



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



TEST REPORT

Applicant: HONG KONG IPRO TECHNOLOGY CO.,LIMITED

Address: 12/F., San Toi Building 137-139 Connaught Road Central HK

FCC ID: PQ4IPROS300

Product Name: Smart Phone

Model Number: S300

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

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

Report Number: CR220943987-00C

Date Of Issue: 2022-10-30

Reviewed By: Sun Zhong *Sun Zhong*

Title: Manager

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)

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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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CONTENTS

TEST FACILITY	2
DECLARATIONS.....	2
1. GENERAL INFORMATION.....	4
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
1.2 DESCRIPTION OF TEST CONFIGURATION	5
1.2.2 Support Equipment List and Details	5
1.2.3 Support Cable List and Details	5
1.2.4 Block Diagram of Test Setup.....	6
1.3 MEASUREMENT UNCERTAINTY	7
2. SUMMARY OF TEST RESULTS	8
3. REQUIREMENTS AND TEST PROCEDURES	9
3.1 AC LINE CONDUCTED EMISSIONS.....	9
3.1.1 EUT Setup.....	9
3.1.2 EMI Test Receiver Setup	9
3.1.3 Test Procedure	10
3.1.4 Corrected Amplitude & Margin Calculation.....	10
3.2 RADIATION SPURIOUS EMISSIONS	11
3.2.1 EUT Setup.....	11
3.2.2 EMI Test Receiver Setup	12
3.2.3 Test Procedure	12
3.2.4 Corrected Amplitude & Margin Calculation.....	12
4. TEST DATA AND RESULTS	13
4.1 AC LINE CONDUCTED EMISSIONS.....	13
4.2 RADIATION SPURIOUS EMISSIONS	16

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Smart Phone
EUT Model:	S300
Highest Operation Frequency:	2690 MHz
Rated Input Voltage:	DC 3.85V from battery or DC 5V from adapter
Serial Number:	CR220943987-RF-S1
EUT Received Date:	2022.9.27
EUT Received Status:	Good

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter	HONG KONG IPRO TECHNOLOGY CO.,LIMITED	NTR-S05	Input: AC 100- 240V~50/60Hz 0.3A Output: 5.0V 2A

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

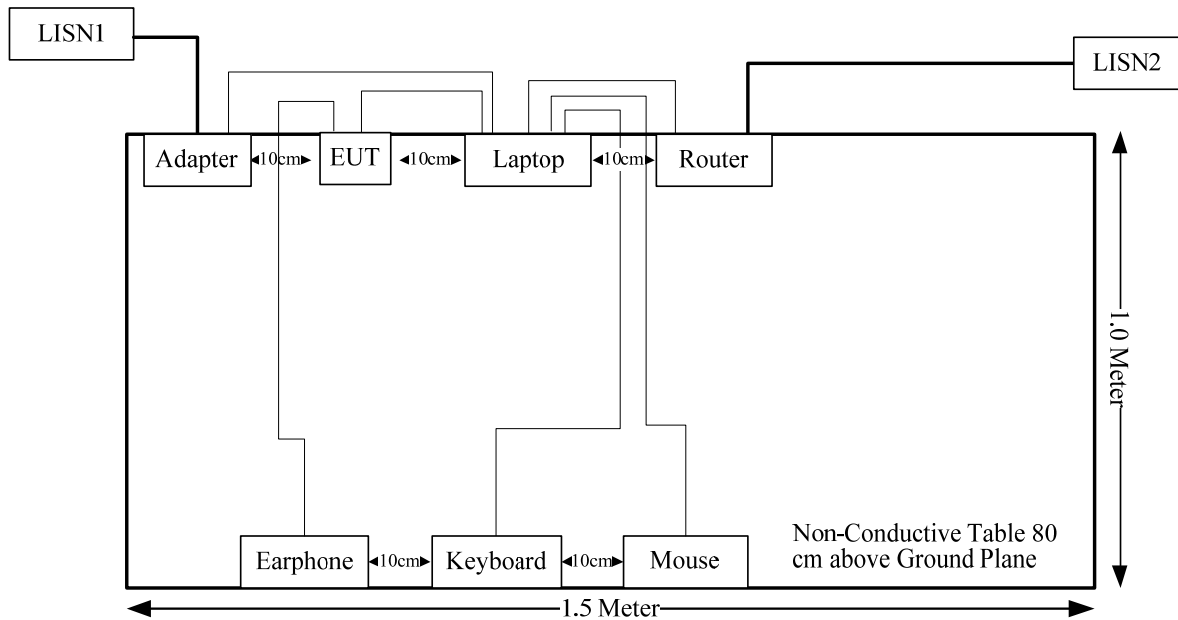
Manufacturer	Description	Model	Serial Number
PHILIPS	Keyboard	SPT6234	K234210510746
PHILIPS	Mouse	SPT6234	C234210506222
TOTO LINK	Router	X5000R	X5000RK9T0560
Lenovo	Laptop	T460S	60PDTEK8
Lenovo	adapter	ADLX65NDC3A	45N0253
I PRO	earphone	N/A	N/A

