



中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

Applicant: Quanzhou Wouxun Electronics Co., Ltd.

Address: Jiangnan High Technology Industry Park, No.928 Nanhuan Road, Quanzhou, Fujian, China

FCC ID: WVTWOUXUN28

Product Name: TWO WAY RADIO(GMRS RADIO)

Model Number: KG-S88G, S88G, KG-S88G+, KG-S88G Plus, KG-S88G Limited Edition, KG-S88GX, KG-S89G, S89G, KG-S89GX, KG-S86G, S86G, KG-S86GX, KG-S88G-BL, KG-S88G-RD, KG-S88G-WH, KG-S88G-GY, KG-S88G-OR

Standard(s): 47 CFR Part 15 Subpart B
ANSI C63.4-2014

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

Report Number: CR21100114-00A

Date Of Issue: 2022-02-16

Reviewed By: Sun Zhong *Sun Zhong*

Title: Manager

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)
No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China
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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.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

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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1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	TWO WAY RADIO(GMRS RADIO)
EUT Model:	KG-S88G
Multiple Models:	S88G, KG-S88G+, KG-S88G Plus, KG-S88G Limited Edition, KG-S88GX, KG-S89G, S89G, KG-S89GX, KG-S86G, S86G, KG-S86GX, KG-S88G-BL, KG-S88G-RD, KG-S88G-WH, KG-S88G-GY, KG-S88G-OR
Receiver Frequency:	400-480 MHz
Rated Input Voltage:	DC 7.4V from Battery, DC 8.4V for charger or DC 5V from USB port
Serial Number:	CR21100114-RF-S1
EUT Received Date:	2021.11.3
EUT Received Status:	Good
Note: The Multiple models are electrically identical with test model, please refer to the declaration letter for more detail, which was provided by manufacturer.	

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter	TEEHINE	DSX-120050L-US	Input: 100-240V~50/60Hz 0.3A Output: 12V 0.5A
Charger Base	Quanzhou WOUXUN Electronics Co., Ltd	Unknown	Input: DC 12V Output: DC 8.4V 0.45A

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Typical Use Mode, which was provided by the manufacturer. Test Mode 1(M1): Receiving at 400 MHz&Charging by Charger Test Mode 2(M2): Receiving at 440 MHz&Charging by Charger Test Mode 3(M3): Receiving at 480 MHz&Charging by Charger Test Mode 4(M4): Scanning&Charging by Charger Test Mode 5(M5): Receiving at 440 MHz&Charging by USB Adapter (Worst of M1~M4 but Charging by USB Adapter)
Equipment Modifications:	No
EUT Exercise Software:	No

1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
HP	RF Communications Test Set	8920A	3438A05209
Un-Known	ANTENNA	Un-Known	Un-Known

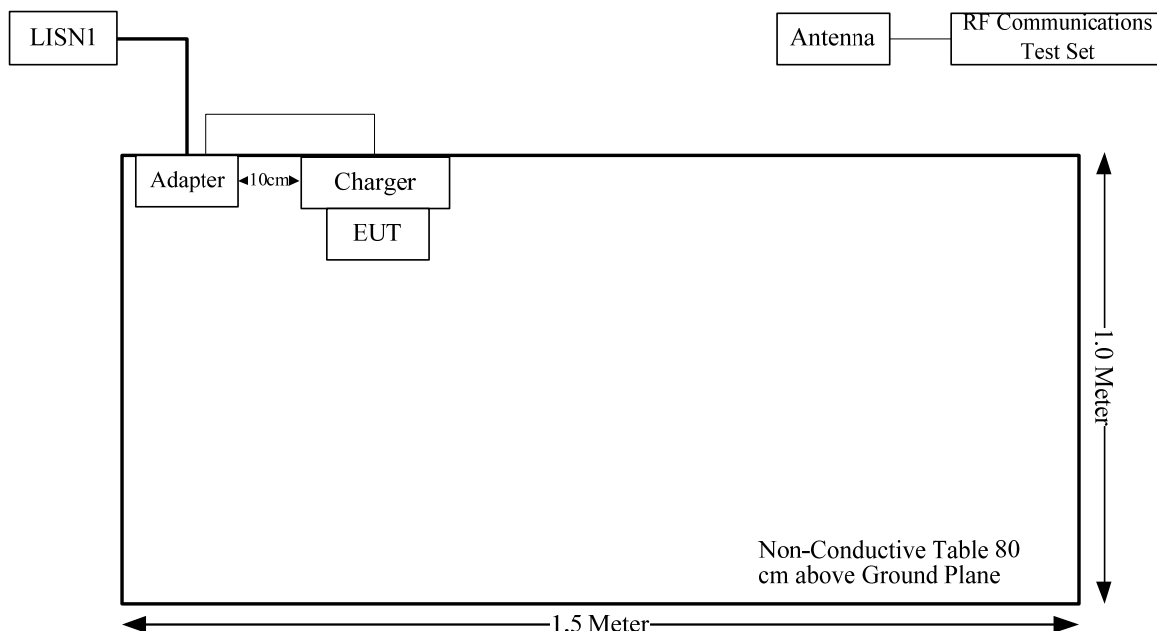
1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Cable	No	No	1.2	Adapter	Charger

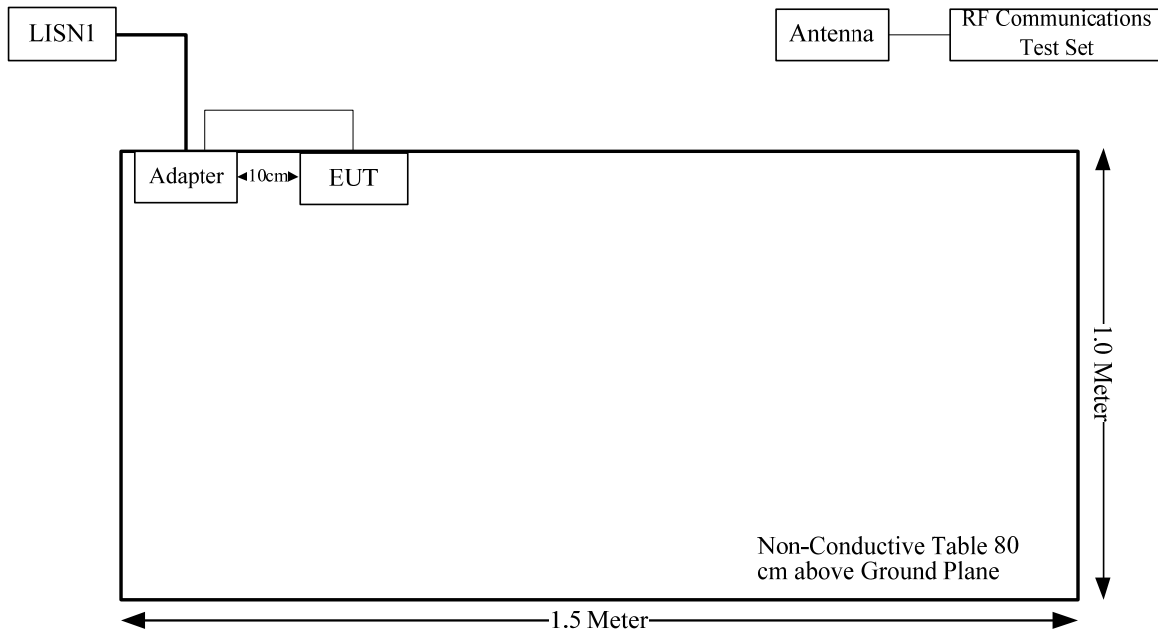
1.2.4 Block Diagram of Test Setup

AC line conducted emissions:

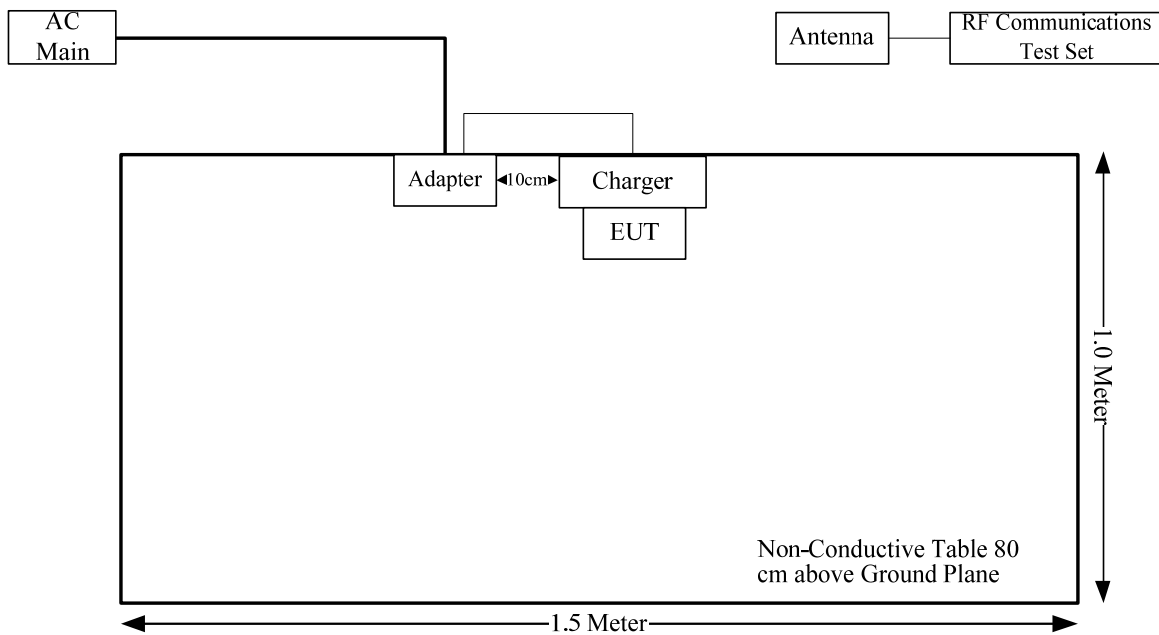
Charged by Charger:



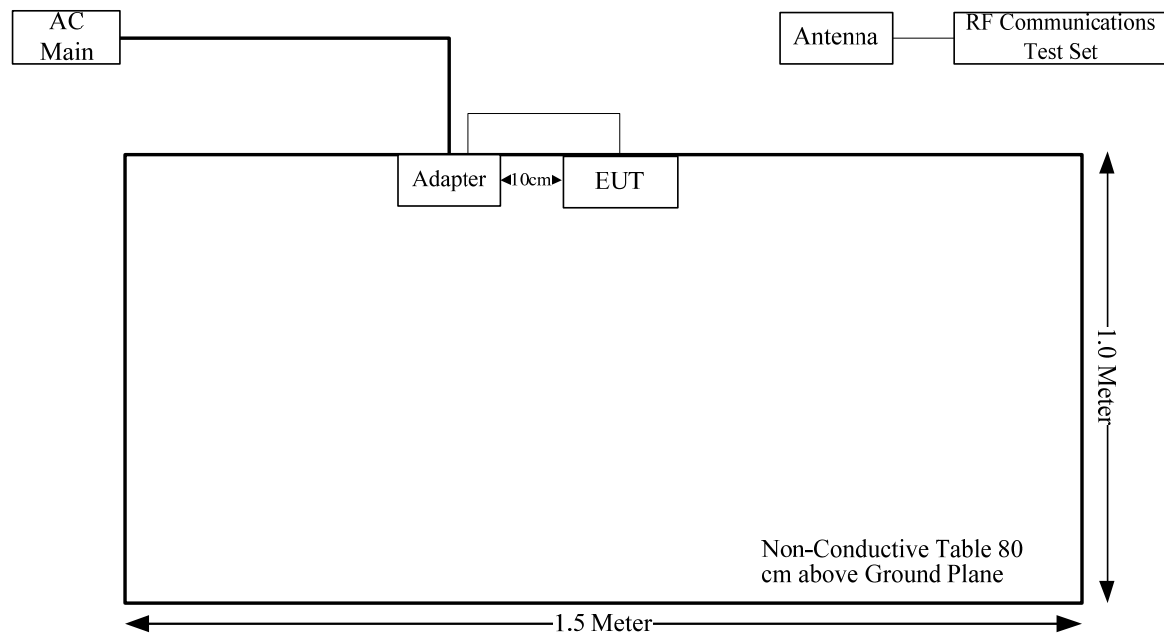
Charged by USB adapter:



Spurious Emissions:
Charged by Charger:



Charged by USB adapter:



