



FCC Part 15B TEST REPORT

Report No.: STS2204062E03

Issued for

BirdDog Australia Pty Ltd

10-38 Down St, Collingwood, VIC, 3066, Australia

|                |                               |
|----------------|-------------------------------|
| Product Name:  | BirdDog Play                  |
| Brand Name:    | BirdDog                       |
| Model Name:    | BDPlay                        |
| Series Model:  | N/A                           |
| FCC ID:        | 2A6CJ-BDPLAY                  |
| Test Standard: | FCC 47 CFR Part 15: Subpart B |

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**TEST RESULT CERTIFICATION****Applicant's Name** .....: BirdDog Australia Pty Ltd

Address.....: 10-38 Down St, Collingwood, VIC, 3066, Australia

**Manufacture's Name** .....: Shenzhen VastDo Technology Co., LtdAddress.....: Room 403-5, Building L, Baicai Technology Park, No. 26, Lane 2,  
Liuxian 1st Road, Baoan District, Shenzhen, Guangdong Province,  
China**Product Description** .....

Product Name .....: BirdDog Play

Brand Name.....: BirdDog

Model Name .....: BDPlay

Series Model .....: N/A

**Standards**.....: FCC 47 CFR Part 15: Subpart B

Test Procedure.....: ANSI C63.4-2014

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....:

Date of Receipt of Test Item.....: 11 Apr. 2022

Date of Performance of Tests .....: 11 Apr. 2022~13 June 2022

Date of Issue.....: 13 June 2022

Test Result .....: **Pass**

Testing Engineer :

(Jane Chen)

Technical Manager :

(Bulun)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

| Rev. | Issue Date   | Report No.    | Effect Page | Contents      |
|------|--------------|---------------|-------------|---------------|
| 00   | 13 June 2022 | STS2204062E03 | ALL         | Initial Issue |
|      |              |               |             |               |





## 1. SUMMARY OF THE TEST RESULTS

Test procedures according to the technical standards:

| EMISSION                     |                    |        |                    |
|------------------------------|--------------------|--------|--------------------|
| Standard                     | Item               | Result | Remarks            |
| FCC 47 CFR Part 15 Subpart B | Conducted Emission | PASS   | Meet Class B limit |
|                              | Radiated Emission  | PASS   | Meet Class B limit |

NOTE:

(1) N/A=Not Applicable.

### 1.1 TEST FACTORY

|                   |                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Company Name:     | SHENZHEN STS TEST SERVICES CO.,LTD.                                                                                                           |
| Address:          | A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China |
| Telephone:        | +86-755 3688 6288                                                                                                                             |
| Fax:              | +86-755 3688 6277                                                                                                                             |
| Registration No.: | FCC test Firm Registration Number: 625569                                                                                                     |
|                   | IC test Firm Registration Number: 12108A                                                                                                      |
|                   | A2LA Certificate No.: 4338.01                                                                                                                 |

### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

| No. | Item                                      | Uncertainty         |
|-----|-------------------------------------------|---------------------|
| 1   | Conducted Emission (9KHz-30MHz)           | $\pm 2.73\text{dB}$ |
| 2   | All emissions,radiated(<1G) 30MHz-1000MHz | $\pm 4.09\text{dB}$ |
| 3   | All emissions,radiated(>1G) 1GHz-6GHz     | $\pm 4.92\text{dB}$ |
| 4   | All emissions,radiated(>1G) 6GHz-18GHz    | $\pm 5.49\text{dB}$ |



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF THE EUT

|                         |                |                                                                                                                                        |
|-------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Product Name            | BirdDog Play   |                                                                                                                                        |
| Brand Name              | BirdDog        |                                                                                                                                        |
| Model Name              | BDPlay         |                                                                                                                                        |
| Series Model            | N/A            |                                                                                                                                        |
| Model Difference        | N/A            |                                                                                                                                        |
| Frequency Bands         | Bluetooth      | 2402~2480 MHz                                                                                                                          |
|                         | 2.4G WLAN      | 802.11b/g/n(HT20/40):2412~2462MHz<br>802.11n(40MHz):2422~2452MHz                                                                       |
|                         | 5G WLAN        | IEEE 802.11a/ n(HT20)/ac(VHT20):<br>5.180GHz-5.240GHz                                                                                  |
|                         |                | IEEE 802.11n(HT40)/ac(VHT40):<br>5.190GHz-5.310GHz                                                                                     |
|                         |                | IEEE 802.11ac(VHT80): 5.210GHz                                                                                                         |
|                         |                | IEEE 802.11a/ n(HT20)/ac(VHT20):<br>5.260GHz-5.320GHz                                                                                  |
|                         |                | IEEE 802.11n(HT40)/ac(VHT40):<br>5.270GHz-5.310GHz                                                                                     |
|                         |                | IEEE 802.11ac(VHT80): 5.290GHz                                                                                                         |
|                         |                | IEEE 802.11a/ n(HT20)/ac(VHT20):<br>5.500GHz-5.700GHz                                                                                  |
|                         |                | IEEE 802.11n(HT40)/ac(VHT40):<br>5.510GHz-5.670GHz                                                                                     |
|                         |                | IEEE 802.11ac(VHT80): 5.530GHz-5.610GHz                                                                                                |
|                         |                | IEEE 802.11a/ n(HT20)/ac(VHT20):<br>5.745GHz-5.825GHz                                                                                  |
| Modulation Mode         | Bluetooth      | GFSK(1Mbps), $\pi/4$ -DQPSK(2Mbps),<br>8DPSK(3Mbps)                                                                                    |
|                         | BLE            | GFSK                                                                                                                                   |
|                         | 2.4 G WLAN     | 802.11b(DSSS):CCK,DQPSK,DBPSK<br>802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM<br>802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM                        |
|                         | 5G WLAN        | 802.11a(OFDM): BPSK,QPSK,16-QAM,64-QAM<br>802.11n(OFDM): BPSK,QPSK,16-QAM,64-QAM<br>802.11ac(OFDM):<br>BPSK,QPSK,16-QAM,64-QAM,256-QAM |
| Rating                  | Input: 5V/1.2A |                                                                                                                                        |
| Hardware Version Number | BirdDog v1.0   |                                                                                                                                        |
| Software Version Number | BD-U-V1.0.0    |                                                                                                                                        |

*Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.*



## 2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Mode | Description                           |
|--------------|---------------------------------------|
| Mode 1       | Adapter+HDMI+USB Cable+Earphone+ +LAN |

| For Conducted Test |                                       |
|--------------------|---------------------------------------|
| Final Test Mode    | Description                           |
| Mode 1             | Adapter+HDMI+USB Cable+Earphone+ +LAN |

| For Radiated Test |                                       |
|-------------------|---------------------------------------|
| Final Test Mode   | Description                           |
| Mode 1            | Adapter+HDMI+USB Cable+Earphone+ +LAN |

### Note:

1. For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 1 was the worst case and only this mode was presented in this report.
3. We have be tested for all avaiable U.S. voltage and frequencies (For 120V, 50/60Hz) for which the device is capable of operation.





## 2.3 DESCRIPTION OF THE TEST SETUP

The EUT has been tested with associated equipment below and the test setup please refer to appendix 1 - test setup.

### Necessary accessories

| Item | Equipment      | Mfr/Brand | Model/Type No. | Length | Note |
|------|----------------|-----------|----------------|--------|------|
| /    | USB Cable      | Birddog   | N/A            | 160cm  | NO   |
| /    | Remote control | Teiamon   | N/A            | N/A    | N/A  |
|      |                |           |                |        |      |

### Support units

| Item | Equipment  | Mfr/Brand | Model/Type No. | Length | Note |
|------|------------|-----------|----------------|--------|------|
| /    | U-disk     | Sandisk   | CZ73           | N/A    | N/A  |
| /    | Earphone   | N/A       | N/A            | N/A    | N/A  |
| /    | Display    | AOC       | LE24A3150/80   | N/A    | N/A  |
| /    | HDMI Cable | N/A       | N/A            | 110cm  | NO   |
| /    | Adapter    | HUAWEI    | HW-050450C00   | N/A    | N/A  |
|      |            |           |                |        |      |

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.





## 2.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

### Radiation Test equipment

| Kind of Equipment            | Manufacturer               | Type No.     | Serial No. | Last Calibration | Calibrated Until |
|------------------------------|----------------------------|--------------|------------|------------------|------------------|
| EMI Test Receiver            | R&S                        | ESCI         | 101427     | 2021.09.30       | 2022.09.29       |
| Bi-log Antenna               | TESEQ                      | CBL6111D     | 45873      | 2021.10.08       | 2023.10.07       |
| Horn Antenna                 | SCHWARZB<br>ECK            | BBHA 9120D   | 1343       | 2020.10.12       | 2022.10.11       |
| Pre-amplifier(1-26.5<br>G)   | Agilent                    | 8449B        | 3008A02383 | 2021.10.09       | 2022.10.08       |
| Pre-amplifier(0.1M-3<br>GHz) | EM                         | EM330        | 060665     | 2021.10.09       | 2022.10.08       |
| Spectrum Analyzer            | Agilent                    | N9020A       | MY49100060 | 2021.09.30       | 2022.09.29       |
| RE Cable (9K-1G)             | N/A                        | R01          | N/A        | 2021.10.09       | 2022.10.08       |
| RE Cable (1-26G)             | N/A                        | R02          | N/A        | 2021.10.09       | 2022.10.08       |
| Temperature &<br>Humidity    | Mieo                       | HH660        | N/A        | 2021.10.09       | 2022.10.08       |
| Horn<br>Antenna(18-40G)      | A-INFO                     | LB-180400-KF | J211020657 | 2020.10.12       | 2022.10.11       |
| Testing Software             | EZ-EMC(Ver.STSLAB-03A1 RE) |              |            |                  |                  |

### Conduction Test equipment

| Kind of Equipment         | Manufacturer               | Type No. | Serial No. | Last Calibration | Calibrated Until |
|---------------------------|----------------------------|----------|------------|------------------|------------------|
| EMI Test Receiver         | R&S                        | ESCI     | 101427     | 2021.09.30       | 2022.09.29       |
| LISN                      | R&S                        | ENV216   | 101242     | 2021.09.30       | 2022.09.29       |
| LISN                      | ETS                        | 3810/2NM | 00023625   | 2021.09.30       | 2022.09.29       |
| Absorbing Clamp           | R&S                        | MDS-21   | 100668     | 2022.03.02       | 2023.03.01       |
| CE Cable                  | N/A                        | C01      | N/A        | 2021.09.30       | 2022.09.29       |
| Temperature &<br>Humidity | Mieo                       | HH660    | N/A        | 2021.10.09       | 2022.10.08       |
| Testing Software          | EZ-EMC(Ver.STSLAB-03A1 CE) |          |            |                  |                  |



### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION Limits

| FREQUENCY (MHz) | <input type="checkbox"/> Class A (dB $\mu$ V) |         | <input checked="" type="checkbox"/> Class B (dB $\mu$ V) |           |
|-----------------|-----------------------------------------------|---------|----------------------------------------------------------|-----------|
|                 | Quasi-peak                                    | Average | Quasi-peak                                               | Average   |
| 0.15 ~ 0.5      | 79.00                                         | 66.00   | 66 - 56 *                                                | 56 - 46 * |
| 0.5 ~ 5         | 73.00                                         | 60.00   | 56.00                                                    | 46.00     |
| 5 ~ 30          | 73.00                                         | 60.00   | 60.00                                                    | 50.00     |

