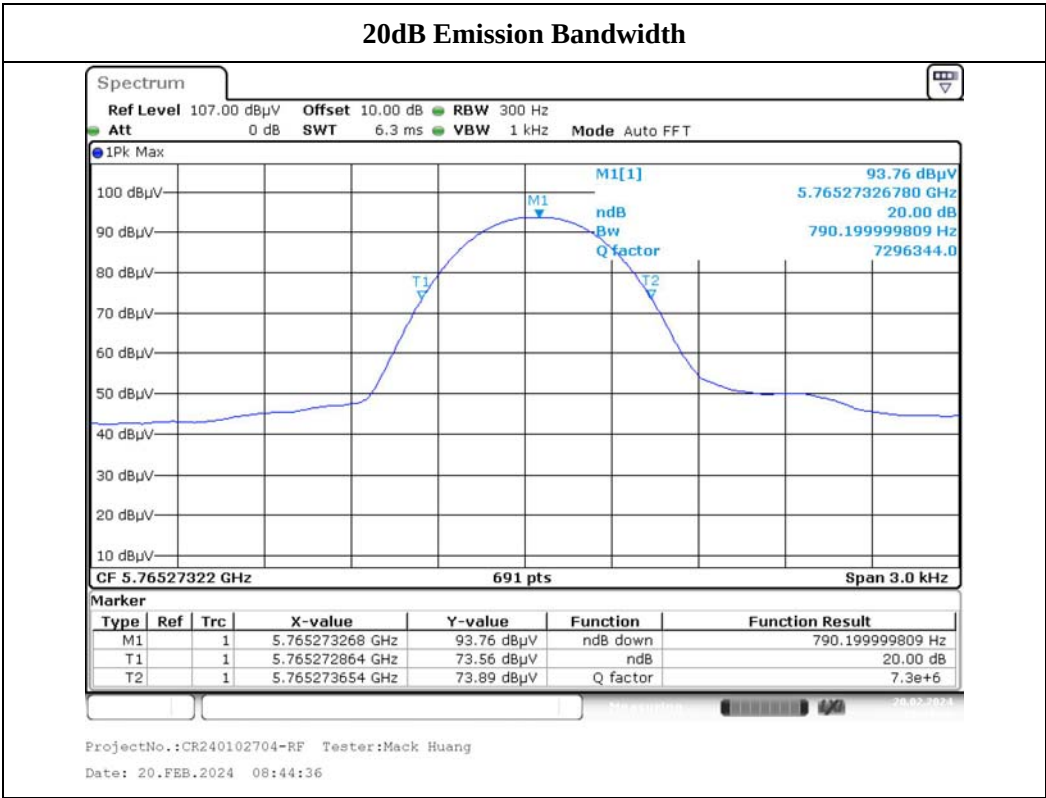
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2024/1/15	2025/1/14
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2024/1/15	2025/1/14
A.H	Preamplifier	PAM-0118P	628	2024/1/15	2025/1/14

*** Statement of Traceability:** China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Test Frequency (MHz)	20 dB Bandwidth (Hz)
5765.3	790



5. EUT PHOTOGRAPHS

Please refer to the attachment CR240102704-EXP EUT EXTERNAL PHOTOGRAPHS and CR240102704-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR240102704-00A-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====