



FCC PART 15B, CLASS B TEST REPORT

For

TECNO MOBILE LIMITED

FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET
FOTAN NT Hong Kong

FCC ID: 2ADYY-CG6J

| | | | |
|---|---|--------------------------------------|--|
| Report Type: Class II Permissive Change | | Product Type: Mobile Phone | |
| Test Engineer: | <div style="display: flex; justify-content: space-between;"> Cloud Qiu Dio Ding <div style="text-align: right;"> <i>Cloud Qiu</i> <i>Dio Ding</i> </div> </div> | | |
| Report Number: | SZ1210901-45710E-EM-00A1 | | |
| Report Date: | 2021-09-13 | | |
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TABLE OF CONTENTS

| | |
|---|----------|
| GENERAL INFORMATION | 3 |
| PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)..... | 3 |
| OBJECTIVE | 3 |
| TEST METHODOLOGY | 3 |
| MEASUREMENT UNCERTAINTY..... | 4 |
| TEST FACILITY | 4 |
| SYSTEM TEST CONFIGURATION | 5 |
| DESCRIPTION OF TEST CONFIGURATION | 5 |
| EUT EXERCISE SOFTWARE | 5 |
| EQUIPMENT MODIFICATIONS | 5 |
| SUPPORT EQUIPMENT LIST AND DETAILS | 5 |
| SUMMARY OF TEST RESULTS | 7 |
| EQUIPMENT LIST | 8 |
| FCC §15.109 - RADIATED EMISSIONS | 9 |
| APPLICABLE STANDARD | 9 |
| EUT SETUP..... | 9 |
| EMI TEST RECEIVER SETUP..... | 10 |
| TEST PROCEDURE | 10 |
| CORRECTED AMPLITUDE & MARGIN CALCULATION | 10 |
| TEST DATA | 10 |

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

| | |
|-----------------------------|--|
| Product | Mobile Phone |
| Tested Model | CG6j |
| Voltage Range | Rechargeable Li-ion polymer battery DC3.85V-4900mAh |
| Highest operating frequency | 5825MHz |
| Date of Test | 2021-09-06 to 2021-09-11 |
| Sample number | SZ1210901-45710E-EMA1-S1(Assigned by BACL, Shenzhen) |
| Received date | 2021-09-01 |
| Sample/EUT Status | Good condition |
| Adapter information | Model: U180TSA Input: 100-240V, 50/60Hz, 0.6A Output: 5.0V-9.0V,2A,9.0V-12.0V,1.5A |

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A, B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine the compliance of the EUT with FCC Part 15 B.

This is a CIIPC application of the device; the differences between the original device and the current one are as follows:

- (1) Changing the antenna of EUT
- (2) Changing the Camera of EUT

Based on above difference listed, it's will affect the test items of "Radiated Disturbance", those items will be performed ,the other test data and the EUT photos Please refer to the original report: JYTSZB-R12-2100029, which under the FCC ID: 2ADYY-CG6J, tested and granted by JianYan Testing Group Shenzhen Co.,Ltd. and issued date is 20 Jan., 2021.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters. Each test item follows test standards and with no deviation.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expanded combined standard uncertainty of test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will be taken into consideration for the test data recorded in the report

| Item | | | Expanded Measurement uncertainty |
|---------------------|----------------|----------------|--|
| Conducted Emissions | AC Mains | 9KHz~150 KHz | 2.96 dB (k=2, 95% level of confidence) |
| | | 150 KHz ~30MHz | 2.88 dB (k=2, 95% level of confidence) |
| Radiated emission | 30MHz~200MHz | Horizontal | 4.46 dB (k=2, 95% level of confidence) |
| | 30MHz~200MHz | Vertical | 4.53dB (k=2, 95% level of confidence) |
| | 200MHz~1000MHz | Horizontal | 4.85dB (k=2, 95% level of confidence) |
| | 200MHz~1000MHz | Vertical | 4.76dB (k=2, 95% level of confidence) |
| | 1GHz~6GHz | | 5.02 dB (k=2, 95% level of confidence) |

