



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: PQ4IPROA32

Product Name: Mobile Phone

**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: CR230955823-00C

Date Of Issue: 2023/10/16

Reviewed By: Julie Tan

Julie Tan

Title: RF Engineer

Approved By: Sun Zhong

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Title: Manager

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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
DOCUMENT REVISION HISTORY	4
1. GENERAL INFORMATION.....	5
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
1.2 DESCRIPTION OF TEST CONFIGURATION	6
1.2.2 Support Equipment List and Details	6
1.2.3 Support Cable List and Details	6
1.2.4 Block Diagram of Test Setup.....	7
1.3 MEASUREMENT UNCERTAINTY	8
2. SUMMARY OF TEST RESULTS	9
3. REQUIREMENTS AND TEST PROCEDURES	10
3.1 AC LINE CONDUCTED EMISSIONS	10
3.1.1 EUT Setup.....	10
3.1.2 EMI Test Receiver Setup	10
3.1.3 Test Procedure	11
3.1.4 Corrected Amplitude & Margin Calculation.....	11
3.2 RADIATION SPURIOUS EMISSIONS	12
3.2.1 EUT Setup.....	12
3.2.2 EMI Test Receiver Setup	13
3.2.3 Test Procedure	13
3.2.4 Corrected Amplitude & Margin Calculation.....	13
4. TEST DATA AND RESULTS.....	14
4.1 AC LINE CONDUCTED EMISSIONS	14
4.2 RADIATION SPURIOUS EMISSIONS	17
5. EUT PHOTOGRAPHS	22
6. TEST SETUP PHOTOGRAPHS	23

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230955823-00C	Original Report	2023/10/16

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Mobile Phone
EUT Model:	A32
Multiple Model:	A18, A19, A30, A31, A33, A35, A36, A38, A39
Highest Operation Frequency:	2480 MHz
Rated Input Voltage:	DC 3.7V from battery or DC 5.0V from adapter
Serial Number:	2BKJ-1
EUT Received Date:	2023/9/21
EUT Received Status:	Good

Note: The Multiple model is 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	HONG KONG IPRO TECHNOLOGY CO.,LIMITED	NTR-02	Input: AC100-240V~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

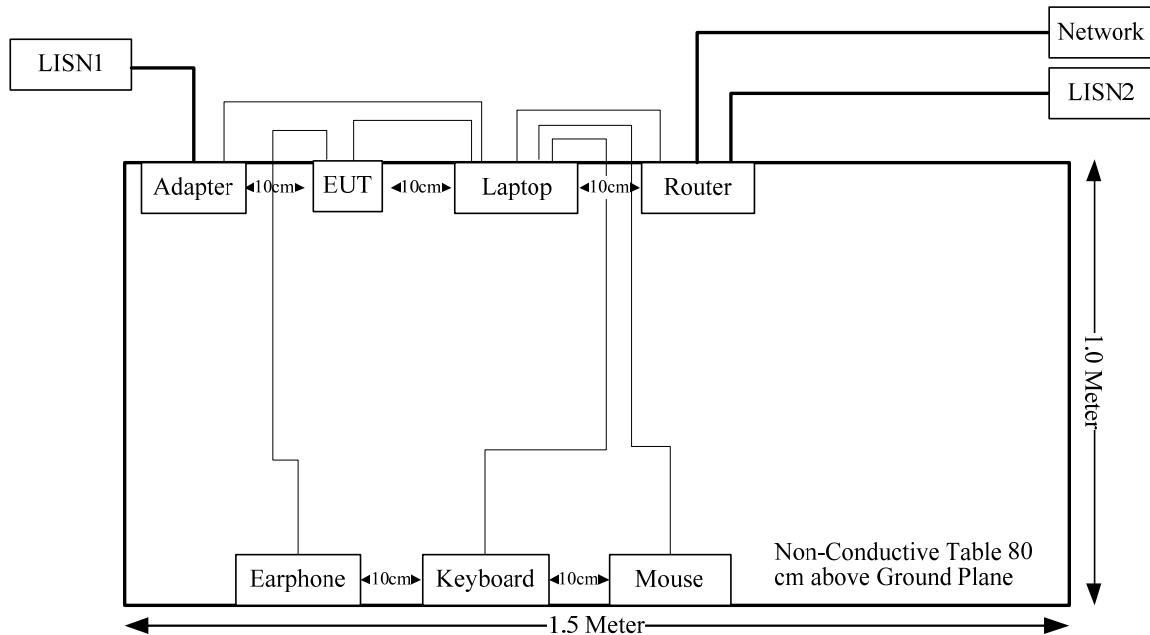
Manufacturer	Description	Model	Serial Number
CLC	Earphone	Whiteview5.0	EP21106054
PHILIPS	Keyboard	SPT6234	K234210510746
PHILIPS	Mouse	SPT6234	C234210506222
Lenovo	Laptop	T460S	60PDTEK8
Lenovo	Laptop Adapter	ADLX45DLC3A	00HM613
TOTO LINK	Router	X5000R	X5000RK9T0560

