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

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

# TEST REPORT

**Applicant:** **HONG KONG IPRO TECHNOLOGY CO.,LIMITED**

Address: 12/F., San Toi Building137-139 Connaught Road Central HK

**FCC ID:** **PQ4IPROF188**

**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:** **CR230744255-00C**

**Date Of Issue:** **2023/8/23**

**Reviewed By:** **Julie Tan** Julie Tan
Title: RF Engineer

**Approved By:** **Sun Zhong** Sun Zhong
Title: Manager

**Test Laboratory:** **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, 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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# DOCUMENT REVISION HISTORY

| Revision Number | Report Number | Description of Revision | Date of Revision |
|---|---|---|---|
| 1.0 | CR230744255-00C | Original Report | 2023/8/23 |

# 1. GENERAL INFORMATION

## 1.1 Product Description for Equipment under Test (EUT)

| | |
|---|---|
| **EUT Name:** | Mobile Phone |
| **EUT Model:** | F188 |
| **Multiple Model:** | F181, F182, F185, F186, F187, F189 |
| **Highest Operation Frequency:** | 2480 MHz |
| **Rated Input Voltage:** | DC 3.7V from battery or DC 5V from Adapter |
| **Serial Number:** | 2958-3 |
| **EUT Received Date:** | 2023/8/1 |
| **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 |
|---|---|---|
| Adapter | HONG KONG IPRO TECHNOLOGY CO.,LIMITED | NTR-02 |

## 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.<br>Test Mode : downloading |
| **Equipment Modifications:** | No |
| **EUT Exercise Software:** | Winthrax.exe |

### 1.2.2 Support Equipment List and Details

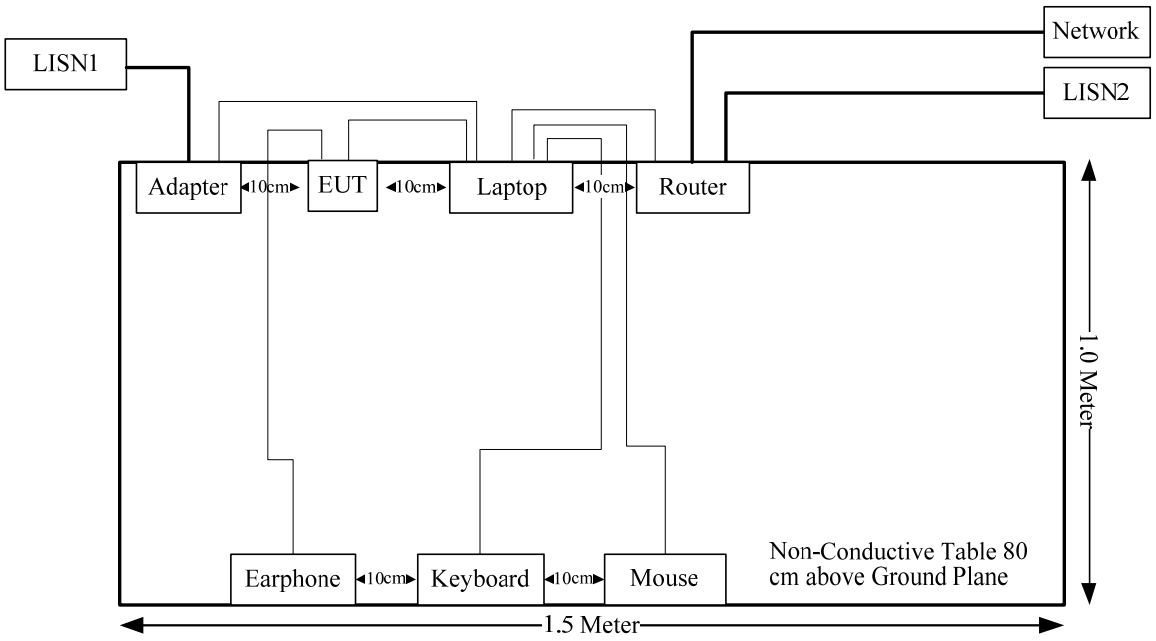
| Manufacturer | Description | Model | Serial Number |
|---|---|---|---|
| CLC | Earphone | Whiteview5.0 | EP21106054 |
| PHILIPS | Keyboard | SPT6234 | K234210510746 |
| PHILIPS | Mouse | SPT6234 | C234210506222 |
| Lenovo | Laptop | T460S | 60PDTEK8 |
| Lenovo | Laptop Adapter | ADLX45DLC3A | 00HM613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