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Test Mode 1: charging& playing

Test Mode 2: downloading

EUT Exercise Software

No software was used in the test.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

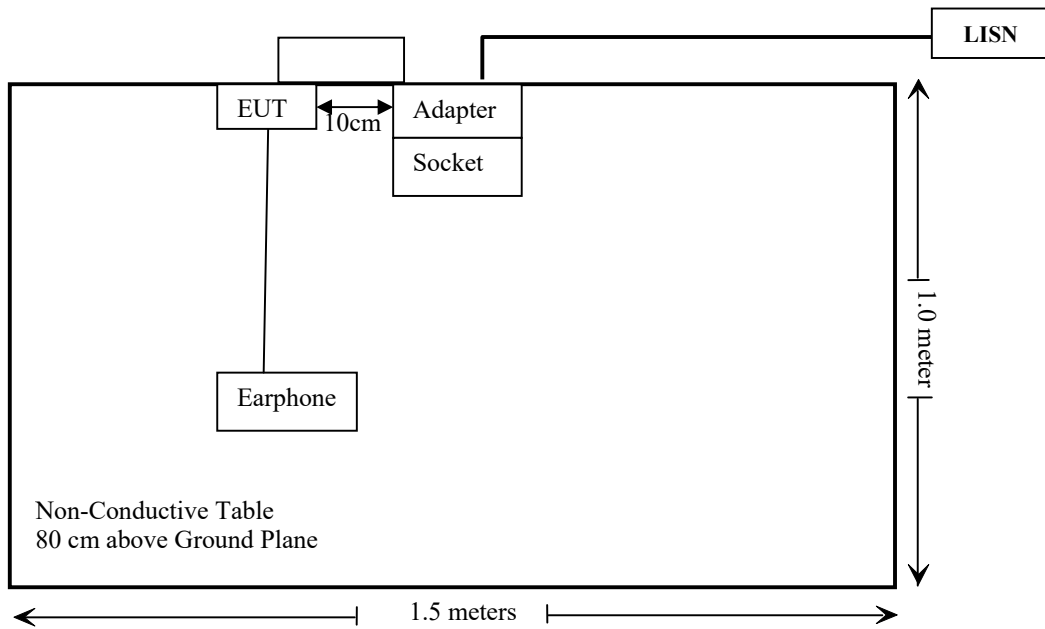
| Manufacturer | Description | Model | Serial Number |
|--------------|-------------|----------------|------------------------------|
| DELL | PC | Latitude E6520 | DL0ZCS1 |
| DELL | PC | Latitude E5570 | GNDLKC2 |
| DELL | Adapter | DA130PE1-00 | CN-0JU012-68219-18B-JEYY-A04 |

