



# TEST REPORT

Applicant : Shenzhen Aerm Technology Co., Ltd.  
Address : Room 308, No. 2-32, Minsheng Avenue, Shangcun Community,  
Gongming Subdistrict, Guangming District, Shenzhen City, China  
Manufacturer : Shenzhen Aerm Technology Co., Ltd.  
Address : Room 308, No. 2-32, Minsheng Avenue, Shangcun Community,  
Gongming Subdistrict, Guangming District, Shenzhen City, China  
Product Name : E-INK Smart Display  
Model Number : DZ-2026  
Trademark : N/A

FCC ID : 2BXG7-DZ-2026

Test Date : Jul. 13, 2026 - Jul. 30, 2026

Date of Report : Jul. 30, 2026

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

## Test Procedure Used:

Standards : FCC CFR Title 47 Part 15 Subpart C Section 15.225  
ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to  
C63.10a-2024

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[illegible]

## 1. General Information

### 1.1. Description of Device (EUT)

EUT Name : E-INK Smart Display  
Model No. : DZ-2026  
Model Difference : N/A  
Power supply : Input: DC 3.7V, 155mA  
Operation frequency : 13.56MHz  
Max. RF output power: : 61.55dBuV/m  
Modulation : FSK  
Antenna Type : Internal Antenna, Maximum Gain is 0.2dBi  
Intend use environment : Residential, commercial and light industrial environment

### 1.2. Channel List

| Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |
|---------|--------------------|---------|--------------------|---------|--------------------|
| 1       | 13.56              | /       | /                  | /       | /                  |

### 1.3. Summary of test result

| RF PART                                                                                                                             |                            |        |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------|
| Test Items                                                                                                                          | Test Requirement           | Result |
| Antenna requirement                                                                                                                 | FCC part 15.203            | PASS   |
| AC Power Line Conducted Emission                                                                                                    | FCC part 15.207            | N/A    |
| Field strength of the fundamental signal                                                                                            | FCC part 15.225 (a)(b)(c)  | PASS   |
| Spurious emissions                                                                                                                  | FCC part 15.225 (d)/15.209 | PASS   |
| frequency tolerance                                                                                                                 | FCC part 15.225 (e)        | PASS   |
| 20dB Occupied Bandwidth                                                                                                             | FCC part 15.215 (c)        | PASS   |
| Remark:<br>N/A is an abbreviation for Not Applicable.<br>Measurement Uncertainty is not taken into account for conformity statement |                            |        |

## 1.4.Special Accessories and Auxiliary Equipment

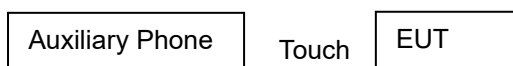
| Description | Manufacturer | Model No. | Hardware Version | Software Version |
|-------------|--------------|-----------|------------------|------------------|
| Phone       | HW           | Mate 60   | /                | /                |

## 1.5.Block Diagram

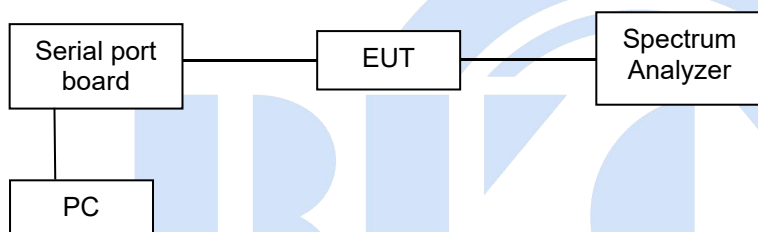
AC Power Line Conducted Emission

N/A

Radiated Emission



RF Conducted Test



## 1.6.Test mode

The special RF test software was used to control EUT work in FSK mode, and select test channel, wireless mode.

| Test mode | Low channel | Middle channel | High channel |
|-----------|-------------|----------------|--------------|
| FSK       | 13.56MHz    | /              | /            |

Note: Only the worst Data DH5 Record in the report

## 1.7.Test Conditions

| Category          | Normal Conditions | Extreme Conditions |
|-------------------|-------------------|--------------------|
| Temperature range | 15-35°C           | N/A                |
| Humidity range    | 20-75%            | N/A                |
| Pressure range    | 86-106kPa         | N/A                |
| Power supply      | DC 3.7V           | N/A                |

Note: N/A is an abbreviation for Not Applicable.

### 1.8.Measurement Uncertainty (95% confidence levels, k=2)

| Item                                                                                            | MU                                                               | Remark |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------|
| Uncertainty for radio frequency                                                                 | $\pm 7 \times 10^{-8}$                                           |        |
| Conducted Emissions (150kHz~30MHz)                                                              | $\pm 2.54\text{dB}$                                              |        |
| Radiated Emission(9KHz~30MHz)                                                                   | $\pm 1.6\text{ dB}$                                              |        |
| Radiated Emission(30MHz~1GHz)                                                                   | Vertical: $\pm 4.14\text{dB}$<br>Horizontal: $\pm 4.25\text{dB}$ |        |
| Radiated Emission(1GHz~6GHz)                                                                    | $\pm 3.9\text{dB}$                                               |        |
| Radiated Emission(6GHz~18GHz)                                                                   | $\pm 4.3\text{dB}$                                               |        |
| Radiated Emission(18GHz~40GHz)                                                                  | $\pm 3.38\text{dB}$                                              |        |
| Uncertainty for conducted RF Power                                                              | $\pm 0.20\text{dB}$                                              |        |
| Conducted spurious emissions                                                                    | $\pm 0.24\text{dB}$                                              |        |
| Uncertainty for temperature                                                                     | $0.6^{\circ}\text{C}$                                            |        |
| Uncertainty for humidity                                                                        | 1%                                                               |        |
| Bandwidth                                                                                       | $\pm 1.5 \times 10^{-6}$                                         |        |
| Time                                                                                            | $\pm 2\%$                                                        |        |
| Duty Cycle                                                                                      | $\pm 2\%$                                                        |        |
| Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95% |                                                                  |        |