### 1.2.3 Support Cable List and Details

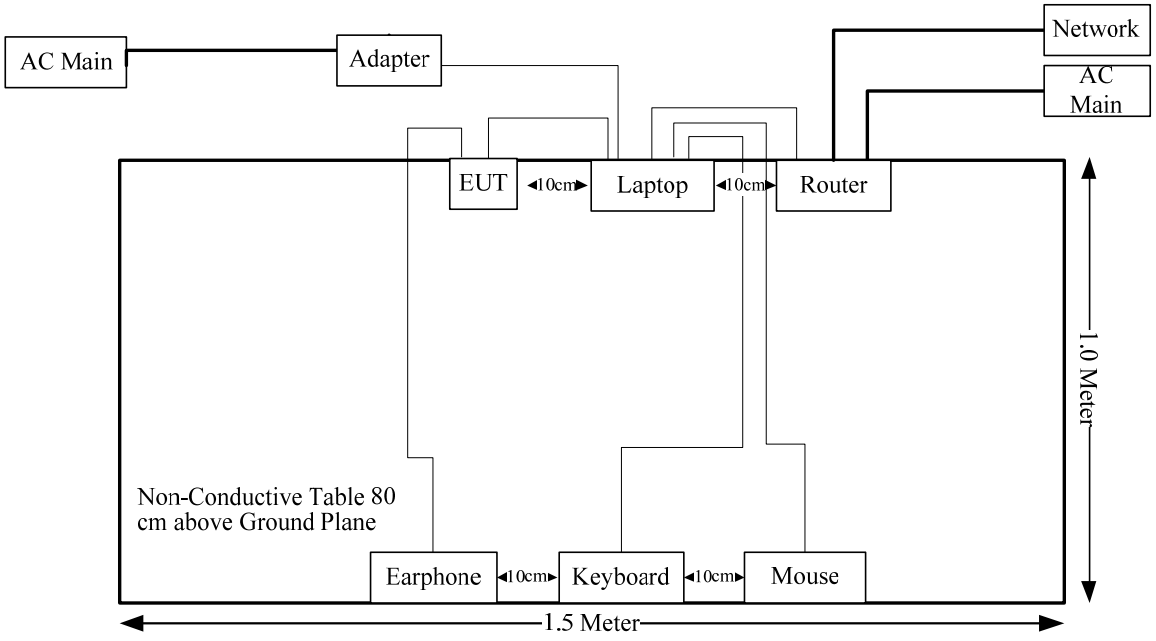
| Cable Description | Shielding Type | Ferrite Core | Length (m) | From Port | To |
|---|---|---|---|---|---|
| RJ45 Cable | Yes | No | 1.2 | Router | Laptop |
| RJ45 Cable | Yes | No | 10 | Network | Router |
| USB Cable | No | No | 0.8 | EUT | Laptop |
| Adapter Cable | Yes | No | 1.5 | Laptop | Adapter |
| 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℃ |
| Humidity | ±5% |
| AC Power Lines Conducted Emission | 2.8 dB (150 kHz to 30 MHz) |