External I/O Cable

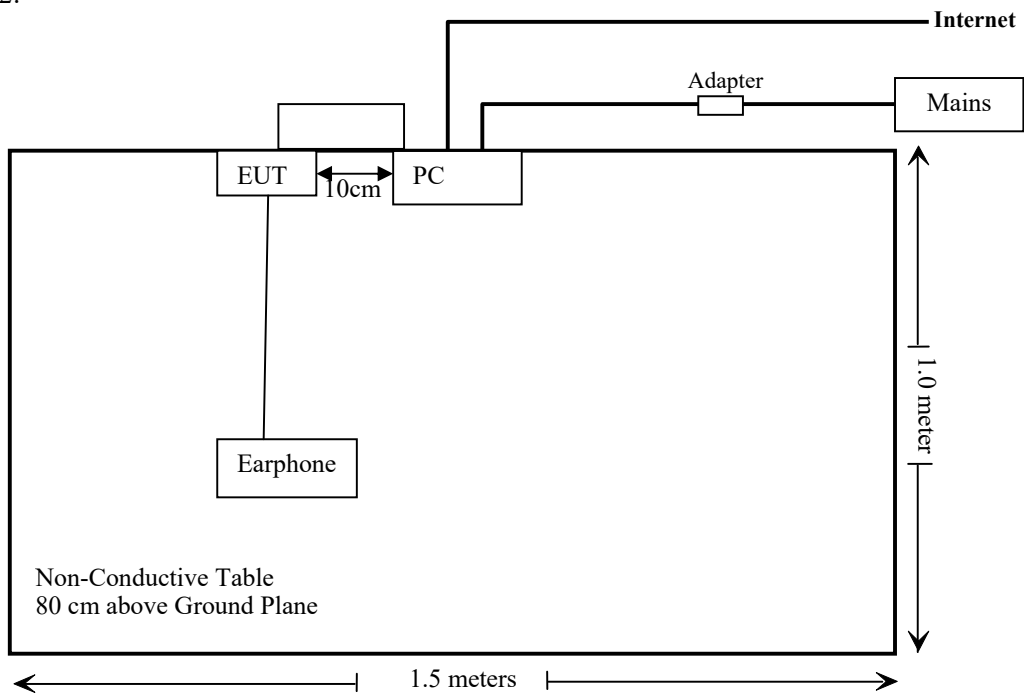
| Cable Description | Length (m) | From/Port | To |
|---------------------------------------|------------|-----------|----------|
| Un-shielded Un-detachable AC Cable | 1.0 | Socket | Mains |
| Shielded Detachable USB Cable | 1.0 | EUT | Adapter |
| Shielded Un-detachable earphone Cable | 1.2 | EUT | Earphone |
| Shielded Detachable USB Cable | 1.0 | EUT | PC |
| Un-shielded Detachable RJ45 Cable | 8.0 | PC | Internet |
| Un-shielded Un-detachable AC Cable | 1.2 | PC | Adapter |
| Un-shielded Detachable DC Cable | 1.4 | Adapter | Mains |

Block Diagram of Test Setup

Test mode 1:



Test mode 2:



SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test | Results |
|------------------|-----------------------------|----------------|
| §15.107 | AC Line Conducted Emissions | Compliant* |
| §15.109 | Radiated Emissions | Compliant |

Compliant*: Please refer to the original report: JYTSZB-R12-2100029, which under the FCC ID: 2ADYY-CG6J, tested and granted by JianYan Testing Group Shenzhen Co., Ltd. and issued Date is 20 Jan.2021.

EQUIPMENT LIST

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-------------------------------|--------------------|--------------------|---------------|------------------|----------------------|
| Radiated Emission Test | | | | | |
| R&S | EMI Test Receiver | ESR3 | 102455 | 2021/07/06 | 2022/07/05 |
| Sonoma instrument | Pre-amplifier | 310 N | 186238 | 2021/08/03 | 2022/08/02 |
| Sunol Sciences | Broadband Antenna | JB1 | A040904-2 | 2020/12/22 | 2023/12/21 |
| Unknown | Cable | Chamber Cable 1 | F-03-EM236 | 2021/08/03 | 2022/08/02 |
| Unknown | Cable | Chamber Cable 4 | EC-007 | 2021/08/03 | 2022/08/02 |
| Rohde & Schwarz | Auto test software | EMC 32 | V9.10.00 | NCR | NCR |
| Rohde & Schwarz | Spectrum Analyzer | FSV40-N | 102259 | 2021/07/06 | 2022/07/05 |
| COM-POWER | Pre-amplifier | PA-122 | 181919 | 2020/11/29 | 2021/11/28 |
| Sunol Sciences | Horn Antenna | 3115 | 9107-3694 | 2021/01/15 | 2024/01/14 |
| Insulted Wire Inc. | RF Cable | SPS-2503-3150 | 02222010 | 2020/11/29 | 2021/11/28 |
| Unknown | RF Cable | W1101-EQ1 OUT | F-19-EM005 | 2020/11/29 | 2021/11/28 |

