



TEST REPORT

APPLICANT : Nubia Technology Co., Ltd.

PRODUCT NAME : 5G Mobile Phone

MODEL NAME : NX679J

BRAND NAME : REDMAGIC

FCC ID : 2AHJO-NX679J

STANDARD(S) : 47 CFR Part 15 Subpart B

RECEIPT DATE : 2021-10-22

TEST DATE : 2021-11-09 to 2021-11-11

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| Change History | | |
|----------------|------------|-------------------|
| Version | Date | Reason for change |
| 1.0 | 2022-01-10 | First edition |
| | | |



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

| | |
|------------------------------|--|
| Applicant: | Nubia Technology Co., Ltd. |
| Applicant Address: | Room 1801, Building 2, Chongwen Park, Nanshan Zhiyuan, No.3370, Liuxian Rd, Nanshan District, Shenzhen City, Guangdong Province, P. R. China |
| Manufacturer: | Nubia Technology Co., Ltd. |
| Manufacturer Address: | Room 1801, Building 2, Chongwen Park, Nanshan Zhiyuan, No.3370, Liuxian Rd, Nanshan District, Shenzhen City, Guangdong Province, P. R. China |

1.2. Equipment Under Test (EUT) Description

| | |
|--------------------------|--|
| ProductName: | 5G Mobile Phone |
| EUT No.: | 5# |
| Hardware Version: | NX679J_V1AMB |
| Software Version: | NX679J_UNCommon_V4.01 |
| Tx Frequency: | GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz CDMA 2000 BC 0: 824 MHz ~ 849 MHz CDMA 2000 BC 1: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 18: 815 MHz ~ 830 MHz LTE Band 19: 830 MHz ~ 845 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 40: 2300 MHz ~ 2400 MHz LTE Band 41: 2496 MHz ~ 2690 MHz |



| | |
|-----------------------------|---|
| | LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz Bluetooth: 2402 MHz ~ 2480 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/ac/n: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz; 5745MHz ~ 5825 MHz NFC:13.56MHz |
| Rx Frequency: | GSM850: 869 MHz ~ 894 MHz GSM1900: 1930 MHz ~ 1990 MHz CDMA 2000 BC 0: 869 MHz ~ 894 MHz CDMA 2000 BC 1: 1930 MHz ~ 1990 MHz WCDMA Band II: 1930 MHz ~ 1990 MHz WCDMA Band IV: 2110 MHz ~ 2155 MHz WCDMA Band V: 869 MHz ~ 894 MHz LTE Band 2: 1930 MHz ~ 1990 MHz LTE Band 4: 2110 MHz ~ 2155 MHz LTE Band 5: 869 MHz ~ 894 MHz LTE Band 7: 2620 MHz ~ 2690 MHz LTE Band 12: 729 MHz ~ 746 MHz LTE Band 17: 734 MHz ~ 746 MHz LTE Band 18: 860 MHz ~ 875 MHz LTE Band 19: 875 MHz ~ 890 MHz LTE Band 26: 859 MHz ~ 894 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 40: 2300 MHz ~ 2400 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 2110 MHz ~ 2200 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz Bluetooth: 2402 MHz ~ 2480 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/ac/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5700 MHz; 5745MHz ~ 5825 MHz GPS/GLNASS/BDS/Galileo: 1559 MHz ~ 1610 MHz NFC:13.56MHz |
| Ancillary Equipment: | Battery Brand Name: nubia |



REPORT No.: SZ21100183E01

| | | |
|-------------------|----------------|--|
| | Model No.: | Li3945T44P8h556490 |
| | Serial No.: | (N/A, marked #1 by test site) |
| | Capacity: | 2190 mAh |
| | Rated Voltage: | 7.74V |
| | Charge Limit: | 8.9V |
| | Manufacturer: | Dongguan Amperex Technology Limited |
| AC Adapter | | |
| | Brand Name: | nubia |
| | Model No.: | STC-A59152050AC-Z |
| | Serial No.: | (N/A, marked #1 by test site) |
| | Rated Input: | 100-240V~50/60Hz, 1.5A |
| | Rated Output: | 5.0V=3.0A,9.0V=3.0A,15.0V=3.0A,20.0V=3.25A PPS:5.0V-11.0V=5.0A,5.0V-20.0V=3.25A |
| | Manufacturer: | ShenZhen KunXing Technology Co.,Ltd. |
| USB Cable | | |
| | Model: | N52111200016D |
| | Manufacturer: | N/A |

Note:

1. For a more detailed description, please refer to specification or user's manual supplied by the applicant and/or manufacturer.



2. Test Results

2.1. Applied Reference Documents

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart B:

| No. | Identity | Document Title |
|-----|----------------|-------------------------|
| 1 | 47 CFR Part 15 | Radio Frequency Devices |

Test detailed items/section required by FCC rules and results are as below:

| No. | Section | Description | Test Date | Test Engineer | Result | Method determination Remark |
|-----|---------|--------------------|------------|---------------|--------|-----------------------------|
| 1 | 15.107 | Conducted Emission | 2021-11-09 | Yang Lian | PASS | No deviation |
| 2 | 15.109 | Radiated Emission | 2021-11-11 | Lin Jiayong | PASS | No deviation |

Note 1:The tests were performed according to the method of measurements prescribed in ANSI C63.4-2014.

Note 2:Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 3: When the test result is a critical value,we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.



