

# MEASUREMENT REPORT

## FCC PART 15 Subpart E WLAN 802.11a/n/ac/ax

Report No.: S20221129093609

Issue Date: 04-20-2023

**Applicant:** SBOT Technologies LLC  
**Address:** 230 W 39th St, 8th FL, New York United States 10018  
**FCC ID:** 2A3Q4-CA03AN  
**Product:** Caper Cart M3 Android board  
**Model No.:** PCBA-CAP-CA03AN-RK39  
**FCC Classification:** Unlicensed National Information Infrastructure (UNII)  
**FCC Rule Part(s):** Part 15 Subpart E (Section 15.407)  
**Test Procedure(s):** ANSI C63.10-2013, KDB 789033 D02v02r01,  
KDB 662911 D01v02r01  
**Item Receipt date:** Feb 08, 2023  
**Test Date:** Feb 22 ~ Feb 23, 2023

Compiled By

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Senior Test Engineer

Approved By

(Line Chen)  
Engineer Manager

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 789033 D02v02r01. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of Fangguang Inspection & Testing Co., Ltd. Wuxi Branch

The test report must not be used by the client to claim product certifications, approval, or endorsement by NVLAP, NIST or any agency of U.S. Government.

### Revision History

| Report No.      | Version | Description | Issue Date |
|-----------------|---------|-------------|------------|
| S20221129093609 | Rev. 01 | /           | 04-20-2023 |
|                 |         |             |            |

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## §2.1033 General Information

|                                |                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant:</b>              | SBOT Technologies LLC                                                                                                                                                  |
| <b>Applicant Address:</b>      | 230 W 39th St, 8th FL, New York United States 10018                                                                                                                    |
| <b>Manufacturer:</b>           | SBOT Technologies LLC                                                                                                                                                  |
| <b>Manufacturer Address:</b>   | 230 W 39th St, 8th FL, New York United States 10018                                                                                                                    |
| <b>Factory:</b>                | SBOT Technologies LLC                                                                                                                                                  |
| <b>Factory Address:</b>        | 230 W 39th St, 8th FL, New York United States 10018                                                                                                                    |
| <b>Test Site:</b>              | Fangguang Inspection & Testing Co., Ltd.                                                                                                                               |
| <b>LAB ID:</b>                 | CN5037                                                                                                                                                                 |
| <b>Test Site Address:</b>      | G9 Building, China Sensor Network International Innovation Park<br>No.200, Linghu Avenue Wuxi, Jiangsu 214000 China                                                    |
| <b>FCC Rule Part(s):</b>       | Part 15 Subpart C (15.247)                                                                                                                                             |
| <b>FCC ID:</b>                 | 2A3Q4-CA03AN                                                                                                                                                           |
| <b>Test Device Serial No.:</b> | S/N.: CAM3ANDV02.01.01.000089YX23300104<br><input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering |
| <b>FCC Classification:</b>     | Unlicensed National Information Infrastructure (UNII)                                                                                                                  |

## **1. INTRODUCTION**

### **1.1. Scope**

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

### **1.2. Fangguang Test Location**

These measurement tests were performed at the Fangguang Inspection and testing Co.,LTD located at 200 Linghu Avenue, Xinwu District, Wuxi City. The detailed description of the measurement facility was found to be in compliance with the requirements of ANSI C63.4-2014.

## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| Product Name:        | Caper Cart M3 Android board                                                  |
| Model No.:           | PCBA-CAP-CA03AN-RK39                                                         |
| Trade Mark:          | /                                                                            |
| Input Voltage Range: | DC 24V                                                                       |
| Wi-Fi Specification: | 802.11a/n-HT20/n-HT40/ac-VHT20/ac-VHT40/ac-VHT80/ax-HE20/<br>ax-HE40/ax-HE80 |

### 2.2. Product Specification Subjective to this Report

|                     |                                                                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range:    | For 802.11a/n-HT20/ac-VHT20/ax-HE20:<br>5180~5240MHz, 5745~5825MHz<br>For 802.11n-HT40/ac-VHT40/ax-HE40:<br>5190~5230MHz, 5755~5795MHz<br>For 802.11ac-VHT80/ax-HE80:<br>5210MHz, 5775MHz |
| Type of Modulation: | 802.11a/n/ac/ax:CCK/OFDM/BPSK/QPSK/DBPSK/DQPSK/16QAM/64QAM<br>/256QAM/1024QAM                                                                                                             |
| Data Rate:          | 802.11a: 6/9/12/18/24/36/48/54Mbps<br>802.11n: up to 150Mbps<br>802.11ac: up to 433.3Mbps<br>802.11ax: up to 600Mbps                                                                      |
| Antenna Type:       | FPC Antenna                                                                                                                                                                               |
| Antenna Gain:       | Ant1:4.48dBi<br>Ant2:6.15dBi                                                                                                                                                              |

### 2.3. Operation Frequencies and Channel List

#### 802.11a/n-HT20/ac-VHT20/ax-HE20

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 36      | 5180 MHz  | 40      | 5200 MHz  | 44      | 5220 MHz  |
| 48      | 5240 MHz  | 149     | 5745 MHz  | 153     | 5765 MHz  |
| 157     | 5785 MHz  | 161     | 5805 MHz  | 165     | 5825 MHz  |

#### 802.11n-HT40/ac-VHT40/ax-HE40

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 38      | 5190 MHz  | 46      | 5230 MHz  | 151     | 5755 MHz  |
| 159     | 5795 MHz  | --      | --        | --      | --        |

#### 802.11ac-VHT80/ax-HE80

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|---------|-----------|
| 42      | 5210 MHz  | 155     | 5775 MHz  | --      | --        |

## 2.4. Description of Available Antennas

| Antenna     | Frequency Band (GHz) | Product Number                             | Tx Paths |
|-------------|----------------------|--------------------------------------------|----------|
| FPC Antenna | 2.4&5                | WIFI0-V0.1-1025 YFT<br>WIFI1-V0.1-0707 YFT | 2        |

| Antenna                       | Frequency Band (MHz)       | Tx Paths | Per Chain Max Antenna Gain (dBi) |       | Beam Forming Directional Gain (dBi) | CDD Directional Gain (dBi) |
|-------------------------------|----------------------------|----------|----------------------------------|-------|-------------------------------------|----------------------------|
|                               |                            |          | Ant 0                            | Ant 1 |                                     |                            |
| Ant 0:<br>WIFI0-V0.1-1025 YFT | 2412 ~ 2462                | 2        | 6.22                             | 3.61  | Nonsupport                          | 8.02                       |
| Ant 1:<br>WIFI1-V0.1-0707 YFT | 5150 ~ 5250<br>5725 ~ 5850 | 2        | 4.48                             | 6.15  | Nonsupport                          | 8.37                       |

Note:

Unequal Antenna gains, with equal transmit powers. For Antenna gains given by  $G_1, G_2, \dots, G_N$  dBi transmit signals are correlated, then

- Directional gain =  $10 \cdot \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$  dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
- Directional Gain(2.4G) =  $10 \cdot \log[(10^{6.22/20} + 10^{3.61/20})^2 / 2] = 8.02$  dBi
- Directional Gain(5G) =  $10 \cdot \log[(10^{4.48/20} + 10^{6.15/20})^2 / 2] = 8.37$  dBi

## 2.5. Device Capabilities

This device contains the following capabilities:

2.4GHz WLAN (DTS)&5GHz WLAN (UNII)&Bluetooth (5.0)

**Note:** 5GHz (NII) operation is possible in 20MHz, 40MHz and 80MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 8MHz, and detector = average per the guidance of Section B)2)b) of KDB 789033 D02v02r01. The RBW and VBW were both greater than  $50/T$ , where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

| Test Mode | Antenna | Channel | ON Time [ms] | Period [ms] | X      | DC [%] | xFactor |
|-----------|---------|---------|--------------|-------------|--------|--------|---------|
| 11A       | Ant1    | 5180    | 1.40         | 1.49        | 0.9396 | 93.96  | 0.27    |
|           | Ant2    | 5180    | 1.39         | 1.49        | 0.9329 | 93.29  | 0.30    |

|            |      |      |      |      |        |       |      |
|------------|------|------|------|------|--------|-------|------|
|            | Ant1 | 5200 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
|            | Ant2 | 5200 | 1.40 | 1.49 | 0.9396 | 93.96 | 0.27 |
|            | Ant1 | 5240 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
|            | Ant2 | 5240 | 1.39 | 1.49 | 0.9329 | 93.29 | 0.30 |
|            | Ant1 | 5745 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
|            | Ant2 | 5745 | 1.39 | 1.49 | 0.9329 | 93.29 | 0.30 |
|            | Ant1 | 5785 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
|            | Ant2 | 5785 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
|            | Ant1 | 5825 | 1.39 | 1.49 | 0.9329 | 93.29 | 0.30 |
|            | Ant2 | 5825 | 1.40 | 1.50 | 0.9333 | 93.33 | 0.30 |
| 11N20SISO  | Ant1 | 5180 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
|            | Ant2 | 5180 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5200 | 1.31 | 1.40 | 0.9357 | 93.57 | 0.29 |
|            | Ant2 | 5200 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5240 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5240 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5745 | 1.31 | 1.40 | 0.9357 | 93.57 | 0.29 |
|            | Ant1 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5825 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5825 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
| 11N40SISO  | Ant1 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5230 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5230 | 0.64 | 0.74 | 0.8649 | 86.49 | 0.63 |
|            | Ant1 | 5755 | 0.64 | 0.74 | 0.8649 | 86.49 | 0.63 |
|            | Ant2 | 5755 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5795 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5795 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
| 11AC20SISO | Ant1 | 5180 | 1.32 | 1.41 | 0.9362 | 93.62 | 0.29 |
|            | Ant2 | 5180 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5200 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5200 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5240 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5240 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |

|            |      |      |      |      |        |       |      |
|------------|------|------|------|------|--------|-------|------|
|            | Ant2 | 5745 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant1 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5785 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant1 | 5825 | 1.32 | 1.41 | 0.9362 | 93.62 | 0.29 |
|            | Ant2 | 5825 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
| 11AC40SISO | Ant1 | 5190 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|            | Ant2 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5230 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5230 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5755 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|            | Ant2 | 5755 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|            | Ant1 | 5795 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|            | Ant2 | 5795 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
| 11AC80SISO | Ant1 | 5210 | 0.32 | 0.42 | 0.7619 | 76.19 | 1.18 |
|            | Ant2 | 5210 | 0.33 | 0.43 | 0.7674 | 76.74 | 1.15 |
|            | Ant1 | 5775 | 0.32 | 0.42 | 0.7619 | 76.19 | 1.18 |
|            | Ant2 | 5775 | 0.33 | 0.43 | 0.7674 | 76.74 | 1.15 |
| 11AX20SISO | Ant1 | 5180 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5180 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|            | Ant1 | 5200 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5200 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|            | Ant1 | 5240 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5240 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|            | Ant1 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5745 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|            | Ant1 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5785 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|            | Ant1 | 5825 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5825 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
| 11AX40SISO | Ant1 | 5190 | 0.55 | 0.65 | 0.8462 | 84.62 | 0.73 |
|            | Ant2 | 5190 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|            | Ant1 | 5230 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|            | Ant2 | 5230 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|            | Ant1 | 5755 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|            | Ant2 | 5755 | 0.55 | 0.65 | 0.8462 | 84.62 | 0.73 |
|            | Ant1 | 5795 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|            | Ant2 | 5795 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |

|            |      |      |      |      |        |       |      |
|------------|------|------|------|------|--------|-------|------|
| 11AX80SISO | Ant1 | 5210 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |
|            | Ant2 | 5210 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |
|            | Ant1 | 5775 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |
|            | Ant2 | 5775 | 0.29 | 0.40 | 0.7250 | 72.50 | 1.40 |
| 11N20CDD   | Ant1 | 5180 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
|            | Ant2 | 5180 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5200 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
|            | Ant2 | 5200 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
|            | Ant1 | 5240 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5240 | 1.31 | 1.40 | 0.9357 | 93.57 | 0.29 |
|            | Ant1 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5825 | 1.30 | 1.40 | 0.9286 | 92.86 | 0.32 |
|            | Ant2 | 5825 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
| 11N40CDD   | Ant1 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5230 | 0.64 | 0.74 | 0.8649 | 86.49 | 0.63 |
|            | Ant2 | 5230 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant1 | 5755 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5755 | 0.64 | 0.74 | 0.8649 | 86.49 | 0.63 |
|            | Ant1 | 5795 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|            | Ant2 | 5795 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
| 11AC20CDD  | Ant1 | 5180 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5180 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant1 | 5200 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5200 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant1 | 5240 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5240 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant1 | 5745 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5745 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant2 | 5785 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
|            | Ant1 | 5825 | 1.32 | 1.42 | 0.9296 | 92.96 | 0.32 |
|            | Ant2 | 5825 | 1.31 | 1.41 | 0.9291 | 92.91 | 0.32 |
| 11AC40CDD  | Ant1 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |

|           |      |      |      |      |        |       |      |
|-----------|------|------|------|------|--------|-------|------|
|           | Ant2 | 5190 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|           | Ant1 | 5230 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|           | Ant2 | 5230 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|           | Ant1 | 5755 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|           | Ant2 | 5755 | 0.65 | 0.75 | 0.8667 | 86.67 | 0.62 |
|           | Ant1 | 5795 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
|           | Ant2 | 5795 | 0.66 | 0.76 | 0.8684 | 86.84 | 0.61 |
| 11AC80CDD | Ant1 | 5210 | 0.33 | 0.43 | 0.7674 | 76.74 | 1.15 |
|           | Ant2 | 5210 | 0.32 | 0.42 | 0.7619 | 76.19 | 1.18 |
|           | Ant1 | 5775 | 0.32 | 0.52 | 0.6154 | 61.54 | 2.11 |
|           | Ant2 | 5775 | 0.33 | 0.43 | 0.7674 | 76.74 | 1.15 |
| 11AX20CDD | Ant1 | 5180 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant2 | 5180 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant1 | 5200 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant2 | 5200 | 1.03 | 1.12 | 0.9196 | 91.96 | 0.36 |
|           | Ant1 | 5240 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant2 | 5240 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant1 | 5745 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant2 | 5745 | 1.03 | 1.36 | 0.7574 | 75.74 | 1.21 |
|           | Ant1 | 5785 | 1.02 | 1.12 | 0.9107 | 91.07 | 0.41 |
|           | Ant2 | 5785 | 1.02 | 1.35 | 0.7556 | 75.56 | 1.22 |
|           | Ant1 | 5825 | 1.03 | 1.36 | 0.7574 | 75.74 | 1.21 |
|           | Ant2 | 5825 | 1.02 | 1.35 | 0.7556 | 75.56 | 1.22 |
| 11AX40CDD | Ant1 | 5190 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|           | Ant2 | 5190 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|           | Ant1 | 5230 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|           | Ant2 | 5230 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|           | Ant1 | 5755 | 0.54 | 0.72 | 0.7500 | 75.00 | 1.25 |
|           | Ant2 | 5755 | 0.54 | 0.64 | 0.8438 | 84.38 | 0.74 |
|           | Ant1 | 5795 | 0.55 | 0.65 | 0.8462 | 84.62 | 0.73 |
|           | Ant2 | 5795 | 0.54 | 0.73 | 0.7397 | 73.97 | 1.31 |
| 11AX80CDD | Ant1 | 5210 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |
|           | Ant2 | 5210 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |
|           | Ant1 | 5775 | 0.29 | 0.49 | 0.5918 | 59.18 | 2.28 |
|           | Ant2 | 5775 | 0.29 | 0.39 | 0.7436 | 74.36 | 1.29 |

Test Graphs see Appendix D.

## 2.6. Test Software

The test utility software used during testing was “wl tool”, Power Parameter Value:

| Test Mode | ANT1 | ANT2 | CDD |
|-----------|------|------|-----|
| A         | 17   | 15   | 12  |
| N         | 17   | 15   | 12  |
| AC        | 17   | 15   | 12  |
| AX        | 17   | 15   | 12  |

## 2.7. Test Mode

|           |                                           |
|-----------|-------------------------------------------|
| Test Mode | Mode 1: Transmit by 802.11a Ant 1         |
|           | Mode 2: Transmit by 802.11n-HT20 Ant 1    |
|           | Mode 3: Transmit by 802.11n-HT40 Ant 1    |
|           | Mode 4: Transmit by 802.11ac-VHT20 Ant 1  |
|           | Mode 5: Transmit by 802.11ac-VHT40 Ant 1  |
|           | Mode 6: Transmit by 802.11ac-VHT80 Ant 1  |
|           | Mode 7: Transmit by 802.11ax-HE20 Ant 1   |
|           | Mode 8: Transmit by 802.11ax-HE40 Ant 1   |
|           | Mode 9: Transmit by 802.11ax-HE80 Ant 1   |
|           | Mode 10: Transmit by 802.11a Ant 2        |
|           | Mode 11: Transmit by 802.11n-HT20 Ant 2   |
|           | Mode 12: Transmit by 802.11n-HT40 Ant 2   |
|           | Mode 13: Transmit by 802.11ac-VHT20 Ant 2 |
|           | Mode 14: Transmit by 802.11ac-VHT40 Ant 2 |
|           | Mode 15: Transmit by 802.11ac-VHT80 Ant 2 |
|           | Mode 16: Transmit by 802.11ax-HE20 Ant 2  |
|           | Mode 17: Transmit by 802.11ax-HE40 Ant 2  |
|           | Mode 18: Transmit by 802.11ax-HE80 Ant 2  |
|           | Mode 10: Transmit by 802.11n-HT20 CDD     |
|           | Mode 20: Transmit by 802.11n-HT40 CDD     |
|           | Mode 21: Transmit by 802.11ac-VHT20 CDD   |
|           | Mode 22: Transmit by 802.11ac-VHT40 CDD   |
|           | Mode 23: Transmit by 802.11ac-VHT80 CDD   |
|           | Mode 24: Transmit by 802.11ax-HE20 CDD    |
|           | Mode 25: Transmit by 802.11ax-HE40 CDD    |
|           | Mode 26: Transmit by 802.11ax-HE80 CDD    |

For 802.11ax mode, the min. RU and max. RU are measured, only records the worst case: max. RU.

## **2.8. Test Configuration**

The EUT was tested per the guidance of KDB 789033 D02v02r01. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

## **2.9. EMI Suppression Device(s)/Modifications**

No EMI suppression device(s) were added and/or no modifications were made during testing.

## **2.10. Labeling Requirements**

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

### RSP-100 Issue 11 Section 3

The manufacturer, importer or distributor shall meet the labelling requirements set out in this section for every unit:

- (i) prior to marketing in Canada, for products manufactured in Canada
- (ii) prior to importation into Canada, for imported products

For information regarding the e-labelling option, see Notice 2014-DRS1003. The label for the certified product represents the manufacturer's or importer's compliance with Innovation, Science and Economic Development Canada's (ISED) regulatory requirements.

Please see attachment for IC label and label location.

### 3. DESCRIPTION OF TEST

#### 3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v02r01 were used in the measurement of the EUT.

**Deviation from measurement procedure.....None**

#### 3.2. AC Line Conducted Emissions

The line-conducted facility is located inside a 9'x4'x3' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

Line conducted emissions test results are shown in Section 7.11.

### 3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

## 4. ANTENNA REQUIREMENTS

### **Excerpt from §15.203 of the FCC Rules/Regulations:**

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- Use a unique coupling to the intentional radiator.

## 5. TEST EQUIPMENT CALIBRATION DATE

### Radiated Emission

| Instrument             | Manufacturer | Type No.        | Asset No.          | Cali. Interval | Cali. Due Date |
|------------------------|--------------|-----------------|--------------------|----------------|----------------|
| Loop Antenna           | Schwarzbeck  | FMZB 1519B      | FWXGJC-2018-015    | 3 year         | 2024/08/13     |
| Bi-Log Antenna         | R&S          | HL562E          | FWXGJC-2016-267-06 | 3 year         | 2023/03/30     |
| Broadband Horn Antenna | R&S          | HF907           | FWXGJC-2016-267-07 | 1 year         | 2023/03/12     |
| Broadband Horn Antenna | Schwarzbeck  | BBHA9170        | FWXGJC-2018-016    | 3 year         | 2024/06/04     |
| EMI Receiver           | R&S          | ESR26           | FWXGJC-2016-267-01 | 1 year         | 2023/11/08     |
| Pre-Amplifier          | R&S          | SCU-18D         | FWXGJC-2016-267-05 | 1 year         | 2023/11/17     |
| Pre-Amplifier          | R&S          | EMC184055<br>SE | FWXGJC-2018-018    | 3 year         | 2025/04/13     |
| Thermohygrometer       | Yuhuaze      | HTC-1           | FWXDA-2016-386     | 1 year         | 2023/11/21     |
| Anechoic Chamber       | Aimuke       | EMCCT-3         | FWXGJC-2016-270    | 1 year         | 2023/04/07     |

### Conducted Test Equipment

| Instrument          | Manufacturer | Type No. | Asset No.       | Cali. Interval | Cali. Due Date |
|---------------------|--------------|----------|-----------------|----------------|----------------|
| EXA Signal Analyzer | Keysight     | N9010B   | FWXGJC-2018-010 | 1 year         | 2023/04/13     |
| RF Control Unit     | Toncend      | JS0806-2 | FWXGJC-2018-013 | 1 year         | 2023/06/30     |
| Thermohygrometer    | Yuhuaze      | HTC-1    | FWXDA-2016-385  | 1 year         | 2023/11/21     |

| Test Software     | Manufacturer | Version | Asset No. | Function |
|-------------------|--------------|---------|-----------|----------|
| EMI Test Software | tonscend     | /       | /         | /        |

## 6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

|                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|
| AC Conducted Emission Measurement                                                                                      |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>2.05dB                                       |
| Radiated Emission Measurement                                                                                          |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>30MHz-1GHz: 3.06dB<br>1GHz-12.75GHz: 4.13dB  |
| Spurious Emissions, Conducted                                                                                          |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>30MHz-1GHz: 1.00 dB<br>1GHz-26.5GHz: 1.30 dB |
| Output Power                                                                                                           |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>0.60dB                                       |
| Power Spectrum Density                                                                                                 |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>0.80dB                                       |
| Occupied Bandwidth                                                                                                     |
| Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):<br>0.20MHz                                      |

## 7. TEST RESULT

### 7.1. Summary

| FCC Section(s)                           | Test Description                                                              | Test Limit                                                                         | Test Condition | Test Result | Reference         |
|------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------|-------------|-------------------|
| 15.407(a)                                | 26dB Bandwidth                                                                | N/A                                                                                | Conducted      | Pass        | Section 6.2       |
| 15.407(e)                                | 6dB Bandwidth                                                                 | $\geq 500\text{kHz}$                                                               |                | Pass        | Section 6.3       |
| 15.407(a)(1)(iv), (2), (3)               | Maximum Conducted Output Power                                                | $\leq 24\text{ dBm U-NII-1 \& U-NII-2}$<br>$\leq 30\text{ dBm U-NII-3}$            |                | Pass        | Section 6.4       |
| 15.407(h)(1)                             | Transmit Power Control                                                        | $\leq 24\text{ dBm}$                                                               |                | Pass        | Section 6.5       |
| 15.407(a)(1)(iv), (2), (3), (5)          | Peak Power Spectral Density                                                   | $\leq 11\text{ dBm/MHz U-NII-1 \& U-NII-2}$<br>$\leq 30\text{ dBm/500kHz U-NII-3}$ |                | Pass        | Section 6.6       |
| 15.407(g)                                | Frequency Stability                                                           | N/A                                                                                |                | Pass        | Section 6.7       |
| 15.407(b)(1), (2), (3), (4)(i)           | Undesirable Emissions                                                         | $\leq -27\text{dBm/MHz EIRP}$<br>Detail see section 7.9                            | Radiated       | Pass        | Section 6.8 & 6.9 |
| 15.205, 15.209<br>15.407(b)(5), (6), (7) | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in 15.209     |                | Pass        |                   |
| 15.207                                   | AC Conducted Emissions<br>150kHz - 30MHz                                      | < FCC 15.207 limits                                                                | Line Conducted | Pass        | Section 6.10      |

| RSS Section(s)                         | Test Description                                                              | Test Limit                                                                                                                                                            | Test Condition | Test Result | Reference         |
|----------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-------------------|
| RSS-247 §6.2                           | 99% Bandwidth                                                                 | N/A                                                                                                                                                                   | Conducted      | Pass        | Section 6.2       |
| RSS-247 §6.2.4                         | 6dB Bandwidth                                                                 | $\geq 500\text{kHz}$                                                                                                                                                  |                | Pass        | Section 6.3       |
| RSS-247 §6.2.1, §6.2.2, §6.2.3, §6.2.4 | Max Conducted Output Power                                                    | 5250~5250, 5470~5725MHz<br>$\leq 250\text{ mW}$ or $11 + 10 \log_{10}(99\% \text{ B})$<br>5725~5850MHz, $\leq 30\text{ dBm}$                                          |                | Pass        | Section 6.4       |
|                                        | Maximum E.I.R.P                                                               | 5150~5250MHz<br>$\leq 23\text{ dBm}$ or $10 + 10 \log_{10}(99\% \text{ B})$<br>5250~5250, 5470~5725MHz<br>$\leq 30\text{ dBm}$ or $17 + 10 \log_{10}(99\% \text{ B})$ |                |             |                   |
| RSS-247 §6.2.2, §6.2.3                 | Transmit Power Control                                                        | $\leq 24\text{ dBm}$                                                                                                                                                  |                | Pass        | Section 6.5       |
| RSS-247 §6.2.1, §6.2.2, §6.2.3, §6.2.4 | Peak Power Spectral Density                                                   | 5150~5250MHz $\leq 10\text{ dBm/MHz}$<br>5250~5250, 5470~5725MHz<br>$\leq 11\text{ dBm/MHz}$<br>5725~5850MHz, $\leq 30\text{ dBm/500kHz}$                             |                | Pass        | Section 6.6       |
| RSS-Gen [8.11]                         | Frequency Stability                                                           | N/A                                                                                                                                                                   |                | Pass        | Section 6.7       |
| RSS-247 §6.2.1, §6.2.2, §6.2.3, §6.2.4 | Out-of-Band Emissions                                                         | Refer to section 6.10                                                                                                                                                 | Radiated       | Pass        | Section 6.8 & 6.9 |
| RSS-247 §6.2.1, §6.2.2, §6.2.3, §6.2.4 | General Field Strength Limits (Restricted Bands and Radiated Emission Limits) | Emissions in restricted bands must meet the radiated limits detailed in RSS-Gen [8.9]                                                                                 |                | Pass        |                   |
| RSS-Gen [8.8]                          | AC Conducted Emissions<br>150kHz - 30MHz                                      | < RSS-Gen [8.8] limits                                                                                                                                                | Line Conducted | Pass        | Section 6.10      |

**Notes:**

- 1) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst case emissions.

- 2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

## 7.2. 26dB Bandwidth Measurement and 99% Bandwidth

### 7.2.1. Test Limit

N/A

### 7.2.2. Test Procedure used

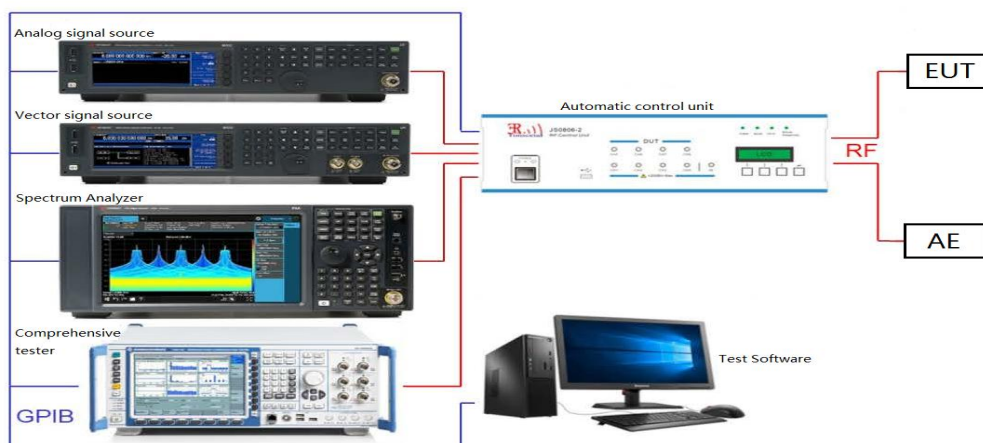
KDB 789033 D02v02r01 – Section C.1

ANSI C63.10-2013 D02v02r01 – Section C

### 7.2.3. Test Setting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 26$ . The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW  $\geq 3 \times$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.

### 7.2.4. Test Setup



### 7.2.5. Test Result

| Test Mode  | Antenna | Channel | FL[MHz]  | FH[MHz]  | 26db EBW [MHz] | OCB [MHz] |
|------------|---------|---------|----------|----------|----------------|-----------|
| 11A        | Ant1    | 5180    | 5169.280 | 5190.560 | 21.280         | 17.527    |
|            | Ant2    | 5180    | 5169.360 | 5190.520 | 21.160         | 17.013    |
|            | Ant1    | 5200    | 5189.080 | 5210.360 | 21.280         | 17.128    |
|            | Ant2    | 5200    | 5189.640 | 5210.800 | 21.160         | 17.047    |
|            | Ant1    | 5240    | 5229.600 | 5250.400 | 20.800         | 17.158    |
|            | Ant2    | 5240    | 5229.520 | 5250.560 | 21.040         | 17.112    |
|            | Ant1    | 5745    | 5734.560 | 5757.720 | 23.160         | 17.266    |
|            | Ant2    | 5745    | 5734.400 | 5758.320 | 23.920         | 17.285    |
|            | Ant1    | 5785    | 5774.360 | 5797.160 | 22.800         | 17.159    |
|            | Ant2    | 5785    | 5774.640 | 5795.840 | 21.200         | 17.106    |
|            | Ant1    | 5825    | 5814.680 | 5835.400 | 20.720         | 17.154    |
|            | Ant2    | 5825    | 5814.520 | 5835.400 | 20.880         | 17.250    |
| 11N20SISO  | Ant1    | 5180    | 5169.480 | 5190.480 | 21.000         | 18.086    |
|            | Ant2    | 5180    | 5169.160 | 5190.640 | 21.480         | 18.137    |
|            | Ant1    | 5200    | 5187.680 | 5210.920 | 23.240         | 18.240    |
|            | Ant2    | 5200    | 5189.480 | 5210.680 | 21.200         | 18.118    |
|            | Ant1    | 5240    | 5229.320 | 5250.560 | 21.240         | 18.345    |
|            | Ant2    | 5240    | 5229.320 | 5250.600 | 21.280         | 18.107    |
|            | Ant1    | 5745    | 5734.360 | 5755.720 | 21.360         | 18.338    |
|            | Ant2    | 5745    | 5734.680 | 5756.200 | 21.520         | 18.192    |
|            | Ant1    | 5785    | 5774.160 | 5795.400 | 21.240         | 18.229    |
|            | Ant2    | 5785    | 5774.560 | 5795.800 | 21.240         | 18.122    |
|            | Ant1    | 5825    | 5814.360 | 5835.480 | 21.120         | 18.264    |
|            | Ant2    | 5825    | 5814.360 | 5835.640 | 21.280         | 18.251    |
| 11N40SISO  | Ant1    | 5190    | 5164.240 | 5209.760 | 45.520         | 36.463    |
|            | Ant2    | 5190    | 5170.160 | 5209.920 | 39.760         | 36.290    |
|            | Ant1    | 5230    | 5209.920 | 5249.360 | 39.440         | 36.465    |
|            | Ant2    | 5230    | 5210.480 | 5249.600 | 39.120         | 36.274    |
|            | Ant1    | 5755    | 5735.320 | 5787.240 | 51.920         | 36.491    |
|            | Ant2    | 5755    | 5735.480 | 5780.520 | 45.040         | 36.472    |
|            | Ant1    | 5795    | 5765.160 | 5828.200 | 63.040         | 36.544    |
|            | Ant2    | 5795    | 5775.320 | 5824.520 | 49.200         | 36.382    |
| 11AC20SISO | Ant1    | 5180    | 5167.800 | 5190.520 | 22.720         | 18.185    |
|            | Ant2    | 5180    | 5169.320 | 5190.600 | 21.280         | 18.183    |

|            |      |      |          |          |         |        |
|------------|------|------|----------|----------|---------|--------|
|            | Ant1 | 5200 | 5189.240 | 5210.760 | 21.520  | 18.393 |
|            | Ant2 | 5200 | 5189.360 | 5210.520 | 21.160  | 18.132 |
|            | Ant1 | 5240 | 5229.320 | 5250.720 | 21.400  | 18.298 |
|            | Ant2 | 5240 | 5229.360 | 5250.480 | 21.120  | 18.183 |
|            | Ant1 | 5745 | 5734.080 | 5758.600 | 24.520  | 18.231 |
|            | Ant2 | 5745 | 5734.440 | 5755.480 | 21.040  | 18.205 |
|            | Ant1 | 5785 | 5774.320 | 5797.360 | 23.040  | 18.283 |
|            | Ant2 | 5785 | 5774.200 | 5796.560 | 22.360  | 18.159 |
|            | Ant1 | 5825 | 5814.480 | 5835.800 | 21.320  | 18.198 |
|            | Ant2 | 5825 | 5814.360 | 5835.600 | 21.240  | 18.276 |
| 11AC40SISO | Ant1 | 5190 | 5167.120 | 5216.240 | 49.120  | 36.571 |
|            | Ant2 | 5190 | 5170.080 | 5210.240 | 40.160  | 36.353 |
|            | Ant1 | 5230 | 5210.320 | 5249.680 | 39.360  | 36.489 |
|            | Ant2 | 5230 | 5210.000 | 5250.080 | 40.080  | 36.241 |
|            | Ant1 | 5755 | 5734.600 | 5791.400 | 56.800  | 36.667 |
|            | Ant2 | 5755 | 5735.640 | 5780.120 | 44.480  | 36.367 |
|            | Ant1 | 5795 | 5775.320 | 5823.880 | 48.560  | 36.505 |
|            | Ant2 | 5795 | 5775.160 | 5826.200 | 51.040  | 36.270 |
| 11AC80SISO | Ant1 | 5210 | 5169.680 | 5250.640 | 80.960  | 75.938 |
|            | Ant2 | 5210 | 5170.000 | 5250.000 | 80.000  | 75.877 |
|            | Ant1 | 5775 | 5734.680 | 5839.480 | 104.800 | 76.028 |
|            | Ant2 | 5775 | 5734.840 | 5823.960 | 89.120  | 75.910 |
| 11AX20SISO | Ant1 | 5180 | 5169.360 | 5190.440 | 21.080  | 18.199 |
|            | Ant2 | 5180 | 5169.600 | 5190.480 | 20.880  | 18.999 |
|            | Ant1 | 5200 | 5188.800 | 5210.800 | 22.000  | 18.219 |
|            | Ant2 | 5200 | 5189.640 | 5210.440 | 20.800  | 18.908 |
|            | Ant1 | 5240 | 5229.440 | 5250.560 | 21.120  | 18.217 |
|            | Ant2 | 5240 | 5229.400 | 5250.360 | 20.960  | 18.970 |
|            | Ant1 | 5745 | 5733.560 | 5756.600 | 23.040  | 18.482 |
|            | Ant2 | 5745 | 5734.520 | 5755.360 | 20.840  | 18.971 |
|            | Ant1 | 5785 | 5774.200 | 5797.280 | 23.080  | 18.385 |
|            | Ant2 | 5785 | 5774.600 | 5797.480 | 22.880  | 19.025 |
|            | Ant1 | 5825 | 5814.400 | 5835.440 | 21.040  | 18.251 |
|            | Ant2 | 5825 | 5814.680 | 5835.920 | 21.240  | 18.975 |
| 11AX40SISO | Ant1 | 5190 | 5170.240 | 5212.880 | 42.640  | 37.753 |
|            | Ant2 | 5190 | 5170.240 | 5209.760 | 39.520  | 37.763 |
|            | Ant1 | 5230 | 5210.080 | 5261.200 | 51.120  | 37.915 |

|            |      |      |          |          |         |        |
|------------|------|------|----------|----------|---------|--------|
|            | Ant2 | 5230 | 5209.840 | 5250.240 | 40.400  | 37.792 |
|            | Ant1 | 5755 | 5723.560 | 5794.520 | 70.960  | 38.037 |
|            | Ant2 | 5755 | 5735.160 | 5786.600 | 51.440  | 37.846 |
|            | Ant1 | 5795 | 5771.720 | 5833.160 | 61.440  | 37.977 |
|            | Ant2 | 5795 | 5775.160 | 5825.960 | 50.800  | 37.864 |
| 11AX80SISO | Ant1 | 5210 | 5169.840 | 5250.480 | 80.640  | 77.553 |
|            | Ant2 | 5210 | 5169.520 | 5250.640 | 81.120  | 77.220 |
|            | Ant1 | 5775 | 5730.040 | 5846.680 | 116.640 | 77.569 |
|            | Ant2 | 5775 | 5735.000 | 5815.640 | 80.640  | 77.453 |
| 11N20CDD   | Ant1 | 5180 | 5169.400 | 5190.560 | 21.160  | 18.061 |
|            | Ant2 | 5180 | 5169.160 | 5190.680 | 21.520  | 18.201 |
|            | Ant1 | 5200 | 5189.240 | 5210.800 | 21.560  | 18.126 |
|            | Ant2 | 5200 | 5189.120 | 5210.720 | 21.600  | 18.139 |
|            | Ant1 | 5240 | 5227.080 | 5250.680 | 23.600  | 18.382 |
|            | Ant2 | 5240 | 5229.440 | 5250.480 | 21.040  | 18.173 |
|            | Ant1 | 5745 | 5734.560 | 5755.680 | 21.120  | 18.134 |
|            | Ant2 | 5745 | 5734.400 | 5755.520 | 21.120  | 18.203 |
|            | Ant1 | 5785 | 5774.880 | 5795.200 | 20.320  | 17.733 |
|            | Ant2 | 5785 | 5774.480 | 5796.040 | 21.560  | 18.194 |
|            | Ant1 | 5825 | 5814.280 | 5835.760 | 21.480  | 18.246 |
|            | Ant2 | 5825 | 5814.520 | 5835.360 | 20.840  | 18.100 |
| 11N40CDD   | Ant1 | 5190 | 5170.080 | 5209.840 | 39.760  | 36.338 |
|            | Ant2 | 5190 | 5170.080 | 5209.840 | 39.760  | 36.333 |
|            | Ant1 | 5230 | 5209.920 | 5249.600 | 39.680  | 36.379 |
|            | Ant2 | 5230 | 5210.160 | 5249.760 | 39.600  | 36.284 |
|            | Ant1 | 5755 | 5735.160 | 5774.680 | 39.520  | 36.293 |
|            | Ant2 | 5755 | 5735.800 | 5779.480 | 43.680  | 36.276 |
|            | Ant1 | 5795 | 5775.240 | 5815.240 | 40.000  | 36.361 |
|            | Ant2 | 5795 | 5775.320 | 5821.880 | 46.560  | 36.272 |
| 11AC20CDD  | Ant1 | 5180 | 5168.960 | 5190.360 | 21.400  | 18.205 |
|            | Ant2 | 5180 | 5169.280 | 5190.160 | 20.880  | 18.119 |
|            | Ant1 | 5200 | 5189.320 | 5210.840 | 21.520  | 18.276 |
|            | Ant2 | 5200 | 5189.240 | 5210.600 | 21.360  | 18.148 |
|            | Ant1 | 5240 | 5229.280 | 5250.640 | 21.360  | 18.327 |
|            | Ant2 | 5240 | 5229.480 | 5250.480 | 21.000  | 18.198 |
|            | Ant1 | 5745 | 5734.520 | 5755.920 | 21.400  | 18.255 |
|            | Ant2 | 5745 | 5734.440 | 5755.680 | 21.240  | 18.217 |

|           |      |      |          |          |        |        |
|-----------|------|------|----------|----------|--------|--------|
|           | Ant1 | 5785 | 5774.240 | 5795.560 | 21.320 | 18.258 |
|           | Ant2 | 5785 | 5774.600 | 5795.640 | 21.040 | 18.118 |
|           | Ant1 | 5825 | 5814.200 | 5835.680 | 21.480 | 18.206 |
|           | Ant2 | 5825 | 5814.520 | 5835.640 | 21.120 | 18.180 |
| 11AC40CDD | Ant1 | 5190 | 5170.000 | 5210.000 | 40.000 | 36.362 |
|           | Ant2 | 5190 | 5170.320 | 5209.840 | 39.520 | 36.401 |
|           | Ant1 | 5230 | 5209.760 | 5250.000 | 40.240 | 36.329 |
|           | Ant2 | 5230 | 5210.560 | 5249.600 | 39.040 | 36.306 |
|           | Ant1 | 5755 | 5735.320 | 5782.360 | 47.040 | 36.303 |
|           | Ant2 | 5755 | 5736.440 | 5773.640 | 37.200 | 36.315 |
|           | Ant1 | 5795 | 5775.400 | 5816.440 | 41.040 | 36.296 |
|           | Ant2 | 5795 | 5775.240 | 5822.200 | 46.960 | 36.279 |
| 11AC80CDD | Ant1 | 5210 | 5169.520 | 5250.480 | 80.960 | 75.819 |
|           | Ant2 | 5210 | 5169.840 | 5250.160 | 80.320 | 75.770 |
|           | Ant1 | 5775 | 5734.520 | 5819.320 | 84.800 | 75.903 |
|           | Ant2 | 5775 | 5735.000 | 5815.320 | 80.320 | 75.646 |
| 11AX20CDD | Ant1 | 5180 | 5169.440 | 5190.320 | 20.880 | 18.932 |
|           | Ant2 | 5180 | 5169.400 | 5190.360 | 20.960 | 19.021 |
|           | Ant1 | 5200 | 5189.520 | 5210.160 | 20.640 | 19.028 |
|           | Ant2 | 5200 | 5189.280 | 5210.440 | 21.160 | 18.979 |
|           | Ant1 | 5240 | 5229.600 | 5250.160 | 20.560 | 18.950 |
|           | Ant2 | 5240 | 5229.640 | 5250.520 | 20.880 | 19.000 |
|           | Ant1 | 5745 | 5734.320 | 5755.400 | 21.080 | 19.008 |
|           | Ant2 | 5745 | 5734.200 | 5755.520 | 21.320 | 18.967 |
|           | Ant1 | 5785 | 5774.840 | 5795.440 | 20.600 | 18.977 |
|           | Ant2 | 5785 | 5774.960 | 5795.400 | 20.440 | 18.946 |
|           | Ant1 | 5825 | 5814.440 | 5835.600 | 21.160 | 18.942 |
|           | Ant2 | 5825 | 5814.600 | 5835.480 | 20.880 | 19.019 |
| 11AX40CDD | Ant1 | 5190 | 5170.320 | 5209.920 | 39.600 | 37.805 |
|           | Ant2 | 5190 | 5167.280 | 5209.840 | 42.560 | 37.823 |
|           | Ant1 | 5230 | 5209.920 | 5250.160 | 40.240 | 37.788 |
|           | Ant2 | 5230 | 5210.000 | 5249.920 | 39.920 | 37.621 |
|           | Ant1 | 5755 | 5735.240 | 5786.920 | 51.680 | 37.839 |
|           | Ant2 | 5755 | 5735.240 | 5792.920 | 57.680 | 37.791 |
|           | Ant1 | 5795 | 5775.000 | 5832.520 | 57.520 | 37.866 |
|           | Ant2 | 5795 | 5774.840 | 5827.000 | 52.160 | 37.745 |
| 11AX80CDD | Ant1 | 5210 | 5169.680 | 5250.320 | 80.640 | 77.270 |

|  |      |      |          |          |        |        |
|--|------|------|----------|----------|--------|--------|
|  | Ant2 | 5210 | 5169.840 | 5250.320 | 80.480 | 77.509 |
|  | Ant1 | 5775 | 5735.000 | 5816.600 | 81.600 | 77.414 |
|  | Ant2 | 5775 | 5735.160 | 5815.640 | 80.480 | 77.450 |

Test Graphs see Appendix A1 and Appendix A2.