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

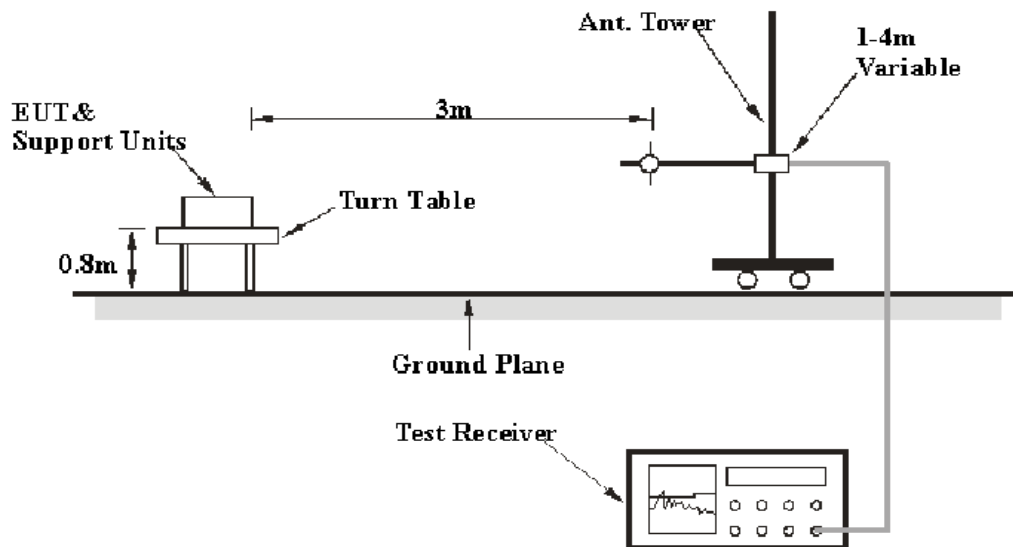
FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

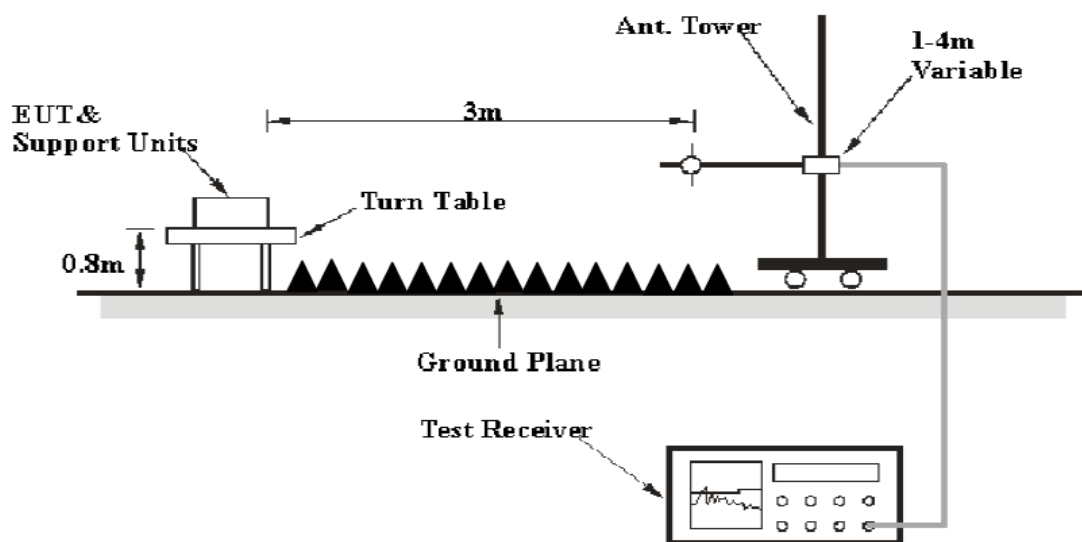
FCC §15.109

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 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 spacing between the peripherals was 10 cm.

