



好天线 · 优比造

东莞市优比电子有限公司

Dongguan UB Electronics Co., Ltd

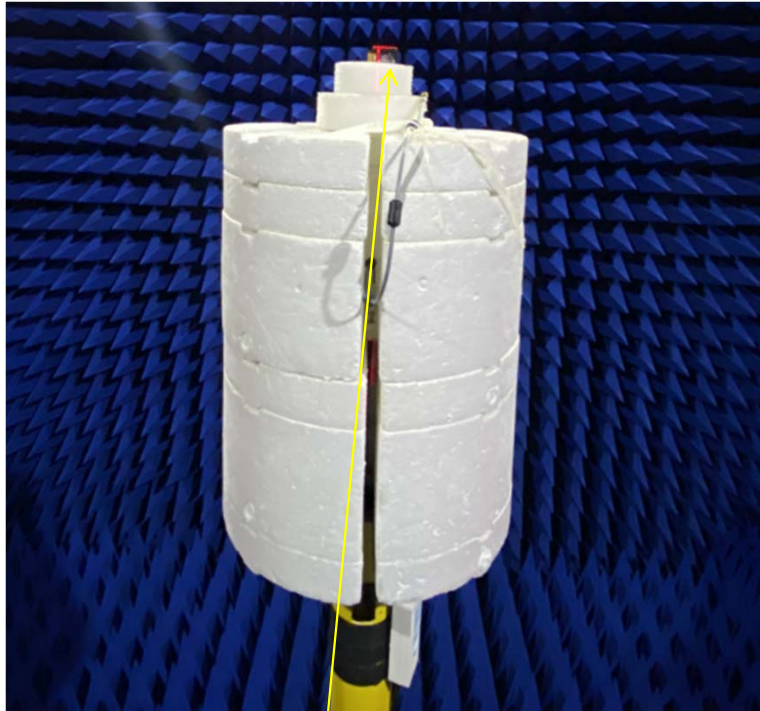
Room 101, Building 2, No. 9 Xinfu Road, Lincun, Tangxia Town, Dongguan City,
Guangdong Province, China

Antenna Study

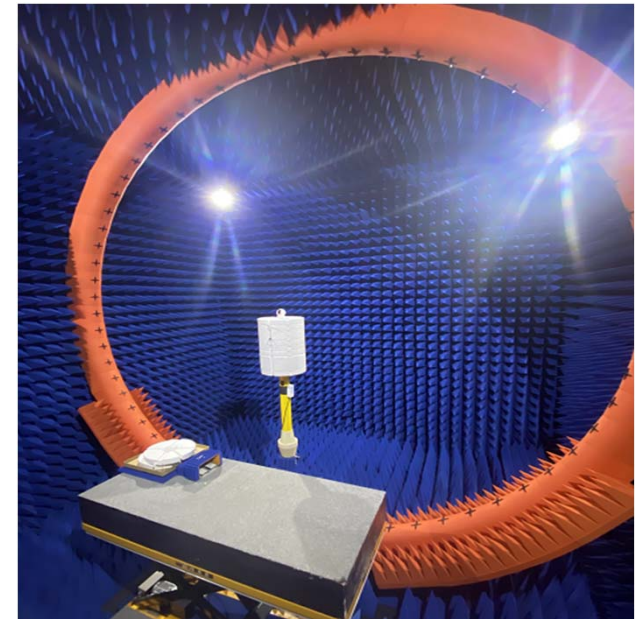
- **Client Name: Shenzhen Fuxuntong Electronics Co., Ltd**
- **Project Name : Smart watch**
- **Debugging frequency band: 2.4G**
- **Valuation date: 2024.01.11**

