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# Antenna specification

## 1、 Antenna introduction

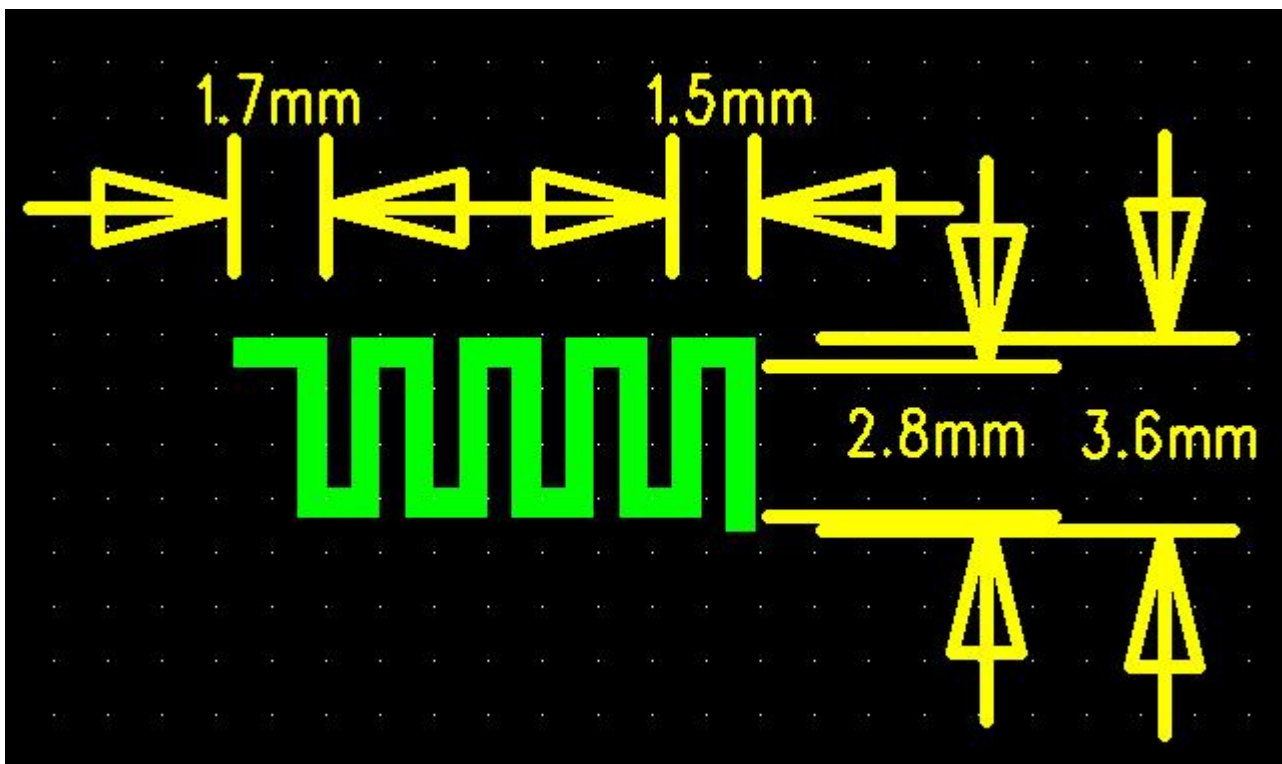
The Bluetooth module antenna is directly used on the PCB.

Manufacturer: Lenze Design Inc

Address : 7th Floor,Ching Po Building,Shenzhen Special Zone Press Group,Futian

District,Shenzhen

## 2、 Antenna shape



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### 3、 Antenna parameter

The Bluetooth antenna operates at 2402-2480 MHz and generates resonance in this band. The table below shows the main parameters of the antenna.