### 1.9.Test Facility

| Site Description                  |                                                                                                                          |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Name of Firm                      | : Shenzhen BKC Testing Co., Ltd.                                                                                         |
| Site Location                     | : Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China. |
| ISED CAB identifier               | : CN0188                                                                                                                 |
| ISED Company Number               | : 34333                                                                                                                  |
| FCC Designation Number            | : CN1416                                                                                                                 |
| FCC Test Firm Registration Number | : 701543                                                                                                                 |

### 1.10.Test Equipment

#### Conducted Test Site

| Item | Kind of Equipment               | Manufacturer | Type No.  | Serial No. | Last calibration | Calibrated until |
|------|---------------------------------|--------------|-----------|------------|------------------|------------------|
| 1    | LISN                            | R&S          | ENV216    | 102762     | Mar. 10. 2026    | Mar. 09. 2027    |
| 2    | EMI Test Receiver               | R&S          | ESCI      | 101424     | Mar. 10. 2026    | Mar. 09. 2027    |
| 3    | Rf cables                       | HTEC         | HCE 2M-CE | N/A        | Mar. 10. 2026    | Mar. 09. 2027    |
| 4    | Coupling/<br>Decoupling Network | Diamond      | CX210     | N/A        | Mar. 10. 2026    | Mar. 09. 2027    |
| 5    | CE Testing software             | EZ           | EZ-EMC    | /          | /                | /                |

### Radiated Test Site(Below 1G and Above 1G)

| Item | Kind of Equipment                    | Manufacturer     | Type No.   | Serial No. | Last calibration | Calibrated until |
|------|--------------------------------------|------------------|------------|------------|------------------|------------------|
| 1    | Antenna                              | Schwarzbeck      | VULB 9168  | 01321      | Mar. 20. 2025    | Mar. 19. 2028    |
| 2    | EMI Test Receiver                    | R&S              | ESRP       | 101478     | Mar. 10. 2026    | Mar. 09. 2027    |
| 3    | Preamplifier                         | HP               | 8447D      | 2727A05345 | Mar. 10. 2026    | Mar. 09. 2027    |
| 4    | Double Ridged Broadband              | SCHWARZBEC<br>K  | BBHA 9120D | 02621      | Mar. 10. 2026    | Mar. 09. 2027    |
| 5    | Preamplifier                         | Schwarzbeck      | BBV 9718D  | 00041      | Mar. 10. 2026    | Mar. 09. 2027    |
| 6    | Rf cables                            | HUBER+SUHNE<br>R | 8M-RE      | N/A        | Mar. 10. 2026    | Mar. 09. 2027    |
| 7    | Rf cables                            | HUBER+SUHNE<br>R | 1.5M-RE    | N/A        | Mar. 10. 2026    | Mar. 09. 2027    |
| 8    | Rf cables                            | HUBER+SUHNE<br>R | 1.5M-AP-RE | N/A        | Mar. 10. 2026    | Mar. 09. 2027    |
| 9    | Loop antenna                         | TESEQ            | HLA6121    | 58357      | Mar. 09. 2026    | Mar. 10. 2027    |
| 10   | Spectrum analyzer                    | R&S              | FSP40      | 200061     | Feb. 13. 2026    | Feb. 12. 2027    |
| 11   | Double Ridged Broadband Horn Antenna | COM-POWER        | AH-1840    | 10100009   | Mar. 10. 2026    | Mar. 09. 2027    |
| 12   | Spectrum                             | Agilent          | N9020A     | MY50510311 | Mar. 09. 2026    | Mar. 10. 2027    |
| 13   | RE Testing software                  | EZ               | EZ-EMC     | /          |                  | /                |

### RF Test Site

| Item | Kind of Equipment        | Manufacturer    | Type No. | Serial No.        | Last calibration | Calibrated until |
|------|--------------------------|-----------------|----------|-------------------|------------------|------------------|
| 1    | Spectrum                 | Agilent         | N9020A   | MY50510311        | Mar. 09. 2026    | Mar. 10. 2027    |
| 2    | Vector source            | Agilent         | N5182A   | MY47420223        | Mar. 09. 2026    | Mar. 10. 2027    |
| 3    | All instrument           | Rohde & Schwarz | CMW 500  | 101131            | Mar. 09. 2026    | Mar. 10. 2027    |
| 4    | RF Automatic Test System | TST             | TSTRF562 | MW200411BK<br>-34 | Mar. 09. 2026    | Mar. 10. 2027    |
| 5    | Spectrum analyzer        | R&S             | FSP40    | 200061            | Mar. 10. 2026    | Mar. 09. 2027    |

### Test software

|                  |                     |
|------------------|---------------------|
| Software name    | RF Testing software |
| Software version | 2.0.0.0             |
| Software name    | RE Testing software |
| Software version | EMEC-03A2 RE+       |
| Software name    | CE Testing software |
| Software version | EMEC-3A1+           |

## 2. Conducted emission at the mains terminals test

### 2.1.Limit

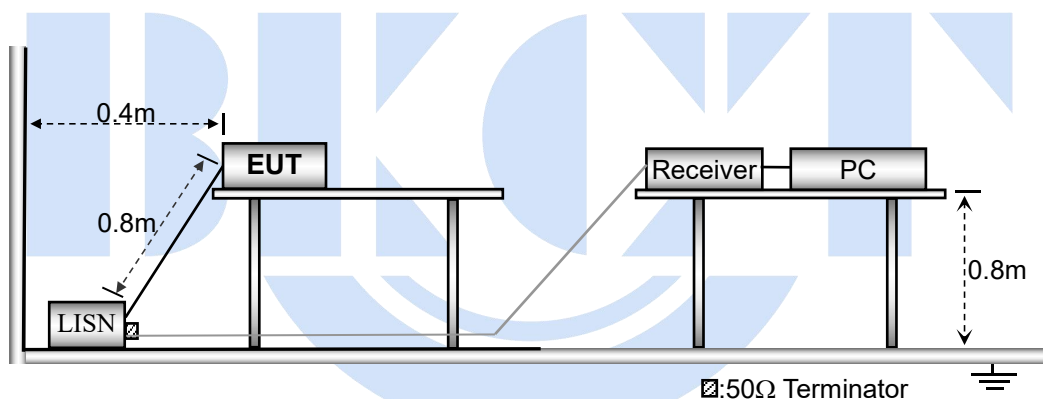
|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
| Test Requirement:     | FCC Part15 C Section 15.207                                          |
| Test Method:          | ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 |
| Test Frequency Range: | 150KHz to 30MHz                                                      |
| Receiver setup:       | RBW=9KHz, VBW=30KHz, Sweep time=auto                                 |

| Frequency<br>MHz | Limits dB( $\mu$ V) |               |
|------------------|---------------------|---------------|
|                  | 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.