2.2. EUT Setup and Operating Conditions

Note: All of the following test modes are tested in all the test items.

| Test Modes | |
|-------------------|--|
| Mode 1 : | GSM 850 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 2 : | GSM 850 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode3 : | GSM 1900 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 4 : | GSM 1900 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 5 : | CDMA 2000 BC 0 Idle + Bluetooth Idle + 5G WLAN Idle + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 6 : | CDMA 2000 BC 1Idle + Bluetooth Idle + 2.4G WLAN Idle + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 7 : | WCDMA Band II Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 8 : | WCDMA Band II Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 9 : | WCDMA Band IV Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 10 : | WCDMA Band IV Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 11 : | WCDMA Band V Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 12 : | WCDMA Band V Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 13 : | LTE Band 2 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 14 : | LTE Band 2 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 15 : | LTE Band 4 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 16 : | LTE Band 4 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 17 : | LTE Band 5 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |



| | |
|-----------|--|
| Mode 18 : | LTE Band 5 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 19 : | LTE Band 7 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 20 : | LTE Band 7 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 21 : | LTE Band 12 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 22 : | LTE Band 12 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 23 : | LTE Band 17 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 24 : | LTE Band 17 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 25 : | LTE Band 18 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 26 : | LTE Band 18 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 27 : | LTE Band 19 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 28 : | LTE Band 19 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 29 : | LTE Band 26 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 30 : | LTE Band 26 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 31 : | LTE Band 38 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 32 : | LTE Band 38 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 33 : | LTE Band 40 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 34 : | LTE Band 40 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 35 : | LTE Band 41 Link + Bluetooth Idle + 2.4G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 36 : | LTE Band 41 Link + Bluetooth Link + 2.4G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |



| | |
|------------------|--|
| Mode 37 : | LTE Band 66 Link + Bluetooth Idle + 5G WLAN Idle + Battery + Earphone + USB Cable (Charging from Adapter) + Adapter + SIM Card |
| Mode 38 : | LTE Band 66 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 39 : | LTE Band Idle + Bluetooth Idle + 2.4G WLAN Idle + GPS Rx + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 40 : | GSM Band Idle + Bluetooth Idle + 5G WLAN Idle + GLONASS Rx + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 41 : | WCDMA Band Idle + Bluetooth Idle + 2.4G WLAN Idle + BDS Rx + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 42 : | SA_n78 Idle + Bluetooth Idle + 5G WLAN Idle + Galileo Rx + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 43 : | NSA_2A_n1A Idle + Bluetooth Idle + 5G WLAN Idle + NFC + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 44 : | LTE Band Idle + Bluetooth Idle + 2.4G WLAN Idle + Camera + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 45 : | LTE Band Idle + Bluetooth Idle + 5G SRDLink + MP4 + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 46 : | LTE Band Idle + Bluetooth Idle + 2.4G WLAN Idle + PC(data transfer) + Battery + Earphone + USB Cable + SIM Card + PC Adapter |
| Mode 47 : | WCDMA Band Idle + Bluetooth Idle + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 48 : | NSA_2A_n41A Link + Bluetooth Idle + 5G WLAN Idle + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 49 : | SA_n41 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 50 : | NSA_2A_n77A Link + Bluetooth Idle + 5G WLAN Idle + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 51 : | SA_n77 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 52 : | NSA_2A_n78A Link + Bluetooth Idle + 5G WLAN Idle + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |
| Mode 53 : | SA_n78 Link + Bluetooth Link + 5G WLAN Link + Battery + USB Cable(Charging from Adapter) + Earphone + Adapter + SIM Card |

Remark:

The above test mode in boldface (Mode 44) was the worst case of conducted emission test, only the test data of these modes were reported. The above test mode in boldface (Mode 46) was the worst case of radiated emission test, only the test data of these modes were reported.



During the measurement, the environmental conditions were within the listed ranges:

| | |
|-----------------------------|----------|
| Temperature (°C): | 15 - 35 |
| Relative Humidity (%): | 30 - 60 |
| Atmospheric Pressure (kPa): | 86 - 106 |

3. 47 CFR Part 15B Requirements

3.1. Conducted Emission

3.1.1. Requirement

According to FCC section 15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

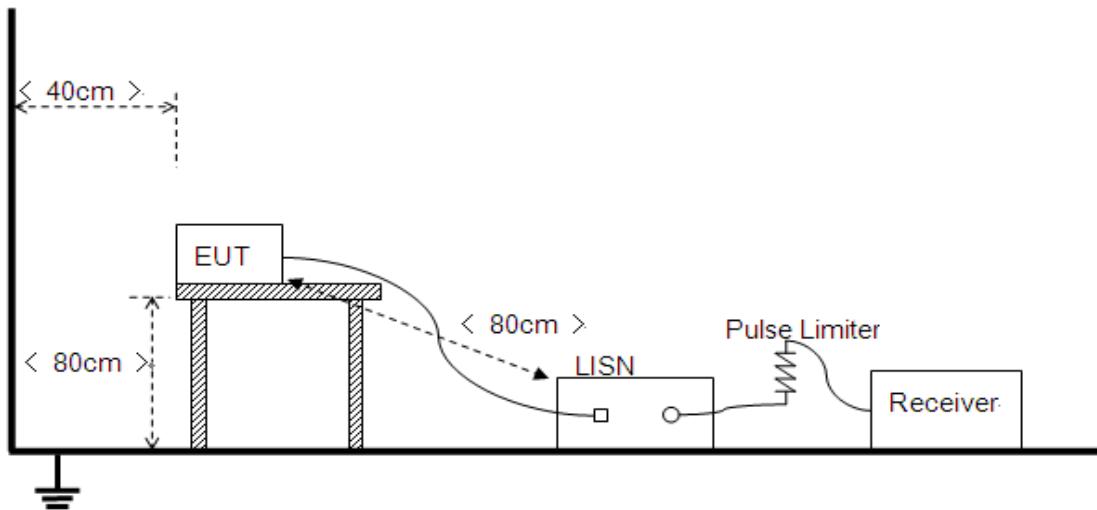
| Frequency range (MHz) | Conducted Limit (dB μ V) | |
|--------------------------|------------------------------|----------|
| | Quasi-peak | Average |
| 0.15 - 0.50 | 66 to 56 | 56 to 46 |
| 0.50 - 5 | 56 | 46 |
| 5 - 30 | 60 | 50 |

