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# LT008

## Antenna Specification Book

### 1. Overview

This document is the LT008 project antenna acknowledgement;

antenna working frequency range

600MHz~960MHz;1710MHz~2700MHz;

### 2. Manufacturere and its address

Company name: Heyuan Xunwei Communication Technology Co., Ltd

Address : Room A316, 3rd Floor, Building A, Languang Technology Park, Gaoxin

North Sixth Road, Nanshan District, Shenzhen

### 3. The model and type of antenna



Figure 3.1 LT008-MAIN physical photo

Antenna model: LT008-MAIN (FPC) antenna

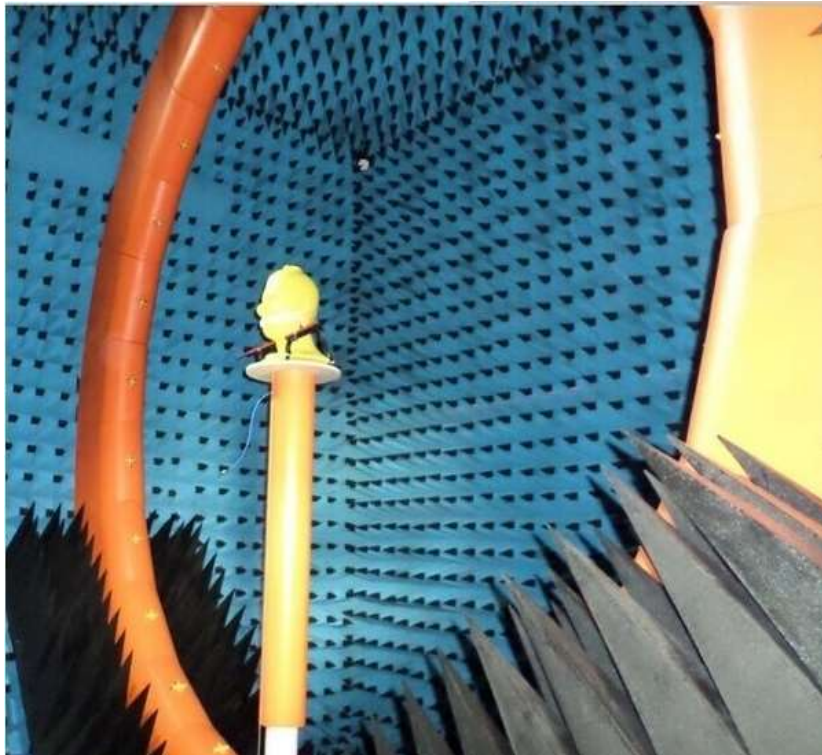
Antenna type: IFA

## 4. Antenna test environment

### 4.1 Antenna test lab, test instrument, and calibration date

Antenna input characteristics are tested using the Agilent E5071B vector network analyzer.

The antenna radiation characteristics test uses the STM darkroom. The test coordinate system is shown in Figure 4.1.1.



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Figure 4.1.1 3D anechoic chamber test coordinate system (back view)

#### **4.2 Antenna test lab, test instrument, and calibration date**

The tester uses the Anritsu CMW500.

The antenna radiation characteristics test uses the STM darkroom. The test coordinate system is shown in Figure 4.2.1.



Figure 4.2.1 3D anechoic chamber test coordinate system (back view)