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 | 100 kHz | 300 kHz | 120 kHz | QP |
| Above 1 GHz | 1MHz | 3 MHz | / | PK |
| | 1MHz | 10 Hz | / | Ave. |

Test Procedure

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

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Data

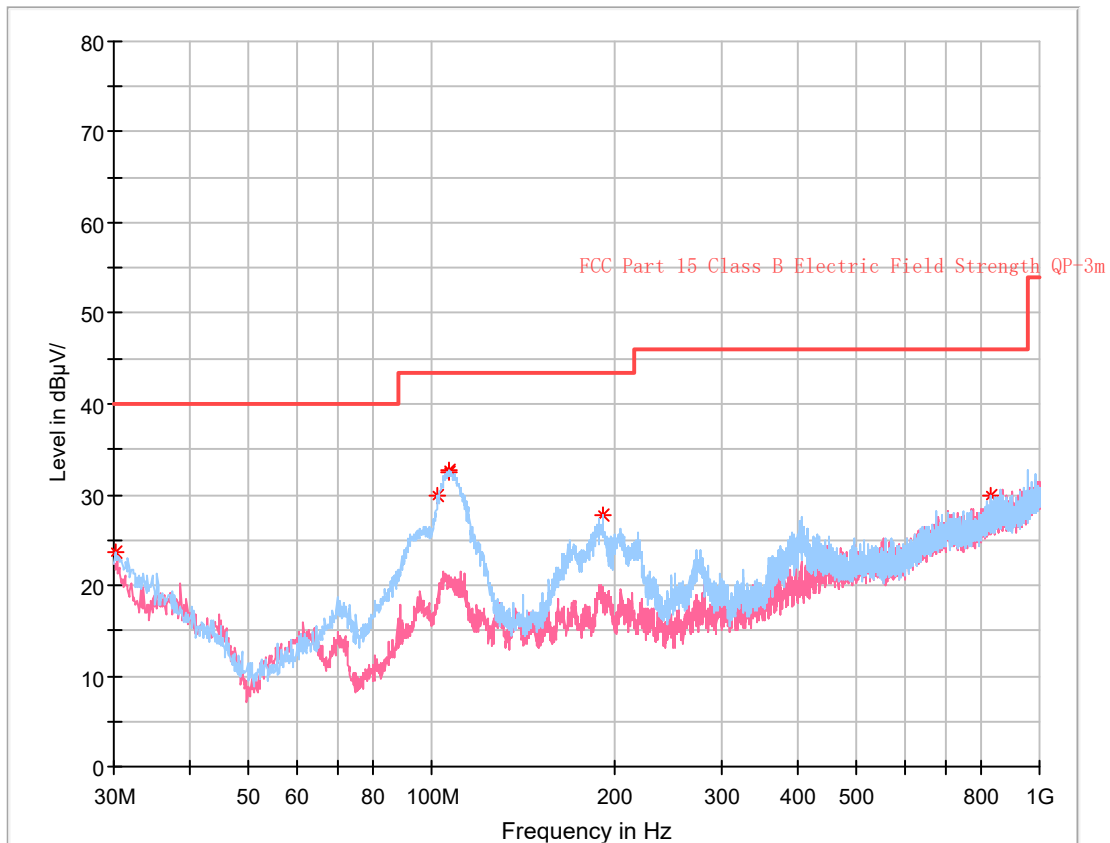
Environmental Conditions

| | |
|---------------------------|------------|
| Temperature: | 26~28.4 °C |
| Relative Humidity: | 55~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Cloud Qiu on 2021-09-06 for below 1GHz and Dio Ding on 2021-09-11 for above 1GHz.