NOTE:

- a) The limit subjects to the Class B digital device.
- b) The lower limit shall apply at the band edges.
- c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.1.2. Test Setup

Please refer to Annex A for the photographs of the Test Configuration.

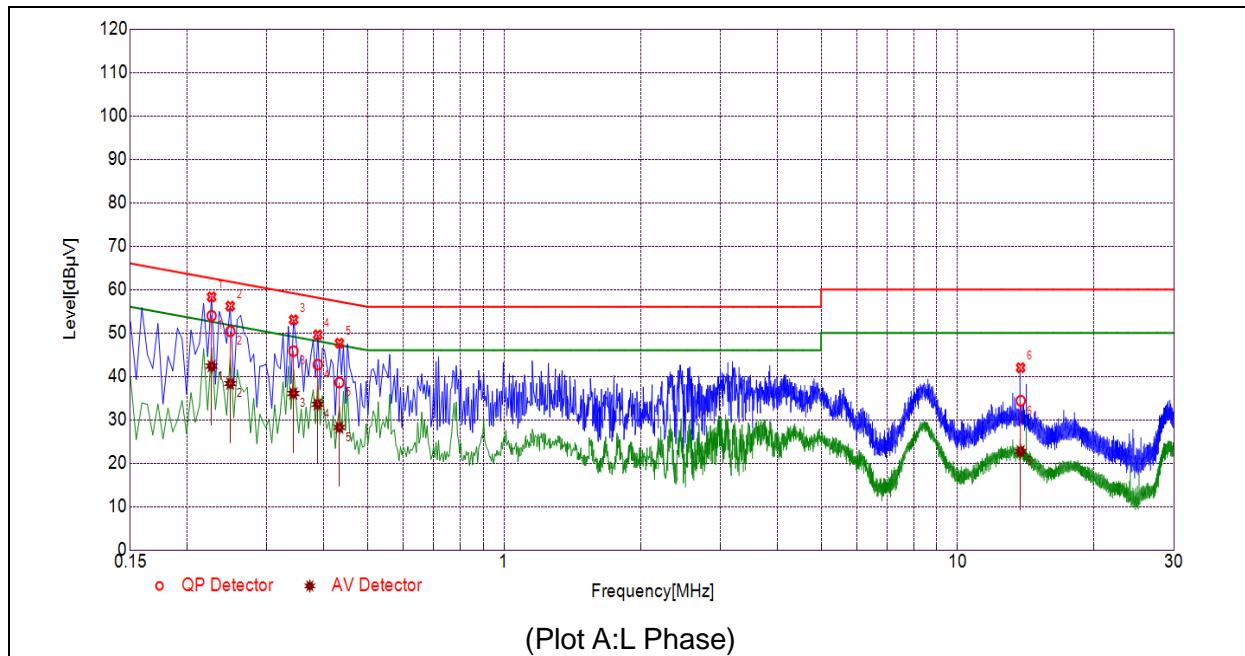


The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides $50\Omega/50\mu\text{H}$ of coupling impedance for the measuring instrument. A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

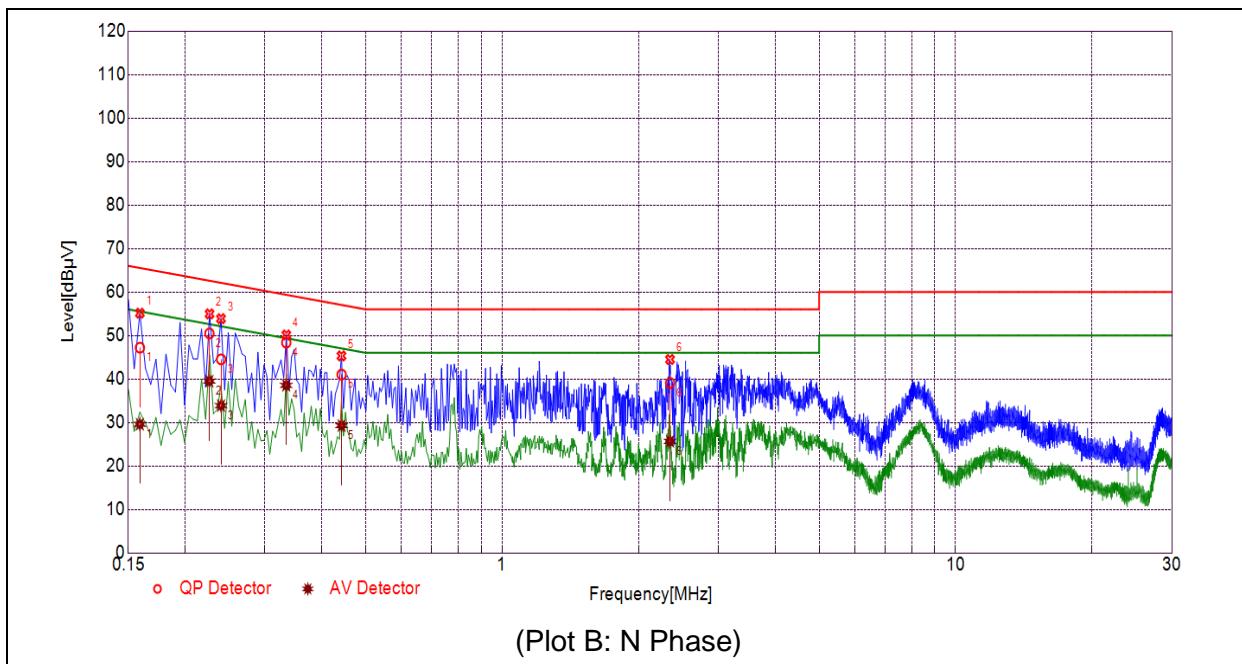
The power strip or extension cord has been investigated to make sure that the LISN integrity is maintained with respect to the impedance characteristics as prescribed in ANSI C63.4-2014 at Clause 4.3.