1.2.3 Support Cable List and Details

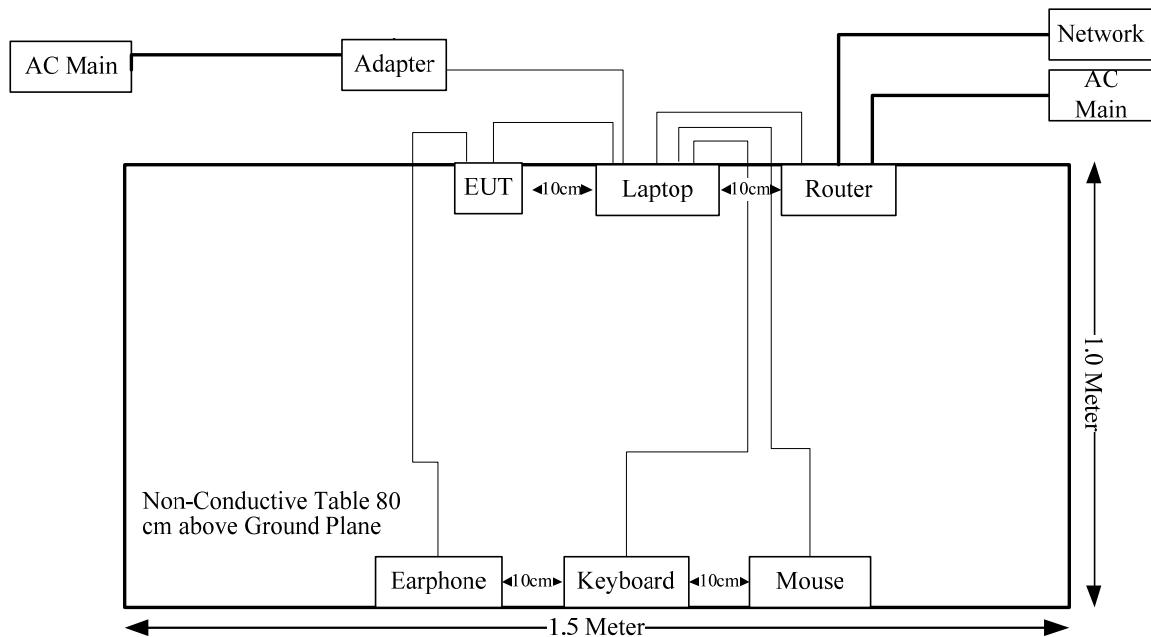
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45 Cable	Yes	No	1.2	Router	Laptop
RJ45 Cable	Yes	No	10	Network	Router
USB Cable	No	No	0.8	EUT	Laptop
Adapter Cable	Yes	No	1.5	Laptop	Adapter
Keyboard Cable	No	No	1.2	Keyboard	Laptop
Mouse Cable	No	No	1.2	Mouse	Laptop
Earphone Cable	No	No	1.2	Earphone	EUT