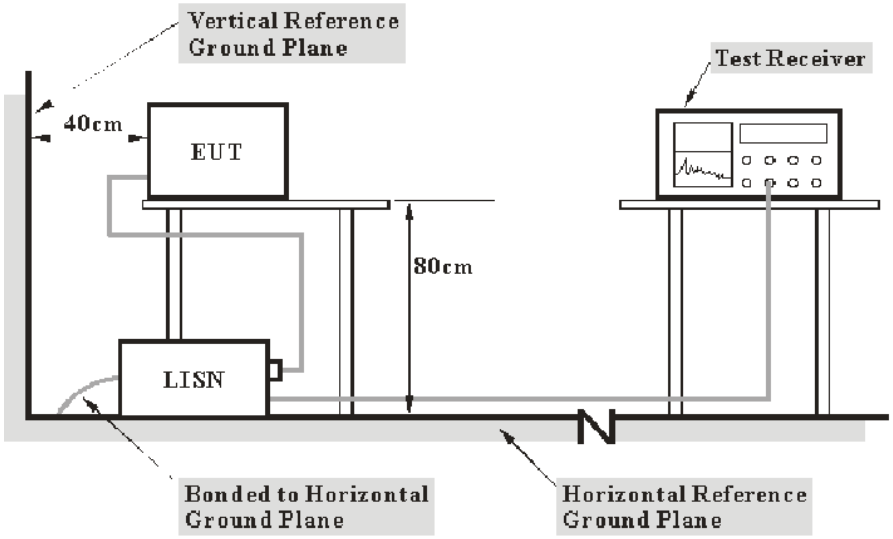
# 2. SUMMARY OF TEST RESULTS

| 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

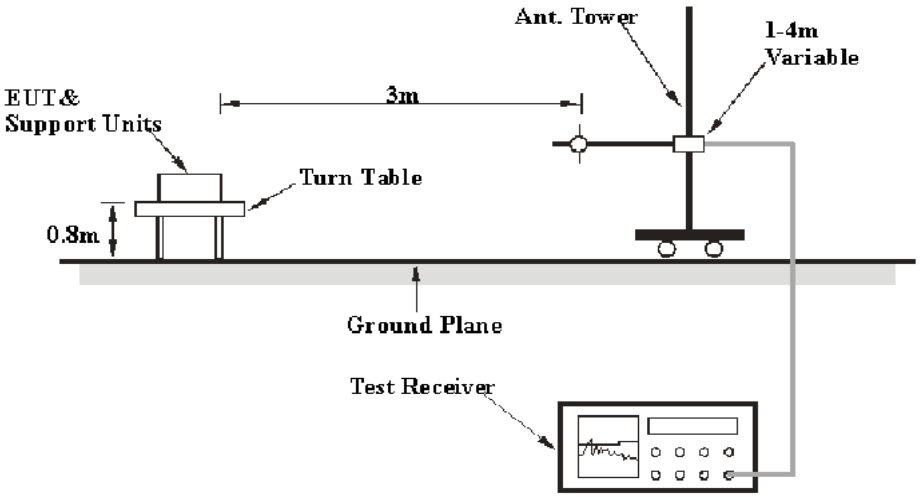
The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

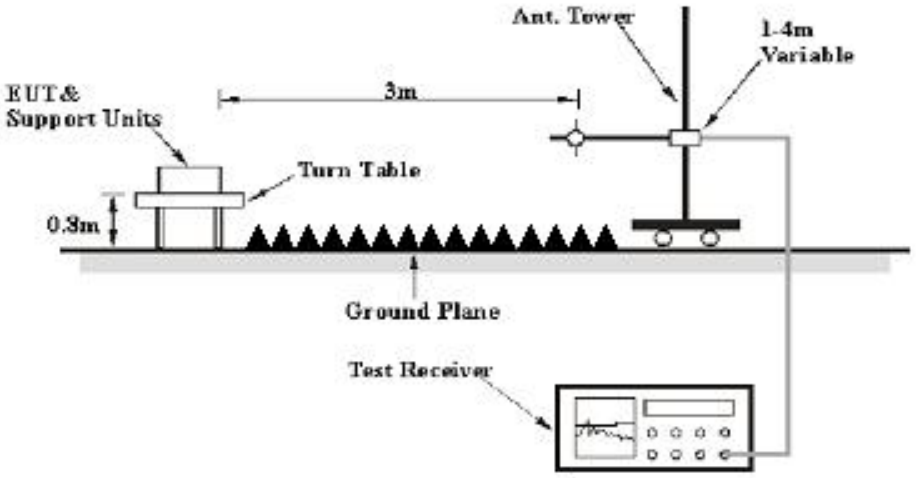
## 3.2 Radiation Spurious Emissions

### 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: | 2958-3 | Test Date: | 2023/08/14 |
| Test Site: | CE | Test Mode: | Downloading |
| Tester: | David Huang | Test Result: | Pass |

