



好天线 · 优比造

东莞市优比电子有限公司

Dongguan UB Electronics Co., Ltd

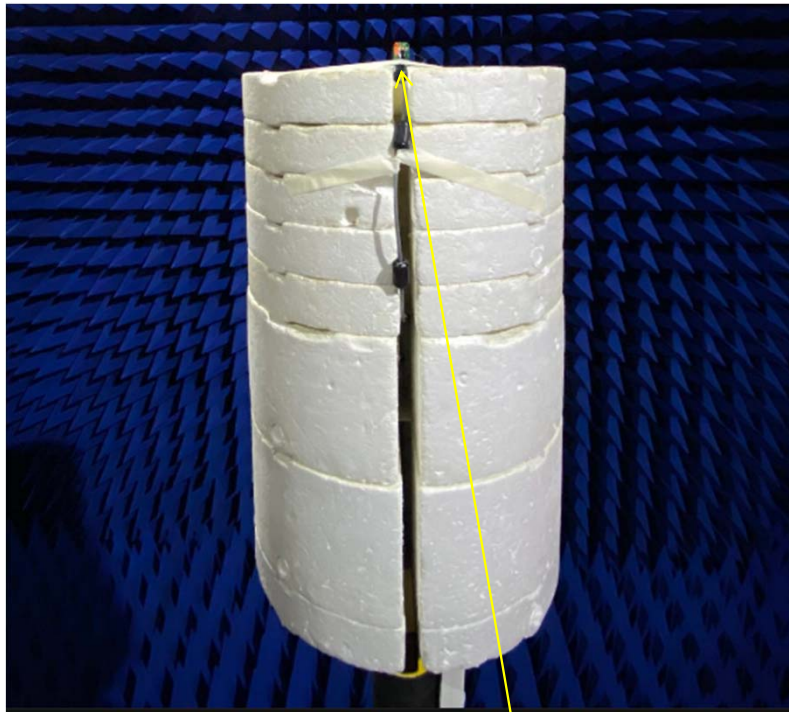
Room 101, Building 2, No.9 Xinfu Road, Lincun,  
Tangxia Town, Dongguan City, Guangdong Province

## Antenna Study

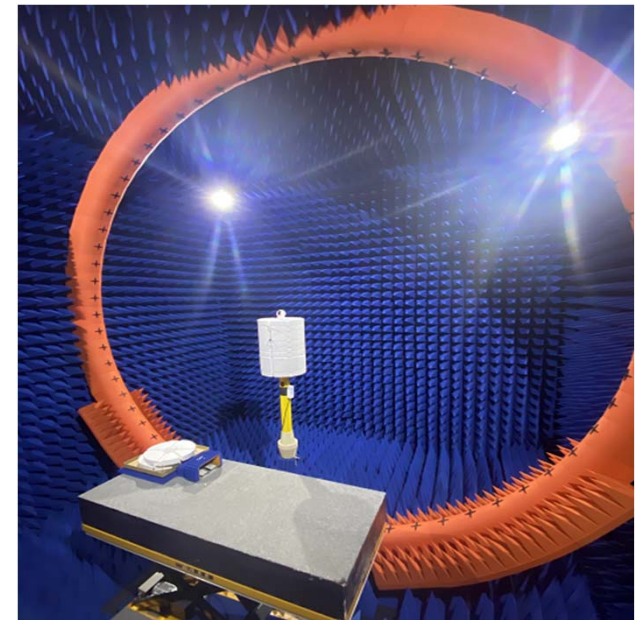
- **Client Name: JM Zengge Co., Ltd**
- **Project Name : ZJ-YBCL-SPI-VC- 2M-IJ**
- **Debugging frequency band: 2400-2500HMz**
- **Valuation date: 2025.5.28**