1.2.3 Support Cable List and Details

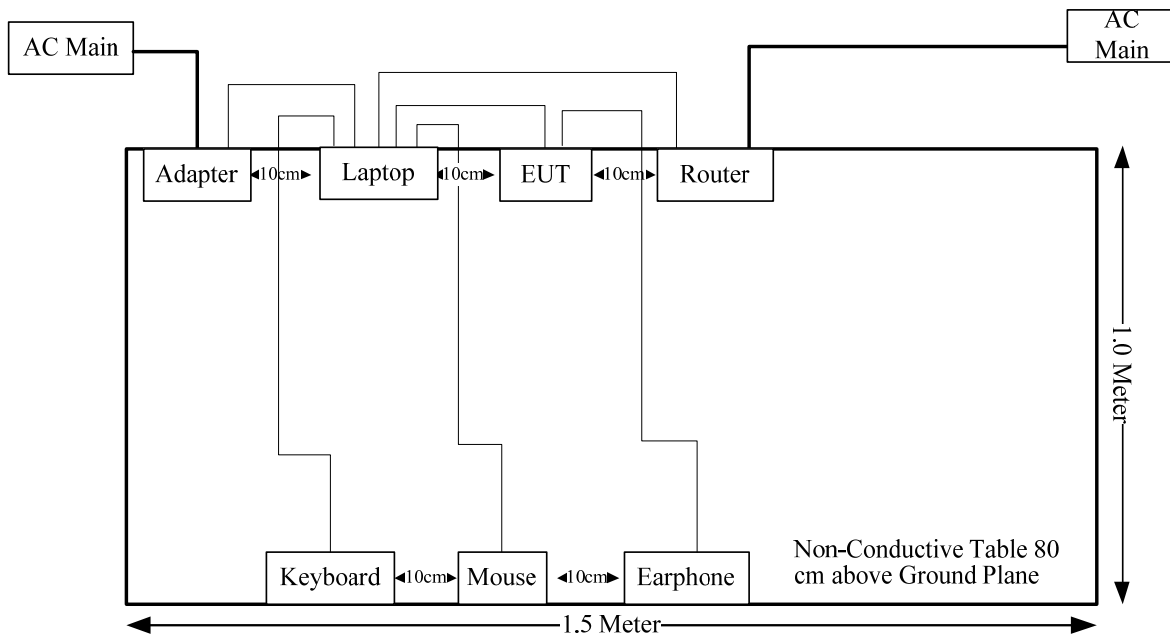
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	0.8	Laptop	EUT
Keyboard Cable	No	No	1.2	Keyboard	Laptop
Mouse Cable	No	No	1.2	Mouse	Laptop
RJ45 Cable	No	No	1.8	Router	Laptop
Adapter Cable	No	No	1.2	USB Port of adapter	Laptop
Audio Cable	No	No	1.2	Audio Port of EUT	Earphone

1.2.4 Block Diagram of Test Setup

AC line conducted emissions:



Radiated emissions:



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	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

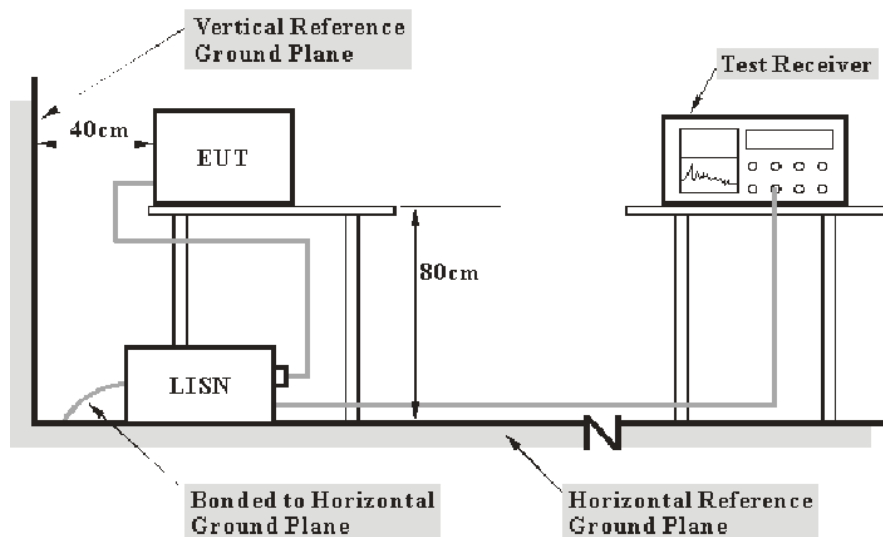
2. SUMMARY OF TEST RESULTS

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

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 or EUT 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