### 2.2.Test Setup



### 2.3.Test Procedure

1. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
2. 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.
3. 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.
4. LISN at least 80 cm from nearest part of EUT chassis.
5. For the actual test configuration, please refer to the related Item - EUT Test Photos. Test Result

### 2.4.Test Result

The product is powered only by DC battery, so it is not applicable.

### 3. Radiated Spurious Emissions& Field Strength

#### 3.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.209 & 15.225(a)(b)(c)(d)  
Test Method: ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024  
Test Result: PASS  
Measurement Distance: 3m

| Frequency    | Detector   | RBW    | VBW    | Value      |
|--------------|------------|--------|--------|------------|
| 9KHz-150KHz  | Quasi-peak | 200Hz  | 600Hz  | Quasi-peak |
| 150KHz-30MHz | Quasi-peak | 9KHz   | 30KHz  | Quasi-peak |
| 30MHz-1GHz   | Quasi-peak | 100KHz | 300KHz | Quasi-peak |
| Above 1GHz   | Peak       | 1MHz   | 3MHz   | Peak       |
|              | Peak       | 1MHz   | 10Hz   | Average    |

Limit:

| Frequency (MHz) | Field Strength |              | Field Strength Limit at 3m Measurement Dist |                          |
|-----------------|----------------|--------------|---------------------------------------------|--------------------------|
|                 | uV/m           | Distance (m) | uV/m                                        | dBuV/m                   |
| 0.009 ~ 0.490   | 2400/F(kHz)    | 300          | 10000 * 2400/F(kHz)                         | 20log(2400/F(kHz)) + 80  |
| 0.490 ~ 1.705   | 24000/F(kHz)   | 30           | 100 * 24000/F(kHz)                          | 20log(24000/F(kHz)) + 40 |
| 1.705 ~ 30      | 30             | 30           | 100 * 30                                    | 20log(30) + 40           |
| 30 ~ 88         | 100            | 3            | 100                                         | 20log(100)               |
| 88 ~ 216        | 150            | 3            | 150                                         | 20log(150)               |
| 216 ~ 960       | 200            | 3            | 200                                         | 20log(200)               |
| Above 960       | 500            | 3            | 500                                         | 20log(500)               |

(a)The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

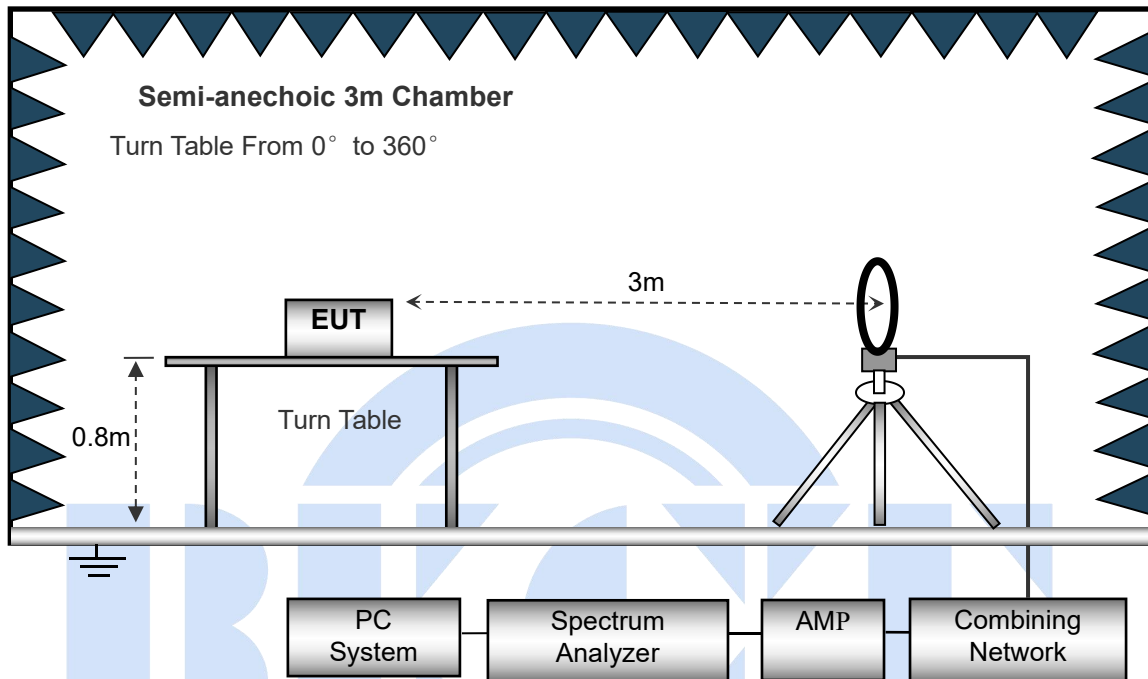
(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