# PCB Antenna

Dongguan UB Electronics Co., Ltd



Testing environment

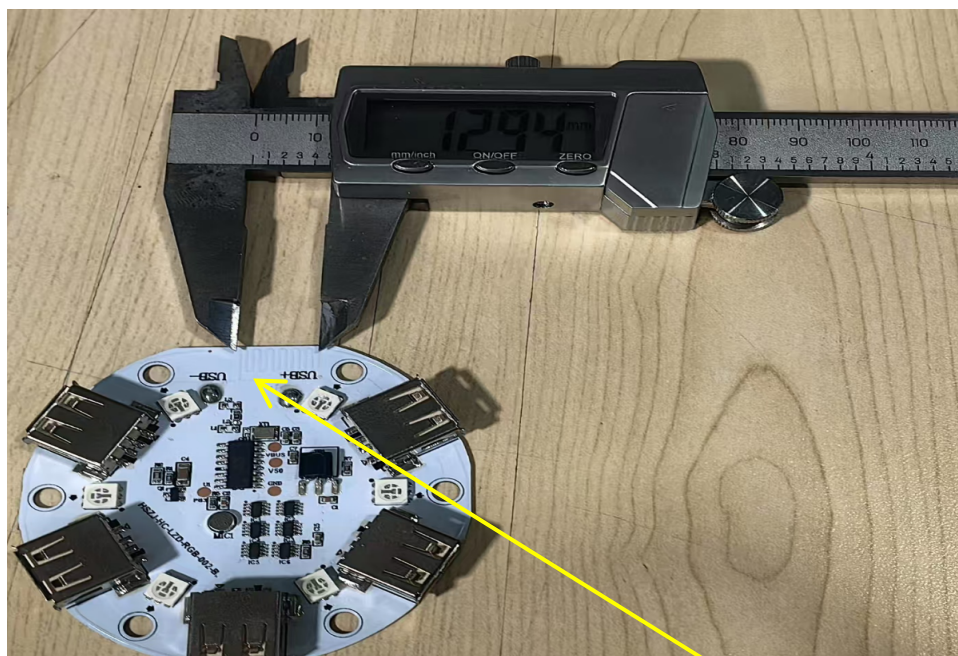


Testing 3D microwave darkroom(6m\*6m\*6m)

# PCB Antenna

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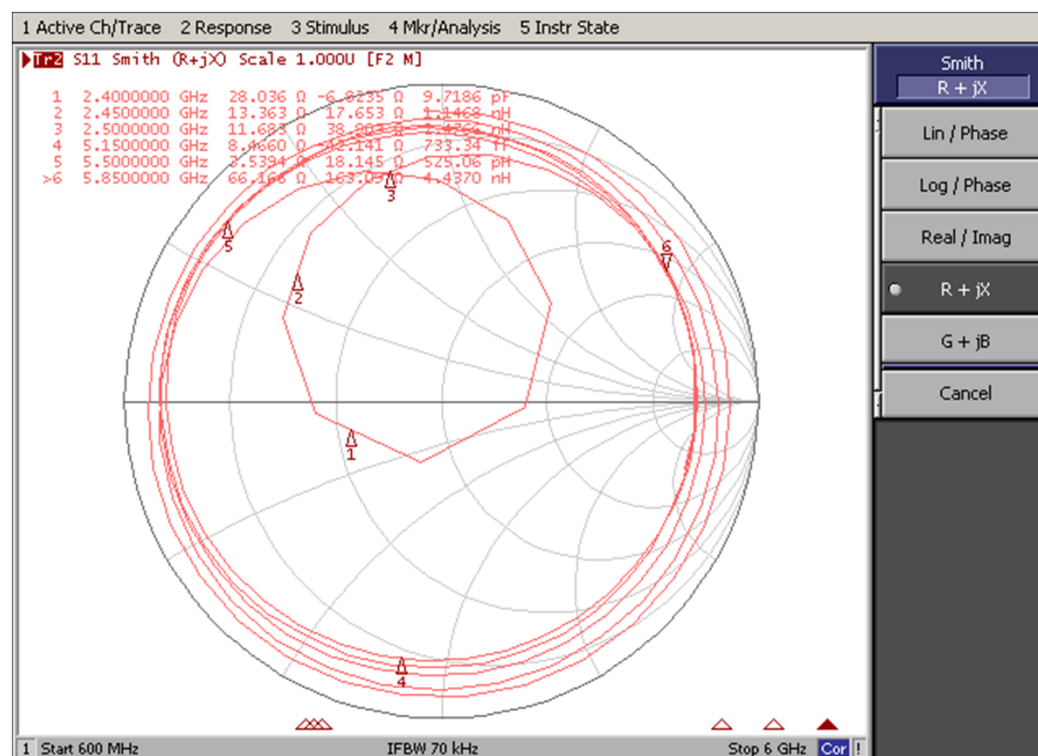
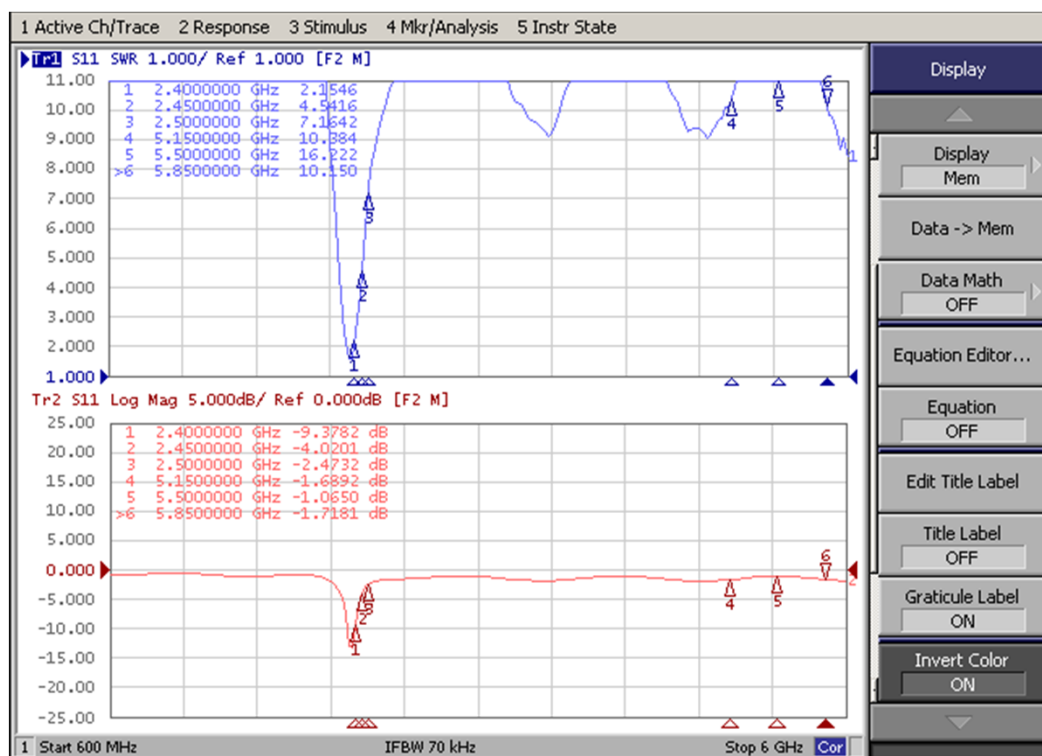
- Antenna name: 2.4G
- Antenna Type: PCB
- Covers : 2400/2500MHz