#### **4.3 Antenna test lab, test instrument, and calibration date.**



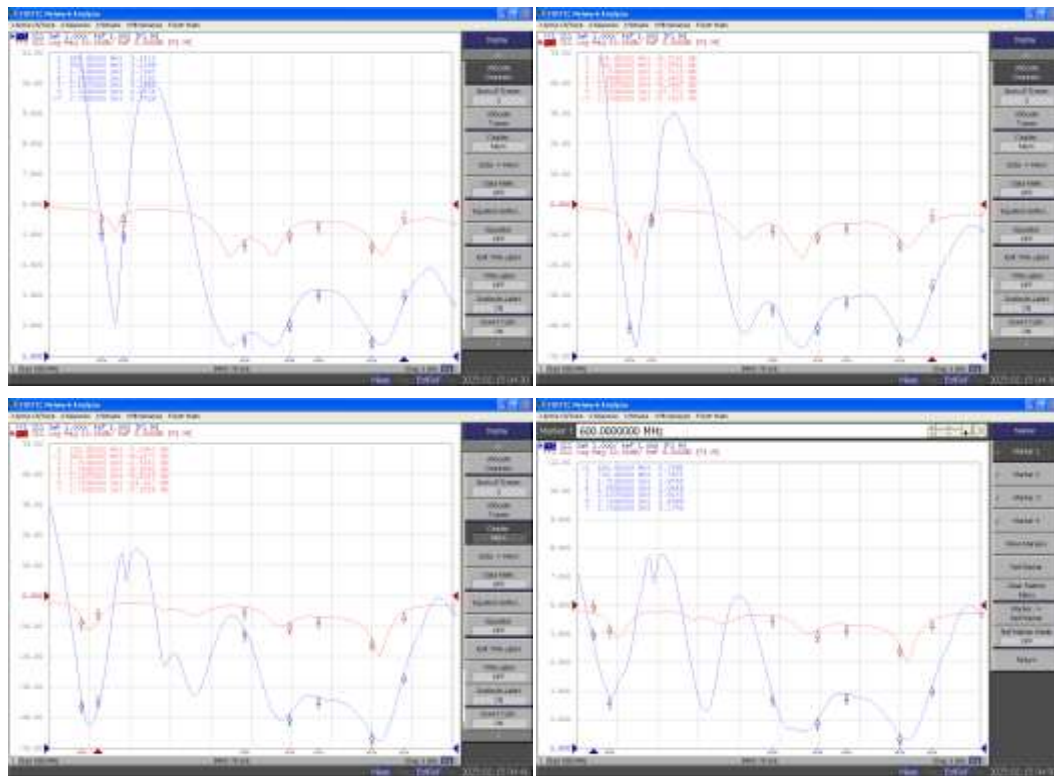
Figure 4.3.1 Dark room physical drawing

#### 4.3 E5071B/E5071C/E5062A/CWM500 calibration date

| Calibration date |
|------------------|
| 2025.05.23       |

### 5. MAIN antenna S11 Reflection loss

## RF1-4



## 6. Antenna gain and 2D or 3D Pattern diagram:

| Frequency(MHz) | Efficiency(dB) | Gain (dBi) |
|----------------|----------------|------------|
| 880            | -9.74          | -5.3       |
| 900            | -8.71          | -3.62      |
| 920            | -7.79          | -2.58      |
| 940            | -8.46          | -3.08      |
| 960            | -10.25         | -5.34      |
| 824            | -6.68          | -2.06      |
| 844            | -6.79          | -2.02      |
| 864            | -7.2           | -2.4       |

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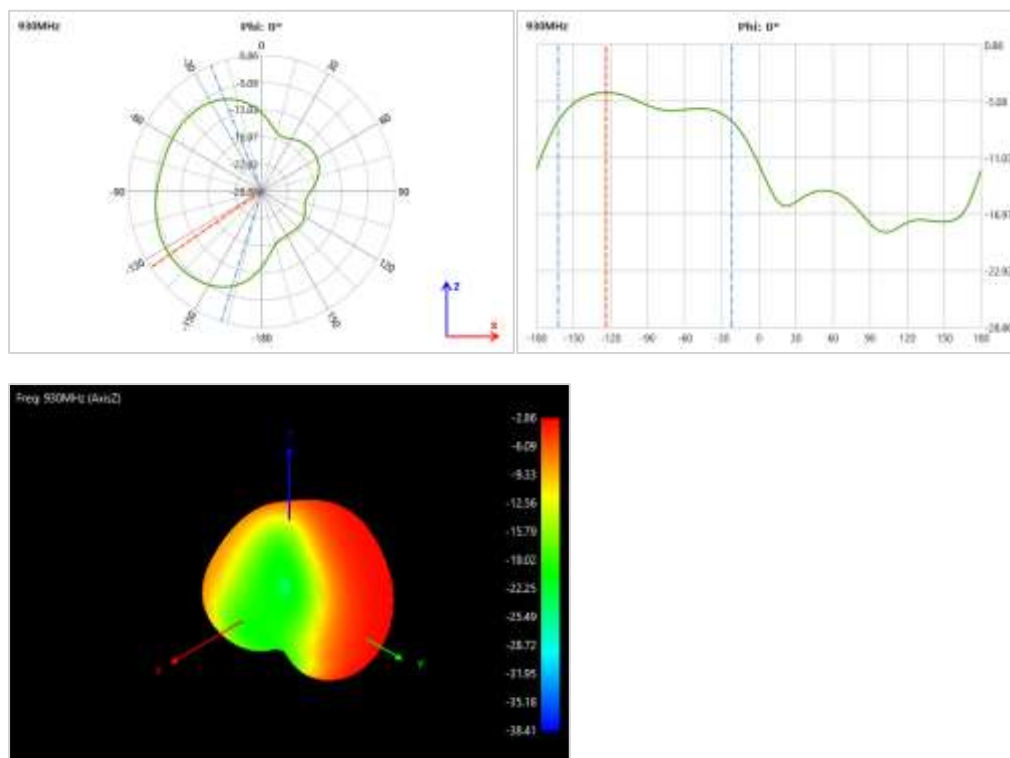
|     |        |       |
|-----|--------|-------|
| 700 | -8.93  | -5.34 |
| 720 | -8.16  | -5.09 |
| 740 | -6.9   | -3.86 |
| 760 | -6.68  | -3.38 |
| 780 | -5.93  | -2.42 |
| 800 | -6.99  | -3.6  |
| 600 | -10.8  | -5.92 |
| 620 | -10.43 | -5.76 |
| 640 | -9.94  | -5.61 |
| 660 | -9.15  | -5.26 |
| 680 | -8.71  | -5.06 |
| 700 | -10.8  | -5.92 |