3.1.3. Test Result

RBW=9 kHz, VBW=30 kHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

A. Test Plot and Suspicious Points:


| NO. | Fre. (MHz) | Emission Level (dB μ V) | | Limit (dB μ V) | | Power-line | Verdict |
|-----|---------------|-----------------------------|---------|--------------------|---------|------------|---------|
| | | Quai-peak | Average | Quai-peak | Average | | |
| 1 | 0.2265 | 53.95 | 42.34 | 62.58 | 52.58 | Line | PASS |
| 2 | 0.2490 | 50.38 | 38.34 | 61.79 | 51.79 | | PASS |
| 3 | 0.3432 | 45.79 | 36.05 | 59.13 | 49.13 | | PASS |
| 4 | 0.3882 | 42.69 | 33.55 | 58.10 | 48.10 | | PASS |
| 5 | 0.4333 | 38.56 | 28.22 | 57.19 | 47.19 | | PASS |
| 6 | 13.7717 | 34.38 | 22.71 | 60.00 | 50.00 | | PASS |



| NO. | Fre. (MHz) | Emission Level (dBμV) | | Limit (dBμV) | | Power-line | Verdict |
|-----|---------------|-----------------------|---------|--------------|---------|------------|---------|
| | | Quai-peak | Average | Quai-peak | Average | | |
| 1 | 0.1590 | 47.19 | 29.57 | 65.51 | 55.51 | Neutral | PASS |
| 2 | 0.2263 | 50.46 | 39.49 | 62.58 | 52.58 | | PASS |
| 3 | 0.2401 | 44.50 | 33.86 | 62.09 | 52.09 | | PASS |
| 4 | 0.3342 | 48.35 | 38.52 | 59.35 | 49.35 | | PASS |
| 5 | 0.4427 | 41.00 | 29.27 | 57.01 | 47.01 | | PASS |
| 6 | 2.3463 | 39.08 | 25.64 | 56.00 | 46.00 | | PASS |



3.2. Radiated Emission

3.2.1. Requirement

According to FCC section 15.109 (a), the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency range (MHz) | Field Strength Limitation at 3m Measurement Dist | |
|-----------------------|--|----------------|
| | (μ V/m) | (dB μ V/m) |
| 30.0 - 88.0 | 100 | 20log 100 |
| 88.0 - 216.0 | 150 | 20log 150 |
| 216.0 - 960.0 | 200 | 20log 200 |
| Above 960.0 | 500 | 20log 500 |

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

Note:

- 1) The tighter limit shall apply at the boundary between two frequency range.
- 2) Limitation expressed in dB μ V/m is calculated by 20log Emission Level(μ V/m).