Internal Antenna

Dongguan UB Electronics Co., Ltd



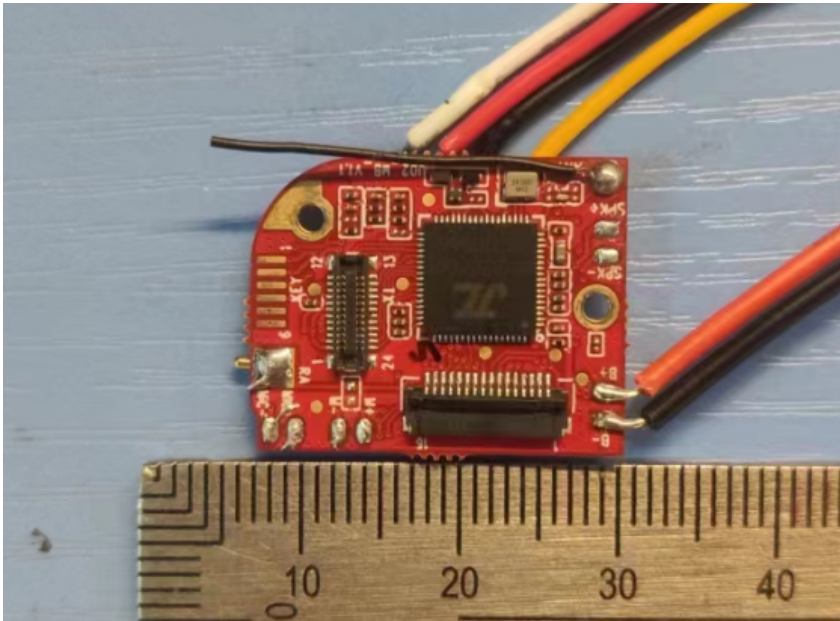
Testing environment



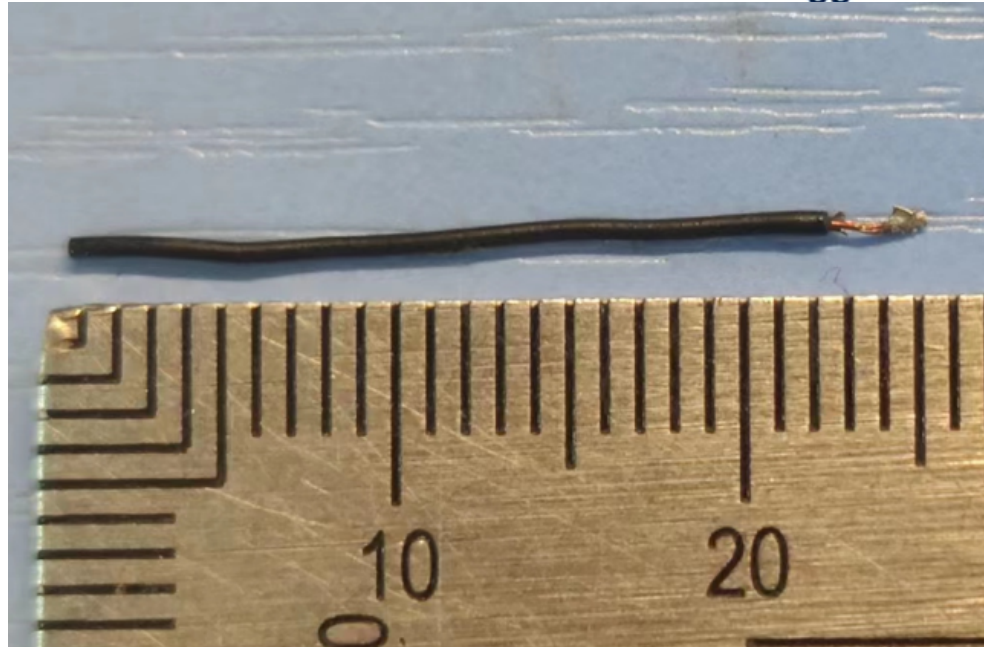
Testing 3D microwave darkroom(6m*6m*6m)

