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

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Shenzhen Digidragon Technology Co., Ltd**

Address: F02-3, Block 36, Dayun Software Town Longgang District Shenzhen China

FCC ID: **2AW7SX2173**

Product Name: **Mobile Phone**

Model Number: **X2173**

Standard(s): **FCC Part 15B**
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: **CR21090073-00B**

Date Of Issue: **2021-11-02**

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
Tel: +86-769-82016888

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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CONTENTS

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Mobile Phone
EUT Model:	X2173
Highest Operation Frequency:	2480 MHz
Rated Input Voltage:	DC 5V from adapter or DC 3.7V from battery
Serial Number:	CR21090073-RF-S1
EUT Received Date:	2021.09.17
EUT Received Status:	GOOD

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter	Digidragon	J001-1	Input: AC100V-240V 50/60Hz 150mA Output: DC 5.0V DC 500mA

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: Downloading
Equipment Modifications:	No
EUT Exercise Software:	Winthrax.exe

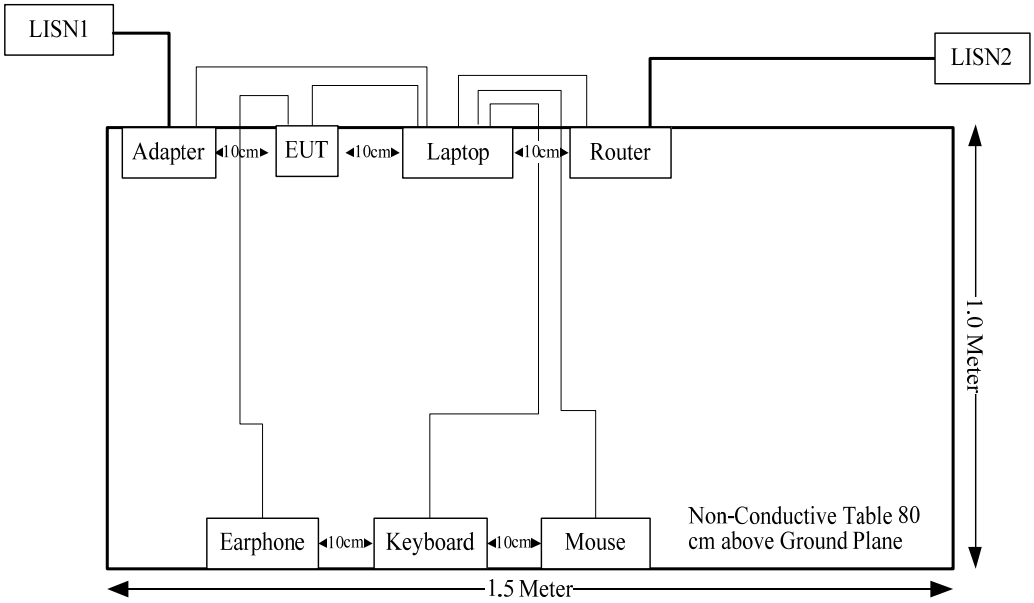
1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
ZIONCOM	Router	MB-R210-00	MB-R210-00
PHILIPS	Keyboard	SPK6234	K234210510743
PHILIPS	Mouse	SPK7214	M214BQ210411115
Unknown	Earphone	Unknown	Earphone 01
DELL	Laptop	E6410	9T215

1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Mouse Cable	No	No	2	Mouse	Laptop
Earphone Cable	No	No	2	Headphone	EUT
RJ45 Cable	No	No	1.2	Laptop	Router
Keyboard Cable	No	No	1.8	Keyboard	Laptop

1.2.4 Block Diagram of Test Setup



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
Temperature	±1℃
Humidity	±5%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