| Frequency(MHz) | Efficiency(dB) | Efficiency(dBi) |
|----------------|----------------|-----------------|
| 1700           | -5.02          | 0.73            |
| 1750           | -4.83          | 0.52            |
| 1800           | -4.51          | 1.03            |
| 1850           | -3.94          | 1.26            |
| 1900           | -3.58          | 1.76            |
| 2100           | -4.56          | -0.02           |
| 2150           | -4.68          | -0.8            |

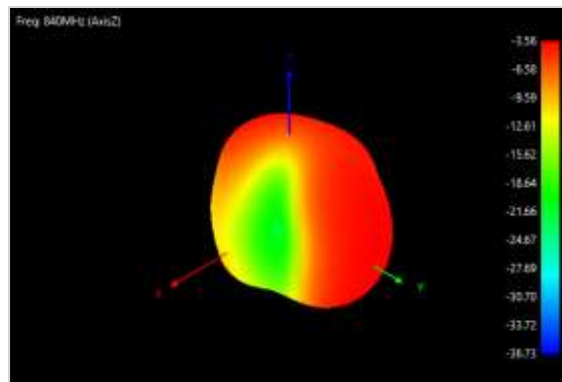
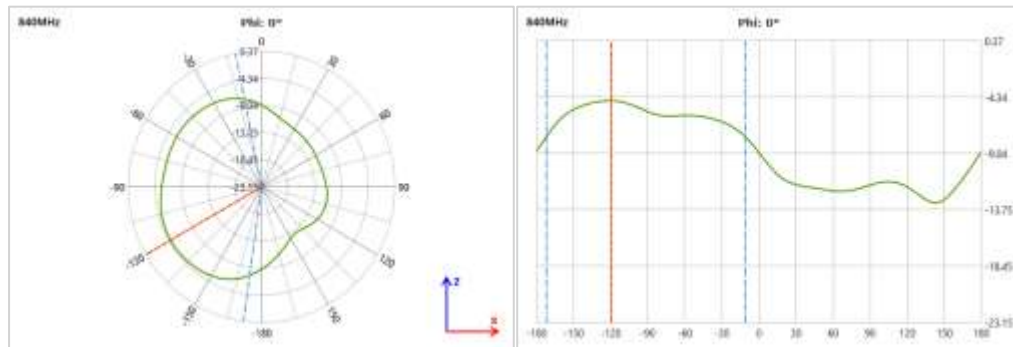
|      |       |       |
|------|-------|-------|
| 2200 | -4.27 | 0.41  |
| 2490 | -4.64 | 0.07  |
| 2540 | -4.79 | -0.85 |
| 2590 | -5.46 | -0.44 |
| 2640 | -6.92 | -0.65 |
| 2690 | -7.33 | -0.97 |