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
Unwanted Emissions, radiated	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
Unwanted Emissions, conducted	± 1.26 dB
Temperature	± 1 °C
Humidity	$\pm 5\%$
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

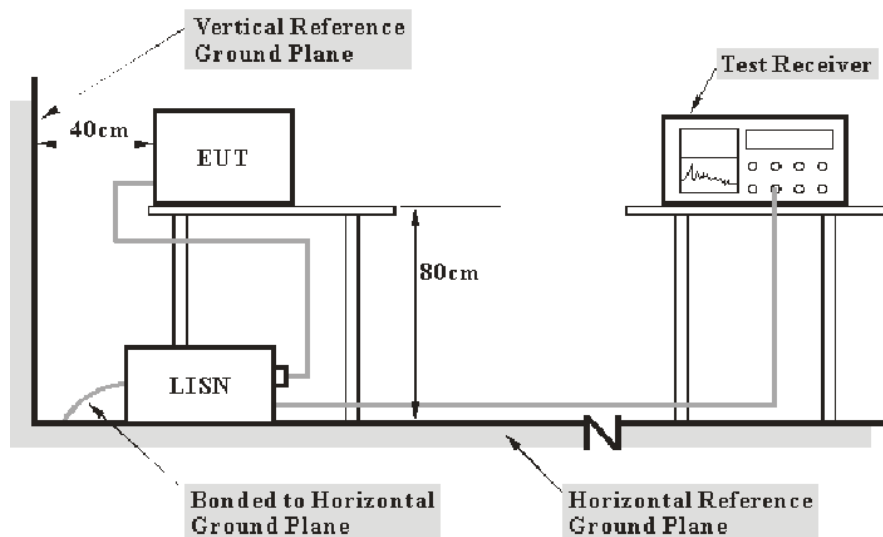
2. SUMMARY OF TEST RESULTS

Standard(s) Section	Description of Test	Result
§15.107	Conducted emissions	Compliance
§15.109	Radiated emissions	Compliance
§15.111	Antenna power conduction limits for receivers	Compliance
§15.121(b)	Scanning receivers and frequency converters used with scanning receivers	Compliance

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 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 C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B 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 adapter was connected to the main LISN with a 120 V/60 Hz AC power source.

3.1.2 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

3.1.3 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT, the report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

All data was recorded in the Quasi-peak and average detection mode.

The report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

3.1.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

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

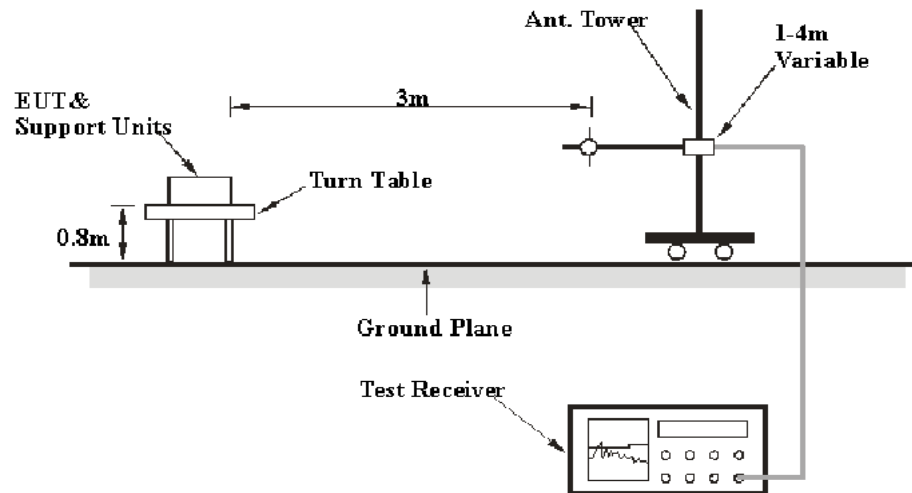
The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

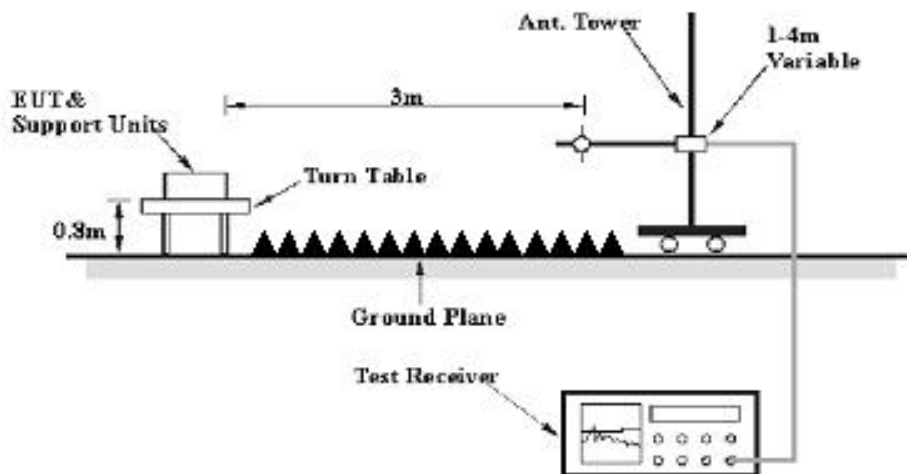
3.2 Radiation Spurious Emissions

3.2.1 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was with the FCC Part 15 B Class B limits.

3.2.2 EMI Test Receiver Setup

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	Reduced video bandwidth	/	AVG

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

3.2.3 Test Procedure

During the radiated emissions, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

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

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

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

3.2.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

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

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

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 Antenna Power Conduction Limits for Receivers

3.3.1 Applicable Standard

FCC§15.111.

(a) In addition to the radiated emission limits, receivers that operate (tune) in the frequency range 30 to 960 MHz and CB receivers that provide terminals for the connection of an external receiving antenna may be tested to demonstrate compliance with the provisions of § 15.109 with the antenna terminals shielded and terminated with a resistive termination equal to the impedance specified for the antenna, provided these receivers also comply with the following: With the receiver antenna terminal connected to a resistive termination equal to the impedance specified or employed for the antenna, the power at the antenna terminal at any frequency within the range of measurements specified in § 15.33 shall not exceed 2.0 nanowatts.

Test Procedure

EUT antenna port connected to a spectrum analyzer, the traces were recorded as shown on the data pages.

3.4 Scanning Receivers and Frequency Converters Used with Scanning Receivers

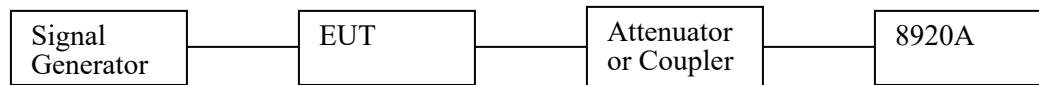
Applicable Standard

FCC §15.121(b).

(b) Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or lower based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

Test Procedure

1. Connected the EUT as the below block diagram;



2. Apply a signal to the EUT antenna port at lowest, middle, highest channel frequencies of the operating band;
3. Adjust the audio output level of the EUT to it's rated value with the distortion less than 10%;
4. Adjust the Signal Generator output power to produce 12 dB SINAD without the audio output power dropping by more than 3 dB; These output level of the Signal Generator at each channel frequency is the sensitivity of the EUT;
5. Select the lowest or worst case sensitivity level for all of the bands as the reference sensitivity;
6. Adjust the Signal Generator output to a level of +60 dB above the reference sensitivity obtained in step 5 and its frequency to the frequency point in the Cellular Band;
7. Set the EUT squelch to threshold, the signal required to open the squelch must be lower than the reference sensitivity level;
8. Set the EUT in a scanning mode and allow it to scan through it's complete receiving range;
9. If the EUT un-squelched or stopped on any frequency, receiving at this frequency, then adjust the signal generator output level until 12 dB SINAD is produced, this level is the spurious value and the difference between the reference sensitivity and the spurious value is the rejection ratio and must be at least 38 dB;
10. Repeat above procedure at the frequencies 824, 836, 849 MHz for the mobile band, and 869, 881.5 and 894 MHz for the Cellular Base Band.

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	CR21100114-RF-S1	Test Date:	2021-11-05~2022-01-26
Test Site:	CE	Test Mode:	M1~M5
Tester:	Nick Tang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	20.9~25.4	Relative Humidity: (%)	70~71	ATM Pressure: (kPa)	100.9~101.1
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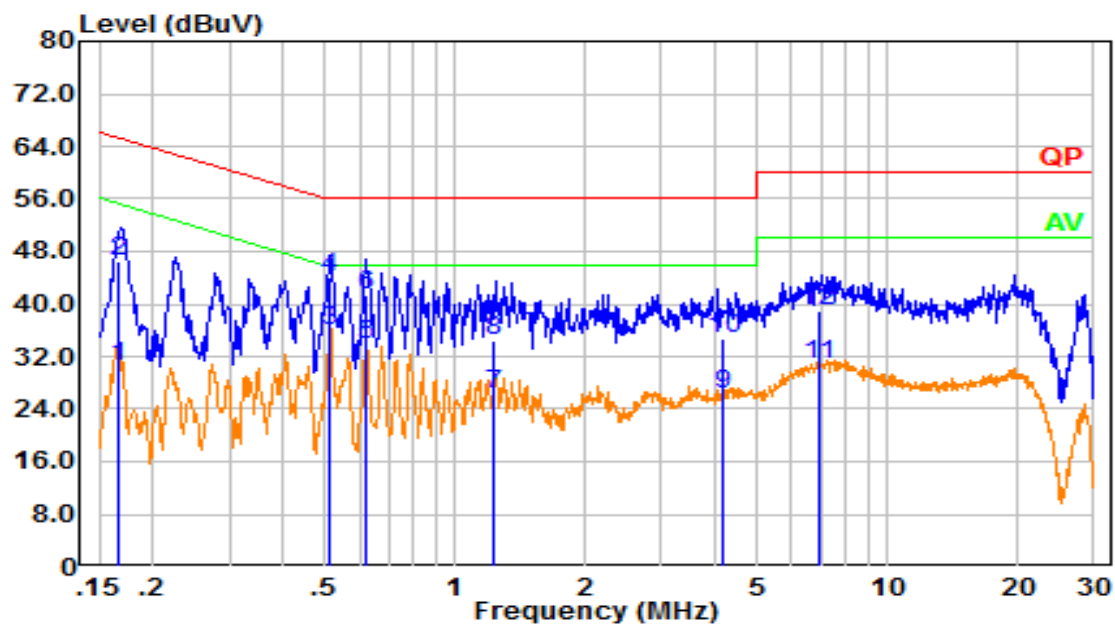
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101132	2021-04-25	2022-04-24
R&S	EMI Test Receiver	ESR3	102726	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2021-08-08	2022-08-07
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).