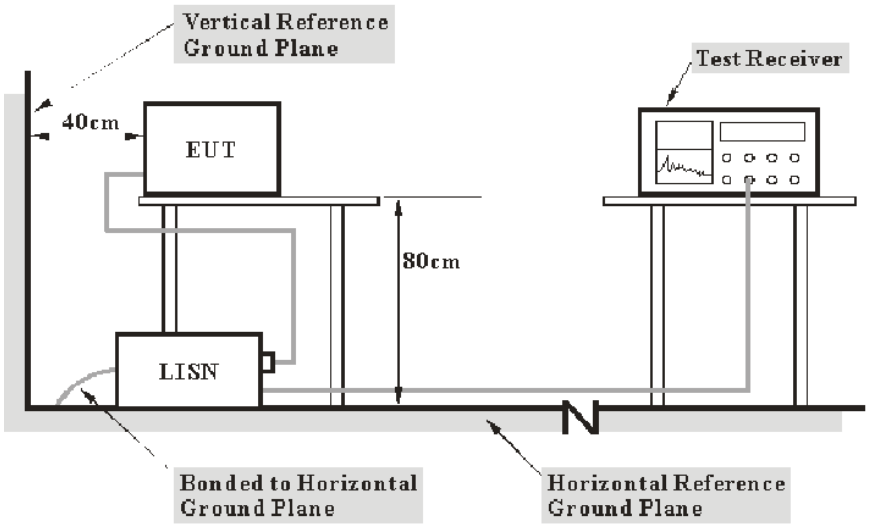
2. SUMMARY OF TEST RESULTS

Standard(s) Section	Description of Test	Result
§15.107	Conducted emissions	Compliance
§15.109	Radiated emissions	Compliance

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

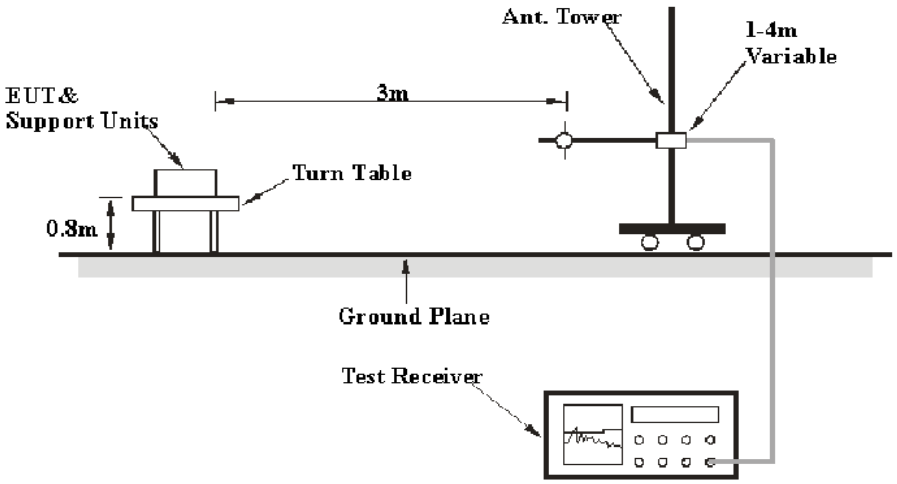
The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

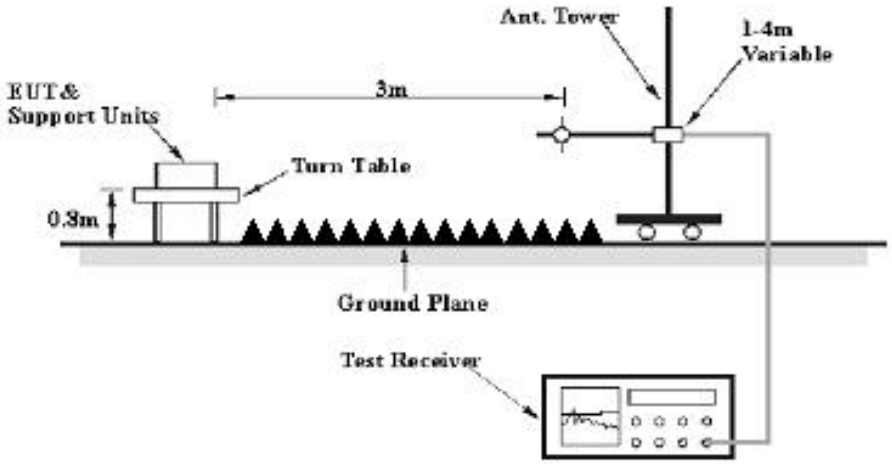
3.2 Radiation Spurious Emissions

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

The system was investigated from 30 MHz to 13 GHz.