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

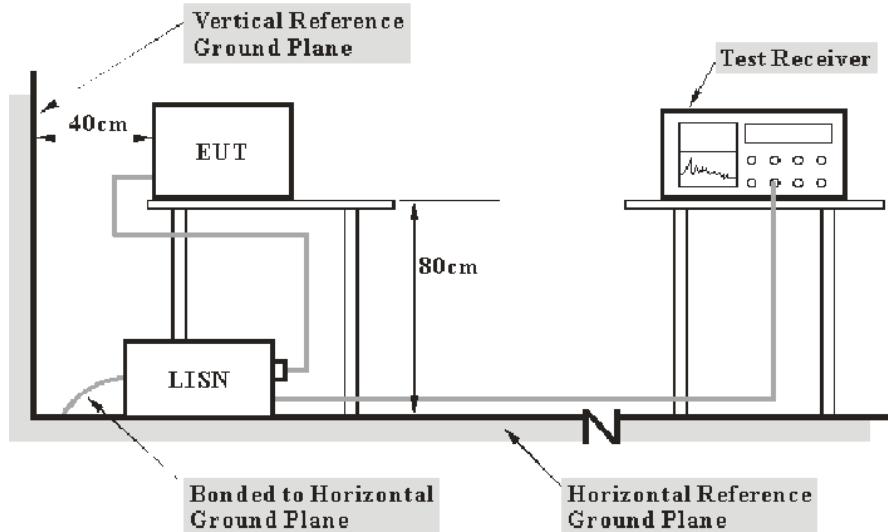
2. SUMMARY OF TEST RESULTS

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

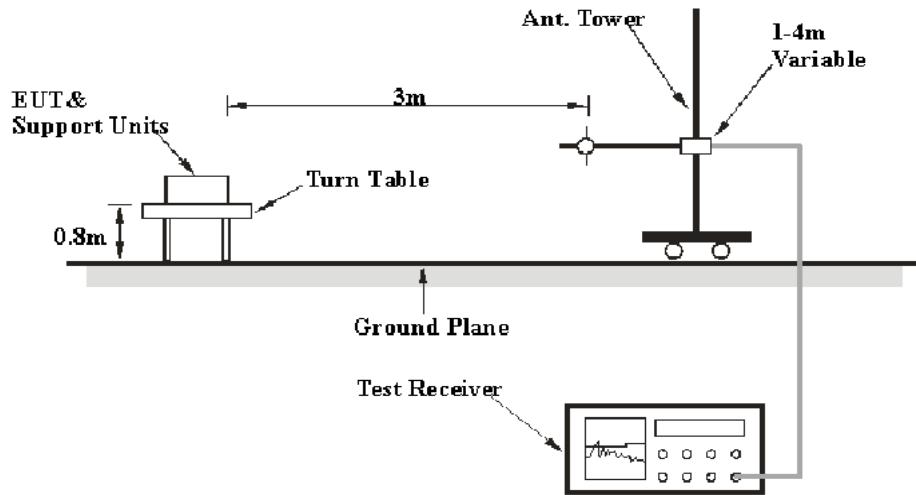
The “Margin” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