Internal Antenna

Dongguan UB Electronics Co., Ltd



Antenna

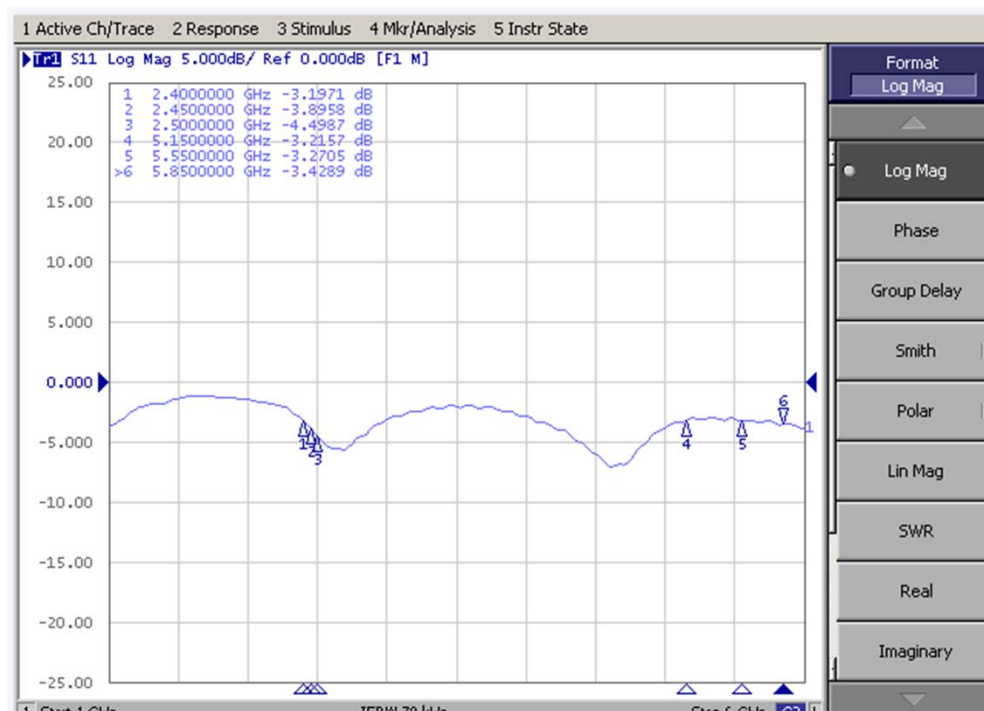
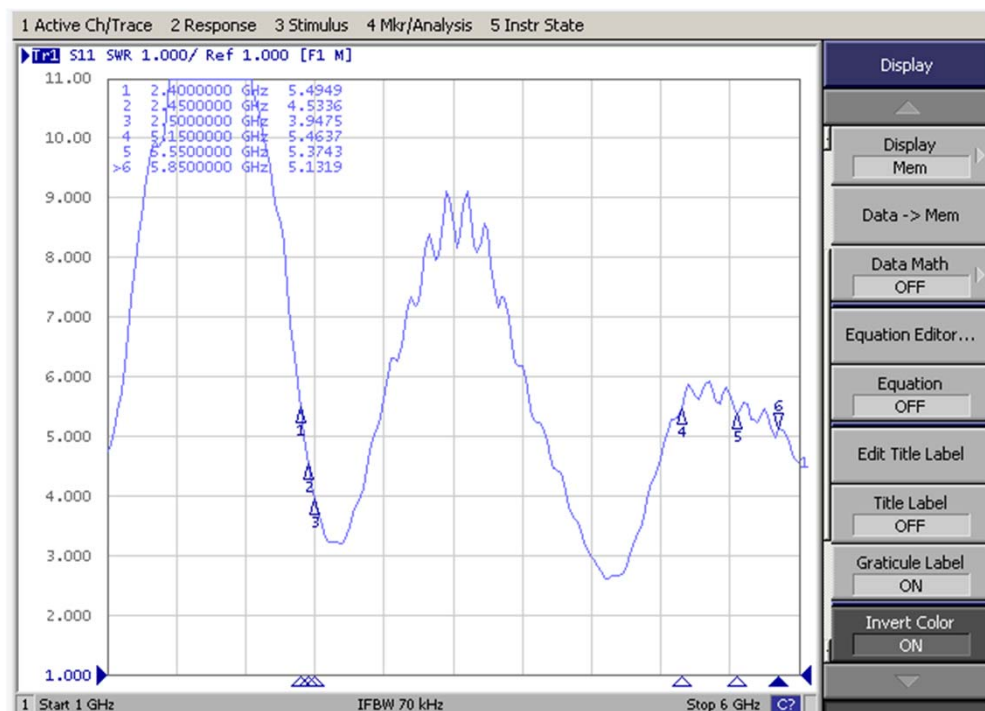