## 6.1 Antenna gain and 2D or 3D pattern diagram:

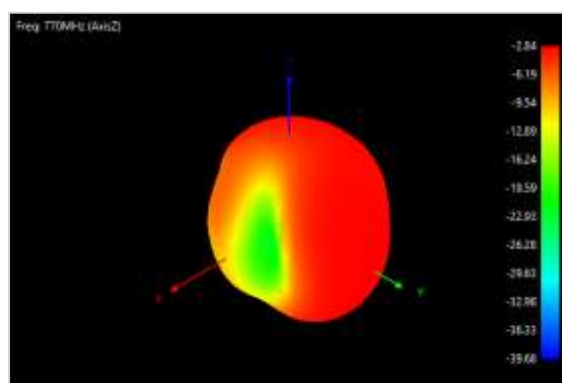
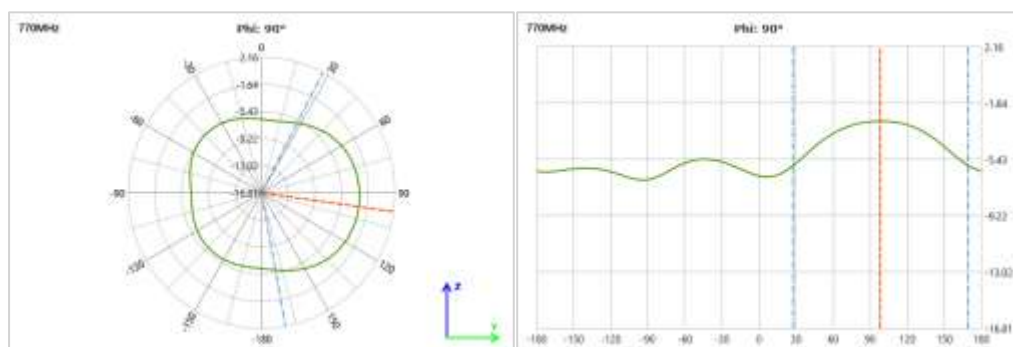
### MAIN (930MHz)



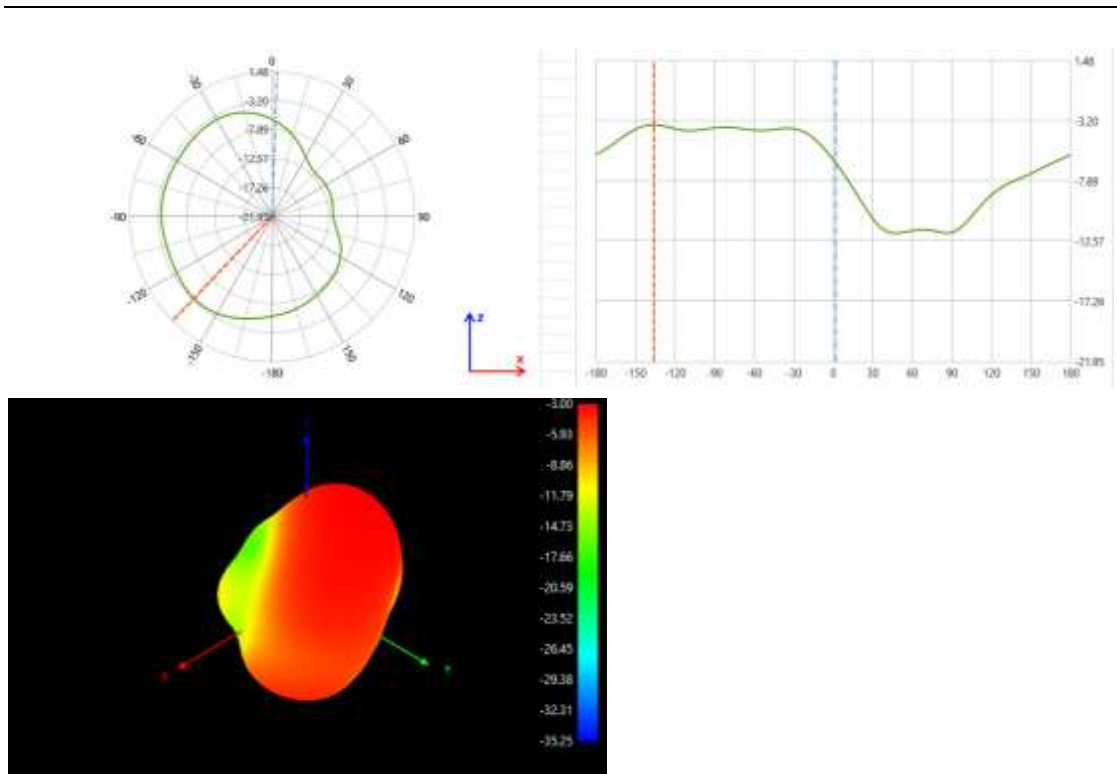
### MAIN (840MHz)