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:

Result = Reading + Factor
Factor = Antenna Factor + Cable Loss- 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:

Margin = Limit – Result

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	CR21090073-RF-S1	Test Date:	2021-10-18
Test Site:	CE	Test Mode:	Downloading
Tester:	Nick Tang	Test Result:	Pass

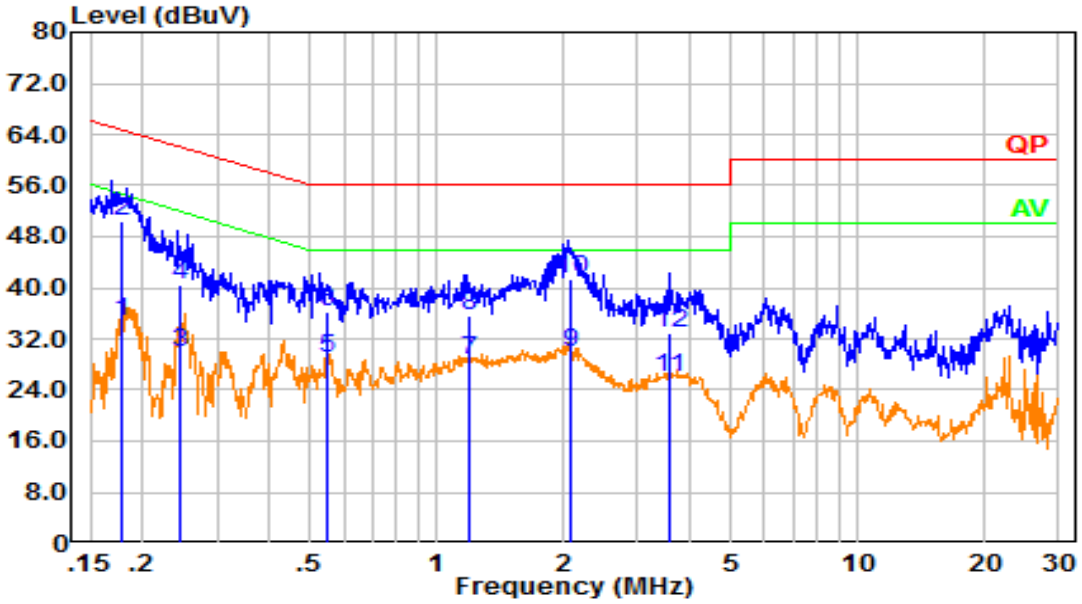
Environmental Conditions:					
Temperature: (℃)	22.4	Relative Humidity: (%)	72	ATM Pressure: (kPa)	101.6

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	LISN	ENV216	101134	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

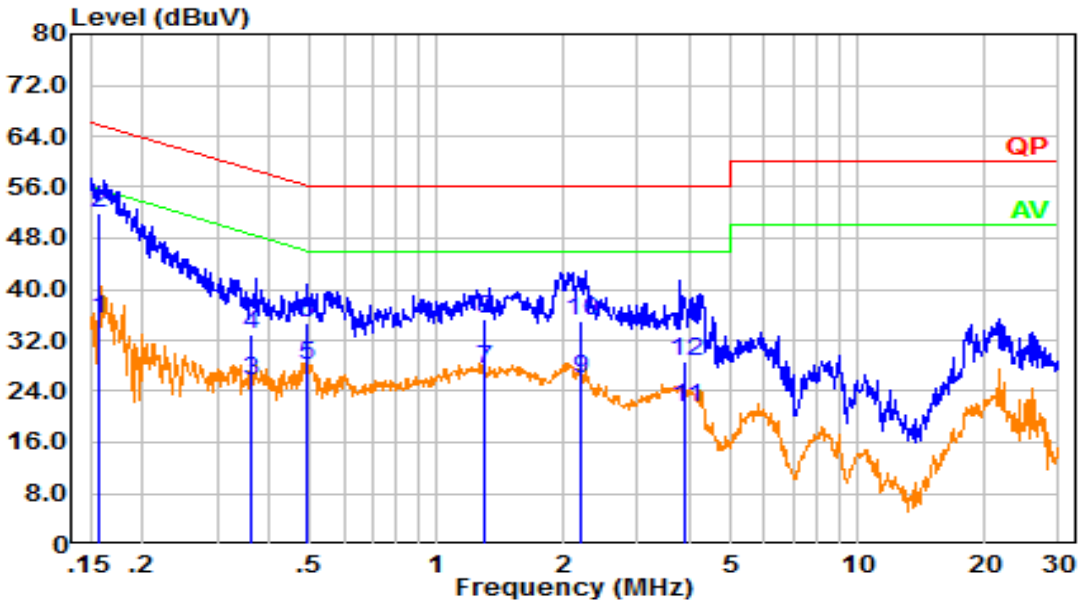
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Line:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.179	25.19	9.61	34.80	54.54	19.73	Average
2	0.179	40.93	9.61	50.54	64.54	14.00	QP
3	0.246	20.37	9.61	29.98	51.90	21.92	Average
4	0.246	30.78	9.61	40.39	61.90	21.51	QP
5	0.545	19.44	9.61	29.06	46.00	16.94	Average
6	0.545	26.50	9.61	36.11	56.00	19.89	QP
7	1.191	19.19	9.62	28.81	46.00	17.19	Average
8	1.191	26.04	9.62	35.66	56.00	20.34	QP
9	2.080	20.37	9.63	30.00	46.00	16.00	Average
10	2.080	31.86	9.63	41.49	56.00	14.51	QP
11	3.577	16.32	9.65	25.97	46.00	20.03	Average
12	3.577	23.35	9.65	33.00	56.00	23.00	QP