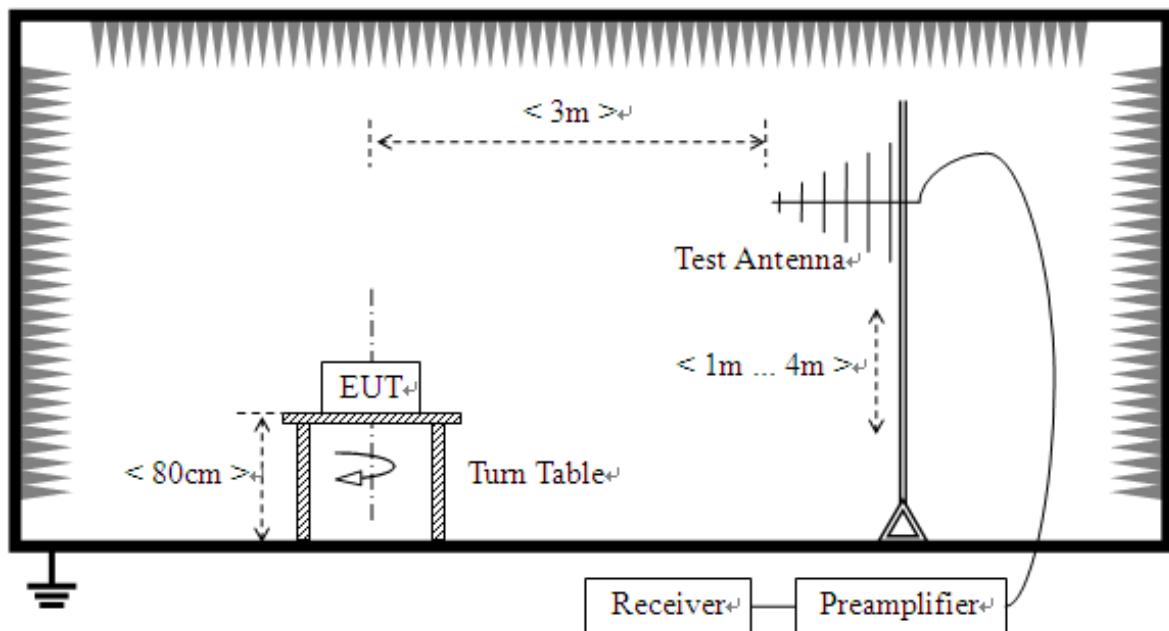
3.2.2. Frequency range of measurement

According to 15.33(b)(1), the frequency range of radiated measurement for the EUT is listed in the following table:

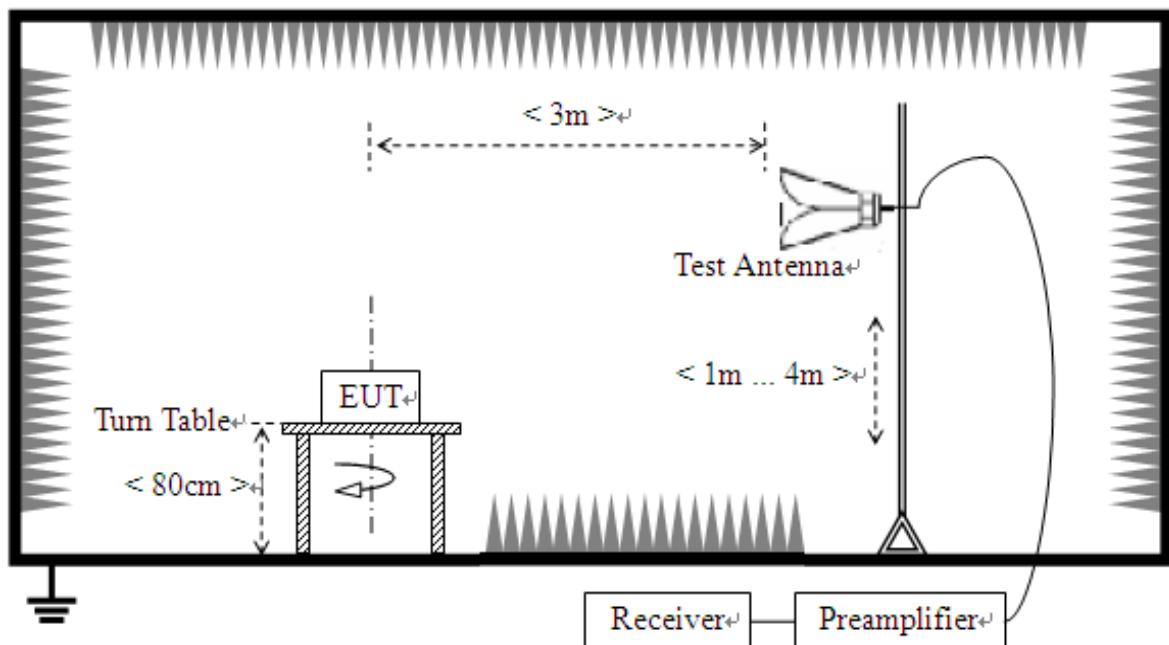
| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz) |
|--|--|
| Below 1.705 | 30. |
| 1.705-108 | 1000. |
| 108-500 | 2000. |
| 500-1000 | 5000. |
| Above 1000 | 5th harmonic of the highest frequency or 40 GHz,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

3.2.3. Test Setup

- 1) For radiated emissions from 30MHz to1GHz



- 2) For radiated emissions above 1GHz





The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower.

For the test Antenna:

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

For measurements below 1GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

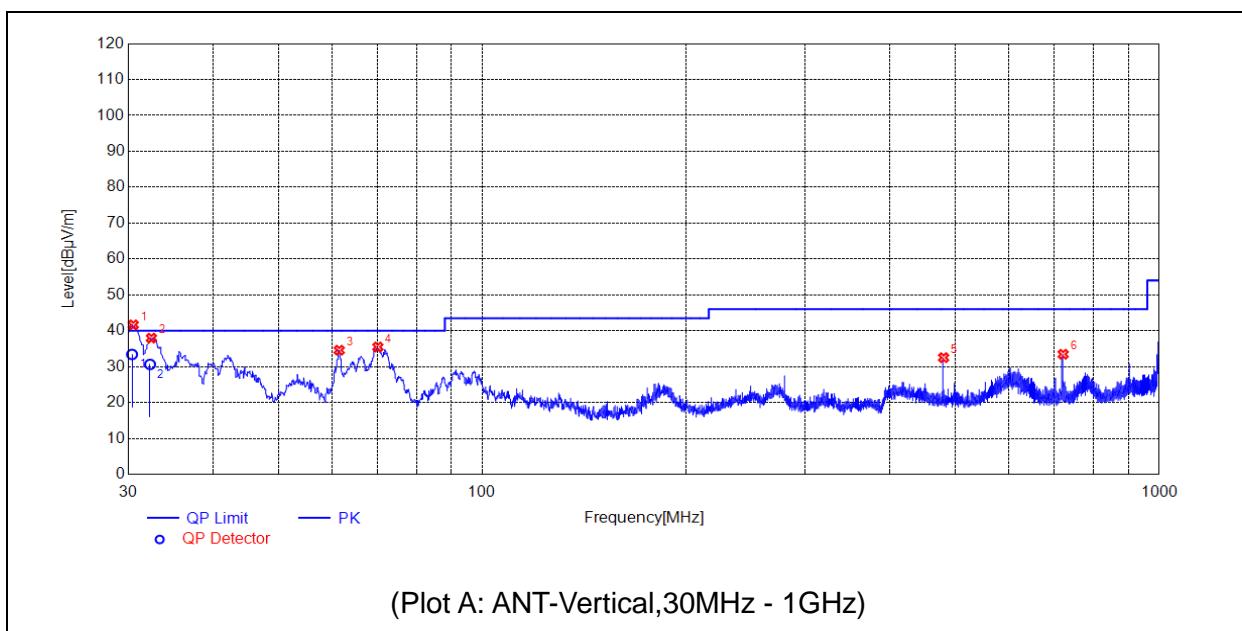
For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