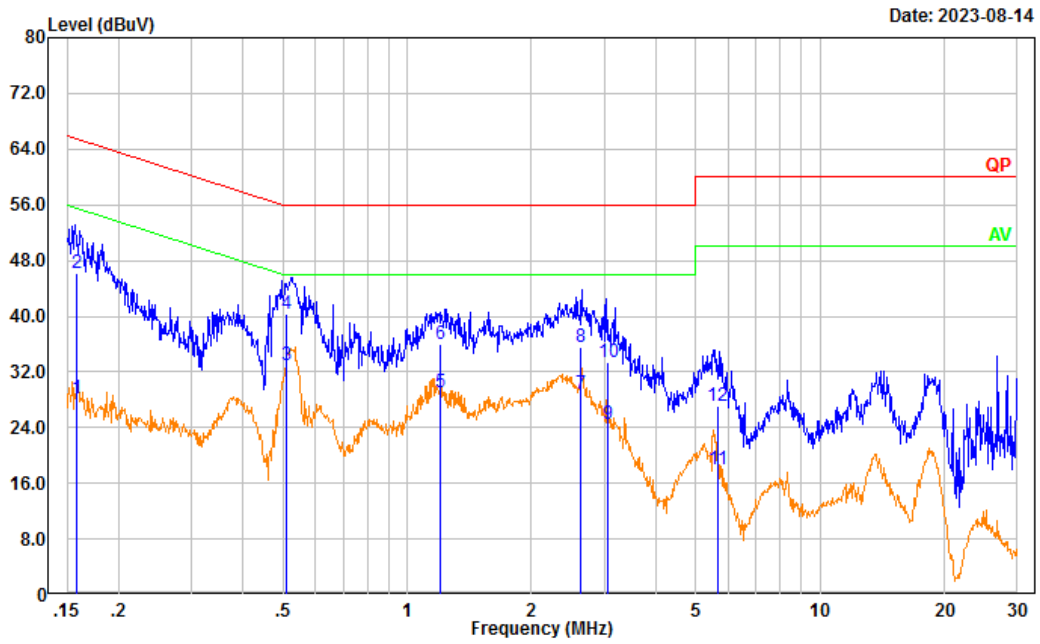
| **Environmental Conditions:** | | | | | |
|---|---|---|---|---|---|
| Temperature: (℃) | 26 | Relative Humidity: (%) | 72 | ATM Pressure: (kPa) | 100.5 |

**Test Equipment List and Details:**

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| R&S | LISN | ENV216 | 101134 | 2023/03/31 | 2024/03/30 |
| R&S | EMI Test Receiver | ESR3 | 102726 | 2023/03/31 | 2024/03/30 |
| MICRO-COAX | Coaxial Cable | UTIFLEX | C-0200-01 | 2023/08/06 | 2024/08/05 |
| Audix | Test Software | E3 | 190306 (V9) | N/A | N/A |

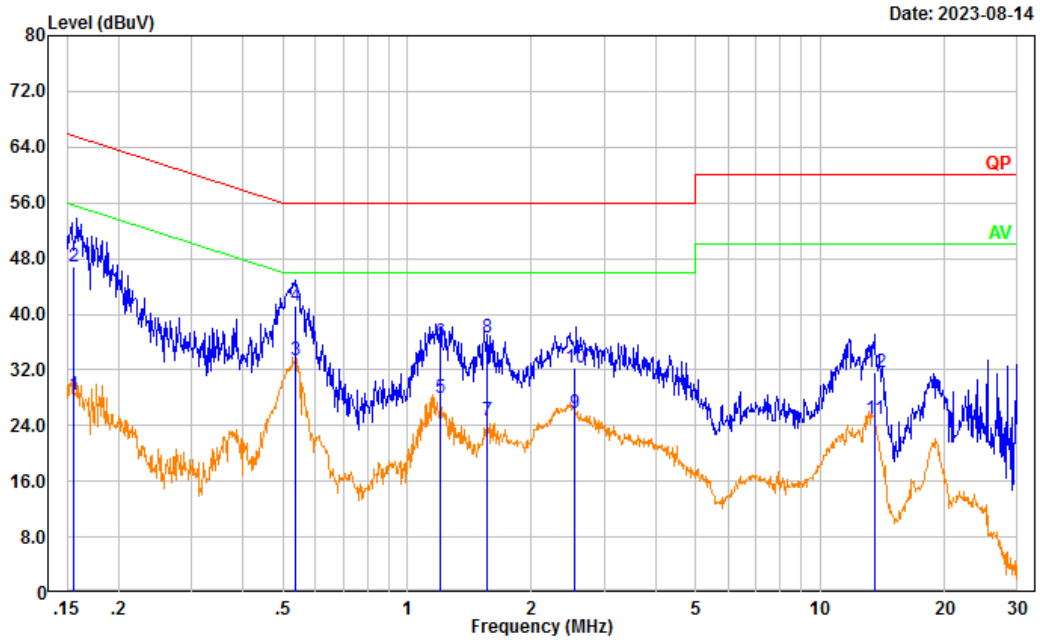
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Mode: Downloading
Port: Line
Note:




| No. | Frequency (MHz) | Reading (dBµV) | Factor (dB) | Result (dBµV) | Limit (dBµV) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 0.158 | 18.63 | 9.61 | 28.24 | 55.57 | 27.33 | Average |
| 2 | 0.158 | 36.58 | 9.61 | 46.19 | 65.57 | 19.38 | QP |
| 3 | 0.510 | 23.29 | 9.61 | 32.90 | 46.00 | 13.10 | Average |
| 4 | 0.510 | 30.65 | 9.61 | 40.26 | 56.00 | 15.74 | QP |
| 5 | 1.203 | 19.45 | 9.62 | 29.07 | 46.00 | 16.93 | Average |
| 6 | 1.203 | 26.35 | 9.62 | 35.97 | 56.00 | 20.03 | QP |
| 7 | 2.623 | 19.10 | 9.64 | 28.74 | 46.00 | 17.26 | Average |
| 8 | 2.623 | 25.94 | 9.64 | 35.58 | 56.00 | 20.42 | QP |
| 9 | 3.060 | 14.94 | 9.65 | 24.59 | 46.00 | 21.41 | Average |
| 10 | 3.060 | 23.80 | 9.65 | 33.45 | 56.00 | 22.55 | QP |
| 11 | 5.632 | 8.38 | 9.66 | 18.04 | 50.00 | 31.96 | Average |
| 12 | 5.632 | 17.42 | 9.66 | 27.08 | 60.00 | 32.92 | QP |

Test Mode: Downloading
Port: neutral
Note:




| No. | Frequency (MHz) | Reading (dBµV) | Factor (dB) | Result (dBµV) | Limit (dBµV) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 0.156 | 18.84 | 9.61 | 28.45 | 55.66 | 27.21 | Average |
| 2 | 0.156 | 37.23 | 9.61 | 46.84 | 65.66 | 18.82 | QP |
| 3 | 0.538 | 23.85 | 9.61 | 33.46 | 46.00 | 12.54 | Average |
| 4 | 0.538 | 31.48 | 9.61 | 41.09 | 56.00 | 14.91 | QP |
| 5 | 1.205 | 18.42 | 9.62 | 28.04 | 46.00 | 17.96 | Average |
| 6 | 1.205 | 26.27 | 9.62 | 35.89 | 56.00 | 20.11 | QP |
| 7 | 1.565 | 15.00 | 9.63 | 24.63 | 46.00 | 21.37 | Average |
| 8 | 1.565 | 26.94 | 9.63 | 36.57 | 56.00 | 19.43 | QP |
| 9 | 2.550 | 16.21 | 9.64 | 25.85 | 46.00 | 20.15 | Average |
| 10 | 2.550 | 22.67 | 9.64 | 32.31 | 56.00 | 23.69 | QP |
| 11 | 13.570 | 15.22 | 9.68 | 24.90 | 50.00 | 25.10 | Average |
| 12 | 13.570 | 21.98 | 9.68 | 31.66 | 60.00 | 28.34 | QP |