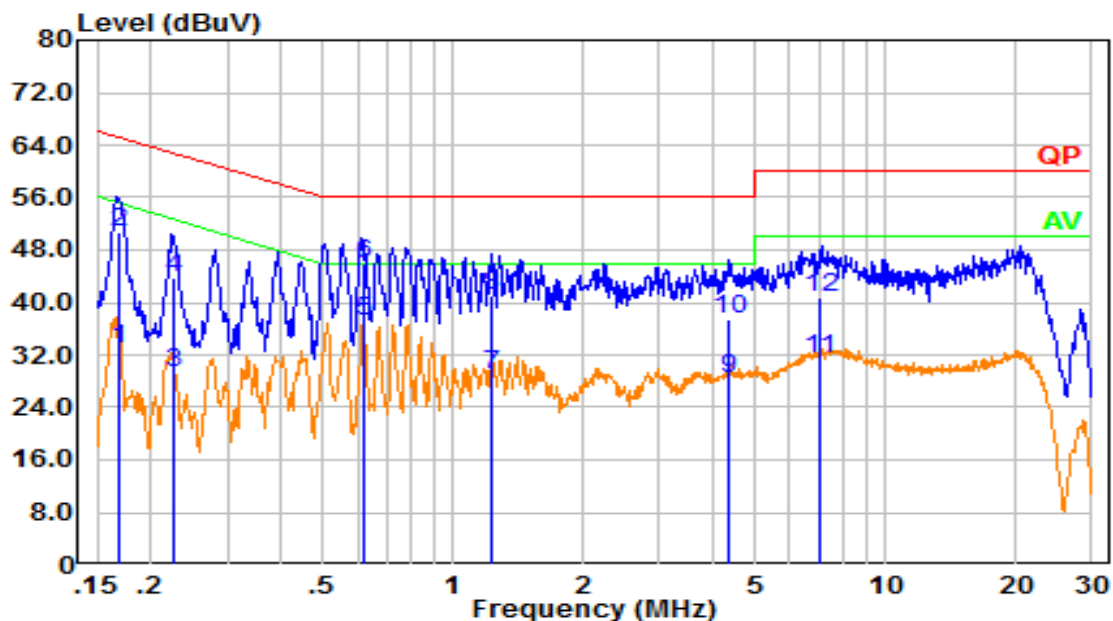
Mode: M1

Line:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.167	20.91	9.61	30.52	55.10	24.58	Average
2	0.167	36.83	9.61	46.44	65.10	18.66	QP
3	0.515	26.42	9.61	36.03	46.00	9.97	Average
4	0.515	34.57	9.61	44.18	56.00	11.82	QP
5	0.623	24.31	9.62	33.93	46.00	12.07	Average
6	0.623	31.71	9.62	41.33	56.00	14.67	QP
7	1.234	16.52	9.62	26.14	46.00	19.86	Average
8	1.234	24.86	9.62	34.48	56.00	21.52	QP
9	4.158	16.52	9.65	26.18	46.00	19.82	Average
10	4.158	25.15	9.65	34.80	56.00	21.20	QP
11	6.908	21.05	9.66	30.71	50.00	19.29	Average
12	6.908	29.28	9.66	38.94	60.00	21.06	QP

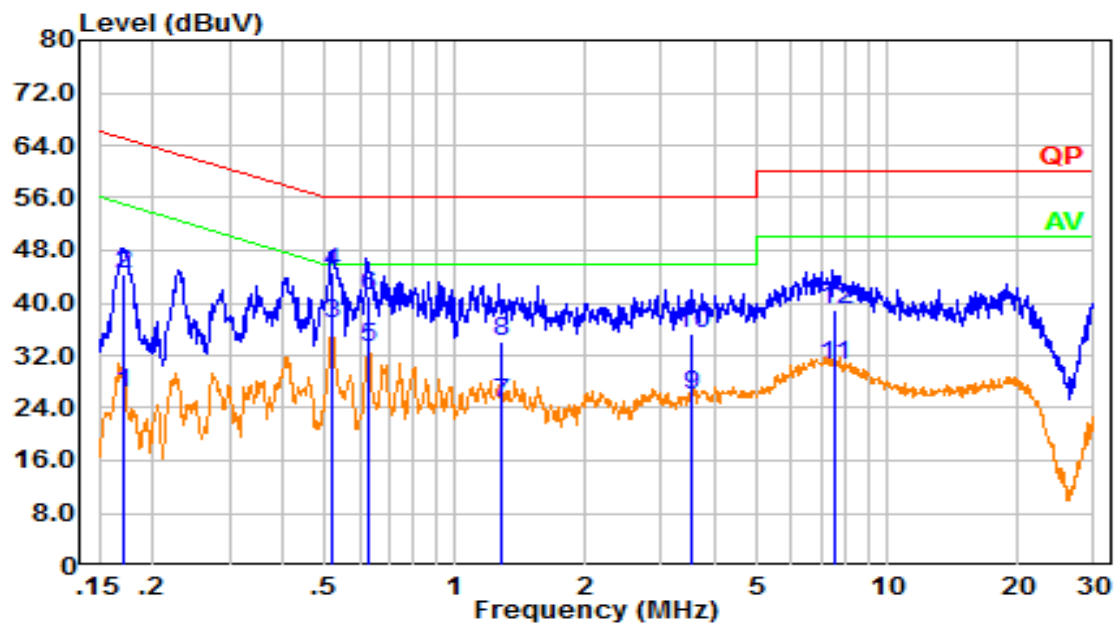
Neutral:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.168	23.30	9.61	32.91	55.05	22.14	Average
2	0.168	41.04	9.61	50.65	65.05	14.40	QP
3	0.224	19.71	9.61	29.32	52.66	23.34	Average
4	0.224	34.13	9.61	43.74	62.66	18.92	QP
5	0.619	27.60	9.62	37.22	46.00	8.78	Average
6	0.619	36.18	9.62	45.80	56.00	10.20	QP
7	1.230	19.48	9.62	29.11	46.00	16.89	Average
8	1.230	31.33	9.62	40.95	56.00	15.05	QP
9	4.322	18.74	9.65	28.39	46.00	17.61	Average
10	4.322	27.69	9.65	37.34	56.00	18.66	QP
11	7.021	21.79	9.66	31.45	50.00	18.55	Average
12	7.021	31.03	9.66	40.69	60.00	19.31	QP

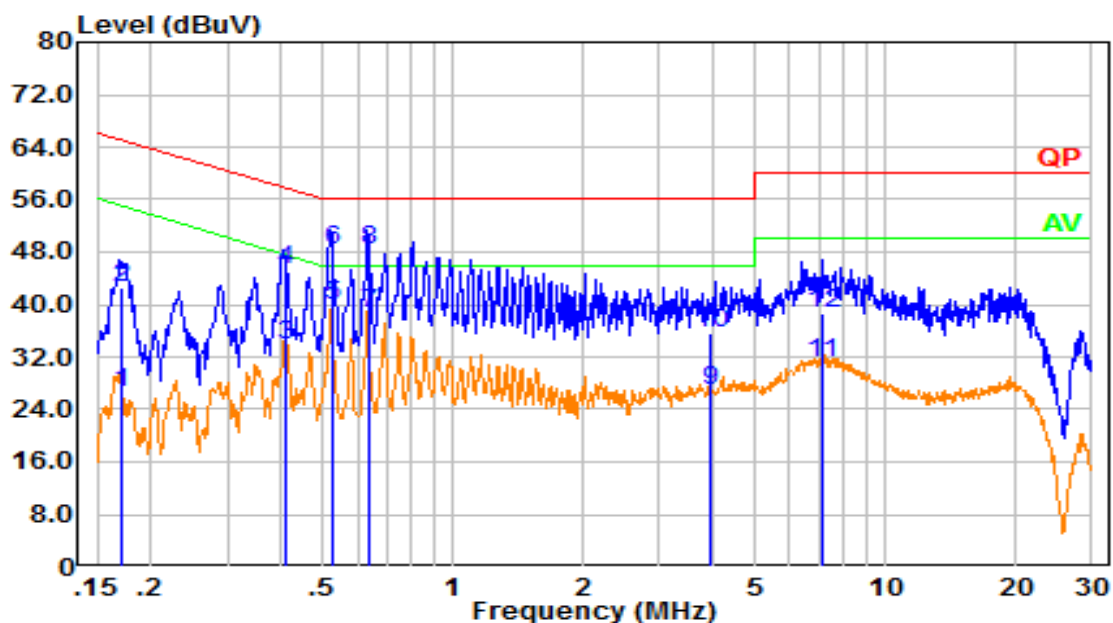
Mode: M2

Line:



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.171	16.65	9.61	26.26	54.91	28.65	Average
2	0.171	34.67	9.61	44.28	64.91	20.63	QP
3	0.520	27.33	9.61	36.95	46.00	9.05	Average
4	0.520	35.09	9.61	44.70	56.00	11.30	QP
5	0.630	23.44	9.62	33.06	46.00	12.94	Average
6	0.630	31.29	9.62	40.91	56.00	15.09	QP
7	1.283	15.10	9.62	24.73	46.00	21.27	Average
8	1.283	24.44	9.62	34.06	56.00	21.94	QP
9	3.520	16.22	9.65	25.87	46.00	20.13	Average
10	3.520	25.57	9.65	35.22	56.00	20.78	QP
11	7.513	20.95	9.67	30.62	50.00	19.38	Average
12	7.513	29.36	9.67	39.03	60.00	20.97	QP

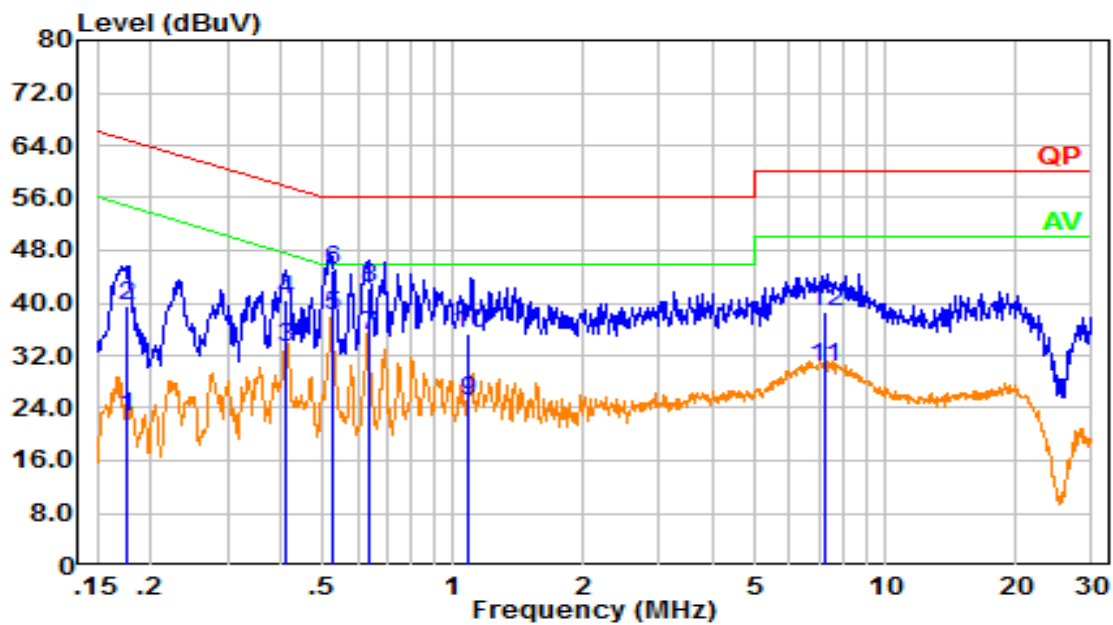
Neutral:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.172	16.85	9.61	26.46	54.88	28.43	Average
2	0.172	33.02	9.61	42.63	64.88	22.25	QP
3	0.408	24.09	9.61	33.70	47.70	14.00	Average
4	0.408	35.53	9.61	45.14	57.70	12.56	QP
5	0.524	30.11	9.61	39.72	46.00	6.28	Average
6	0.524	38.79	9.61	48.40	56.00	7.60	QP
7	0.639	29.05	9.62	38.67	46.00	7.33	Average
8	0.639	38.67	9.62	48.29	56.00	7.71	QP
9	3.936	17.34	9.65	26.99	46.00	19.01	Average
10	3.936	26.12	9.65	35.77	56.00	20.23	QP
11	7.142	21.34	9.66	31.00	50.00	19.00	Average
12	7.142	29.00	9.66	38.66	60.00	21.34	QP

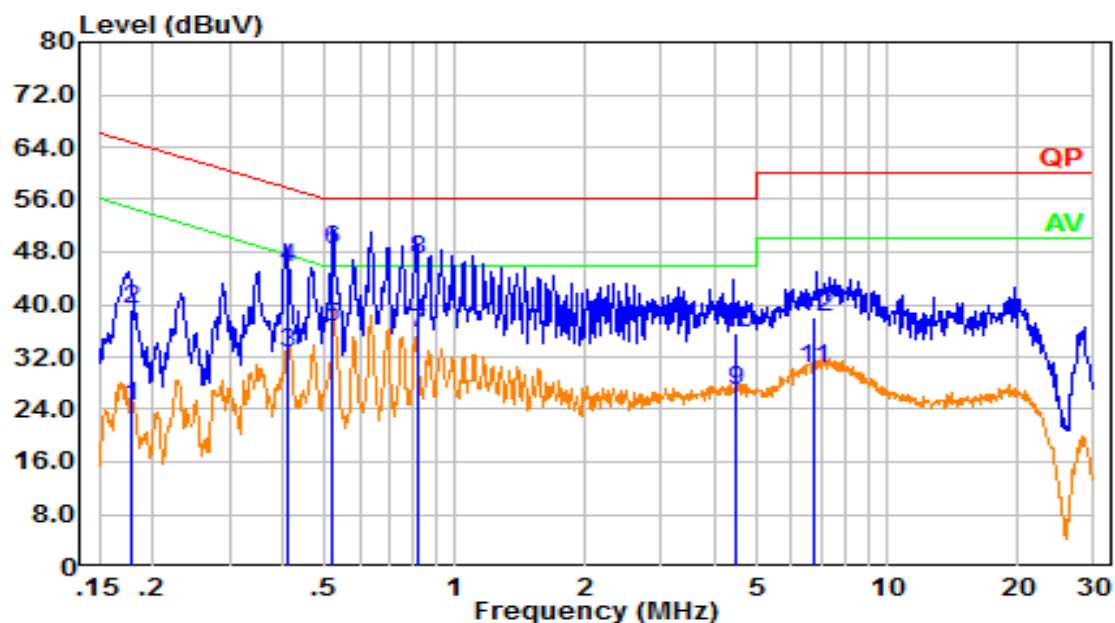
Mode: M3

Line:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.177	13.00	9.61	22.61	54.64	32.04	Average
2	0.177	29.79	9.61	39.40	64.64	25.24	QP
3	0.411	23.71	9.61	33.32	47.64	14.31	Average
4	0.411	30.88	9.61	40.49	57.64	17.15	QP
5	0.525	28.41	9.61	38.02	46.00	7.98	Average
6	0.525	35.30	9.61	44.91	56.00	11.09	QP
7	0.637	25.38	9.62	35.00	46.00	11.00	Average
8	0.637	32.54	9.62	42.16	56.00	13.84	QP
9	1.089	15.38	9.62	25.00	46.00	21.00	Average
10	1.089	25.58	9.62	35.20	56.00	20.80	QP
11	7.218	20.46	9.66	30.12	50.00	19.88	Average
12	7.218	29.09	9.66	38.75	60.00	21.25	QP

