



FCC TEST REPORT

FCC Part 18

FCC ID:2A6Z7-NUTE76

Report Number.....: ZKT-220511L3081E

Date of Test..... May. 23, 2022 to May. 30, 2022

Date of issue.....: May. 30, 2022

Total number of pages..... 19

Test Result: PASS

Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.

Address: 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name: AA7 Brands Inc

Address: 31-2000 Thurston Dr, Ottawa, On K1G 4K7, Canada

Manufacturer's name: AA7 Brands Inc

Address: 31-2000 Thurston Dr, Ottawa, On K1G 4K7, Canada

Test specification:

Standard.....: FCC Part 18

Test procedure.....: /

Non-standard test method: N/A

Test Report Form No......: TRF-EL-117_V0

Test Report Form(s) Originator.... : ZKT Testing

Master TRF: Dated: 2020-01-06

This device described above has been tested by ZKT, 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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Product name.....: Wireless Power Bank

Trademark: NUPOWER

Model/Type reference.....: NUTE76, TE76

Capacity 10000mah/3.7V

Type-C Input/Output:5V/3A, 9V/2A, 12V/1.5A

USB-A Cable Output:5V/2A

Wireless Output:5W,7.5W,10W,15W



Testing procedure and testing location:

Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.

Address.....: 1/F, No. 101, Building B, No. 6, Tangwei Community
Industrial Avenue, Fuhai Street, Bao'an District,
Shenzhen, China

Tested by (name + signature).....: Alen He

Reviewer (name + signature).....: Joe Liu



Approved (name + signature).....: Lake Xie



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1.VERSION

| Report No. | Version | Description | Approved |
|------------------|---------|-------------------------|---------------|
| ZKT-220511L3081E | Rev.01 | Initial issue of report | May. 30, 2022 |
| | | | |
| | | | |



2.GENERAL INFORMATION

2.1 Description of Device (EUT)

| | |
|------------------|--|
| EUT | : Wireless Power Bank |
| Trademark | : NUPOWER |
| Model Number | : NUTE76, TE76 |
| Model Difference | : All the same except the model number |
| Power Supply | : DC 5V From adapter input AC 120V/60Hz for charging and DC 3.7V From Battery for Discharging. |

2.2 Tested System Details

None.

2.3 Description Of Support Units

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.

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|------|---------------------|-----------|----------------|------------|-----------|
| E1 | Wireless Power Bank | N/A | NUTE76 | N/A | EUT |
| E2 | Mobile Phone | N/A | OPPO A96 | N/A | Auxiliary |
| E3 | Adapter | N/A | PD-014 | N/A | Auxiliary |
| | | | | | |

2.4 Test mode

| Test Modes: | | |
|---|------------------------------------|------------|
| Mode 1 | AC/DC Adapter + EUT + Mobile Phone | Record |
| Mode 2 | AC/DC Adapter+ EUT | Pre-tested |
| Mode 3 | EUT + Mobile Phone | Pre-tested |
| Note: All test modes were pre-tested, but we only recorded the worst case in this report. | | |



2.5 Test Facility

Site Description

Name of Firm : Shenzhen ZKT Technology Co., Ltd.

Site Location : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225

Designation Number: CN1299

IC Registered No.: 27033

2.6 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product 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.

| Test item | Value (dB) |
|-----------------------------------|------------|
| Conducted Emission (150K-30MHZ) | 3.20 |
| Radiated disturbance30MHz-1000MHz | 4.80 |
| | |



2.7 Test Instrument Used

Conducted emissions Test

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|------|---------------------|--------------|----------|------------|------------------|------------------|
| 1 | LISN | R&S | ENV216 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 2 | LISN | CYBERTEK | EM5040A | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 3 | Test Cable | N/A | C01 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 4 | Test Cable | N/A | C02 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 5 | EMI Test Receiver | R&S | ESCI3 | 101421 | Sep. 22, 2021 | Sep. 21, 2022 |
| 6 | Triple-Loop Antenna | LAPLACE | RF300 | 9194 | Sep. 22, 2021 | Sep. 21, 2022 |
| 7 | Absorbing Clamp | DZ | ZN23201 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |

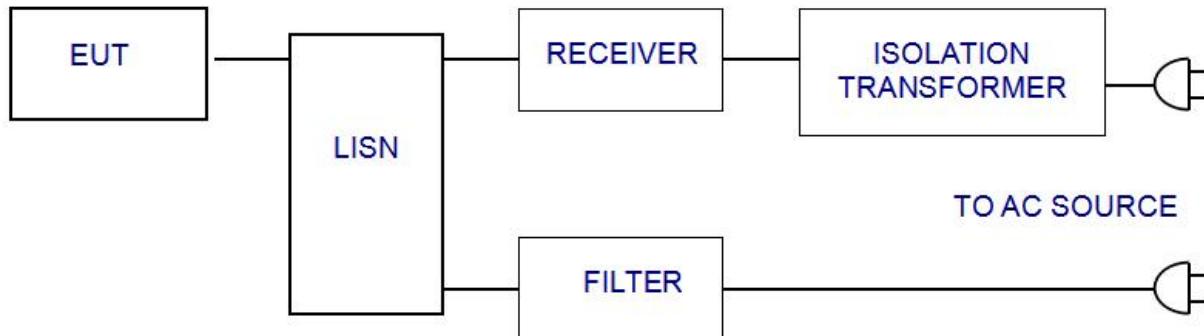
Radiated emissions Test (966 chamber)