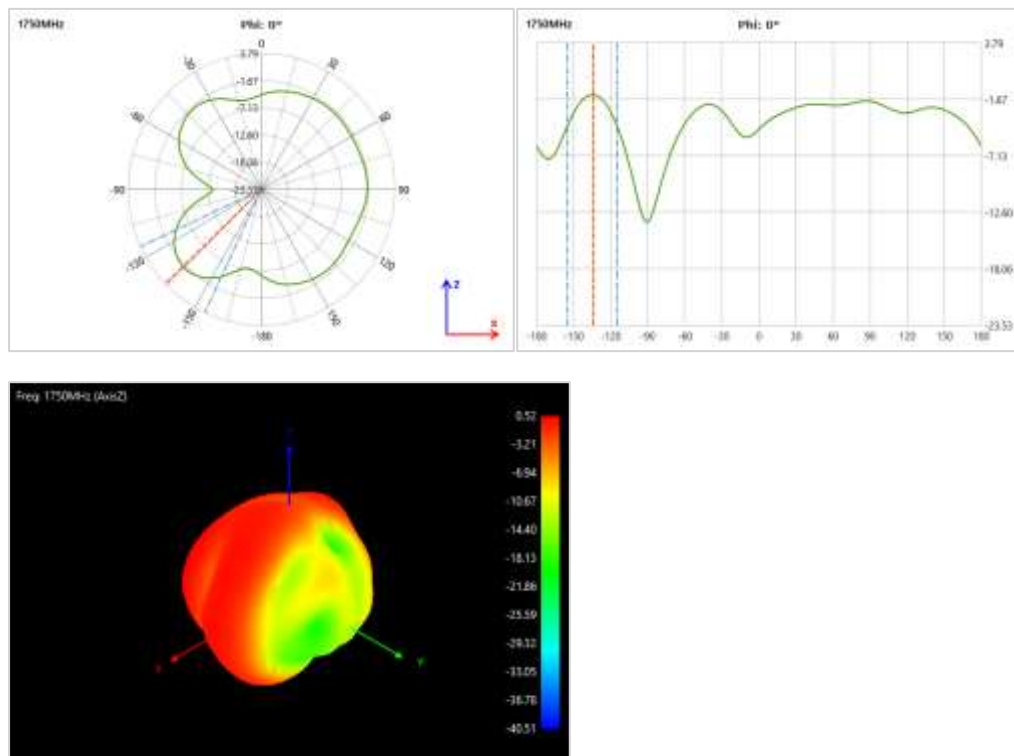
## MAIN (770MHz)