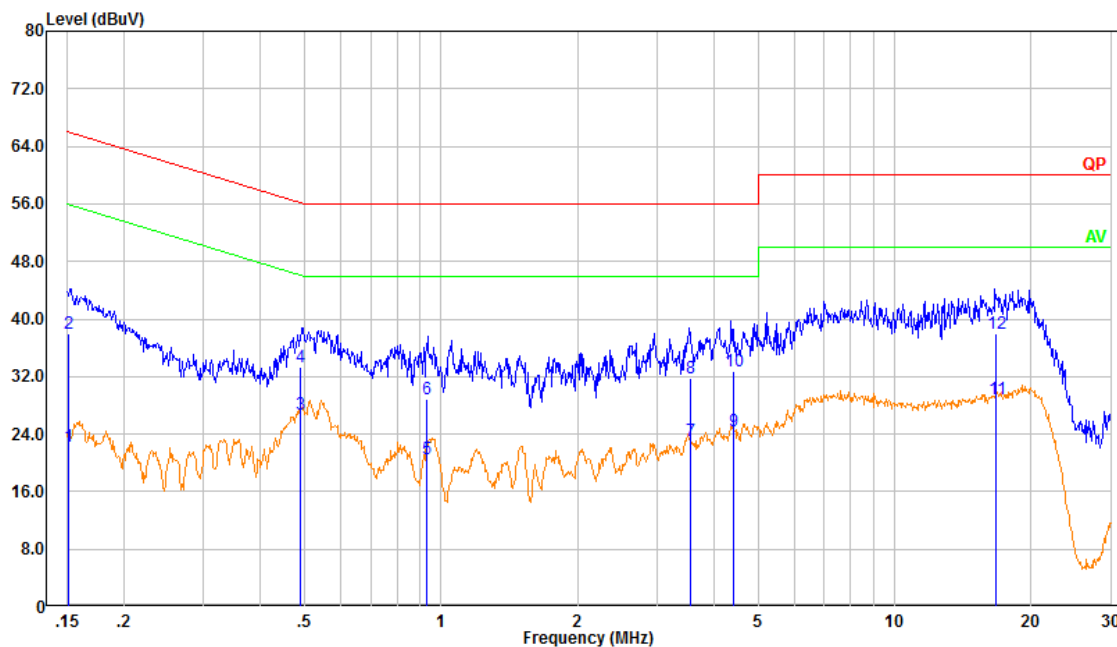
Neutral:



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.178	14.98	9.61	24.59	54.59	30.00	Average
2	0.178	29.56	9.61	39.17	64.59	25.42	QP
3	0.408	22.95	9.61	32.56	47.68	15.12	Average
4	0.408	36.12	9.61	45.73	57.68	11.95	QP
5	0.522	26.97	9.61	36.59	46.00	9.41	Average
6	0.522	38.84	9.61	48.45	56.00	7.55	QP
7	0.816	26.02	9.62	35.64	46.00	10.36	Average
8	0.816	37.15	9.62	46.77	56.00	9.23	QP
9	4.465	17.36	9.65	27.01	46.00	18.99	Average
10	4.465	25.85	9.65	35.51	56.00	20.49	QP
11	6.746	20.67	9.66	30.33	50.00	19.67	Average
12	6.746	28.38	9.66	38.04	60.00	21.96	QP

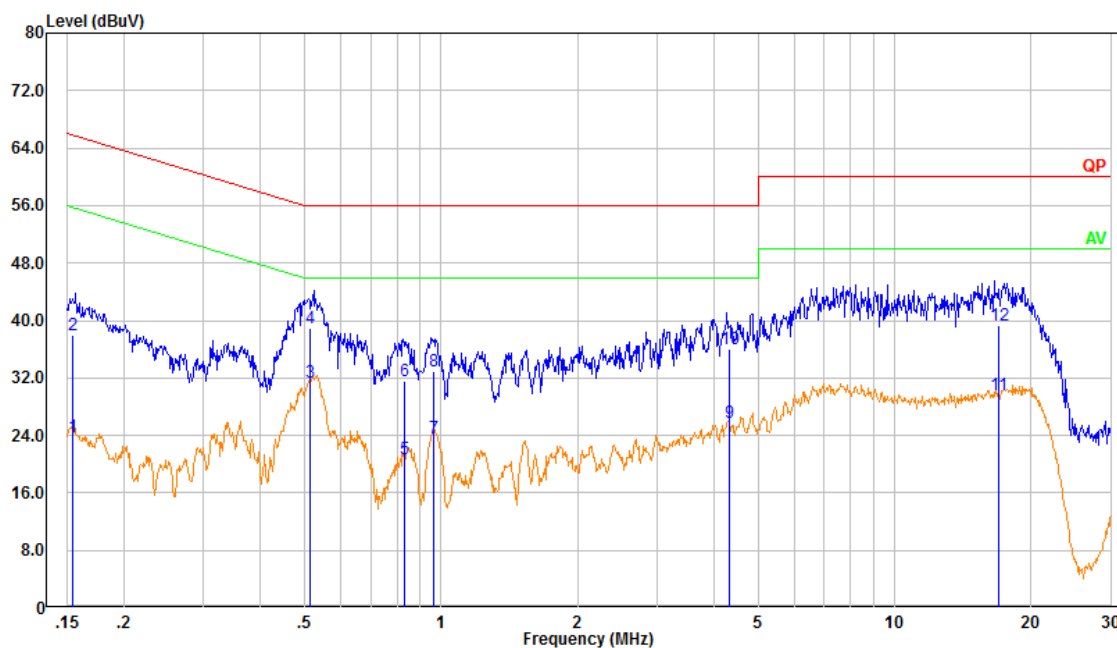
Mode: M4

Line:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.151	12.61	9.61	22.22	55.95	33.73	Average
2	0.151	28.38	9.61	37.99	65.95	27.96	QP
3	0.489	17.16	9.61	26.77	46.18	19.41	Average
4	0.489	23.63	9.61	33.24	56.18	22.94	QP
5	0.931	10.89	9.62	20.51	46.00	25.49	Average
6	0.931	19.25	9.62	28.87	56.00	27.13	QP
7	3.554	13.30	9.65	22.95	46.00	23.05	Average
8	3.554	22.13	9.65	31.78	56.00	24.22	QP
9	4.416	14.66	9.65	24.31	46.00	21.69	Average
10	4.416	23.11	9.65	32.77	56.00	23.23	QP
11	16.770	19.13	9.73	28.85	50.00	21.15	Average
12	16.770	28.14	9.73	37.87	60.00	22.13	QP

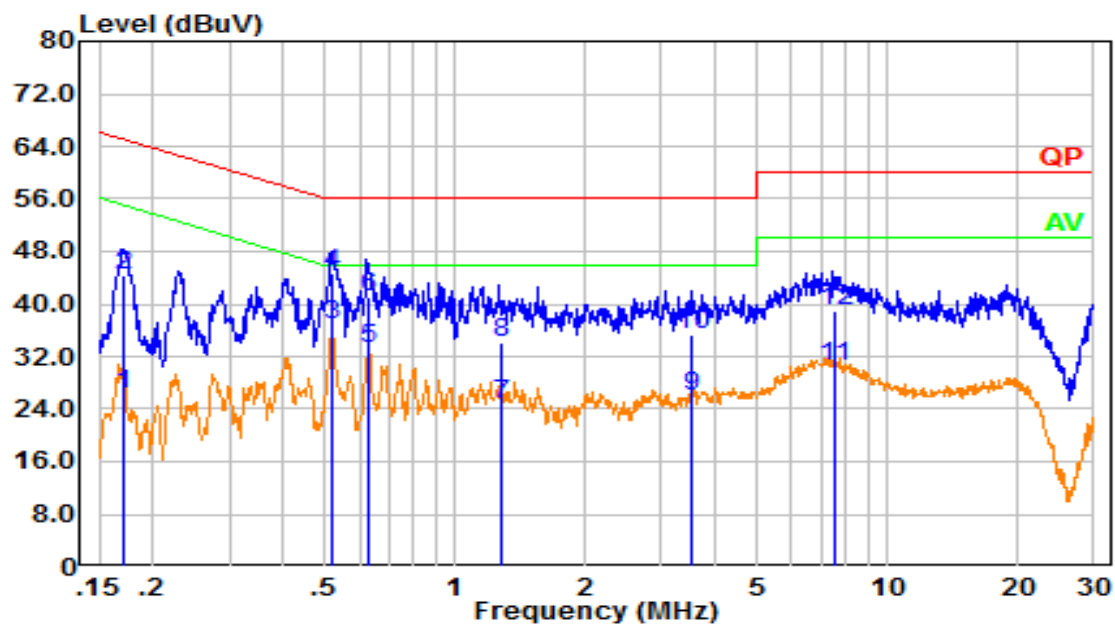
Neutral:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	14.26	9.61	23.87	55.75	31.88	Average
2	0.155	28.38	9.61	37.99	65.75	27.76	QP
3	0.514	21.74	9.61	31.35	46.00	14.65	Average
4	0.514	29.37	9.61	38.98	56.00	17.02	QP
5	0.831	11.16	9.62	20.78	46.00	25.22	Average
6	0.831	22.04	9.62	31.66	56.00	24.34	QP
7	0.962	13.93	9.62	23.55	46.00	22.45	Average
8	0.962	23.22	9.62	32.84	56.00	23.16	QP
9	4.333	16.11	9.65	25.76	46.00	20.24	Average
10	4.333	26.30	9.65	35.96	56.00	20.04	QP
11	16.942	19.94	9.69	29.63	50.00	20.37	Average
12	16.942	29.67	9.69	39.36	60.00	20.64	QP

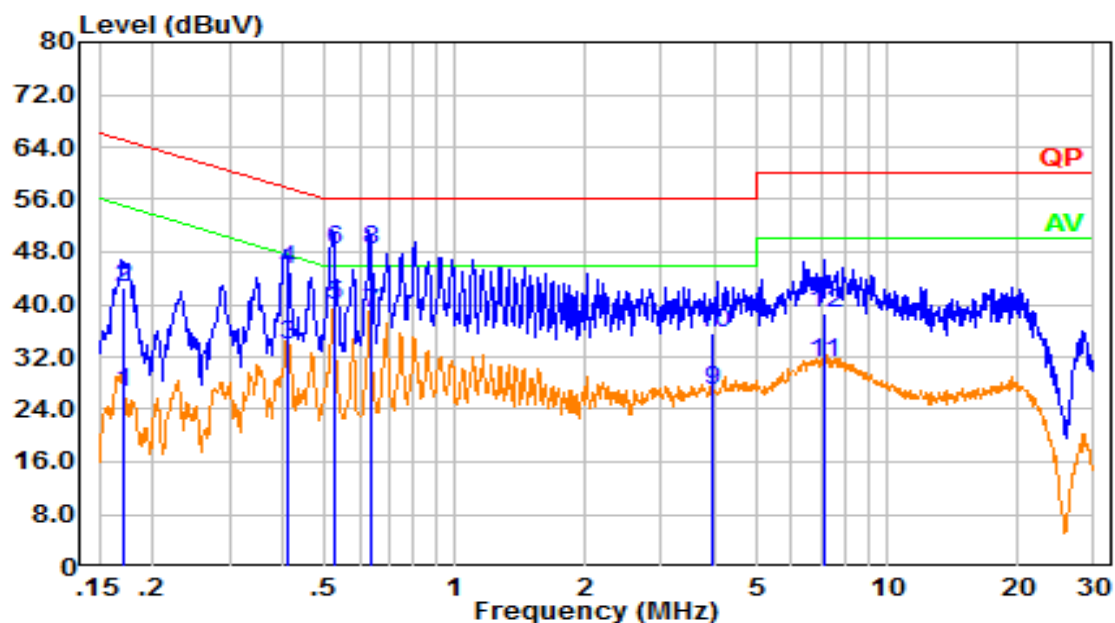
Mode: M5

Line:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.171	16.65	9.61	26.26	54.91	28.65	Average
2	0.171	34.67	9.61	44.28	64.91	20.63	QP
3	0.520	27.33	9.61	36.95	46.00	9.05	Average
4	0.520	35.09	9.61	44.70	56.00	11.30	QP
5	0.630	23.44	9.62	33.06	46.00	12.94	Average
6	0.630	31.29	9.62	40.91	56.00	15.09	QP
7	1.283	15.10	9.62	24.73	46.00	21.27	Average
8	1.283	24.44	9.62	34.06	56.00	21.94	QP
9	3.520	16.22	9.65	25.87	46.00	20.13	Average
10	3.520	25.57	9.65	35.22	56.00	20.78	QP
11	7.513	20.95	9.67	30.62	50.00	19.38	Average
12	7.513	29.36	9.67	39.03	60.00	20.97	QP