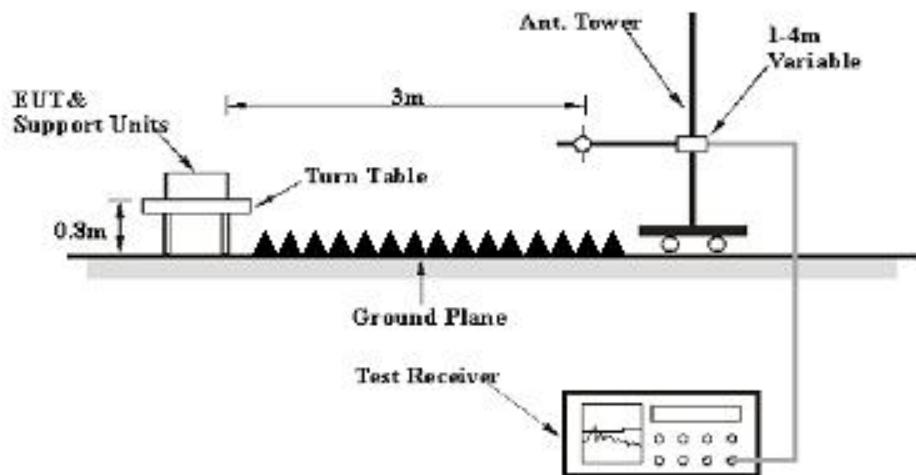
3.2 Radiation Spurious Emissions

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 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:	2BKJ-1	Test Date:	2023/9/27
Test Site:	CE	Test Mode:	Downloading
Tester:	David Huang	Test Result:	Pass

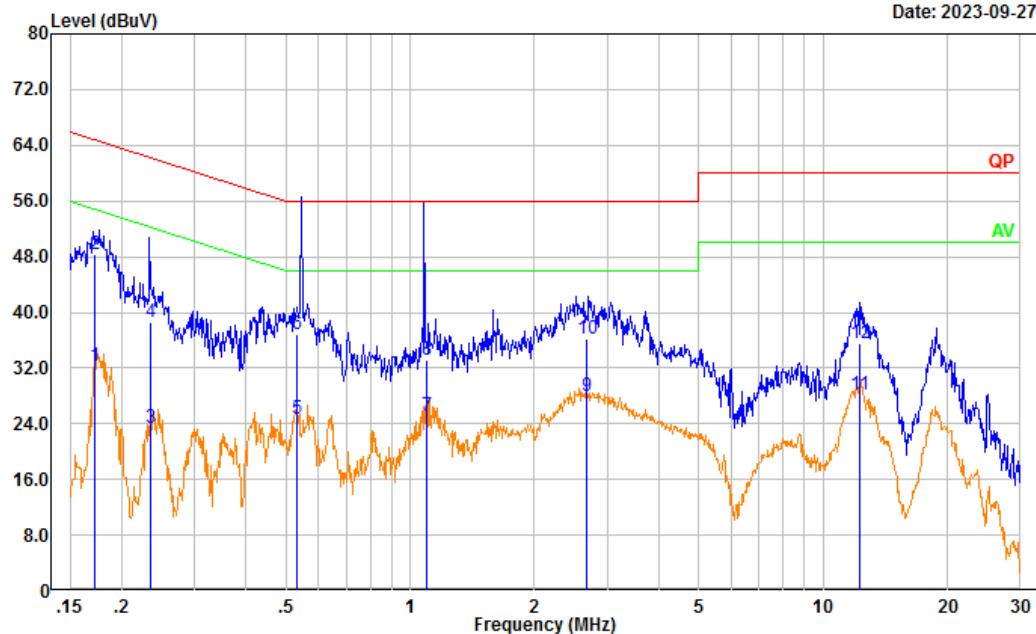
Environmental Conditions:					
Temperature: (°C)	26.8	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