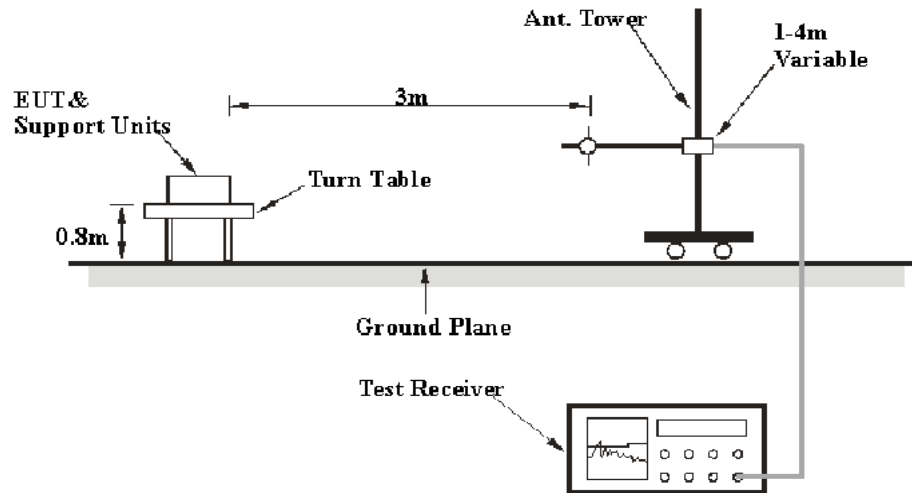
The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

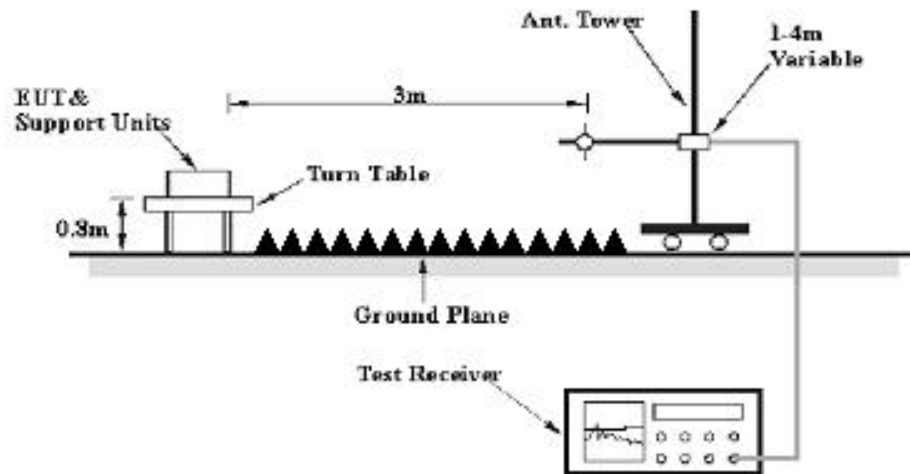
3.2 Radiation Spurious Emissions

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 13.5 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	Detector
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	3 MHz	/	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.

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:	CR220943987-RF-S1	Test Date:	2022/10/10
Test Site:	CE	Test Mode:	Downloading
Tester:	Vic Du	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.7	Relative Humidity: (%)	64	ATM Pressure: (kPa)	101.4
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2022/04/01	2023/03/31
R&S	LISN	ENV216	101132	2022/04/01	2023/03/31
R&S	EMI Test Receiver	ESR3	102726	2022/07/15	2023/07/14
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2022/08/07	2023/08/06
Audix	Test Software	E3	190306 (V9)	N/A	N/A