### 7.3. 6dB Bandwidth Measurement

#### 7.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

#### 7.3.2. Test Procedure used

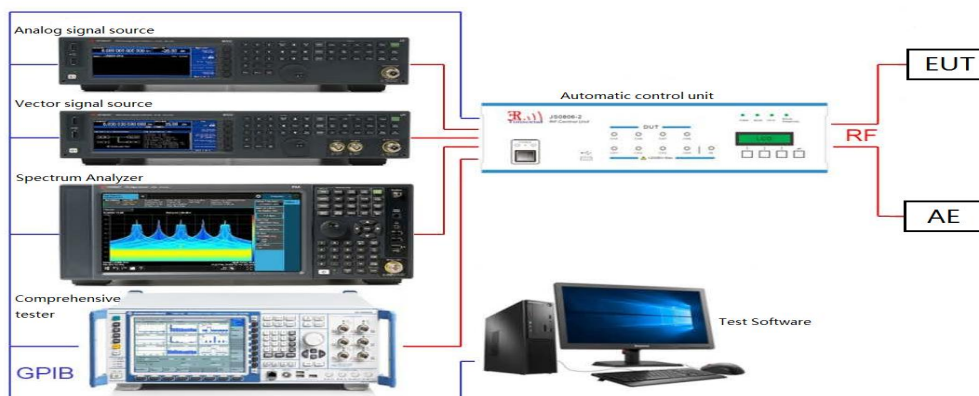
KDB 789033 D02v02r01 – Section C.2

ANSI C63.10-2013 – Section C

#### 7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW  $\geq 3 \times$  RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### 7.3.4. Test Setup



### 7.3.5. Test Result

| Test Mode  | Antenna | Channel | 6db EBW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|------------|---------|---------|---------------|----------|----------|------------|---------|
| 11A        | Ant1    | 5745    | 15.440        | 5737.680 | 5753.120 | 0.5        | PASS    |
|            | Ant2    | 5745    | 16.320        | 5736.840 | 5753.160 | 0.5        | PASS    |
|            | Ant1    | 5785    | 16.360        | 5776.800 | 5793.160 | 0.5        | PASS    |
|            | Ant2    | 5785    | 16.360        | 5776.800 | 5793.160 | 0.5        | PASS    |
|            | Ant1    | 5825    | 15.600        | 5817.480 | 5833.080 | 0.5        | PASS    |
|            | Ant2    | 5825    | 16.160        | 5816.960 | 5833.120 | 0.5        | PASS    |
| 11N20SISO  | Ant1    | 5745    | 17.560        | 5736.200 | 5753.760 | 0.5        | PASS    |
|            | Ant2    | 5745    | 16.280        | 5737.480 | 5753.760 | 0.5        | PASS    |
|            | Ant1    | 5785    | 17.520        | 5776.240 | 5793.760 | 0.5        | PASS    |
|            | Ant2    | 5785    | 17.600        | 5776.200 | 5793.800 | 0.5        | PASS    |
|            | Ant1    | 5825    | 16.920        | 5816.800 | 5833.720 | 0.5        | PASS    |
|            | Ant2    | 5825    | 16.600        | 5816.800 | 5833.400 | 0.5        | PASS    |
| 11N40SISO  | Ant1    | 5755    | 35.440        | 5737.480 | 5772.920 | 0.5        | PASS    |
|            | Ant2    | 5755    | 34.960        | 5737.560 | 5772.520 | 0.5        | PASS    |
|            | Ant1    | 5795    | 31.600        | 5781.160 | 5812.760 | 0.5        | PASS    |
|            | Ant2    | 5795    | 35.520        | 5777.400 | 5812.920 | 0.5        | PASS    |
| 11AC20SISO | Ant1    | 5745    | 16.320        | 5737.400 | 5753.720 | 0.5        | PASS    |
|            | Ant2    | 5745    | 16.480        | 5737.280 | 5753.760 | 0.5        | PASS    |
|            | Ant1    | 5785    | 17.400        | 5776.360 | 5793.760 | 0.5        | PASS    |
|            | Ant2    | 5785    | 16.880        | 5776.840 | 5793.720 | 0.5        | PASS    |
|            | Ant1    | 5825    | 17.520        | 5816.200 | 5833.720 | 0.5        | PASS    |
|            | Ant2    | 5825    | 17.560        | 5816.160 | 5833.720 | 0.5        | PASS    |
| 11AC40SISO | Ant1    | 5755    | 35.360        | 5737.480 | 5772.840 | 0.5        | PASS    |
|            | Ant2    | 5755    | 35.760        | 5737.400 | 5773.160 | 0.5        | PASS    |
|            | Ant1    | 5795    | 35.040        | 5777.400 | 5812.440 | 0.5        | PASS    |
|            | Ant2    | 5795    | 35.440        | 5777.400 | 5812.840 | 0.5        | PASS    |
| 11AC80SISO | Ant1    | 5775    | 75.200        | 5737.400 | 5812.600 | 0.5        | PASS    |
|            | Ant2    | 5775    | 75.360        | 5737.400 | 5812.760 | 0.5        | PASS    |
| 11AX20SISO | Ant1    | 5745    | 17.240        | 5736.480 | 5753.720 | 0.5        | PASS    |
|            | Ant2    | 5745    | 15.160        | 5737.400 | 5752.560 | 0.5        | PASS    |
|            | Ant1    | 5785    | 17.600        | 5776.160 | 5793.760 | 0.5        | PASS    |
|            | Ant2    | 5785    | 18.240        | 5775.920 | 5794.160 | 0.5        | PASS    |
|            | Ant1    | 5825    | 15.960        | 5817.400 | 5833.360 | 0.5        | PASS    |
|            | Ant2    | 5825    | 17.480        | 5816.560 | 5834.040 | 0.5        | PASS    |

|            |      |      |        |          |          |     |      |
|------------|------|------|--------|----------|----------|-----|------|
| 11AX40SISO | Ant1 | 5755 | 36.560 | 5737.160 | 5773.720 | 0.5 | PASS |
|            | Ant2 | 5755 | 35.680 | 5737.720 | 5773.400 | 0.5 | PASS |
|            | Ant1 | 5795 | 35.040 | 5778.680 | 5813.720 | 0.5 | PASS |
|            | Ant2 | 5795 | 36.320 | 5777.400 | 5813.720 | 0.5 | PASS |
| 11AX80SISO | Ant1 | 5775 | 76.480 | 5737.240 | 5813.720 | 0.5 | PASS |
|            | Ant2 | 5775 | 76.160 | 5737.560 | 5813.720 | 0.5 | PASS |
| 11N20CDD   | Ant1 | 5745 | 17.400 | 5736.360 | 5753.760 | 0.5 | PASS |
|            | Ant2 | 5745 | 17.120 | 5736.640 | 5753.760 | 0.5 | PASS |
|            | Ant1 | 5785 | 7.680  | 5783.600 | 5791.280 | 0.5 | PASS |
|            | Ant2 | 5785 | 17.560 | 5776.200 | 5793.760 | 0.5 | PASS |
|            | Ant1 | 5825 | 17.320 | 5816.440 | 5833.760 | 0.5 | PASS |
|            | Ant2 | 5825 | 17.560 | 5816.200 | 5833.760 | 0.5 | PASS |
| 11N40CDD   | Ant1 | 5755 | 35.360 | 5737.400 | 5772.760 | 0.5 | PASS |
|            | Ant2 | 5755 | 35.120 | 5737.400 | 5772.520 | 0.5 | PASS |
|            | Ant1 | 5795 | 35.040 | 5777.480 | 5812.520 | 0.5 | PASS |
|            | Ant2 | 5795 | 35.280 | 5777.400 | 5812.680 | 0.5 | PASS |
| 11AC20CDD  | Ant1 | 5745 | 16.600 | 5737.120 | 5753.720 | 0.5 | PASS |
|            | Ant2 | 5745 | 17.600 | 5736.200 | 5753.800 | 0.5 | PASS |
|            | Ant1 | 5785 | 17.600 | 5776.200 | 5793.800 | 0.5 | PASS |
|            | Ant2 | 5785 | 17.320 | 5776.440 | 5793.760 | 0.5 | PASS |
|            | Ant1 | 5825 | 17.320 | 5816.440 | 5833.760 | 0.5 | PASS |
|            | Ant2 | 5825 | 17.560 | 5816.200 | 5833.760 | 0.5 | PASS |
| 11AC40CDD  | Ant1 | 5755 | 35.040 | 5737.480 | 5772.520 | 0.5 | PASS |
|            | Ant2 | 5755 | 35.200 | 5737.480 | 5772.680 | 0.5 | PASS |
|            | Ant1 | 5795 | 33.760 | 5778.760 | 5812.520 | 0.5 | PASS |
|            | Ant2 | 5795 | 35.520 | 5777.400 | 5812.920 | 0.5 | PASS |
| 11AC80CDD  | Ant1 | 5775 | 75.360 | 5737.400 | 5812.760 | 0.5 | PASS |
|            | Ant2 | 5775 | 75.360 | 5737.400 | 5812.760 | 0.5 | PASS |
| 11AX20CDD  | Ant1 | 5745 | 17.000 | 5736.200 | 5753.200 | 0.5 | PASS |
|            | Ant2 | 5745 | 16.400 | 5737.440 | 5753.840 | 0.5 | PASS |
|            | Ant1 | 5785 | 16.800 | 5777.080 | 5793.880 | 0.5 | PASS |
|            | Ant2 | 5785 | 16.760 | 5777.480 | 5794.240 | 0.5 | PASS |
|            | Ant1 | 5825 | 18.240 | 5816.200 | 5834.440 | 0.5 | PASS |
|            | Ant2 | 5825 | 18.680 | 5815.720 | 5834.400 | 0.5 | PASS |
| 11AX40CDD  | Ant1 | 5755 | 36.880 | 5737.000 | 5773.880 | 0.5 | PASS |
|            | Ant2 | 5755 | 36.720 | 5737.000 | 5773.720 | 0.5 | PASS |
|            | Ant1 | 5795 | 37.120 | 5776.600 | 5813.720 | 0.5 | PASS |

|           |      |      |        |          |          |     |      |
|-----------|------|------|--------|----------|----------|-----|------|
|           | Ant2 | 5795 | 36.000 | 5777.400 | 5813.400 | 0.5 | PASS |
| 11AX80CDD | Ant1 | 5775 | 76.480 | 5737.400 | 5813.880 | 0.5 | PASS |
|           | Ant2 | 5775 | 76.160 | 5737.400 | 5813.560 | 0.5 | PASS |

Test Graphs see Appendix A3.

## 7.4. Output Power Measurement

### 7.4.1. Test Limit

#### For FCC Power Measurement Limit

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (23.98dBm) or  $11\text{dBm} + 10 \log(26\text{dB BW})$ .

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### For IC Power Measurement Limit

For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW (23.01dBm) or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed 250 mW (23.98dBm) or  $11 + 10 \log_{10} B$ , dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W (30dBm) or  $17 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.725-5.85 GHz band, the maximum conducted output power shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### 7.4.2. Test Procedure Used

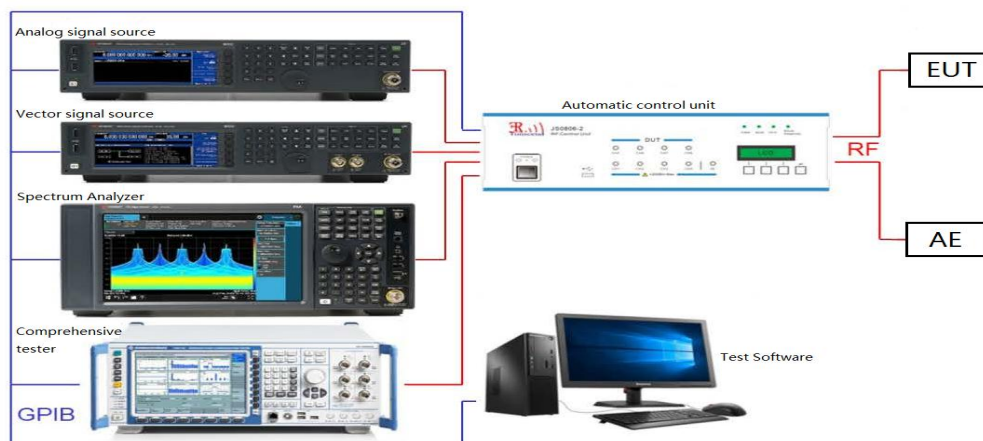
KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G

#### 7.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

#### 7.4.4. Test Setup



#### 7.4.5. Test Rate Assessment

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (yellow marker) for final test of each channel.

| N <sub>Tx</sub> | 802.11a | MCS Index for 802.11n | Data Rate (Mbps) |          |                 |          |
|-----------------|---------|-----------------------|------------------|----------|-----------------|----------|
|                 |         |                       | 20MHz Bandwidth  |          | 40MHz Bandwidth |          |
|                 |         |                       | 800ns GI         | 400ns GI | 800ns GI        | 400ns GI |
| 2               | 6       | 8                     | 13.0             | 14.4     | 27.0            | 30.0     |
| 2               | 9       | 9                     | 26.0             | 28.9     | 54.0            | 60.0     |
| 2               | 12      | 10                    | 39.0             | 43.3     | 81.0            | 90.0     |
| 2               | 18      | 11                    | 52.0             | 57.8     | 108.0           | 120.0    |
| 2               | 24      | 12                    | 78.0             | 86.7     | 162.0           | 180.0    |
| 2               | 36      | 13                    | 104.0            | 115.6    | 216.0           | 240.0    |
| 2               | 48      | 14                    | 117.0            | 130.0    | 243.0           | 270.0    |
| 2               | 54      | 15                    | 130.0            | 144.4    | 270.0           | 300.0    |

| N <sub>Tx</sub> | MCS Index for 802.11ac | Data Rate (Mbps) |          |                 |          |                 |          |
|-----------------|------------------------|------------------|----------|-----------------|----------|-----------------|----------|
|                 |                        | 20MHz Bandwidth  |          | 40MHz Bandwidth |          | 80MHz Bandwidth |          |
|                 |                        | 800ns GI         | 400ns GI | 800ns GI        | 400ns GI | 800ns GI        | 400ns GI |
| 2               | 0                      | 13.0             | 14.4     | 27.0            | 30.0     | 58.6            | 65.0     |
| 2               | 1                      | 26.0             | 28.8     | 54.0            | 60.0     | 117.0           | 130.0    |
| 2               | 2                      | 39.0             | 43.4     | 81.0            | 90.0     | 175.6           | 195.0    |
| 2               | 3                      | 52.0             | 57.8     | 108.0           | 120.0    | 234.0           | 260.0    |
| 2               | 4                      | 78.0             | 86.6     | 162.0           | 180.0    | 351.0           | 390.0    |
| 2               | 5                      | 104.0            | 115.6    | 216.0           | 240.0    | 468.0           | 520.0    |
| 2               | 6                      | 117.0            | 130.0    | 243.0           | 270.0    | 526.6           | 585.0    |
| 2               | 7                      | 130.0            | 144.4    | 270.0           | 300.0    | 585.0           | 650.0    |
| 2               | 8                      | 156.0            | 173.4    | 324.0           | 360.0    | 702.0           | 780.0    |
| 2               | 9                      | --               | --       | 360.0           | 400.0    | 780.0           | 866.6    |

Note: Power output test was verified over all data rates of each mode shown as above, and then choose the maximum power output (yellow marker) for final test of each channel.

#### 7.4.6. Test Result

| Test Mode  | Antenna | Channel | Power [dBm] | Limit [dBm] | Verdict |
|------------|---------|---------|-------------|-------------|---------|
| 11A        | Ant1    | 5180    | 11.81       | ≤27.63      | PASS    |
|            | Ant2    | 5180    | 9.98        | ≤27.63      | PASS    |
|            | Ant1    | 5200    | 11.78       | ≤27.63      | PASS    |
|            | Ant2    | 5200    | 10.30       | ≤27.63      | PASS    |
|            | Ant1    | 5240    | 11.79       | ≤27.63      | PASS    |
|            | Ant2    | 5240    | 11.46       | ≤27.63      | PASS    |
|            | Ant1    | 5745    | 13.58       | ≤27.63      | PASS    |
|            | Ant2    | 5745    | 12.93       | ≤27.63      | PASS    |
|            | Ant1    | 5785    | 13.43       | ≤27.63      | PASS    |
|            | Ant2    | 5785    | 12.79       | ≤27.63      | PASS    |
|            | Ant1    | 5825    | 13.54       | ≤27.63      | PASS    |
|            | Ant2    | 5825    | 12.70       | ≤27.63      | PASS    |
| 11N20SISO  | Ant1    | 5180    | 11.89       | ≤27.63      | PASS    |
|            | Ant2    | 5180    | 8.73        | ≤27.63      | PASS    |
|            | Ant1    | 5200    | 11.79       | ≤27.63      | PASS    |
|            | Ant2    | 5200    | 9.22        | ≤27.63      | PASS    |
|            | Ant1    | 5240    | 12.37       | ≤27.63      | PASS    |
|            | Ant2    | 5240    | 10.27       | ≤27.63      | PASS    |
|            | Ant1    | 5745    | 13.58       | ≤27.63      | PASS    |
|            | Ant2    | 5745    | 12.81       | ≤27.63      | PASS    |
|            | Ant1    | 5785    | 13.47       | ≤27.63      | PASS    |
|            | Ant2    | 5785    | 12.76       | ≤27.63      | PASS    |
|            | Ant1    | 5825    | 13.56       | ≤27.63      | PASS    |
|            | Ant2    | 5825    | 12.77       | ≤27.63      | PASS    |
| 11N40SISO  | Ant1    | 5190    | 13.10       | ≤27.63      | PASS    |
|            | Ant2    | 5190    | 9.76        | ≤27.63      | PASS    |
|            | Ant1    | 5230    | 13.46       | ≤27.63      | PASS    |
|            | Ant2    | 5230    | 10.54       | ≤27.63      | PASS    |
|            | Ant1    | 5755    | 15.23       | ≤27.63      | PASS    |
|            | Ant2    | 5755    | 13.93       | ≤27.63      | PASS    |
|            | Ant1    | 5795    | 15.38       | ≤27.63      | PASS    |
|            | Ant2    | 5795    | 14.07       | ≤27.63      | PASS    |
| 11AC20SISO | Ant1    | 5180    | 11.80       | ≤27.63      | PASS    |

|            |      |      |       |              |      |
|------------|------|------|-------|--------------|------|
|            | Ant2 | 5180 | 8.74  | $\leq 27.63$ | PASS |
|            | Ant1 | 5200 | 11.96 | $\leq 27.63$ | PASS |
|            | Ant2 | 5200 | 9.17  | $\leq 27.63$ | PASS |
|            | Ant1 | 5240 | 12.41 | $\leq 27.63$ | PASS |
|            | Ant2 | 5240 | 10.29 | $\leq 27.63$ | PASS |
|            | Ant1 | 5745 | 13.60 | $\leq 27.63$ | PASS |
|            | Ant2 | 5745 | 13.13 | $\leq 27.63$ | PASS |
|            | Ant1 | 5785 | 13.48 | $\leq 27.63$ | PASS |
|            | Ant2 | 5785 | 12.90 | $\leq 27.63$ | PASS |
|            | Ant1 | 5825 | 13.61 | $\leq 27.63$ | PASS |
|            | Ant2 | 5825 | 12.94 | $\leq 27.63$ | PASS |
| 11AC40SISO | Ant1 | 5190 | 13.25 | $\leq 27.63$ | PASS |
|            | Ant2 | 5190 | 9.76  | $\leq 27.63$ | PASS |
|            | Ant1 | 5230 | 13.66 | $\leq 27.63$ | PASS |
|            | Ant2 | 5230 | 10.79 | $\leq 27.63$ | PASS |
|            | Ant1 | 5755 | 15.24 | $\leq 27.63$ | PASS |
|            | Ant2 | 5755 | 13.99 | $\leq 27.63$ | PASS |
|            | Ant1 | 5795 | 15.42 | $\leq 27.63$ | PASS |
|            | Ant2 | 5795 | 14.22 | $\leq 27.63$ | PASS |
| 11AC80SISO | Ant1 | 5210 | 10.99 | $\leq 27.63$ | PASS |
|            | Ant2 | 5210 | 10.08 | $\leq 27.63$ | PASS |
|            | Ant1 | 5775 | 14.44 | $\leq 27.63$ | PASS |
|            | Ant2 | 5775 | 13.51 | $\leq 27.63$ | PASS |
| 11AX20SISO | Ant1 | 5180 | 12.38 | $\leq 27.63$ | PASS |
|            | Ant2 | 5180 | 9.07  | $\leq 27.63$ | PASS |
|            | Ant1 | 5200 | 12.50 | $\leq 27.63$ | PASS |
|            | Ant2 | 5200 | 9.42  | $\leq 27.63$ | PASS |
|            | Ant1 | 5240 | 13.09 | $\leq 27.63$ | PASS |
|            | Ant2 | 5240 | 10.54 | $\leq 27.63$ | PASS |
|            | Ant1 | 5745 | 14.15 | $\leq 27.63$ | PASS |
|            | Ant2 | 5745 | 13.32 | $\leq 27.63$ | PASS |
|            | Ant1 | 5785 | 14.10 | $\leq 27.63$ | PASS |
|            | Ant2 | 5785 | 13.06 | $\leq 27.63$ | PASS |
|            | Ant1 | 5825 | 13.42 | $\leq 27.63$ | PASS |
|            | Ant2 | 5825 | 13.07 | $\leq 27.63$ | PASS |
| 11AX40SISO | Ant1 | 5190 | 13.10 | $\leq 27.63$ | PASS |
|            | Ant2 | 5190 | 10.15 | $\leq 27.63$ | PASS |

|            |       |      |       |              |      |
|------------|-------|------|-------|--------------|------|
|            | Ant1  | 5230 | 13.84 | $\leq 27.63$ | PASS |
|            | Ant2  | 5230 | 11.12 | $\leq 27.63$ | PASS |
|            | Ant1  | 5755 | 15.15 | $\leq 27.63$ | PASS |
|            | Ant2  | 5755 | 14.18 | $\leq 27.63$ | PASS |
|            | Ant1  | 5795 | 15.39 | $\leq 27.63$ | PASS |
|            | Ant2  | 5795 | 14.35 | $\leq 27.63$ | PASS |
| 11AX80SISO | Ant1  | 5210 | 13.13 | $\leq 27.63$ | PASS |
|            | Ant2  | 5210 | 10.40 | $\leq 27.63$ | PASS |
|            | Ant1  | 5775 | 14.84 | $\leq 27.63$ | PASS |
|            | Ant2  | 5775 | 13.95 | $\leq 27.63$ | PASS |
| 11N20CDD   | Ant1  | 5180 | 12.18 | $\leq 27.63$ | PASS |
|            | Ant2  | 5180 | 8.96  | $\leq 27.63$ | PASS |
|            | total | 5180 | 13.87 | $\leq 27.63$ | PASS |
|            | Ant1  | 5200 | 11.14 | $\leq 27.63$ | PASS |
|            | Ant2  | 5200 | 9.01  | $\leq 27.63$ | PASS |
|            | total | 5200 | 13.21 | $\leq 27.63$ | PASS |
|            | Ant1  | 5240 | 10.43 | $\leq 27.63$ | PASS |
|            | Ant2  | 5240 | 8.90  | $\leq 27.63$ | PASS |
|            | total | 5240 | 12.74 | $\leq 27.63$ | PASS |
|            | Ant1  | 5745 | 11.76 | $\leq 27.63$ | PASS |
|            | Ant2  | 5745 | 12.18 | $\leq 27.63$ | PASS |
|            | total | 5745 | 14.99 | $\leq 27.63$ | PASS |
|            | Ant1  | 5785 | 6.86  | $\leq 27.63$ | PASS |
|            | Ant2  | 5785 | 12.24 | $\leq 27.63$ | PASS |
|            | total | 5785 | 13.35 | $\leq 27.63$ | PASS |
|            | Ant1  | 5825 | 11.92 | $\leq 27.63$ | PASS |
|            | Ant2  | 5825 | 12.05 | $\leq 27.63$ | PASS |
|            | total | 5825 | 15.00 | $\leq 27.63$ | PASS |
| 11N40CDD   | Ant1  | 5190 | 10.63 | $\leq 27.63$ | PASS |
|            | Ant2  | 5190 | 8.69  | $\leq 27.63$ | PASS |
|            | total | 5190 | 12.78 | $\leq 27.63$ | PASS |
|            | Ant1  | 5230 | 11.05 | $\leq 27.63$ | PASS |
|            | Ant2  | 5230 | 9.65  | $\leq 27.63$ | PASS |
|            | total | 5230 | 13.42 | $\leq 27.63$ | PASS |
|            | Ant1  | 5755 | 13.17 | $\leq 27.63$ | PASS |
|            | Ant2  | 5755 | 13.07 | $\leq 27.63$ | PASS |
|            | total | 5755 | 16.13 | $\leq 27.63$ | PASS |

|           |       |      |       |              |      |
|-----------|-------|------|-------|--------------|------|
|           | Ant1  | 5795 | 13.27 | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | 13.25 | $\leq 27.63$ | PASS |
|           | total | 5795 | 16.27 | $\leq 27.63$ | PASS |
| 11AC20CDD | Ant1  | 5180 | 9.96  | $\leq 27.63$ | PASS |
|           | Ant2  | 5180 | 8.07  | $\leq 27.63$ | PASS |
|           | total | 5180 | 12.13 | $\leq 27.63$ | PASS |
|           | Ant1  | 5200 | 9.91  | $\leq 27.63$ | PASS |
|           | Ant2  | 5200 | 8.33  | $\leq 27.63$ | PASS |
|           | total | 5200 | 12.20 | $\leq 27.63$ | PASS |
|           | Ant1  | 5240 | 10.37 | $\leq 27.63$ | PASS |
|           | Ant2  | 5240 | 9.45  | $\leq 27.63$ | PASS |
|           | total | 5240 | 12.94 | $\leq 27.63$ | PASS |
|           | Ant1  | 5745 | 11.52 | $\leq 27.63$ | PASS |
|           | Ant2  | 5745 | 11.81 | $\leq 27.63$ | PASS |
|           | total | 5745 | 14.68 | $\leq 27.63$ | PASS |
|           | Ant1  | 5785 | 11.51 | $\leq 27.63$ | PASS |
|           | Ant2  | 5785 | 11.83 | $\leq 27.63$ | PASS |
|           | total | 5785 | 14.68 | $\leq 27.63$ | PASS |
|           | Ant1  | 5825 | 11.55 | $\leq 27.63$ | PASS |
|           | Ant2  | 5825 | 11.78 | $\leq 27.63$ | PASS |
|           | total | 5825 | 14.68 | $\leq 27.63$ | PASS |
| 11AC40CDD | Ant1  | 5190 | 10.39 | $\leq 27.63$ | PASS |
|           | Ant2  | 5190 | 8.49  | $\leq 27.63$ | PASS |
|           | total | 5190 | 12.55 | $\leq 27.63$ | PASS |
|           | Ant1  | 5230 | 10.76 | $\leq 27.63$ | PASS |
|           | Ant2  | 5230 | 9.37  | $\leq 27.63$ | PASS |
|           | total | 5230 | 13.13 | $\leq 27.63$ | PASS |
|           | Ant1  | 5755 | 13.09 | $\leq 27.63$ | PASS |
|           | Ant2  | 5755 | 12.68 | $\leq 27.63$ | PASS |
|           | total | 5755 | 15.90 | $\leq 27.63$ | PASS |
|           | Ant1  | 5795 | 12.97 | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | 13.01 | $\leq 27.63$ | PASS |
|           | total | 5795 | 16.00 | $\leq 27.63$ | PASS |
| 11AC80CDD | Ant1  | 5210 | 10.34 | $\leq 27.63$ | PASS |
|           | Ant2  | 5210 | 8.82  | $\leq 27.63$ | PASS |
|           | total | 5210 | 12.66 | $\leq 27.63$ | PASS |
|           | Ant1  | 5775 | 13.57 | $\leq 27.63$ | PASS |

|           |       |      |       |              |      |
|-----------|-------|------|-------|--------------|------|
|           | Ant2  | 5775 | 12.61 | $\leq 27.63$ | PASS |
|           | total | 5775 | 16.13 | $\leq 27.63$ | PASS |
| 11AX20CDD | Ant1  | 5180 | 9.89  | $\leq 27.63$ | PASS |
|           | Ant2  | 5180 | 8.11  | $\leq 27.63$ | PASS |
|           | total | 5180 | 12.10 | $\leq 27.63$ | PASS |
|           | Ant1  | 5200 | 10.00 | $\leq 27.63$ | PASS |
|           | Ant2  | 5200 | 8.69  | $\leq 27.63$ | PASS |
|           | total | 5200 | 12.40 | $\leq 27.63$ | PASS |
|           | Ant1  | 5240 | 9.38  | $\leq 27.63$ | PASS |
|           | Ant2  | 5240 | 8.61  | $\leq 27.63$ | PASS |
|           | total | 5240 | 12.02 | $\leq 27.63$ | PASS |
|           | Ant1  | 5745 | 11.33 | $\leq 27.63$ | PASS |
|           | Ant2  | 5745 | 12.15 | $\leq 27.63$ | PASS |
|           | total | 5745 | 14.77 | $\leq 27.63$ | PASS |
|           | Ant1  | 5785 | 11.54 | $\leq 27.63$ | PASS |
|           | Ant2  | 5785 | 12.17 | $\leq 27.63$ | PASS |
|           | total | 5785 | 14.88 | $\leq 27.63$ | PASS |
|           | Ant1  | 5825 | 12.07 | $\leq 27.63$ | PASS |
|           | Ant2  | 5825 | 12.42 | $\leq 27.63$ | PASS |
|           | total | 5825 | 15.26 | $\leq 27.63$ | PASS |
| 11AX40CDD | Ant1  | 5190 | 10.69 | $\leq 27.63$ | PASS |
|           | Ant2  | 5190 | 8.77  | $\leq 27.63$ | PASS |
|           | total | 5190 | 12.85 | $\leq 27.63$ | PASS |
|           | Ant1  | 5230 | 11.31 | $\leq 27.63$ | PASS |
|           | Ant2  | 5230 | 9.83  | $\leq 27.63$ | PASS |
|           | total | 5230 | 13.64 | $\leq 27.63$ | PASS |
|           | Ant1  | 5755 | 13.58 | $\leq 27.63$ | PASS |
|           | Ant2  | 5755 | 12.78 | $\leq 27.63$ | PASS |
|           | total | 5755 | 16.21 | $\leq 27.63$ | PASS |
|           | Ant1  | 5795 | 13.22 | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | 13.67 | $\leq 27.63$ | PASS |
|           | total | 5795 | 16.46 | $\leq 27.63$ | PASS |
| 11AX80CDD | Ant1  | 5210 | 10.64 | $\leq 27.63$ | PASS |
|           | Ant2  | 5210 | 9.28  | $\leq 27.63$ | PASS |
|           | total | 5210 | 13.02 | $\leq 27.63$ | PASS |
|           | Ant1  | 5775 | 13.79 | $\leq 27.63$ | PASS |
|           | Ant2  | 5775 | 12.90 | $\leq 27.63$ | PASS |

---

|  |       |      |       |              |      |
|--|-------|------|-------|--------------|------|
|  | total | 5775 | 16.38 | $\leq 27.63$ | PASS |
|--|-------|------|-------|--------------|------|

Min Limit= $30-(8.37-6)=27.63\text{dBm}$

Test Graphs see Appendix A3.

The Duty Cycle Factor is compensated in the Offset of graph..

## 7.5. Transmit Power Control

### 7.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

### 7.5.2. Test Procedure Used

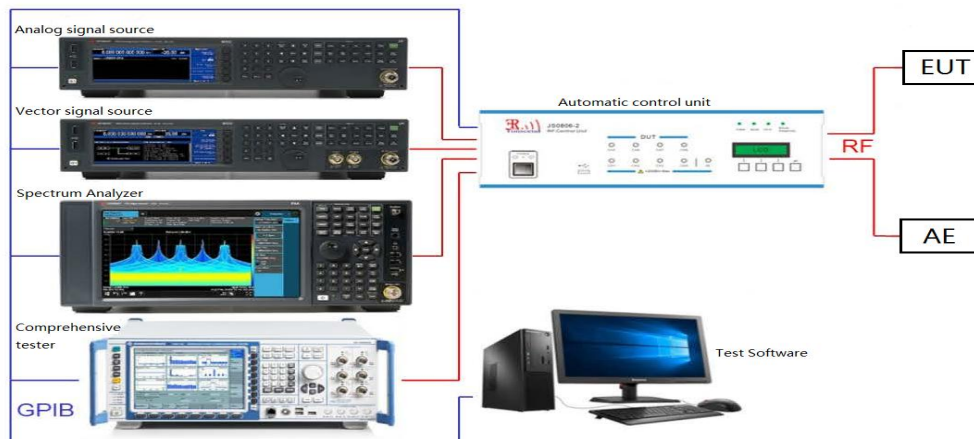
KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G

### 7.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

### 7.5.4. Test Setup



### 7.5.5. Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

## **7.6. Power Spectral Density Measurement**

### **7.6.1. Test Limit**

#### **For FCC**

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### **For IC**

For the band 5.15-5.25 GHz, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For the 5.725-5.85 GHz band, the power spectral density shall not exceed 30 dBm in any 500 kHz band.

