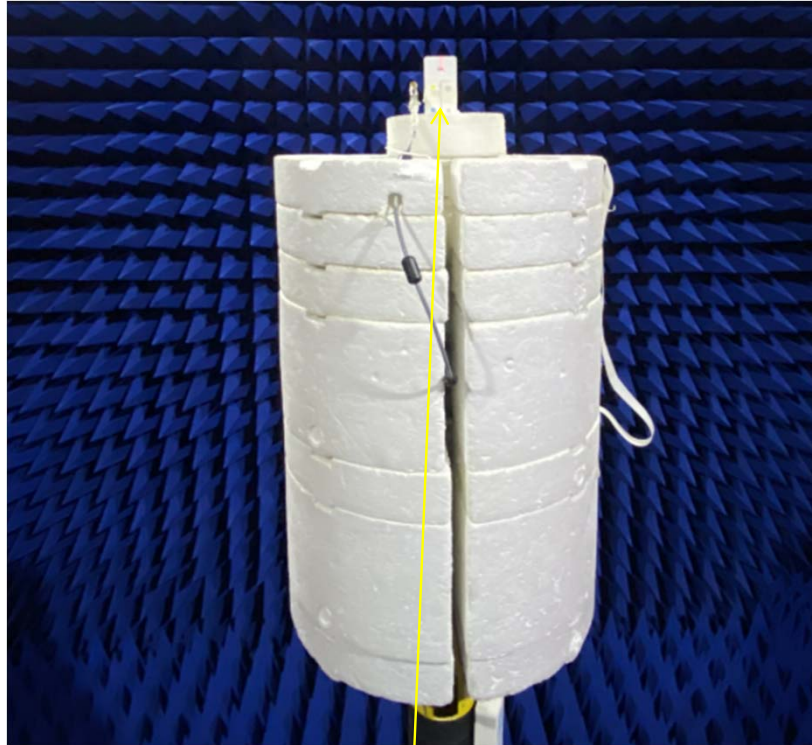


Antenna Study

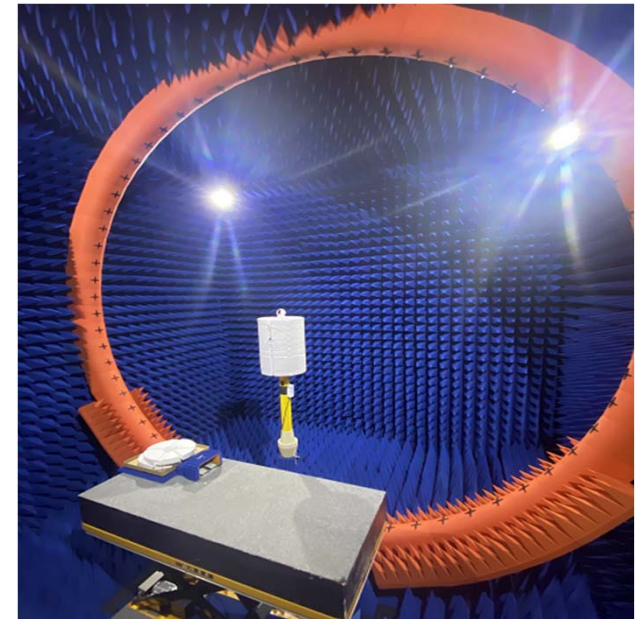
- **Client Name: Beyond Lighting Technology (Shanghai) Co., Ltd.**
- **Project Name : Dimmer switch**
- **Debugging frequency band: 2400-2500HMz**
- **Valuation date: 2023.09.08**