Neutral:



No.	Frequency (MHz)	Reading (dBUV)	Factor (dB)	Result (dBUV)	Limit (dBUV)	Margin (dB)	Detector
1	0.172	16.85	9.61	26.46	54.88	28.43	Average
2	0.172	33.02	9.61	42.63	64.88	22.25	QP
3	0.408	24.09	9.61	33.70	47.70	14.00	Average
4	0.408	35.53	9.61	45.14	57.70	12.56	QP
5	0.524	30.11	9.61	39.72	46.00	6.28	Average
6	0.524	38.79	9.61	48.40	56.00	7.60	QP
7	0.639	29.05	9.62	38.67	46.00	7.33	Average
8	0.639	38.67	9.62	48.29	56.00	7.71	QP
9	3.936	17.34	9.65	26.99	46.00	19.01	Average
10	3.936	26.12	9.65	35.77	56.00	20.23	QP
11	7.142	21.34	9.66	31.00	50.00	19.00	Average
12	7.142	29.00	9.66	38.66	60.00	21.34	QP

4.2 Radiation Spurious Emissions

Serial Number:	CR21100114-RF-S1	Test Date:	2021-11-12~2022-01-26
Test Site:	966-1, 966-2	Test Mode:	M1-M5
Tester:	Great Qiao, Tommy Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	20~24.2	Relative Humidity: (%)	41~65	ATM Pressure: (kPa)	101.1~101.7
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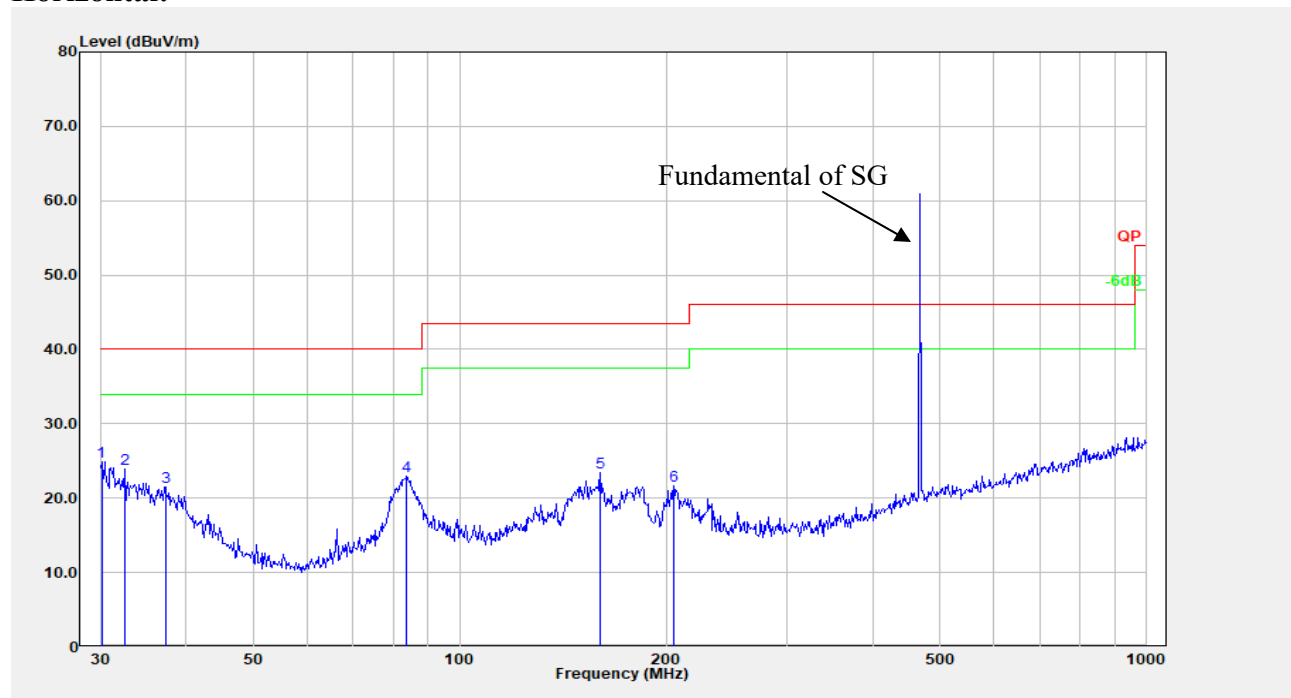
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020-10-19	2023-10-18
R&S	EMI Test Receiver	ESR3	102724	2021-07-22	2022-07-21
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2021-07-18	2022-07-17
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2021-07-18	2022-07-17
Sonoma	Amplifier	310N	186165	2021-07-18	2022-07-17
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
R&S	Spectrum Analyzer	FSV40	101591	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2021-08-08	2022-08-07
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2021-08-08	2022-08-07
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-11-10	2022-11-09
Audix	Test Software	E3	201021 (V9)	N/A	N/A

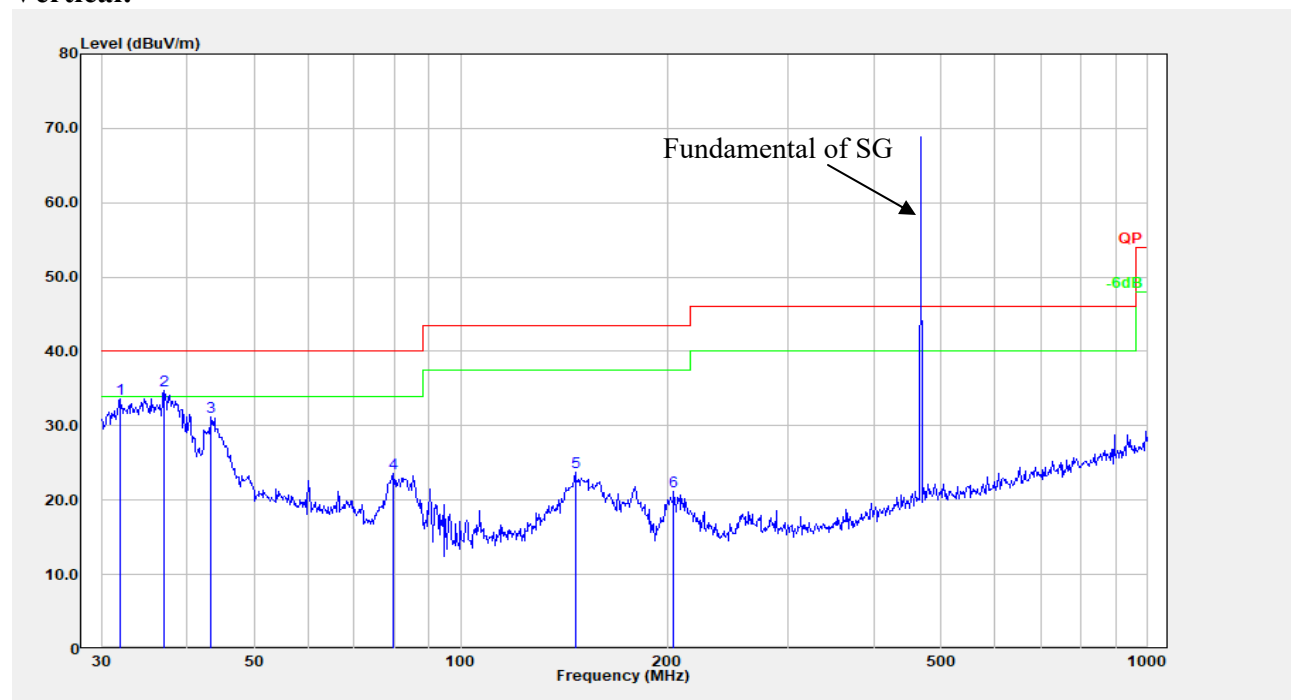
* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

1) 30MHz-1GHz:

Test Mode: M2(Worst of M1~M3)

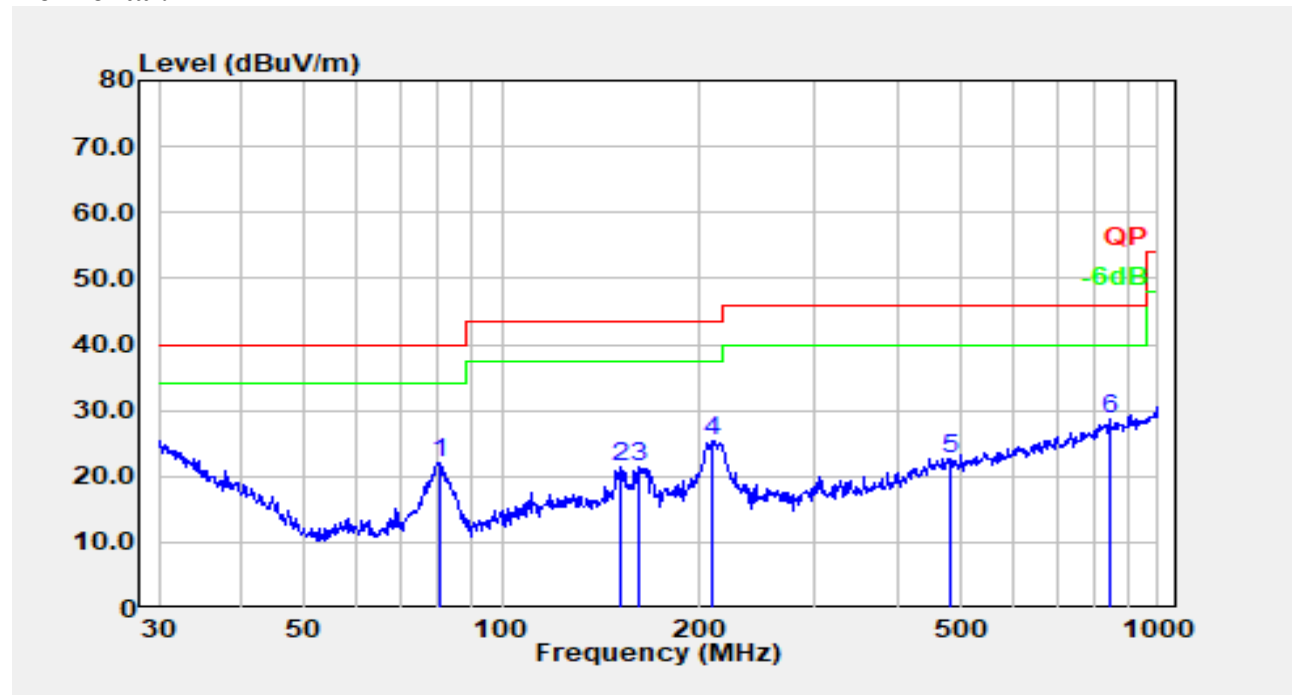
Horizontal:

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.105	28.83	-3.87	24.96	40.00	15.04	Peak
2	32.520	29.71	-5.74	23.98	40.00	16.02	Peak
3	37.285	30.95	-9.40	21.55	40.00	18.45	Peak
4	83.816	40.38	-17.49	22.89	40.00	17.11	Peak
5	160.346	35.83	-12.31	23.51	43.50	19.99	Peak
6	204.955	34.24	-12.53	21.71	43.50	21.79	Peak