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

| Receiver Parameters | Setting  |
|---------------------|----------|
| Attenuation         | 10 dB    |
| Start Frequency     | 0.15 MHz |
| Stop Frequency      | 30 MHz   |
| IF Bandwidth        | 9 kHz    |

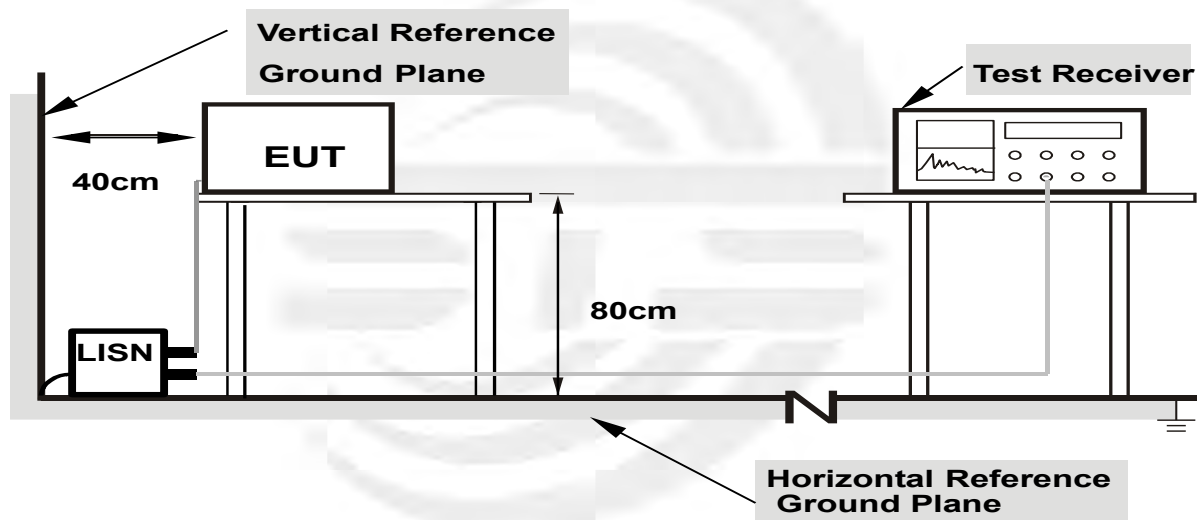
### 3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.1.4 TEST SETUP



**Note: 1.Support units were connected to second LISN.**

**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

### 3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



## 3.1.6 TEST RESULTS

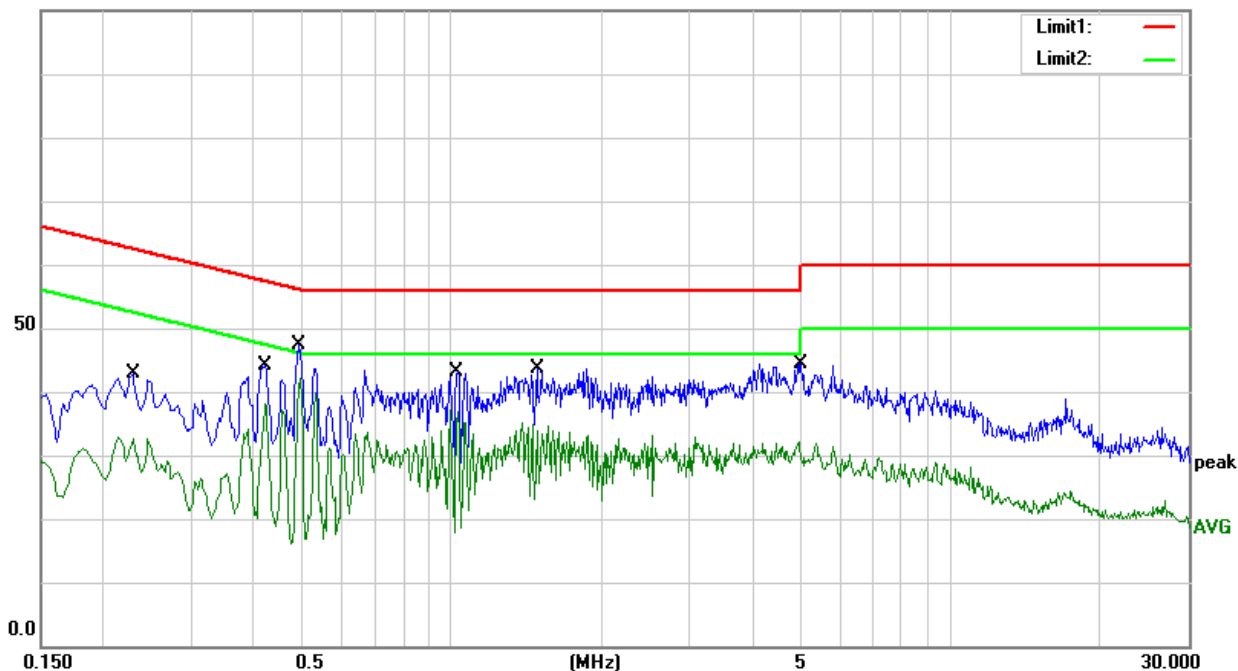
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 23.5 °C      | Relative Humidity: | 52%        |
| Phase:        | L            | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.04.16 |