Neutral:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.158	25.80	9.61	35.41	55.57	20.16	Average
2	0.158	42.33	9.61	51.94	65.57	13.63	QP
3	0.362	15.95	9.61	25.56	48.69	23.13	Average
4	0.362	23.41	9.61	33.02	58.69	25.67	QP
5	0.491	18.59	9.61	28.20	46.14	17.94	Average
6	0.491	25.00	9.61	34.61	56.14	21.53	QP
7	1.289	17.85	9.62	27.47	46.00	18.53	Average
8	1.289	25.71	9.62	35.33	56.00	20.67	QP
9	2.193	16.19	9.63	25.82	46.00	20.18	Average
10	2.193	25.37	9.63	35.01	56.00	20.99	QP
11	3.904	11.72	9.65	21.37	46.00	24.63	Average
12	3.904	18.91	9.65	28.56	56.00	27.44	QP

4.2 Radiation Spurious Emissions

Serial Number:	CR21090073-RF-S1	Test Date:	2021-10-16~2021-10-18
Test Site:	966-1, 966-2	Test Mode:	Downloading
Tester:	Alex Hu, Carl Liang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24.5~26.4	Relative Humidity: (%)	65~69	ATM Pressure: (kPa)	100.4~101.6

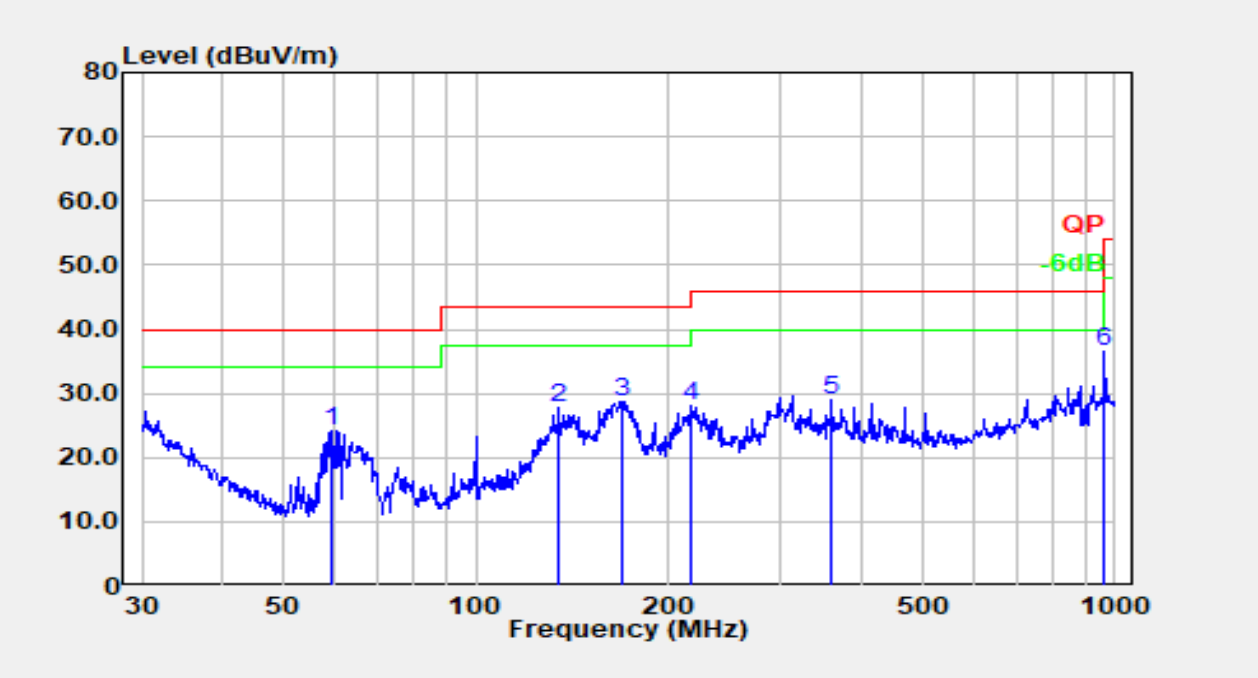
Test Equipment List and Details:

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
Audix	Test Software	E3	201021 (V9)	N/A	N/A
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	2021-08-08	2022-08-07

** 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).*

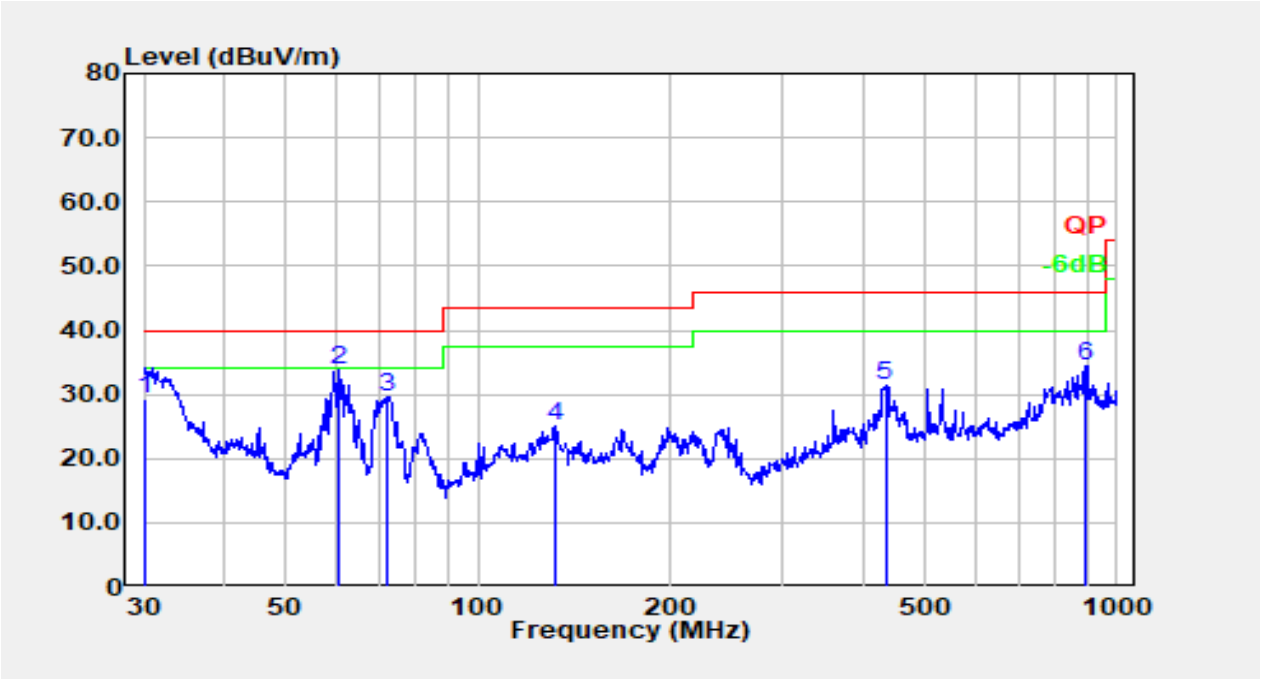
1) 30MHz-1GHz:

Horizontal:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	59.232	41.89	-17.62	24.27	40.00	15.73	Peak
2	135.032	39.69	-11.85	27.84	43.50	15.66	Peak
3	169.005	41.79	-13.10	28.69	43.50	14.81	Peak
4	216.783	41.06	-12.86	28.20	46.00	17.80	Peak
5	360.448	39.14	-10.04	29.10	46.00	16.90	Peak
6	962.162	36.65	-0.09	36.56	54.00	17.44	Peak