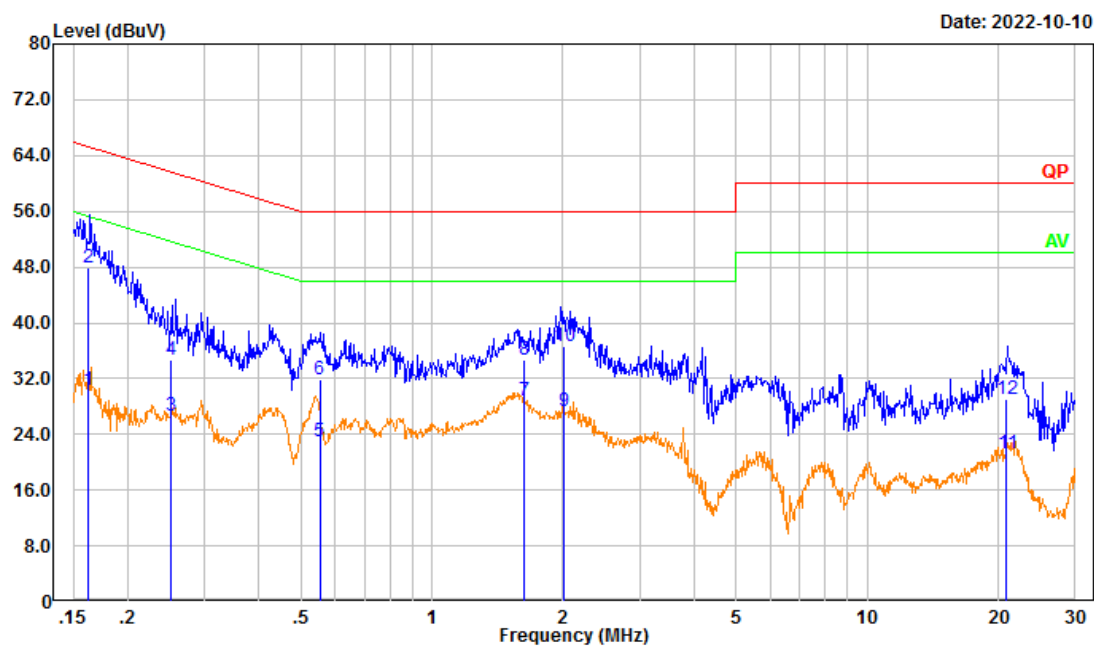
* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Line:

Test Mode: Downloading

Port: Line

Note:



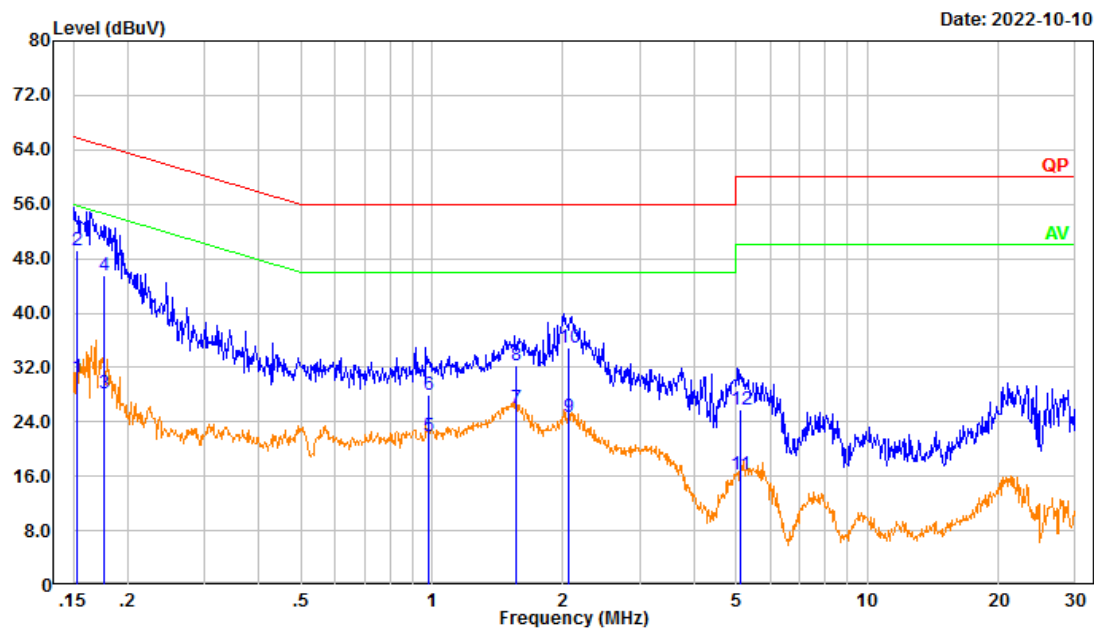
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dBμV)	Detector
1	0.162	20.73	9.61	30.34	55.36	25.02	Average
2	0.162	38.34	9.61	47.95	65.36	17.41	QP
3	0.251	17.02	9.61	26.63	51.74	25.11	Average
4	0.251	25.03	9.61	34.64	61.74	27.10	QP
5	0.552	13.34	9.62	22.96	46.00	23.04	Average
6	0.552	22.18	9.62	31.80	56.00	24.20	QP
7	1.621	19.13	9.63	28.76	46.00	17.24	Average
8	1.621	25.14	9.63	34.77	56.00	21.23	QP
9	2.007	17.68	9.63	27.31	46.00	18.69	Average
10	2.007	27.02	9.63	36.65	56.00	19.35	QP
11	20.891	11.46	9.80	21.26	50.00	28.74	Average
12	20.891	19.29	9.80	29.09	60.00	30.91	QP