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|------|----------------------------|----------------|--------------------------|------------|------------------|------------------|
| 1 | Bilog Antenna | Schwarzbeck | VULB9168 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 2 | Loop Antenna | SCHWARZBECK | FMZB1519B | 014 | Sep. 22, 2021 | Sep. 21, 2022 |
| 3 | Test Cable | N/A | R-01 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 4 | Test Cable | N/A | R-02 | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 5 | EMI Test Receiver | R&S | ESCI7 | 101154 | Sep. 22, 2021 | Sep. 21, 2022 |
| 6 | Antenna Mast | EM | SC100_1 | N/A | N/A | |
| 7 | Turn Table | EM | SC100 | N/A | N/A | |
| 8 | Spectrum Analyzer | KEYSIGHT | 9020A | | Sep. 22, 2021 | Sep. 21, 2022 |
| 9 | Horn Antenna (1GHz-18GHz) | Schwarzbeck | BBHA9120D | 1541 | Sep. 22, 2021 | Sep. 21, 2022 |
| 10 | Horn Antenna (18GHz-40GHz) | Schwarzbeck | BBHA9170 | 822 | Sep. 22, 2021 | Sep. 21, 2022 |
| 11 | Amplifier (20-3000MHz) | EM Electronics | EZQ-LG302 1 Amplifier | N/A | Sep. 22, 2021 | Sep. 21, 2022 |
| 12 | Amplifier (0.5GHz-18GHz) | SCHWARZBECK | 8449B | 9718-309 | Sep. 22, 2021 | Sep. 21, 2022 |
| 13 | Amplifier (18GHz-40GHz) | MITEQ | ZLNA-18-40 G-21 | 2034381 | Sep. 22, 2021 | Sep. 21, 2022 |



3.CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1 Block Diagram Of Test Setup



3.2 Test Standard

FCC PART 18

3.3 Power Line Conducted Emission Limit

| Frequency | | Limits dB(μ V) | |
|-----------|---------|---------------------|---------------|
| MHz | | Quasi-peak Level | Average Level |
| 0.15 | ~ 0.50 | 66 ~ 56* | 56 ~ 46* |
| 0.50 | ~ 5.00 | 56 | 46 |
| 5.00 | ~ 30.00 | 60 | 50 |

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.4 EUT Configuration on Test

The following equipments are installed on conducted emission test to meet FCC PART 18 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT and simulators as shown in Section 3.1.
- 3.5.2 Turn on the power of all equipments.
- 3.5.3 Let the EUT work in test modes and test it.

3.6 Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **FCC PART 18** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.
The frequency range from 150 KHz to 30 MHz is investigated.

3.7 Test Result

PASS

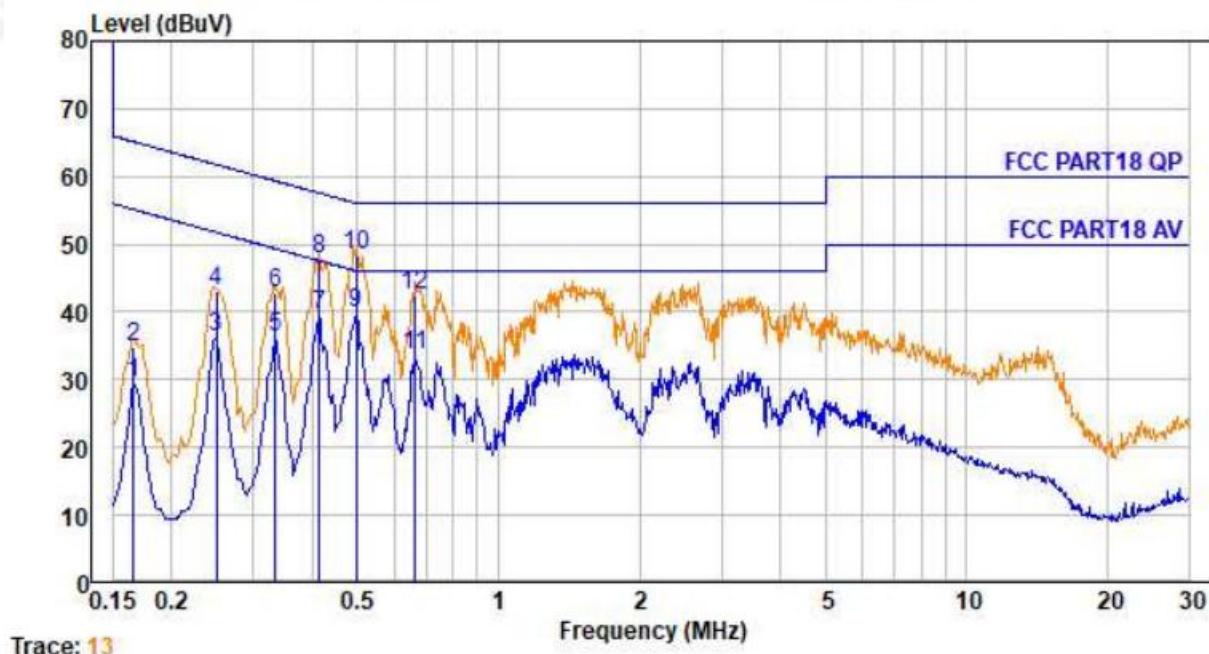
Please refer to the following page.