PCB Antenna

Dongguan UB Electronics Co., Ltd



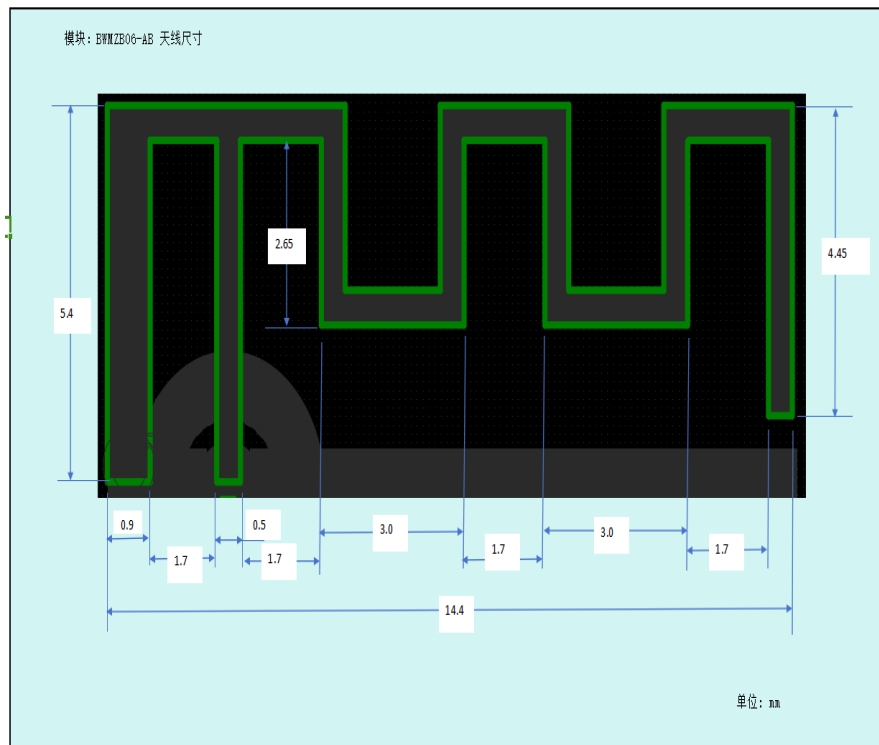
Testing environment



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

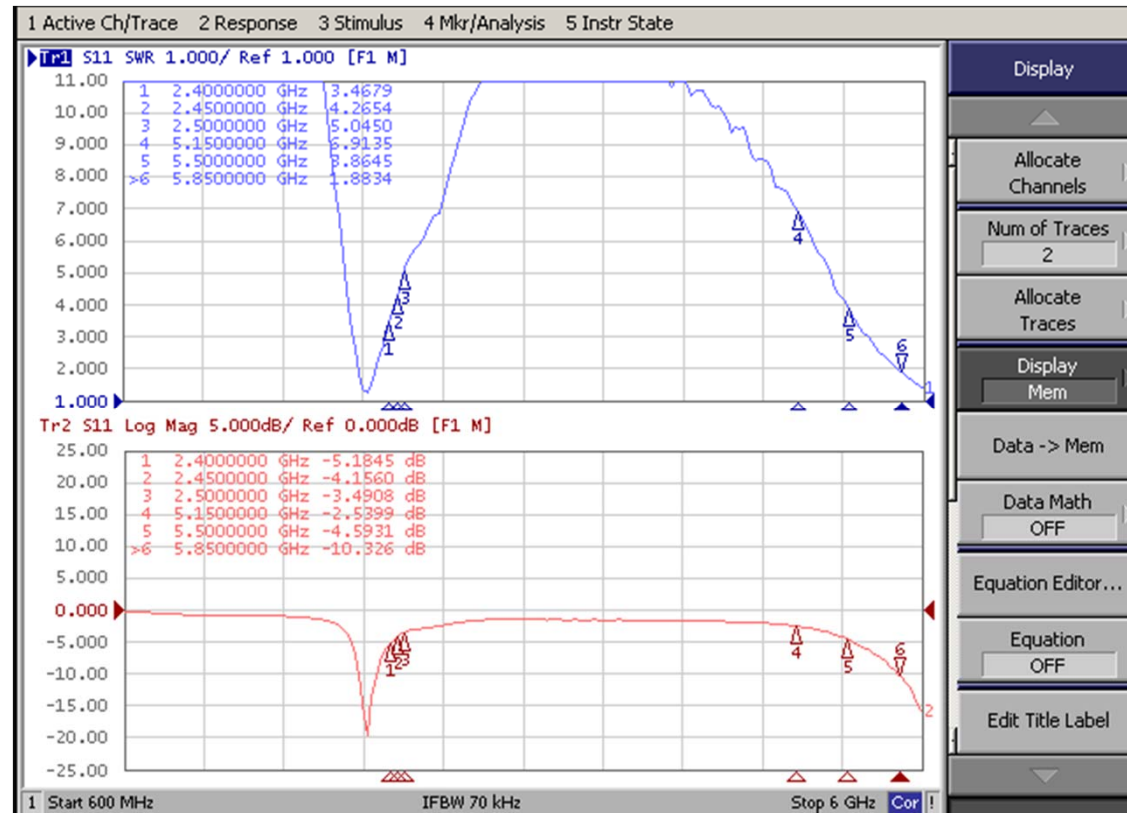
PCB Antenna

Dongguan UB Electronics Co., Ltd

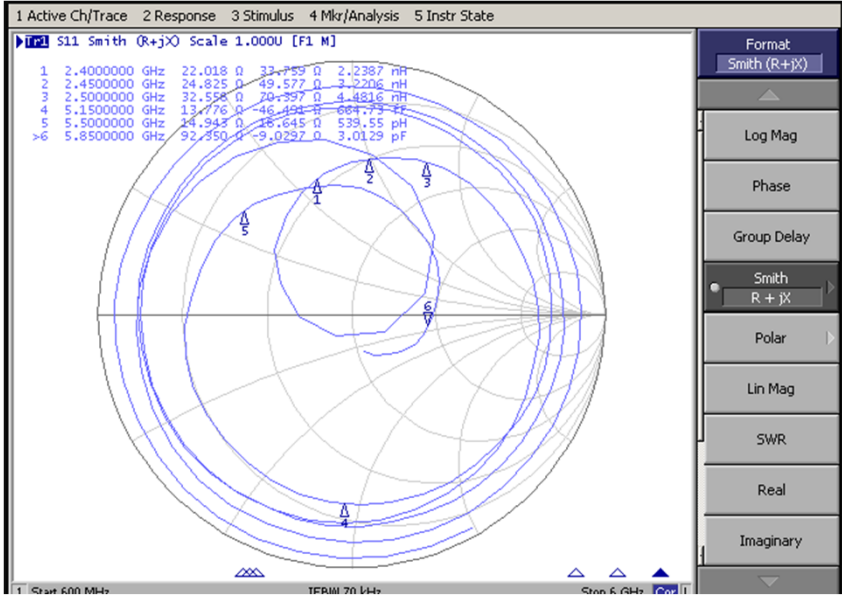


- Antenna name: 2.4G
- Antenna Type: PCB
- Covers : 2.4G

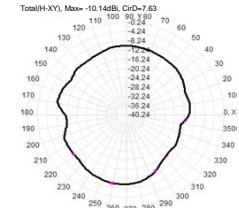
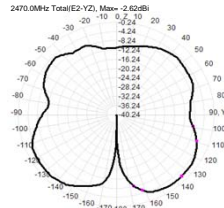
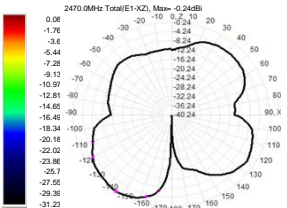
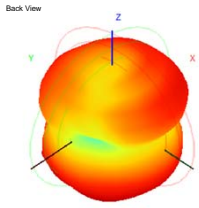
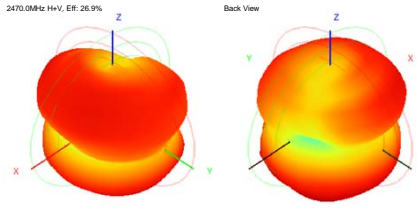
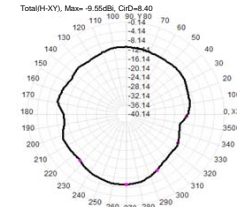
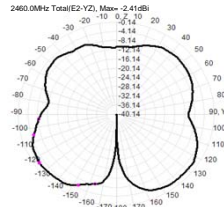
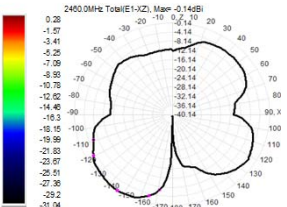