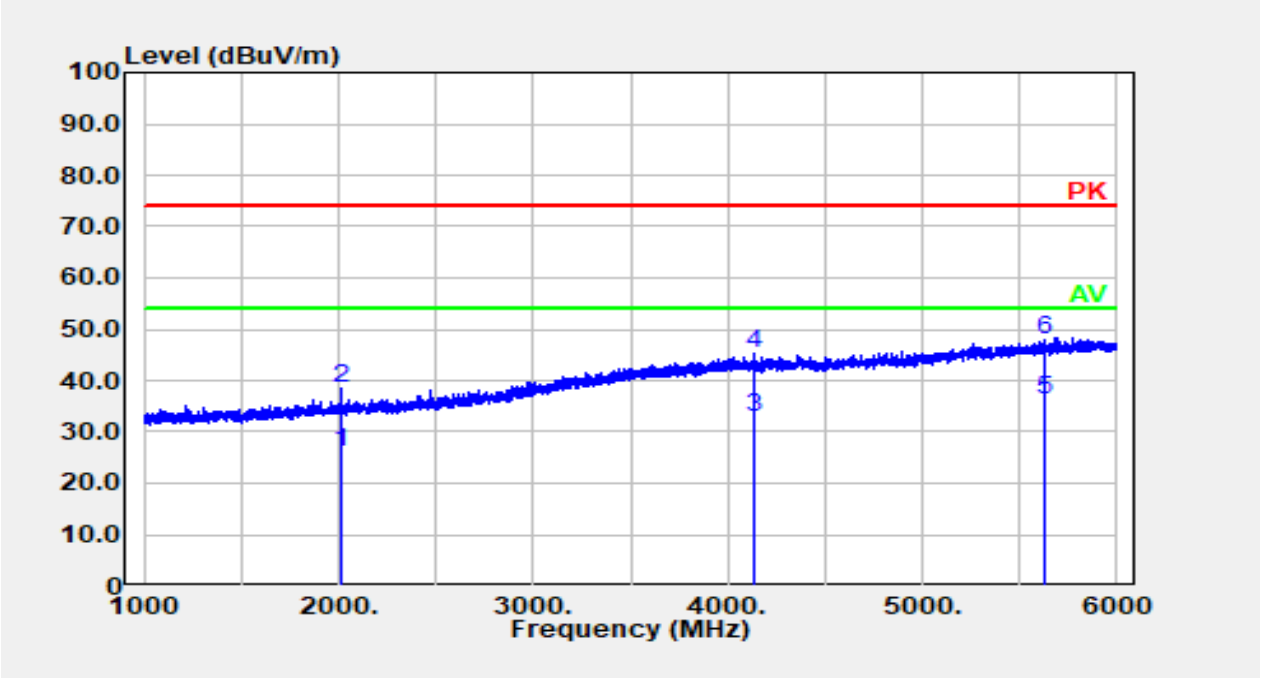
Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.000	33.20	-3.79	29.41	40.00	10.59	QP
2	60.704	51.37	-17.60	33.77	40.00	6.23	Peak
3	72.084	46.53	-16.93	29.60	40.00	10.40	Peak
4	131.758	36.55	-11.64	24.91	43.50	18.59	Peak
5	434.065	38.99	-7.58	31.41	46.00	14.59	Peak
6	890.728	35.83	-1.39	34.44	46.00	11.56	Peak