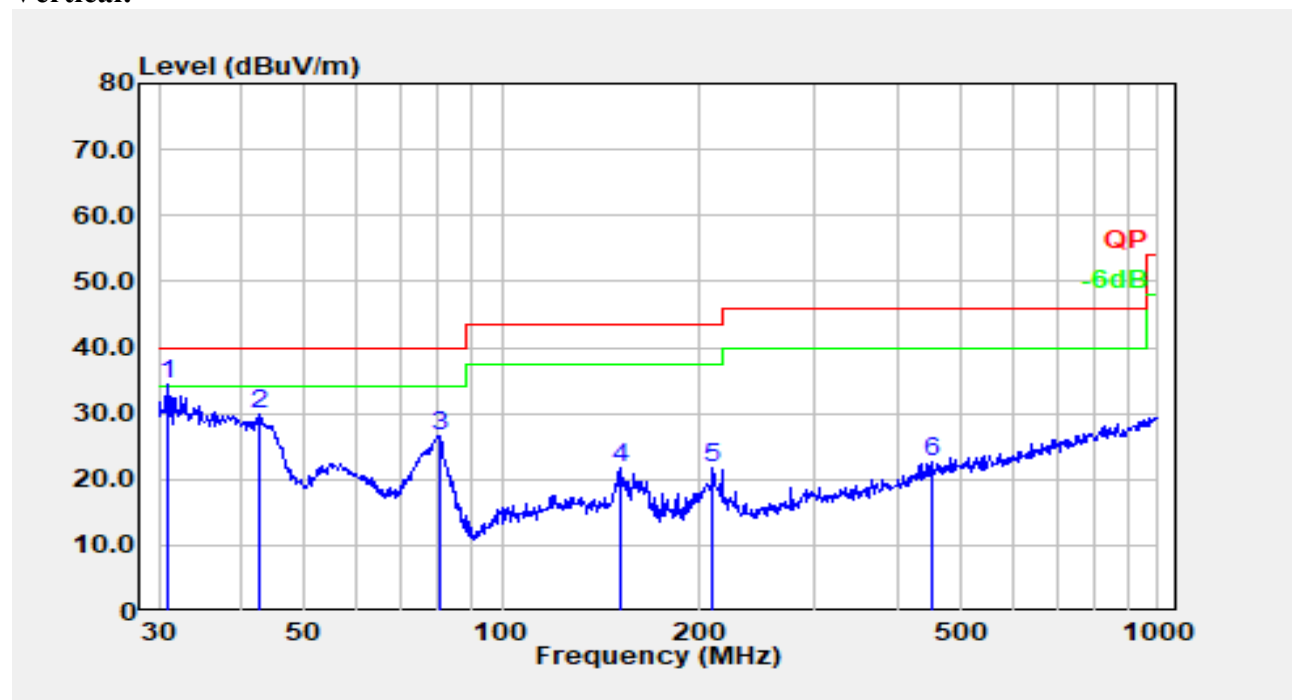
Vertical:

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	31.955	38.84	-5.29	33.55	40.00	6.45	Peak
2	37.025	43.95	-9.21	34.74	40.00	5.26	QP
3	43.353	44.68	-13.52	31.17	40.00	8.83	Peak
4	79.800	41.24	-17.69	23.55	40.00	16.45	Peak
5	146.888	35.98	-12.23	23.75	43.50	19.75	Peak
6	204.238	33.73	-12.51	21.23	43.50	22.27	Peak

Mode: M4

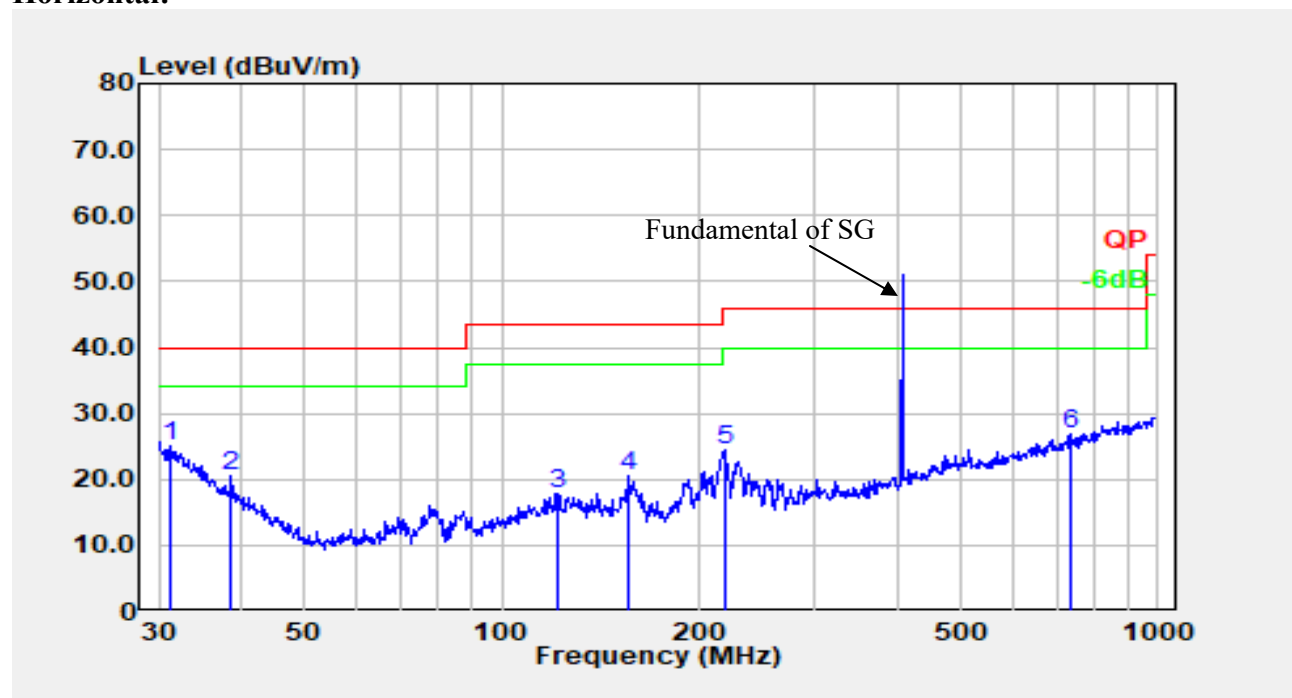
Horizontal:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	80.362	39.85	-17.68	22.17	40.00	17.83	Peak
2	151.067	33.71	-12.31	21.40	43.50	22.10	Peak
3	161.474	33.82	-12.44	21.38	43.50	22.12	Peak
4	209.313	38.09	-12.59	25.50	43.50	18.00	Peak
5	482.216	29.26	-6.52	22.74	46.00	23.26	Peak
6	845.088	30.46	-1.80	28.66	46.00	17.34	Peak

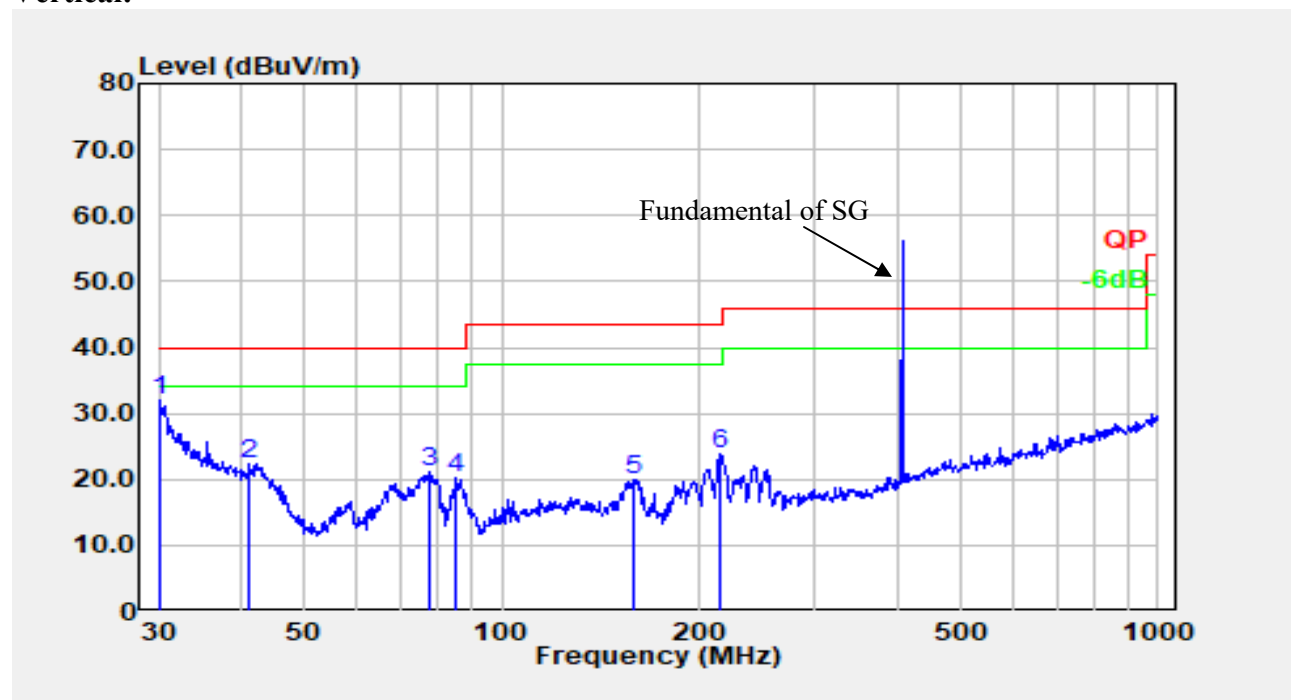
Vertical:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	30.853	38.72	-4.45	34.27	40.00	5.73	QP
2	42.750	43.05	-13.14	29.91	40.00	10.09	Peak
3	80.362	44.38	-17.68	26.69	40.00	13.31	Peak
4	152.130	34.06	-12.28	21.78	43.50	21.72	Peak
5	210.048	34.43	-12.60	21.83	43.50	21.67	Peak
6	451.135	29.87	-7.13	22.74	46.00	23.26	Peak

Mode: M5

Horizontal:

No.	Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector
1	31.180	29.63	-4.70	24.94	40.00	15.06	Peak
2	38.616	31.06	-10.41	20.65	40.00	19.35	Peak
3	121.123	29.64	-11.73	17.92	43.50	25.58	Peak
4	155.910	32.95	-12.32	20.63	43.50	22.87	Peak
5	218.309	37.33	-12.91	24.42	46.00	21.58	Peak
6	734.491	30.08	-3.16	26.92	46.00	19.08	Peak

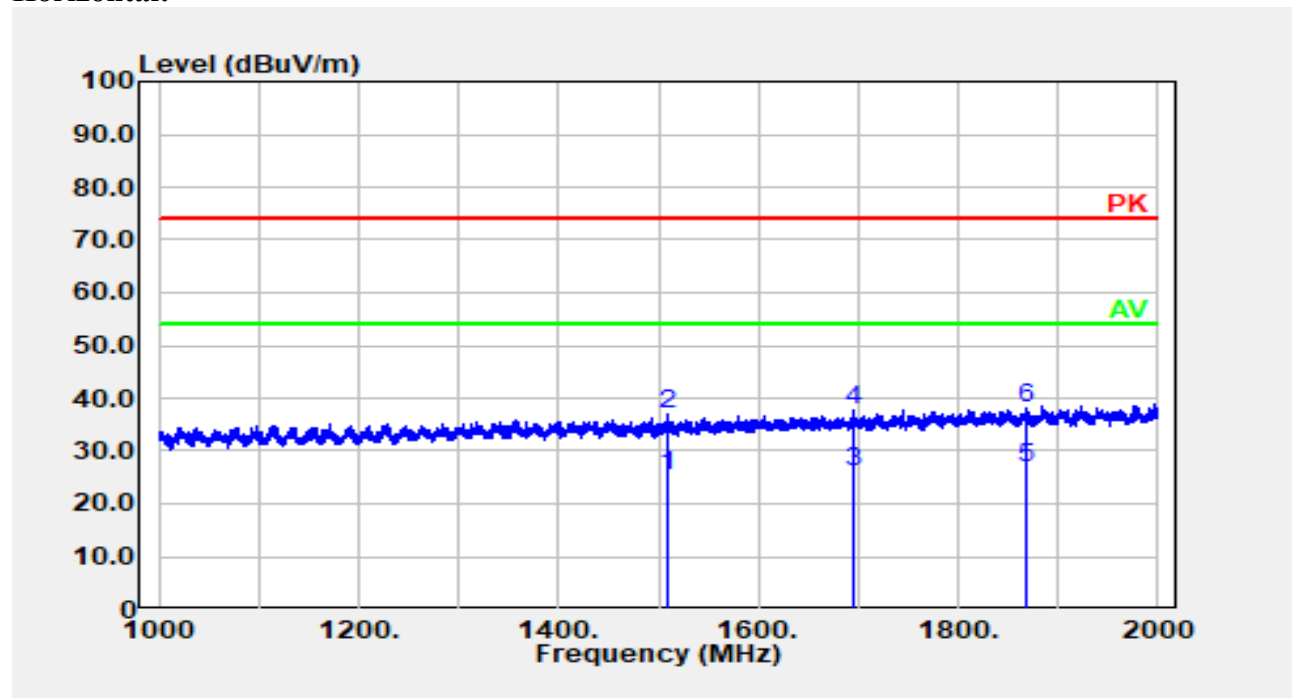
Vertical:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	30.211	35.95	-3.95	31.99	40.00	8.01	Peak
2	41.132	34.65	-12.19	22.46	40.00	17.54	Peak
3	77.865	38.58	-17.49	21.09	40.00	18.91	Peak
4	85.298	37.57	-17.42	20.16	40.00	19.84	Peak
5	158.112	32.22	-12.31	19.91	43.50	23.59	Peak
6	215.268	36.54	-12.81	23.73	43.50	19.77	Peak