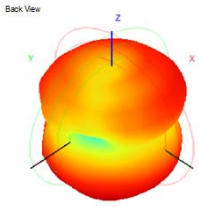
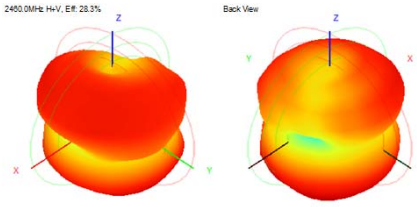
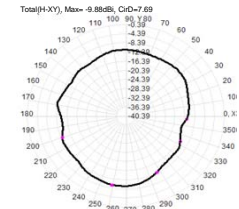
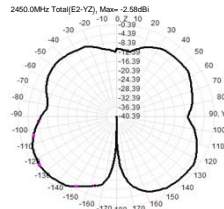
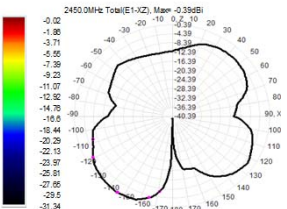
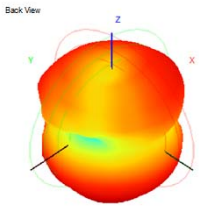
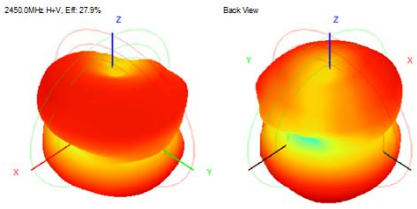
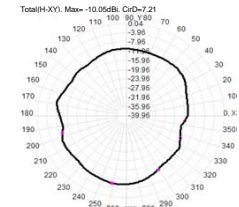
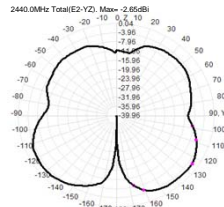
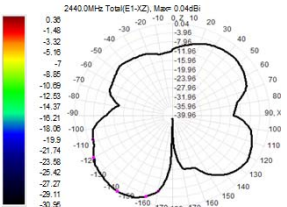
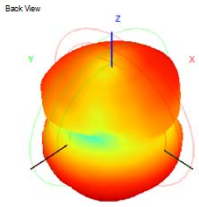
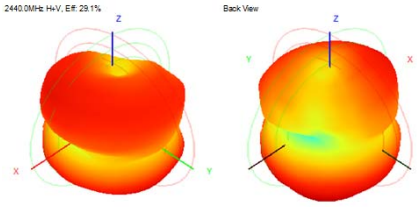
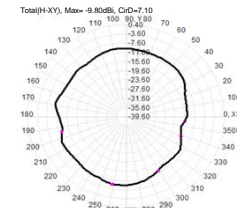
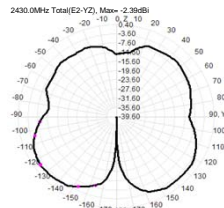
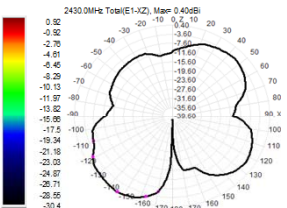
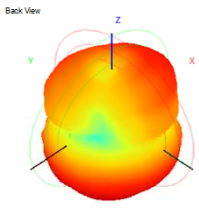