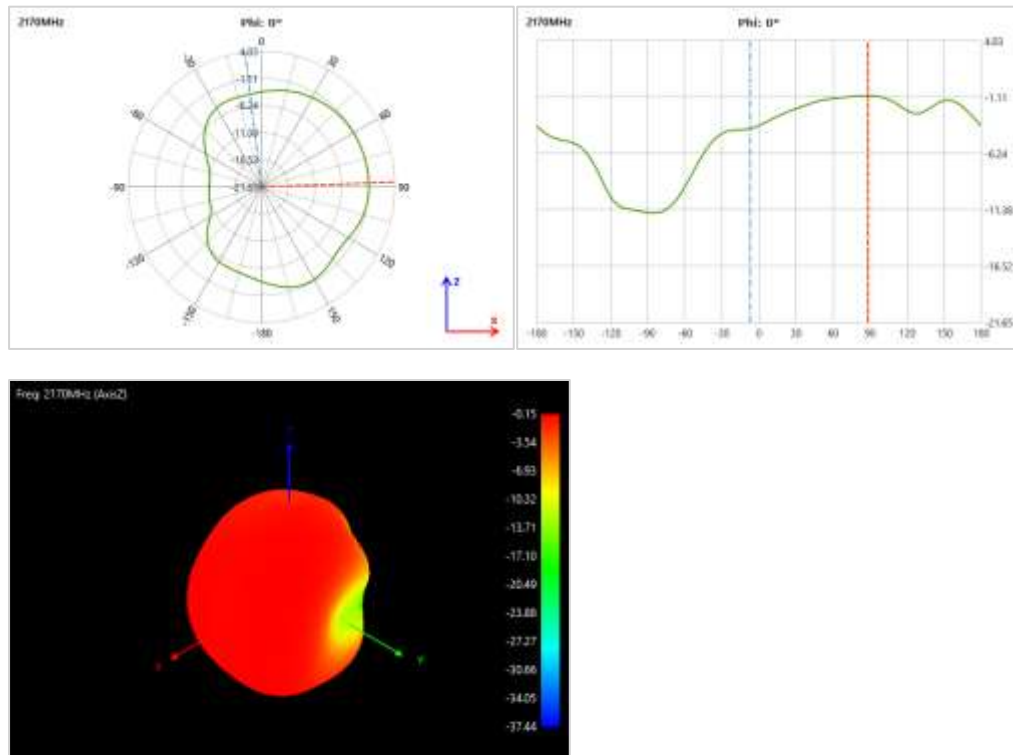
## MAIN (680MHz)



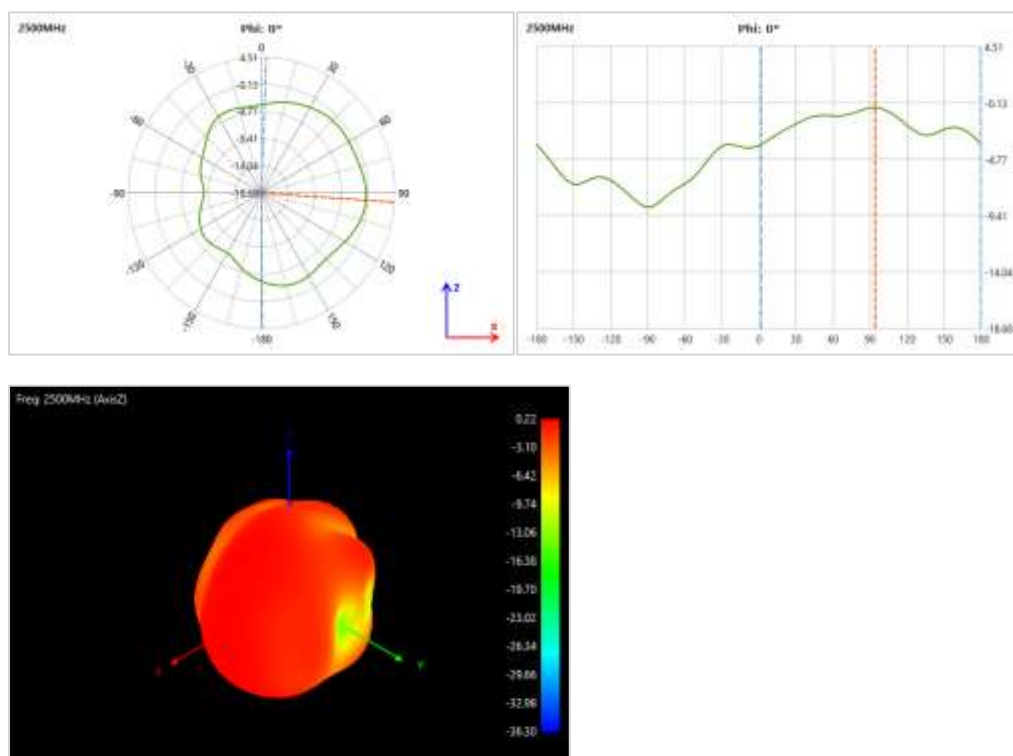
**MAIN (1750MHz)**



**MAIN (2170MHz)**



## MAIN (2500MHz)



## 7. Antenna test photo



**8. Test software: Radstation**

**9. RF Signature:**

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