- Antenna name: 2.4G
- Antenna Type: Internal
- Covers : 2.4G

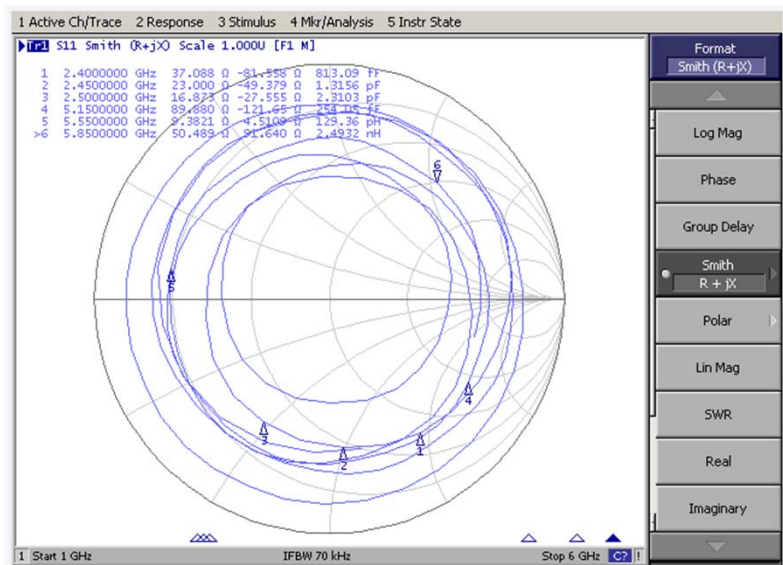
Slide 3

S Parameter_Return Loss&VSWR

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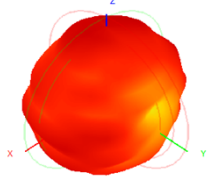


Efficiency and Gain-Smith

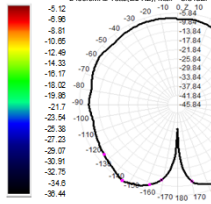
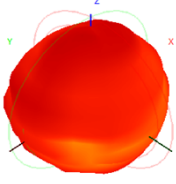


Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	-5.12	-4.75	-4.86	-4.96	-4.91	-4.71	-4.41	-4.36	-4.20	-4.00	-4.01
Efficiency (%)	9.39	9.89	10.12	10.45	10.32	10.13	10.76	11.32	11.50	12.32	12.31

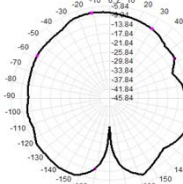
2400.0MHz H+V, EIR: 9.4%



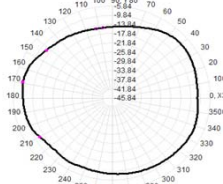
Back View



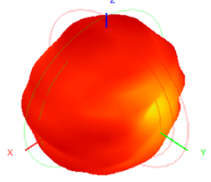
2400.0MHz Total(E2-YZ), Max: -8.17dBi



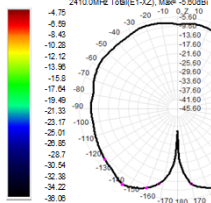
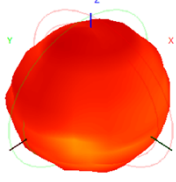
Total(H+V), Max: -9.10dBi, C/D=6.07



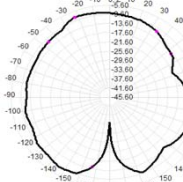
2410.0MHz H+V, EIR: 9.5%



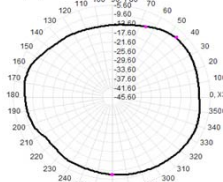
Back View



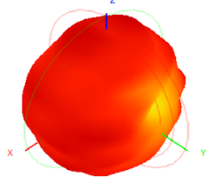
2410.0MHz Total(E2-YZ), Max: -8.17dBi



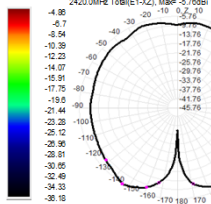
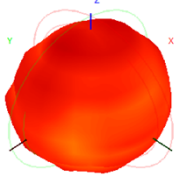
Total(H+V), Max: -9.98dBi, C/D=5.67