### 7.6.2. Test Procedure Used

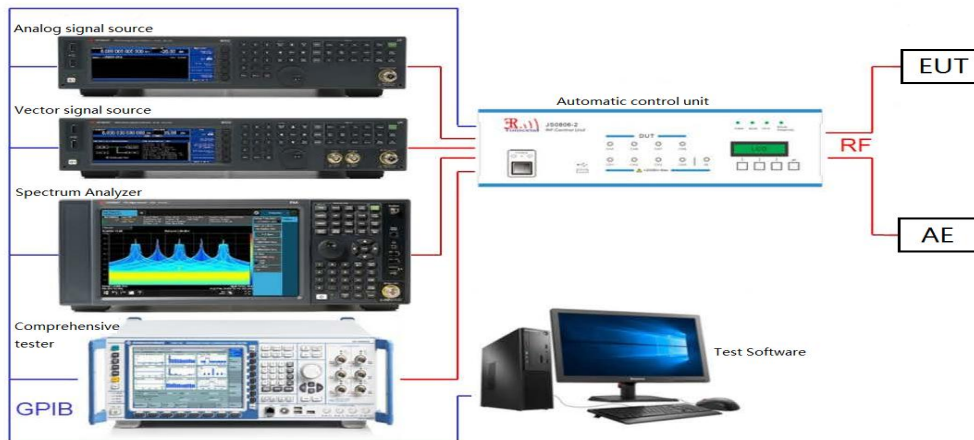
KDB 789033 D02v02r01 - Section F

ANSI C63.10-2013 - Section 12.3.2.2

### 7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points  $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add  $10 \cdot \log(1/x)$ , where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add  $10 \cdot \log(1/0.25) = 6$  dB if the duty cycle is 25 percent.
11. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor  $10 \cdot \log(500\text{kHz}/100\text{kHz}) = 7$  dB to the measured result

## 7.6.4. Test Setup



### 7.6.5. Test Result

| Test Mode  | Antenna | Channel | Power<br>[dBm/MHz] | Limit<br>[dBm/MHz] | Verdict |
|------------|---------|---------|--------------------|--------------------|---------|
| 11A        | Ant1    | 5180    | 3.16               | ≤14.63             | PASS    |
|            | Ant2    | 5180    | 0.9                | ≤14.63             | PASS    |
|            | Ant1    | 5200    | 3.23               | ≤14.63             | PASS    |
|            | Ant2    | 5200    | 1.17               | ≤14.63             | PASS    |
|            | Ant1    | 5240    | 4.01               | ≤14.63             | PASS    |
|            | Ant2    | 5240    | 1.95               | ≤14.63             | PASS    |
|            | Ant1    | 5745    | 2.54               | ≤27.63             | PASS    |
|            | Ant2    | 5745    | 1.16               | ≤27.63             | PASS    |
|            | Ant1    | 5785    | 1.35               | ≤27.63             | PASS    |
|            | Ant2    | 5785    | 1.64               | ≤27.63             | PASS    |
|            | Ant1    | 5825    | 2.35               | ≤27.63             | PASS    |
|            | Ant2    | 5825    | 0.77               | ≤27.63             | PASS    |
| 11N20SISO  | Ant1    | 5180    | 2.41               | ≤14.63             | PASS    |
|            | Ant2    | 5180    | -0.46              | ≤14.63             | PASS    |
|            | Ant1    | 5200    | 2.43               | ≤14.63             | PASS    |
|            | Ant2    | 5200    | -0.53              | ≤14.63             | PASS    |
|            | Ant1    | 5240    | 3.42               | ≤14.63             | PASS    |
|            | Ant2    | 5240    | 0.96               | ≤14.63             | PASS    |
|            | Ant1    | 5745    | 2.09               | ≤27.63             | PASS    |
|            | Ant2    | 5745    | 0.13               | ≤27.63             | PASS    |
|            | Ant1    | 5785    | 1.71               | ≤27.63             | PASS    |
|            | Ant2    | 5785    | 0.92               | ≤27.63             | PASS    |
|            | Ant1    | 5825    | 1.61               | ≤27.63             | PASS    |
|            | Ant2    | 5825    | 0.87               | ≤27.63             | PASS    |
| 11N40SISO  | Ant1    | 5190    | 0.46               | ≤14.63             | PASS    |
|            | Ant2    | 5190    | -2.72              | ≤14.63             | PASS    |
|            | Ant1    | 5230    | 1.01               | ≤14.63             | PASS    |
|            | Ant2    | 5230    | -2.05              | ≤14.63             | PASS    |
|            | Ant1    | 5755    | 0.23               | ≤27.63             | PASS    |
|            | Ant2    | 5755    | -0.92              | ≤27.63             | PASS    |
|            | Ant1    | 5795    | 0.61               | ≤27.63             | PASS    |
|            | Ant2    | 5795    | -0.71              | ≤27.63             | PASS    |
| 11AC20SISO | Ant1    | 5180    | 2.29               | ≤14.63             | PASS    |

|            |      |      |        |              |      |
|------------|------|------|--------|--------------|------|
|            | Ant2 | 5180 | -0.93  | $\leq 14.63$ | PASS |
|            | Ant1 | 5200 | 2.83   | $\leq 14.63$ | PASS |
|            | Ant2 | 5200 | -0.49  | $\leq 14.63$ | PASS |
|            | Ant1 | 5240 | 3.38   | $\leq 14.63$ | PASS |
|            | Ant2 | 5240 | 0.63   | $\leq 14.63$ | PASS |
|            | Ant1 | 5745 | 1.43   | $\leq 27.63$ | PASS |
|            | Ant2 | 5745 | -0.13  | $\leq 27.63$ | PASS |
|            | Ant1 | 5785 | 0.98   | $\leq 27.63$ | PASS |
|            | Ant2 | 5785 | 0.87   | $\leq 27.63$ | PASS |
|            | Ant1 | 5825 | 1.92   | $\leq 27.63$ | PASS |
|            | Ant2 | 5825 | 0.71   | $\leq 27.63$ | PASS |
| 11AC40SISO | Ant1 | 5190 | 0.57   | $\leq 14.63$ | PASS |
|            | Ant2 | 5190 | -2.34  | $\leq 14.63$ | PASS |
|            | Ant1 | 5230 | 1.15   | $\leq 14.63$ | PASS |
|            | Ant2 | 5230 | -1.34  | $\leq 14.63$ | PASS |
|            | Ant1 | 5755 | 0.72   | $\leq 27.63$ | PASS |
|            | Ant2 | 5755 | -1.29  | $\leq 27.63$ | PASS |
|            | Ant1 | 5795 | 0.15   | $\leq 27.63$ | PASS |
|            | Ant2 | 5795 | -0.61  | $\leq 27.63$ | PASS |
| 11AC80SISO | Ant1 | 5210 | -44.55 | $\leq 14.63$ | PASS |
|            | Ant2 | 5210 | -4.79  | $\leq 14.63$ | PASS |
|            | Ant1 | 5775 | -3.52  | $\leq 27.63$ | PASS |
|            | Ant2 | 5775 | -4.48  | $\leq 27.63$ | PASS |
| 11AX20SISO | Ant1 | 5180 | 3      | $\leq 14.63$ | PASS |
|            | Ant2 | 5180 | -0.43  | $\leq 14.63$ | PASS |
|            | Ant1 | 5200 | 3.47   | $\leq 14.63$ | PASS |
|            | Ant2 | 5200 | 1.38   | $\leq 14.63$ | PASS |
|            | Ant1 | 5240 | 3.66   | $\leq 14.63$ | PASS |
|            | Ant2 | 5240 | 1.68   | $\leq 14.63$ | PASS |
|            | Ant1 | 5745 | 2.02   | $\leq 27.63$ | PASS |
|            | Ant2 | 5745 | 0.38   | $\leq 27.63$ | PASS |
|            | Ant1 | 5785 | 2.38   | $\leq 27.63$ | PASS |
|            | Ant2 | 5785 | 1.12   | $\leq 27.63$ | PASS |
|            | Ant1 | 5825 | 1.01   | $\leq 27.63$ | PASS |
|            | Ant2 | 5825 | 1.26   | $\leq 27.63$ | PASS |
| 11AX40SISO | Ant1 | 5190 | 0.59   | $\leq 14.63$ | PASS |
|            | Ant2 | 5190 | -2.94  | $\leq 14.63$ | PASS |

|            |       |      |       |              |      |
|------------|-------|------|-------|--------------|------|
|            | Ant1  | 5230 | 0.57  | $\leq 14.63$ | PASS |
|            | Ant2  | 5230 | -2.21 | $\leq 14.63$ | PASS |
|            | Ant1  | 5755 | -0.05 | $\leq 27.63$ | PASS |
|            | Ant2  | 5755 | -1.22 | $\leq 27.63$ | PASS |
|            | Ant1  | 5795 | -0.06 | $\leq 27.63$ | PASS |
|            | Ant2  | 5795 | -1.8  | $\leq 27.63$ | PASS |
| 11AX80SISO | Ant1  | 5210 | -2.45 | $\leq 14.63$ | PASS |
|            | Ant2  | 5210 | -5.79 | $\leq 14.63$ | PASS |
|            | Ant1  | 5775 | -3.73 | $\leq 27.63$ | PASS |
|            | Ant2  | 5775 | -5.31 | $\leq 27.63$ | PASS |
| 11N20CDD   | Ant1  | 5180 | 1.27  | $\leq 14.63$ | PASS |
|            | Ant2  | 5180 | 0.09  | $\leq 14.63$ | PASS |
|            | total | 5180 | 3.73  | $\leq 14.63$ | PASS |
|            | Ant1  | 5200 | 1.84  | $\leq 14.63$ | PASS |
|            | Ant2  | 5200 | -0.7  | $\leq 14.63$ | PASS |
|            | total | 5200 | 3.76  | $\leq 14.63$ | PASS |
|            | Ant1  | 5240 | 1.3   | $\leq 14.63$ | PASS |
|            | Ant2  | 5240 | -0.23 | $\leq 14.63$ | PASS |
|            | total | 5240 | 3.61  | $\leq 14.63$ | PASS |
|            | Ant1  | 5745 | 0.13  | $\leq 27.63$ | PASS |
|            | Ant2  | 5745 | 0.03  | $\leq 27.63$ | PASS |
|            | total | 5745 | 3.09  | $\leq 27.63$ | PASS |
|            | Ant1  | 5785 | -3.37 | $\leq 27.63$ | PASS |
|            | Ant2  | 5785 | -0.3  | $\leq 27.63$ | PASS |
|            | total | 5785 | 1.44  | $\leq 27.63$ | PASS |
|            | Ant1  | 5825 | 0.24  | $\leq 27.63$ | PASS |
|            | Ant2  | 5825 | 0.4   | $\leq 27.63$ | PASS |
|            | total | 5825 | 3.33  | $\leq 27.63$ | PASS |
| 11N40CDD   | Ant1  | 5190 | -1.87 | $\leq 14.63$ | PASS |
|            | Ant2  | 5190 | -3.43 | $\leq 14.63$ | PASS |
|            | total | 5190 | 0.43  | $\leq 14.63$ | PASS |
|            | Ant1  | 5230 | -1.84 | $\leq 14.63$ | PASS |
|            | Ant2  | 5230 | -2.89 | $\leq 14.63$ | PASS |
|            | total | 5230 | 0.68  | $\leq 14.63$ | PASS |
|            | Ant1  | 5755 | -2.03 | $\leq 27.63$ | PASS |
|            | Ant2  | 5755 | -0.85 | $\leq 27.63$ | PASS |
|            | total | 5755 | 1.61  | $\leq 27.63$ | PASS |

|           |       |      |       |              |      |
|-----------|-------|------|-------|--------------|------|
|           | Ant1  | 5795 | -1.91 | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | -1.85 | $\leq 27.63$ | PASS |
|           | total | 5795 | 1.13  | $\leq 27.63$ | PASS |
| 11AC20CDD | Ant1  | 5180 | -0.23 | $\leq 14.63$ | PASS |
|           | Ant2  | 5180 | -1.37 | $\leq 14.63$ | PASS |
|           | total | 5180 | 2.25  | $\leq 14.63$ | PASS |
|           | Ant1  | 5200 | 0.39  | $\leq 14.63$ | PASS |
|           | Ant2  | 5200 | -0.57 | $\leq 14.63$ | PASS |
|           | total | 5200 | 2.95  | $\leq 14.63$ | PASS |
|           | Ant1  | 5240 | 1.13  | $\leq 14.63$ | PASS |
|           | Ant2  | 5240 | -0.29 | $\leq 14.63$ | PASS |
|           | total | 5240 | 3.49  | $\leq 14.63$ | PASS |
|           | Ant1  | 5745 | 0     | $\leq 27.63$ | PASS |
|           | Ant2  | 5745 | -0.28 | $\leq 27.63$ | PASS |
|           | total | 5745 | 2.87  | $\leq 27.63$ | PASS |
|           | Ant1  | 5785 | -0.65 | $\leq 27.63$ | PASS |
|           | Ant2  | 5785 | -0.58 | $\leq 27.63$ | PASS |
|           | total | 5785 | 2.40  | $\leq 27.63$ | PASS |
|           | Ant1  | 5825 | -0.34 | $\leq 27.63$ | PASS |
|           | Ant2  | 5825 | -0.12 | $\leq 27.63$ | PASS |
|           | total | 5825 | 2.78  | $\leq 27.63$ | PASS |
| 11AC40CDD | Ant1  | 5190 | -1.78 | $\leq 14.63$ | PASS |
|           | Ant2  | 5190 | -3.72 | $\leq 14.63$ | PASS |
|           | total | 5190 | 0.37  | $\leq 14.63$ | PASS |
|           | Ant1  | 5230 | -1.95 | $\leq 14.63$ | PASS |
|           | Ant2  | 5230 | -2.8  | $\leq 14.63$ | PASS |
|           | total | 5230 | 0.66  | $\leq 14.63$ | PASS |
|           | Ant1  | 5755 | -1.88 | $\leq 27.63$ | PASS |
|           | Ant2  | 5755 | -1.86 | $\leq 27.63$ | PASS |
|           | total | 5755 | 1.14  | $\leq 27.63$ | PASS |
|           | Ant1  | 5795 | -2.04 | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | -0.87 | $\leq 27.63$ | PASS |
|           | total | 5795 | 1.59  | $\leq 27.63$ | PASS |
| 11AC80CDD | Ant1  | 5210 | -4.79 | $\leq 14.63$ | PASS |
|           | Ant2  | 5210 | -6.98 | $\leq 14.63$ | PASS |
|           | total | 5210 | -2.74 | $\leq 14.63$ | PASS |
|           | Ant1  | 5775 | -4.75 | $\leq 27.63$ | PASS |

|           |       |      |       |              |      |
|-----------|-------|------|-------|--------------|------|
|           | Ant2  | 5775 | -5.46 | $\leq 27.63$ | PASS |
|           | total | 5775 | -2.08 | $\leq 27.63$ | PASS |
| 11AX20CDD | Ant1  | 5180 | 0.96  | $\leq 14.63$ | PASS |
|           | Ant2  | 5180 | -1.54 | $\leq 14.63$ | PASS |
|           | total | 5180 | 2.90  | $\leq 14.63$ | PASS |
|           | Ant1  | 5200 | 0.95  | $\leq 14.63$ | PASS |
|           | Ant2  | 5200 | -0.16 | $\leq 14.63$ | PASS |
|           | total | 5200 | 3.44  | $\leq 14.63$ | PASS |
|           | Ant1  | 5240 | 0.71  | $\leq 14.63$ | PASS |
|           | Ant2  | 5240 | -0.63 | $\leq 14.63$ | PASS |
|           | total | 5240 | 3.10  | $\leq 14.63$ | PASS |
|           | Ant1  | 5745 | -0.54 | $\leq 27.63$ | PASS |
|           | Ant2  | 5745 | 0.22  | $\leq 27.63$ | PASS |
|           | total | 5745 | 2.87  | $\leq 27.63$ | PASS |
|           | Ant1  | 5785 | -0.17 | $\leq 27.63$ | PASS |
|           | Ant2  | 5785 | 0.41  | $\leq 27.63$ | PASS |
|           | total | 5785 | 3.14  | $\leq 27.63$ | PASS |
|           | Ant1  | 5825 | 1.53  | $\leq 27.63$ | PASS |
|           | Ant2  | 5825 | 0.73  | $\leq 27.63$ | PASS |
|           | total | 5825 | 4.16  | $\leq 27.63$ | PASS |
| 11AX40CDD | Ant1  | 5190 | -2.56 | $\leq 14.63$ | PASS |
|           | Ant2  | 5190 | -4.42 | $\leq 14.63$ | PASS |
|           | total | 5190 | -0.38 | $\leq 14.63$ | PASS |
|           | Ant1  | 5230 | -2.06 | $\leq 14.63$ | PASS |
|           | Ant2  | 5230 | -3.13 | $\leq 14.63$ | PASS |
|           | total | 5230 | 0.45  | $\leq 14.63$ | PASS |
|           | Ant1  | 5755 | -1.37 | $\leq 27.63$ | PASS |
|           | Ant2  | 5755 | -3.07 | $\leq 27.63$ | PASS |
|           | total | 5755 | 0.87  | $\leq 27.63$ | PASS |
|           | Ant1  | 5795 | -2.7  | $\leq 27.63$ | PASS |
|           | Ant2  | 5795 | -1.58 | $\leq 27.63$ | PASS |
|           | total | 5795 | 0.91  | $\leq 27.63$ | PASS |
| 11AX80CDD | Ant1  | 5210 | -5.41 | $\leq 14.63$ | PASS |
|           | Ant2  | 5210 | -6.58 | $\leq 14.63$ | PASS |
|           | total | 5210 | -2.95 | $\leq 14.63$ | PASS |
|           | Ant1  | 5775 | -4.61 | $\leq 27.63$ | PASS |
|           | Ant2  | 5775 | -5.54 | $\leq 27.63$ | PASS |

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|  |       |      |       |              |      |
|--|-------|------|-------|--------------|------|
|  | total | 5775 | -2.04 | $\leq 27.63$ | PASS |
|--|-------|------|-------|--------------|------|

Band 5.15-5.25 GHz Min Limit= $17-(8.37-6)=14.63\text{dBm}$

Band 5.725-5.85 GHz Min Limit= $30-(8.37-6)=27.63\text{dBm}$

Test Graphs see Appendix C.

The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

The Duty Cycle Factor is compensated in the Offset of graph.

## 7.7. Frequency Stability Measurement

### 7.7.1. Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

### 7.7.2. Test Procedure Used

#### Frequency Stability Under Temperature Variations:

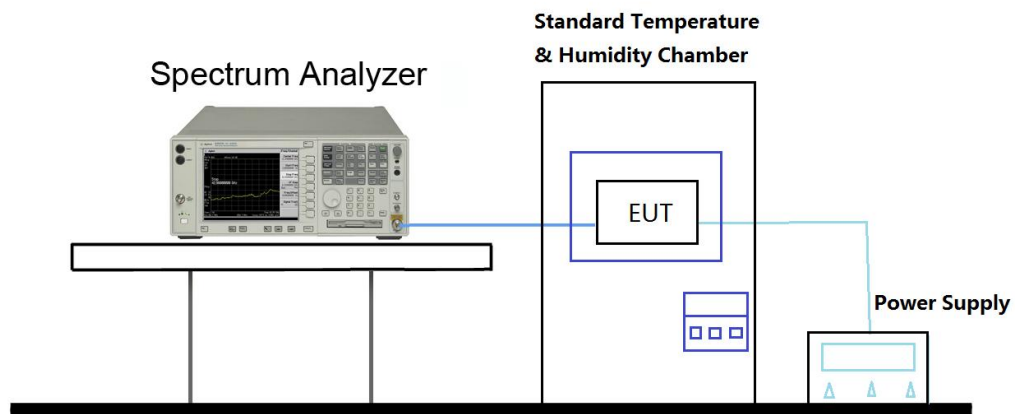
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

#### Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 7.7.3. Test Setup



#### 7.7.4. Test Result

| Voltage   |         |         |               |                  |                |                 |             |         |
|-----------|---------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Test Mode | Antenna | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A       | Ant1    | 5180    | NV            | NT               | -29000.00      | -5.598456       | 20          | PASS    |
|           |         |         | LV            | NT               | -27000.00      | -5.212355       | 20          | PASS    |
|           |         |         | HV            | NT               | -26000.00      | -5.019305       | 20          | PASS    |
|           | Ant2    | 5180    | NV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           | Ant1    | 5200    | NV            | NT               | -21000.00      | -4.038462       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           |         |         | HV            | NT               | -18000.00      | -3.461538       | 20          | PASS    |
|           | Ant2    | 5200    | NV            | NT               | -18000.00      | -3.461538       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           | Ant1    | 5240    | NV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           | Ant2    | 5240    | NV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           |         |         | LV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           |         |         | HV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           | Ant1    | 5745    | NV            | NT               | -27000.00      | -4.699739       | 20          | PASS    |
|           |         |         | LV            | NT               | -23000.00      | -4.003481       | 20          | PASS    |
|           |         |         | HV            | NT               | -22000.00      | -3.829417       | 20          | PASS    |
|           | Ant2    | 5745    | NV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           |         |         | LV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           |         |         | HV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           | Ant1    | 5785    | NV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           |         |         | LV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           |         |         | HV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           | Ant2    | 5785    | NV            | NT               | -5000.00       | -0.864304       | 20          | PASS    |
|           |         |         | LV            | NT               | -3000.00       | -0.518583       | 20          | PASS    |
|           |         |         | HV            | NT               | -3000.00       | -0.518583       | 20          | PASS    |
|           | Ant1    | 5825    | NV            | NT               | -5000.00       | -0.858369       | 20          | PASS    |
|           |         |         | LV            | NT               | -3000.00       | -0.515021       | 20          | PASS    |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant2 | 5825 | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|               |      |      | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N20SIS<br>O | Ant1 | 5180 | NV | NT | -22000.00 | -4.247104 | 20 | PASS |
|               |      |      | LV | NT | -22000.00 | -4.247104 | 20 | PASS |
|               |      |      | HV | NT | -22000.00 | -4.247104 | 20 | PASS |
|               | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.667954 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.667954 | 20 | PASS |
|               | Ant1 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               | Ant1 | 5745 | NV | NT | -12000.00 | -2.088773 | 20 | PASS |
|               |      |      | LV | NT | -10000.00 | -1.740644 | 20 | PASS |
|               |      |      | HV | NT | -9000.00  | -1.566580 | 20 | PASS |
|               | Ant2 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | HV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|               | Ant2 | 5785 | NV | NT | -3000.00  | -0.518583 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.518583 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|               | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | HV | NT | -3000.00  | -0.515021 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant2 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N40SIS<br>O  | Ant1 | 5190 | NV | NT | -5000.00  | -0.963391 | 20 | PASS |
|                |      |      | LV | NT | -8000.00  | -1.541426 | 20 | PASS |
|                |      |      | HV | NT | -9000.00  | -1.734104 | 20 | PASS |
|                | Ant2 | 5190 | NV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.468208 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.468208 | 20 | PASS |
|                | Ant1 | 5230 | NV | NT | -20000.00 | -3.824092 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                | Ant2 | 5230 | NV | NT | -22000.00 | -4.206501 | 20 | PASS |
|                |      |      | LV | NT | -21000.00 | -4.015296 | 20 | PASS |
|                |      |      | HV | NT | -21000.00 | -4.015296 | 20 | PASS |
|                | Ant1 | 5755 | NV | NT | -21000.00 | -3.649001 | 20 | PASS |
|                |      |      | LV | NT | -15000.00 | -2.606429 | 20 | PASS |
|                |      |      | HV | NT | -13000.00 | -2.258905 | 20 | PASS |
|                | Ant2 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant1 | 5795 | NV | NT | -7000.00  | -1.207938 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                | Ant2 | 5795 | NV | NT | -5000.00  | -0.862813 | 20 | PASS |
|                |      |      | LV | NT | -4000.00  | -0.690250 | 20 | PASS |
|                |      |      | HV | NT | -4000.00  | -0.690250 | 20 | PASS |
| 11AC20SI<br>SO | Ant1 | 5180 | NV | NT | -21000.00 | -4.054054 | 20 | PASS |
|                |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                | Ant2 | 5180 | NV | NT | -28000.00 | -5.405405 | 20 | PASS |
|                |      |      | LV | NT | -26000.00 | -5.019305 | 20 | PASS |
|                |      |      | HV | NT | -24000.00 | -4.633205 | 20 | PASS |
|                | Ant1 | 5200 | NV | NT | -18000.00 | -3.461538 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.269231 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|                | Ant2 | 5200 | NV | NT | -22000.00 | -4.230769 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                |      |      | LV | NT | -23000.00 | -4.423077 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.423077 | 20 | PASS |
|                | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                | Ant2 | 5240 | NV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                | Ant1 | 5745 | NV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                |      |      | LV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                |      |      | HV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|                | Ant1 | 5785 | NV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|                | Ant2 | 5785 | NV | NT | -3000.00  | -0.518583 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                | Ant2 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | HV | NT | 1000.00   | 0.171674  | 20 | PASS |
| 11AC40SI<br>SO | Ant1 | 5190 | NV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                |      |      | LV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                |      |      | HV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                | Ant1 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|                | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant1 | 5755 | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | NV | NT | -7000.00  | -1.216334 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.042572 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.042572 | 20 | PASS |
|                | Ant2 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant1 | 5795 | NV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                |      |      | LV | NT | -7000.00  | -1.207938 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                | Ant2 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.172563 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
| 11AC80SI<br>SO | Ant1 | 5210 | NV | NT | -19000.00 | -3.646833 | 20 | PASS |
|                |      |      | LV | NT | -22000.00 | -4.222649 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.414587 | 20 | PASS |
|                | Ant2 | 5210 | NV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                |      |      | LV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                |      |      | HV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                | Ant1 | 5775 | NV | NT | -7000.00  | -1.212121 | 20 | PASS |
|                |      |      | LV | NT | -10000.00 | -1.731602 | 20 | PASS |
|                |      |      | HV | NT | -11000.00 | -1.904762 | 20 | PASS |
|                | Ant2 | 5775 | NV | NT | -17000.00 | -2.943723 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -2.943723 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -2.943723 | 20 | PASS |
| 11AX20SI<br>SO | Ant1 | 5180 | NV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant1 | 5200 | NV | NT | -17000.00 | -3.269231 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|                | Ant2 | 5200 | NV | NT | -24000.00 | -4.615385 | 20 | PASS |
|                |      |      | LV | NT | -24000.00 | -4.615385 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.423077 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                | Ant2 | 5240 | NV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                | Ant1 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                | Ant2 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                | Ant2 | 5785 | NV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                |      |      | LV | NT | -3000.00  | -0.518583 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                | Ant2 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11AX40SI<br>SO | Ant1 | 5190 | NV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                | Ant1 | 5230 | NV | NT | -17000.00 | -3.250478 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.250478 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.250478 | 20 | PASS |
|                | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                | Ant1 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                |      |      | LV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant2 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant1 | 5795 | NV | NT | -5000.00  | -0.862813 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                | Ant2 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.172563 | 20 | PASS |
| 11AX80SI<br>SO | Ant1 | 5210 | NV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                |      |      | LV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                |      |      | HV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                | Ant1 | 5775 | NV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                |      |      | LV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                |      |      | HV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                | Ant2 | 5775 | NV | NT | -18000.00 | -3.116883 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |
| 11N20CD<br>D   | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.281853 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant1 | 5200 | NV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                |      |      | LV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |

|              |      |      |    |    |           |           |    |      |
|--------------|------|------|----|----|-----------|-----------|----|------|
|              | Ant2 | 5240 | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|              |      |      | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|              |      |      | LV | NT | -16000.00 | -3.053435 | 20 | PASS |
|              |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|              | Ant1 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|              |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|              |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|              | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|              |      |      | LV | NT | -7000.00  | -1.218451 | 20 | PASS |
|              |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|              | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|              |      |      | LV | NT | -6000.00  | -1.037165 | 20 | PASS |
|              |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|              | Ant2 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |
|              |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|              |      |      | HV | NT | -3000.00  | -0.518583 | 20 | PASS |
|              | Ant1 | 5825 | NV | NT | -2000.00  | -0.343348 | 20 | PASS |
|              |      |      | LV | NT | -2000.00  | -0.343348 | 20 | PASS |
|              |      |      | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|              | Ant2 | 5825 | NV | NT | -2000.00  | -0.343348 | 20 | PASS |
|              |      |      | LV | NT | -2000.00  | -0.343348 | 20 | PASS |
|              |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N40CD<br>D | Ant1 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|              |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|              |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|              | Ant2 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|              |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|              |      |      | HV | NT | -21000.00 | -4.046243 | 20 | PASS |
|              | Ant1 | 5230 | NV | NT | -17000.00 | -3.250478 | 20 | PASS |
|              |      |      | LV | NT | -17000.00 | -3.250478 | 20 | PASS |
|              |      |      | HV | NT | -16000.00 | -3.059273 | 20 | PASS |
|              | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|              |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|              |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|              | Ant1 | 5755 | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|              |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|              |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant2 | 5755 | NV | NT | -5000.00  | -0.868810 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.690250 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.690250 | 20 | PASS |
|               |      |      | HV | NT | -3000.00  | -0.517688 | 20 | PASS |
| 11AC20C<br>DD | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               | Ant1 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               | Ant1 | 5745 | NV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               | Ant2 | 5745 | NV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               | Ant1 | 5785 | NV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               | Ant2 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               | Ant1 | 5825 | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|               | Ant2 | 5825 | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | NV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11AC40C<br>DD | Ant1 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | HV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               | Ant2 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | HV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               | Ant1 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               | Ant1 | 5755 | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.521286 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant2 | 5755 | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.868810 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | LV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | HV | NT | -1000.00  | -0.172563 | 20 | PASS |
| 11AC80C<br>DD | Ant1 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant1 | 5775 | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               | Ant2 | 5775 | HV | NT | -18000.00 | -3.116883 | 20 | PASS |
|               |      |      | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
| 11AX20C<br>DD | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               | Ant2 | 5180 | NV | NT | -20000.00 | -3.861004 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.667954 | 20 | PASS |
|               | Ant1 | 5200 | NV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               | Ant1 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               |      |      | LV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               | Ant1 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               | Ant2 | 5785 | NV | NT | -1000.00  | -0.172861 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345722 | 20 | PASS |
|               |      |      | HV | NT | -3000.00  | -0.518583 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant1 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.515021 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|               | Ant2 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
| 11AX40C<br>DD | Ant1 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               | Ant1 | 5230 | NV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               | Ant2 | 5230 | NV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               | Ant1 | 5755 | NV | NT | -12000.00 | -2.085143 | 20 | PASS |
|               |      |      | LV | NT | -11000.00 | -1.911381 | 20 | PASS |
|               |      |      | HV | NT | -12000.00 | -2.085143 | 20 | PASS |
|               | Ant2 | 5755 | NV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               |      |      | LV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               |      |      | HV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
| 11AX80C<br>DD | Ant1 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               | Ant1 | 5775 | NV | NT | -20000.00 | -3.463203 | 20 | PASS |

|  |      |      |    |    |           |           |    |      |
|--|------|------|----|----|-----------|-----------|----|------|
|  |      |      | LV | NT | -20000.00 | -3.463203 | 20 | PASS |
|  |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  | Ant2 | 5775 | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |

| Voltage   |         |         |               |                  |                |                 |             |         |
|-----------|---------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Test Mode | Antenna | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A       | Ant1    | 5180    | NV            | NT               | -29000.00      | -5.598456       | 20          | PASS    |
|           |         |         | LV            | NT               | -27000.00      | -5.212355       | 20          | PASS    |
|           |         |         | HV            | NT               | -26000.00      | -5.019305       | 20          | PASS    |
|           | Ant2    | 5180    | NV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.667954       | 20          | PASS    |
|           | Ant1    | 5200    | NV            | NT               | -21000.00      | -4.038462       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           |         |         | HV            | NT               | -18000.00      | -3.461538       | 20          | PASS    |
|           | Ant2    | 5200    | NV            | NT               | -18000.00      | -3.461538       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.653846       | 20          | PASS    |
|           | Ant1    | 5240    | NV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           |         |         | LV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           |         |         | HV            | NT               | -19000.00      | -3.625954       | 20          | PASS    |
|           | Ant2    | 5240    | NV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           |         |         | LV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           |         |         | HV            | NT               | -17000.00      | -3.244275       | 20          | PASS    |
|           | Ant1    | 5745    | NV            | NT               | -27000.00      | -4.699739       | 20          | PASS    |
|           |         |         | LV            | NT               | -23000.00      | -4.003481       | 20          | PASS    |
|           |         |         | HV            | NT               | -22000.00      | -3.829417       | 20          | PASS    |
|           | Ant2    | 5745    | NV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           |         |         | LV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           |         |         | HV            | NT               | -6000.00       | -1.044386       | 20          | PASS    |
|           | Ant1    | 5785    | NV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           |         |         | LV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           |         |         | HV            | NT               | -6000.00       | -1.037165       | 20          | PASS    |
|           | Ant2    | 5785    | NV            | NT               | -5000.00       | -0.864304       | 20          | PASS    |

|           |      |      |    |    |           |           |    |      |
|-----------|------|------|----|----|-----------|-----------|----|------|
|           |      |      | LV | NT | -3000.00  | -0.518583 | 20 | PASS |
|           |      |      | HV | NT | -3000.00  | -0.518583 | 20 | PASS |
|           |      |      |    |    |           |           |    |      |
|           | Ant1 | 5825 | NV | NT | -5000.00  | -0.858369 | 20 | PASS |
|           |      |      | LV | NT | -3000.00  | -0.515021 | 20 | PASS |
|           |      |      | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|           | Ant2 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|           |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|           |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N20SISO | Ant1 | 5180 | NV | NT | -22000.00 | -4.247104 | 20 | PASS |
|           |      |      | LV | NT | -22000.00 | -4.247104 | 20 | PASS |
|           |      |      | HV | NT | -22000.00 | -4.247104 | 20 | PASS |
|           | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|           |      |      | LV | NT | -19000.00 | -3.667954 | 20 | PASS |
|           |      |      | HV | NT | -19000.00 | -3.667954 | 20 | PASS |
|           | Ant1 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|           |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|           |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|           | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|           |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|           |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|           | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|           |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|           |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|           | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|           |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|           |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|           | Ant1 | 5745 | NV | NT | -12000.00 | -2.088773 | 20 | PASS |
|           |      |      | LV | NT | -10000.00 | -1.740644 | 20 | PASS |
|           |      |      | HV | NT | -9000.00  | -1.566580 | 20 | PASS |
|           | Ant2 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|           |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|           |      |      | HV | NT | -6000.00  | -1.044386 | 20 | PASS |
|           | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|           |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|           |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|           | Ant2 | 5785 | NV | NT | -3000.00  | -0.518583 | 20 | PASS |
|           |      |      | LV | NT | -3000.00  | -0.518583 | 20 | PASS |

|                 |      |      |    |    |           |           |    |      |
|-----------------|------|------|----|----|-----------|-----------|----|------|
|                 | Ant1 | 5825 | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                 |      |      | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                 |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                 |      |      | HV | NT | -3000.00  | -0.515021 | 20 | PASS |
|                 | Ant2 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|                 |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|                 |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N40SISO       | Ant1 | 5190 | NV | NT | -5000.00  | -0.963391 | 20 | PASS |
|                 |      |      | LV | NT | -8000.00  | -1.541426 | 20 | PASS |
|                 |      |      | HV | NT | -9000.00  | -1.734104 | 20 | PASS |
|                 | Ant2 | 5190 | NV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                 |      |      | LV | NT | -18000.00 | -3.468208 | 20 | PASS |
|                 |      |      | HV | NT | -18000.00 | -3.468208 | 20 | PASS |
|                 | Ant1 | 5230 | NV | NT | -20000.00 | -3.824092 | 20 | PASS |
|                 |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                 |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                 | Ant2 | 5230 | NV | NT | -22000.00 | -4.206501 | 20 | PASS |
|                 |      |      | LV | NT | -21000.00 | -4.015296 | 20 | PASS |
|                 |      |      | HV | NT | -21000.00 | -4.015296 | 20 | PASS |
|                 | Ant1 | 5755 | NV | NT | -21000.00 | -3.649001 | 20 | PASS |
|                 |      |      | LV | NT | -15000.00 | -2.606429 | 20 | PASS |
|                 |      |      | HV | NT | -13000.00 | -2.258905 | 20 | PASS |
|                 | Ant2 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                 |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|                 |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                 | Ant1 | 5795 | NV | NT | -7000.00  | -1.207938 | 20 | PASS |
|                 |      |      | LV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                 |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                 | Ant2 | 5795 | NV | NT | -5000.00  | -0.862813 | 20 | PASS |
|                 |      |      | LV | NT | -4000.00  | -0.690250 | 20 | PASS |
|                 |      |      | HV | NT | -4000.00  | -0.690250 | 20 | PASS |
| 11AC20SISO<br>O | Ant1 | 5180 | NV | NT | -21000.00 | -4.054054 | 20 | PASS |
|                 |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                 |      |      | HV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                 | Ant2 | 5180 | NV | NT | -28000.00 | -5.405405 | 20 | PASS |
|                 |      |      | LV | NT | -26000.00 | -5.019305 | 20 | PASS |
|                 |      |      | HV | NT | -24000.00 | -4.633205 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant1 | 5200 | NV | NT | -18000.00 | -3.461538 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.269231 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.461538 | 20 | PASS |
|                | Ant2 | 5200 | NV | NT | -22000.00 | -4.230769 | 20 | PASS |
|                |      |      | LV | NT | -23000.00 | -4.423077 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.423077 | 20 | PASS |
|                | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                | Ant2 | 5240 | NV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                | Ant1 | 5745 | NV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                |      |      | LV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                |      |      | HV | NT | -7000.00  | -1.218451 | 20 | PASS |
|                | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|                | Ant1 | 5785 | NV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|                | Ant2 | 5785 | NV | NT | -3000.00  | -0.518583 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                | Ant2 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|                |      |      | HV | NT | 1000.00   | 0.171674  | 20 | PASS |
| 11AC40SIS<br>O | Ant1 | 5190 | NV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                |      |      | LV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                |      |      | HV | NT | -15000.00 | -2.890173 | 20 | PASS |
|                | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                | Ant1 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|                |      |      | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                | Ant2 | 5230 | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | NV | NT | -7000.00  | -1.216334 | 20 | PASS |
|                | Ant1 | 5755 | LV | NT | -6000.00  | -1.042572 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.042572 | 20 | PASS |
|                |      |      | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                | Ant2 | 5755 | LV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                |      |      | NV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                | Ant1 | 5795 | LV | NT | -7000.00  | -1.207938 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                |      |      | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
| 11AC80SIS<br>O | Ant1 | 5210 | NV | NT | -19000.00 | -3.646833 | 20 | PASS |
|                |      |      | LV | NT | -22000.00 | -4.222649 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.414587 | 20 | PASS |
|                | Ant2 | 5210 | NV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                |      |      | LV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                |      |      | HV | NT | -27000.00 | -5.182342 | 20 | PASS |
|                | Ant1 | 5775 | NV | NT | -7000.00  | -1.212121 | 20 | PASS |
|                |      |      | LV | NT | -10000.00 | -1.731602 | 20 | PASS |
|                |      |      | HV | NT | -11000.00 | -1.904762 | 20 | PASS |
|                | Ant2 | 5775 | NV | NT | -17000.00 | -2.943723 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -2.943723 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -2.943723 | 20 | PASS |
| 11AX20SIS<br>O | Ant1 | 5180 | NV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.861004 | 20 | PASS |
|                | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant1 | 5200 | NV | NT | -17000.00 | -3.269231 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant2 | 5200 | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|                |      |      | NV | NT | -24000.00 | -4.615385 | 20 | PASS |
|                |      |      | LV | NT | -24000.00 | -4.615385 | 20 | PASS |
|                |      |      | HV | NT | -23000.00 | -4.423077 | 20 | PASS |
|                | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|                | Ant2 | 5240 | NV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|                | Ant1 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                | Ant2 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.044386 | 20 | PASS |
|                |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|                | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|                |      |      | LV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                |      |      | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|                | Ant2 | 5785 | NV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                |      |      | LV | NT | -3000.00  | -0.518583 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.345722 | 20 | PASS |
|                | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                | Ant2 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|                |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11AX40SIS<br>O | Ant1 | 5190 | NV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.275530 | 20 | PASS |
|                | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|                | Ant1 | 5230 | NV | NT | -17000.00 | -3.250478 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.250478 | 20 | PASS |
|                |      |      | HV | NT | -17000.00 | -3.250478 | 20 | PASS |