EUT Operation Mode: charging & playing

30 MHz~1 GHz:



Critical_Freqs

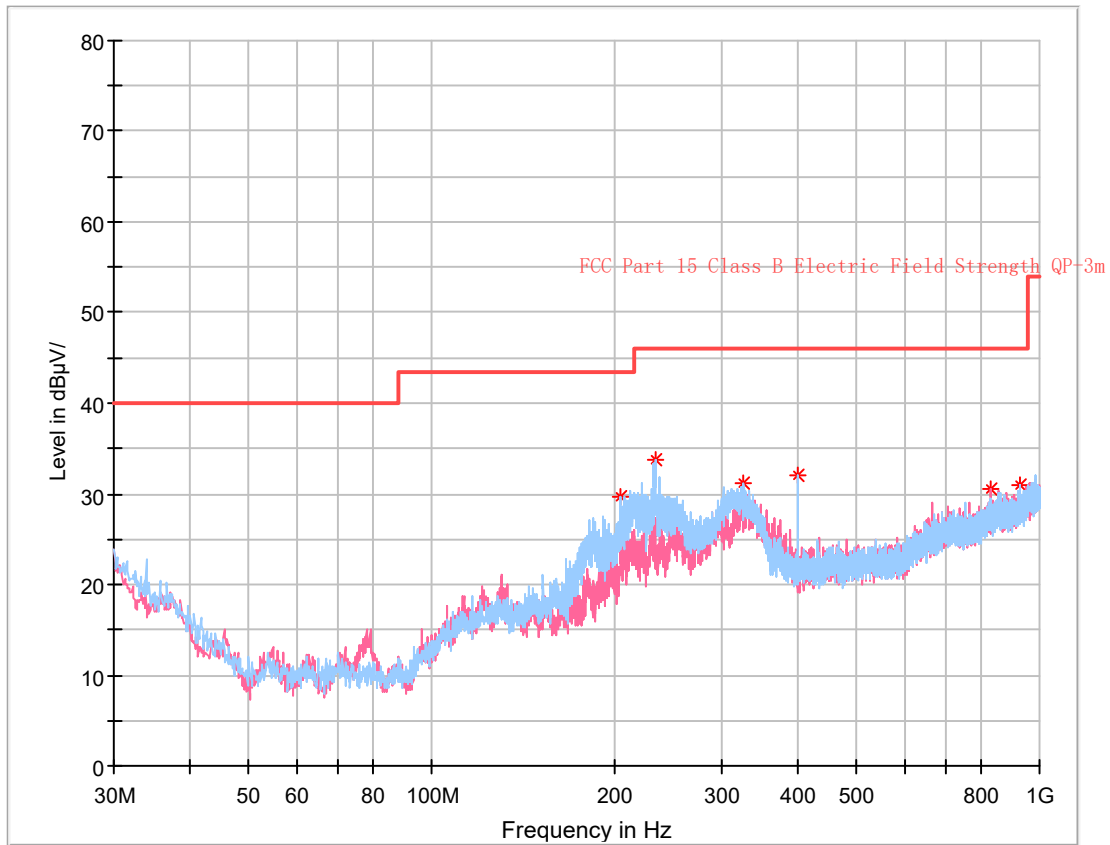
| Frequency (MHz) | MaxPeak (dB µ V/m) | Limit (dB µ V/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|------------------|-------------|-------------|-----|---------------|------------|
| 30.121250 | 23.66 | 40.00 | 16.34 | 300.0 | H | 0.0 | -3.6 |
| 102.265000 | 29.80 | 43.50 | 13.70 | 300.0 | H | 94.0 | -13.1 |
| 106.993750 | 32.56 | 43.50 | 10.94 | 300.0 | H | 263.0 | -11.9 |
| 107.115000 | 32.63 | 43.50 | 10.87 | 300.0 | H | 94.0 | -11.9 |
| 191.020000 | 27.81 | 43.50 | 15.69 | 100.0 | H | 61.0 | -12.2 |
| 834.251250 | 29.82 | 46.00 | 16.18 | 100.0 | H | 185.0 | 0.0 |