3.2.4. Test Result

The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

The amplitude of emissions (6GHz-12.5GHz) which are attenuated more than 20 dB below the permissible value need not be reported.

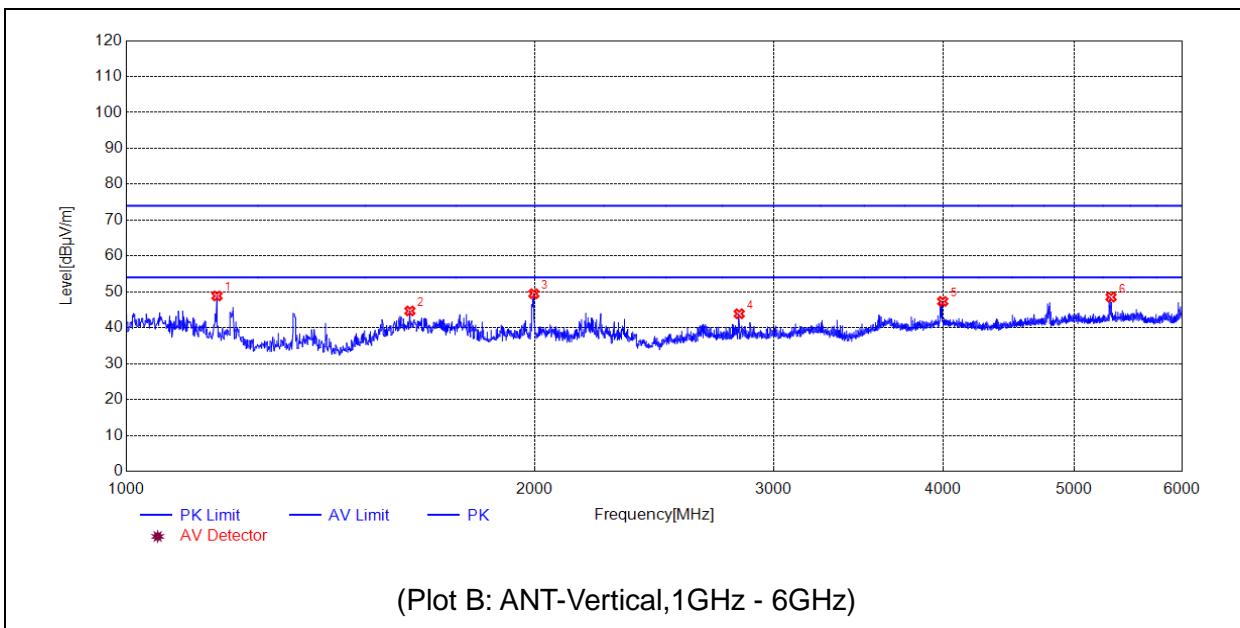
Note: All radiated emission tests were performed in X, Y, Z axis direction, and only the worst axis test condition was recorded in this test report.



| No. | Fre. MHz | Pk dB μ V/m | QP dB μ V/m | AV dB μ V/m | Limit-PK dB μ V/m | Limit-QP dB μ V/m | Limit-AV dB μ V/m | ANT | Verdict |
|-----|-------------|--------------------|--------------------|--------------------|--------------------------|--------------------------|--------------------------|-----|---------|
| 1 | 30.4850 | 41.65 | 33.41 | N.A | N.A | 40.00 | N.A | V | PASS |
| 2 | 32.4252 | 37.96 | 30.63 | N.A | N.A | 40.00 | N.A | V | PASS |
| 3 | 61.4311 | 34.59 | N.A | N.A | N.A | 40.00 | N.A | V | PASS |
| 4 | 70.0650 | 35.47 | N.A | N.A | N.A | 40.00 | N.A | V | PASS |
| 5 | 480.0280 | 32.52 | N.A | N.A | N.A | 46.00 | N.A | V | PASS |
| 6 | 721.0001 | 33.46 | N.A | N.A | N.A | 46.00 | N.A | V | PASS |