|                |      |      |    |    |           |           |    |      |
|----------------|------|------|----|----|-----------|-----------|----|------|
|                | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|                | Ant1 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | LV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant2 | 5755 | NV | NT | -3000.00  | -0.521286 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                |      |      | HV | NT | -2000.00  | -0.347524 | 20 | PASS |
|                | Ant1 | 5795 | NV | NT | -5000.00  | -0.862813 | 20 | PASS |
|                |      |      | LV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                |      |      | HV | NT | -6000.00  | -1.035375 | 20 | PASS |
|                | Ant2 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|                |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|                |      |      | HV | NT | -1000.00  | -0.172563 | 20 | PASS |
| 11AX80SIS<br>O | Ant1 | 5210 | NV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                |      |      | LV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                |      |      | HV | NT | -26000.00 | -4.990403 | 20 | PASS |
|                | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|                | Ant1 | 5775 | NV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                |      |      | LV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                |      |      | HV | NT | -16000.00 | -2.770563 | 20 | PASS |
|                | Ant2 | 5775 | NV | NT | -18000.00 | -3.116883 | 20 | PASS |
|                |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|                |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |
| 11N20CDD       | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                |      |      | LV | NT | -17000.00 | -3.281853 | 20 | PASS |
|                |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|                | Ant1 | 5200 | NV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                |      |      | LV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                |      |      | HV | NT | -20000.00 | -3.846154 | 20 | PASS |
|                | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |

|          |      |      |    |    |           |           |    |      |
|----------|------|------|----|----|-----------|-----------|----|------|
|          |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|          |      |      | HV | NT | -20000.00 | -3.846154 | 20 | PASS |
|          | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|          |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|          |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|          | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|          |      |      | LV | NT | -16000.00 | -3.053435 | 20 | PASS |
|          |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|          | Ant1 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|          |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|          |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|          | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|          |      |      | LV | NT | -7000.00  | -1.218451 | 20 | PASS |
|          |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|          | Ant1 | 5785 | NV | NT | -6000.00  | -1.037165 | 20 | PASS |
|          |      |      | LV | NT | -6000.00  | -1.037165 | 20 | PASS |
|          |      |      | HV | NT | -6000.00  | -1.037165 | 20 | PASS |
|          | Ant2 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |
|          |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|          |      |      | HV | NT | -3000.00  | -0.518583 | 20 | PASS |
|          | Ant1 | 5825 | NV | NT | -2000.00  | -0.343348 | 20 | PASS |
|          |      |      | LV | NT | -2000.00  | -0.343348 | 20 | PASS |
|          |      |      | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|          | Ant2 | 5825 | NV | NT | -2000.00  | -0.343348 | 20 | PASS |
|          |      |      | LV | NT | -2000.00  | -0.343348 | 20 | PASS |
|          |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11N40CDD | Ant1 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|          |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|          |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|          | Ant2 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|          |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|          |      |      | HV | NT | -21000.00 | -4.046243 | 20 | PASS |
|          | Ant1 | 5230 | NV | NT | -17000.00 | -3.250478 | 20 | PASS |
|          |      |      | LV | NT | -17000.00 | -3.250478 | 20 | PASS |
|          |      |      | HV | NT | -16000.00 | -3.059273 | 20 | PASS |
|          | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|          |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant1 | 5755 | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant2 | 5755 | NV | NT | -5000.00  | -0.868810 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.690250 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.690250 | 20 | PASS |
|               |      |      | HV | NT | -3000.00  | -0.517688 | 20 | PASS |
| 11AC20CD<br>D | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               | Ant2 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               | Ant1 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               | Ant1 | 5745 | NV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               | Ant2 | 5745 | NV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.696258 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant1 | 5785 | NV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               | Ant2 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               | Ant1 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
|               | Ant2 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | LV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | HV | NT | 0.00      | 0.000000  | 20 | PASS |
| 11AC40CD<br>D | Ant1 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | HV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               | Ant2 | 5190 | NV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               |      |      | HV | NT | -20000.00 | -3.853565 | 20 | PASS |
|               | Ant1 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               | Ant2 | 5230 | NV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.632887 | 20 | PASS |
|               | Ant1 | 5755 | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.521286 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant2 | 5755 | NV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.868810 | 20 | PASS |
|               |      |      | HV | NT | -4000.00  | -0.695048 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | LV | NT | -1000.00  | -0.172563 | 20 | PASS |
|               |      |      | HV | NT | -1000.00  | -0.172563 | 20 | PASS |
| 11AC80CD      | Ant1 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
| D             |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               | Ant1 | 5775 | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.116883 | 20 | PASS |
|               | Ant2 | 5775 | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |
| 11AX20CD<br>D | Ant1 | 5180 | NV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.281853 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.474903 | 20 | PASS |
|               | Ant2 | 5180 | NV | NT | -20000.00 | -3.861004 | 20 | PASS |
|               |      |      | LV | NT | -20000.00 | -3.861004 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.667954 | 20 | PASS |
|               | Ant1 | 5200 | NV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.461538 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant2 | 5200 | NV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.653846 | 20 | PASS |
|               | Ant1 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.435115 | 20 | PASS |
|               | Ant2 | 5240 | NV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | LV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               |      |      | HV | NT | -17000.00 | -3.244275 | 20 | PASS |
|               | Ant1 | 5745 | NV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               |      |      | LV | NT | -6000.00  | -1.044386 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               | Ant2 | 5745 | NV | NT | -4000.00  | -0.696258 | 20 | PASS |
|               |      |      | LV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               |      |      | HV | NT | -5000.00  | -0.870322 | 20 | PASS |
|               | Ant1 | 5785 | NV | NT | -4000.00  | -0.691443 | 20 | PASS |
|               |      |      | LV | NT | -4000.00  | -0.691443 | 20 | PASS |

|               |      |      |    |    |           |           |    |      |
|---------------|------|------|----|----|-----------|-----------|----|------|
|               | Ant2 | 5785 | HV | NT | -5000.00  | -0.864304 | 20 | PASS |
|               |      |      | NV | NT | -1000.00  | -0.172861 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345722 | 20 | PASS |
|               |      |      | HV | NT | -3000.00  | -0.518583 | 20 | PASS |
|               | Ant1 | 5825 | NV | NT | 0.00      | 0.000000  | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.515021 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.343348 | 20 | PASS |
|               | Ant2 | 5825 | NV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | LV | NT | -1000.00  | -0.171674 | 20 | PASS |
|               |      |      | HV | NT | -1000.00  | -0.171674 | 20 | PASS |
| 11AX40CD<br>D | Ant1 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               | Ant2 | 5190 | NV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | LV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               |      |      | HV | NT | -19000.00 | -3.660886 | 20 | PASS |
|               | Ant1 | 5230 | NV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               | Ant2 | 5230 | NV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | LV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               |      |      | HV | NT | -18000.00 | -3.441683 | 20 | PASS |
|               | Ant1 | 5755 | NV | NT | -12000.00 | -2.085143 | 20 | PASS |
|               |      |      | LV | NT | -11000.00 | -1.911381 | 20 | PASS |
|               |      |      | HV | NT | -12000.00 | -2.085143 | 20 | PASS |
|               | Ant2 | 5755 | NV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               |      |      | LV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               |      |      | HV | NT | -7000.00  | -1.216334 | 20 | PASS |
|               | Ant1 | 5795 | NV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | LV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
|               | Ant2 | 5795 | NV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | LV | NT | -3000.00  | -0.517688 | 20 | PASS |
|               |      |      | HV | NT | -2000.00  | -0.345125 | 20 | PASS |
| 11AX80CD<br>D | Ant1 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|               |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |

|  |      |      |    |    |           |           |    |      |
|--|------|------|----|----|-----------|-----------|----|------|
|  | Ant2 | 5210 | NV | NT | -28000.00 | -5.374280 | 20 | PASS |
|  |      |      | LV | NT | -28000.00 | -5.374280 | 20 | PASS |
|  |      |      | HV | NT | -28000.00 | -5.374280 | 20 | PASS |
|  | Ant1 | 5775 | NV | NT | -20000.00 | -3.463203 | 20 | PASS |
|  |      |      | LV | NT | -20000.00 | -3.463203 | 20 | PASS |
|  |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  | Ant2 | 5775 | NV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  |      |      | LV | NT | -19000.00 | -3.290043 | 20 | PASS |
|  |      |      | HV | NT | -19000.00 | -3.290043 | 20 | PASS |

Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} \* 10<sup>6</sup>.

## 7.8. Radiated Spurious Emission Measurement

### 7.8.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

| FCC Part 15 Subpart C Paragraph 15.209 |                          |                               |
|----------------------------------------|--------------------------|-------------------------------|
| Frequency<br>[MHz]                     | Field Strength<br>[uV/m] | Measured Distance<br>[Meters] |
| 0.009 – 0.490                          | 2400/F (kHz)             | 300                           |
| 0.490 – 1.705                          | 24000/F (kHz)            | 30                            |
| 1.705 - 30                             | 30                       | 30                            |
| 30 - 88                                | 100                      | 3                             |
| 88 - 216                               | 150                      | 3                             |
| 216 - 960                              | 200                      | 3                             |
| Above 960                              | 500                      | 3                             |

### 7.8.2. Test Procedure Used

KDB 789033 D02v02r01 – Section G

ANSI C63.10-2013 – Section 12.7.7.2, 12.7.7.6, 12.7.5

### 7.8.3. Test Setting

#### Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### **Quasi-Peak Measurements below 1GHz**

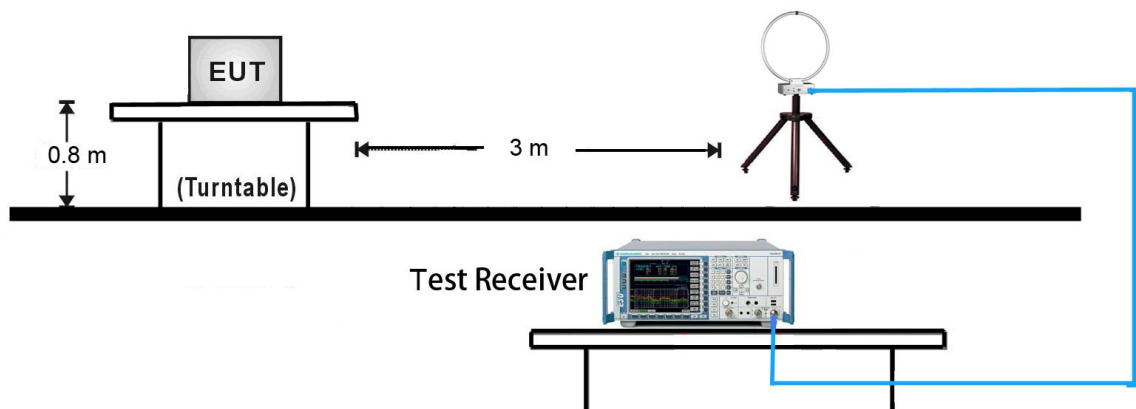
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

### **Average Measurements above 1GHz (Method AD)**

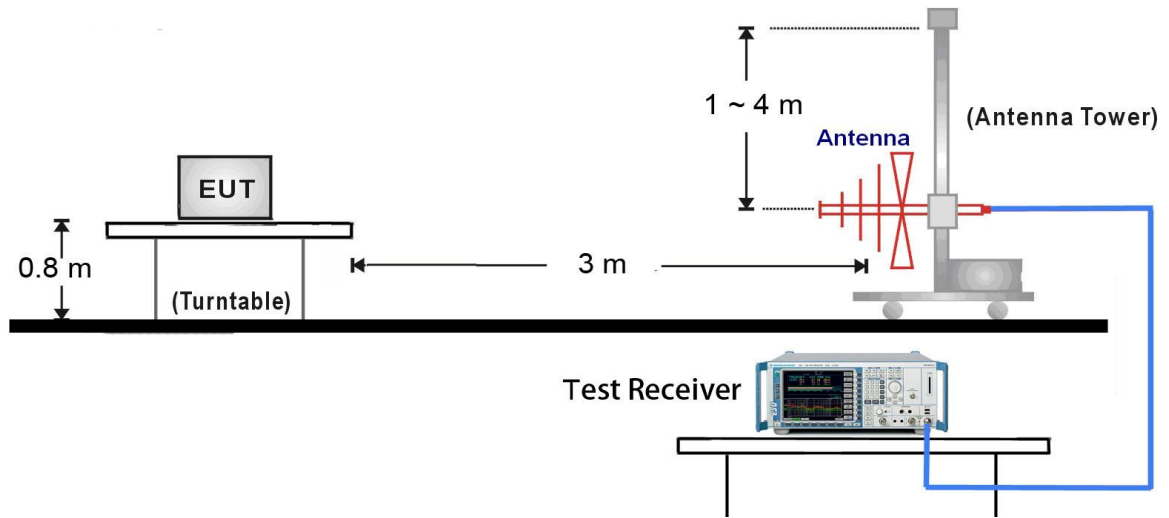
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (Average)
5. Number of measurement points = 1001 (Number of points must be  $> 2 \times \text{span/RBW}$ )
6. Sweep time = auto
7. Trace was averaged over at 100 sweeps

#### **7.8.4. Test Setup**

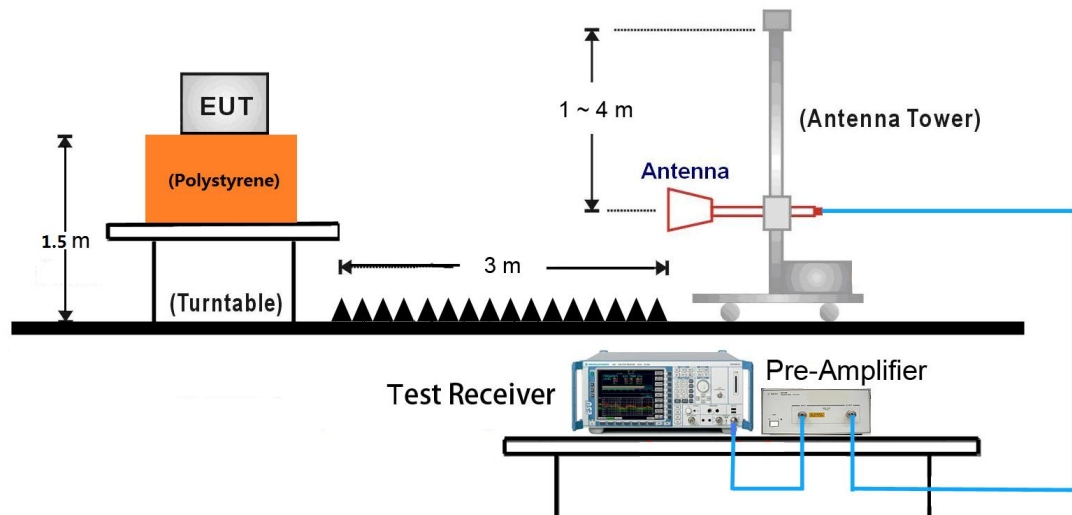
##### **9kHz ~ 30MHz Test Setup:**



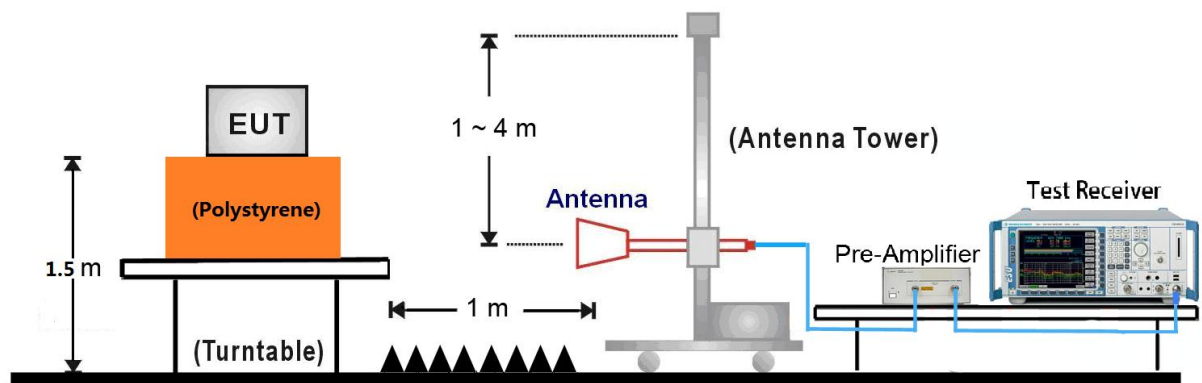
### 30MHz ~ 1GHz Test Setup:



### 1GHz ~ 18GHz Test Setup:



### 18GHz ~ 40GHz Test Setup:



### 7.8.5. Test Result

#### The worst case of Radiated Emission

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5180                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7550.3333       | 52.60        | 15.74       | 74.00          | 21.40       | Peak     | Horizontal   |
| *    | 8696.5000       | 53.26        | 16.55       | 79.96          | 26.70       | Peak     | Horizontal   |
| *    | 9835.0000       | 55.62        | 18.66       | 79.96          | 24.34       | Peak     | Horizontal   |
|      | 10873.8333      | 57.19        | 19.28       | 74.00          | 16.81       | Peak     | Horizontal   |
|      | 7676.8333       | 52.90        | 15.47       | 74.00          | 21.10       | Peak     | Vertical     |
| *    | 8968.6667       | 53.62        | 16.40       | 79.96          | 26.34       | Peak     | Vertical     |
| *    | 9842.6667       | 55.21        | 18.72       | 79.96          | 24.75       | Peak     | Vertical     |
|      | 10716.6667      | 56.33        | 19.67       | 74.00          | 17.67       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (99.96dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5180                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7305.0000       | 53.30        | 15.47       | 74.00          | 20.70       | Peak     | Horizontal   |
| *    | 8922.6667       | 53.84        | 16.31       | 77.80          | 23.96       | Peak     | Horizontal   |
| *    | 9919.3333       | 55.21        | 18.20       | 77.80          | 22.59       | Peak     | Horizontal   |
|      | 12200.1667      | 58.28        | 20.03       | 74.00          | 15.72       | Peak     | Horizontal   |
|      | 7374.0000       | 52.54        | 15.74       | 74.00          | 21.46       | Peak     | Vertical     |
| *    | 8815.3333       | 52.50        | 16.56       | 77.80          | 25.30       | Peak     | Vertical     |
| *    | 9877.1667       | 55.44        | 18.48       | 77.80          | 22.36       | Peak     | Vertical     |
|      | 11046.3333      | 57.00        | 19.69       | 74.00          | 17.00       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.80dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5180                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7362.5000       | 53.03        | 15.63       | 74.00          | 20.97       | Peak     | Horizontal   |
| *    | 8685.0000       | 53.71        | 16.34       | 83.89          | 30.18       | Peak     | Horizontal   |
| *    | 10118.6667      | 55.16        | 18.52       | 83.89          | 28.73       | Peak     | Horizontal   |
|      | 11084.6667      | 56.88        | 19.69       | 74.00          | 17.12       | Peak     | Horizontal   |
|      | 7423.8333       | 52.87        | 15.83       | 74.00          | 21.13       | Peak     | Vertical     |
| *    | 8941.8333       | 53.30        | 16.26       | 83.89          | 30.59       | Peak     | Vertical     |
| *    | 9957.6667       | 55.32        | 18.08       | 83.89          | 28.57       | Peak     | Vertical     |
|      | 11307.0000      | 57.52        | 19.72       | 74.00          | 16.48       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.89dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5200                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7412.3333       | 53.00        | 15.91       | 74.00          | 21.00       | Peak     | Horizontal   |
| *    | 8608.3333       | 52.80        | 15.72       | 80.21          | 27.41       | Peak     | Horizontal   |
| *    | 9900.1667       | 54.87        | 18.24       | 80.21          | 25.34       | Peak     | Horizontal   |
|      | 10942.8333      | 57.25        | 19.41       | 74.00          | 16.75       | Peak     | Horizontal   |
|      | 7619.3333       | 53.06        | 15.65       | 74.00          | 20.94       | Peak     | Vertical     |
| *    | 8604.5000       | 53.18        | 15.72       | 80.21          | 27.03       | Peak     | Vertical     |
| *    | 9877.1667       | 55.88        | 18.48       | 80.21          | 24.33       | Peak     | Vertical     |
|      | 10969.6667      | 57.01        | 19.70       | 74.00          | 16.99       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.21dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5200                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7546.5000       | 52.77        | 15.71       | 74.00          | 21.23       | Peak     | Horizontal   |
| *    | 8899.6667       | 52.84        | 16.37       | 77.67          | 24.83       | Peak     | Horizontal   |
| *    | 9907.8333       | 55.42        | 18.22       | 77.67          | 22.25       | Peak     | Horizontal   |
|      | 11023.3333      | 56.86        | 19.89       | 74.00          | 17.14       | Peak     | Horizontal   |
|      | 7627.0000       | 52.75        | 15.59       | 74.00          | 21.25       | Peak     | Vertical     |
| *    | 8892.0000       | 53.46        | 16.35       | 77.67          | 24.21       | Peak     | Vertical     |
| *    | 10206.8333      | 55.71        | 18.63       | 77.67          | 21.96       | Peak     | Vertical     |
|      | 11368.3333      | 57.05        | 19.33       | 74.00          | 16.95       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.67dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5200                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7550.3333       | 52.48        | 15.74       | 74.00          | 21.52       | Peak     | Horizontal   |
| *    | 8757.8333       | 52.57        | 16.22       | 83.54          | 30.97       | Peak     | Horizontal   |
| *    | 10256.6667      | 55.61        | 18.84       | 83.54          | 27.93       | Peak     | Horizontal   |
|      | 11330.0000      | 56.41        | 19.57       | 74.00          | 17.59       | Peak     | Horizontal   |
|      | 7297.3333       | 52.78        | 15.45       | 74.00          | 21.22       | Peak     | Vertical     |
| *    | 8972.5000       | 52.73        | 16.43       | 83.54          | 30.81       | Peak     | Vertical     |
| *    | 10076.5000      | 55.58        | 18.76       | 83.54          | 27.96       | Peak     | Vertical     |
|      | 10969.6667      | 56.18        | 19.70       | 74.00          | 17.82       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.54dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5240                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7377.8333       | 51.70        | 15.78       | 74.00          | 22.30       | Peak     | Horizontal   |
| *    | 8696.5000       | 52.17        | 16.55       | 80.51          | 28.34       | Peak     | Horizontal   |
| *    | 9873.3333       | 55.02        | 18.53       | 80.51          | 25.49       | Peak     | Horizontal   |
|      | 11383.6667      | 56.74        | 19.24       | 74.00          | 17.26       | Peak     | Horizontal   |
|      | 7366.3333       | 51.77        | 15.67       | 74.00          | 22.23       | Peak     | Vertical     |
| *    | 8949.5000       | 53.57        | 16.24       | 80.51          | 26.94       | Peak     | Vertical     |
| *    | 9835.0000       | 54.81        | 18.66       | 80.51          | 25.70       | Peak     | Vertical     |
|      | 11291.6667      | 56.19        | 19.71       | 74.00          | 17.81       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.51dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5240                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7581.0000       | 52.42        | 15.77       | 74.00          | 21.58       | Peak     | Horizontal   |
| *    | 8815.3333       | 51.60        | 16.56       | 77.57          | 25.97       | Peak     | Horizontal   |
| *    | 9873.3333       | 54.88        | 18.53       | 77.57          | 22.69       | Peak     | Horizontal   |
|      | 10670.6667      | 56.49        | 19.58       | 74.00          | 17.51       | Peak     | Horizontal   |
|      | 7554.1667       | 52.18        | 15.74       | 74.00          | 21.82       | Peak     | Vertical     |
| *    | 8715.6667       | 52.14        | 16.46       | 77.57          | 25.43       | Peak     | Vertical     |
| *    | 9831.1667       | 54.78        | 18.63       | 77.57          | 22.79       | Peak     | Vertical     |
|      | 11510.1667      | 56.27        | 19.39       | 74.00          | 17.73       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.57dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5240                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7381.6667       | 51.85        | 15.82       | 74.00          | 22.15       | Peak     | Horizontal   |
| *    | 8715.6667       | 52.25        | 16.46       | 83.36          | 31.11       | Peak     | Horizontal   |
| *    | 9865.6667       | 55.01        | 18.61       | 83.36          | 28.35       | Peak     | Horizontal   |
|      | 10739.6667      | 56.64        | 19.43       | 74.00          | 17.36       | Peak     | Horizontal   |
|      | 7561.8333       | 52.19        | 15.75       | 74.00          | 21.81       | Peak     | Vertical     |
| *    | 8696.5000       | 52.34        | 16.55       | 83.36          | 31.02       | Peak     | Vertical     |
| *    | 9838.8333       | 54.59        | 18.69       | 83.36          | 28.77       | Peak     | Vertical     |
|      | 10724.3333      | 57.28        | 19.59       | 74.00          | 16.72       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.36dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5745                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7412.3333       | 52.12        | 15.91       | 74.00          | 21.88       | Peak     | Horizontal   |
| *    | 8677.3333       | 52.06        | 16.20       | 81.07          | 29.01       | Peak     | Horizontal   |
| *    | 9846.5000       | 55.51        | 18.75       | 81.07          | 25.56       | Peak     | Horizontal   |
|      | 11356.8333      | 56.93        | 19.40       | 74.00          | 17.07       | Peak     | Horizontal   |
|      | 7427.6667       | 53.25        | 15.80       | 74.00          | 20.75       | Peak     | Vertical     |
| *    | 8980.1667       | 54.23        | 16.50       | 81.07          | 26.84       | Peak     | Vertical     |
| *    | 9900.1667       | 55.60        | 18.24       | 81.07          | 25.47       | Peak     | Vertical     |
|      | 10862.3333      | 57.20        | 19.31       | 74.00          | 16.80       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.07dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5745                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7362.5000       | 52.98        | 15.63       | 74.00          | 21.02       | Peak     | Horizontal   |
| *    | 8692.6667       | 53.32        | 16.48       | 77.72          | 24.40       | Peak     | Horizontal   |
| *    | 9800.5000       | 55.24        | 18.39       | 77.72          | 22.48       | Peak     | Horizontal   |
|      | 10632.3333      | 57.49        | 19.29       | 74.00          | 16.51       | Peak     | Horizontal   |
|      | 7492.8333       | 52.86        | 15.40       | 74.00          | 21.14       | Peak     | Vertical     |
| *    | 8669.6667       | 52.26        | 16.07       | 77.72          | 25.46       | Peak     | Vertical     |
| *    | 9942.3333       | 55.43        | 18.15       | 77.72          | 22.29       | Peak     | Vertical     |
|      | 11318.5000      | 57.44        | 19.64       | 74.00          | 16.56       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.72dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5745                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7408.5000       | 52.61        | 15.93       | 74.00          | 21.39       | Peak     | Horizontal   |
| *    | 8018.0000       | 52.29        | 15.77       | 83.49          | 31.20       | Peak     | Horizontal   |
| *    | 9823.5000       | 55.09        | 18.57       | 83.49          | 28.40       | Peak     | Horizontal   |
|      | 11437.3333      | 56.47        | 19.44       | 74.00          | 17.53       | Peak     | Horizontal   |
|      | 7420.0000       | 52.18        | 15.86       | 74.00          | 21.82       | Peak     | Vertical     |
| *    | 8037.1667       | 52.78        | 15.79       | 83.49          | 30.71       | Peak     | Vertical     |
| *    | 9904.0000       | 55.08        | 18.23       | 83.49          | 28.41       | Peak     | Vertical     |
|      | 11264.8333      | 56.48        | 19.56       | 74.00          | 17.52       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.49dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5785                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7416.1667       | 52.17        | 15.88       | 74.00          | 21.83       | Peak     | Horizontal   |
| *    | 8723.3333       | 53.16        | 16.39       | 80.74          | 27.58       | Peak     | Horizontal   |
| *    | 9865.6667       | 55.54        | 18.61       | 80.74          | 25.20       | Peak     | Horizontal   |
|      | 11307.0000      | 57.25        | 19.72       | 74.00          | 16.75       | Peak     | Horizontal   |
|      | 7427.6667       | 52.39        | 15.80       | 74.00          | 21.61       | Peak     | Vertical     |
| *    | 7903.0000       | 52.88        | 15.57       | 80.74          | 27.86       | Peak     | Vertical     |
| *    | 9973.0000       | 55.09        | 17.96       | 80.74          | 25.65       | Peak     | Vertical     |
|      | 11103.8333      | 57.05        | 19.68       | 74.00          | 16.95       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.74dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5785                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7420.0000       | 52.80        | 15.86       | 74.00          | 21.20       | Peak     | Horizontal   |
| *    | 8964.8333       | 52.78        | 16.36       | 77.39          | 24.61       | Peak     | Horizontal   |
| *    | 9850.3333       | 55.49        | 18.77       | 77.39          | 21.90       | Peak     | Horizontal   |
|      | 11295.5000      | 57.54        | 19.73       | 74.00          | 16.46       | Peak     | Horizontal   |
|      | 7320.3333       | 52.62        | 15.49       | 74.00          | 21.38       | Peak     | Vertical     |
| *    | 8665.8333       | 52.63        | 16.00       | 77.39          | 24.76       | Peak     | Vertical     |
| *    | 9881.0000       | 55.87        | 18.44       | 77.39          | 21.52       | Peak     | Vertical     |
|      | 12380.3333      | 58.48        | 19.89       | 74.00          | 15.52       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.39dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5785                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7381.6667       | 52.19        | 15.82       | 74.00          | 21.81       | Peak     | Horizontal   |
| *    | 8696.5000       | 52.61        | 16.55       | 83.62          | 31.01       | Peak     | Horizontal   |
| *    | 9850.3333       | 55.82        | 18.77       | 83.62          | 27.80       | Peak     | Horizontal   |
|      | 10728.1667      | 57.61        | 19.55       | 74.00          | 16.39       | Peak     | Horizontal   |
|      | 7408.5000       | 51.71        | 15.93       | 74.00          | 22.29       | Peak     | Vertical     |
| *    | 7956.6667       | 52.83        | 15.64       | 83.62          | 30.79       | Peak     | Vertical     |
| *    | 9835.0000       | 54.86        | 18.66       | 83.62          | 28.76       | Peak     | Vertical     |
|      | 11855.1667      | 57.11        | 19.56       | 74.00          | 16.89       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.62dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5825                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7661.5000       | 52.09        | 15.44       | 74.00          | 21.91       | Peak     | Horizontal   |
| *    | 8968.6667       | 53.20        | 16.40       | 81.10          | 27.90       | Peak     | Horizontal   |
| *    | 9888.6667       | 55.49        | 18.36       | 81.10          | 25.61       | Peak     | Horizontal   |
|      | 11280.1667      | 56.97        | 19.64       | 74.00          | 17.03       | Peak     | Horizontal   |
|      | 7385.5000       | 52.25        | 15.85       | 74.00          | 21.75       | Peak     | Vertical     |
| *    | 8976.3333       | 53.80        | 16.46       | 81.10          | 27.30       | Peak     | Vertical     |
| *    | 9850.3333       | 54.94        | 18.77       | 81.10          | 26.16       | Peak     | Vertical     |
|      | 10705.1667      | 57.40        | 19.79       | 74.00          | 16.60       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.10dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5825                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7316.5000       | 52.36        | 15.48       | 74.00          | 21.64       | Peak     | Horizontal   |
| *    | 8692.6667       | 52.46        | 16.48       | 77.39          | 24.93       | Peak     | Horizontal   |
| *    | 9896.3333       | 55.76        | 18.28       | 77.39          | 21.63       | Peak     | Horizontal   |
|      | 11885.8333      | 56.69        | 19.94       | 74.00          | 17.31       | Peak     | Horizontal   |
|      | 7427.6667       | 52.19        | 15.80       | 74.00          | 21.81       | Peak     | Vertical     |
| *    | 8692.6667       | 52.66        | 16.48       | 77.39          | 24.73       | Peak     | Vertical     |
| *    | 9892.5000       | 55.45        | 18.32       | 77.39          | 21.94       | Peak     | Vertical     |
|      | 10663.0000      | 56.83        | 19.51       | 74.00          | 17.17       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.39dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax20 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5825                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7289.6667       | 51.48        | 15.40       | 74.00          | 22.52       | Peak     | Horizontal   |
| *    | 8696.5000       | 52.74        | 16.55       | 83.29          | 30.55       | Peak     | Horizontal   |
| *    | 9835.0000       | 55.91        | 18.66       | 83.29          | 27.38       | Peak     | Horizontal   |
|      | 10988.8333      | 57.32        | 19.95       | 74.00          | 16.68       | Peak     | Horizontal   |
|      | 7335.6667       | 51.75        | 15.50       | 74.00          | 22.25       | Peak     | Vertical     |
| *    | 8704.1667       | 52.64        | 16.57       | 83.29          | 30.65       | Peak     | Vertical     |
| *    | 9873.3333       | 55.33        | 18.53       | 83.29          | 27.96       | Peak     | Vertical     |
|      | 11418.1667      | 56.25        | 19.29       | 74.00          | 17.75       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.29dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5190                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7416.1667       | 52.49        | 15.88       | 74.00          | 21.51       | Peak     | Horizontal   |
| *    | 8198.1667       | 53.52        | 15.64       | 75.06          | 21.54       | Peak     | Horizontal   |
| *    | 9861.8333       | 54.95        | 18.65       | 75.06          | 20.11       | Peak     | Horizontal   |
|      | 11418.1667      | 57.09        | 19.29       | 74.00          | 16.91       | Peak     | Horizontal   |
|      | 7370.1667       | 52.74        | 15.71       | 74.00          | 21.26       | Peak     | Vertical     |
| *    | 8685.0000       | 52.46        | 16.34       | 75.06          | 22.60       | Peak     | Vertical     |
| *    | 9915.5000       | 56.97        | 18.21       | 75.06          | 18.09       | Peak     | Vertical     |
|      | 11429.6667      | 56.88        | 19.38       | 74.00          | 17.12       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.06dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5190                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7389.3333       | 52.47        | 15.89       | 74.00          | 21.53       | Peak     | Horizontal   |
| *    | 8999.3333       | 53.68        | 16.66       | 74.00          | 20.32       | Peak     | Horizontal   |
| *    | 10053.5000      | 55.44        | 18.68       | 74.00          | 18.56       | Peak     | Horizontal   |
|      | 12288.3333      | 57.85        | 20.27       | 74.00          | 16.15       | Peak     | Horizontal   |
|      | 7374.0000       | 51.85        | 15.74       | 74.00          | 22.15       | Peak     | Vertical     |
| *    | 8961.0000       | 53.21        | 16.33       | 74.00          | 20.79       | Peak     | Vertical     |
| *    | 9915.5000       | 55.17        | 18.21       | 74.00          | 18.83       | Peak     | Vertical     |
|      | 11333.8333      | 56.68        | 19.54       | 74.00          | 17.32       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.35dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5190                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7412.3333       | 51.88        | 15.91       | 74.00          | 22.12       | Peak     | Horizontal   |
| *    | 8746.3333       | 52.28        | 16.17       | 80.28          | 28.00       | Peak     | Horizontal   |
| *    | 9976.8333       | 55.02        | 17.93       | 80.28          | 25.26       | Peak     | Horizontal   |
|      | 12399.5000      | 57.81        | 20.19       | 74.00          | 16.19       | Peak     | Horizontal   |
|      | 7420.0000       | 52.02        | 15.86       | 74.00          | 21.98       | Peak     | Vertical     |
| *    | 8976.3333       | 53.06        | 16.46       | 80.28          | 27.22       | Peak     | Vertical     |
| *    | 9861.8333       | 55.06        | 18.65       | 80.28          | 25.22       | Peak     | Vertical     |
|      | 12418.6667      | 57.51        | 20.23       | 74.00          | 16.49       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.28dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5230                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7742.0000       | 51.87        | 15.86       | 74.00          | 22.13       | Peak     | Horizontal   |
| *    | 8639.0000       | 52.17        | 15.72       | 74.83          | 22.66       | Peak     | Horizontal   |
| *    | 9869.5000       | 54.83        | 18.57       | 74.83          | 20.00       | Peak     | Horizontal   |
|      | 10965.8333      | 57.27        | 19.65       | 74.00          | 16.73       | Peak     | Horizontal   |
|      | 7374.0000       | 51.67        | 15.74       | 74.00          | 22.33       | Peak     | Vertical     |
| *    | 8209.6667       | 52.82        | 15.68       | 74.83          | 22.01       | Peak     | Vertical     |
| *    | 9904.0000       | 55.05        | 18.23       | 74.83          | 19.78       | Peak     | Vertical     |
|      | 11391.3333      | 57.15        | 19.20       | 74.00          | 16.85       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.83dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5230                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7489.0000       | 52.34        | 15.42       | 74.00          | 21.66       | Peak     | Horizontal   |
| *    | 8688.8333       | 52.64        | 16.41       | 74.00          | 21.36       | Peak     | Horizontal   |
| *    | 9835.0000       | 55.13        | 18.66       | 74.00          | 18.87       | Peak     | Horizontal   |
|      | 10946.6667      | 57.31        | 19.43       | 74.00          | 16.69       | Peak     | Horizontal   |
|      | 7312.6667       | 52.35        | 15.48       | 74.00          | 21.65       | Peak     | Vertical     |
| *    | 8991.6667       | 53.05        | 16.60       | 74.00          | 20.95       | Peak     | Vertical     |
| *    | 9846.5000       | 54.84        | 18.75       | 74.00          | 19.16       | Peak     | Vertical     |
|      | 11356.8333      | 56.45        | 19.40       | 74.00          | 17.55       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.65dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5230                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7351.0000       | 51.88        | 15.52       | 74.00          | 22.12       | Peak     | Horizontal   |
| *    | 8899.6667       | 52.05        | 16.37       | 80.12          | 28.07       | Peak     | Horizontal   |
| *    | 9884.8333       | 55.12        | 18.40       | 80.12          | 25.00       | Peak     | Horizontal   |
|      | 10701.3333      | 57.23        | 19.84       | 74.00          | 16.77       | Peak     | Horizontal   |
|      | 7389.3333       | 52.28        | 15.89       | 74.00          | 21.72       | Peak     | Vertical     |
| *    | 8711.8333       | 52.54        | 16.50       | 80.12          | 27.58       | Peak     | Vertical     |
| *    | 9888.6667       | 55.29        | 18.36       | 80.12          | 24.83       | Peak     | Vertical     |
|      | 11368.3333      | 56.90        | 19.33       | 74.00          | 17.10       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.12dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5755                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7592.5000       | 51.53        | 15.78       | 74.00          | 22.47       | Peak     | Horizontal   |
| *    | 8976.3333       | 53.29        | 16.46       | 74.67          | 21.38       | Peak     | Horizontal   |
| *    | 9946.1667       | 55.07        | 18.14       | 74.67          | 19.60       | Peak     | Horizontal   |
|      | 11372.1667      | 56.16        | 19.31       | 74.00          | 17.84       | Peak     | Horizontal   |
|      | 7374.0000       | 51.79        | 15.74       | 74.00          | 22.21       | Peak     | Vertical     |
| *    | 8692.6667       | 52.23        | 16.48       | 74.67          | 22.44       | Peak     | Vertical     |
| *    | 9804.3333       | 55.11        | 18.42       | 74.67          | 19.56       | Peak     | Vertical     |
|      | 11372.1667      | 57.36        | 19.31       | 74.00          | 16.64       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.67dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5755                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7431.5000       | 52.07        | 15.78       | 74.00          | 21.93       | Peak     | Horizontal   |
| *    | 8692.6667       | 52.22        | 16.48       | 74.00          | 21.78       | Peak     | Horizontal   |
| *    | 9946.1667       | 55.02        | 18.14       | 74.00          | 18.98       | Peak     | Horizontal   |
|      | 11836.0000      | 56.97        | 19.60       | 74.00          | 17.03       | Peak     | Horizontal   |
|      | 7592.5000       | 51.75        | 15.78       | 74.00          | 22.25       | Peak     | Vertical     |
| *    | 8696.5000       | 52.21        | 16.55       | 74.00          | 21.79       | Peak     | Vertical     |
| *    | 9842.6667       | 56.00        | 18.72       | 74.00          | 18.00       | Peak     | Vertical     |
|      | 10643.8333      | 56.45        | 19.36       | 74.00          | 17.55       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.35dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5755                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7416.1667       | 51.78        | 15.88       | 74.00          | 22.22       | Peak     | Horizontal   |
| *    | 8738.6667       | 53.35        | 16.24       | 79.46          | 26.11       | Peak     | Horizontal   |
| *    | 9927.0000       | 54.83        | 18.18       | 79.46          | 24.63       | Peak     | Horizontal   |
|      | 10705.1667      | 57.82        | 19.79       | 74.00          | 16.18       | Peak     | Horizontal   |
|      | 7469.8333       | 52.04        | 15.54       | 74.00          | 21.96       | Peak     | Vertical     |
| *    | 8968.6667       | 52.98        | 16.40       | 79.46          | 26.48       | Peak     | Vertical     |
| *    | 9911.6667       | 54.93        | 18.22       | 79.46          | 24.53       | Peak     | Vertical     |
|      | 11379.8333      | 56.40        | 19.27       | 74.00          | 17.60       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (99.46dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5795                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7412.3333       | 51.86        | 15.91       | 74.00          | 22.14       | Peak     | Horizontal   |
| *    | 8922.6667       | 52.20        | 16.31       | 75.38          | 23.18       | Peak     | Horizontal   |
| *    | 9865.6667       | 55.08        | 18.61       | 75.38          | 20.30       | Peak     | Horizontal   |
|      | 11050.1667      | 56.61        | 19.66       | 74.00          | 17.39       | Peak     | Horizontal   |
|      | 8328.5000       | 53.57        | 15.60       | 74.00          | 20.43       | Peak     | Vertical     |
| *    | 8700.3333       | 52.66        | 16.61       | 75.38          | 22.72       | Peak     | Vertical     |
| *    | 9946.1667       | 54.67        | 18.14       | 75.38          | 20.71       | Peak     | Vertical     |
|      | 11418.1667      | 56.47        | 19.29       | 74.00          | 17.53       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.38dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5795                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7358.6667       | 51.79        | 15.60       | 74.00          | 22.21       | Peak     | Horizontal   |
| *    | 8677.3333       | 52.79        | 16.20       | 74.00          | 21.21       | Peak     | Horizontal   |
| *    | 9969.1667       | 54.60        | 17.99       | 74.00          | 19.40       | Peak     | Horizontal   |
|      | 11391.3333      | 56.55        | 19.20       | 74.00          | 17.45       | Peak     | Horizontal   |
|      | 7381.6667       | 52.29        | 15.82       | 74.00          | 21.71       | Peak     | Vertical     |
| *    | 8999.3333       | 53.16        | 16.66       | 74.00          | 20.84       | Peak     | Vertical     |
| *    | 9873.3333       | 55.38        | 18.53       | 74.00          | 18.62       | Peak     | Vertical     |
|      | 12403.3333      | 57.27        | 20.21       | 74.00          | 16.73       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.65dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax40 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5795                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7427.6667       | 51.92        | 15.80       | 74.00          | 22.08       | Peak     | Horizontal   |
| *    | 8976.3333       | 53.20        | 16.46       | 80.57          | 27.37       | Peak     | Horizontal   |
| *    | 9980.6667       | 54.78        | 17.90       | 80.57          | 25.79       | Peak     | Horizontal   |
|      | 10693.6667      | 57.74        | 19.79       | 74.00          | 16.26       | Peak     | Horizontal   |
|      | 7408.5000       | 52.99        | 15.93       | 74.00          | 21.01       | Peak     | Vertical     |
| *    | 8803.8333       | 52.24        | 16.65       | 80.57          | 28.33       | Peak     | Vertical     |
| *    | 9842.6667       | 54.89        | 18.72       | 80.57          | 25.68       | Peak     | Vertical     |
|      | 12315.1667      | 57.78        | 20.10       | 74.00          | 16.22       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.57dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5210                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7381.6667       | 52.28        | 15.82       | 74.00          | 21.72       | Peak     | Horizontal   |
| *    | 8926.5000       | 53.65        | 16.30       | 74.00          | 20.35       | Peak     | Horizontal   |
| *    | 9881.0000       | 55.35        | 18.44       | 74.00          | 18.65       | Peak     | Horizontal   |
|      | 11345.3333      | 56.97        | 19.47       | 74.00          | 17.03       | Peak     | Horizontal   |
|      | 7262.8333       | 52.74        | 15.21       | 74.00          | 21.26       | Peak     | Vertical     |
| *    | 8754.0000       | 52.81        | 16.18       | 74.00          | 21.19       | Peak     | Vertical     |
| *    | 9896.3333       | 55.11        | 18.28       | 74.00          | 18.89       | Peak     | Vertical     |
|      | 12411.0000      | 57.58        | 20.22       | 74.00          | 16.42       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.85dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5210                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7377.8333       | 52.49        | 15.78       | 74.00          | 21.51       | Peak     | Horizontal   |
| *    | 8692.6667       | 52.44        | 16.48       | 74.00          | 21.56       | Peak     | Horizontal   |
| *    | 9846.5000       | 54.86        | 18.75       | 74.00          | 19.14       | Peak     | Horizontal   |
|      | 11307.0000      | 57.06        | 19.72       | 74.00          | 16.94       | Peak     | Horizontal   |
|      | 7354.8333       | 52.18        | 15.56       | 74.00          | 21.82       | Peak     | Vertical     |
| *    | 8964.8333       | 52.69        | 16.36       | 74.00          | 21.31       | Peak     | Vertical     |
| *    | 10264.3333      | 55.83        | 18.82       | 74.00          | 18.17       | Peak     | Vertical     |
|      | 12315.1667      | 57.03        | 20.10       | 74.00          | 16.97       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.35dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5210                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7416.1667       | 52.50        | 15.88       | 74.00          | 21.50       | Peak     | Horizontal   |
| *    | 8972.5000       | 54.58        | 16.43       | 76.08          | 21.50       | Peak     | Horizontal   |
| *    | 9961.5000       | 56.34        | 18.05       | 76.08          | 19.74       | Peak     | Horizontal   |
|      | 12296.0000      | 57.02        | 20.36       | 74.00          | 16.98       | Peak     | Horizontal   |
|      | 7400.8333       | 52.30        | 15.98       | 74.00          | 21.70       | Peak     | Vertical     |
| *    | 8742.5000       | 52.55        | 16.21       | 76.08          | 23.53       | Peak     | Vertical     |
| *    | 10088.0000      | 55.22        | 18.80       | 76.08          | 20.86       | Peak     | Vertical     |
|      | 12292.1667      | 57.36        | 20.31       | 74.00          | 16.64       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.08dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - Ant 1                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5775                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7385.5000       | 51.91        | 15.85       | 74.00          | 22.09       | Peak     | Horizontal   |
| *    | 8685.0000       | 51.80        | 16.34       | 74.00          | 22.20       | Peak     | Horizontal   |
| *    | 9846.5000       | 55.72        | 18.75       | 74.00          | 18.28       | Peak     | Horizontal   |
|      | 11866.6667      | 57.04        | 19.70       | 74.00          | 16.96       | Peak     | Horizontal   |
|      | 7362.5000       | 52.87        | 15.63       | 74.00          | 21.13       | Peak     | Vertical     |
| *    | 8734.8333       | 52.35        | 16.28       | 74.00          | 21.65       | Peak     | Vertical     |
| *    | 9953.8333       | 54.96        | 18.11       | 74.00          | 19.04       | Peak     | Vertical     |
|      | 12299.8333      | 58.02        | 20.40       | 74.00          | 15.98       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.54dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - Ant 2                                                                                                                                                                | Test Date:     | 2023-02-23 |
| Test Channel: | 5775                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7416.1667       | 51.87        | 15.88       | 74.00          | 22.13       | Peak     | Horizontal   |
| *    | 8761.6667       | 52.00        | 16.26       | 74.00          | 22.00       | Peak     | Horizontal   |
| *    | 10061.1667      | 55.00        | 18.70       | 74.00          | 19.00       | Peak     | Horizontal   |
|      | 11897.3333      | 55.94        | 20.08       | 74.00          | 18.06       | Peak     | Horizontal   |
|      | 7408.5000       | 52.30        | 15.93       | 74.00          | 21.70       | Peak     | Vertical     |
| *    | 8688.8333       | 51.81        | 16.41       | 74.00          | 22.19       | Peak     | Vertical     |
| *    | 9881.0000       | 55.28        | 18.44       | 74.00          | 18.72       | Peak     | Vertical     |
|      | 12284.5000      | 57.76        | 20.23       | 74.00          | 16.24       | Peak     | Vertical     |