1-30 GHz:

| Frequency (MHz) | Receiver | | Turntable Degree | Rx Antenna | | Corrected Factor (dB/m) | Corrected Amplitude (dBuV/m) | FCC Part 15B | |
|-----------------|----------------|------------|------------------|------------|---------------|-------------------------|------------------------------|----------------|-------------|
| | Reading (dBμV) | PK/QP/Ave. | | Height (m) | Polar (H / V) | | | Limit (dBuV/m) | Margin (dB) |
| 1062.77 | 44.66 | PK | 141 | 1.8 | H | -5.83 | 38.83 | 74 | 35.17 |
| 1062.77 | 28.78 | Ave. | 141 | 1.8 | H | -5.83 | 22.95 | 54 | 31.05 |
| 1062.77 | 48.13 | PK | 50 | 1.4 | V | -5.83 | 42.30 | 74 | 31.70 |
| 1062.77 | 30.63 | Ave. | 50 | 1.4 | V | -5.83 | 24.80 | 54 | 29.20 |
| 2847.89 | 43.82 | PK | 226 | 2.3 | H | 1.03 | 44.85 | 74 | 29.15 |
| 2847.89 | 28.57 | Ave. | 226 | 2.3 | H | 1.03 | 29.60 | 54 | 24.40 |
| 2847.89 | 44.59 | PK | 28 | 1.0 | V | 1.03 | 45.62 | 74 | 28.38 |
| 2847.89 | 28.60 | Ave. | 28 | 1.0 | V | 1.03 | 29.63 | 54 | 24.37 |

EUT Operation Mode: Downloading

30 MHz~1 GHz:



Critical Freqs

| Frequency (MHz) | MaxPeak (dB µ V/m) | Limit (dB µ V/m) | Margin (dB) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|-----------------|--------------------|------------------|-------------|-------------|-----|---------------|------------|
| 204.600000 | 29.58 | 43.50 | 13.92 | 100.0 | H | 218.0 | -11.1 |
| 233.215000 | 33.83 | 46.00 | 12.17 | 100.0 | H | 239.0 | -11.6 |
| 326.698750 | 31.20 | 46.00 | 14.80 | 100.0 | H | 147.0 | -9.4 |
| 399.933750 | 32.00 | 46.00 | 14.00 | 100.0 | H | 63.0 | -7.4 |
| 831.462500 | 30.63 | 46.00 | 15.37 | 300.0 | V | 271.0 | -0.1 |
| 926.643750 | 31.03 | 46.00 | 14.97 | 300.0 | V | 250.0 | 1.3 |

1-30 GHz:

| Frequency (MHz) | Receiver | | Turntable Degree | Rx Antenna | | Corrected Factor (dB/m) | Corrected Amplitude (dBuV/m) | FCC Part 15B | |
|-----------------|----------------|------------|------------------|------------|---------------|-------------------------|------------------------------|----------------|-------------|
| | Reading (dBμV) | PK/QP/Ave. | | Height (m) | Polar (H / V) | | | Limit (dBuV/m) | Margin (dB) |
| 1211.41 | 43.17 | PK | 357 | 2.2 | H | -4.78 | 38.39 | 74 | 35.61 |
| 1211.41 | 28.55 | Ave. | 357 | 2.2 | H | -4.78 | 23.77 | 54 | 30.23 |
| 1211.41 | 44.32 | PK | 105 | 1.8 | V | -4.78 | 39.54 | 74 | 34.46 |
| 1211.41 | 29.03 | Ave. | 105 | 1.8 | V | -4.78 | 24.25 | 54 | 29.75 |
| 2124.51 | 49.19 | PK | 202 | 2.2 | H | -0.81 | 48.38 | 74 | 25.62 |
| 2124.51 | 29.53 | Ave. | 202 | 2.2 | H | -0.81 | 28.72 | 54 | 25.28 |
| 2124.51 | 53.17 | PK | 8 | 1.2 | V | -0.81 | 52.36 | 74 | 21.64 |
| 2124.51 | 29.96 | Ave. | 8 | 1.2 | V | -0.81 | 29.15 | 54 | 24.85 |

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