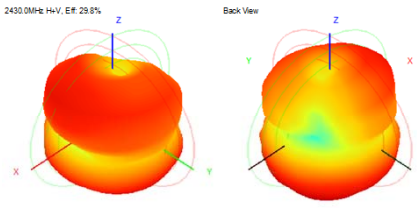
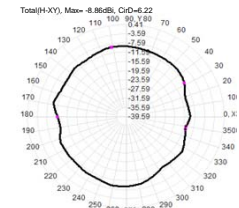
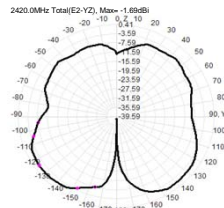
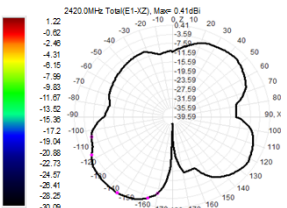
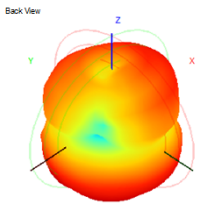
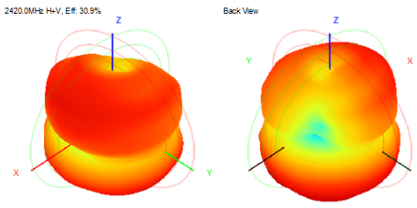
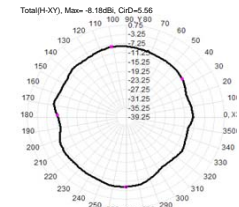
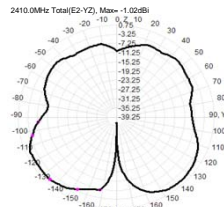
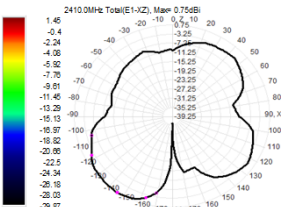
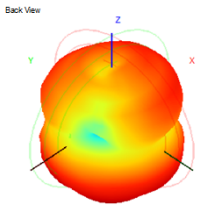
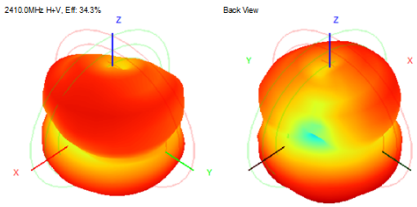
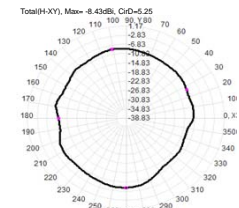
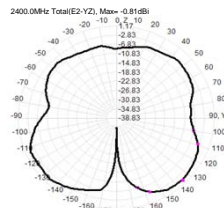
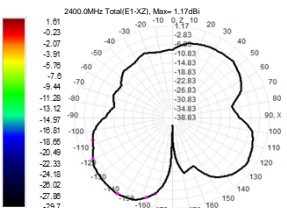
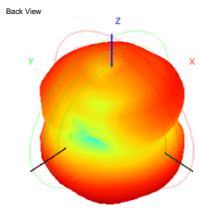
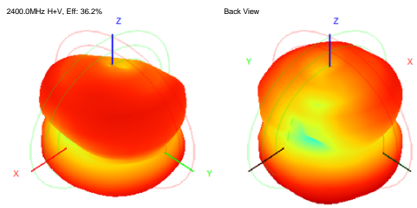
S Parameter_Return Loss&VSWR