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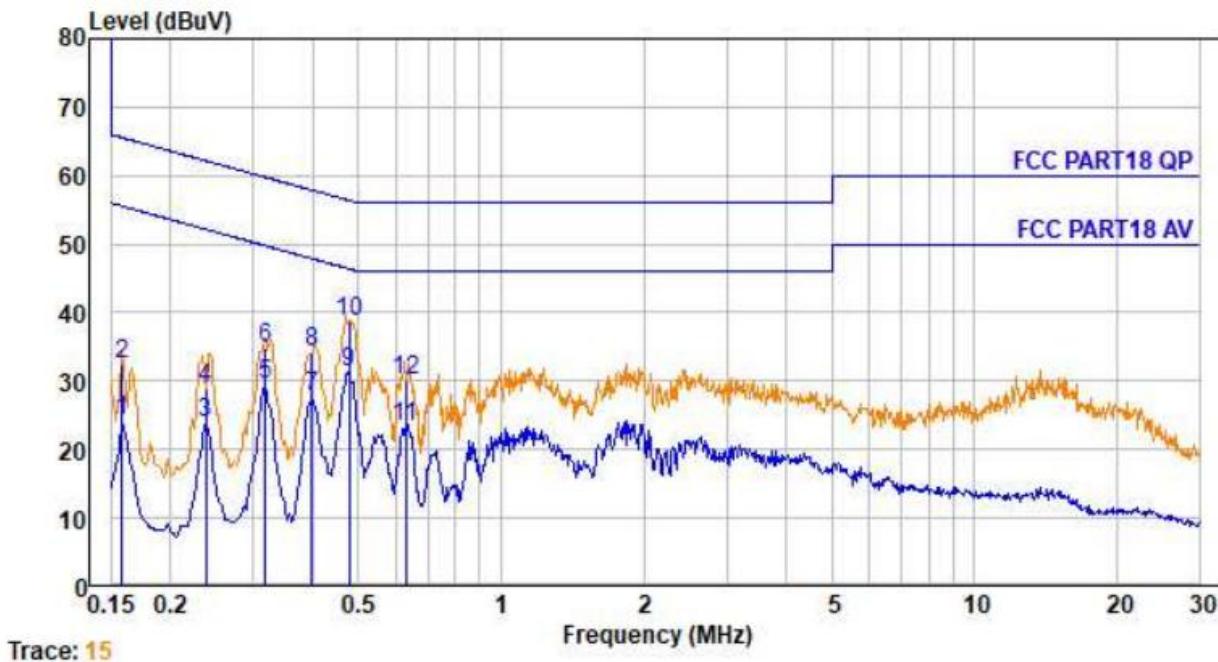
| Conducted Emission At The Mains Terminals Test Data | | | |
|---|--------------|--------------------|----------|
| Temperature: | 24.5 °C | Relative Humidity: | 54% |
| Pressure: | 1009hPa | Phase : | Line |
| Test Voltage : | AC 120V/60Hz | Test Mode: | charging |



| No. | Freq MHz | Cable Loss dB | AMN Factor dB | Receiver Reading dB μ V | Emission Level dB μ V | Limit dB μ V | Over Limit dB | Remark |
|-----|----------|---------------|---------------|-----------------------------|---------------------------|------------------|---------------|---------|
| 1 | 0.166 | 0.23 | 10.04 | 19.40 | 29.67 | 55.16 | -25.49 | Average |
| 2 | 0.166 | 0.23 | 10.04 | 24.66 | 34.93 | 65.16 | -30.23 | QP |
| 3 | 0.249 | 0.33 | 10.21 | 25.88 | 36.42 | 51.78 | -15.36 | Average |
| 4 | 0.249 | 0.33 | 10.21 | 32.45 | 42.99 | 61.78 | -18.79 | QP |
| 5 | 0.334 | 0.38 | 10.34 | 25.52 | 36.24 | 49.35 | -13.11 | Average |
| 6 | 0.334 | 0.38 | 10.34 | 32.16 | 42.88 | 59.35 | -16.47 | QP |
| 7 | 0.415 | 0.41 | 10.43 | 28.72 | 39.56 | 47.55 | -7.99 | Average |
| 8 | 0.415 | 0.41 | 10.43 | 37.12 | 47.96 | 57.55 | -9.59 | QP |
| 9 | 0.497 | 0.43 | 10.50 | 28.95 | 39.88 | 46.05 | -6.17 | Average |
| 10 | 0.497 | 0.43 | 10.50 | 37.56 | 48.49 | 56.05 | -7.56 | QP |
| 11 | 0.665 | 0.44 | 10.63 | 22.52 | 33.59 | 46.00 | -12.41 | Average |
| 12 | 0.665 | 0.44 | 10.63 | 31.56 | 42.63 | 56.00 | -13.37 | QP |