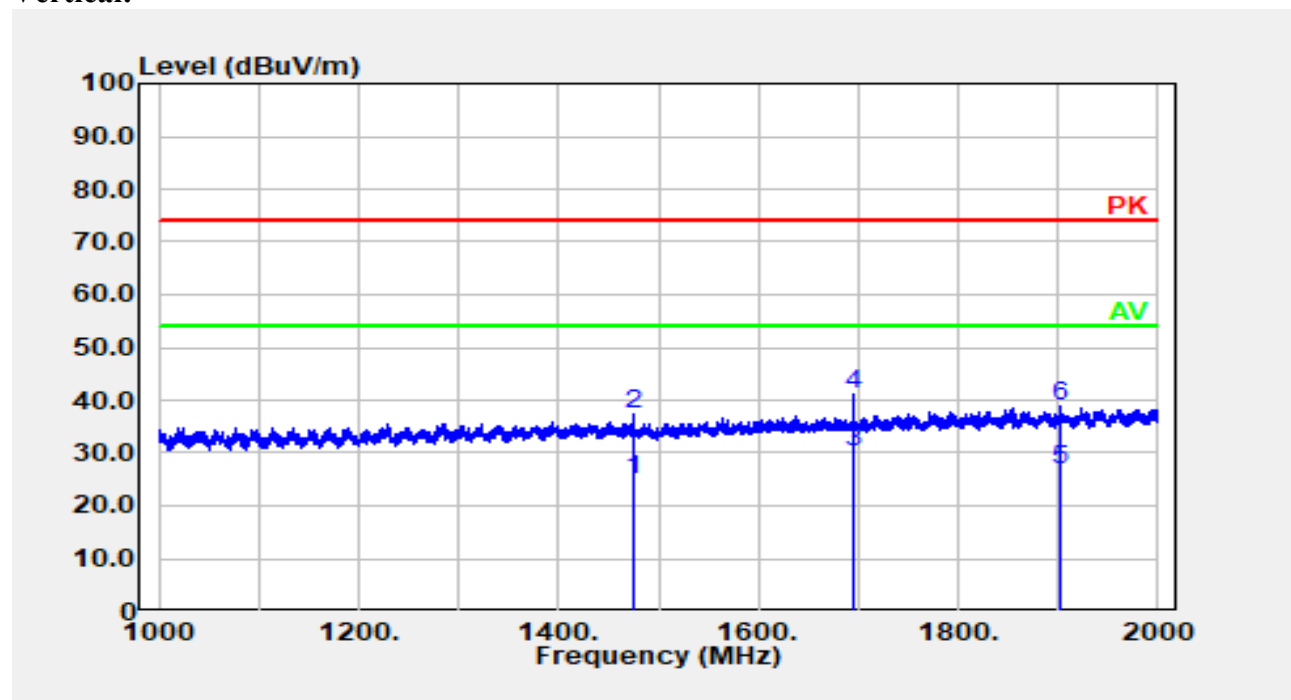
2) Above 1GHz

Mode: M2(Worst of M1~M3)

Horizontal:

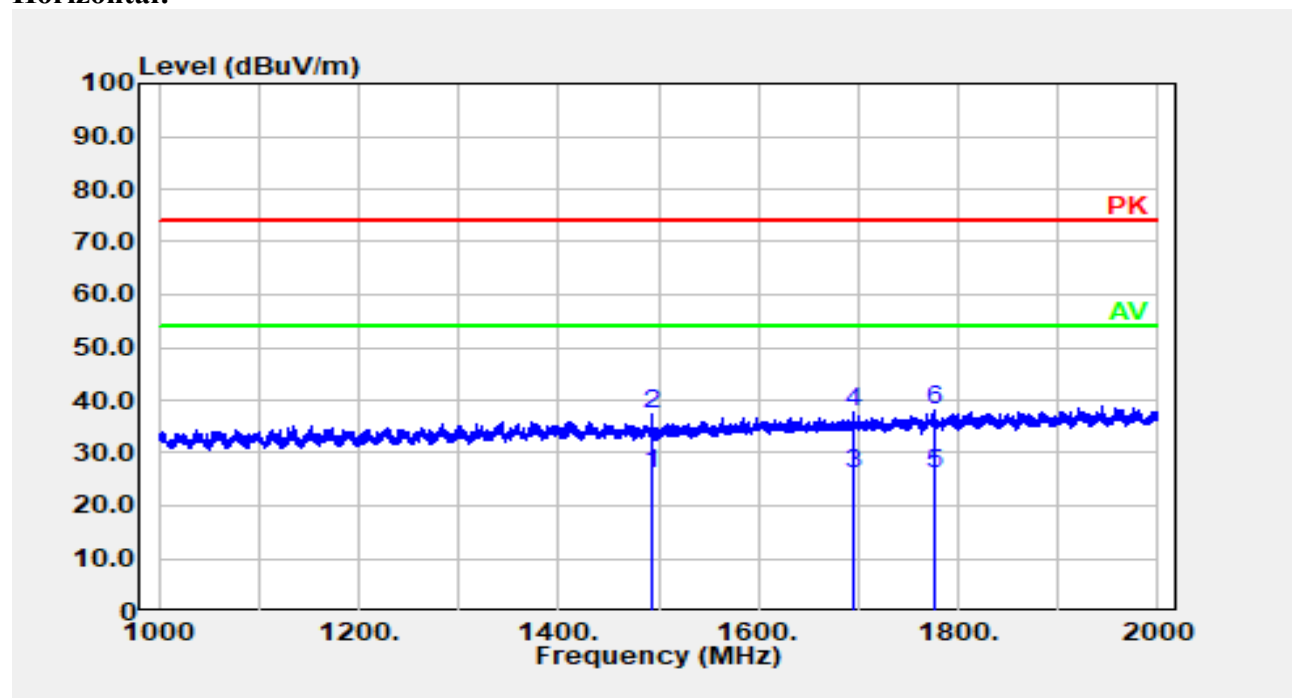


No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	1509.502	26.00	-0.53	25.47	54.00	28.53	Average
2	1509.502	37.49	-0.53	36.96	74.00	37.04	Peak
3	1694.939	25.33	0.70	26.03	54.00	27.97	Average
4	1694.939	37.18	0.70	37.88	74.00	36.12	Peak
5	1868.774	24.87	1.80	26.67	54.00	27.33	Average
6	1868.774	36.29	1.80	38.09	74.00	35.91	Peak

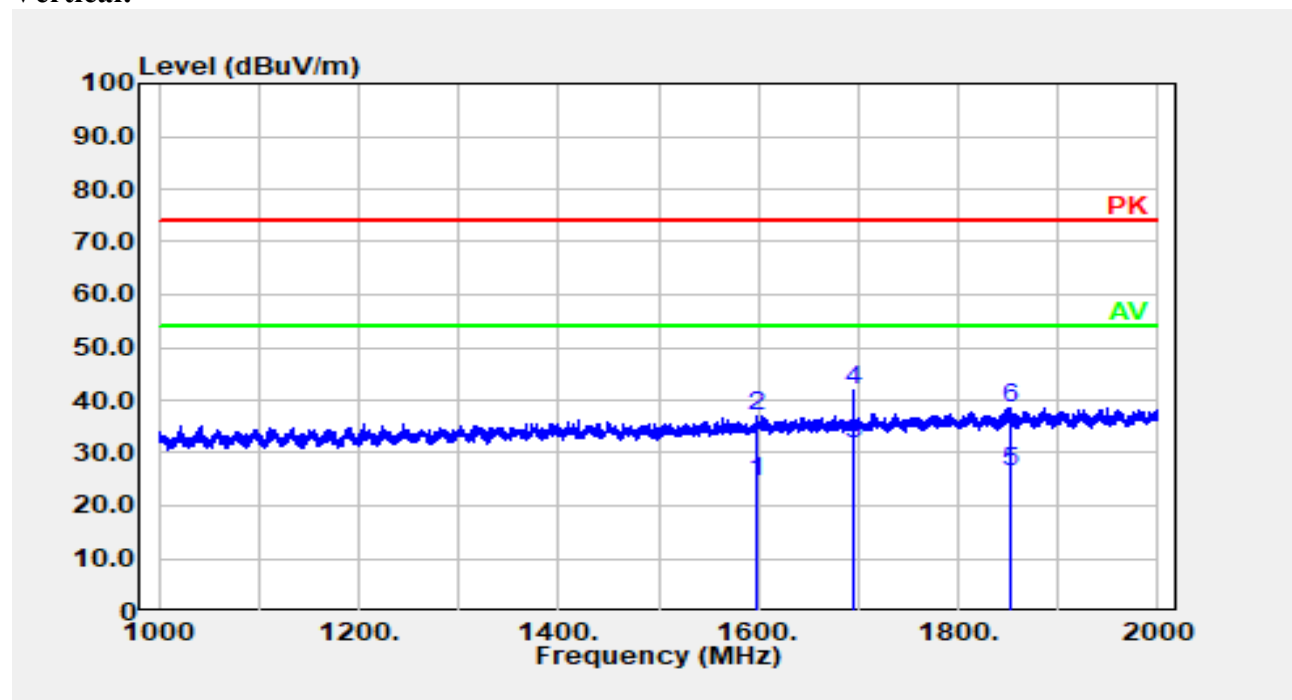
Vertical:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	1475.695	25.64	-0.63	25.01	54.00	28.99	Average
2	1475.695	37.87	-0.63	37.24	74.00	36.76	Peak
3	1694.739	29.54	0.70	30.24	54.00	23.76	Average
4	1694.739	40.44	0.70	41.14	74.00	32.86	Peak
5	1902.581	24.95	1.98	26.93	54.00	27.07	Average
6	1902.581	36.91	1.98	38.89	74.00	35.11	Peak

