



Shenzhen Yongcheng International  
Technology Co. , LTD

天线规格书  
Antenna specification for approval

|                             |              |
|-----------------------------|--------------|
| 客户名称<br>Customer name       |              |
| 机型<br>Model                 |              |
| 天线频段<br>Antenna band        | 2.4GHZ       |
| 天线类型<br>Antenna type        | Y29-L/R-V1.0 |
| 天线材质<br>Antenna<br>material | FPC          |
| FPC 颜色<br>FPC color         |              |
| 料号<br>Material<br>number    | Y29-L/R-V1.0 |

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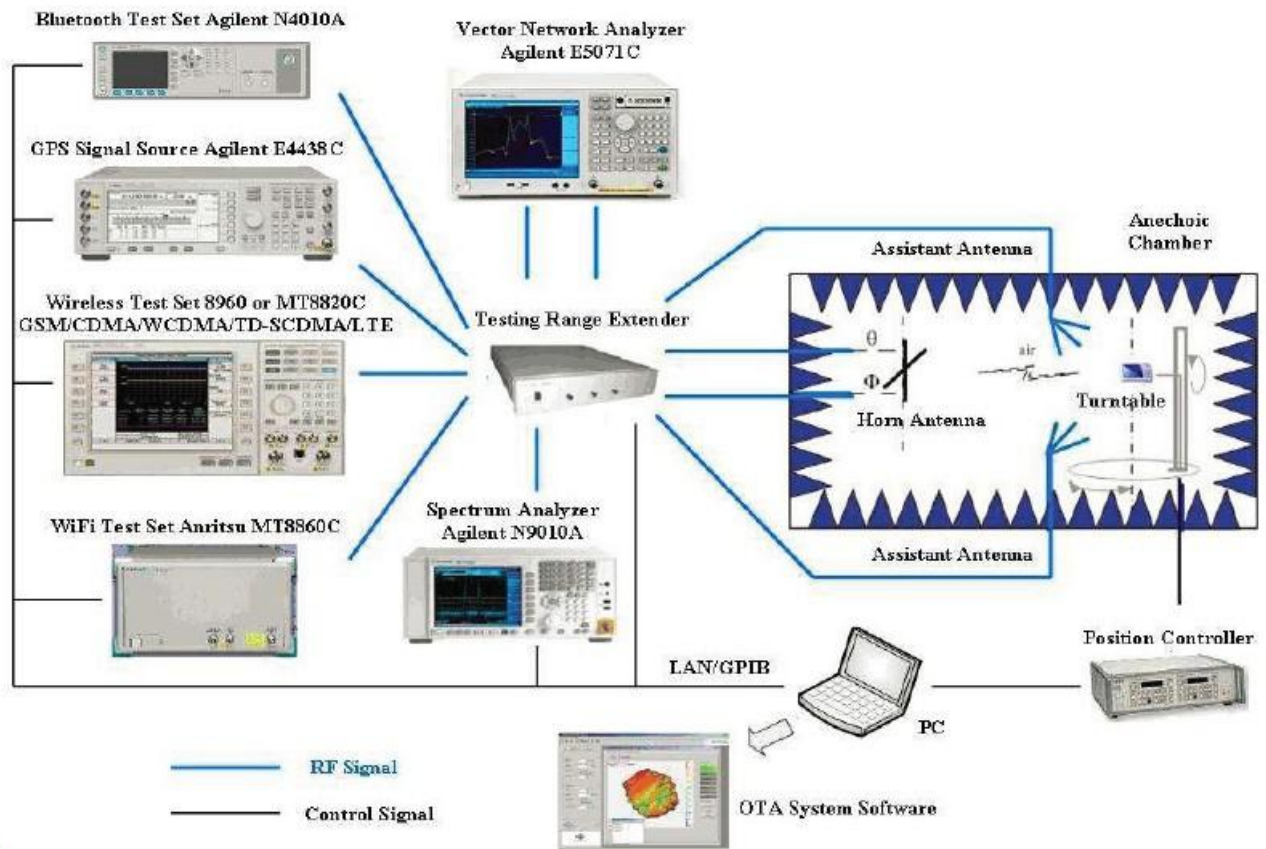
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## 一: Device support & can test antenna types