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

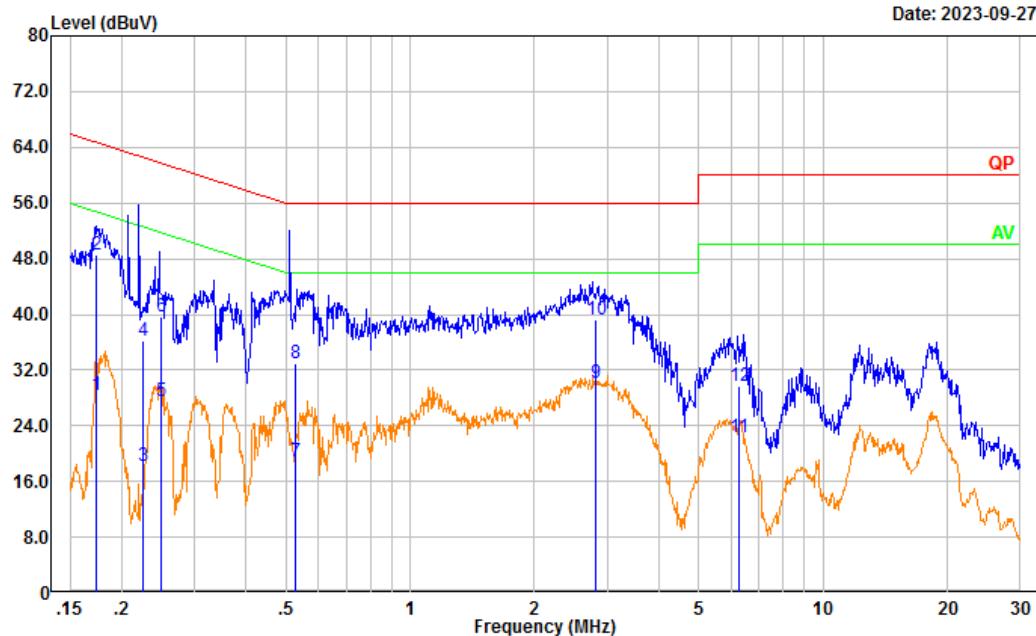
* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Project No.: CR230955823-RF
Tester: David Huang
Port: Line
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V)	Margin (dB)	Detector
1	0.172	22.78	9.61	32.39	54.86	22.47	Average
2	0.172	38.65	9.61	48.26	64.86	16.60	QP
3	0.236	13.72	9.61	23.33	52.24	28.91	Average
4	0.236	28.89	9.61	38.50	62.24	23.74	QP
5	0.534	15.00	9.61	24.61	46.00	21.39	Average
6	0.534	27.15	9.61	36.76	56.00	19.24	QP
7	1.098	15.47	9.62	25.09	46.00	20.91	Average
8	1.098	23.45	9.62	33.07	56.00	22.93	QP
9	2.673	18.26	9.64	27.90	46.00	18.10	Average
10	2.673	26.51	9.64	36.15	56.00	19.85	QP
11	12.216	18.59	9.67	28.26	50.00	21.74	Average
12	12.216	25.92	9.67	35.59	60.00	24.41	QP

Project No.: CR230955823-RF
Tester: David Huang
Port: neutral
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V)	Margin (dB)	Detector
1	0.174	18.89	9.61	28.50	54.75	26.25	Average
2	0.174	39.06	9.61	48.67	64.75	16.08	QP
3	0.225	8.62	9.61	18.23	52.64	34.41	Average
4	0.225	26.57	9.61	36.18	62.64	26.46	QP
5	0.249	18.01	9.61	27.62	51.80	24.18	Average
6	0.249	30.05	9.61	39.66	61.80	22.14	QP
7	0.525	9.17	9.61	18.78	46.00	27.22	Average
8	0.525	23.44	9.61	33.05	56.00	22.95	QP
9	2.822	20.48	9.65	30.13	46.00	15.87	Average
10	2.822	29.58	9.65	39.23	56.00	16.77	QP
11	6.260	12.62	9.66	22.28	50.00	27.72	Average
12	6.260	20.14	9.66	29.80	60.00	30.20	QP

4.2 Radiation Spurious Emissions

Serial Number:	2BKJ-1	Test Date:	2023/10/5~2023/10/13
Test Site:	966-2,966-1	Test Mode:	Downloading
Tester:	Jeff Luo, coco Tian	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	25.4~26.7	Relative Humidity: (%)	56~67	ATM Pressure: (kPa)	100.3~101.1