Neutral:

Test Mode: Downloading

Port: neutral

Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dBμV)	Detector
1	0.153	21.05	9.61	30.66	55.81	25.15	Average
2	0.153	39.53	9.61	49.14	65.81	16.67	QP
3	0.177	18.53	9.61	28.14	54.62	26.48	Average
4	0.177	35.97	9.61	45.58	64.62	19.04	QP
5	0.982	12.30	9.62	21.92	46.00	24.08	Average
6	0.982	18.25	9.62	27.87	56.00	28.13	QP
7	1.564	16.42	9.63	26.05	46.00	19.95	Average
8	1.564	22.66	9.63	32.29	56.00	23.71	QP
9	2.067	15.15	9.63	24.78	46.00	21.22	Average
10	2.067	25.37	9.63	35.00	56.00	21.00	QP
11	5.100	6.66	9.66	16.32	50.00	33.68	Average
12	5.100	16.16	9.66	25.82	60.00	34.18	QP

4.2 Radiation Spurious Emissions

Serial Number:	CR220943987-RF-S1	Test Date:	2022-10-10(Below 1GHz) 2022-10-09~2022-10-28 (Above 1GHz)
Test Site:	966-2, 966-1	Test Mode:	Downloading
Tester:	Carl Xue ,coco Tian	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25~26.2	Relative Humidity: (%)	53~56	ATM Pressure: (kPa)	101.1~101.4
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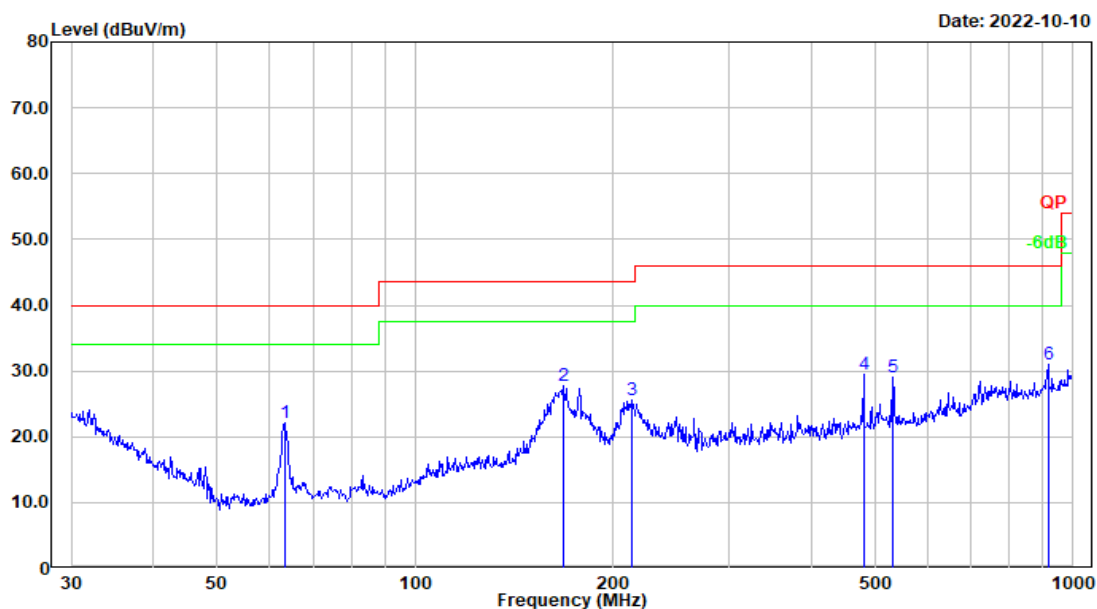
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Below 1GHz					
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2022/07/15	2023/07/14
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2022/07/17	2023/07/16
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2022/07/17	2023/07/16
Sonoma	Amplifier	310N	186165	2022/07/17	2023/07/16
Audix	Test Software	E3	201021 (V9)	N/A	N/A
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
R&S	Spectrum Analyzer	FSV40	101591	2022-07-15	2023-07-14
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2022-08-07	2023-08-06
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2022-08-07	2023-08-06
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-11-10	2022-11-09

* 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).