## 二: summarize

### (1)Antenna performance

1. This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of BT antenna.
2. Antenna shape size: Meet the requirement of MID
3. Antenna band: 2400MHz~2500MHz
4. Antenna material: Antenna material meet the requirement of MID
5. Adhesive performance: Adhesive performance meet the requirement of MID
6. Antenna performance meet the spec below:

| Description            | 2. 4GHZ~2. 5GHz           | Units |
|------------------------|---------------------------|-------|
| VSWR                   | $\leq 2.0$                |       |
| Average Antenna Gain   | $\geq -4.5$               | dB    |
| Antenna Efficiency     | $\geq 40$                 | %     |
|                        |                           |       |
| Feed Impedance         | 50 ohms                   |       |
| Operating Temperature  | -40 to +85 deg C          |       |
| Polarization / Azimuth | Linear / Omni-directional |       |

### (2)Mechanical Information

| Mechanical Dimension  |                  |
|-----------------------|------------------|
| Cable Length          | NA               |
| Description           | BT antenna       |
| Material              | FPC              |
| Coaxial Cable         | NA               |
| Environmental         |                  |
| Operation Temperature | -40 to +85 deg C |
| Storage Temperature   | -40 to +85 deg C |

三:Match circuit diagram & machine

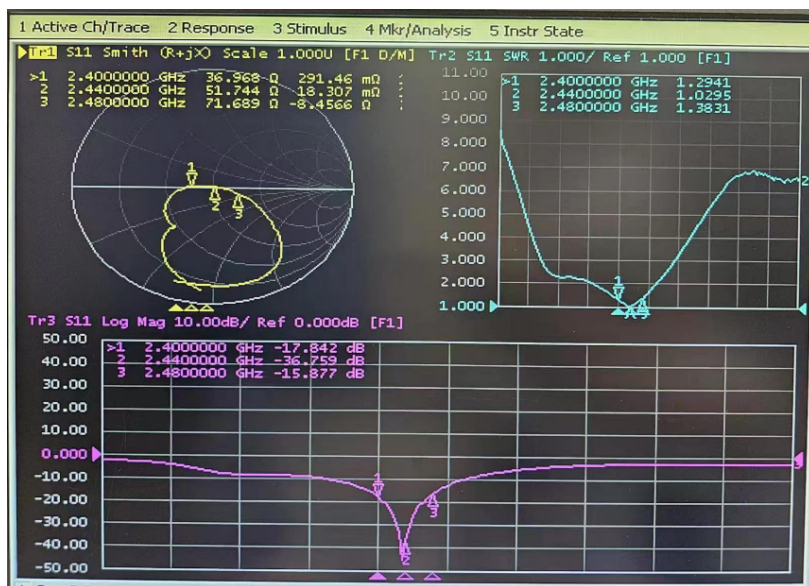
picture & antenna picture

## (2) Machine picture & antenna picture

1: gold plating; 3: Surface black matte ink; 4: Meet the latest environmental requirements: RoHS&REACH; 5: The whole board shipment;