## 4.2 Radiation Spurious Emissions

| | | | |
|---|---|---|---|
| Serial Number: | 2958-3 | Test Date: | 2023/8/11~2023/8/17 |
| Test Site: | 966-2, 966-1 | Test Mode: | Downloading |
| Tester: | Vic Du, Mack Huang | Test Result: | Pass |

| **Environmental Conditions:** | | | | | |
|---|---|---|---|---|---|
| Temperature: (℃) | 26.6~27.8 | Relative Humidity: (%) | 60~68 | ATM Pressure: (kPa) | 99.7~100 |

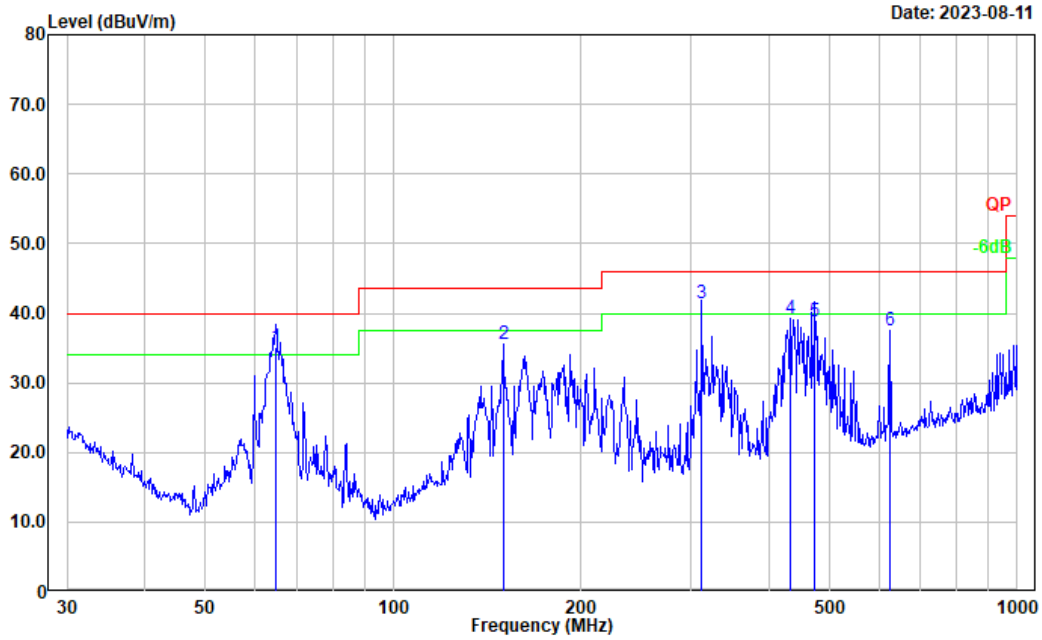
**Test Equipment List and Details:**

| 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 | 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 |
| 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 | 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).*