Antenna

# S Parameter\_Return Loss&VSWR-Smith

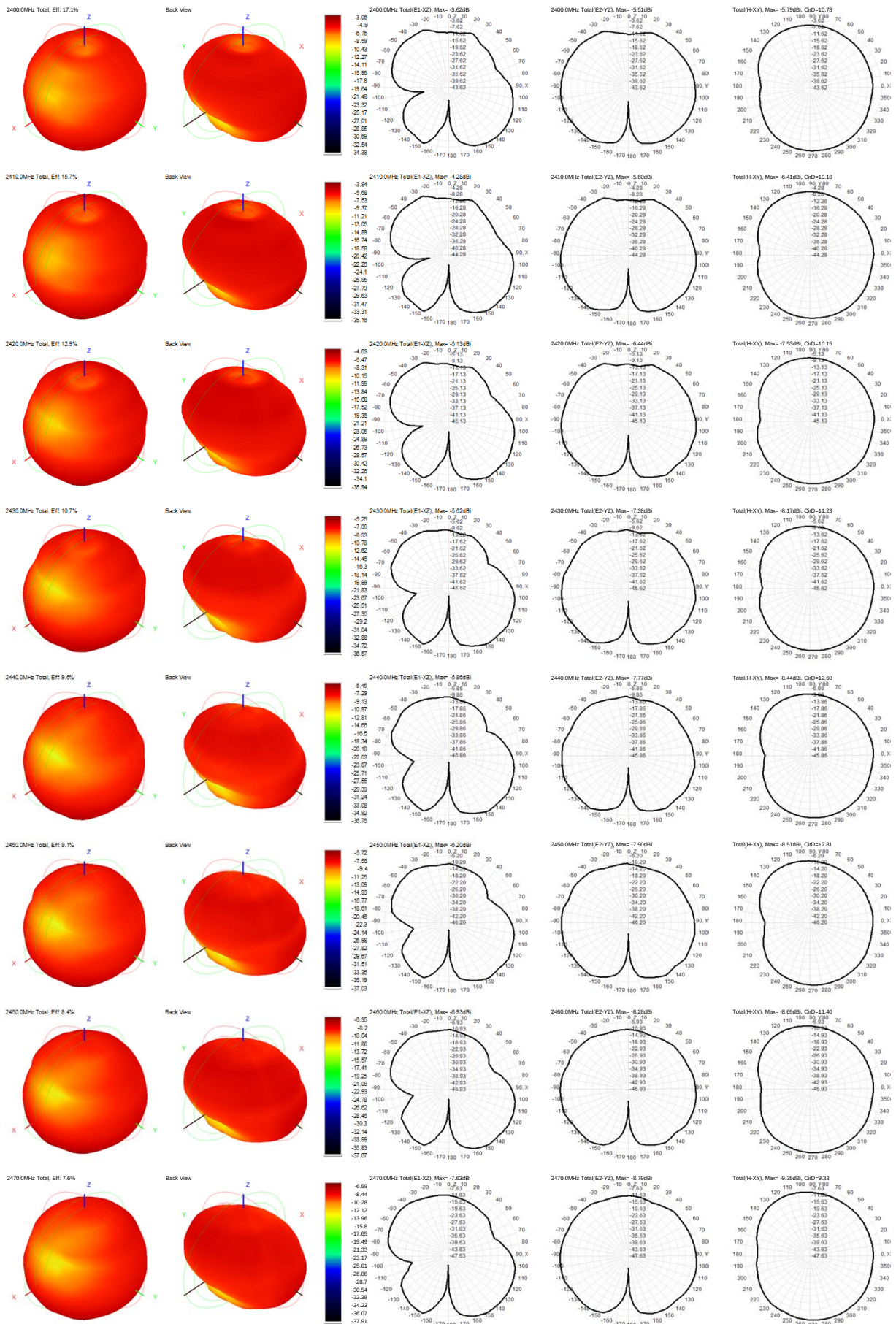
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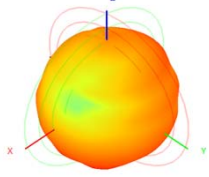
# Efficiency and Gain