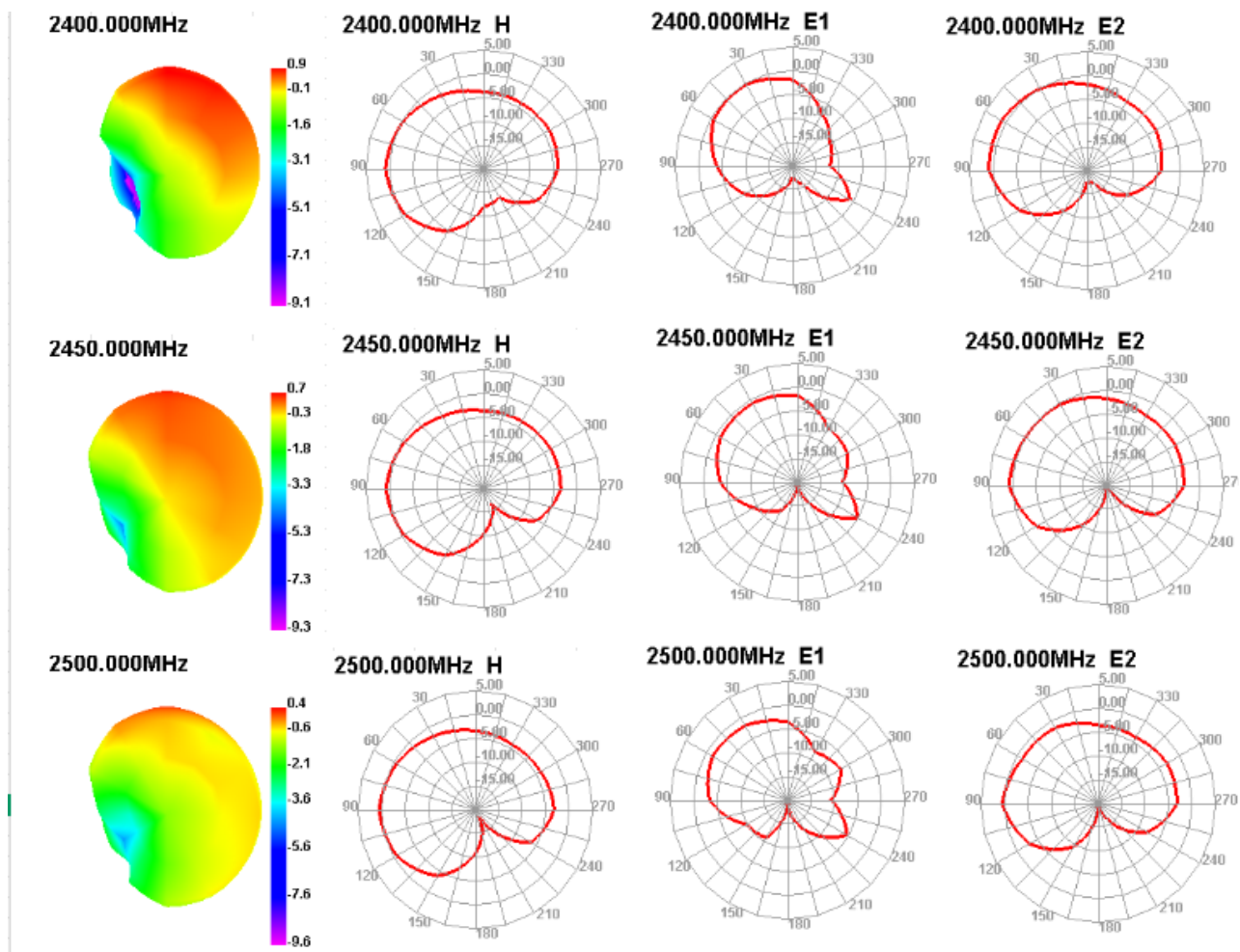
## 四:Antenna Standing Wave Ratio & Antenna Efficiency (VSWR)



| Frequency (MHz) | VSWR |
|-----------------|------|
| 2400            | 1.29 |
| 2440            | 1.02 |
| 2480            | 1.38 |

| Passive Test For BT2.4 |          |           |            |
|------------------------|----------|-----------|------------|
| Freq (MHz)             | Effi (%) | Effi (dB) | Gain (dBi) |
| 2400                   | 42.08    | -3.76     | 0.94       |
| 2410                   | 43.13    | -3.65     | 0.96       |
| 2420                   | 37.94    | -4.21     | 0.43       |
| 2430                   | 42.7     | -3.7      | 0.89       |
| 2440                   | 37.91    | -4.21     | 0.3        |
| 2450                   | 41.24    | -3.85     | 0.69       |
| 2460                   | 45.09    | -3.46     | 1.08       |
| 2470                   | 34.19    | -4.66     | -0.04      |
| 2480                   | 43.58    | -3.61     | 1          |
| 2490                   | 36.07    | -4.43     | 0.24       |
| 2500                   | 37.09    | -4.31     | 0.42       |

## 五:3D pattern



六:Structural drawing