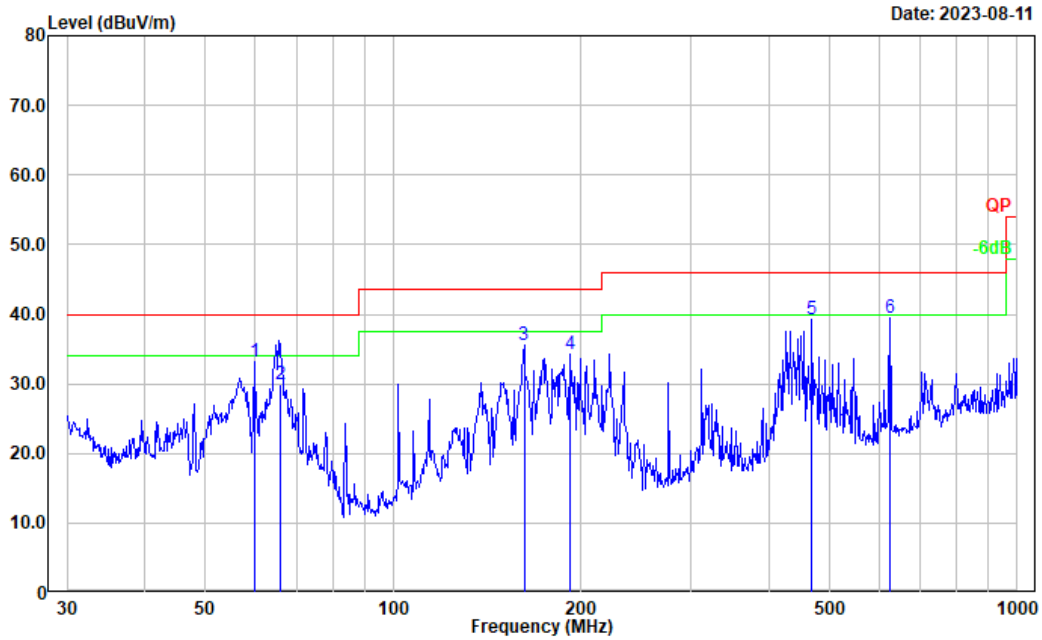
**1) 30MHz-1GHz:**

Test Mode: Downloading
Polarization: horizontal
Note:




| No. | Frequency (MHz) | Reading (dBµV) | Factor (dB/m) | Result (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 64.843 | 52.11 | -16.94 | 35.17 | 40.00 | 4.83 | QP |
| 2 | 150.011 | 47.51 | -12.00 | 35.51 | 43.50 | 7.99 | Peak |
| 3 | 312.005 | 52.11 | -10.61 | 41.50 | 46.00 | 4.50 | QP |
| 4 | 432.546 | 46.60 | -7.42 | 39.18 | 46.00 | 6.82 | Peak |
| 5 | 473.803 | 45.14 | -6.30 | 38.84 | 46.00 | 7.16 | QP |
| 6 | 625.078 | 42.19 | -4.60 | 37.59 | 46.00 | 8.41 | Peak |

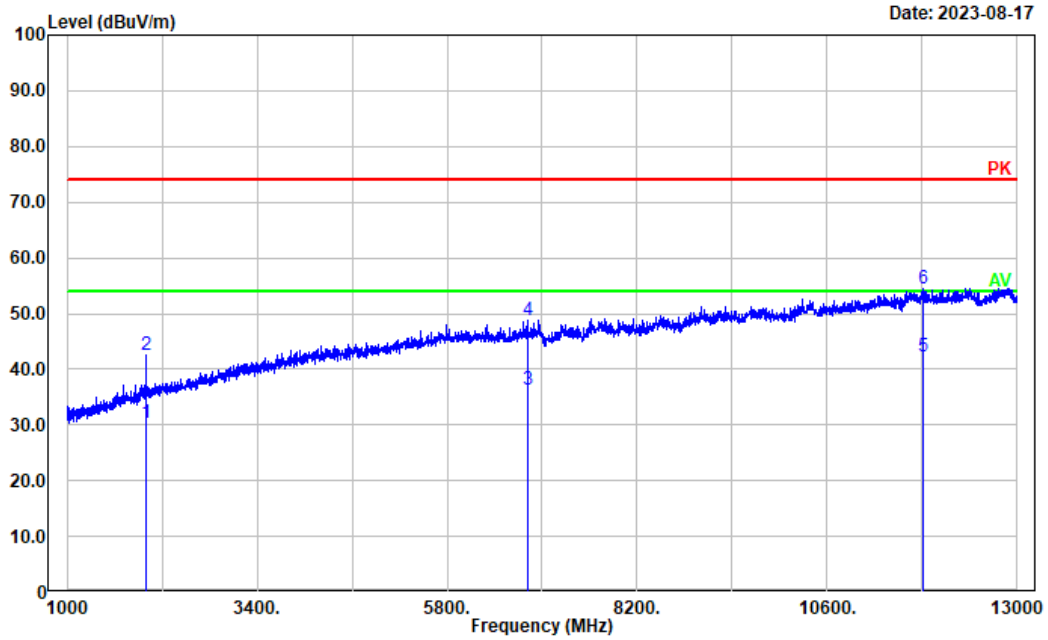
Test Mode: Downloading
Polarization: vertical
Note:




| No. | Frequency (MHz) | Reading (dBµV) | Factor (dB/m) | Result (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 59.859 | 50.48 | -17.41 | 33.07 | 40.00 | 6.93 | Peak |
| 2 | 66.013 | 46.74 | -16.87 | 29.87 | 40.00 | 10.13 | QP |
| 3 | 162.041 | 47.75 | -12.25 | 35.50 | 43.50 | 8.00 | Peak |
| 4 | 192.419 | 47.48 | -13.13 | 34.35 | 43.50 | 9.15 | Peak |
| 5 | 468.876 | 45.56 | -6.38 | 39.18 | 46.00 | 6.82 | Peak |
| 6 | 625.078 | 44.04 | -4.60 | 39.44 | 46.00 | 6.56 | Peak |