|                 |        |        |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency ID    | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     |
| Frequency (MHz) | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 |
| Gain (dBi)      | -3.06  | -3.84  | -4.63  | -5.25  | -5.45  | -5.72  | -6.35  | -6.59  | -2.63  | -2.44  | -6.39  |
| Efficiency (%)  | 17.13  | 15.69  | 12.86  | 10.75  | 9.64   | 9.11   | 8.44   | 7.58   | 6.51   | 5.63   | 5.03   |

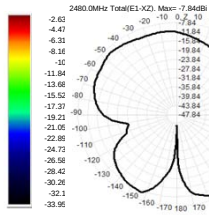
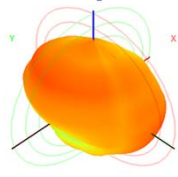




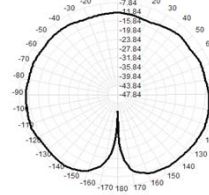
2480.0MHz Total, Eff: 6.5%



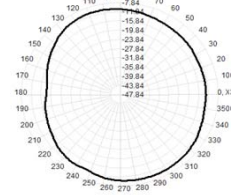
Back View



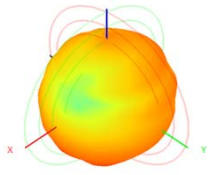
2480.0MHz Total(E2-YZ), Max=-9.76dBi



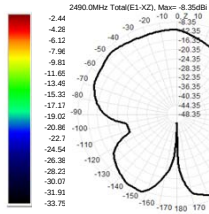
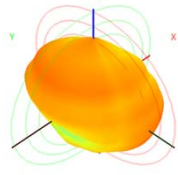
Total(H-XY), Max=-10.25dBi, CrD=7.86



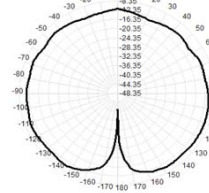
2490.0MHz Total, Eff: 5.6%



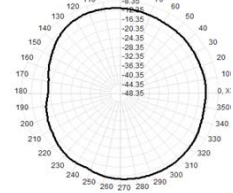
Back View



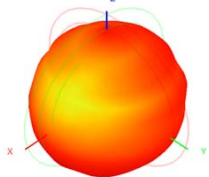
2490.0MHz Total(E2-YZ), Max=-10.61dBi



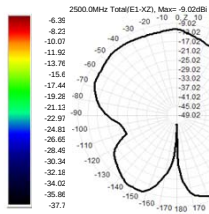
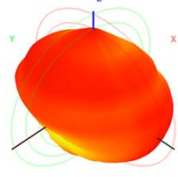
Total(H-XY), Max=-10.98dBi, CrD=8.31



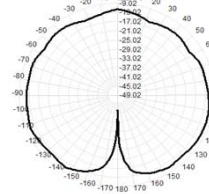
2500.0MHz Total, Eff: 5.0%



Back View



2500.0MHz Total(E2-YZ), Max=-10.97dBi



Total(H-XY), Max=-11.57dBi, CrD=9.35