Mode: M4

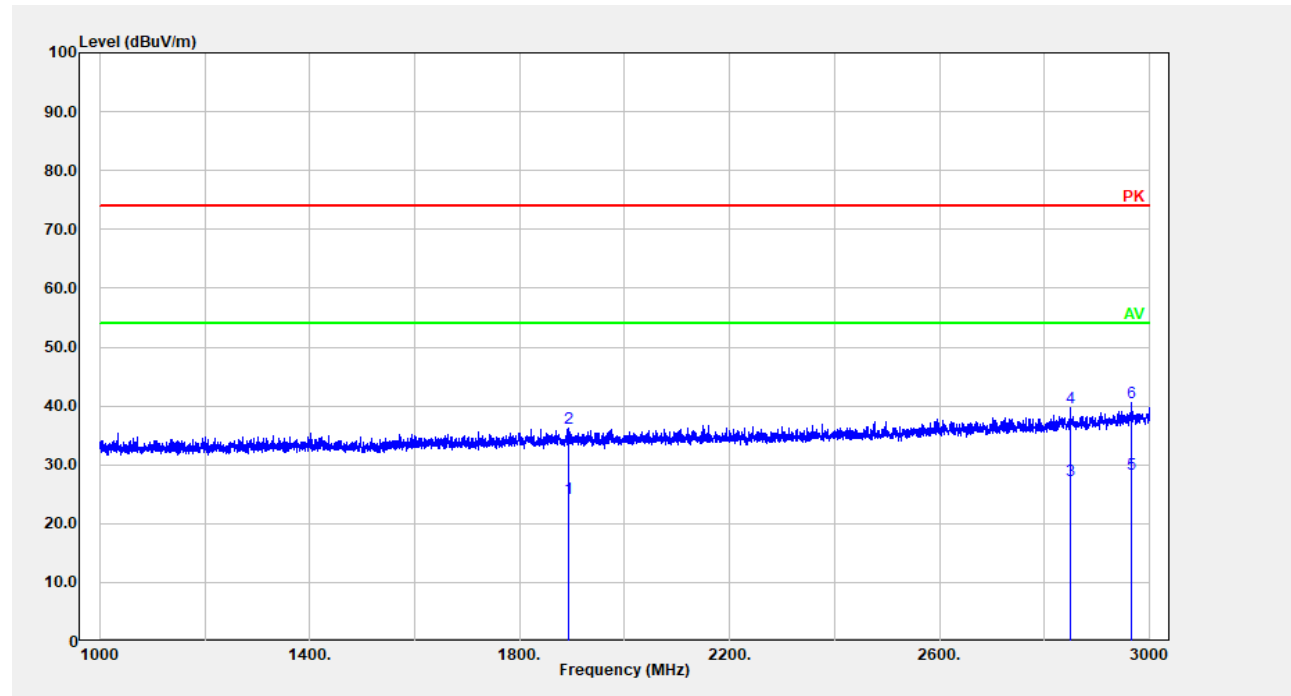
Horizontal:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	1494.299	26.55	-0.62	25.93	54.00	28.07	Average
2	1494.299	38.15	-0.62	37.53	74.00	36.47	Peak
3	1694.739	25.49	0.70	26.19	54.00	27.81	Average
4	1694.739	37.10	0.70	37.80	74.00	36.20	Peak
5	1777.355	24.55	1.34	25.89	54.00	28.11	Average
6	1777.355	36.70	1.34	38.04	74.00	35.96	Peak

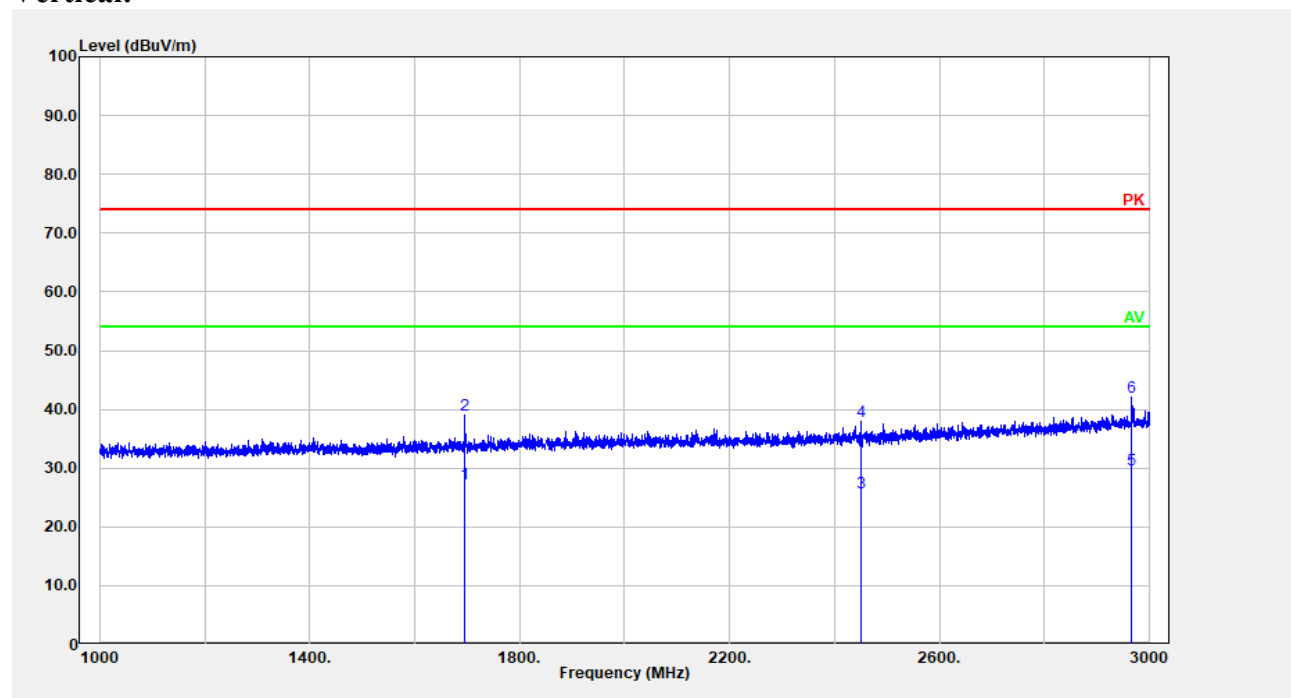
Vertical:

No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	1598.920	24.17	0.32	24.49	54.00	29.51	Average
2	1598.920	36.72	0.32	37.04	74.00	36.96	Peak
3	1694.739	30.94	0.70	31.64	54.00	22.36	Average
4	1694.739	41.00	0.70	41.70	74.00	32.30	Peak
5	1851.370	24.56	1.71	26.27	54.00	27.73	Average
6	1851.370	36.86	1.71	38.57	74.00	35.43	Peak

Mode: M5

Horizontal:

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	1892.578	22.35	1.93	24.28	54.00	29.72	Average
2	1892.578	34.19	1.93	36.12	74.00	37.88	Peak
3	2849.170	21.89	5.44	27.33	54.00	26.67	Average
4	2849.170	34.19	5.44	39.63	74.00	34.37	Peak
5	2967.193	22.43	6.07	28.50	54.00	25.50	Average
6	2967.193	34.59	6.07	40.66	74.00	33.34	Peak

Vertical:

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	1695.339	26.57	0.70	27.27	54.00	26.73	Average
2	1695.339	38.40	0.70	39.10	74.00	34.90	Peak
3	2449.890	22.16	3.72	25.88	54.00	28.12	Average
4	2449.890	34.34	3.72	38.06	74.00	35.94	Peak
5	2966.793	23.54	6.07	29.61	54.00	24.39	Average
6	2966.793	35.95	6.07	42.02	74.00	31.98	Peak

4.3 Antenna Power Conduction Limits for Receivers

Serial Number:	CR21100114-RF-S1	Test Date:	2022/02/11
Test Site:	RF	Test Mode:	Receiving(M1~M3)
Tester:	Rinka Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.7	Relative Humidity: (%)	37	ATM Pressure: (kPa)	101.1
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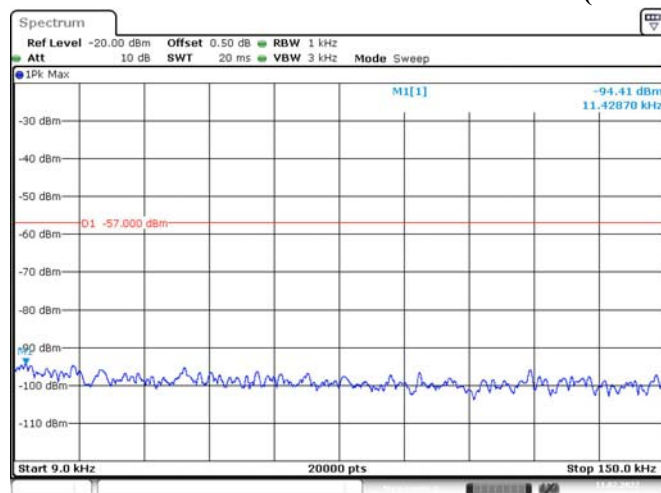
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2021-10-10	2022-10-09
HP	RF Communications Test Set	8920A	3438A05209	2021-07-22	2022-07-21
zhuoxiang	Coaxial Cable	SMA-178	211006	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554409	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN769	Each time	N/A
E-Microwave	Two-way Splitter	ODP-1-6	OE0120198	Each Time	N/A

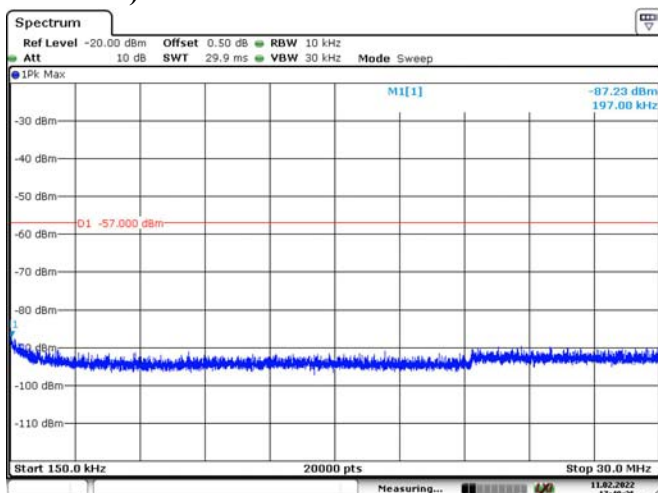
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

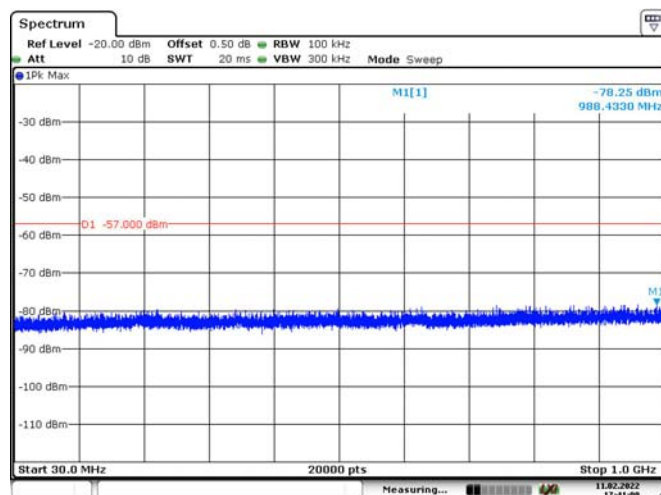
M2(Worst of M1~M3)



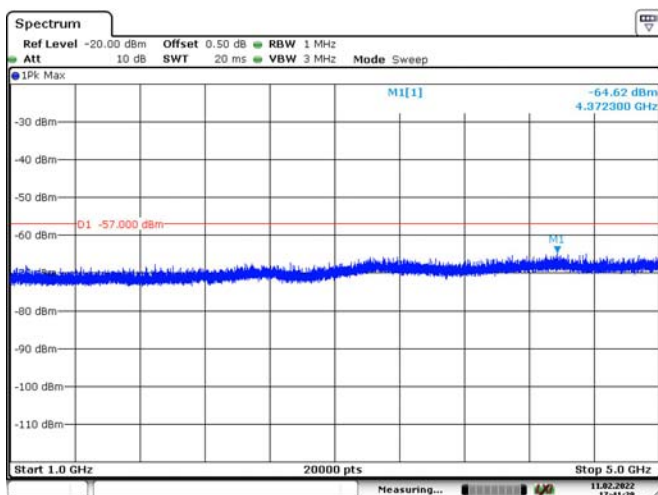
Date: 11.FEB.2022 17:39:29



Date: 11.FEB.2022 17:40:27



Date: 11.FEB.2022 17:41:00



Date: 11.FEB.2022 17:41:30

4.4 Scanning Receivers and Frequency Converters Used with Scanning Receivers

Serial Number:	CR21100114-RF-S1	Test Date:	2022/02/11
Test Site:	RF	Test Mode:	Scanning
Tester:	Rinka Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.7	Relative Humidity: (%)	37	ATM Pressure: (kPa)	101.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2021-10-10	2022-10-09
HP	RF Communications Test Set	8920A	3438A05209	2021-07-22	2022-07-21
zhuoxiang	Coaxial Cable	SMA-178	211006	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554409	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN769	Each time	N/A
E-Microwave	Two-way Splitter	ODP-1-6	OE0120198	Each Time	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).

Test Data:

Scanning Frequency Range	Test Frequency	Measurement Result (Worst Case)	Limit
MHz	MHz	dB	dB
400-480	824, 836, 849, 869, 881.5, 894	47	>38

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