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.65dBμV/m) or 15.209 which is higher.

|               |                                                                                                                                                                                   |                |            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|
| Test Mode:    | 802.11ax80 - CDD                                                                                                                                                                  | Test Date:     | 2023-02-23 |
| Test Channel: | 5775                                                                                                                                                                              | Test Engineer: | Amos Xia   |
| Remark:       | 1. Average measurement was not performed if peak level lower than average limit.<br>2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. |                |            |

| Mark | Frequency (MHz) | Level (dBμV) | Factor (dB) | Limit (dBμV/m) | Margin (dB) | Detector | Polarization |
|------|-----------------|--------------|-------------|----------------|-------------|----------|--------------|
|      | 7370.1667       | 52.21        | 15.71       | 74.00          | 21.79       | Peak     | Horizontal   |
| *    | 8830.6667       | 52.29        | 16.43       | 77.33          | 25.04       | Peak     | Horizontal   |
| *    | 9973.0000       | 54.94        | 17.96       | 77.33          | 22.39       | Peak     | Horizontal   |
|      | 11529.3333      | 56.23        | 19.49       | 74.00          | 17.77       | Peak     | Horizontal   |
|      | 7408.5000       | 52.80        | 15.93       | 74.00          | 21.20       | Peak     | Vertical     |
| *    | 8692.6667       | 52.54        | 16.48       | 77.33          | 24.79       | Peak     | Vertical     |
| *    | 9930.8333       | 55.71        | 18.18       | 77.33          | 21.62       | Peak     | Vertical     |
|      | 12384.1667      | 57.50        | 19.95       | 74.00          | 16.50       | Peak     | Vertical     |

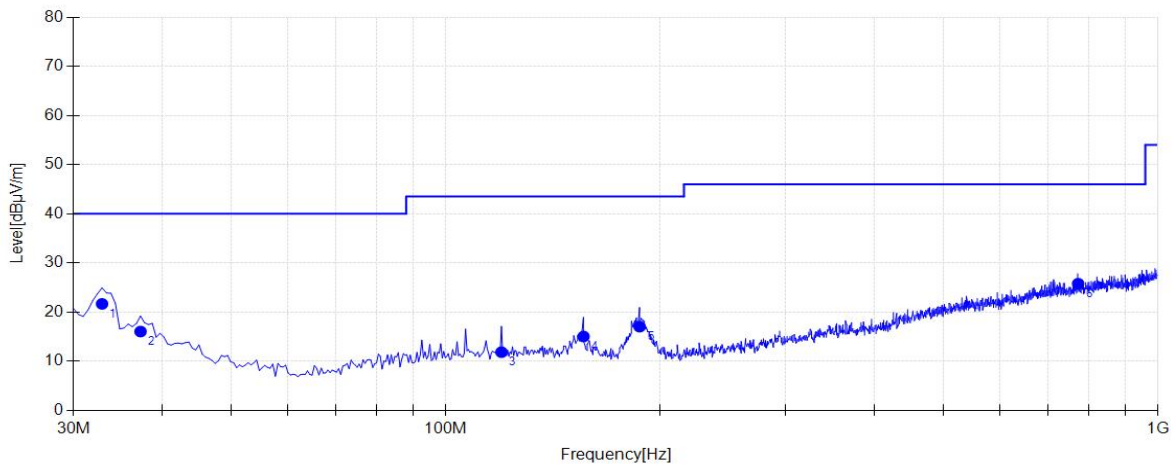
Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.33dBμV/m) or 15.209 which is higher.

## The worst case of Radiated Emission below 1GHz:

### 30MHz – 1GHz Test Data

|              |                                                  |           |            |
|--------------|--------------------------------------------------|-----------|------------|
| EUT:         | Caper Cart M3 Android board                      | Polarity: | Horizontal |
| Model:       | PCBA-CAP-CA03AN-RK39                             | S/N:      | /          |
| Mode:        | Transmit by 802.11ax80 CDD at<br>Channel 5775MHz | Voltage:  | DC 24V     |
| Environment: | Temp: 22°C; Humi:54%                             | Engineer: | Amos Xia   |

### Test Graph



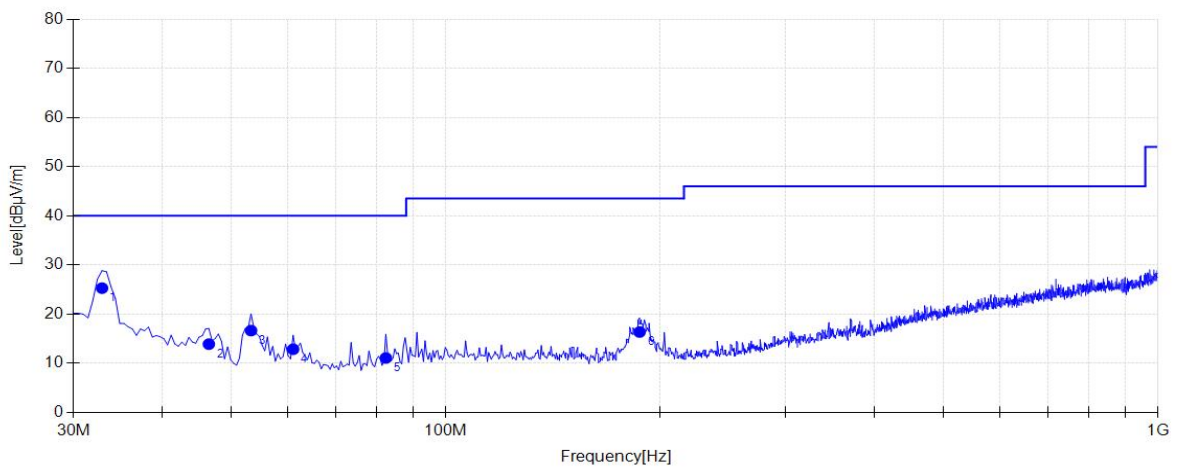
### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP Value<br>[dBμV/m] | QP Limit<br>[dBμV/m] | QP Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Polarity   |
|-----|----------------|----------------|----------------------|----------------------|-------------------|----------------|--------------|------------|
| 1   | 32.9100        | 18.24          | 21.68                | 40.00                | 18.32             | 100            | 260          | Horizontal |
| 2   | 37.2750        | 16.02          | 16.06                | 40.00                | 23.94             | 200            | 275          | Horizontal |
| 3   | 119.725        | 11.64          | 11.86                | 43.50                | 31.64             | 200            | 177          | Horizontal |
| 4   | 156.100        | 10.53          | 15.05                | 43.50                | 28.45             | 200            | 184          | Horizontal |
| 5   | 187.140        | 10.36          | 17.05                | 43.50                | 26.45             | 200            | 156          | Horizontal |
| 6   | 772.535        | 23.10          | 25.79                | 46.00                | 20.21             | 200            | 5            | Horizontal |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

|              |                                                  |           |          |
|--------------|--------------------------------------------------|-----------|----------|
| EUT:         | Caper Cart M3 Android board                      | Polarity: | Vertical |
| Model:       | PCBA-CAP-CA03AN-RK39                             | S/N:      | /        |
| Mode:        | Transmit by 802.11ax80 CDD<br>at Channel 5775MHz | Voltage:  | DC 24V   |
| Environment: | Temp: 22°C; Humi:54%                             | Engineer: | Amos Xia |

### Test Graph



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP Value<br>[dBμV/m] | QP Limit<br>[dBμV/m] | QP Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Polarity |
|-----|----------------|----------------|----------------------|----------------------|-------------------|----------------|--------------|----------|
| 1   | 32.9100        | 18.24          | 25.29                | 40.00                | 14.71             | 100            | 217          | Vertical |
| 2   | 46.4900        | 11.32          | 13.90                | 40.00                | 26.10             | 200            | 3            | Vertical |
| 3   | 53.2800        | 8.63           | 16.66                | 40.00                | 23.34             | 100            | 3            | Vertical |
| 4   | 61.0400        | 6.99           | 12.86                | 40.00                | 27.14             | 200            | 265          | Vertical |
| 5   | 82.3800        | 9.79           | 11.08                | 40.00                | 28.92             | 100            | 140          | Vertical |
| 6   | 187.140        | 10.36          | 16.36                | 43.50                | 27.14             | 100            | 119          | Vertical |

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

## 7.9. Radiated Restricted Band Edge Measurement

### 7.9.1. Test Limit

#### For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

| Frequency<br>(MHz)  | Frequency<br>(MHz)  | Frequency<br>(MHz) | Frequency<br>(GHz) |
|---------------------|---------------------|--------------------|--------------------|
| 0.090 - 0.110       | 16.42 - 16.423      | 399.9 - 410        | 4.5 - 5.15         |
| 1 0.495 - 0.505     | 16.69475 - 16.69525 | 608 - 614          | 5.35 - 5.46        |
| 2.1735 - 2.1905     | 16.80425 - 16.80475 | 960 - 1240         | 7.25 - 7.75        |
| 4.125 - 4.128       | 25.5 - 25.67        | 1300 - 1427        | 8.25 - 8.5         |
| 4.17725 - 4.17775   | 37.5 - 38.25        | 1435 - 1626.5      | 9.0 - 9.2          |
| 4.20725 - 4.20775   | 73 - 74.6           | 1645.5 - 1646.5    | 9.3 - 9.5          |
| 6.215 - 6.218       | 74.8 - 75.2         | 1660 - 1710        | 10.6 - 12.7        |
| 6.26775 - 6.26825   | 108 - 121.94        | 1718.8 - 1722.2    | 13.25 - 13.4       |
| 6.31175 - 6.31225   | 123 - 138           | 2200 - 2300        | 14.47 - 14.5       |
| 8.291 - 8.294       | 149.9 - 150.05      | 2310 - 2390        | 15.35 - 16.2       |
| 8.362 - 8.366       | 156.52475 - 156.525 | 2483.5 - 2500      | 17.7 - 21.4        |
| 8.37625 - 8.38675   | 156.7 - 156.9       | 2690 - 2900        | 22.01 - 23.12      |
| 8.41425 - 8.41475   | 162.0125 - 167.17   | 3260 - 3267        | 23.6 - 24.0        |
| 12.29 - 12.293      | 167.72 - 173.2      | 3332 - 3339        | 31.2 - 31.8        |
| 12.51975 - 12.52025 | 240 - 285           | 3345.8 - 3358      | 36.43 - 36.5       |
| 12.57675 - 12.57725 | 322 - 335.4         | 3600 - 4400        | (2)                |
| 13.36 - 13.41       | --                  | --                 | --                 |

### **For RSS-Gen Section 8.10 Requirement:**

Radiated emissions which fall in the restricted bands, as defined in Section 8.10 of RSS-Gen, must also comply with the radiated emission limits specified in Section 8.9.

| Frequency<br>(MHz)     | Frequency<br>(MHz) | Frequency<br>(GHz) |
|------------------------|--------------------|--------------------|
| 0.009 ~ 0.110          | 240 ~ 285          | 9.0 ~ 9.2          |
| 2.1735 ~ 2.1905        | 322 ~ 335.4        | 9.3 ~ 9.5          |
| 3.020 ~ 3.026          | 399.9 ~ 410        | 10.6 ~ 12.7        |
| 4.125 ~ 4.128          | 608 ~ 614          | 13.25 ~ 13.4       |
| 4.17725 ~ 4.17775      | 960 ~ 1427         | 14.47 ~ 14.5       |
| 4.20725 ~ 4.20775      | 1435 ~ 1626.5      | 15.35 ~ 16.2       |
| 5.677 ~ 5.683          | 1645.5 ~ 1646.5    | 17.7 ~ 21.4        |
| 6.215 ~ 6.218          | 1660 ~ 1710        | 22.01 ~ 23.12      |
| 6.26775 ~ 6.26825      | 1718.8 ~1722.2     | 23.6 ~ 24.0        |
| 6.31175 ~ 6.31225      | 2200 ~ 2300        | 31.2 ~ 31.8        |
| 8.291 ~ 8.294          | 2310 ~ 2390        | 36.43 ~ 36.5       |
| 8.362 ~ 8.366          | 2655 ~ 2900        | Above 38.6         |
| 8.37625 ~ 8.38675      | 3260 ~ 3267        | --                 |
| 8.41425 ~ 8.41475      | 3332 ~ 3339        |                    |
| 12.29 ~ 12.293         | 334.5 ~ 3358       |                    |
| 12.51975 ~ 12.52025    | 3500 ~ 4400        |                    |
| 12.57675 ~ 12.57725    | 4500 ~ 5150        |                    |
| 13.36 ~13.41           | 5350 ~ 5460        |                    |
| 16.42 ~ 16.423         | 7250 ~ 7750        |                    |
| 16.69475 ~ 16.69525    | 8025 ~ 8500        |                    |
| 16.80425 ~ 16.80475    | --                 |                    |
| 25.5 ~ 25.67           |                    |                    |
| 37.5 ~ 38.25           |                    |                    |
| 73 ~ 74.6              |                    |                    |
| 74.8 ~ 75.2            |                    |                    |
| 108 ~ 138              |                    |                    |
| 156.52475 ~ 156.525225 |                    |                    |
| 156.7 ~ 156.9          |                    |                    |

Note: \*Certain frequency bands listed in Table 6 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200- and 300-series of RSSs, such as RSS-210 and RSS-310, which contain the

requirements that apply to licence-exempt radio apparatus.

**For 15.407(b) requirement:**

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

**For FCC transmitters operating in the 5.725-5.85 GHz band:** All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

**For IC transmitters operating in the 5.725-5.85 GHz band:** All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

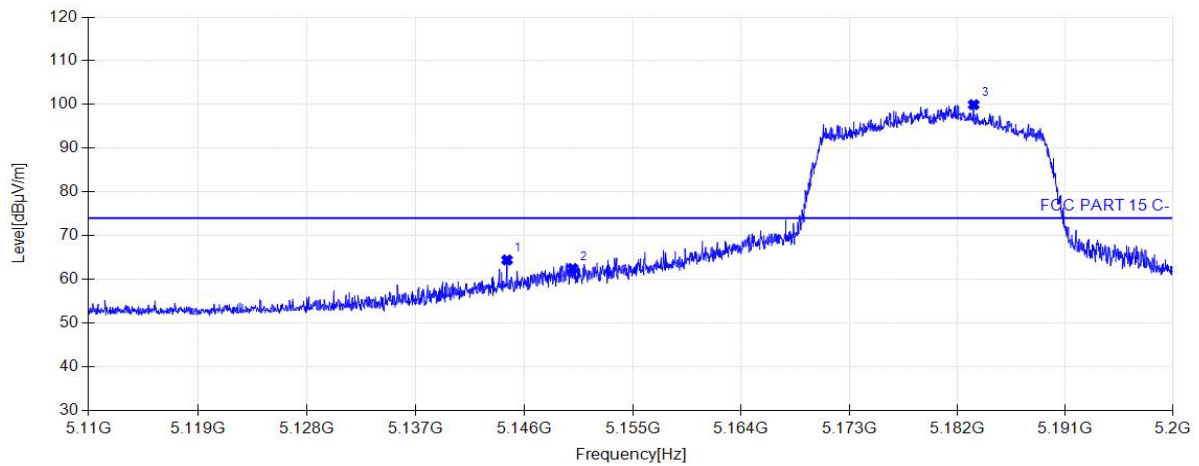
| FCC Part 15 Subpart C Paragraph 15.209 |                         |                               |
|----------------------------------------|-------------------------|-------------------------------|
| Frequency<br>[MHz]                     | Field Strength<br>[V/m] | Measured Distance<br>[Meters] |
| 0.009 ~ 0.490                          | 2400/F (kHz)            | 300                           |
| 0.490 ~ 1.705                          | 24000/F (kHz)           | 30                            |
| 1.705 ~ 30                             | 30                      | 30                            |
| 30 ~ 88                                | 100                     | 3                             |
| 88 ~ 216                               | 150                     | 3                             |
| 216 ~ 960                              | 200                     | 3                             |
| Above 960                              | 500                     | 3                             |

### 7.9.2. Test Result

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:14:59

#### Test Graph

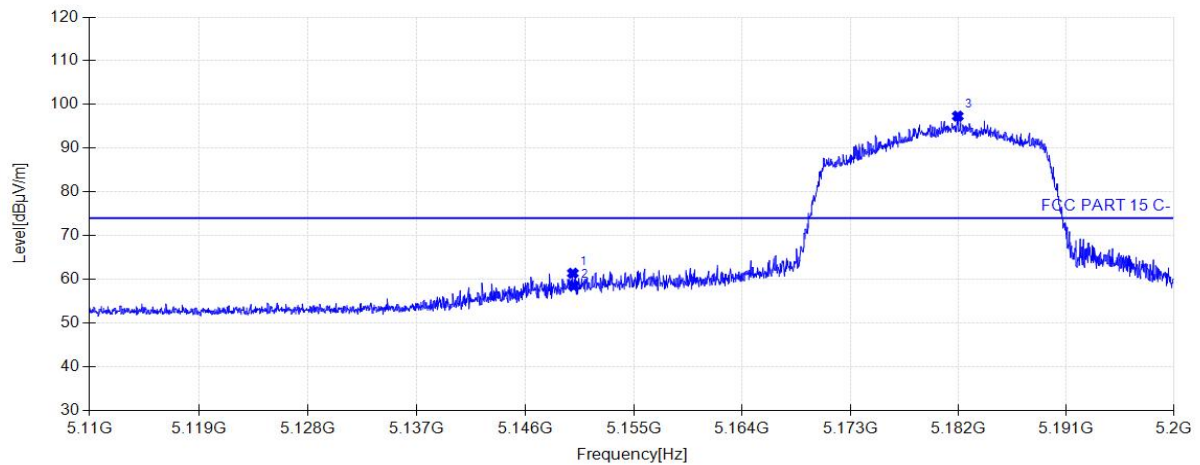


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5144.56     | 64.43          | 37.70       | 74.00          | 9.57        | 160         | 307       | Horizontal |
| 2                   | 5150.00     | 62.48          | 37.72       | 74.00          | 11.52       | 160         | 307       | Horizontal |
| 3                   | 5183.35     | 99.96          | 37.84       | 74.00          | -25.96      | 160         | 307       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:15:56

### Test Graph

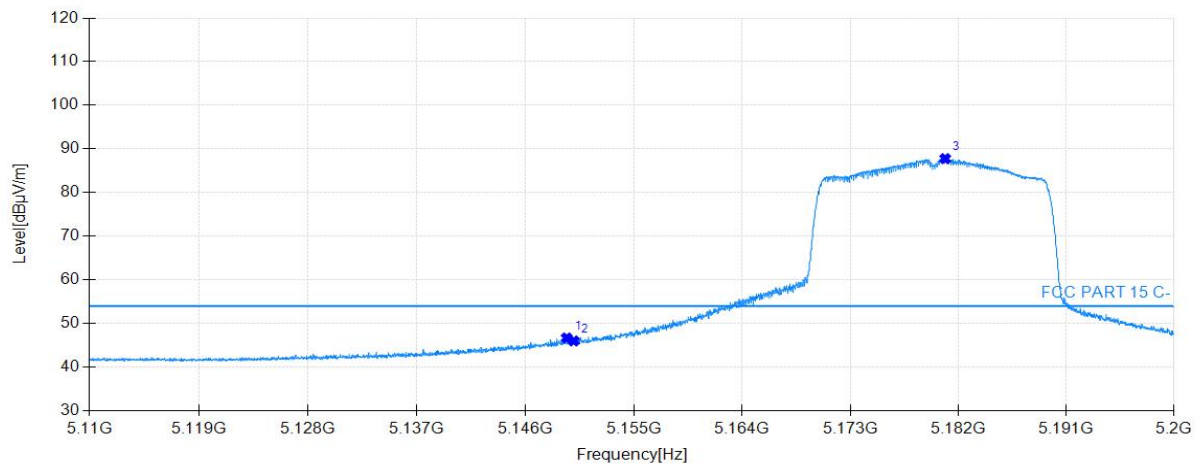


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5149.93     | 61.40          | 37.72       | 74.00          | 12.60       | 160         | 148       | Vertical |
| 2                   | 5150.00     | 58.50          | 37.72       | 74.00          | 15.50       | 160         | 148       | Vertical |
| 3                   | 5181.94     | 97.34          | 37.84       | 74.00          | -23.34      | 160         | 126       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:18:40

### Test Graph

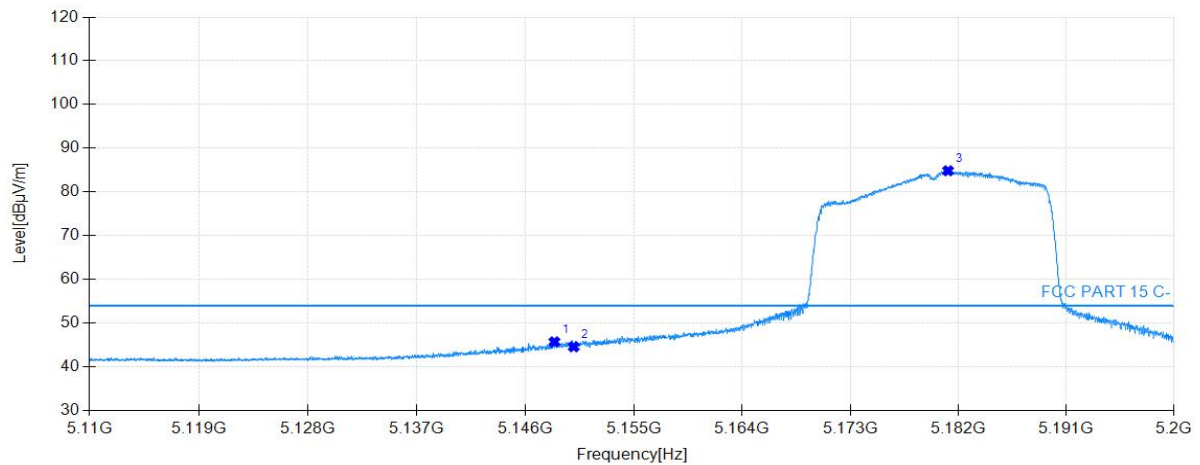


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.42     | 46.66          | 37.71       | 54.00          | 7.34        | 160         | 309       | Horizontal |
| 2                   | 5150.00     | 45.98          | 37.72       | 54.00          | 8.02        | 160         | 309       | Horizontal |
| 3                   | 5180.89     | 87.77          | 37.83       | 54.00          | -33.77      | 160         | 309       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:19:33

### Test Graph

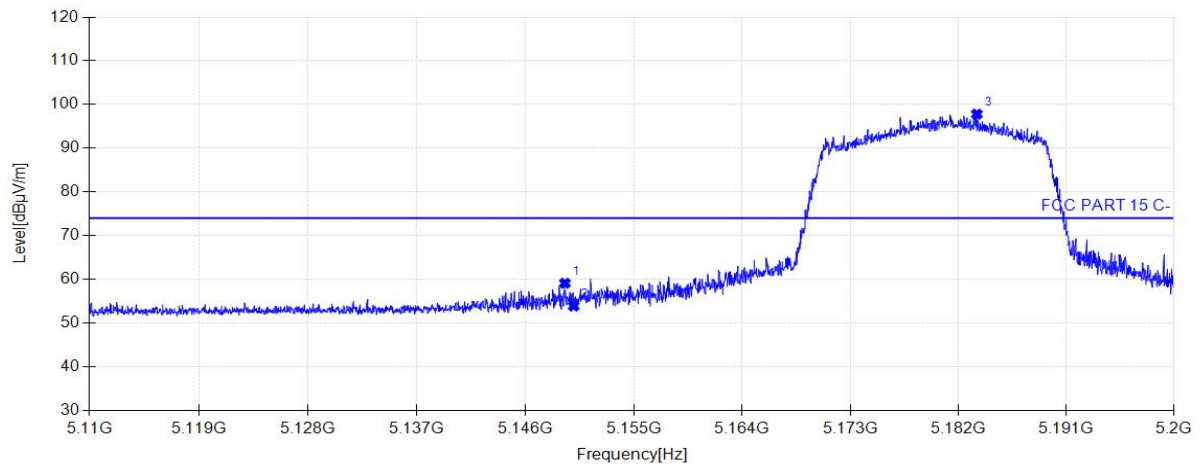


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.40     | 45.70          | 37.71       | 54.00          | 8.30        | 160         | 141       | Vertical |
| 2                   | 5150.00     | 44.57          | 37.72       | 54.00          | 9.43        | 160         | 148       | Vertical |
| 3                   | 5181.13     | 84.84          | 37.83       | 54.00          | -30.84      | 160         | 134       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:27:55

### Test Graph

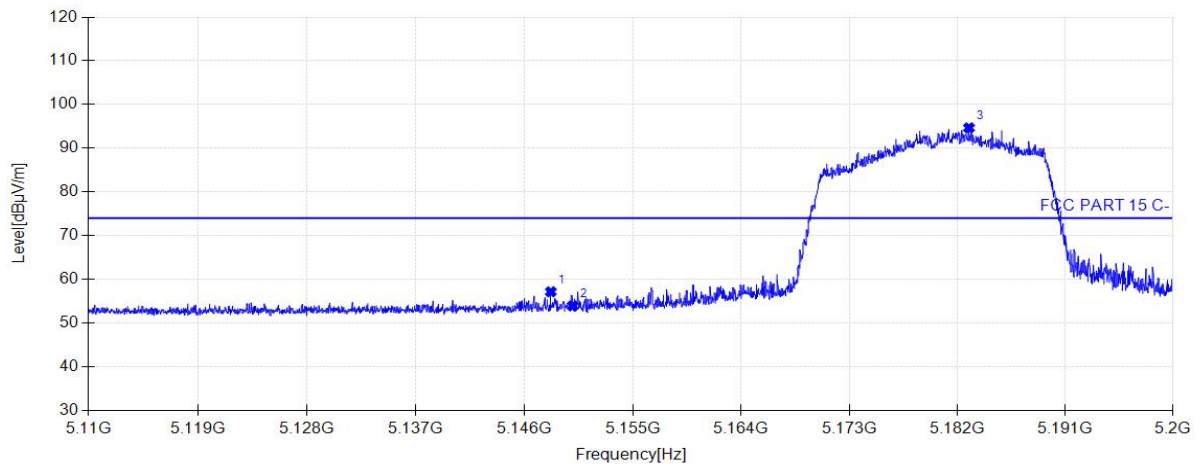


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.27     | 59.11          | 37.71       | 74.00          | 14.89       | 160         | 316       | Horizontal |
| 2                   | 5150.00     | 53.89          | 37.72       | 74.00          | 20.11       | 160         | 295       | Horizontal |
| 3                   | 5183.53     | 97.80          | 37.84       | 74.00          | -23.80      | 160         | 309       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:28:48