| No. | Frequency (MHz) | Reading (dBUV) | Correct Factor (dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------------|---------------|--------------|-------------|----------|
| 1   | 0.2300          | 22.33          | 20.44               | 42.77         | 62.45        | -19.68      | QP       |
| 2   | 0.2300          | 12.40          | 20.44               | 32.84         | 52.45        | -19.61      | AVG      |
| 3   | 0.4220          | 23.68          | 20.54               | 44.22         | 57.41        | -13.19      | QP       |
| 4   | 0.4220          | 17.54          | 20.54               | 38.08         | 47.41        | -9.33       | AVG      |
| 5   | 0.4940          | 26.72          | 20.54               | 47.26         | 56.10        | -8.84       | QP       |
| 6   | 0.4940          | 21.56          | 20.54               | 42.10         | 46.10        | -4.00       | AVG      |
| 7   | 1.0300          | 22.79          | 20.30               | 43.09         | 56.00        | -12.91      | QP       |
| 8   | 1.0300          | 16.69          | 20.30               | 36.99         | 46.00        | -9.01       | AVG      |
| 9   | 1.4860          | 23.33          | 20.30               | 43.63         | 56.00        | -12.37      | QP       |
| 10  | 1.4860          | 14.79          | 20.30               | 35.09         | 46.00        | -10.91      | AVG      |
| 11  | 5.0180          | 23.97          | 20.46               | 44.43         | 60.00        | -15.57      | QP       |
| 12  | 5.0180          | 11.64          | 20.46               | 32.10         | 50.00        | -17.90      | AVG      |

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) – Limit
3. Factor = Insertion loss + Cable loss

100.0 dBUV





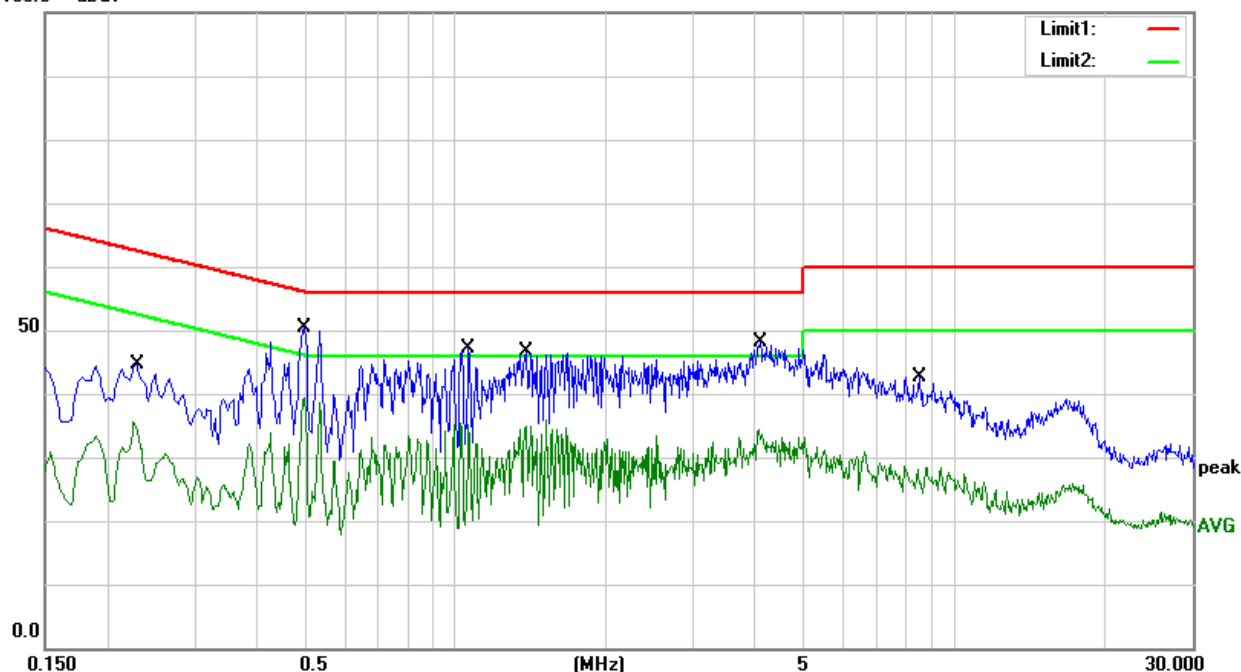
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 23.5 °C      | Relative Humidity: | 52%        |
| Phase:        | N            | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.04.16 |

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------------|---------------|--------------|-------------|----------|
| 1   | 0.2300          | 24.30          | 20.44               | 44.74         | 62.45        | -17.71      | QP       |
| 2   | 0.2300          | 15.19          | 20.44               | 35.63         | 52.45        | -16.82      | AVG      |
| 3   | 0.4980          | 29.77          | 20.54               | 50.31         | 56.03        | -5.72       | QP       |
| 4   | 0.4980          | 18.88          | 20.54               | 39.42         | 46.03        | -6.61       | AVG      |
| 5   | 1.0620          | 26.92          | 20.30               | 47.22         | 56.00        | -8.78       | QP       |
| 6   | 1.0620          | 15.16          | 20.30               | 35.46         | 46.00        | -10.54      | AVG      |
| 7   | 1.3820          | 26.29          | 20.30               | 46.59         | 56.00        | -9.41       | QP       |
| 8   | 1.3820          | 15.61          | 20.30               | 35.91         | 46.00        | -10.09      | AVG      |
| 9   | 4.0860          | 27.79          | 20.40               | 48.19         | 56.00        | -7.81       | QP       |
| 10  | 4.0860          | 13.94          | 20.40               | 34.34         | 46.00        | -11.66      | AVG      |
| 11  | 8.5220          | 21.66          | 20.90               | 42.56         | 60.00        | -17.44      | QP       |
| 12  | 8.5220          | 7.50           | 20.90               | 28.40         | 50.00        | -21.60      | AVG      |

Remark:

1. All readings are Quasi-Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Insertion loss + Cable loss

100.0 dBuV





### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 RADIATED EMISSION LIMITS