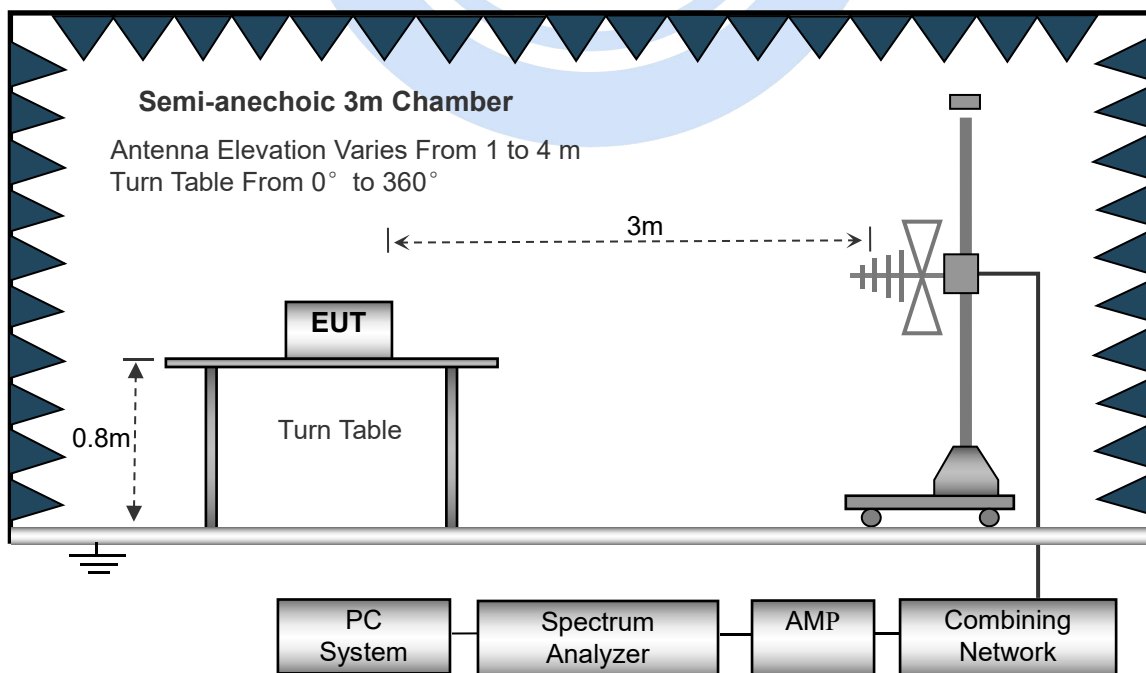
### 3.2. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10.

The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30 MHz to 1 GHz.



### 3.3. Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz .
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in Z axis,so the worst data were shown as follow.



### 3.4. Test Result

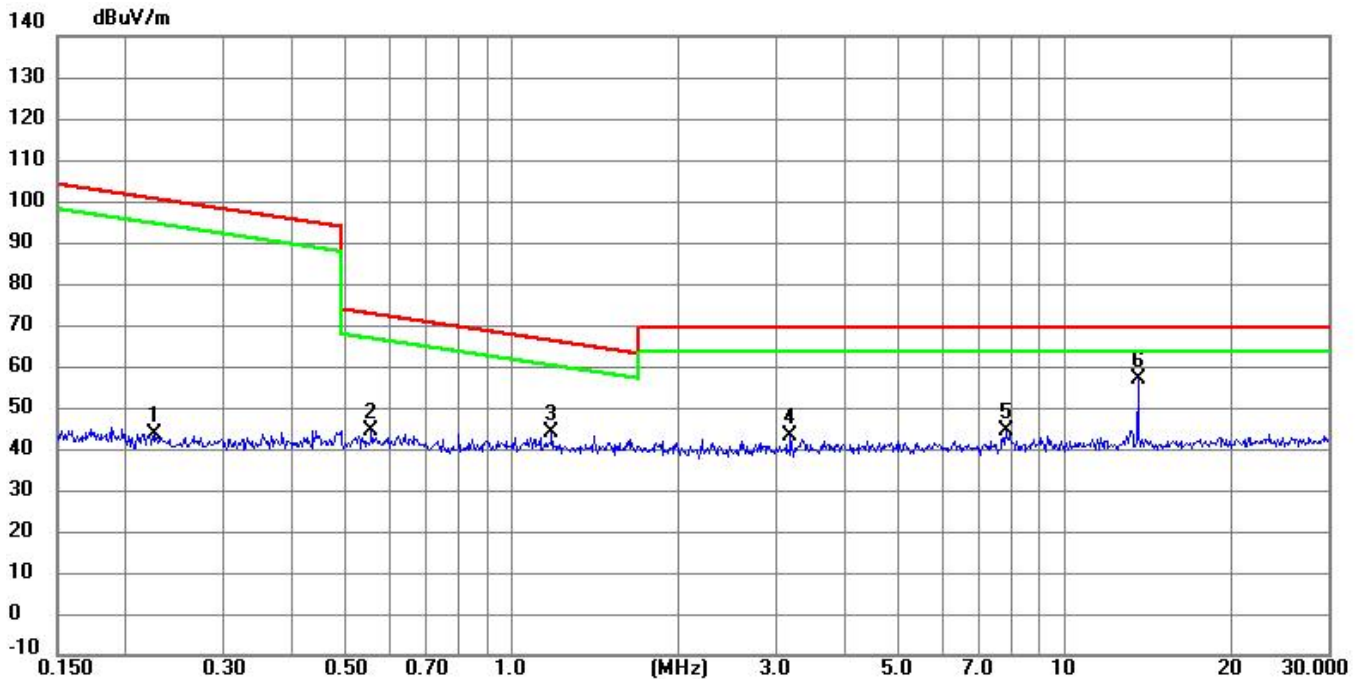
Test Frequency: 9KHz~30MHz

| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1℃   | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