### Test Graph

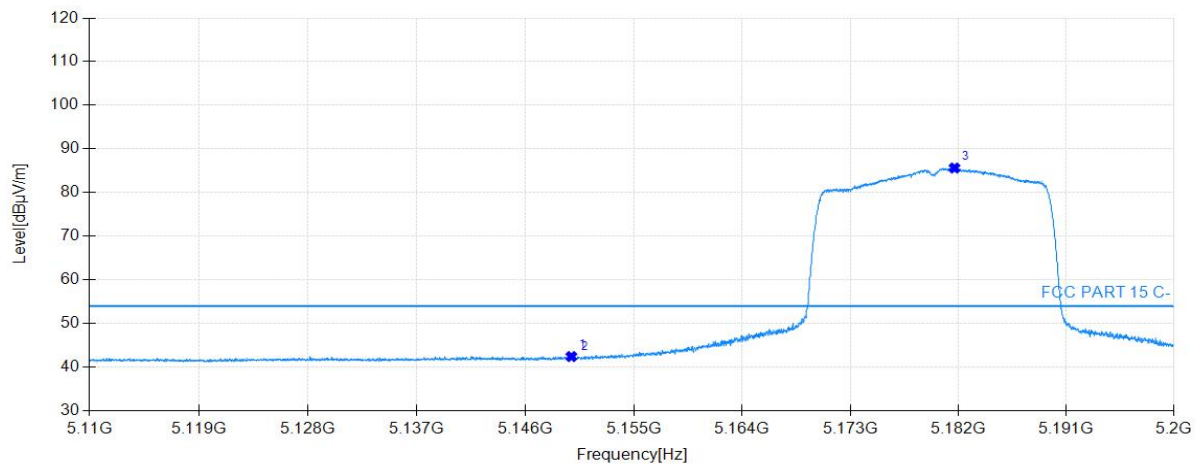


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.19     | 57.15          | 37.71       | 74.00          | 16.85       | 160         | 140       | Vertical |
| 2                   | 5150.00     | 53.91          | 37.72       | 74.00          | 20.09       | 160         | 352       | Vertical |
| 3                   | 5182.96     | 94.67          | 37.84       | 74.00          | -20.67      | 160         | 127       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:30:36

### Test Graph

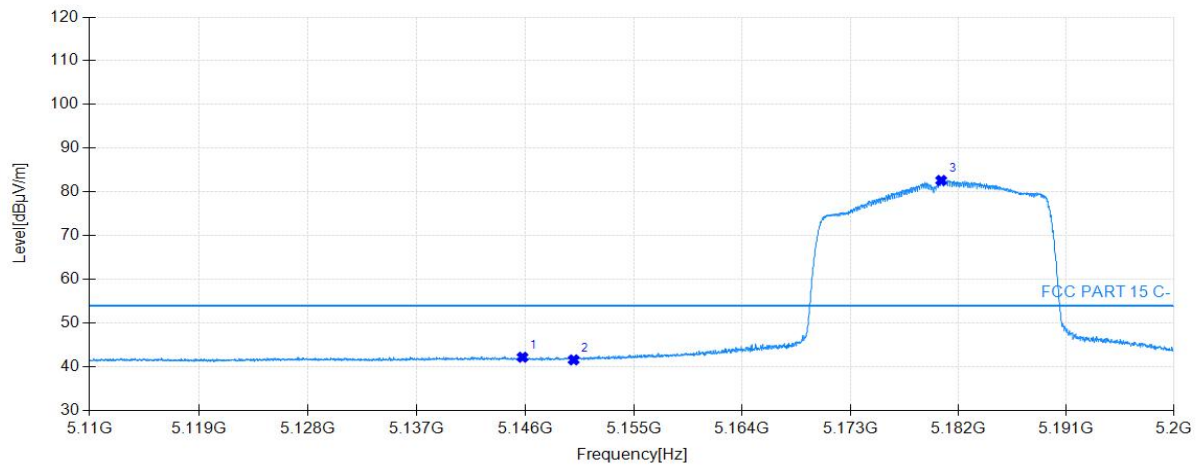


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.81     | 42.40          | 37.72       | 54.00          | 11.60       | 160         | 324       | Horizontal |
| 2                   | 5150.00     | 41.89          | 37.72       | 54.00          | 12.11       | 160         | 128       | Horizontal |
| 3                   | 5181.67     | 85.62          | 37.84       | 54.00          | -31.62      | 160         | 310       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:31:29

### Test Graph

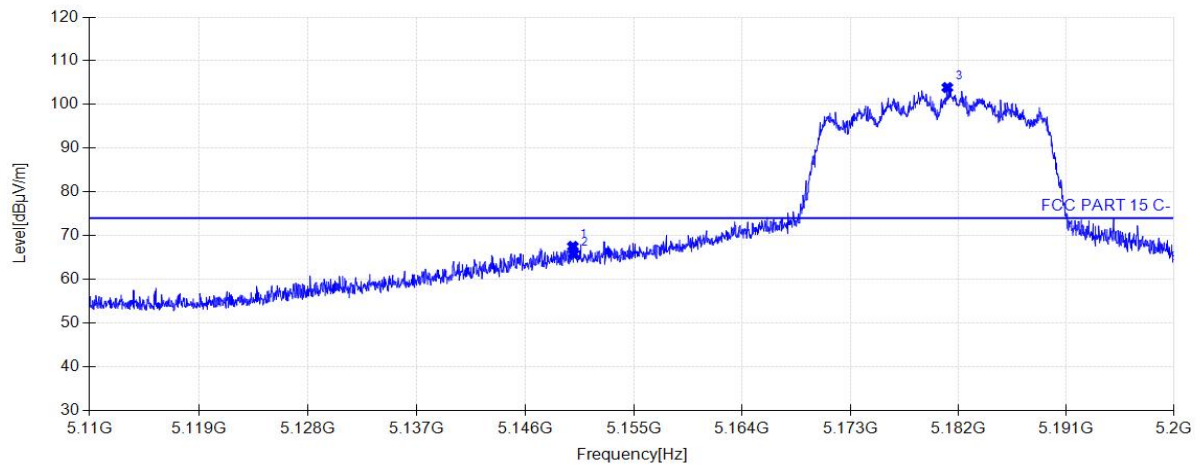


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5145.76     | 42.18          | 37.70       | 54.00          | 11.82       | 160         | 156       | Vertical |
| 2                   | 5150.00     | 41.57          | 37.72       | 54.00          | 12.43       | 160         | 197       | Vertical |
| 3                   | 5180.56     | 82.63          | 37.83       | 54.00          | -28.63      | 160         | 135       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:34:15

### Test Graph

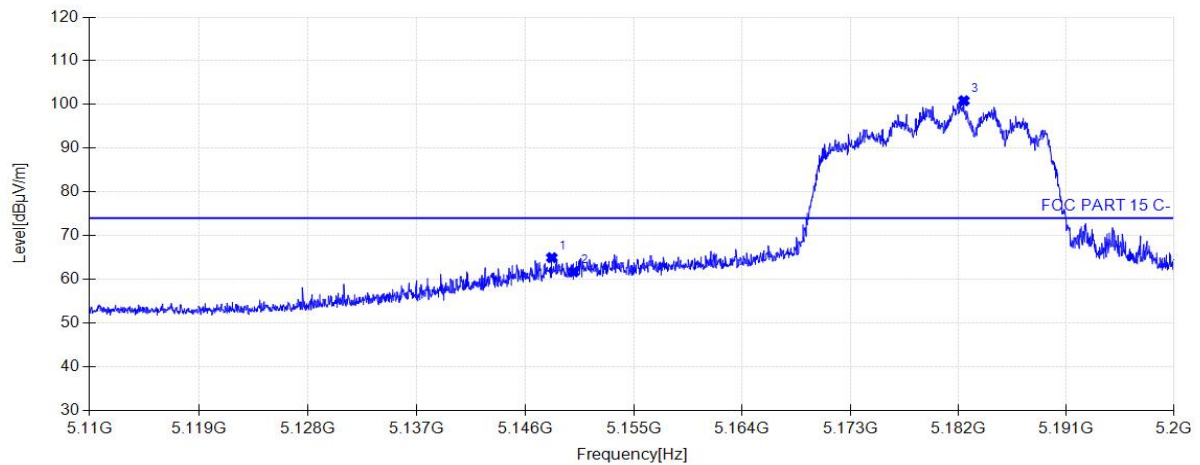


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.93     | 67.53          | 37.72       | 74.00          | 6.47        | 160         | 308       | Horizontal |
| 2                   | 5150.00     | 65.83          | 37.72       | 74.00          | 8.17        | 160         | 308       | Horizontal |
| 3                   | 5181.07     | 103.89         | 37.83       | 74.00          | -29.89      | 160         | 314       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:35:08

### Test Graph

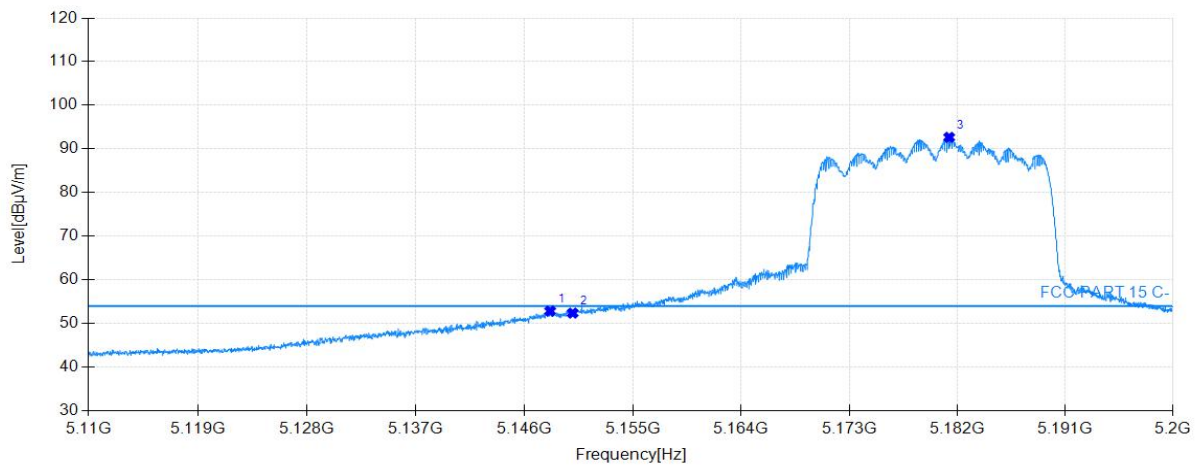


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.19     | 64.96          | 37.71       | 74.00          | 9.04        | 160         | 133       | Vertical |
| 2                   | 5150.00     | 61.71          | 37.72       | 74.00          | 12.29       | 160         | 133       | Vertical |
| 3                   | 5182.45     | 100.87         | 37.84       | 74.00          | -26.87      | 160         | 133       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:36:21

### Test Graph

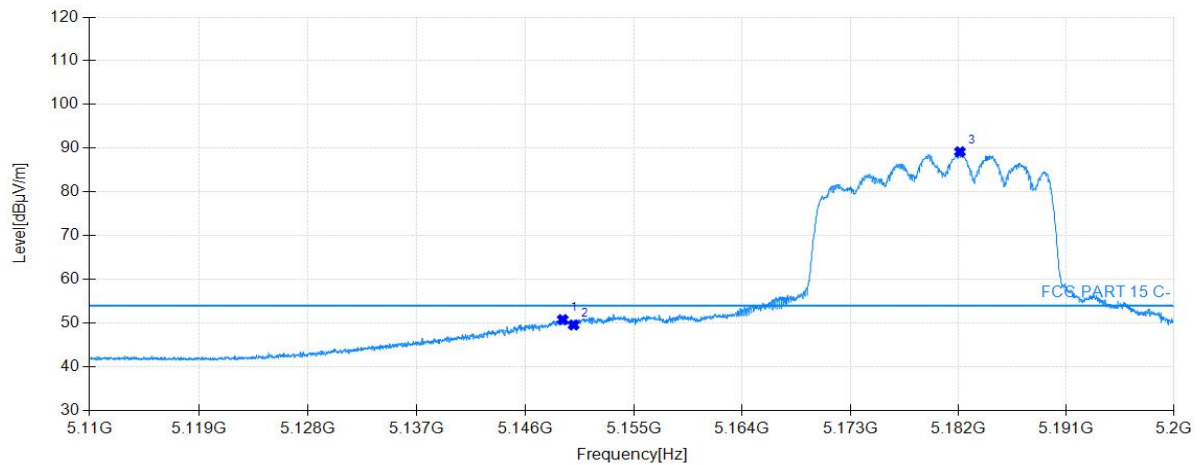


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5148.13     | 52.83          | 37.71       | 54.00          | 1.17        | 160         | 300       | Horizontal |
| 2                   | 5150.00     | 52.37          | 37.72       | 54.00          | 1.63        | 160         | 300       | Horizontal |
| 3                   | 5181.31     | 92.66          | 37.84       | 54.00          | -38.66      | 160         | 307       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5180MHz |           |                       |

Start of Test:2023-02-23 16:37:13

### Test Graph

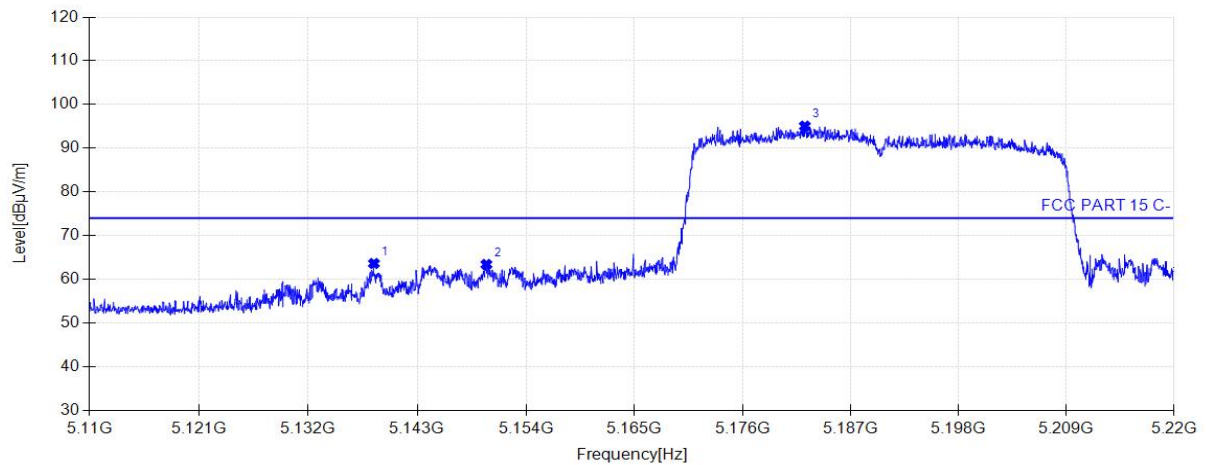


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5149.09     | 50.78          | 37.71       | 54.00          | 3.22        | 160         | 143       | Vertical |
| 2                   | 5150.00     | 49.56          | 37.72       | 54.00          | 4.44        | 160         | 128       | Vertical |
| 3                   | 5182.12     | 89.19          | 37.84       | 54.00          | -35.19      | 160         | 136       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 1 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:44:33

### Test Graph

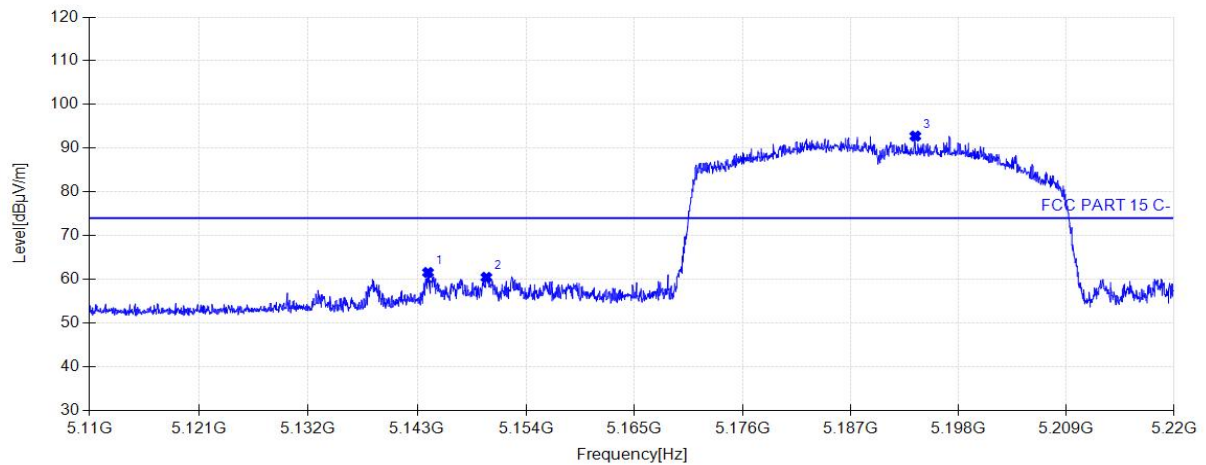


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5138.63     | 63.63          | 37.67       | 74.00          | 10.37       | 160         | 309       | Horizontal |
| 2                   | 5150.00     | 63.41          | 37.72       | 74.00          | 10.59       | 160         | 302       | Horizontal |
| 3                   | 5182.30     | 95.06          | 37.84       | 74.00          | -21.06      | 160         | 309       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 1 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:45:26

### Test Graph

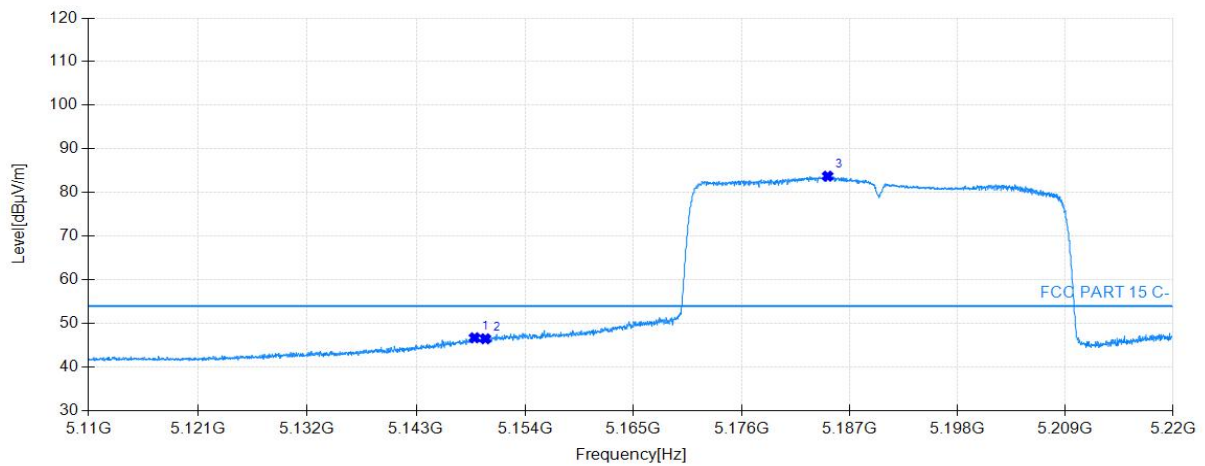


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5144.10     | 61.57          | 37.69       | 74.00          | 12.43       | 160         | 135       | Vertical |
| 2                   | 5150.00     | 60.46          | 37.72       | 74.00          | 13.54       | 160         | 135       | Vertical |
| 3                   | 5193.56     | 92.78          | 37.88       | 74.00          | -18.78      | 160         | 135       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 1 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:46:55

### Test Graph

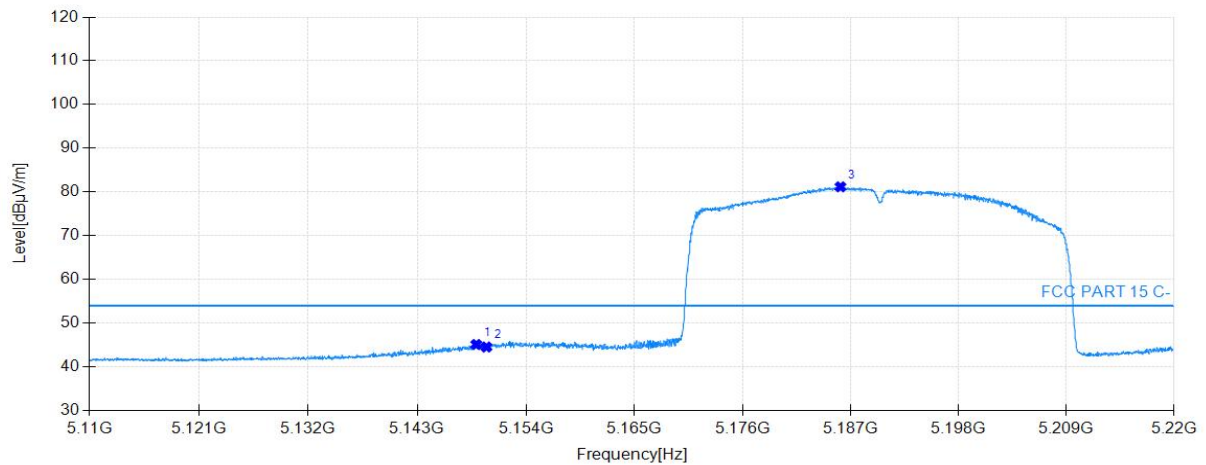


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5148.90     | 46.70          | 37.71       | 54.00          | 7.30        | 160         | 304       | Horizontal |
| 2                   | 5150.00     | 46.48          | 37.72       | 54.00          | 7.52        | 160         | 290       | Horizontal |
| 3                   | 5184.72     | 83.75          | 37.85       | 54.00          | -29.75      | 160         | 309       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 1 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:47:47

### Test Graph

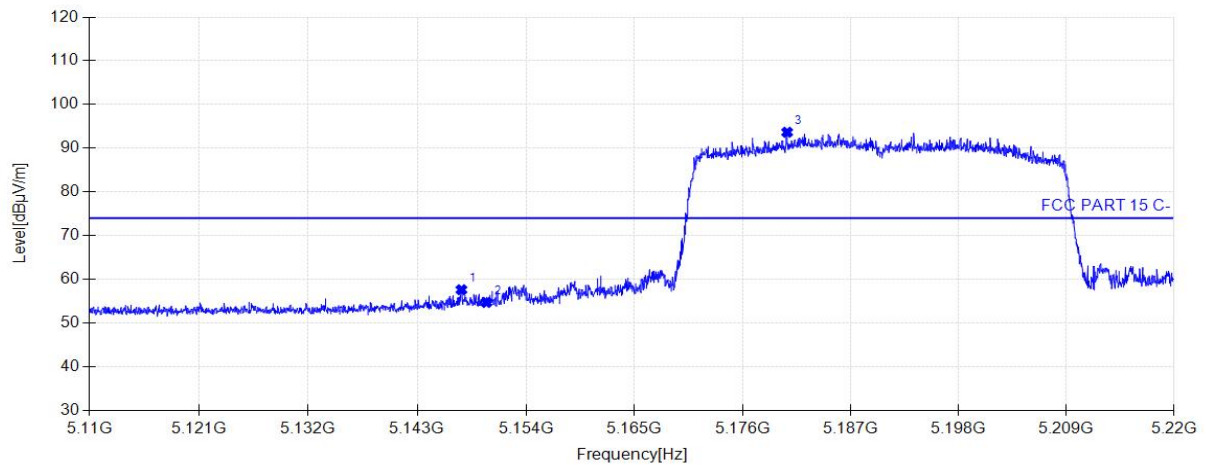


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.97     | 45.09          | 37.71       | 54.00          | 8.91        | 160         | 135       | Vertical |
| 2                   | 5150.00     | 44.52          | 37.72       | 54.00          | 9.48        | 160         | 120       | Vertical |
| 3                   | 5185.93     | 81.17          | 37.85       | 54.00          | -27.17      | 160         | 135       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 2 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:49:58

### Test Graph

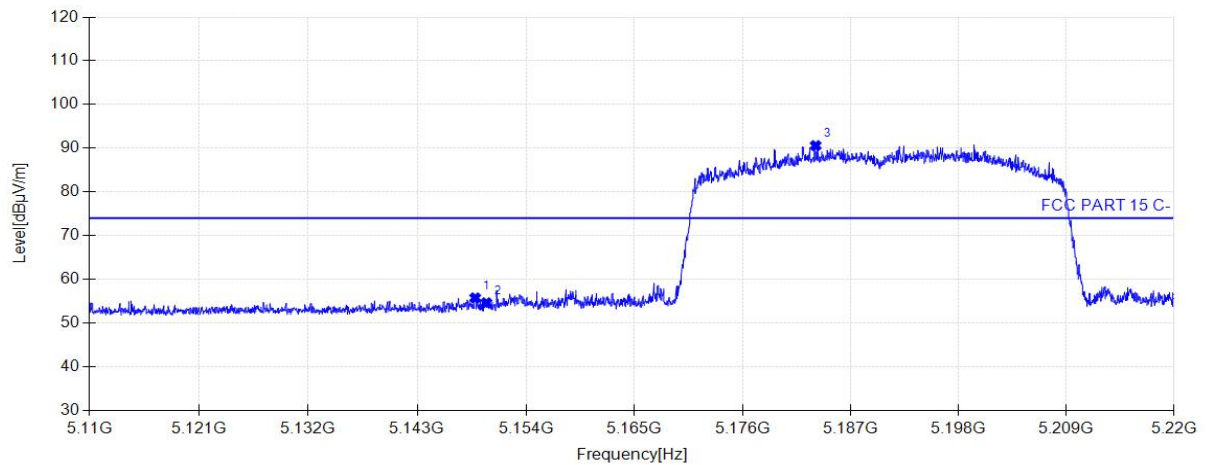


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5147.47     | 57.61          | 37.71       | 74.00          | 16.39       | 160         | 150       | Horizontal |
| 2                   | 5150.00     | 54.72          | 37.72       | 74.00          | 19.28       | 160         | 290       | Horizontal |
| 3                   | 5180.51     | 93.66          | 37.83       | 74.00          | -19.66      | 160         | 311       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 2 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:50:51

### Test Graph

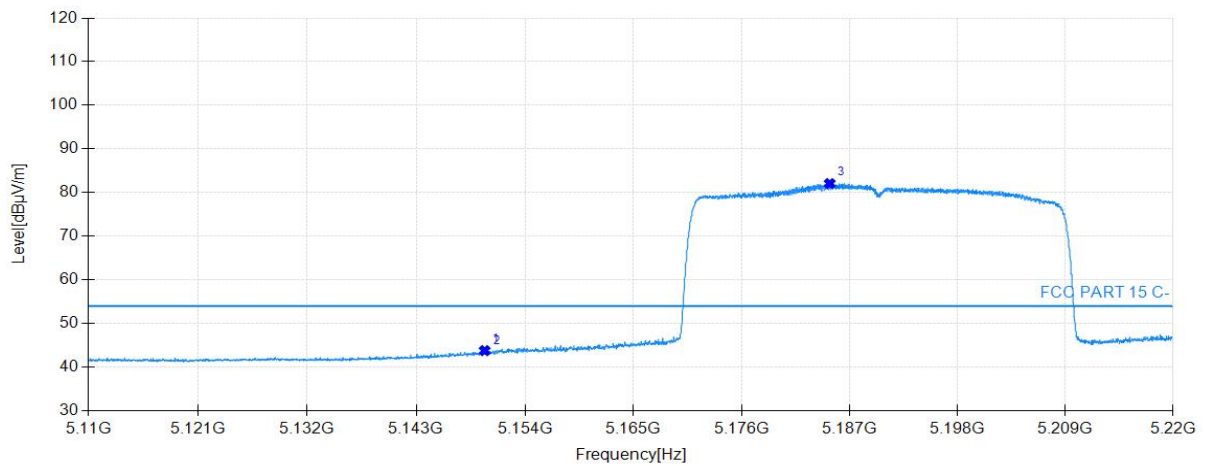


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.86     | 55.76          | 37.71       | 74.00          | 18.24       | 160         | 164       | Vertical |
| 2                   | 5150.00     | 54.63          | 37.72       | 74.00          | 19.37       | 160         | 149       | Vertical |
| 3                   | 5183.40     | 90.60          | 37.84       | 74.00          | -16.60      | 160         | 135       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 2 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:51:57

### Test Graph

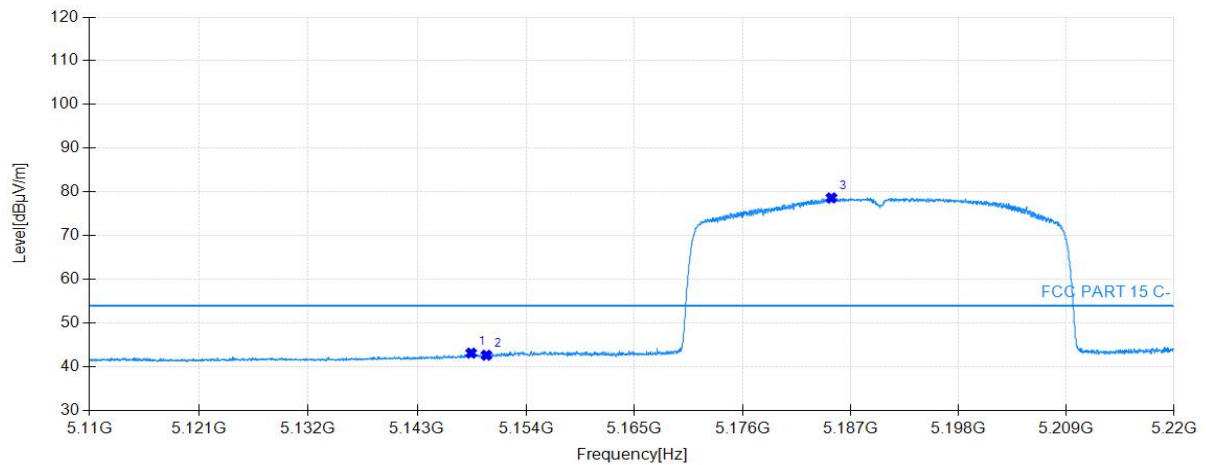


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.93     | 43.76          | 37.72       | 54.00          | 10.24       | 160         | 155       | Horizontal |
| 2                   | 5150.00     | 43.33          | 37.72       | 54.00          | 10.67       | 160         | 303       | Horizontal |
| 3                   | 5184.94     | 82.05          | 37.85       | 54.00          | -28.05      | 160         | 310       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - Ant 2 at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:52:49

### Test Graph

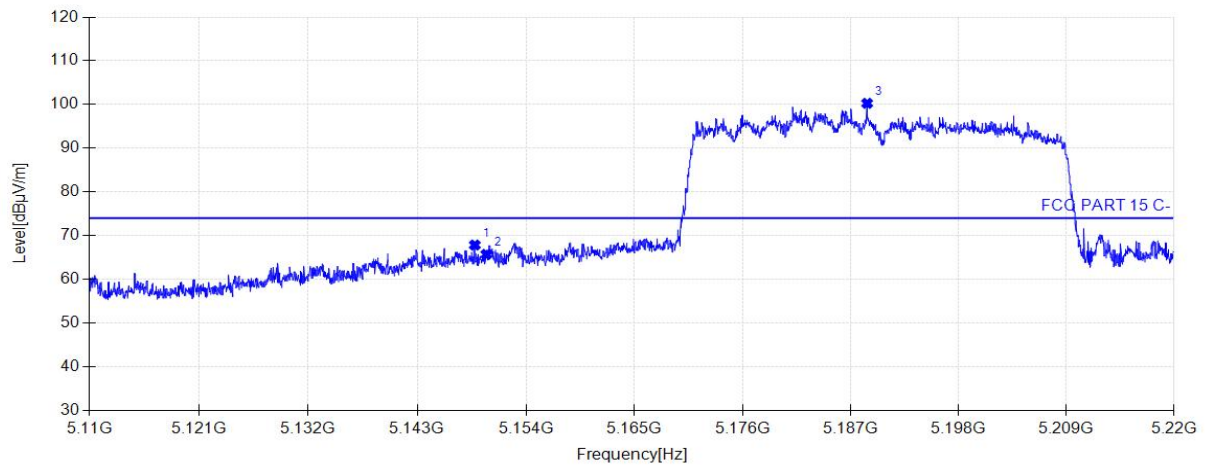


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.46     | 43.12          | 37.71       | 54.00          | 10.88       | 160         | 134       | Vertical |
| 2                   | 5150.00     | 42.64          | 37.72       | 54.00          | 11.36       | 160         | 134       | Vertical |
| 3                   | 5185.02     | 78.64          | 37.85       | 54.00          | -24.64      | 160         | 134       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - CDD at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:55:00

### Test Graph

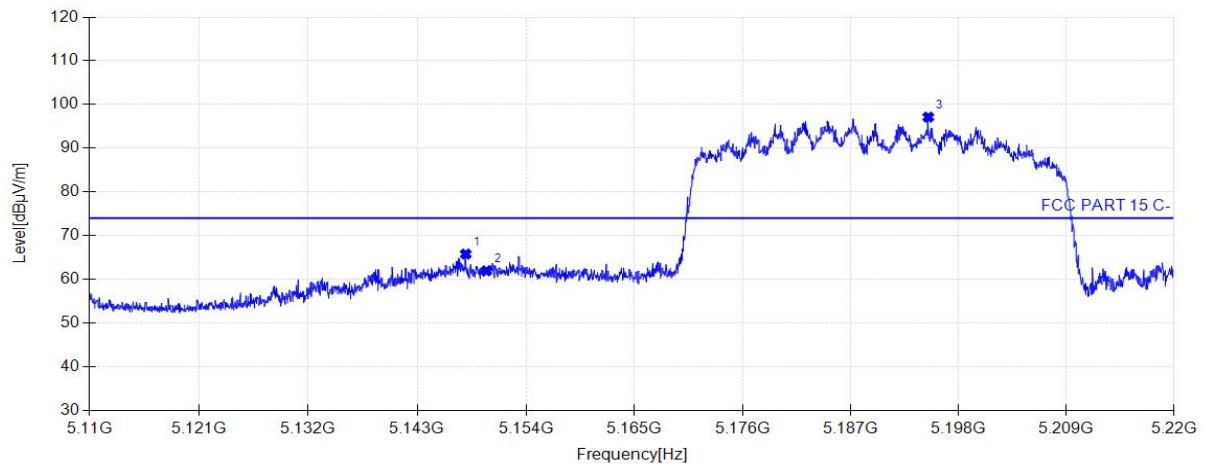


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5148.83     | 67.85          | 37.71       | 74.00          | 6.15        | 160         | 136       | Horizontal |
| 2                   | 5150.00     | 65.71          | 37.72       | 74.00          | 8.29        | 160         | 309       | Horizontal |
| 3                   | 5188.65     | 100.28         | 37.86       | 74.00          | -26.28      | 160         | 309       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - CDD at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:55:53

### Test Graph

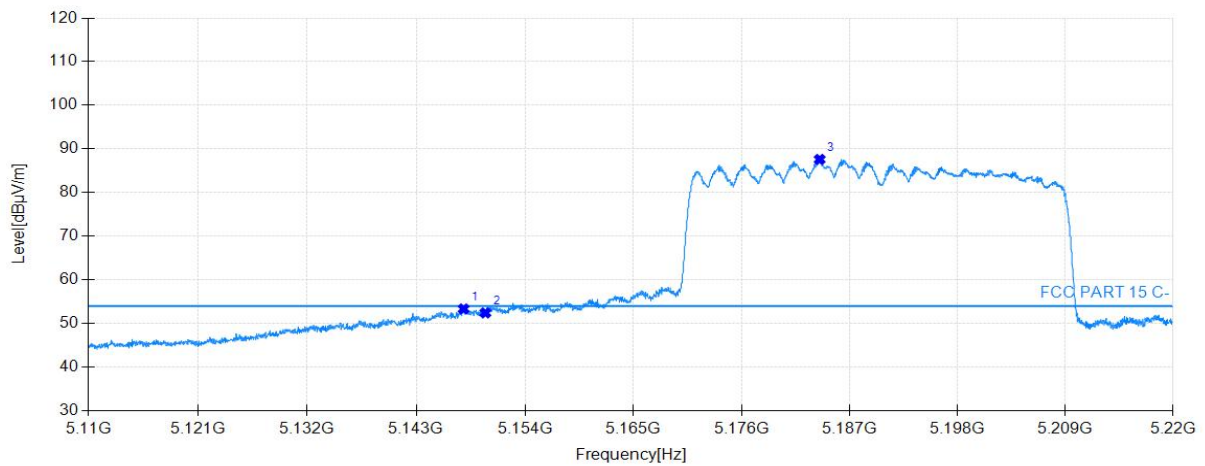


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5147.91     | 65.79          | 37.71       | 74.00          | 8.21        | 160         | 128       | Vertical |
| 2                   | 5150.00     | 61.94          | 37.72       | 74.00          | 12.06       | 160         | 128       | Vertical |
| 3                   | 5194.88     | 97.12          | 37.89       | 74.00          | -23.12      | 160         | 142       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - CDD at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:56:57

### Test Graph

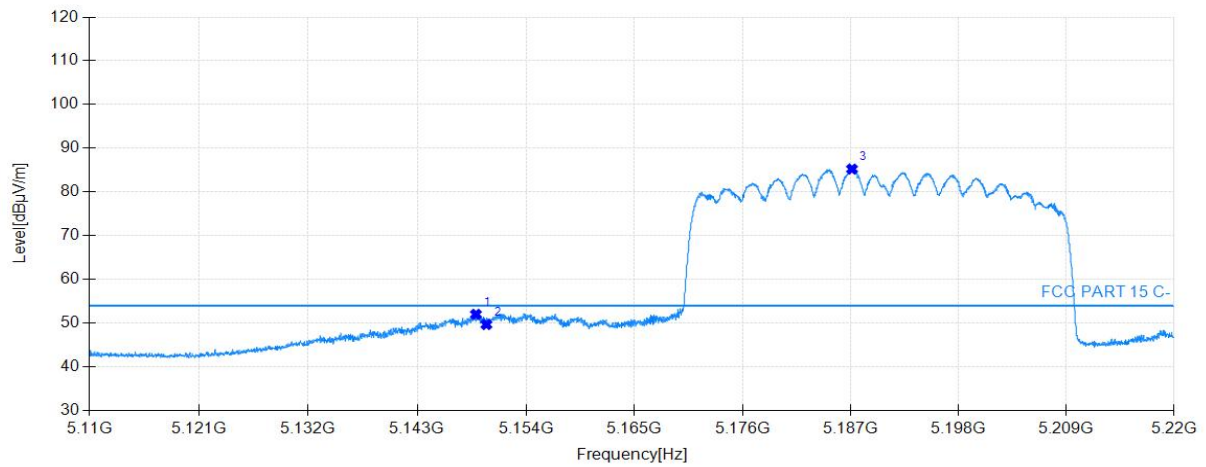


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5147.80     | 53.32          | 37.71       | 54.00          | 0.68        | 160         | 304       | Horizontal |
| 2                   | 5150.00     | 52.41          | 37.72       | 54.00          | 1.59        | 160         | 304       | Horizontal |
| 3                   | 5183.92     | 87.60          | 37.85       | 54.00          | -33.60      | 160         | 311       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax40 - CDD at Channel 5190MHz |           |                       |