Below 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

| Frequency<br>(MHz) | <input type="checkbox"/> Class A     |                                    | <input checked="" type="checkbox"/> Class B |
|--------------------|--------------------------------------|------------------------------------|---------------------------------------------|
|                    | Field strength<br>(dBuV/m) ( at 10m) | Field strength<br>(dBuV/m) (at 3m) | Field strength<br>(dBuV/m) (at 3m)          |
| 30 ~ 88            | 39                                   | 49                                 | 40                                          |
| 88 ~ 216           | 43.5                                 | 53.5                               | 43.5                                        |
| 216 ~ 960          | 46                                   | 56                                 | 46                                          |
| Above 960          | 49.5                                 | 59.5                               | 54                                          |

Above 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

| Frequency<br>(MHz) | <input type="checkbox"/> Class A |         |                   |         | <input checked="" type="checkbox"/> Class B |         |
|--------------------|----------------------------------|---------|-------------------|---------|---------------------------------------------|---------|
|                    | (dBuV/m) (at 3m)                 |         | (dBuV/m) (at 10m) |         | (dBuV/m) (at 3m)                            |         |
|                    | Peak                             | Average | Peak              | Average | Peak                                        | Average |
| Above 1000         | 80                               | 60      | 69.5              | 49.5    | 74                                          | 54      |

#### Frequency Range of Radiated Disturbance Measurement

| Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz) | Range (MHz)                                                         |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Below 1.705                                                                                                                     | 30                                                                  |
| 1.705 ~ 108                                                                                                                     | 1000                                                                |
| 108 ~ 500                                                                                                                       | 2000                                                                |
| 500 ~ 1000                                                                                                                      | 5000                                                                |
| Above 1000                                                                                                                      | 5th harmonic of the highest frequency or 40 GHz, whichever is lower |

Note:

- (1) The limit for radiated test was performed in the following: FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m).



### 3.2.2 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meter.
- c. The height of antenna is varied from 1 meter to 4 meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degree to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

### 3.2.3 DEVIATION FROM TEST STANDARD

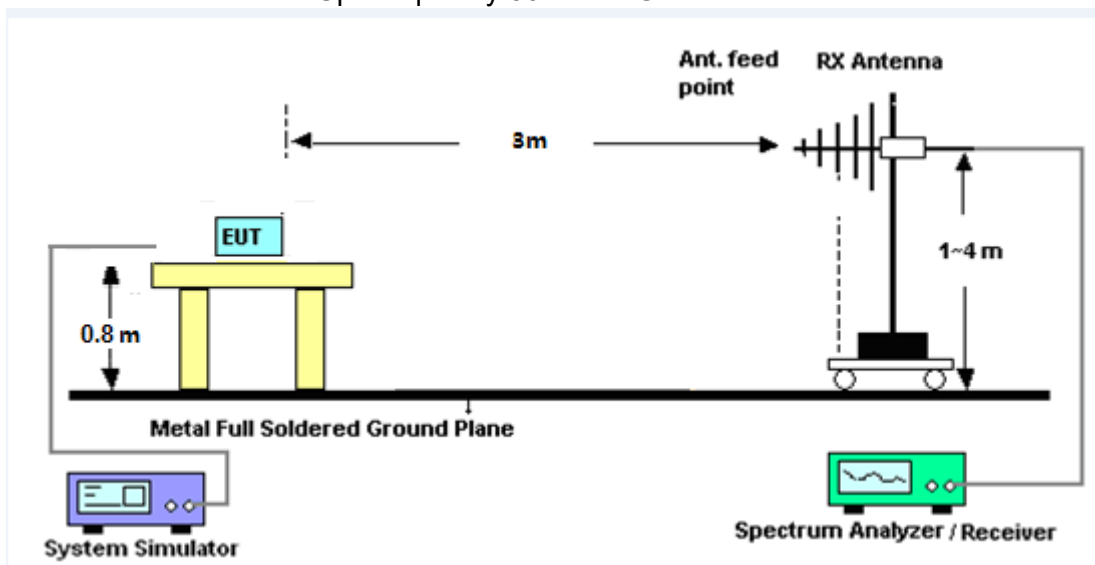
No deviation



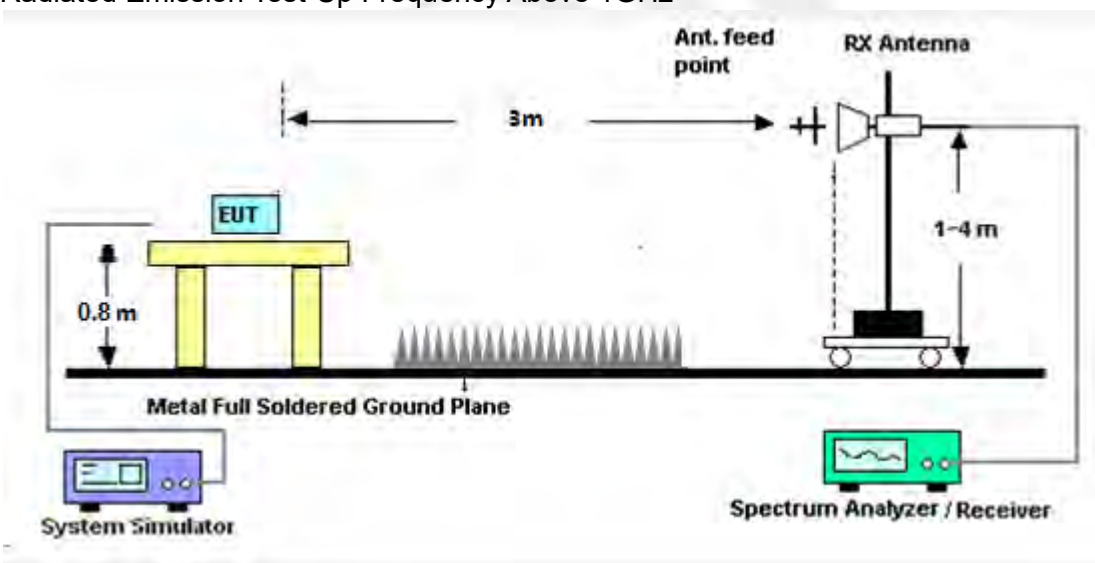


### 3.2.4 TEST SETUP

#### (A) Radiated Emission Test-Up Frequency 30MHz~1GHz



#### (B) Radiated Emission Test-Up Frequency Above 1GHz



### 3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 described unless otherwise a special operating condition is specified in the following during the testing.