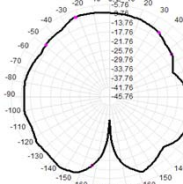
2420.0MHz H+V, EIR: 10.1%



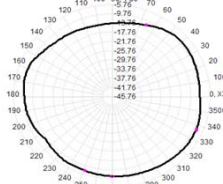
Back View



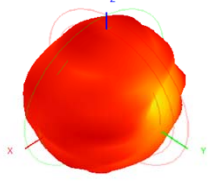
2420.0MHz Total(E2-YZ), Max: -8.56dBi



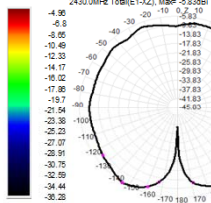
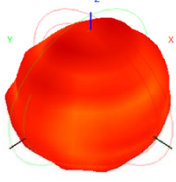
Total(H+V), Max: -8.80dBi, C/D=5.57



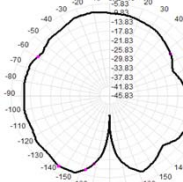
2430.0MHz H+V, EIR: 10.4%



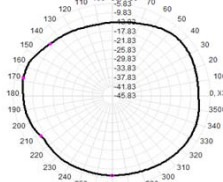
Back View



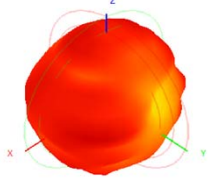
2430.0MHz Total(E2-YZ), Max: -9.09dBi



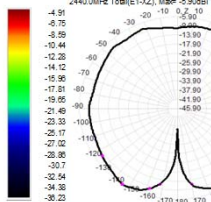
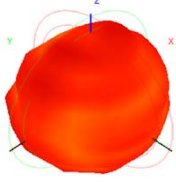
Total(H+V), Max: -9.10dBi, C/D=5.25



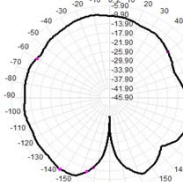
2440.0MHz H+V, EIR: 10.3%



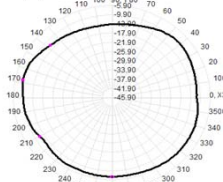
Back View



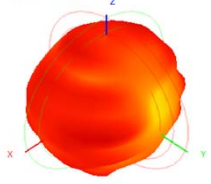
2440.0MHz Total(E2-YZ), Max: -8.94dBi



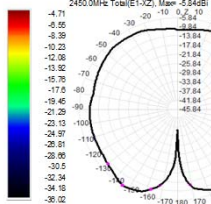
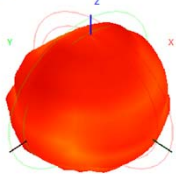
Total(H+V), Max: -9.06dBi, C/D=5.35



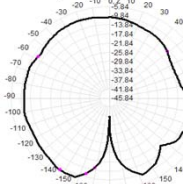
2450.0MHz H+V, EIR: 10.1%



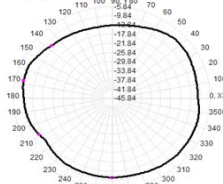
Back View



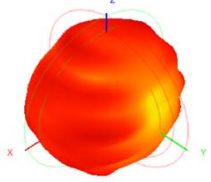
2450.0MHz Total(E2-YZ), Max: -8.67dBi



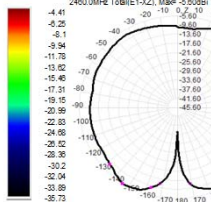
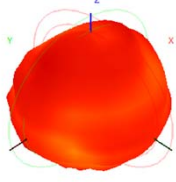
Total(H+V), Max: -9.23dBi, C/D=5.10