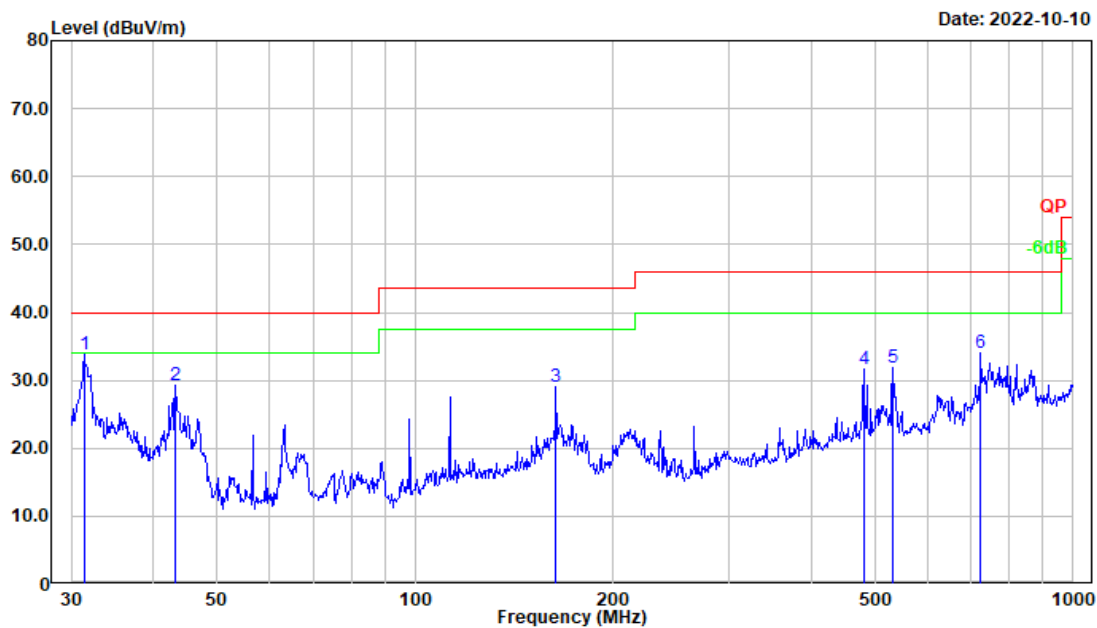
1) 30MHz-1GHz:

Test Mode: Downloading
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dBμV)	Detector
1	63.313	39.13	-17.09	22.04	40.00	17.96	Peak
2	167.824	40.57	-12.73	27.84	43.50	15.66	Peak
3	213.763	38.17	-12.58	25.59	43.50	17.91	Peak
4	480.528	35.82	-6.25	29.57	46.00	16.43	Peak
5	531.964	35.15	-5.99	29.16	46.00	16.84	Peak
6	916.069	31.68	-0.67	31.01	46.00	14.99	Peak

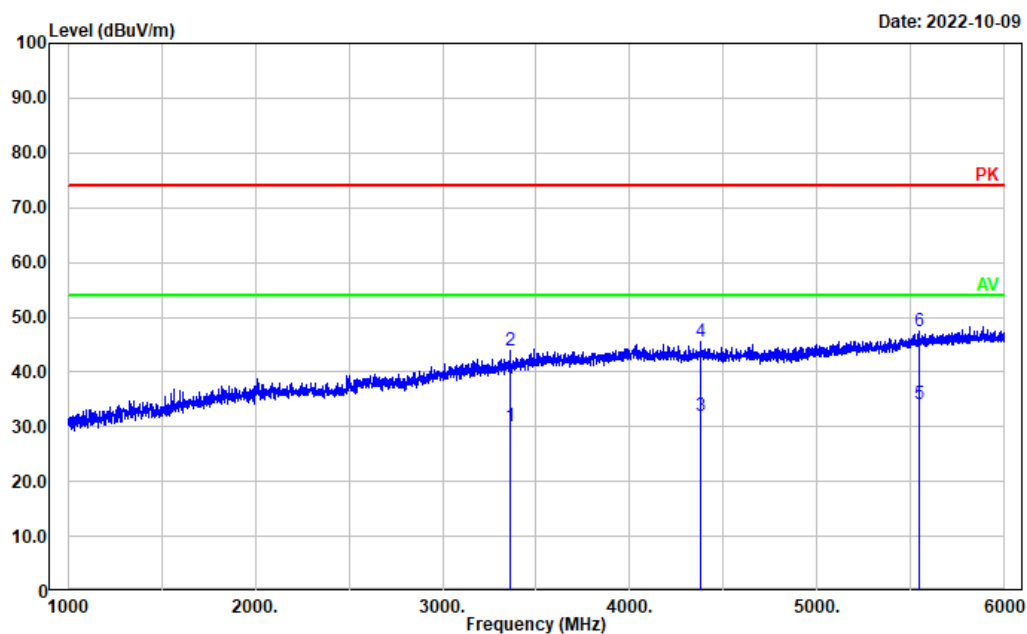
Test Mode: Downloading
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dBuV)	Detector
1	31.399	38.45	-4.67	33.78	40.00	6.22	Peak
2	43.202	42.44	-13.19	29.25	40.00	10.75	Peak
3	163.755	41.53	-12.38	29.15	43.50	14.35	Peak
4	480.528	37.91	-6.25	31.66	46.00	14.34	Peak
5	531.964	37.92	-5.99	31.93	46.00	14.07	Peak
6	724.261	37.18	-3.10	34.08	46.00	11.92	Peak