|                 |                  |
|-----------------|------------------|
| Frequency (MHz) | 2402 ~ 2480 MHz  |
| VSWR            | $\leq 1.95$      |
| Impedance       | 50 Ohm Nominal   |
| Return Loss     | -15 dB Max       |
| Radiation       | Omni-directional |
| Gain (Peak)     | -3 dBi           |
| Polarization    | Linear, Vertical |
| Admitted Power  | 1MW              |
| Connector       | Tin              |
|                 |                  |
|                 |                  |

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#### 4、 Antenna gain report

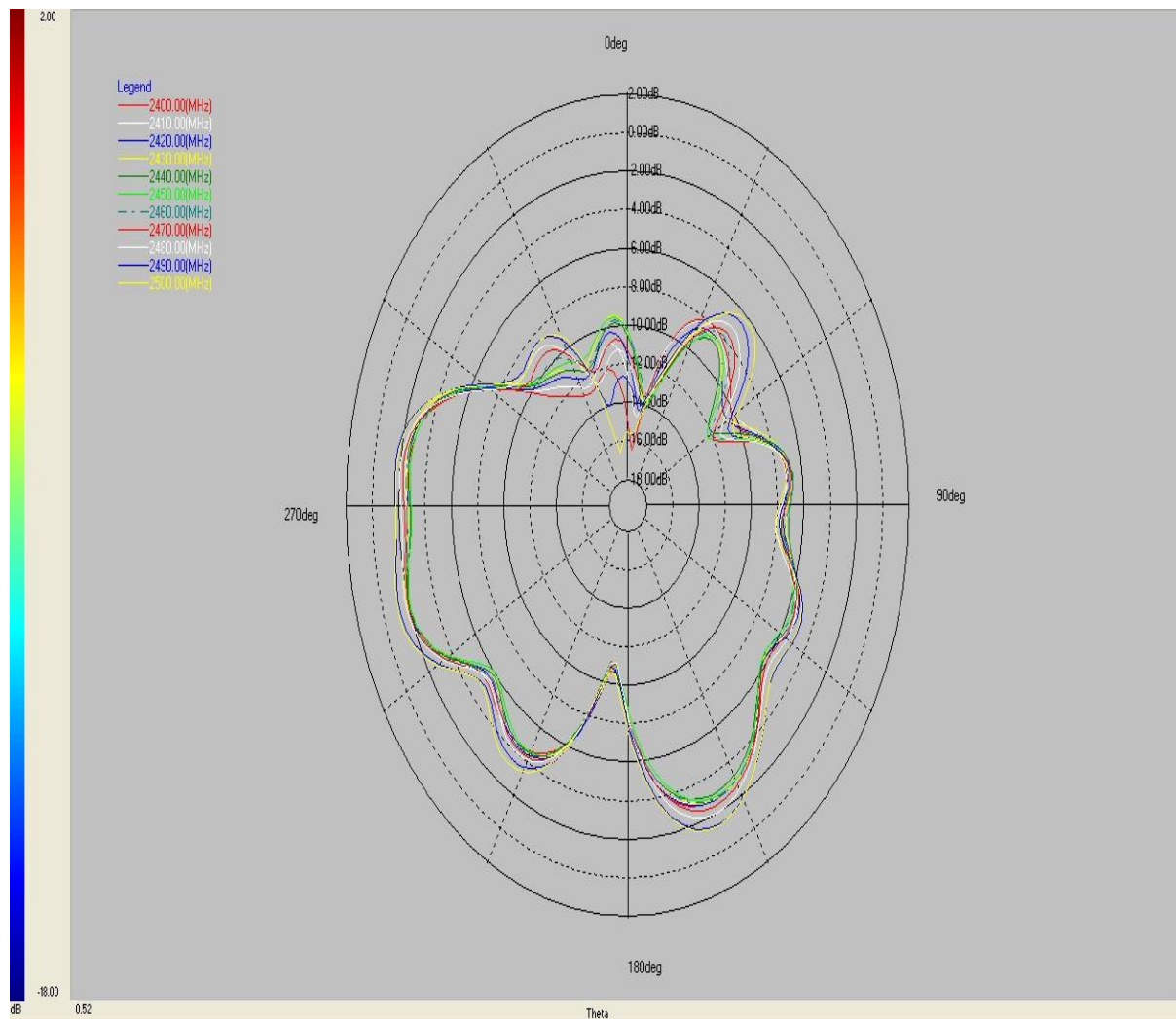
Spectrum Detector:  
Test By:  
Test Result:  
Modulation:

PK  
Mark  
PASS  
GFSK

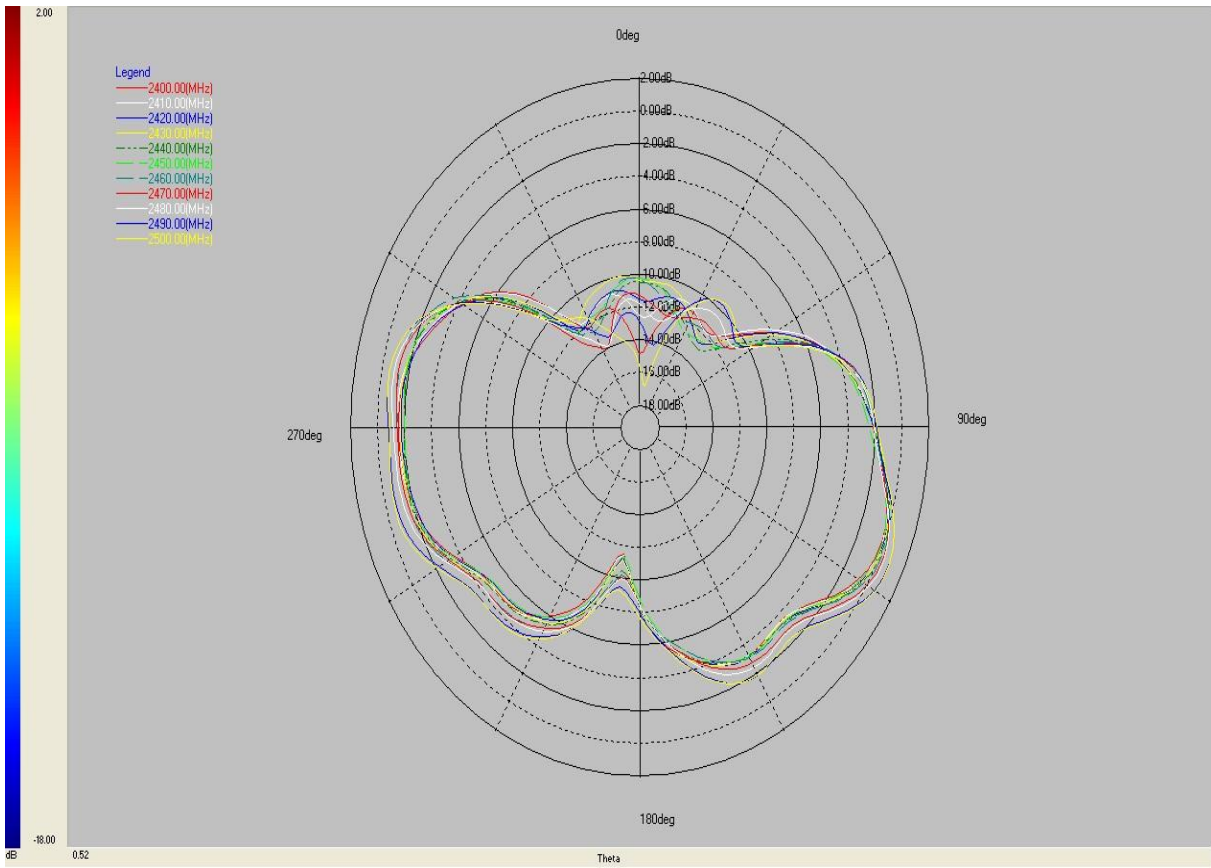
Test Date : Feb 18, 2022  
Temperature : 25°C  
Humidity : 52 %

| Frequency VNA (MHz) | E Total. dB(dB) |
|---------------------|-----------------|
| 2400MHz             | 0.0403503       |
| 2410MHz             | 0.0886264       |
| 2420MHz             | 0.267381        |
| 2430MHz             | 0.193012        |
| 2440MHz             | 0.26366         |
| 2450MHz             | 0.0723139       |
| 2460MHz             | 0.36895         |
| 2470MHz             | 0.551525        |
| 2480MHz             | 0.640702        |
| 2490MHz             | 1.05232         |
| 2500MHz             | 1.08443         |
|                     |                 |
|                     |                 |