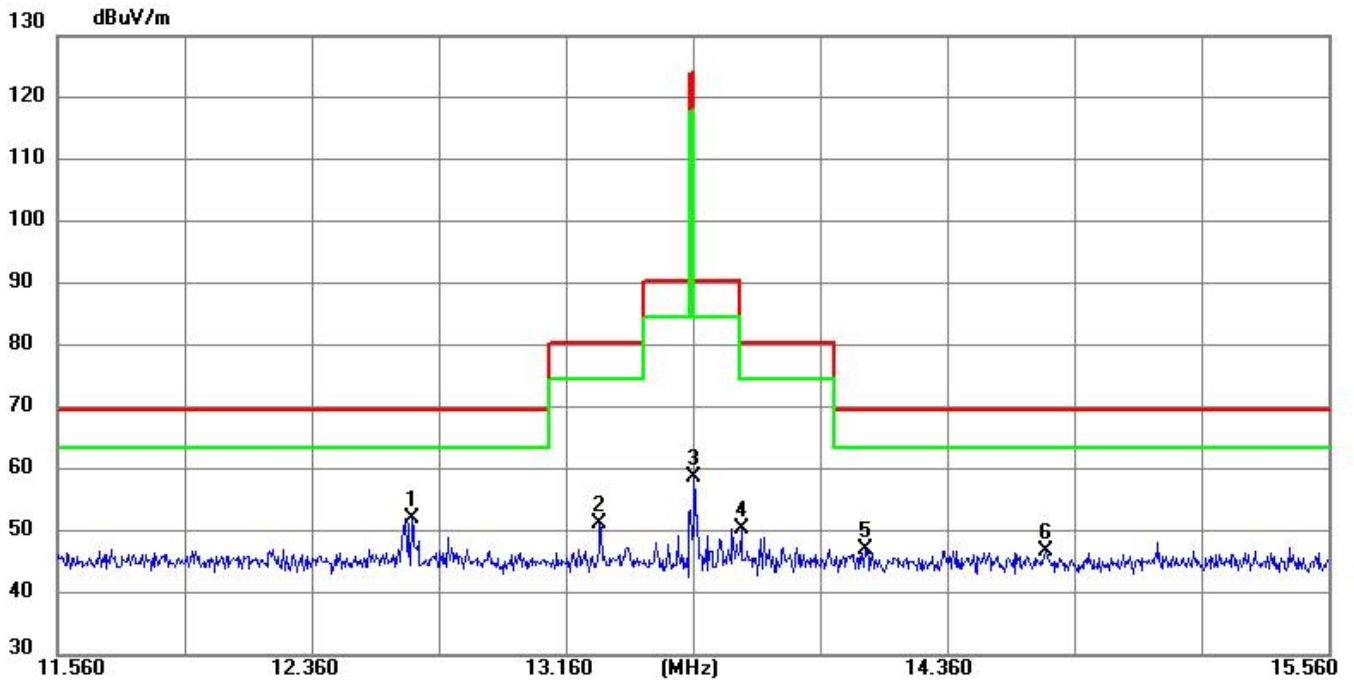
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 0.0223          | 16.03          | 20.38         | 36.41          | 120.64         | -84.23      | peak |
| 2   | 0.0300          | 23.12          | 20.30         | 43.42          | 118.06         | -74.64      | peak |
| 3   | 0.0381          | 12.65          | 20.30         | 32.95          | 115.99         | -83.04      | peak |
| 4   | 0.0514          | 20.48          | 20.30         | 40.78          | 113.39         | -72.61      | peak |
| 5   | 0.0796          | 16.39          | 20.40         | 36.79          | 109.59         | -72.80      | peak |
| 6 * | 0.1401          | 14.14          | 20.44         | 34.58          | 104.68         | -70.10      | peak |

| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1℃   | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 0.2242          | 23.25          | 20.43         | 43.68          | 100.59         | -56.91      | peak |
| 2   | 0.5551          | 23.96          | 20.30         | 44.26          | 72.72          | -28.46      | peak |
| 3   | 1.1780          | 23.81          | 20.08         | 43.89          | 66.18          | -22.29      | peak |
| 4   | 3.1900          | 23.19          | 19.98         | 43.17          | 69.54          | -26.37      | peak |
| 5   | 7.8101          | 24.44          | 19.88         | 44.32          | 69.54          | -25.22      | peak |
| 6 * | 13.5508         | 37.08          | 19.97         | 57.05          | 69.54          | -12.49      | peak |

| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1°C  | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



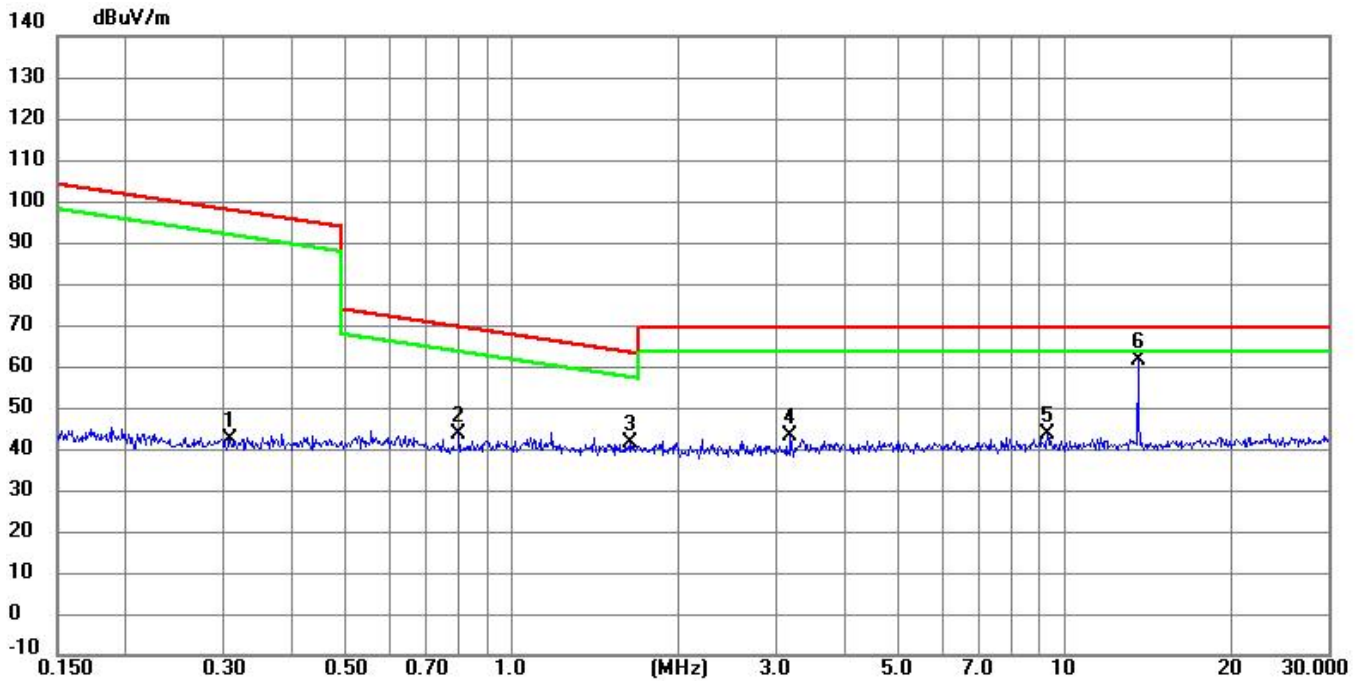
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1 * | 12.6760         | 31.42          | 20.62         | 52.04          | 69.50          | -17.46      | peak |
| 2   | 13.2680         | 30.57          | 20.59         | 51.16          | 80.50          | -29.34      | peak |
| 3   | 13.5600         | 38.09          | 20.57         | 58.66          | 124.00         | -65.34      | peak |
| 4   | 13.7120         | 29.98          | 20.55         | 50.53          | 80.50          | -29.97      | peak |
| 5   | 14.1040         | 26.48          | 20.53         | 47.01          | 69.50          | -22.49      | peak |
| 6   | 14.6720         | 26.19          | 20.48         | 46.67          | 69.50          | -22.83      | peak |

| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1°C  | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



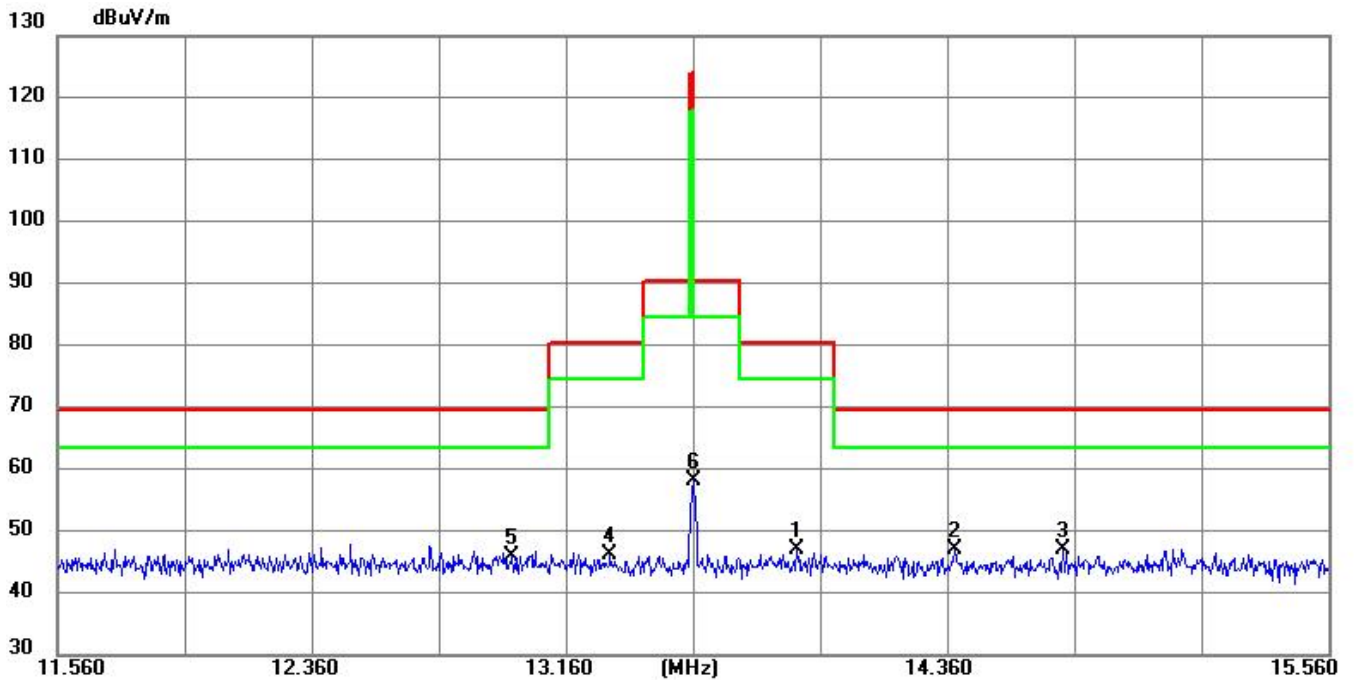
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 0.0142          | 19.62          | 20.45         | 40.07          | 124.56         | -84.49      | peak |
| 2   | 0.0180          | 12.38          | 20.42         | 32.80          | 122.50         | -89.70      | peak |
| 3   | 0.0325          | 14.28          | 20.30         | 34.58          | 117.37         | -82.79      | peak |
| 4   | 0.0614          | 22.12          | 20.31         | 42.43          | 111.84         | -69.41      | peak |
| 5   | 0.0937          | 16.80          | 20.34         | 37.14          | 108.17         | -71.03      | peak |
| 6 * | 0.1320          | 16.02          | 20.43         | 36.45          | 105.19         | -68.74      | peak |

| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1°C  | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 0.3082          | 21.96          | 20.21         | 42.17          | 97.83          | -55.66      | peak |
| 2   | 0.8002          | 23.24          | 20.10         | 43.34          | 69.54          | -26.20      | peak |
| 3   | 1.6362          | 21.25          | 20.04         | 41.29          | 63.33          | -22.04      | peak |
| 4   | 3.1900          | 23.19          | 19.98         | 43.17          | 69.54          | -26.37      | peak |
| 5   | 9.3023          | 23.45          | 19.97         | 43.42          | 69.54          | -26.12      | peak |
| 6 * | 13.5508         | 41.58          | 19.97         | 61.55          | 69.54          | -7.99       | peak |