## 3.2.6 TEST RESULTS

30MHz - 1000MHz

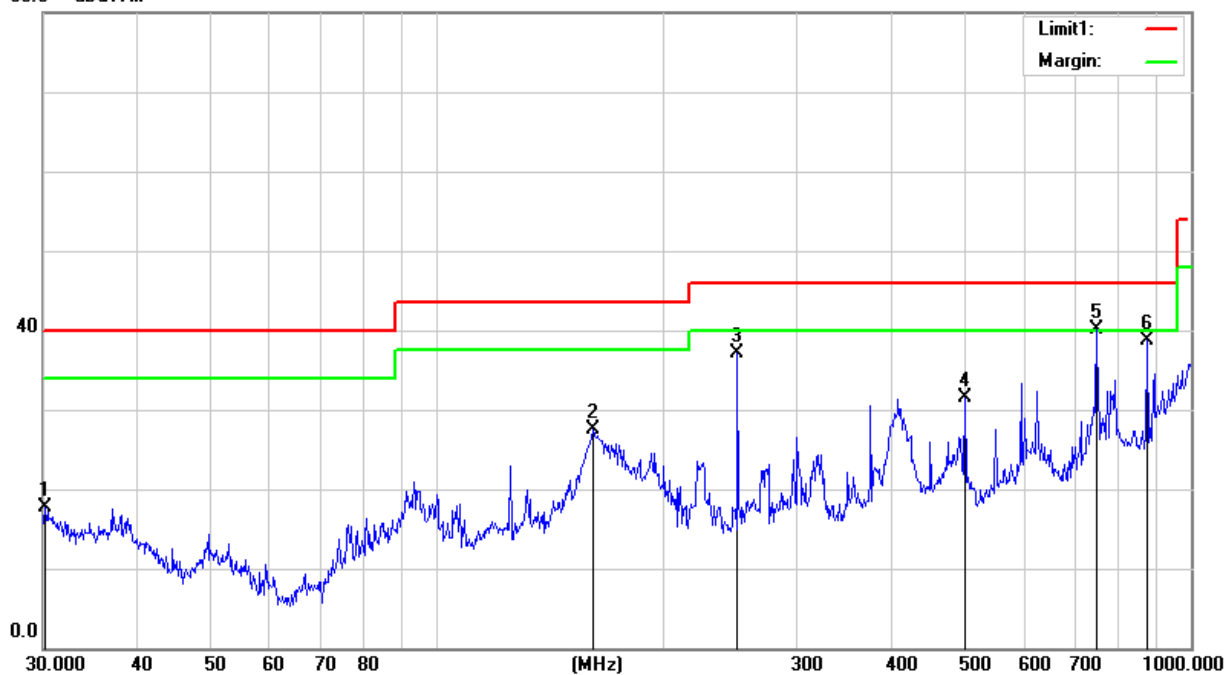
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 24.6 °C      | Relative Humidity: | 55%        |
| Phase:        | Horizontal   | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.05.30 |

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------------|------------------|----------------|-------------|----------|
| 1   | 30.2110         | 28.92          | -11.15              | 17.77            | 40.00          | -22.23      | QP       |
| 2   | 160.9088        | 46.32          | -18.79              | 27.53            | 43.50          | -15.97      | QP       |
| 3   | 250.3010        | 54.38          | -17.35              | 37.03            | 46.00          | -8.97       | QP       |
| 4   | 501.1790        | 41.94          | -10.47              | 31.47            | 46.00          | -14.53      | QP       |
| 5   | 750.1082        | 44.94          | -4.93               | 40.01            | 46.00          | -5.99       | QP       |
| 6   | 875.2470        | 43.32          | -4.55               | 38.77            | 46.00          | -7.23       | QP       |

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





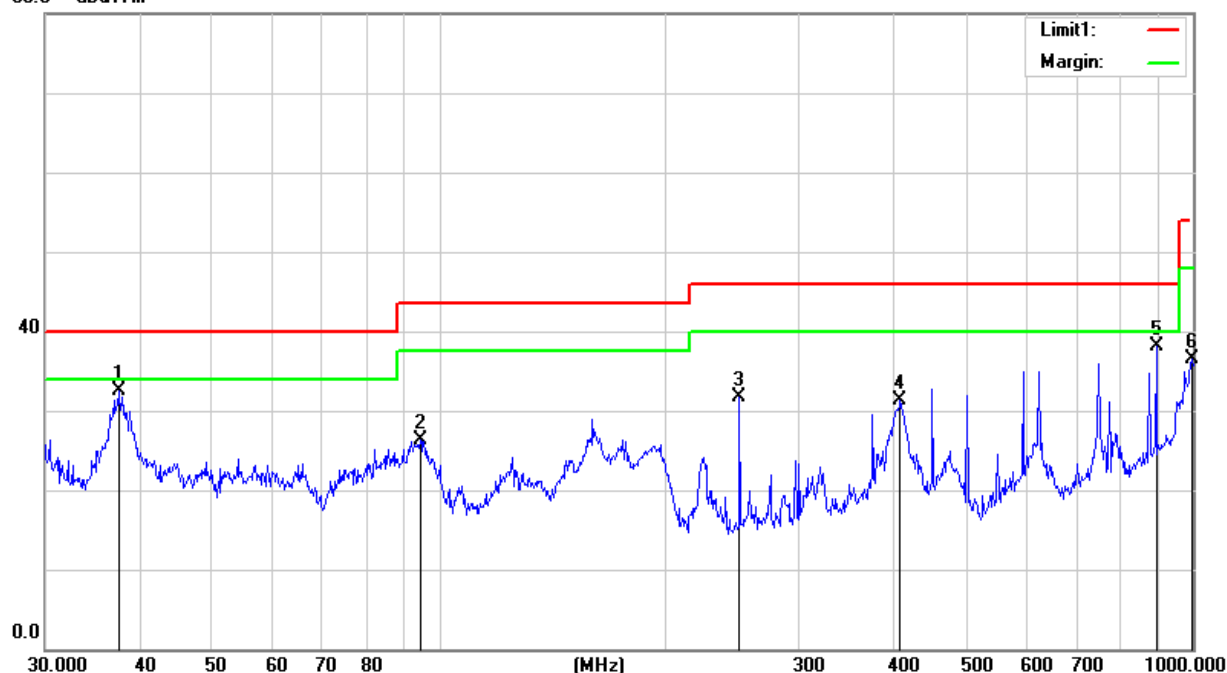
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 24.6 °C      | Relative Humidity: | 55%        |
| Phase:        | Vertical     | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.05.30 |