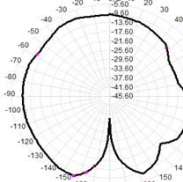
2460.0MHz H+V, EIR: 10.8%



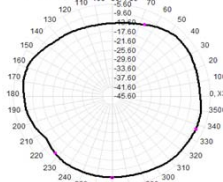
Back View



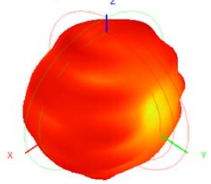
2460.0MHz Total(E2-YZ), Max: -8.11dBi



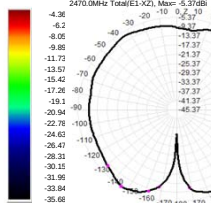
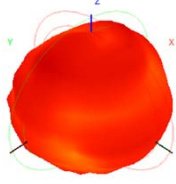
Total(H+V), Max: -8.82dBi, C/D=5.38



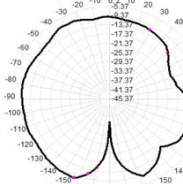
2470.0MHz H+V, EIR: 11.3%



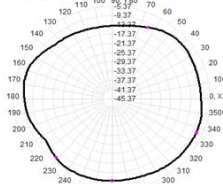
Back View



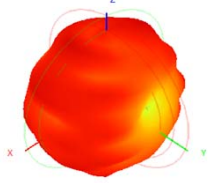
2470.0MHz Total(E2-YZ), Max: -8.25dBi



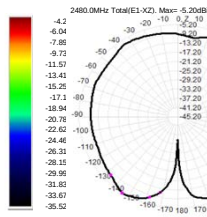
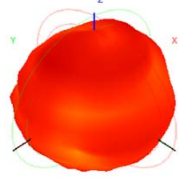
Total(H+V), Max: -8.28dBi, C/D=5.78



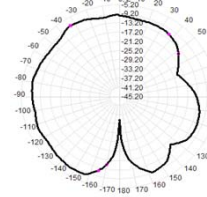
2480.0MHz H+V, Eff: 11.5%



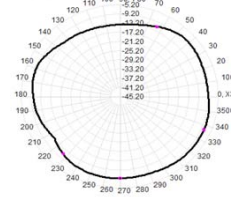
Back View



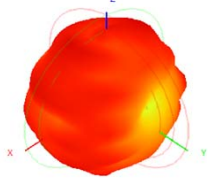
2480.0MHz Total(E2-YZ), Max=-8.51dBi



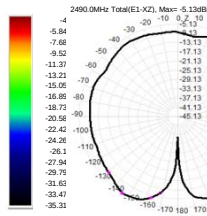
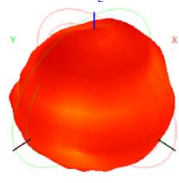
Total(H+V), Max=-8.35dBi, Crd=-5.68



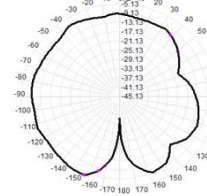
2490.0MHz H+V, Eff: 12.3%



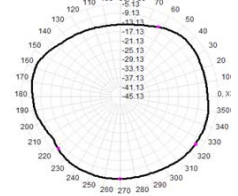
Back View



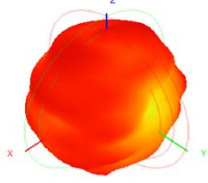
2490.0MHz Total(E2-YZ), Max=-8.27dBi



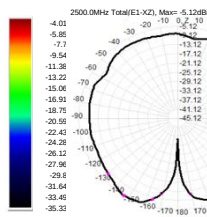
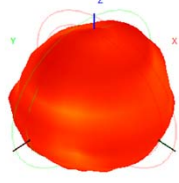
Total(H+V), Max=-8.35dBi, Crd=-5.88



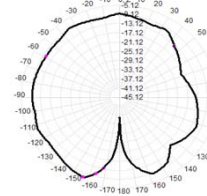
2500.0MHz H+V, Eff: 12.3%



Back View



2500.0MHz Total(E2-YZ), Max=-7.47dBi



Total(H+V), Max=-8.54dBi, Crd=-5.66