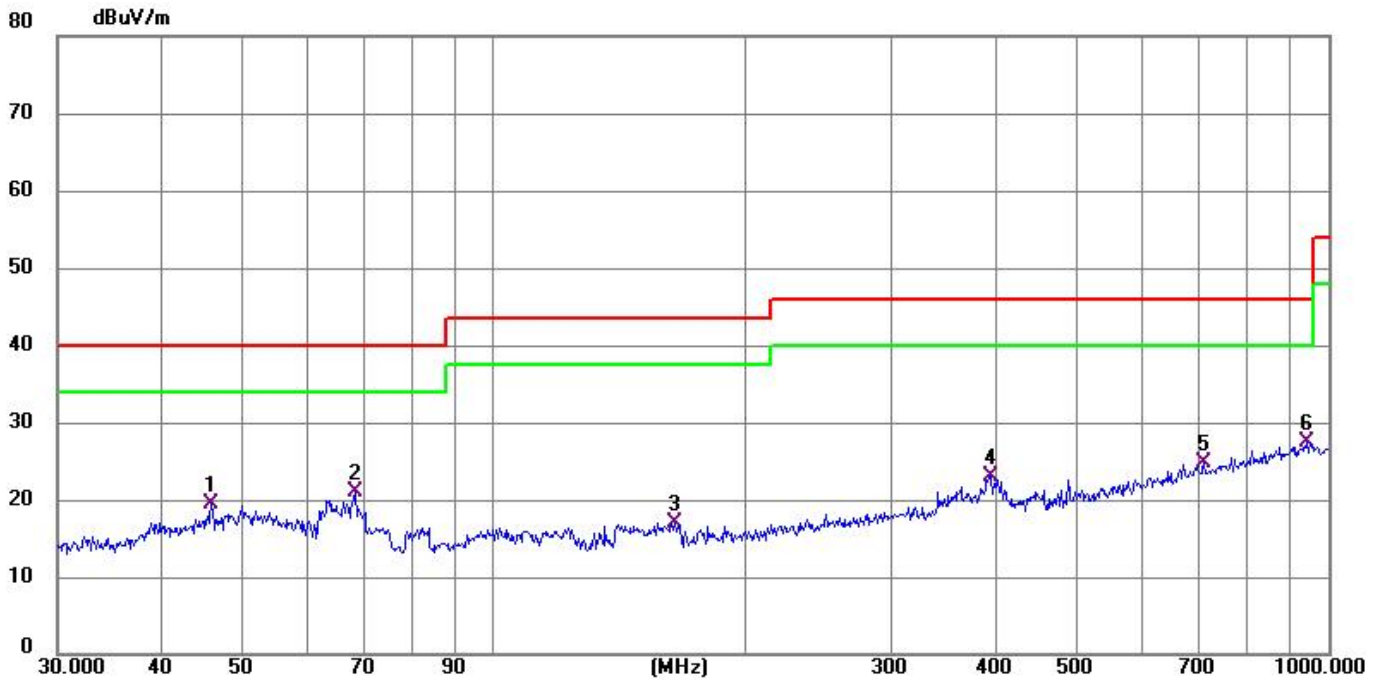
| Radiation Emission Test Data |         |                    |         |
|------------------------------|---------|--------------------|---------|
| Temperature:                 | 25.1°C  | Relative Humidity: | 56%     |
| Pressure:                    | 1008hPa | Phase :            |         |
| Test Voltage :               | DC 3.7V | Test Mode          | Working |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 13.8880         | 26.48          | 20.55         | 47.03          | 80.50          | -33.47      | peak |
| 2   | 14.3840         | 26.48          | 20.51         | 46.99          | 69.50          | -22.51      | peak |
| 3 * | 14.7240         | 26.67          | 20.47         | 47.14          | 69.50          | -22.36      | peak |
| 4   | 13.3000         | 25.60          | 20.59         | 46.19          | 80.50          | -34.31      | peak |
| 5   | 12.9920         | 25.38          | 20.61         | 45.99          | 69.50          | -23.51      | peak |
| 6   | 13.5600         | 37.69          | 20.57         | 58.26          | 124.00         | -65.74      | peak |

Test Frequency : 30MHz ~ 1GHz

| Radiation Emission Test Data |         |                    |            |
|------------------------------|---------|--------------------|------------|
| Temperature:                 | 25.1°C  | Relative Humidity: | 56%        |
| Pressure:                    | 1008hPa | Phase :            | Horizontal |
| Test Voltage :               | DC 3.7V | Test Mode          | Working    |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 45.8551         | 29.24          | -9.84         | 19.40          | 40.00          | -20.60      | QP   |
| 2   | 68.3906         | 34.43          | -13.47        | 20.96          | 40.00          | -19.04      | QP   |
| 3   | 164.9071        | 29.91          | -12.84        | 17.07          | 43.50          | -26.43      | QP   |
| 4   | 393.4723        | 31.64          | -8.54         | 23.10          | 46.00          | -22.90      | QP   |
| 5   | 709.1820        | 28.44          | -3.62         | 24.82          | 46.00          | -21.18      | QP   |
| 6 * | 942.1304        | 27.40          | -0.04         | 27.36          | 46.00          | -18.64      | QP   |

| Radiation Emission Test Data |         |                    |          |
|------------------------------|---------|--------------------|----------|
| Temperature:                 | 25.1℃   | Relative Humidity: | 56%      |
| Pressure:                    | 1008hPa | Phase :            | Vertical |
| Test Voltage :               | DC 3.7V | Test Mode          | Working  |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|
| 1   | 43.2014         | 28.17          | -10.16        | 18.01          | 40.00          | -21.99      | QP   |
| 2   | 93.4402         | 30.04          | -13.11        | 16.93          | 43.50          | -26.57      | QP   |
| 3   | 188.4122        | 30.30          | -12.11        | 18.19          | 43.50          | -25.31      | QP   |
| 4   | 360.4476        | 29.84          | -8.94         | 20.90          | 46.00          | -25.10      | QP   |
| 5   | 511.8351        | 32.67          | -6.85         | 25.82          | 46.00          | -20.18      | QP   |
| 6 * | 903.3093        | 28.45          | -0.42         | 28.03          | 46.00          | -17.97      | QP   |