Start of Test:2023-02-23 16:57:49

### Test Graph

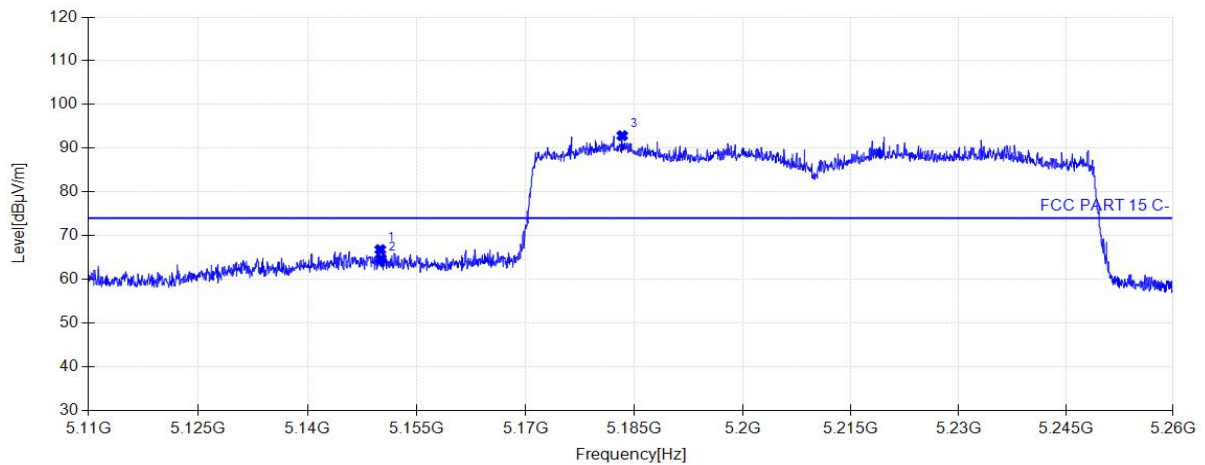


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5148.94     | 51.99          | 37.71       | 54.00          | 2.01        | 160         | 142       | Vertical |
| 2                   | 5150.00     | 49.66          | 37.72       | 54.00          | 4.34        | 160         | 135       | Vertical |
| 3                   | 5187.11     | 85.24          | 37.86       | 54.00          | -31.24      | 160         | 128       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:13:00

### Test Graph

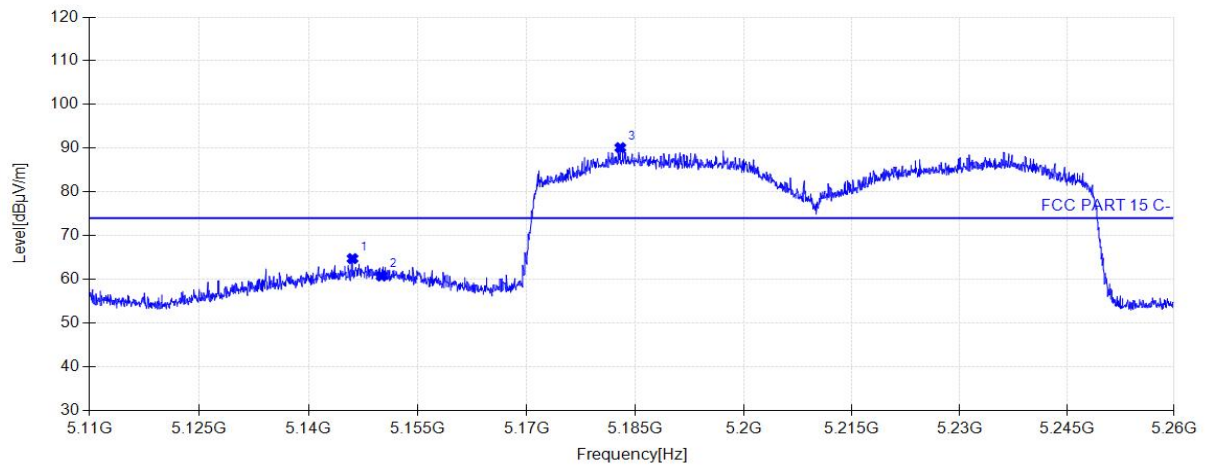


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.95     | 66.79          | 37.72       | 74.00          | 7.21        | 160         | 301       | Horizontal |
| 2                   | 5150.00     | 64.62          | 37.72       | 74.00          | 9.38        | 160         | 301       | Horizontal |
| 3                   | 5183.30     | 92.87          | 37.84       | 74.00          | -18.87      | 160         | 301       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:13:52

### Test Graph

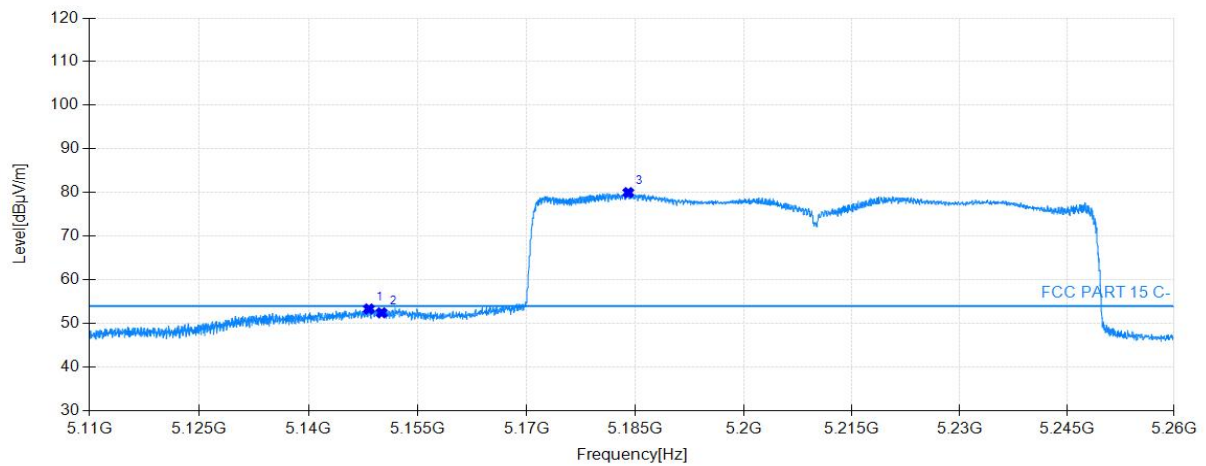


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5146.00     | 64.74          | 37.70       | 74.00          | 9.26        | 160         | 134       | Vertical |
| 2                   | 5150.00     | 60.77          | 37.72       | 74.00          | 13.23       | 160         | 129       | Vertical |
| 3                   | 5182.90     | 90.12          | 37.84       | 74.00          | -16.12      | 160         | 134       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:15:19

### Test Graph

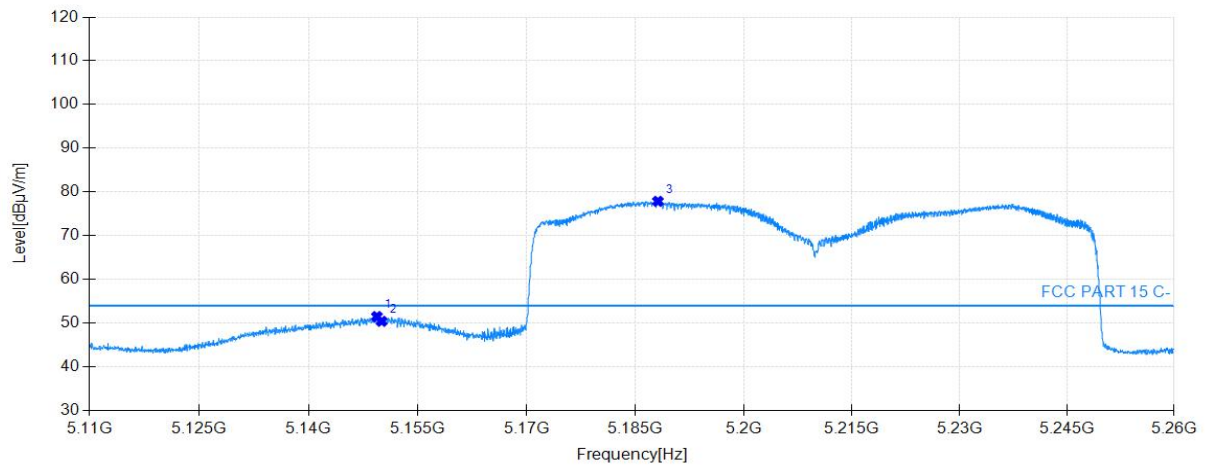


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5148.25     | 53.31          | 37.71       | 54.00          | 0.69        | 160         | 309       | Horizontal |
| 2                   | 5150.00     | 52.43          | 37.72       | 54.00          | 1.57        | 160         | 302       | Horizontal |
| 3                   | 5184.00     | 79.99          | 37.85       | 54.00          | -25.99      | 160         | 309       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:16:12

### Test Graph

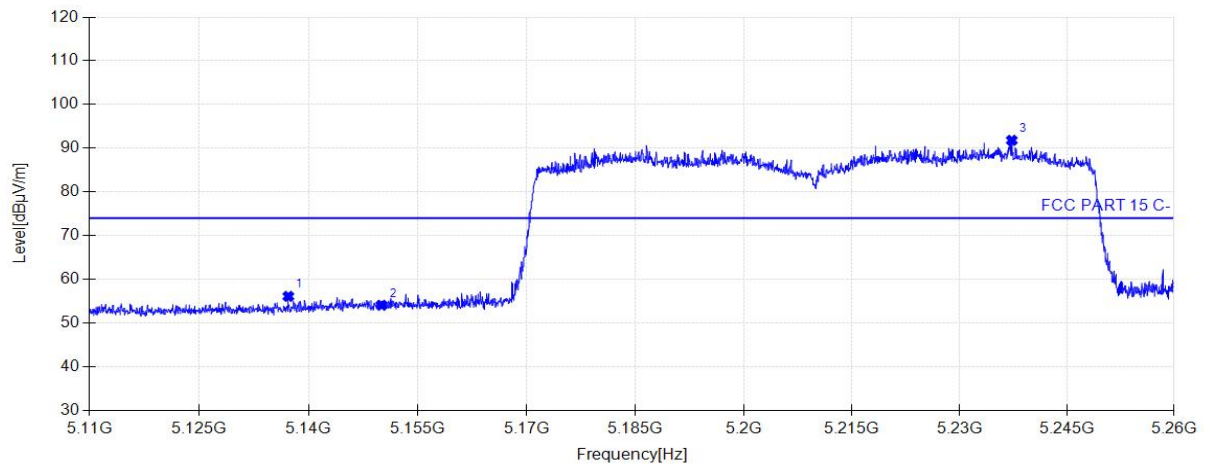


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5149.35     | 51.49          | 37.71       | 54.00          | 2.51        | 160         | 141       | Vertical |
| 2                   | 5150.00     | 50.40          | 37.72       | 54.00          | 3.60        | 160         | 134       | Vertical |
| 3                   | 5188.10     | 77.85          | 37.86       | 54.00          | -23.85      | 160         | 127       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:20:58

### Test Graph

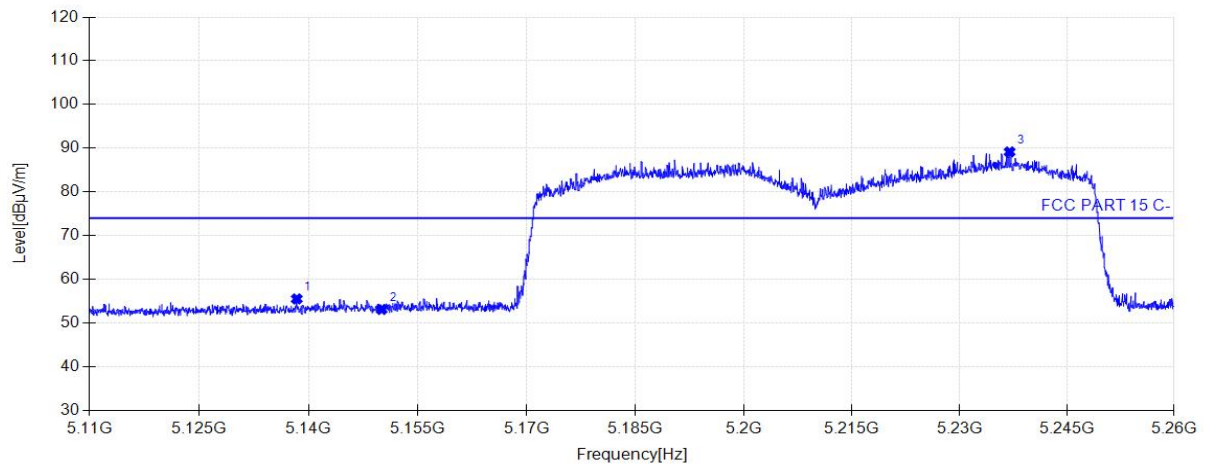


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5137.20     | 56.10          | 37.67       | 74.00          | 17.90       | 160         | 143       | Horizontal |
| 2                   | 5150.00     | 54.07          | 37.72       | 74.00          | 19.93       | 160         | 233       | Horizontal |
| 3                   | 5237.30     | 91.81          | 38.05       | 74.00          | -17.81      | 160         | 310       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:21:50

### Test Graph

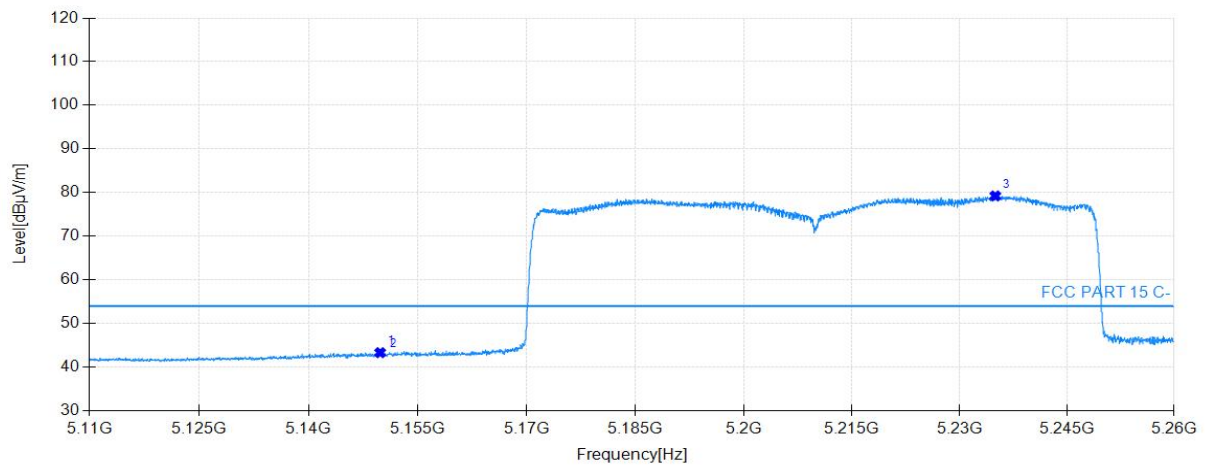


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5138.35     | 55.52          | 37.67       | 74.00          | 18.48       | 160         | 115       | Vertical |
| 2                   | 5150.00     | 53.12          | 37.72       | 74.00          | 20.88       | 160         | 137       | Vertical |
| 3                   | 5237.00     | 89.16          | 38.05       | 74.00          | -15.16      | 160         | 130       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:22:57

### Test Graph

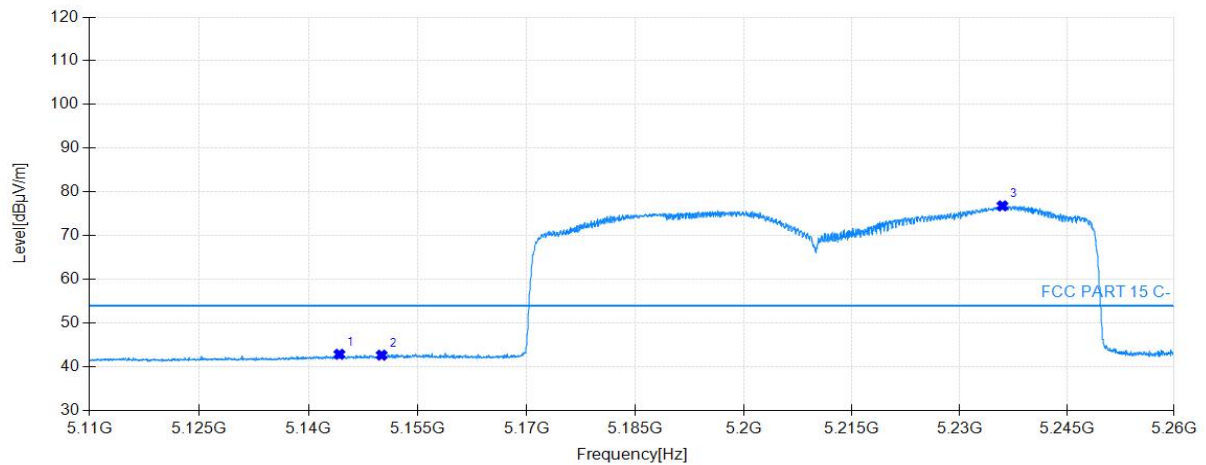


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5149.80     | 43.29          | 37.72       | 54.00          | 10.71       | 160         | 313       | Horizontal |
| 2                   | 5150.00     | 42.59          | 37.72       | 54.00          | 11.41       | 160         | 151       | Horizontal |
| 3                   | 5235.00     | 79.22          | 38.04       | 54.00          | -25.22      | 160         | 313       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2 at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:23:51

### Test Graph

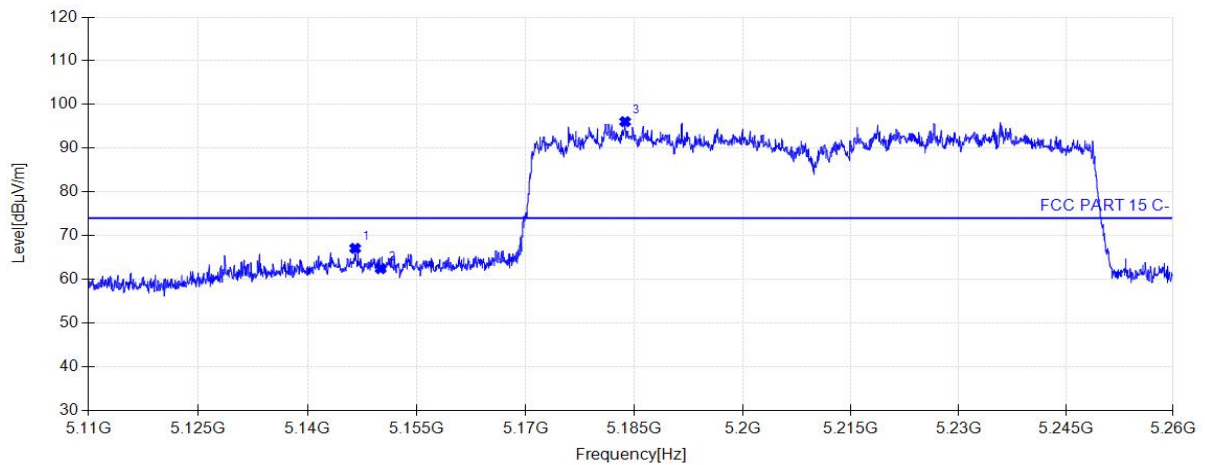


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5144.20     | 42.85          | 37.70       | 54.00          | 11.15       | 160         | 135       | Vertical |
| 2                   | 5150.00     | 42.65          | 37.72       | 54.00          | 11.35       | 160         | 162       | Vertical |
| 3                   | 5236.00     | 76.81          | 38.04       | 54.00          | -22.81      | 160         | 156       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:26:48

### Test Graph

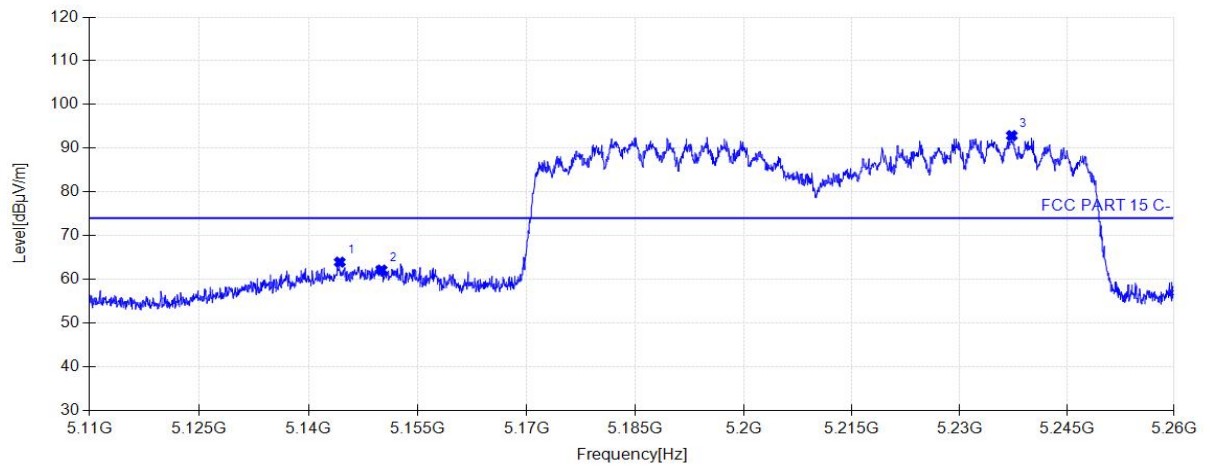


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5146.50     | 67.09          | 37.70       | 74.00          | 6.91        | 160         | 132       | Horizontal |
| 2                   | 5150.00     | 62.46          | 37.72       | 74.00          | 11.54       | 160         | 298       | Horizontal |
| 3                   | 5183.70     | 96.08          | 37.84       | 74.00          | -22.08      | 160         | 312       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:27:41

### Test Graph

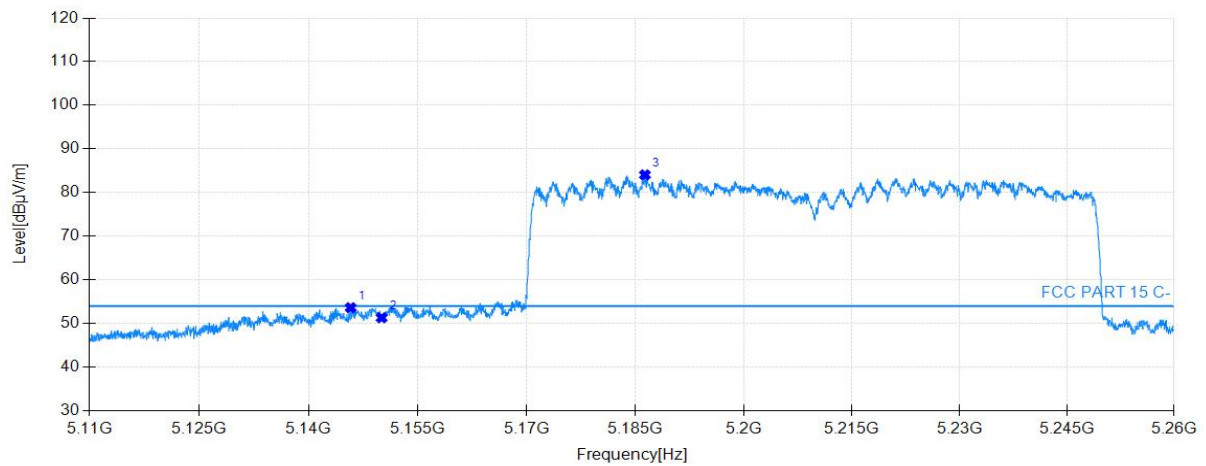


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5144.25     | 63.94          | 37.70       | 74.00          | 10.06       | 160         | 141       | Vertical |
| 2                   | 5150.00     | 62.14          | 37.72       | 74.00          | 11.86       | 160         | 134       | Vertical |
| 3                   | 5237.30     | 92.89          | 38.05       | 74.00          | -18.89      | 160         | 134       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:29:07

### Test Graph

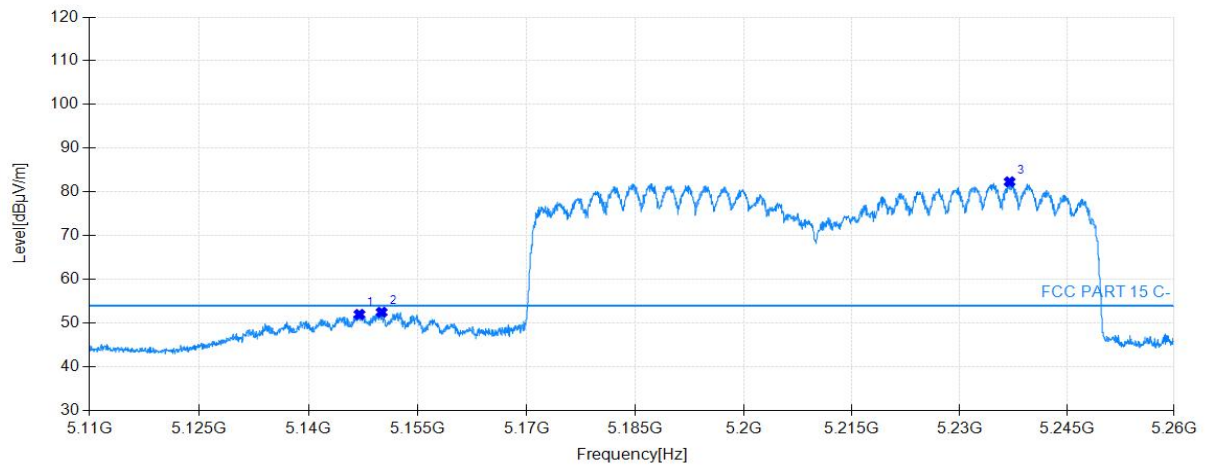


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5145.75     | 53.60          | 37.70       | 54.00          | 0.40        | 160         | 309       | Horizontal |
| 2                   | 5150.00     | 51.29          | 37.72       | 54.00          | 2.71        | 160         | 142       | Horizontal |
| 3                   | 5186.30     | 84.04          | 37.85       | 54.00          | -30.04      | 160         | 309       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5210MHz |           |                       |

Start of Test:2023-02-23 17:30:00

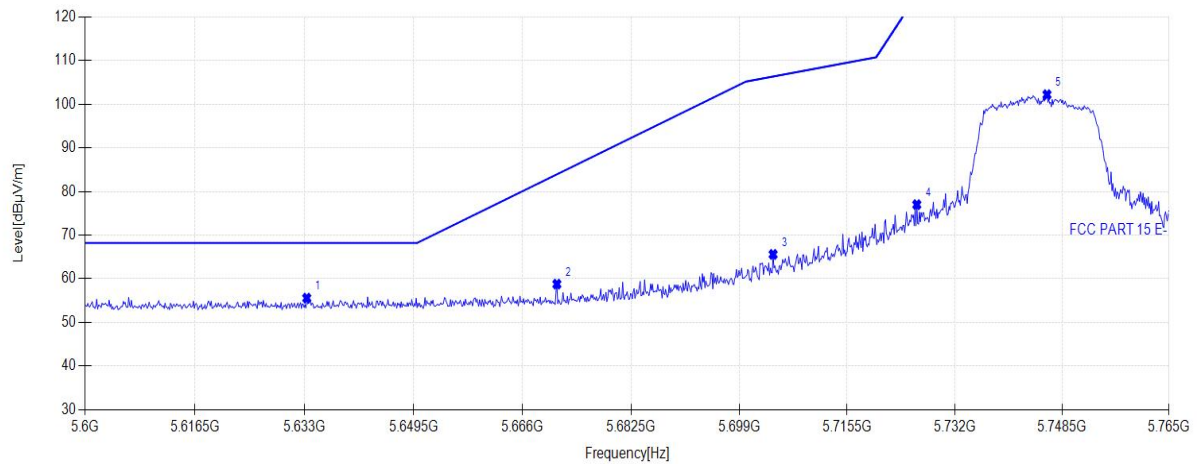
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5146.95     | 51.97          | 37.71       | 54.00          | 2.03        | 160         | 142       | Vertical |
| 2                   | 5150.00     | 52.47          | 37.72       | 54.00          | 1.53        | 160         | 142       | Vertical |
| 3                   | 5237.00     | 82.32          | 38.05       | 54.00          | -28.32      | 160         | 136       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5745MHz |           |                       |

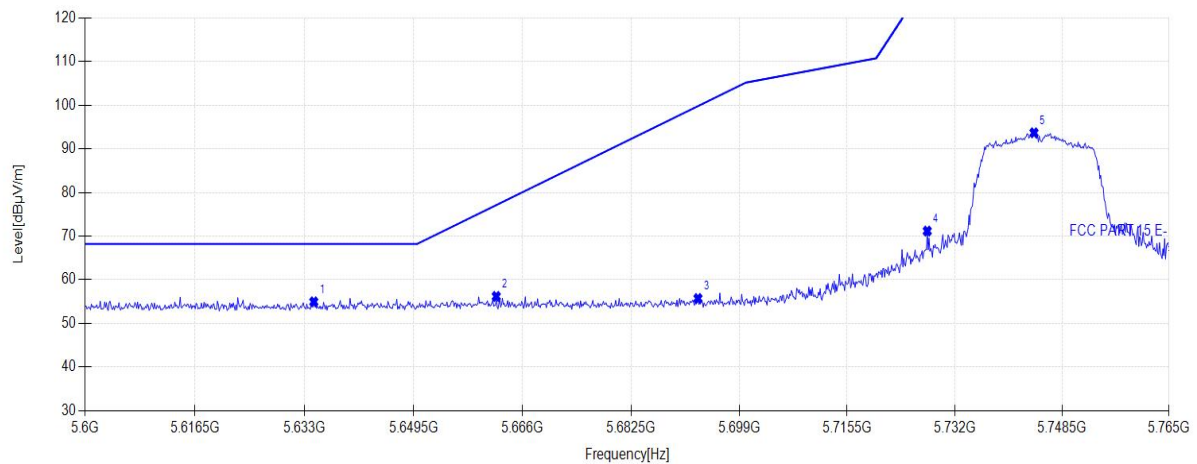
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5633.34     | 55.57          | 39.14       | 68.20          | 12.63       | 160         | 1         | Horizontal |
| 2                   | 5671.22     | 58.78          | 39.17       | 83.95          | 25.17       | 160         | 337       | Horizontal |
| 3                   | 5704.16     | 65.59          | 39.20       | 106.37         | 40.78       | 160         | 344       | Horizontal |
| 4                   | 5726.17     | 76.99          | 39.21       | 122.20         | 45.21       | 160         | 337       | Horizontal |
| 5                   | 5746.18     | 102.21         | 39.23       | 122.20         | 19.99       | 160         | 337       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5745MHz |           |                       |

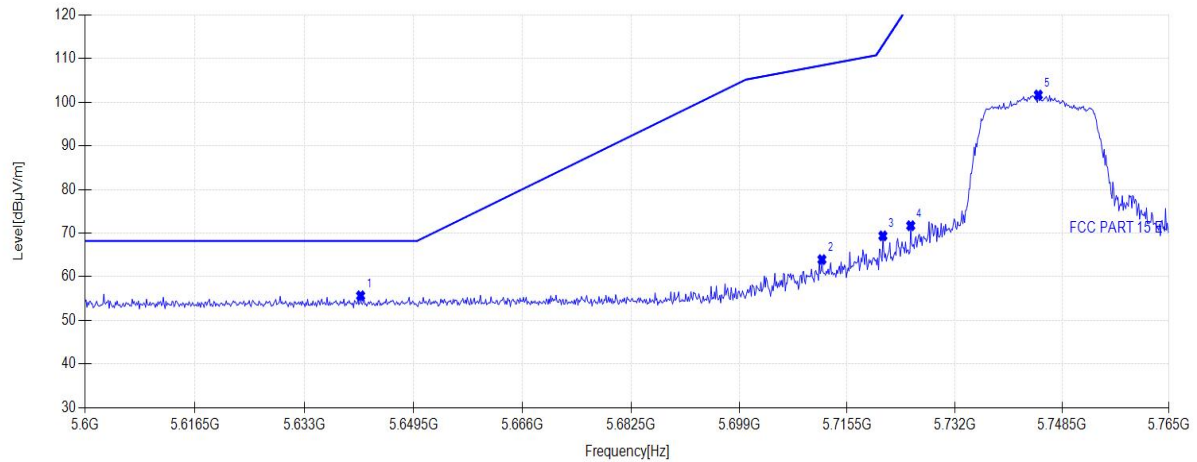
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5824.18     | 97.63          | 39.29       | 122.20         | 24.57       | 160         | 274       | Vertical |
| 2                   | 5850.00     | 58.26          | 39.31       | 122.06         | 63.80       | 160         | 295       | Vertical |
| 3                   | 5855.00     | 55.96          | 39.31       | 110.80         | 54.84       | 160         | 239       | Vertical |
| 4                   | 5875.00     | 55.25          | 39.33       | 105.18         | 49.93       | 160         | 50        | Vertical |
| 5                   | 5925.00     | 55.34          | 39.36       | 68.20          | 12.86       | 160         | 100       | Vertical |

| Project Information |                                                   |           |                      |
|---------------------|---------------------------------------------------|-----------|----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK39 |
| S/N:                | /                                                 | Voltage:  | DC 24V               |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia             |
| Remark:             | Transmit by 802.11ax20 – Ant 2 at Channel 5745MHz |           |                      |

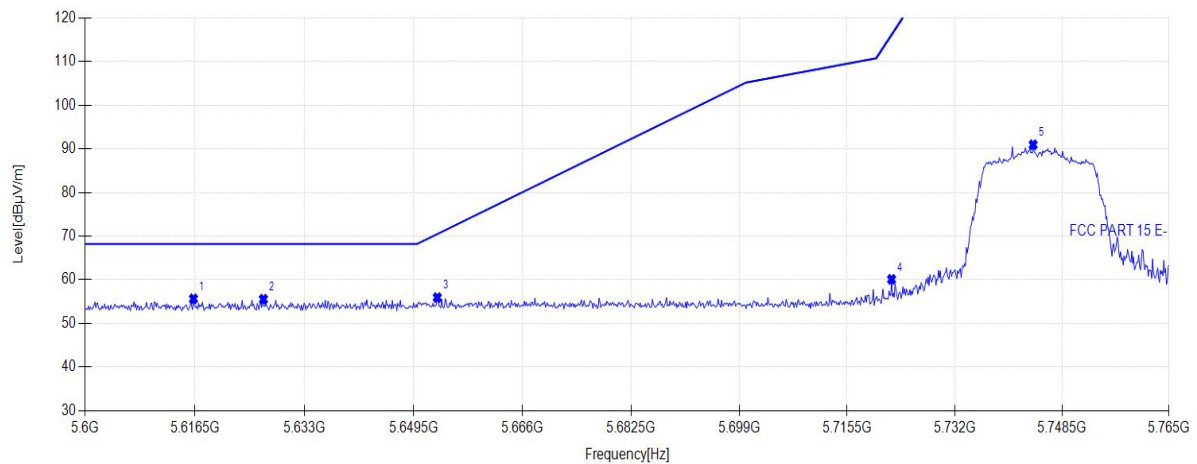
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5641.48     | 55.65          | 39.15       | 68.20          | 12.55       | 160         | 20        | Horizontal |
| 2                   | 5711.63     | 63.94          | 39.20       | 108.46         | 44.52       | 160         | 20        | Horizontal |
| 3                   | 5720.97     | 69.38          | 39.21       | 113.02         | 43.64       | 160         | 27        | Horizontal |
| 4                   | 5725.24     | 71.71          | 39.21       | 122.20         | 50.49       | 160         | 20        | Horizontal |
| 5                   | 5744.84     | 101.67         | 39.23       | 122.20         | 20.53       | 160         | 20        | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5745MHz |           |                       |

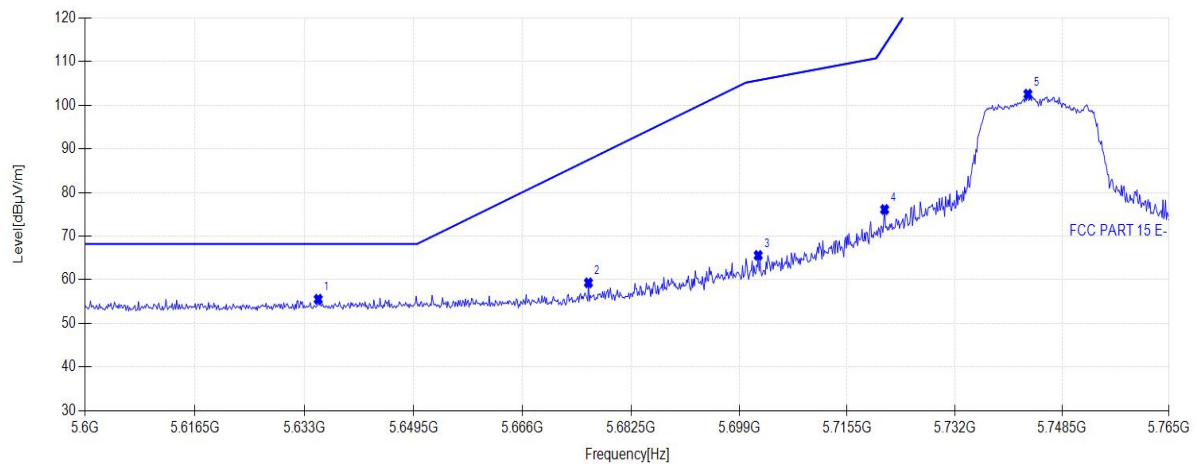
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5616.27     | 55.63          | 39.13       | 68.20          | 12.57       | 160         | 157       | Vertical |
| 2                   | 5626.80     | 55.54          | 39.14       | 68.20          | 12.66       | 160         | 268       | Vertical |
| 3                   | 5653.08     | 55.92          | 39.16       | 70.49          | 14.57       | 160         | 359       | Vertical |
| 4                   | 5722.30     | 60.10          | 39.21       | 116.06         | 55.96       | 160         | 59        | Vertical |
| 5                   | 5744.04     | 90.95          | 39.23       | 122.20         | 31.25       | 160         | 52        | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5745MHz |           |                       |