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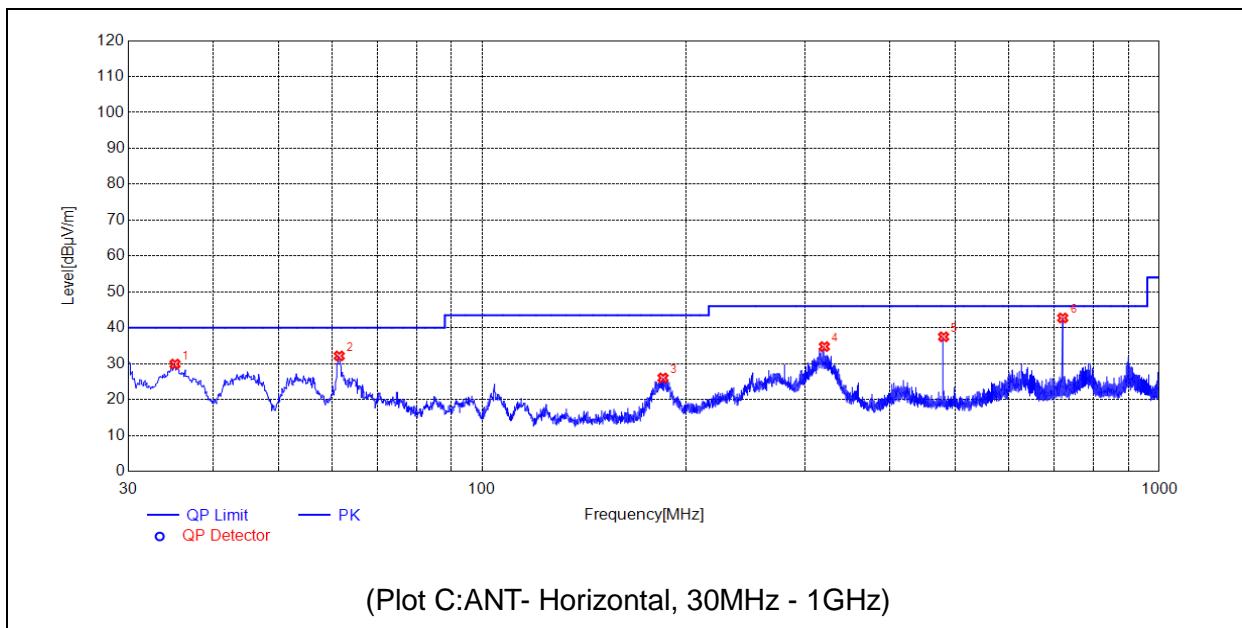


| No. | Fre. MHz | Pk dB μ V/m | QP dB μ V/m | AV dB μ V/m | Limit-PK dB μ V/m | Limit-QP dB μ V/m | Limit-AV dB μ V/m | ANT | Verdict |
|-----|-------------|--------------------|--------------------|--------------------|--------------------------|--------------------------|--------------------------|-----|---------|
| 1 | 1166.0332 | 48.87 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |
| 2 | 1618.1236 | 44.69 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |
| 3 | 1997.1994 | 49.49 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |
| 4 | 2830.3661 | 43.90 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |
| 5 | 3998.5997 | 47.35 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |
| 6 | 5321.8644 | 48.55 | N.A | N.A | 74.00 | N.A | 54.00 | V | PASS |

MORLAB

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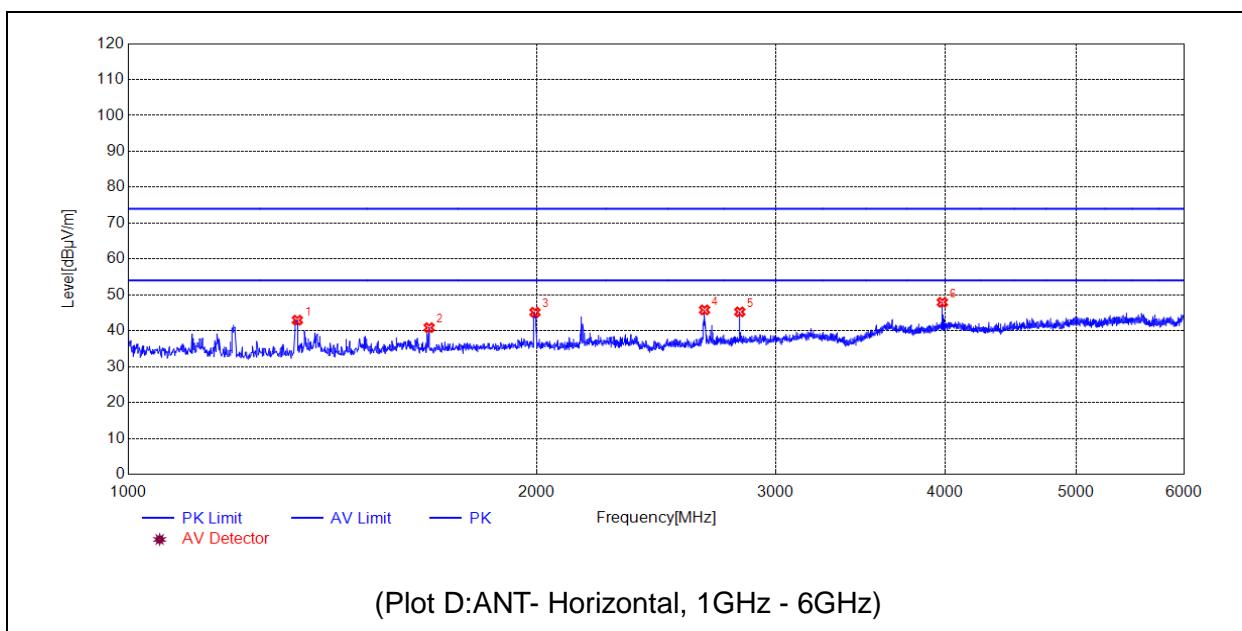
Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