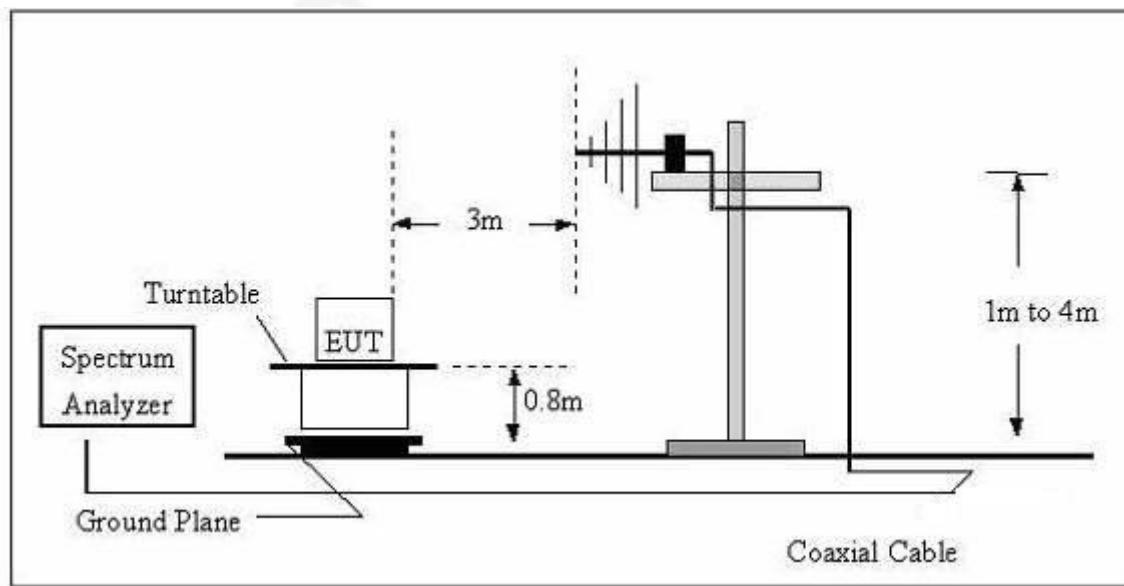
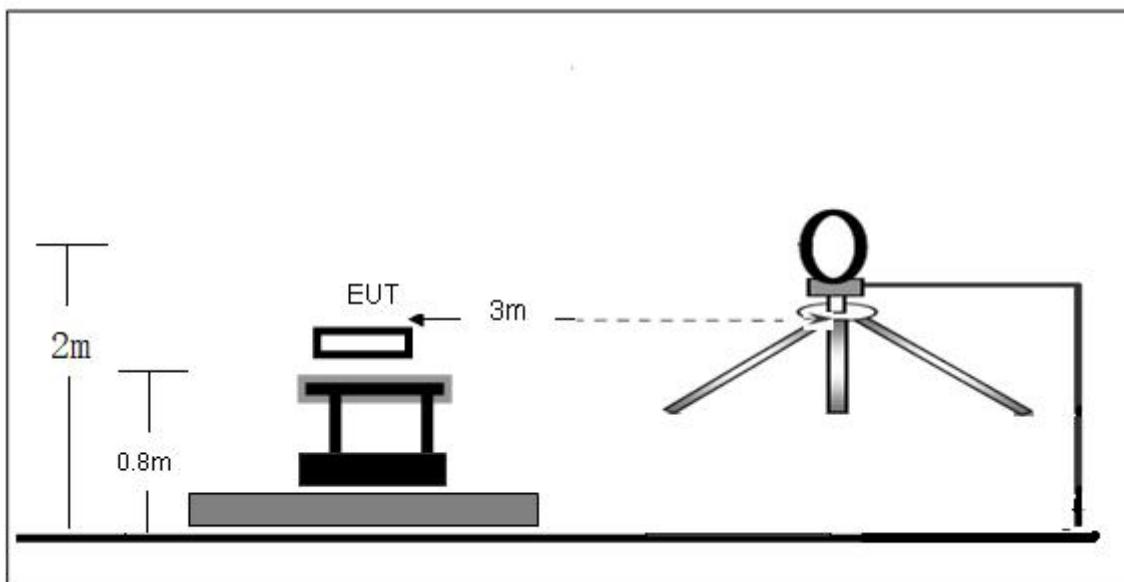
| Conducted Emission At The Mains Terminals Test Data | | | |
|---|--------------|--------------------|----------|
| Temperature: | 24.5 °C | Relative Humidity: | 54% |
| Pressure: | 1009hPa | Phase : | Neutral |
| Test Voltage : | AC 120V/60Hz | Test Mode: | charging |