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------------|------------------|----------------|-------------|----------|
| 1   | 37.5478         | 47.68          | -15.23              | 32.45            | 40.00          | -7.55       | QP       |
| 2   | 94.4282         | 47.10          | -20.84              | 26.26            | 43.50          | -17.24      | QP       |
| 3   | 250.3010        | 49.02          | -17.35              | 31.67            | 46.00          | -14.33      | QP       |
| 4   | 408.9460        | 44.05          | -12.83              | 31.22            | 46.00          | -14.78      | QP       |
| 5   | 893.8567        | 41.82          | -3.74               | 38.08            | 46.00          | -7.92       | QP       |
| 6   | 996.4995        | 38.59          | -2.16               | 36.43            | 54.00          | -17.57      | QP       |

Remark:

1. All readings are Quasi-Peak
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m





(1 GHz - 18GHz)

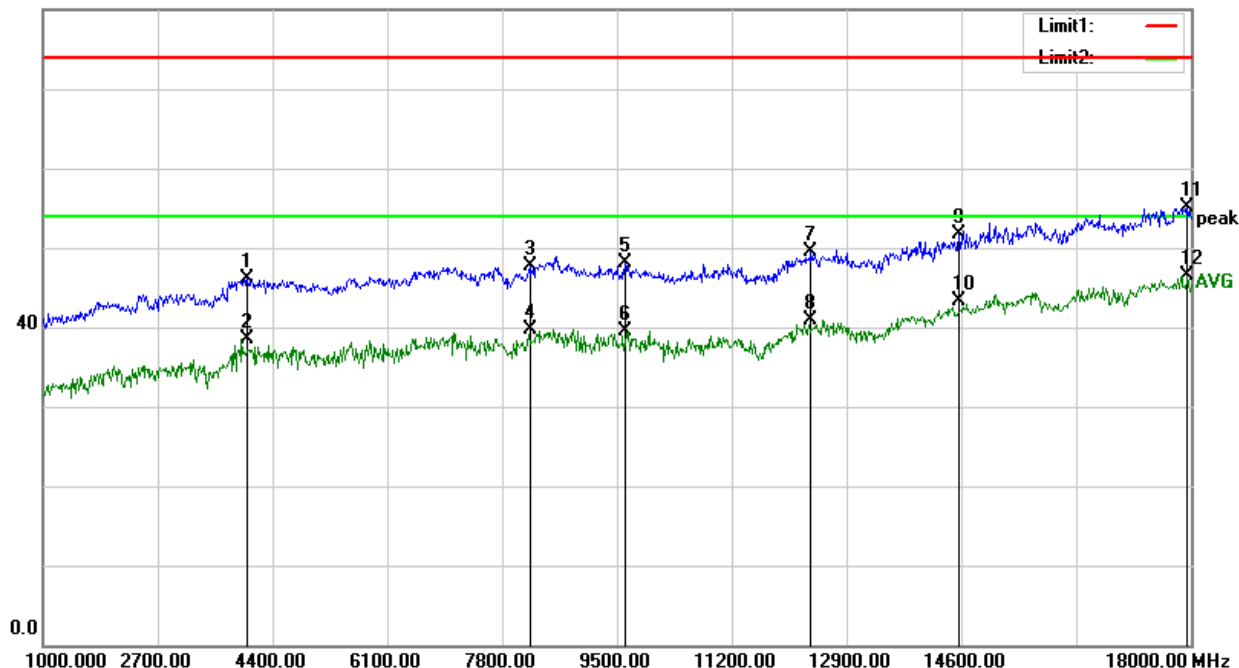
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 25.3 °C      | Relative Humidity: | 53%        |
| Phase:        | Horizontal   | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.04.11 |

| No. | Frequency (MHz) | Reading (dBUV) | Correct Factor (dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----|-----------------|----------------|---------------------|---------------|--------------|-------------|--------|
| 1   | 4026.000        | 41.73          | 4.40                | 46.13         | 74.00        | -27.87      | Peak   |
| 2   | 4026.000        | 34.12          | 4.40                | 38.52         | 54.00        | -15.48      | AVG    |
| 3   | 8225.000        | 36.28          | 11.38               | 47.66         | 74.00        | -26.34      | Peak   |
| 4   | 8225.000        | 28.27          | 11.38               | 39.65         | 54.00        | -14.35      | AVG    |
| 5   | 9627.500        | 34.65          | 13.44               | 48.09         | 74.00        | -25.91      | Peak   |
| 6   | 9627.500        | 25.99          | 13.44               | 39.43         | 54.00        | -14.57      | AVG    |
| 7   | 12381.500       | 34.09          | 15.36               | 49.45         | 74.00        | -24.55      | Peak   |
| 8   | 12381.500       | 25.63          | 15.36               | 40.99         | 54.00        | -13.01      | AVG    |
| 9   | 14574.500       | 33.48          | 18.16               | 51.64         | 74.00        | -22.36      | Peak   |
| 10  | 14574.500       | 25.08          | 18.16               | 43.24         | 54.00        | -10.76      | AVG    |
| 11  | 17957.500       | 30.70          | 24.31               | 55.01         | 74.00        | -18.99      | Peak   |
| 12  | 17957.500       | 22.17          | 24.31               | 46.48         | 54.00        | -7.52       | AVG    |

Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBUV/m





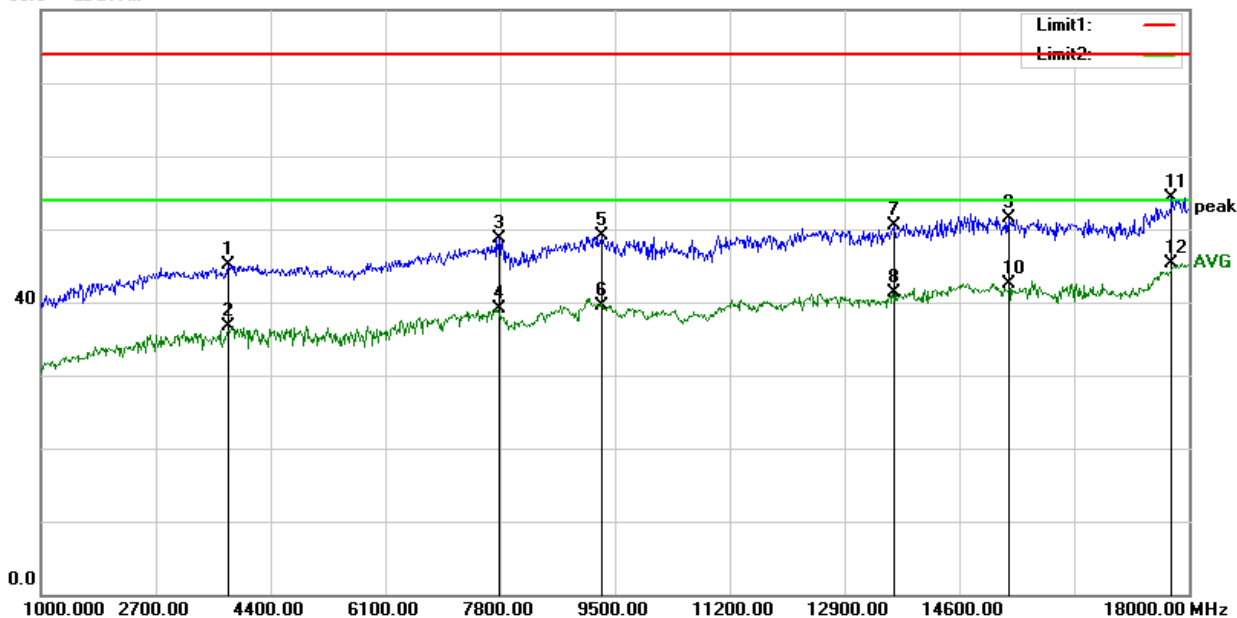
|               |              |                    |            |
|---------------|--------------|--------------------|------------|
| Temperature:  | 25.3 °C      | Relative Humidity: | 53%        |
| Phase:        | Vertical     | Test Mode:         | Mode 1     |
| Test Voltage: | AC 120V/60Hz | Test Date:         | 2022.04.11 |

| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|-----|-----------------|----------------|---------------------|---------------|--------------|-------------|--------|
| 1   | 3779.500        | 41.30          | 3.79                | 45.09         | 74.00        | -28.91      | Peak   |
| 2   | 3779.500        | 32.99          | 3.79                | 36.78         | 54.00        | -17.22      | AVG    |
| 3   | 7783.000        | 37.64          | 11.11               | 48.75         | 74.00        | -25.25      | Peak   |
| 4   | 7783.000        | 28.00          | 11.11               | 39.11         | 54.00        | -14.89      | AVG    |
| 5   | 9321.500        | 35.17          | 13.91               | 49.08         | 74.00        | -24.92      | Peak   |
| 6   | 9321.500        | 25.66          | 13.91               | 39.57         | 54.00        | -14.43      | AVG    |
| 7   | 13631.000       | 34.44          | 16.04               | 50.48         | 74.00        | -23.52      | Peak   |
| 8   | 13631.000       | 25.22          | 16.04               | 41.26         | 54.00        | -12.74      | AVG    |
| 9   | 15339.500       | 34.11          | 17.48               | 51.59         | 74.00        | -22.41      | Peak   |
| 10  | 15339.500       | 25.04          | 17.48               | 42.52         | 54.00        | -11.48      | AVG    |
| 11  | 17753.500       | 30.72          | 23.68               | 54.40         | 74.00        | -19.60      | Peak   |
| 12  | 17753.500       | 21.71          | 23.68               | 45.39         | 54.00        | -8.61       | AVG    |

## Remark:

1. All readings are Peak and Average values
2. Margin = Result (Result = Reading + Factor) - Limit
3. Factor = Cable Loss + Antenna Factor - Amplifier Gain

80.0 dBuV/m



## Notes:

1. Measuring frequencies from 1 GHz to 18GHz.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak and average detector mode of the emission shown in Actual FS column.
3. The frequency emission of 18-25GHz is at least 20dB lower than the limit, and the frequency emission mainly comes from environmental noise.

\*\*\*END OF THE REPORT\*\*\*