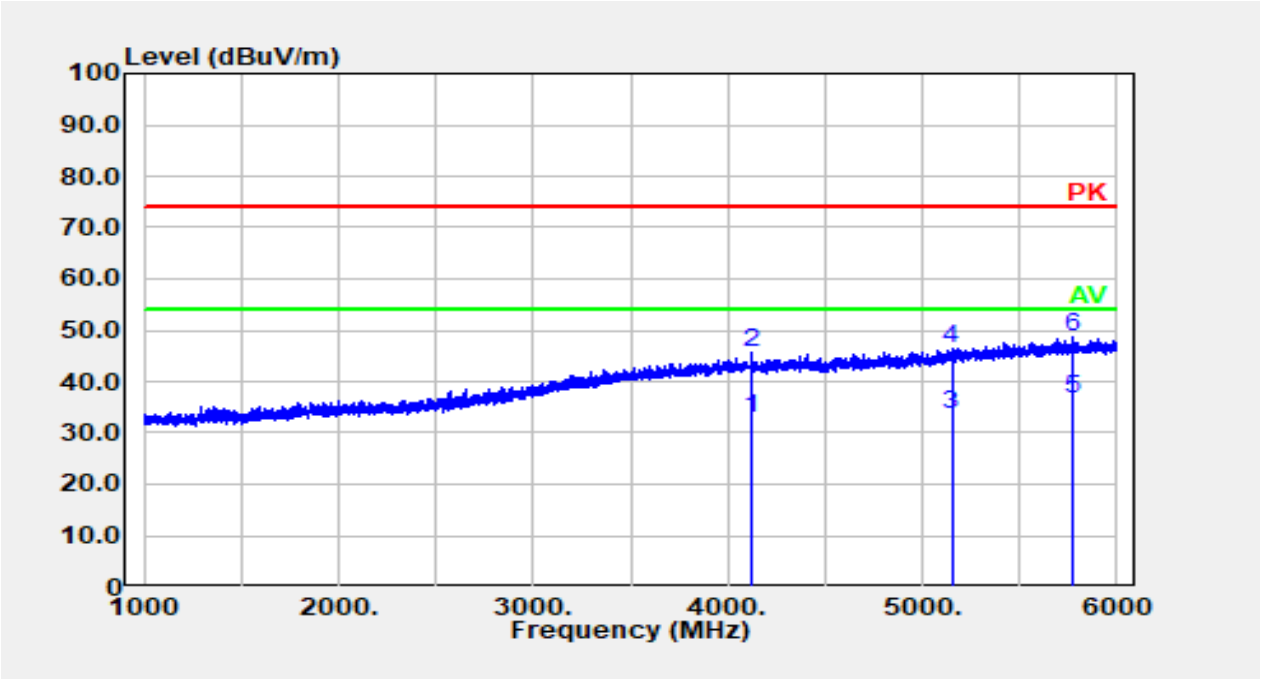
2) Above 1GHz

Horizontal:



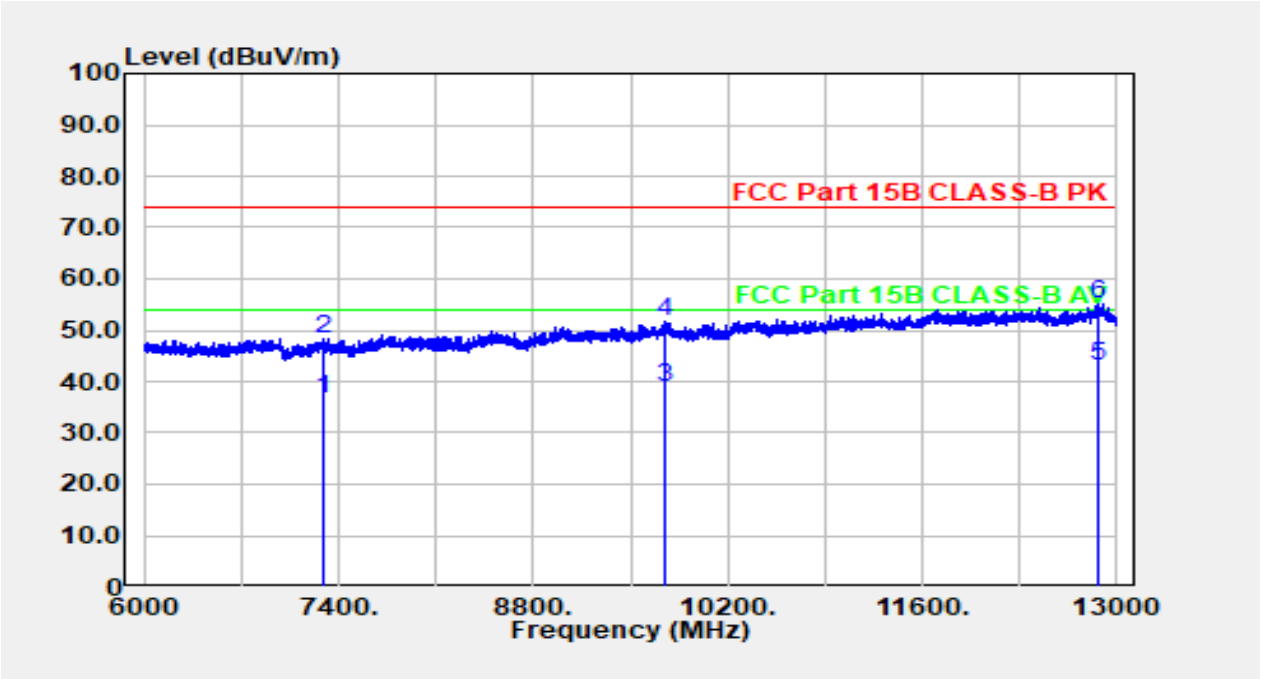
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2015.203	23.66	2.43	26.09	54.00	27.91	Average
2	2015.203	35.96	2.43	38.39	74.00	35.61	Peak
3	4139.628	23.14	9.65	32.79	54.00	21.21	Average
4	4139.628	35.72	9.65	45.37	74.00	28.63	Peak
5	5626.925	23.43	12.95	36.38	54.00	17.62	Average
6	5626.925	35.13	12.95	48.08	74.00	25.92	Peak