| No. | Freq MHz | Cable Loss dB | AMN Factor dB | Receiver Reading dB μ V | Emission Level dB μ V | Limit dB μ V | Over Limit dB | Remark |
|-----|----------|---------------|---------------|-----------------------------|---------------------------|------------------|---------------|---------|
| 1 | 0.158 | 0.22 | 10.02 | 14.02 | 24.26 | 55.56 | -31.30 | Average |
| 2 | 0.158 | 0.22 | 10.02 | 22.14 | 32.38 | 65.56 | -33.18 | Peak |
| 3 | 0.238 | 0.32 | 10.19 | 13.35 | 23.86 | 52.17 | -28.31 | Average |
| 4 | 0.238 | 0.32 | 10.19 | 18.35 | 28.86 | 62.17 | -33.31 | QP |
| 5 | 0.318 | 0.38 | 10.32 | 18.86 | 29.56 | 49.75 | -20.19 | Average |
| 6 | 0.318 | 0.38 | 10.32 | 24.15 | 34.85 | 59.75 | -24.90 | Peak |
| 7 | 0.398 | 0.40 | 10.41 | 16.79 | 27.60 | 47.90 | -20.30 | Average |
| 8 | 0.398 | 0.40 | 10.41 | 23.47 | 34.28 | 57.90 | -23.62 | QP |
| 9 | 0.479 | 0.42 | 10.49 | 20.39 | 31.30 | 46.36 | -15.06 | Average |
| 10 | 0.479 | 0.42 | 10.49 | 27.65 | 38.56 | 56.36 | -17.80 | QP |
| 11 | 0.630 | 0.44 | 10.61 | 12.13 | 23.18 | 46.00 | -22.82 | Average |
| 12 | 0.630 | 0.44 | 10.61 | 18.99 | 30.04 | 56.00 | -25.96 | QP |

4. RADIATION EMISSION TEST

4.1 Block Diagram of Test Setup



4.2 Test Standard

FCC PART 18

4.3 Radiation Limit

Limits for frequency below 30MHz

Except as provided elsewhere in this Subpart 18.305 (b), the field strength levels of emissions which lie outside the bands specified in § 18.301, unless otherwise indicated, shall not exceed the following table:

| Frequency MHz | Distance Meters | Field Strengths Limit | |
|------------------|--------------------|-----------------------|------------|
| | | dB μ V/m | Remark |
| 0.009~30MHz | 3 | 103.5 | Quasi-peak |



Remark: (1) Emission level dB V/m for 0.009~30MHz = 20log (15) + 40log (300/3) dB V/m; (2) Calculated according FCC 18.305. (3) The smaller limit shall apply at the cross point between two frequency bands. (4) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Limits for frequency Above 30MHz

| FREQUENCY (MHz) | DISTANCE (Meters) | FIELD STRENGTHS LIMITS (dB μ V/m) |
|-----------------|-------------------|---------------------------------------|
| 30 ~ 1000 | 3 | 63.5 |

(1) Emission level dB V/m for above 30MHz = 20log (15) + 20log (300/3) dB V/m

4.4 EUT Configuration on Test

The FCC PART 18 regulations test method must be used to find the maximum emission during radiated emission test. The configuration of EUT is the same as used in conducted emission test. Please refer to Section 2.2.

4.5 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.

4.6 Test Procedure

1) Sequence of testing 9 kHz to 30 MHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions.

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna height is 2.0 meter.

--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

Sequence of testing 30 MHz to 1 GHz Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 3 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find