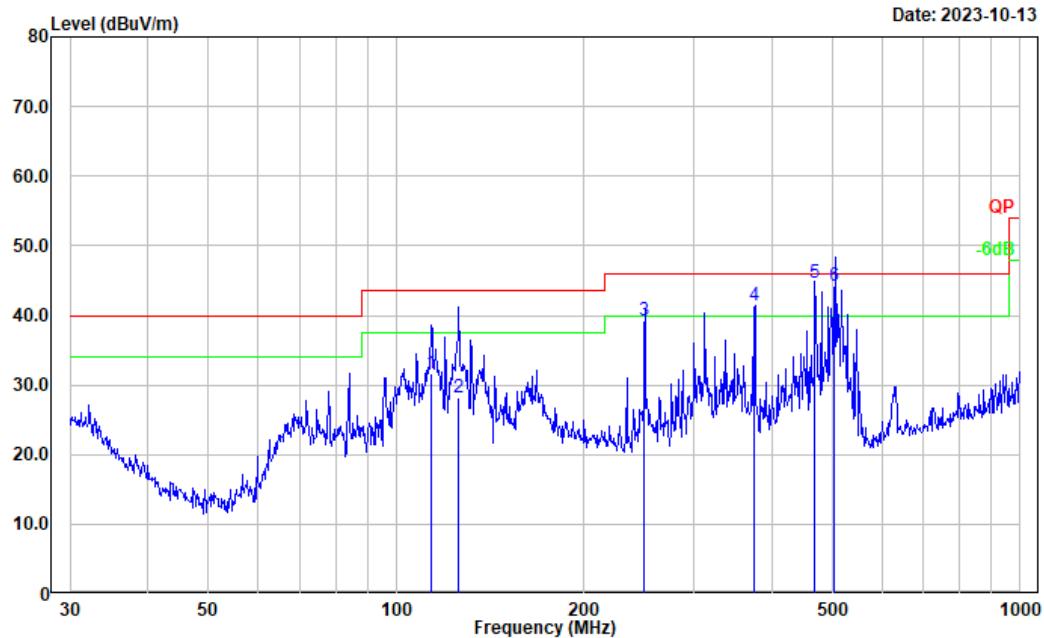
Test Equipment List and Details:

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	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	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
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).

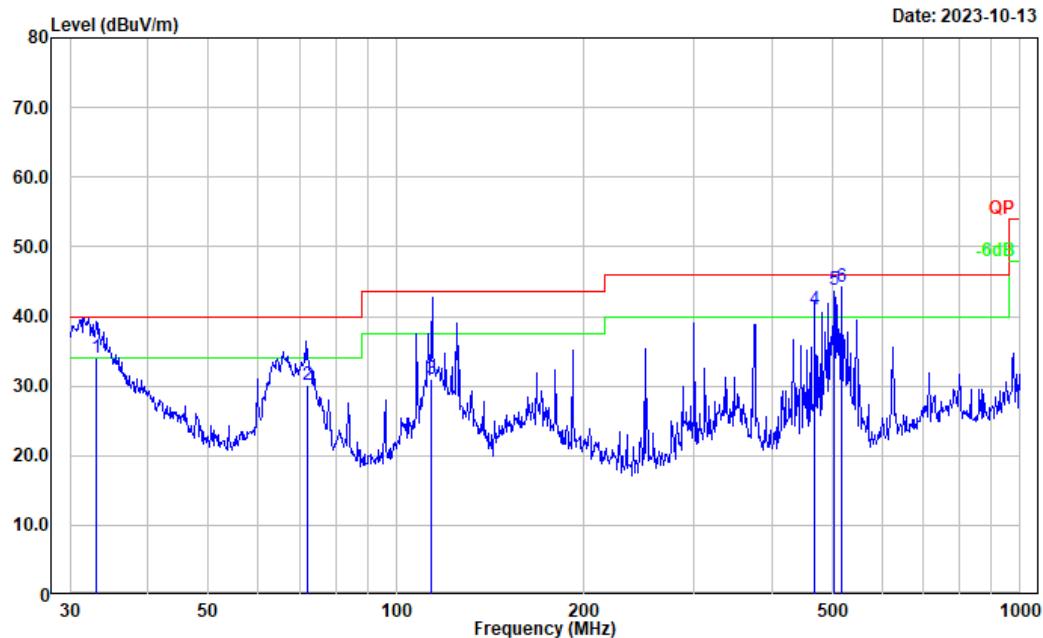
1) 30MHz-1GHz:

Project No.: CR230955823-RF
Tester: Jeff Luo
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	114.001	43.57	-11.99	31.58	43.50	11.92	QP
2	125.997	39.45	-11.30	28.15	43.50	15.35	QP
3	250.011	52.28	-13.09	39.19	46.00	6.81	QP
4	374.992	50.71	-9.33	41.38	46.00	4.62	QP
5	467.996	51.00	-6.39	44.61	46.00	1.39	QP
6	504.020	50.06	-5.93	44.13	46.00	1.87	QP

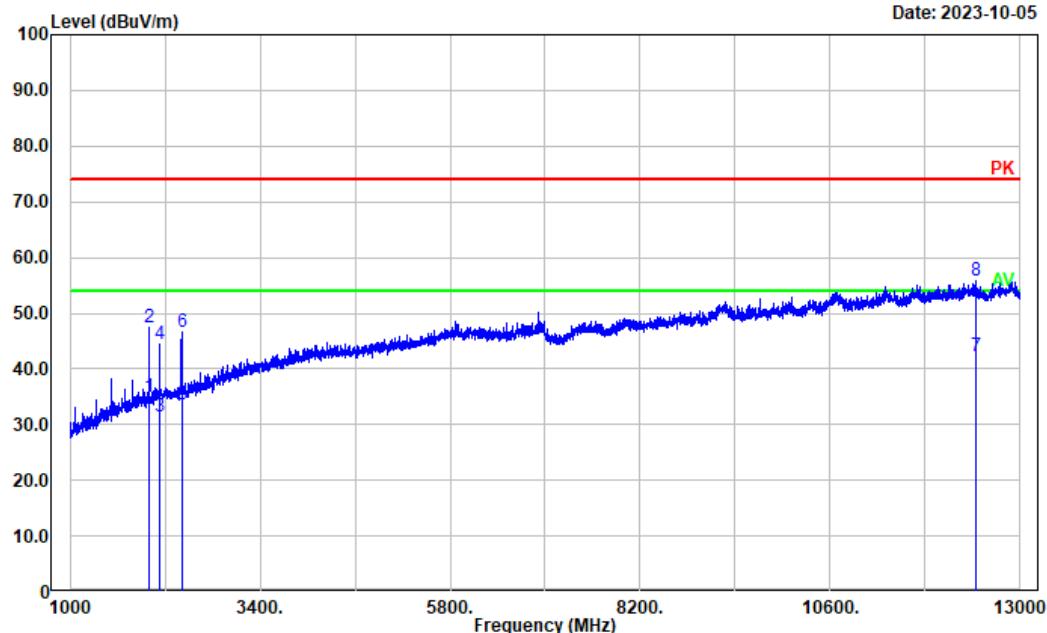
Project No.: CR230955823-RF
Tester: Jeff Luo
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	33.067	40.08	-5.97	34.11	40.00	5.89	QP
2	71.993	46.80	-16.68	30.12	40.00	9.88	QP
3	114.000	42.95	-11.99	30.96	43.50	12.54	QP
4	468.015	47.46	-6.39	41.07	46.00	4.93	QP
5	504.020	49.66	-5.93	43.73	46.00	2.27	QP
6	517.248	50.03	-5.83	44.20	46.00	1.80	QP