Vertical:



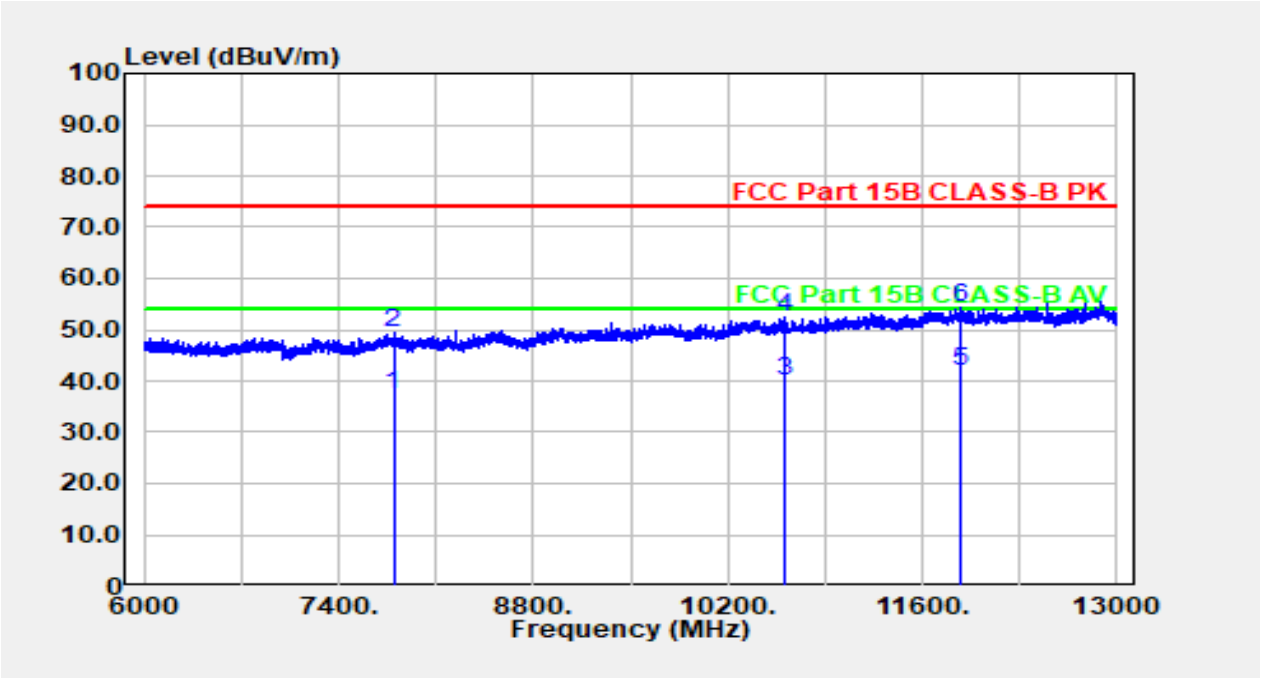
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4126.625	23.21	9.69	32.90	54.00	21.10	Average
2	4126.625	35.96	9.69	45.65	74.00	28.35	Peak
3	5150.830	22.14	11.52	33.66	54.00	20.34	Average
4	5150.830	34.85	11.52	46.37	74.00	27.63	Peak
5	5775.955	23.65	12.92	36.57	54.00	17.43	Average
6	5775.955	35.64	12.92	48.56	74.00	25.44	Peak

Horizontal:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7298.060	22.17	14.29	36.46	54.00	17.54	Average
2	7298.060	34.00	14.29	48.29	74.00	25.71	Peak
3	9748.550	21.03	17.93	38.96	54.00	15.04	Average
4	9748.550	33.90	17.93	51.83	74.00	22.17	Peak
5	12868.370	21.59	21.32	42.91	54.00	11.09	Average
6	12868.370	33.87	21.32	55.19	74.00	18.81	Peak

Vertical:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7795.159	22.14	15.20	37.34	54.00	16.66	Average
2	7795.159	34.30	15.20	49.50	74.00	24.50	Peak
3	10618.120	21.51	18.53	40.04	54.00	13.96	Average
4	10618.120	33.78	18.53	52.31	74.00	21.69	Peak
5	11871.370	21.39	20.45	41.84	54.00	12.16	Average
6	11871.370	33.76	20.45	54.21	74.00	19.79	Peak

******* END OF REPORT *******