the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored

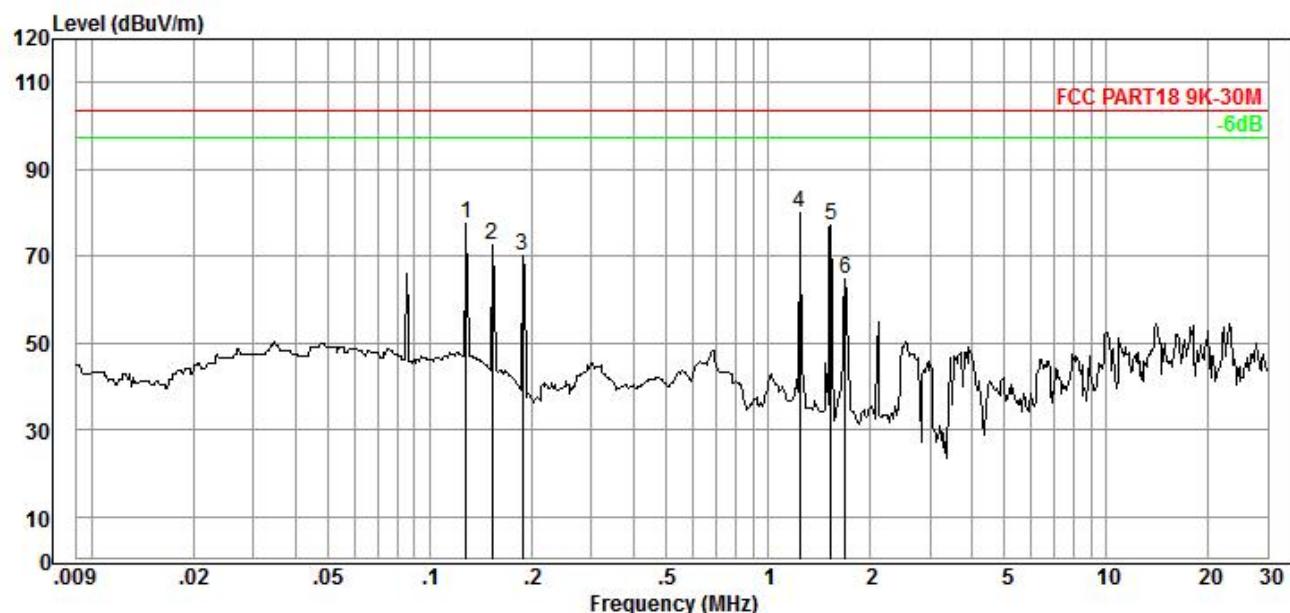
4.7 Test Result

PASS

Please refer to the following page.



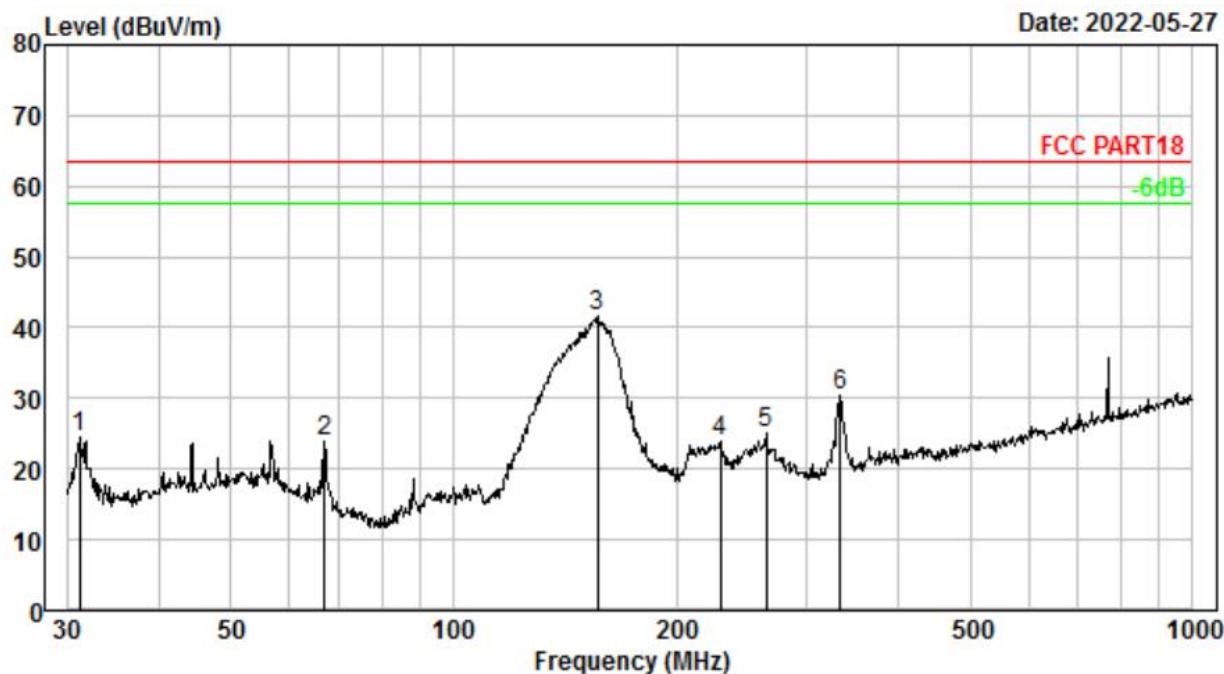
| Radiation Emission Test Data | | | |
|------------------------------|--------------|--------------------|--------|
| Temperature: | 26°C | Relative Humidity: | 54% |
| Pressure: | 1009hPa | Phase : | / |
| Test Voltage : | AC 120V/60Hz | Test Mode: | Mode 1 |



| No. | Freq | Cable Loss | ANT Factor | Receiver Reading | Emission Level | Limit | Over Limit | Remark |
|-----|-------|------------|------------|------------------|----------------|--------------|------------|--------|
| | MHz | dB | dB/m | dB μ V | dBuV/m | dB μ V/m | dB | |
| 1 | 0.128 | 0.30 | 23.53 | 53.77 | 77.60 | 103.50 | -25.90 | QP |
| 2 | 0.153 | 0.30 | 23.56 | 48.64 | 72.50 | 103.50 | -31.00 | QP |
| 3 | 0.187 | 0.30 | 23.61 | 46.05 | 69.96 | 103.50 | -33.54 | QP |
| 4 | 1.238 | 0.30 | 20.89 | 59.00 | 80.19 | 103.50 | -23.31 | QP |
| 5 | 1.528 | 0.30 | 21.03 | 55.85 | 77.18 | 103.50 | -26.32 | QP |
| 6 | 1.685 | 0.30 | 21.15 | 43.49 | 64.94 | 103.50 | -38.56 | QP |