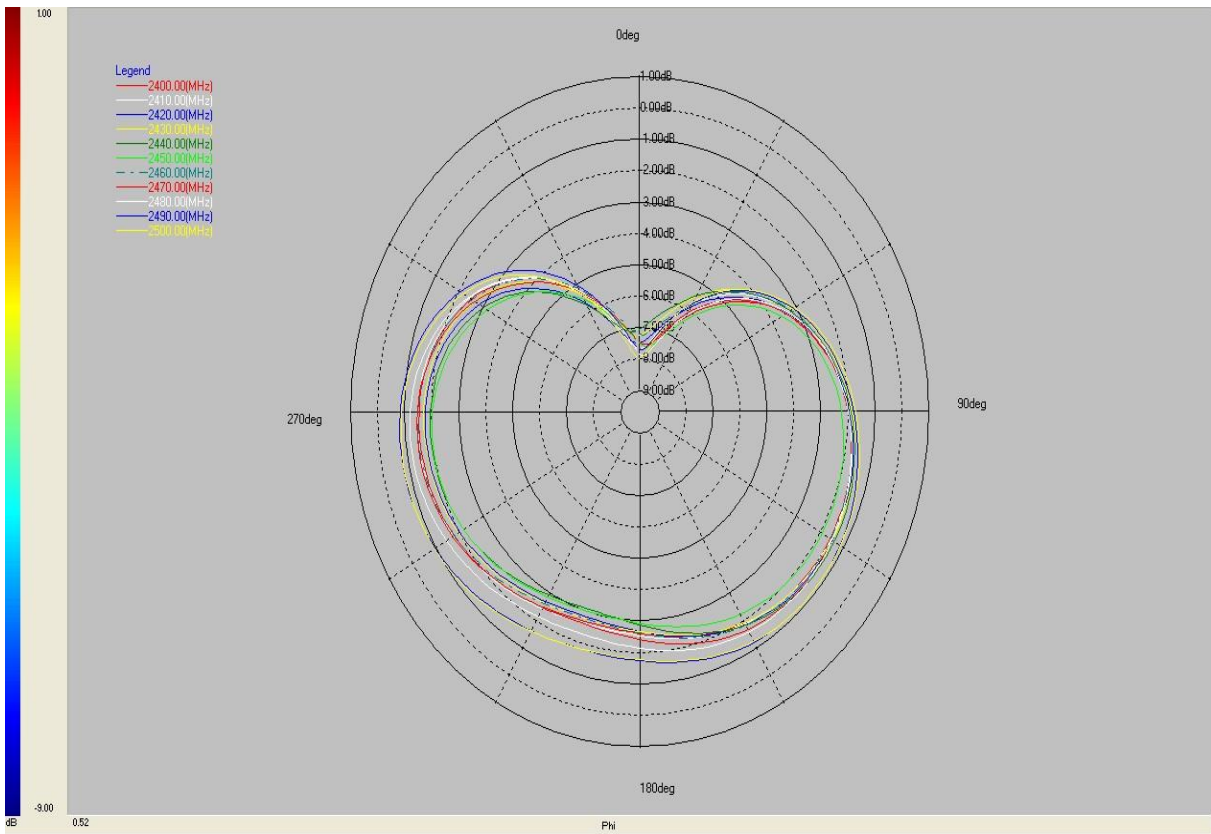
# Direction map:



PHI 0°



PHI 90°



THETA 90°