| No. | Fre. MHz | Pk dB μ V/m | QP dB μ V/m | AV dB μ V/m | Limit-PK dB μ V/m | Limit-QP dB μ V/m | Limit-AV dB μ V/m | ANT | Verdict |
|-----|-------------|--------------------|--------------------|--------------------|--------------------------|--------------------------|--------------------------|-----|---------|
| 1 | 35.1415 | 29.88 | N.A | N.A | N.A | 40.00 | N.A | H | PASS |
| 2 | 61.4311 | 32.15 | N.A | N.A | N.A | 40.00 | N.A | H | PASS |
| 3 | 184.8275 | 26.01 | N.A | N.A | N.A | 43.50 | N.A | H | PASS |
| 4 | 319.9620 | 34.75 | N.A | N.A | N.A | 46.00 | N.A | H | PASS |
| 5 | 480.0280 | 37.48 | N.A | N.A | N.A | 46.00 | N.A | H | PASS |
| 6 | 719.9330 | 42.73 | N.A | N.A | N.A | 46.00 | N.A | H | PASS |



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| No. | Fre. MHz | Pk dB μ V/m | QP dB μ V/m | AV dB μ V/m | Limit-PK dB μ V/m | Limit-QP dB μ V/m | Limit-AV dB μ V/m | ANT | Verdict |
|-----|-------------|--------------------|--------------------|--------------------|--------------------------|--------------------------|--------------------------|-----|---------|
| 1 | 1332.0664 | 42.96 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |
| 2 | 1666.1332 | 40.87 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |
| 3 | 1994.1988 | 45.15 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |
| 4 | 2659.3319 | 45.81 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |
| 5 | 2823.3647 | 45.26 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |
| 6 | 3982.5965 | 47.92 | N.A | N.A | 74.00 | N.A | 54.00 | H | PASS |

MORLAB

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Annex A Test Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Uncertainty of Conducted Emission Measurement

| | | |
|---|--------------|--------------------|
| Measuring Uncertainty for a Level of Confidence of 95%($U=2U_c(y)$) | 9kHz-150kHz | $\pm 3.3\text{dB}$ |
| | 150kHz-30MHz | $\pm 2.8\text{dB}$ |

Uncertainty of Radiated Emission Measurement

| | | |
|---|----------------|---------------------|
| Measuring Uncertainty for a Level of Confidence of 95%($U=2U_c(y)$) | 30MHz-200MHz | $\pm 5.06\text{dB}$ |
| | 200MHz-1000MHz | $\pm 5.04\text{dB}$ |
| | 1GHz-6GHz | $\pm 5.18\text{dB}$ |
| | 6GHz-18GHz | $\pm 5.48\text{dB}$ |



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

| | |
|----------------------------|--|
| Laboratory Name: | Shenzhen Morlab Communications Technology Co., Ltd. |
| Laboratory Address: | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China |
| Telephone: | +86 755 36698555 |
| Facsimile: | +86 755 36698525 |

2. Identification of the Responsible Testing Location

| | |
|-----------------|--|
| Name: | Shenzhen Morlab Communications Technology Co., Ltd. |
| Address: | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China |

3. Accreditation Certificate

| | |
|---------------------------------------|--|
| Accredited Testing Laboratory: | The FCC designation number is CN1192. Test firm registration number is 226174. (Shenzhen Morlab Communications Technology Co., Ltd.) |
|---------------------------------------|--|

4. Test Software Utilized

| Model | Version Number | Producer |
|-----------------|-----------------|----------|
| JS32-RE | Version 2.0.2.0 | Tonscend |
| TS+ -[JS32-CE] | Version2.5.0.0 | Tonscend |



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5. Test Equipments Utilized

| Description | Manufacturer | Model | Serial No. | Cal. Date | Due. Date |
|-----------------------------------|--------------|---------------|--------------------|-----------|-----------|
| MXE EMI Receiver | Agilent | N9038A | MY56400093 | 2021/7/16 | 2022/7/15 |
| Test Receiver | R&S | ESPI | 101052 | 2021/7/16 | 2022/7/15 |
| LISN | Schwarzbeck | NSLK 8127 | 8127449 | 2021/3/9 | 2022/3/8 |
| Pulse Limiter (10dB) | Schwarzbeck | VTSD 9561-F | VTSD 9561 F-B #206 | 2021/7/21 | 2022/7/20 |
| Test Antenna - Bi-Log | Schwarzbeck | VULB 9163 | 9163-519 | 2019/5/24 | 2022/5/23 |
| Test Antenna - Horn | Schwarzbeck | BBHA 9120D | 01774 | 2019/7/26 | 2022/7/25 |
| Radiated Disturbance Preamplifier | rflight | S020180L320 3 | 61171/61172 | 2021/7/16 | 2022/7/15 |
| Radiated Disturbance Preamplifier | rflight | S10M100L38 02 | 46732 | 2021/7/16 | 2022/7/15 |

6. Ancillary Equipment Utilized

| Description | Manufacturer | Model | Serial No. |
|-------------|--------------|-------------|---------------|
| PC | DELL | VOSTRO 5370 | DF2DR A01 DPC |
| PC Adapter | DELL | LA45NM140 | OKXTTW |

———— END OF REPORT ————