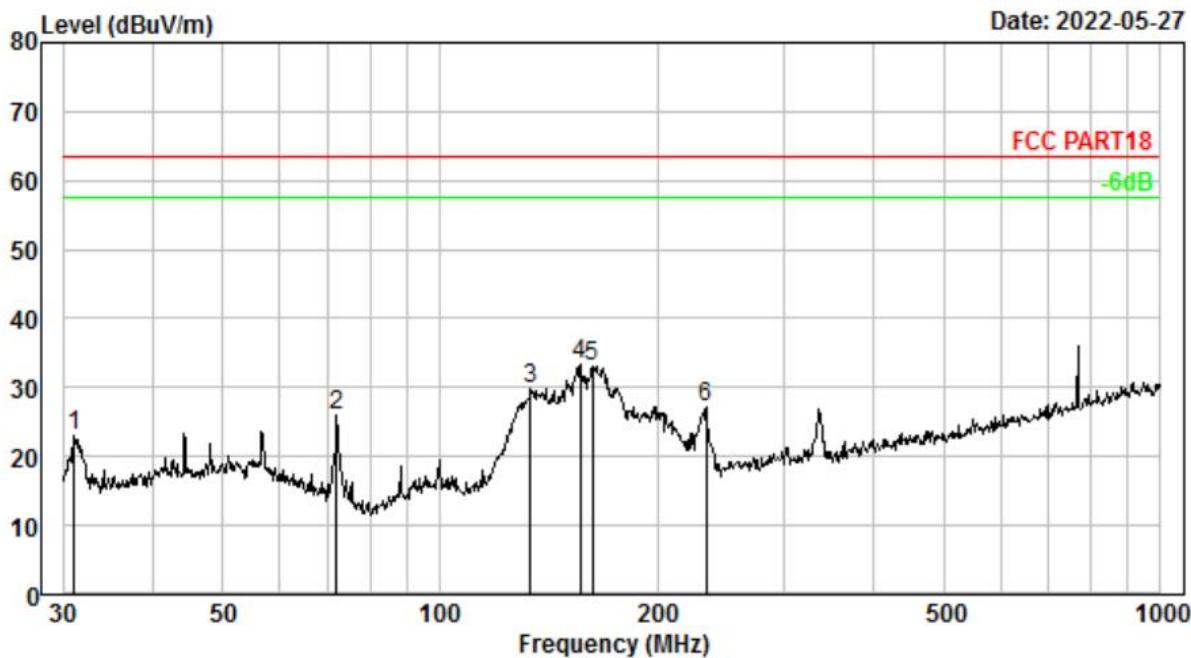
| Radiation Emission Test Data | | | |
|------------------------------|--------------|--------------------|------------|
| Temperature: | 26°C | Relative Humidity: | 54% |
| Pressure: | 1009hPa | Phase : | Horizontal |
| Test Voltage : | AC 120V/60Hz | Test Mode: | Mode 1 |



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dB μ V | Preamp Gain dB | Emission Level dB μ V/m | Limit dB μ V/m | Over Limit dB | Remark |
|-----|----------|---------------|-----------------|-----------------------------|----------------|-----------------------------|--------------------|---------------|--------|
| 1 | 31.180 | 0.03 | 10.52 | 33.48 | 19.50 | 24.53 | 63.50 | -38.97 | QP |
| 2 | 66.967 | 0.28 | 9.87 | 33.15 | 19.52 | 23.78 | 63.50 | -39.72 | QP |
| 3 | 156.458 | 0.57 | 8.04 | 52.63 | 19.57 | 41.67 | 63.50 | -21.83 | QP |
| 4 | 229.293 | 0.71 | 11.74 | 31.10 | 19.60 | 23.95 | 63.50 | -39.55 | QP |
| 5 | 264.746 | 0.82 | 12.67 | 31.22 | 19.62 | 25.09 | 63.50 | -38.41 | QP |
| 6 | 333.687 | 0.96 | 14.04 | 35.04 | 19.66 | 30.38 | 63.50 | -33.12 | QP |



| Radiation Emission Test Data | | | |
|------------------------------|--------------|--------------------|----------|
| Temperature: | 26°C | Relative Humidity: | 54% |
| Pressure: | 1009hPa | Phase : | Vertical |
| Test Voltage : | AC 120V/60Hz | Test Mode: | Mode 1 |