Note: 1. Emission Level = Reading + Factor + Cable Loss – Pre-amplifier,

Margin= Emission Level - Limit

2. If peak below the average limit, the average emission was no test.

3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

## 4. -20 dB Bandwidth Measurement

### 4.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.215(c)

Test Method: ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

### 4.2.Test Setup

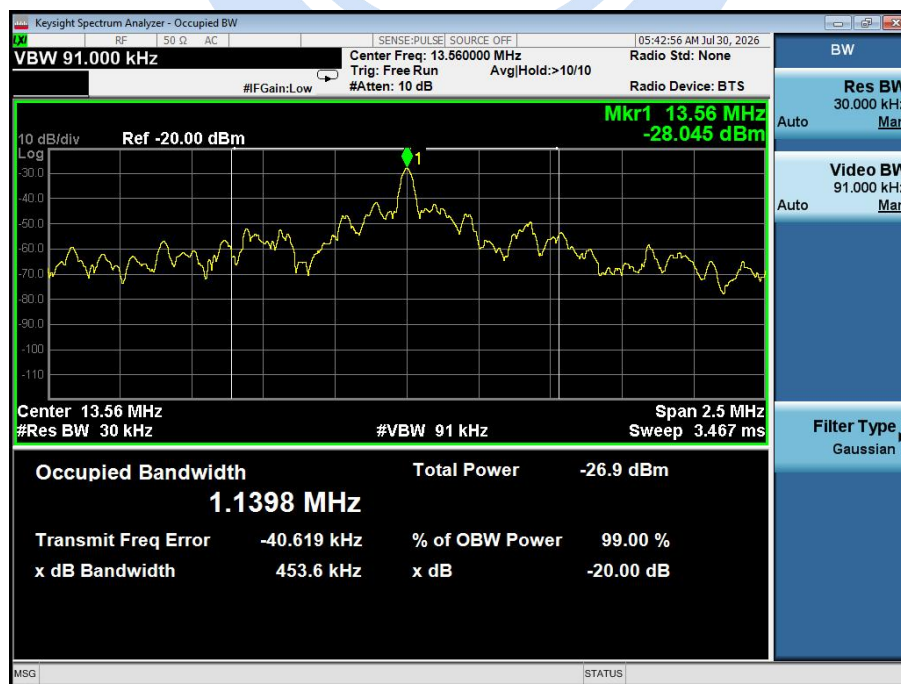


### 4.3.Test Procedure

1. Set the spectrum analyzer: RBW = 1%-5% OBW
2. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. 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 -20 dB relative to the maximum level measured in the fundamental emission

### 4.4.Test Result

| Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) | -20dB OBW (MHz) |
|------|-----------------|---------|---------------|-----------------|
| TX   | 13.56           | Ant1    | 1.1398        | 0.4536          |



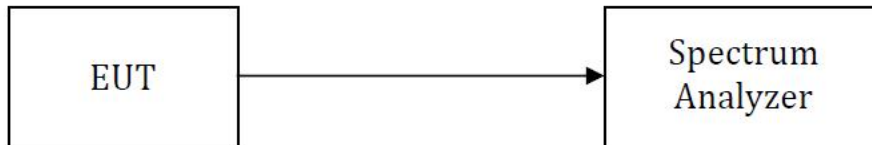
## 5. Frequency Tolerance

### 5.1.Limit

Test Requirement: FCC CFR47 Part 15 Section 15.215(e)

Test Method: ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

### 5.2.Test Setup



### 5.3.Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5.  $f_c$  is declaring of channel frequency. Then the frequency error formula is  $(f_c - f)/f_c \times 106$  ppm and the limit is less than  $\pm 20$  ppm.
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value  
Extreme temperature is  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$ .

### 5.4.Test Result

Frequency Stability V.S.Temperature Measurement:

| Reference Frequency 13.56MHz |                      |                                     |             |
|------------------------------|----------------------|-------------------------------------|-------------|
| Environment Temperature (°C) | Power Supplied (VAC) | Frequency Measure with Time Elapsed |             |
|                              |                      | MCF                                 | Error (ppm) |
| 50                           | 120                  | 21                                  | 0.00283     |
| 40                           | 120                  | 24                                  | 0.00342     |
| 30                           | 120                  | 32                                  | 0.00531     |
| 20                           | 120                  | 22                                  | 0.00722     |
| 10                           | 120                  | 12                                  | 0.00521     |
| 0                            | 120                  | 32                                  | 0.00566     |
| -10                          | 120                  | 24                                  | 0.00482     |
| -20                          | 120                  | 22                                  | 0.00385     |
| -30                          | 120                  | 12                                  | 0.00236     |

## Frequency Stability V.S. Voltage Measurement:

| Reference Frequency 13.56MHz |                      |                                     |             |
|------------------------------|----------------------|-------------------------------------|-------------|
| Environment Temperature (°C) | Power Supplied (VAC) | Frequency Measure with Time Elapsed |             |
|                              |                      | Frequency                           | Error (ppm) |
| 20                           | 120                  | 44                                  | 0.00722     |
|                              | 108                  | 43                                  | 0.00673     |
|                              | 132                  | 42                                  | 0.00729     |



## 6. Antenna Requirement

According to the FCC Part 15 Paragraph 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. This product has an integrated antenna fulfill the requirement of this section.



## 7. Test Photographs

Please see the attachment for details.

## Appendix I: Photos of the EUT

Please see the attachment for details.

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