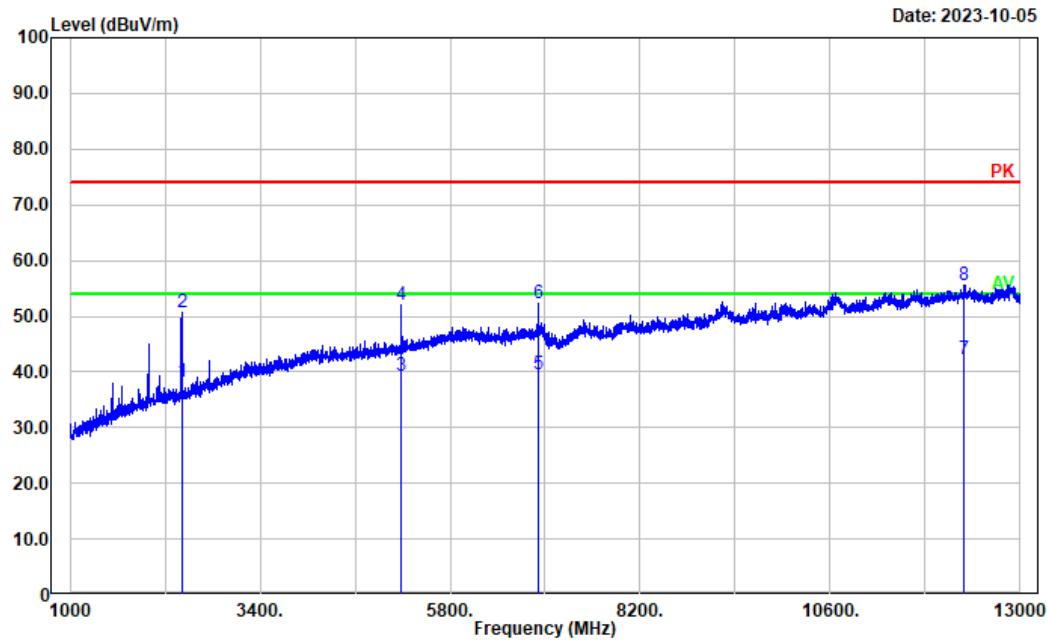
2) Above 1GHz:

Project No.: CR230955823-RF
Tester: coco Tian
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
<hr/>							
1	1996.199	32.54	2.30	34.84	54.00	19.16	Average
2	1996.199	45.08	2.30	47.38	74.00	26.62	Peak
3	2130.626	28.64	2.75	31.39	54.00	22.61	Average
4	2130.626	41.62	2.75	44.37	74.00	29.63	Peak
5	2409.082	30.15	3.55	33.70	54.00	20.30	Average
6	2409.082	43.08	3.55	46.63	74.00	27.37	Peak
7	12433.490	20.91	21.44	42.35	54.00	11.65	Average
8	12433.490	34.27	21.44	55.71	74.00	18.29	Peak

Project No.: CR230955823-RF
Tester: coco Tian
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
<hr/>							
1	2411.482	34.67	3.55	38.22	54.00	15.78	Average
2	2411.482	47.13	3.55	50.68	74.00	23.32	Peak
3	5184.037	27.84	11.54	39.38	54.00	14.62	Average
4	5184.037	40.38	11.54	51.92	74.00	22.08	Peak
5	6907.582	25.70	13.98	39.68	54.00	14.32	Average
6	6907.582	38.27	13.98	52.25	74.00	21.75	Peak
7	12287.060	20.87	21.48	42.35	54.00	11.65	Average
8	12287.060	34.14	21.48	55.62	74.00	18.38	Peak

5. EUT PHOTOGRAPHS

Please refer to the attachment CR230955823-EXP EUT EXTERNAL PHOTOGRAPHS and CR230955823-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR230955823-00C-TSP TEST SETUP PHOTOGRAPHS.

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