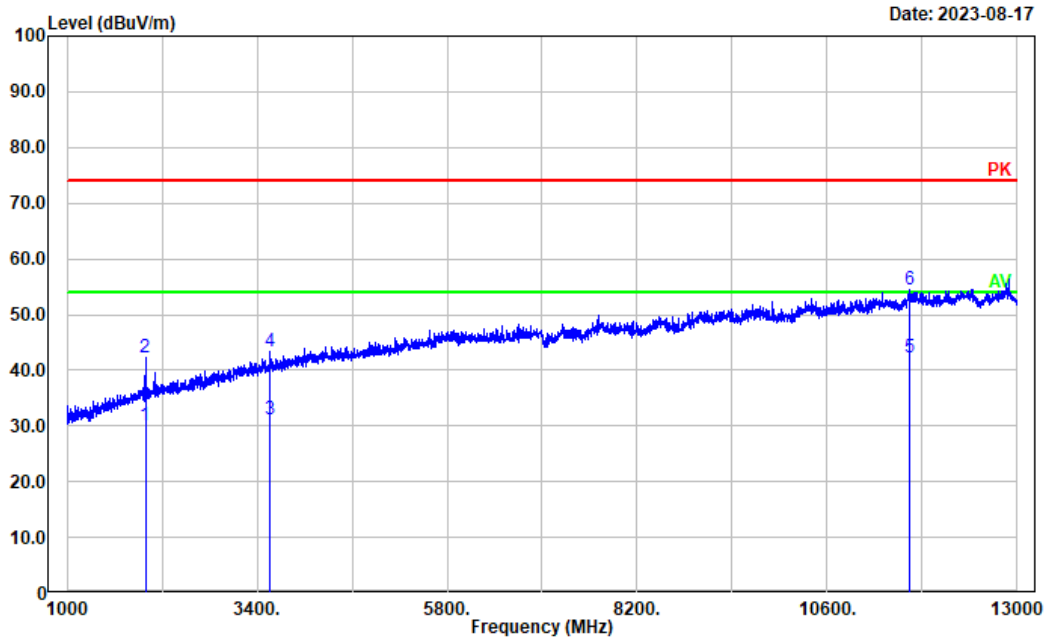
**2) Above 1GHz:**

Test Mode: Downloading
Polarization: horizontal
Note:




| No. | Frequency (MHz) | Reading (dBµV) | Factor (dB/m) | Result (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Detector |
|---|---|---|---|---|---|---|---|
| 1 | 1996.399 | 27.94 | 2.30 | 30.24 | 54.00 | 23.76 | Average |
| 2 | 1996.399 | 40.18 | 2.30 | 42.48 | 74.00 | 31.52 | Peak |
| 3 | 6815.163 | 22.49 | 13.91 | 36.40 | 54.00 | 17.60 | Average |
| 4 | 6815.163 | 34.88 | 13.91 | 48.79 | 74.00 | 25.21 | Peak |
| 5 | 11814.160 | 21.19 | 21.09 | 42.28 | 54.00 | 11.72 | Average |
| 6 | 11814.160 | 33.46 | 21.09 | 54.55 | 74.00 | 19.45 | 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 | 1989.598 | 27.90 | 2.28 | 30.18 | 54.00 | 23.82 | Average |
| 2 | 1989.598 | 40.08 | 2.28 | 42.36 | 74.00 | 31.64 | Peak |
| 3 | 3560.712 | 23.32 | 7.89 | 31.21 | 54.00 | 22.79 | Average |
| 4 | 3560.712 | 35.53 | 7.89 | 43.42 | 74.00 | 30.58 | Peak |
| 5 | 11647.530 | 21.22 | 21.06 | 42.28 | 54.00 | 11.72 | Average |
| 6 | 11647.530 | 33.49 | 21.06 | 54.55 | 74.00 | 19.45 | Peak |

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