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dB μ V | Preamp Gain dB | Emission Level dB μ V/m | Limit dB μ V/m | Over Limit dB | Remark |
|-----|----------|---------------|-----------------|-----------------------------|----------------|-----------------------------|--------------------|---------------|--------|
| 1 | 31.071 | 0.03 | 10.50 | 32.10 | 19.50 | 23.13 | 63.50 | -40.37 | QP |
| 2 | 71.832 | 0.30 | 8.55 | 36.64 | 19.52 | 25.97 | 63.50 | -37.53 | QP |
| 3 | 133.151 | 0.48 | 8.37 | 40.47 | 19.55 | 29.77 | 63.50 | -33.73 | QP |
| 4 | 156.458 | 0.57 | 8.04 | 44.24 | 19.57 | 33.28 | 63.50 | -30.22 | QP |
| 5 | 162.611 | 0.58 | 8.37 | 43.74 | 19.57 | 33.12 | 63.50 | -30.38 | QP |
| 6 | 234.168 | 0.73 | 11.89 | 34.28 | 19.61 | 27.29 | 63.50 | -36.21 | QP |



5. EUT PHOTOGRAPHS

Reference to the appendix II for details.

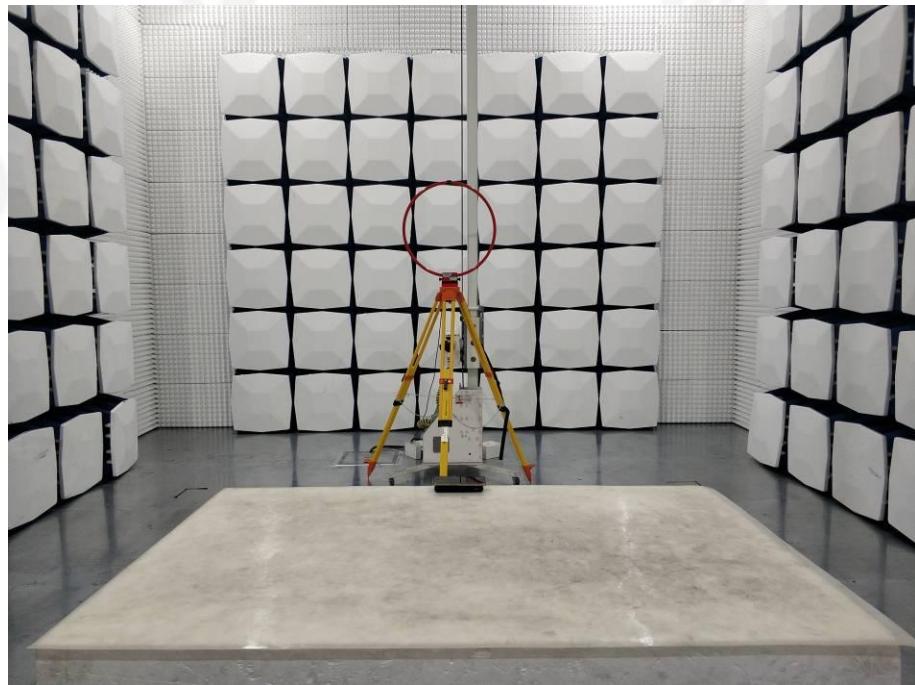


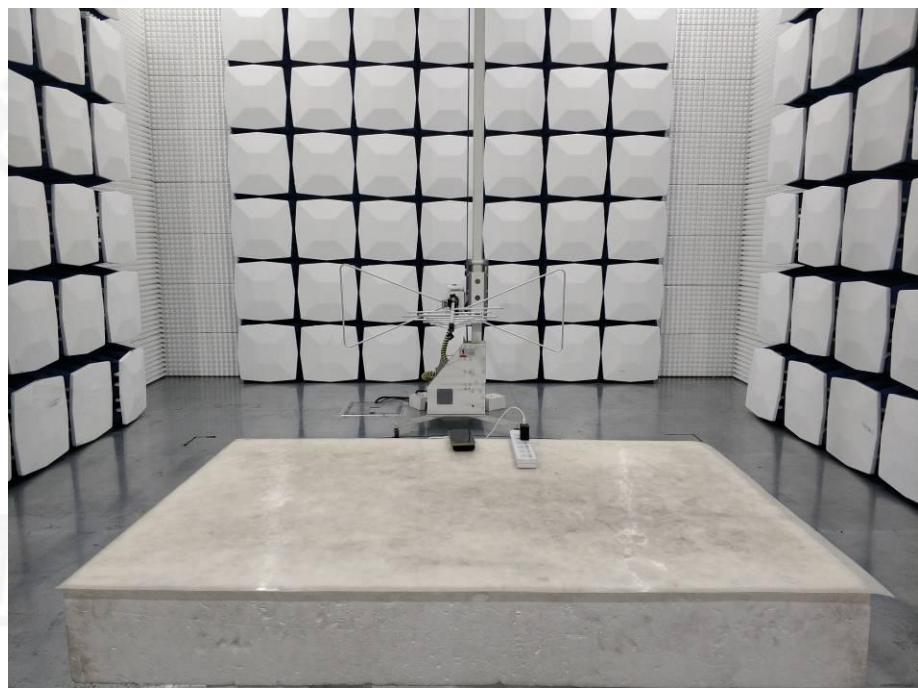
6. EUT TEST PHOTOGRAPHS

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