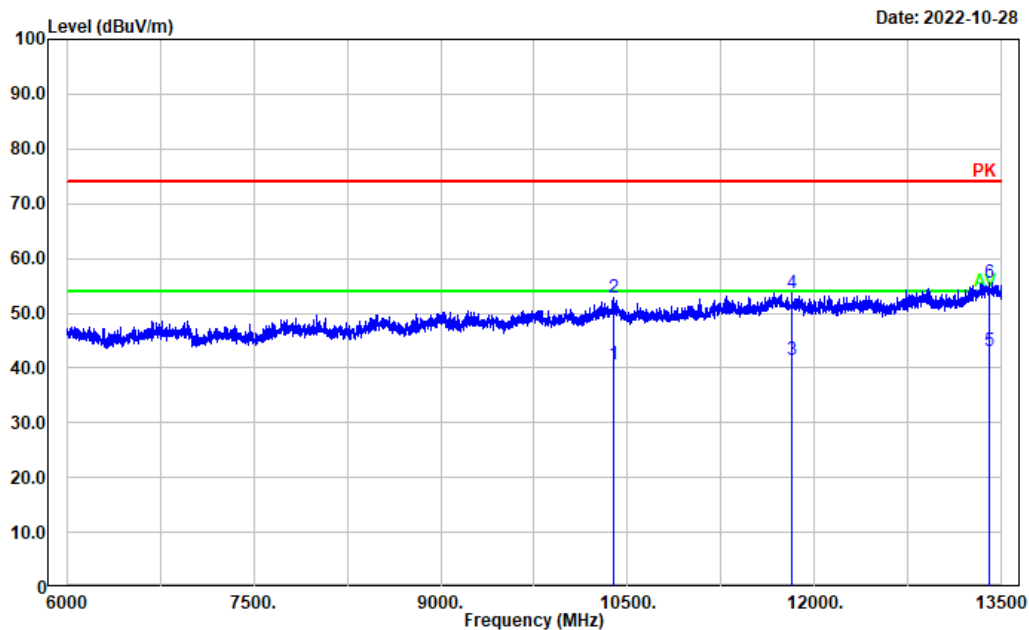
2) Above 1GHz:

Test Mode: downloading
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	3363.473	22.14	7.96	30.10	54.00	23.90	Average
2	3363.473	35.86	7.96	43.82	74.00	30.18	Peak
3	4375.675	22.15	9.76	31.91	54.00	22.09	Average
4	4375.675	35.84	9.76	45.60	74.00	28.40	Peak
5	5542.909	21.34	12.85	34.19	54.00	19.81	Average
6	5542.909	34.47	12.85	47.32	74.00	26.68	Peak

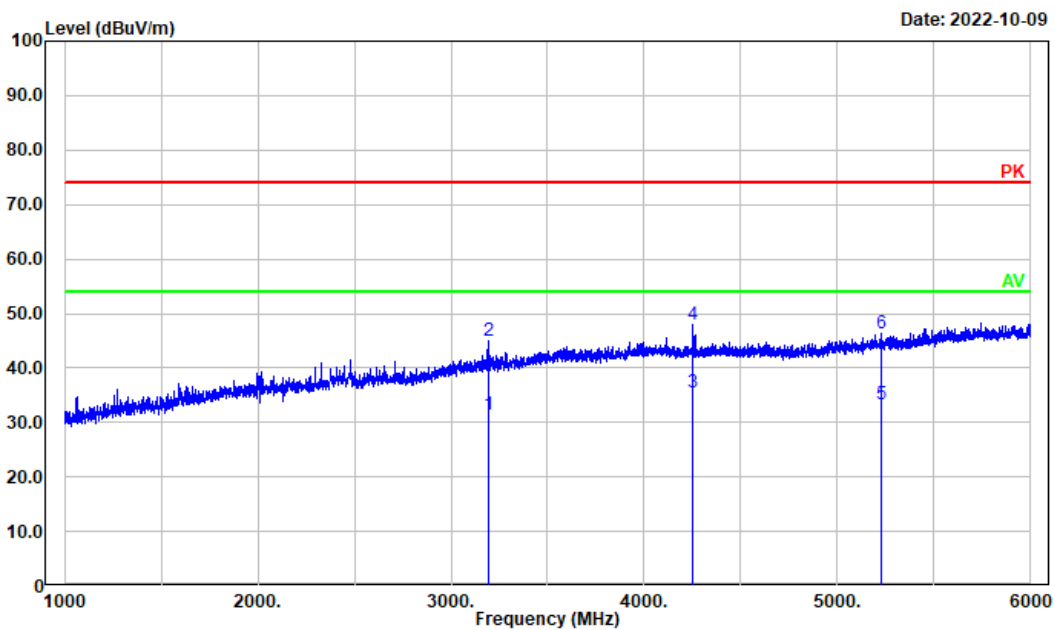
Test Mode:
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector

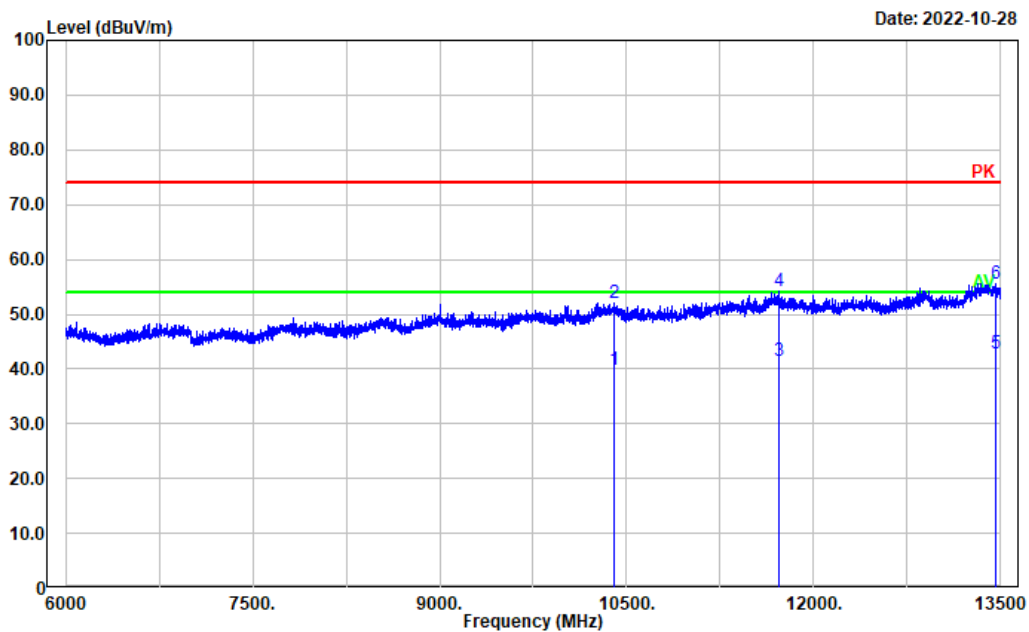
1	10391.380	22.18	18.45	40.63	54.00	13.37	Average
2	10391.380	34.37	18.45	52.82	74.00	21.18	Peak
3	11812.160	21.36	19.98	41.34	54.00	12.66	Average
4	11812.160	33.70	19.98	53.68	74.00	20.32	Peak
5	13397.980	20.21	22.80	43.01	54.00	10.99	Average
6	13397.980	32.81	22.80	55.61	74.00	18.39	Peak

Test Mode: downloading
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	3197.439	24.38	7.17	31.55	54.00	22.45	Average
2	3197.439	37.79	7.17	44.96	74.00	29.04	Peak
3	4249.650	25.67	9.75	35.42	54.00	18.58	Average
4	4249.650	38.09	9.75	47.84	74.00	26.16	Peak
5	5227.846	21.47	11.88	33.35	54.00	20.65	Average
6	5227.846	34.33	11.88	46.21	74.00	27.79	Peak

Test Mode:
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	10397.380	21.24	18.47	39.71	54.00	14.29	Average
2	10397.380	33.67	18.47	52.14	74.00	21.86	Peak
3	11717.640	21.07	20.45	41.52	54.00	12.48	Average
4	11717.640	33.63	20.45	54.08	74.00	19.92	Peak
5	13460.990	20.11	22.69	42.80	54.00	11.20	Average
6	13460.990	32.84	22.69	55.53	74.00	18.47	Peak

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