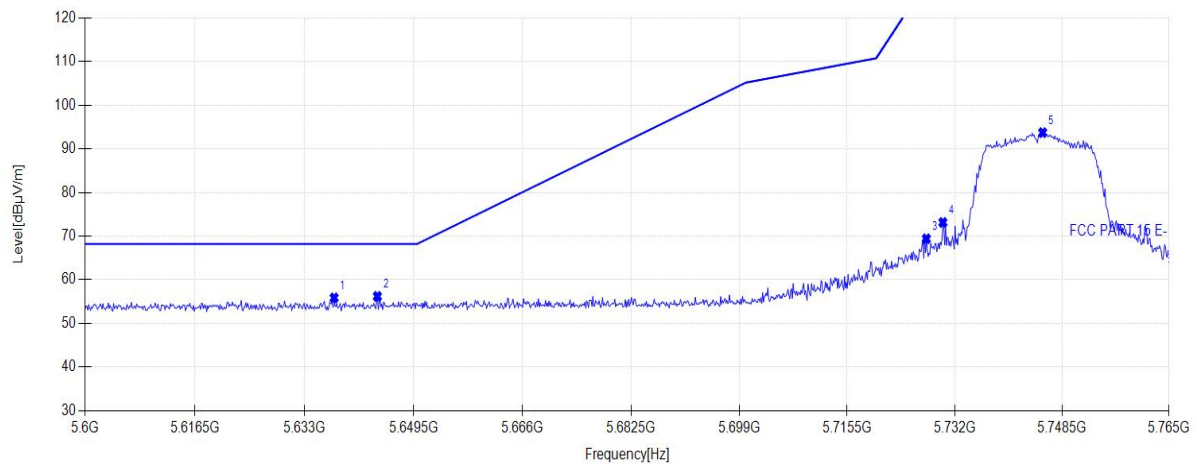
### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5635.07     | 55.54          | 39.14       | 68.20          | 12.66       | 160         | 30        | Horizontal |
| 2                   | 5676.02     | 59.31          | 39.17       | 87.50          | 28.19       | 160         | 336       | Horizontal |
| 3                   | 5701.90     | 65.59          | 39.19       | 105.73         | 40.14       | 160         | 336       | Horizontal |
| 4                   | 5721.24     | 76.11          | 39.21       | 113.63         | 37.52       | 160         | 336       | Horizontal |
| 5                   | 5743.24     | 102.56         | 39.22       | 122.20         | 19.64       | 160         | 336       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5745MHz |           |                       |

### Test Graph

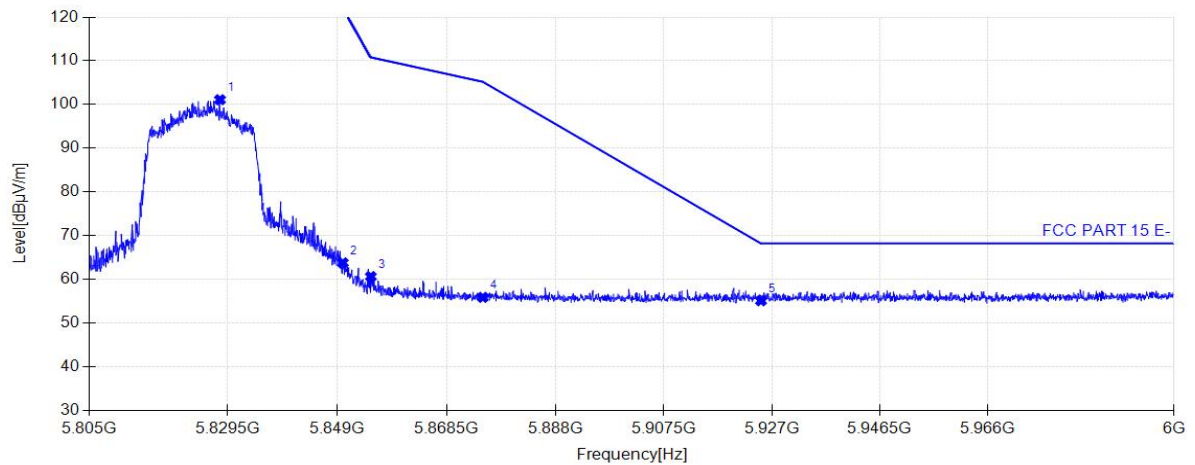


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5637.47     | 55.85          | 39.14       | 68.20          | 12.35       | 160         | 360       | Vertical |
| 2                   | 5644.01     | 56.20          | 39.15       | 68.20          | 12.00       | 160         | 9         | Vertical |
| 3                   | 5727.64     | 69.40          | 39.21       | 122.20         | 52.80       | 160         | 190       | Vertical |
| 4                   | 5730.17     | 73.14          | 39.21       | 122.20         | 49.06       | 160         | 197       | Vertical |
| 5                   | 5745.51     | 93.74          | 39.23       | 122.20         | 28.46       | 160         | 190       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:34:17

### Test Graph

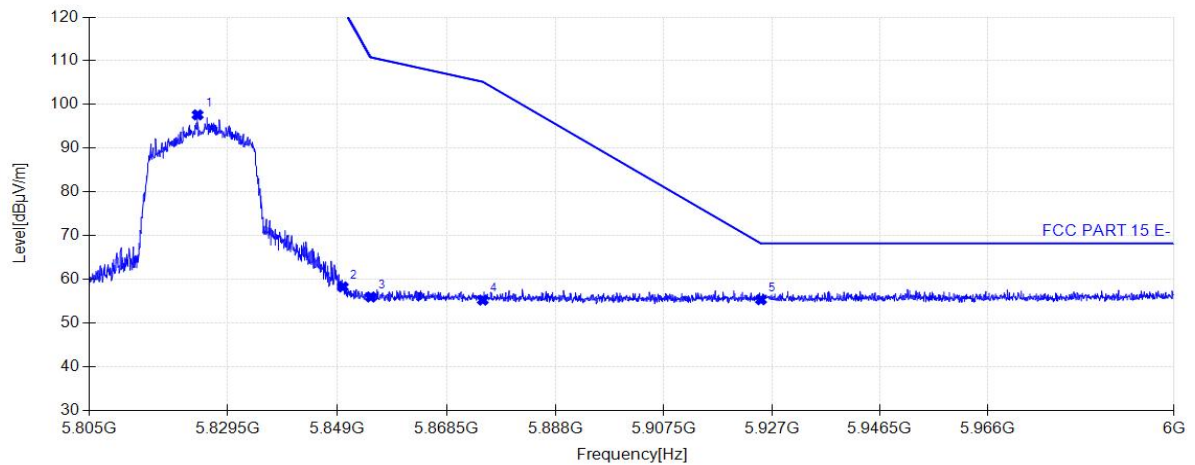


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5828.14     | 101.10         | 39.29       | 122.20         | 21.10       | 160         | 304       | Horizontal |
| 2                   | 5850.00     | 63.78          | 39.31       | 122.06         | 58.28       | 160         | 262       | Horizontal |
| 3                   | 5855.00     | 60.63          | 39.31       | 110.80         | 50.17       | 160         | 255       | Horizontal |
| 4                   | 5875.00     | 55.88          | 39.33       | 105.18         | 49.30       | 160         | 128       | Horizontal |
| 5                   | 5925.00     | 55.10          | 39.36       | 68.20          | 13.10       | 160         | 185       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 1 at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:35:10

### Test Graph

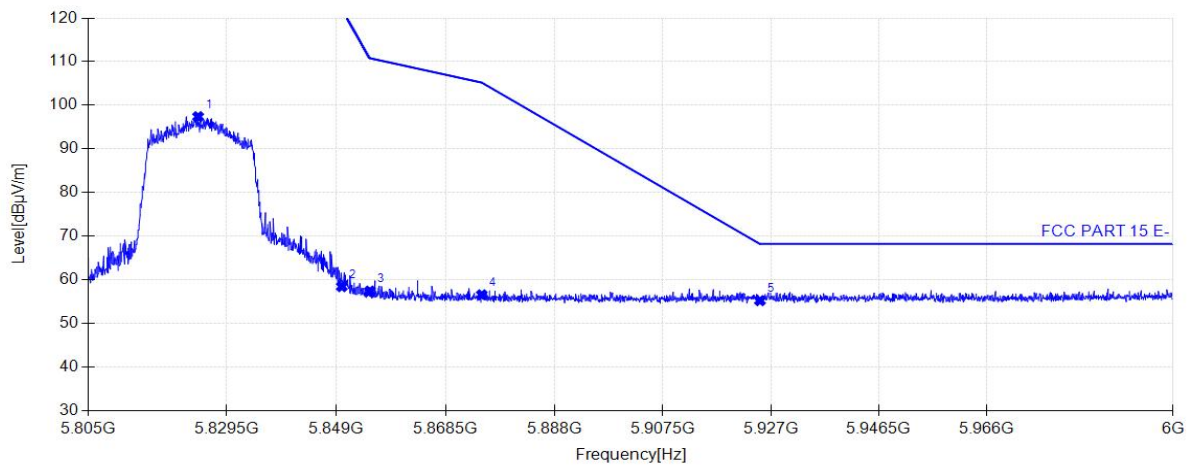


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5824.18     | 97.63          | 39.29       | 122.20         | 24.57       | 160         | 274       | Vertical |
| 2                   | 5850.00     | 58.26          | 39.31       | 122.06         | 63.80       | 160         | 295       | Vertical |
| 3                   | 5855.00     | 55.96          | 39.31       | 110.80         | 54.84       | 160         | 239       | Vertical |
| 4                   | 5875.00     | 55.25          | 39.33       | 105.18         | 49.93       | 160         | 50        | Vertical |
| 5                   | 5925.00     | 55.34          | 39.36       | 68.20          | 12.86       | 160         | 100       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 – Ant 2 at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:38:10

### Test Graph

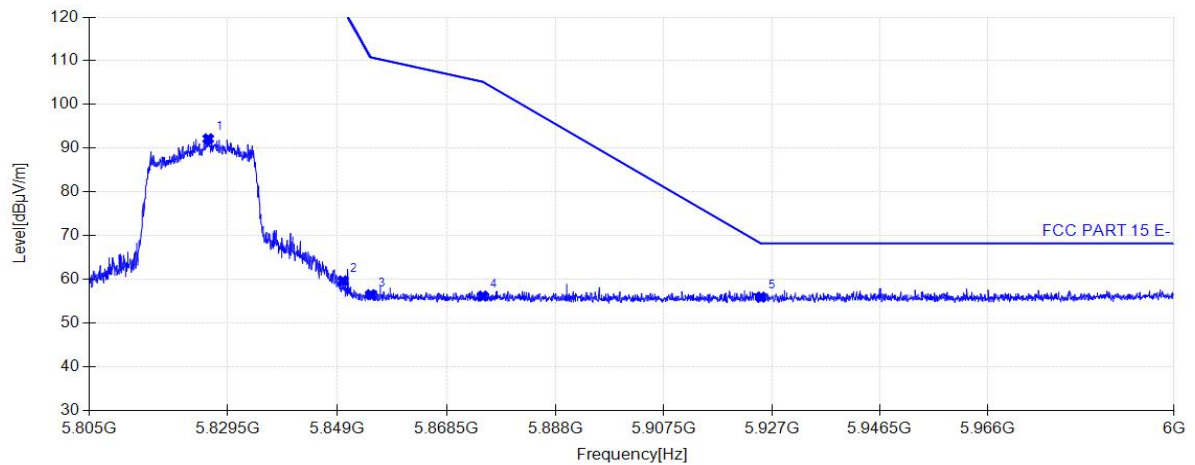


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5824.44     | 97.39          | 39.29       | 122.20         | 24.81       | 160         | 316       | Horizontal |
| 2                   | 5850.00     | 58.43          | 39.31       | 122.06         | 63.63       | 160         | 330       | Horizontal |
| 3                   | 5855.00     | 57.41          | 39.31       | 110.80         | 53.39       | 160         | 337       | Horizontal |
| 4                   | 5875.00     | 56.56          | 39.33       | 105.18         | 48.62       | 160         | 303       | Horizontal |
| 5                   | 5925.00     | 55.22          | 39.36       | 68.20          | 12.98       | 160         | 198       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - Ant 2 at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:39:02

### Test Graph

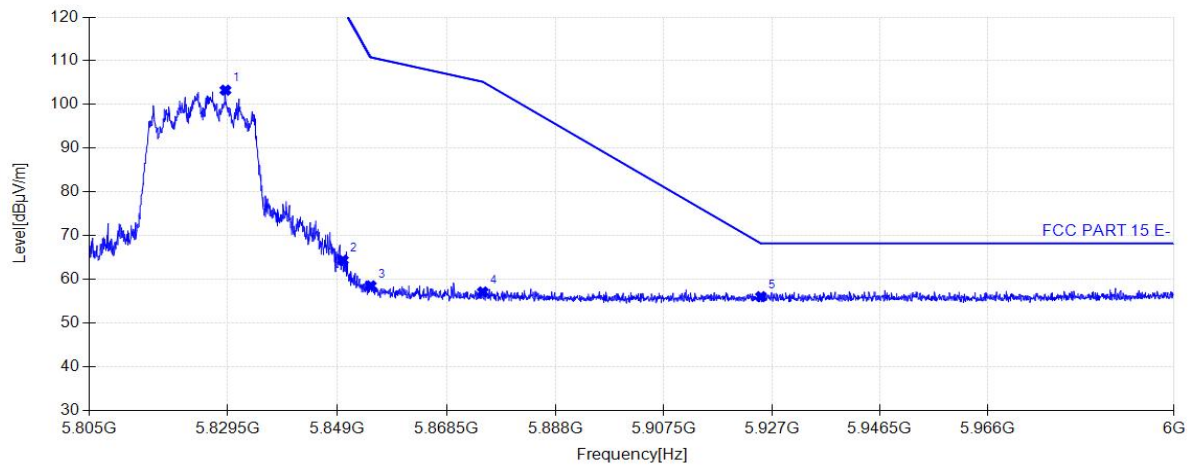


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5826.06     | 92.17          | 39.29       | 122.20         | 30.03       | 160         | 134       | Vertical |
| 2                   | 5850.00     | 59.64          | 39.31       | 122.06         | 62.42       | 160         | 168       | Vertical |
| 3                   | 5855.00     | 56.49          | 39.31       | 110.80         | 54.31       | 160         | 260       | Vertical |
| 4                   | 5875.00     | 56.17          | 39.33       | 105.18         | 49.01       | 160         | 204       | Vertical |
| 5                   | 5925.00     | 55.92          | 39.36       | 68.20          | 12.28       | 160         | 323       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:42:17

### Test Graph

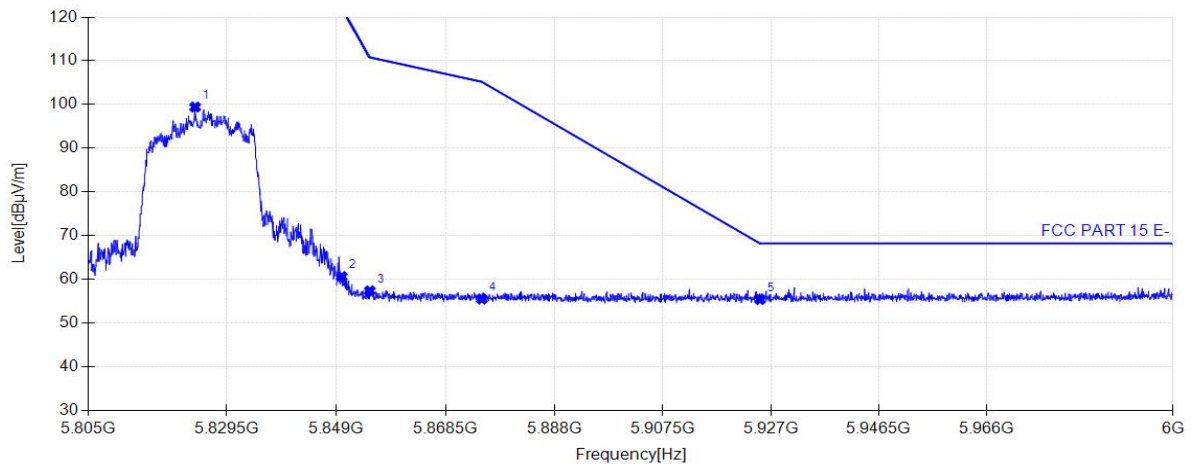


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5829.12     | 103.29         | 39.29       | 122.20         | 18.91       | 160         | 296       | Horizontal |
| 2                   | 5850.00     | 64.39          | 39.31       | 122.06         | 57.67       | 160         | 282       | Horizontal |
| 3                   | 5855.00     | 58.52          | 39.31       | 110.80         | 52.28       | 160         | 254       | Horizontal |
| 4                   | 5875.00     | 57.11          | 39.33       | 105.18         | 48.07       | 160         | 128       | Horizontal |
| 5                   | 5925.00     | 56.05          | 39.36       | 68.20          | 12.15       | 160         | 343       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax20 - CDD at Channel 5825MHz |           |                       |

Start of Test:2023-02-23 17:43:09

### Test Graph

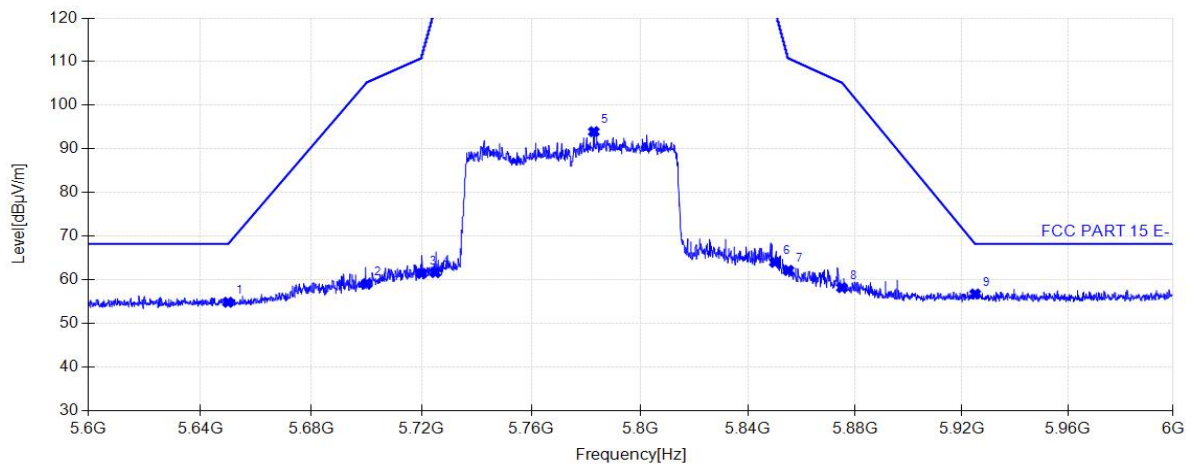


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5823.92     | 99.42          | 39.29       | 122.20         | 22.78       | 160         | 113       | Vertical |
| 2                   | 5850.00     | 60.63          | 39.31       | 122.06         | 61.43       | 160         | 147       | Vertical |
| 3                   | 5855.00     | 57.36          | 39.31       | 110.80         | 53.44       | 160         | 274       | Vertical |
| 4                   | 5875.00     | 55.50          | 39.33       | 105.18         | 49.68       | 160         | 356       | Vertical |
| 5                   | 5925.00     | 55.40          | 39.36       | 68.20          | 12.80       | 160         | 197       | Vertical |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:47:26

### Test Graph

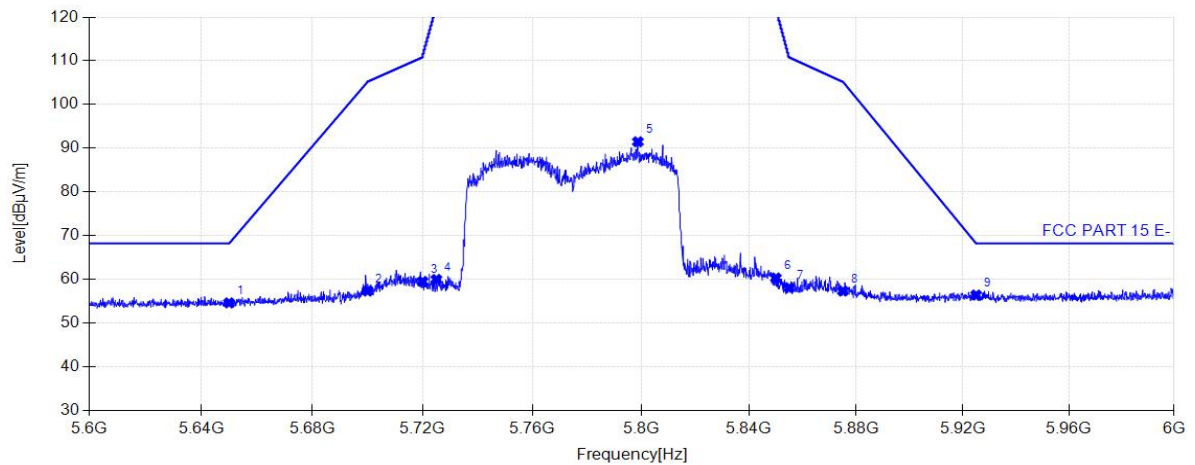


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5650.00     | 54.85          | 39.15       | 68.21          | 13.36       | 160         | 266       | Horizontal |
| 2                   | 5700.00     | 59.10          | 39.19       | 105.21         | 46.11       | 160         | 295       | Horizontal |
| 3                   | 5720.00     | 61.45          | 39.21       | 110.89         | 49.44       | 160         | 79        | Horizontal |
| 4                   | 5725.00     | 61.66          | 39.21       | 122.20         | 60.54       | 160         | 266       | Horizontal |
| 5                   | 5782.99     | 93.95          | 39.26       | 122.20         | 28.25       | 160         | 302       | Horizontal |
| 6                   | 5850.00     | 64.01          | 39.31       | 122.01         | 58.00       | 160         | 266       | Horizontal |
| 7                   | 5855.00     | 62.14          | 39.31       | 110.79         | 48.65       | 160         | 266       | Horizontal |
| 8                   | 5875.00     | 58.21          | 39.33       | 105.18         | 46.97       | 160         | 107       | Horizontal |
| 9                   | 5925.00     | 56.74          | 39.36       | 68.20          | 11.46       | 160         | 135       | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 1 at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:48:19

### Test Graph

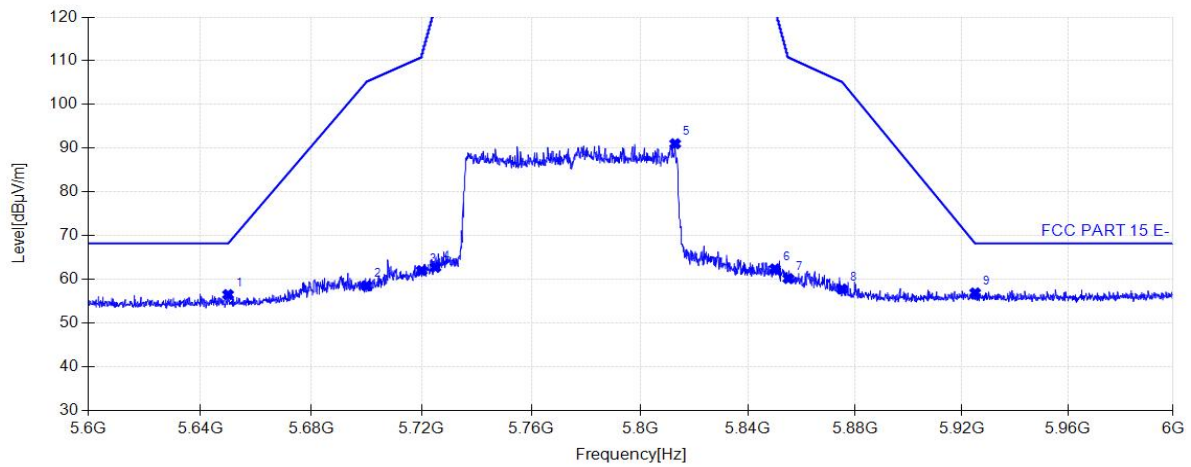


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5650.00     | 54.61          | 39.15       | 68.21          | 13.60       | 160         | 248       | Vertical |
| 2                   | 5700.00     | 57.33          | 39.19       | 105.21         | 47.88       | 160         | 107       | Vertical |
| 3                   | 5720.00     | 59.53          | 39.21       | 110.89         | 51.36       | 160         | 136       | Vertical |
| 4                   | 5725.00     | 59.98          | 39.21       | 122.20         | 62.22       | 160         | 86        | Vertical |
| 5                   | 5798.86     | 91.48          | 39.27       | 122.20         | 30.72       | 160         | 143       | Vertical |
| 6                   | 5850.00     | 60.32          | 39.31       | 122.01         | 61.69       | 160         | 303       | Vertical |
| 7                   | 5855.00     | 58.08          | 39.31       | 110.79         | 52.71       | 160         | 275       | Vertical |
| 8                   | 5875.00     | 57.33          | 39.33       | 105.18         | 47.85       | 160         | 129       | Vertical |
| 9                   | 5925.00     | 56.41          | 39.36       | 68.20          | 11.79       | 160         | 1         | Vertical |

| Project Information |                                                  |           |                       |
|---------------------|--------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                      | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                             | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:52:04

### Test Graph

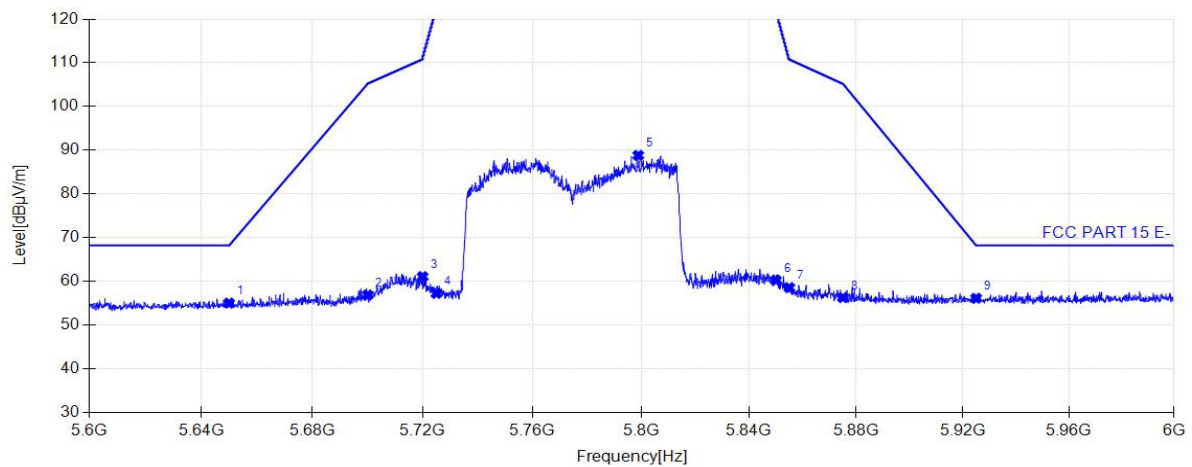


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5650.00     | 56.50          | 39.15       | 68.21          | 11.71       | 160         | 331       | Horizontal |
| 2                   | 5700.00     | 58.54          | 39.19       | 105.21         | 46.67       | 160         | 310       | Horizontal |
| 3                   | 5720.00     | 62.01          | 39.21       | 110.89         | 48.88       | 160         | 331       | Horizontal |
| 4                   | 5725.00     | 62.74          | 39.21       | 122.20         | 59.46       | 160         | 324       | Horizontal |
| 5                   | 5813.00     | 91.03          | 39.28       | 122.20         | 31.17       | 160         | 331       | Horizontal |
| 6                   | 5850.00     | 62.39          | 39.31       | 122.01         | 59.62       | 160         | 338       | Horizontal |
| 7                   | 5855.00     | 60.18          | 39.31       | 110.79         | 50.61       | 160         | 331       | Horizontal |
| 8                   | 5875.00     | 57.77          | 39.33       | 105.18         | 47.41       | 160         | 150       | Horizontal |
| 9                   | 5925.00     | 56.89          | 39.36       | 68.20          | 11.31       | 160         | 80        | Horizontal |

| Project Information |                                                   |           |                       |
|---------------------|---------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                       | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                                 | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                              | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - Ant 2 at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:52:56

### Test Graph

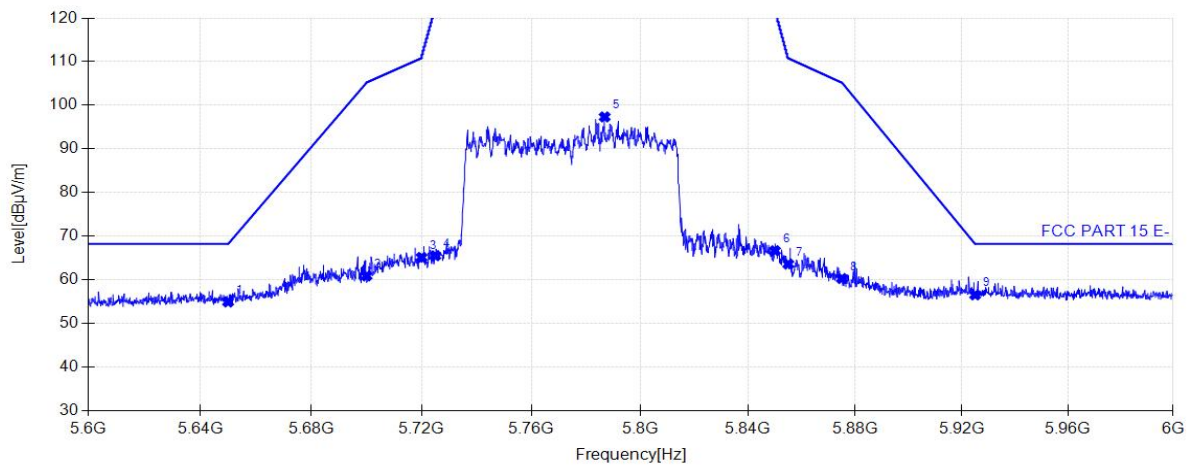


| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5650.00     | 55.04          | 39.15       | 68.21          | 13.17       | 160         | 343       | Vertical |
| 2                   | 5700.00     | 56.87          | 39.19       | 105.21         | 48.34       | 160         | 141       | Vertical |
| 3                   | 5720.00     | 61.08          | 39.21       | 110.89         | 49.81       | 160         | 141       | Vertical |
| 4                   | 5725.00     | 57.24          | 39.21       | 122.20         | 64.96       | 160         | 163       | Vertical |
| 5                   | 5798.99     | 88.82          | 39.27       | 122.20         | 33.38       | 160         | 156       | Vertical |
| 6                   | 5850.00     | 60.24          | 39.31       | 122.01         | 61.77       | 160         | 163       | Vertical |
| 7                   | 5855.00     | 58.55          | 39.31       | 110.79         | 52.24       | 160         | 163       | Vertical |
| 8                   | 5875.00     | 56.28          | 39.33       | 105.18         | 48.90       | 160         | 148       | Vertical |
| 9                   | 5925.00     | 56.13          | 39.36       | 68.20          | 12.07       | 160         | 163       | Vertical |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:55:52

### Test Graph

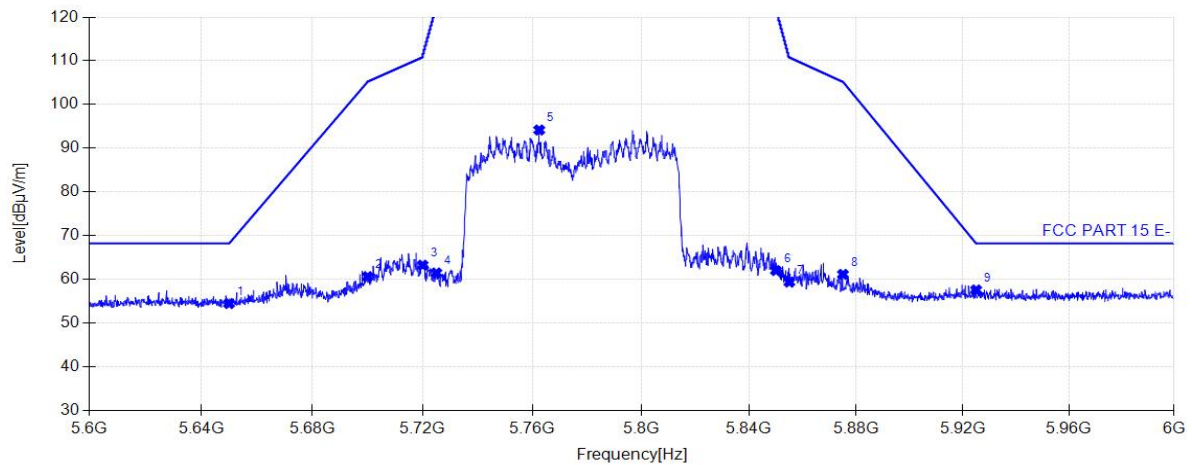


| Suspected Data List |             |                |             |                |             |             |           |            |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1                   | 5650.00     | 54.91          | 39.15       | 68.21          | 13.30       | 160         | 359       | Horizontal |
| 2                   | 5700.00     | 60.89          | 39.19       | 105.21         | 44.32       | 160         | 290       | Horizontal |
| 3                   | 5720.00     | 65.13          | 39.21       | 110.89         | 45.76       | 160         | 330       | Horizontal |
| 4                   | 5725.00     | 65.51          | 39.21       | 122.20         | 56.69       | 160         | 255       | Horizontal |
| 5                   | 5786.99     | 97.33          | 39.26       | 122.20         | 24.87       | 160         | 296       | Horizontal |
| 6                   | 5850.00     | 66.65          | 39.31       | 122.01         | 55.36       | 160         | 268       | Horizontal |
| 7                   | 5855.00     | 63.60          | 39.31       | 110.79         | 47.19       | 160         | 255       | Horizontal |
| 8                   | 5875.00     | 60.29          | 39.33       | 105.18         | 44.89       | 160         | 296       | Horizontal |
| 9                   | 5925.00     | 56.53          | 39.36       | 68.20          | 11.67       | 160         | 122       | Horizontal |

| Project Information |                                                 |           |                       |
|---------------------|-------------------------------------------------|-----------|-----------------------|
| EUT:                | Caper Cart M3 Android board                     | Model:    | PCBA-CAP-CA03AN-RK 39 |
| S/N:                | /                                               | Voltage:  | DC 24V                |
| Environment:        | Temp: 22°C; Humi:54%                            | Engineer: | Amos Xia              |
| Remark:             | Transmit by 802.11ax80 - CDD at Channel 5775MHz |           |                       |

Start of Test:2023-02-23 17:56:45

### Test Graph



| Suspected Data List |             |                |             |                |             |             |           |          |
|---------------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.                 | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1                   | 5650.00     | 54.46          | 39.15       | 68.21          | 13.75       | 160         | 163       | Vertical |
| 2                   | 5700.00     | 60.62          | 39.19       | 105.21         | 44.59       | 160         | 136       | Vertical |
| 3                   | 5720.00     | 63.24          | 39.21       | 110.89         | 47.65       | 160         | 143       | Vertical |
| 4                   | 5725.00     | 61.46          | 39.21       | 122.20         | 60.74       | 160         | 150       | Vertical |
| 5                   | 5762.58     | 94.17          | 39.24       | 122.20         | 28.03       | 160         | 150       | Vertical |
| 6                   | 5850.00     | 62.01          | 39.31       | 122.01         | 60.00       | 160         | 163       | Vertical |
| 7                   | 5855.00     | 59.38          | 39.31       | 110.79         | 51.41       | 160         | 282       | Vertical |
| 8                   | 5875.00     | 61.14          | 39.33       | 105.18         | 44.04       | 160         | 143       | Vertical |
| 9                   | 5925.00     | 57.57          | 39.36       | 68.20          | 10.63       | 160         | 129       | Vertical |

## 7.10. AC Conducted Emissions Measurement

### 7.10.1. Test Limit

| FCC Part 15.207 Limits |                    |                    |
|------------------------|--------------------|--------------------|
| Frequency<br>(MHz)     | QP<br>(dB $\mu$ V) | AV<br>(dB $\mu$ V) |
| 0.15 ~ 0.50            | 66 ~ 56            | 56 ~ 46            |
| 0.50 ~ 5.0             | 56                 | 46                 |
| 5.0 ~ 30               | 60                 | 50                 |

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

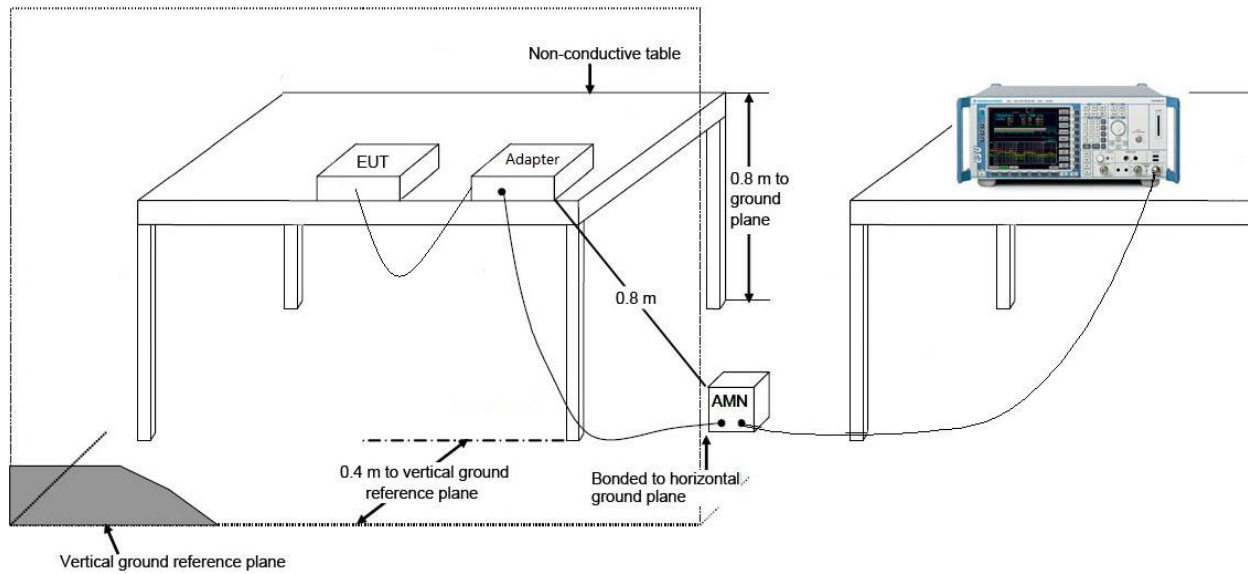
### 7.10.2. Test Procedure

The EUT was setup according to ANSI C63.4: 2014 and tested according to ANSI C63.10:2013 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

### 7.10.3. Test Setup



### 7.10.4. Test Result

DC power supply, Not applicable.

## 8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Caper Cart M3 Android board** is in compliance with Part 15E of the FCC Rules and IC Rules.

\_\_\_\_\_ The End \_\_\_\_\_