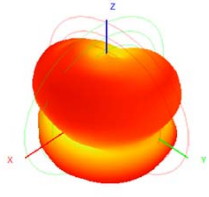
Efficiency and Gain-Smith



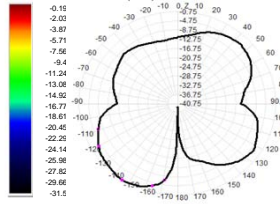
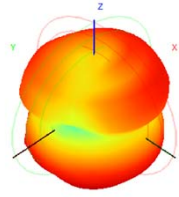
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	1.61	1.45	1.22	0.92	0.36	-0.02	0.28	0.08	-0.19	-0.17	-0.67
Efficiency (%)	36.25	34.32	30.94	29.79	29.10	27.86	28.25	26.88	24.33	24.06	22.23



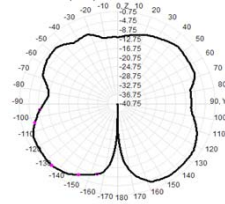
2480.0MHz H+V, Ef: 24.3%



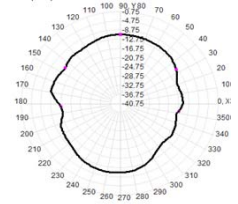
Back View



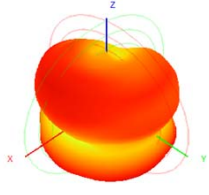
2480.0MHz Total(E2-YZ), Max=-2.95dB



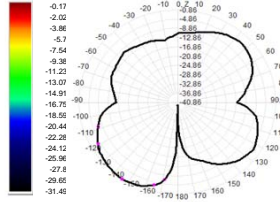
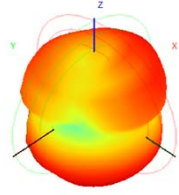
Total(H+V), Max=-10.68dB, CirD=6.91



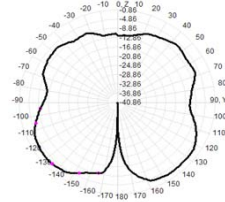
2490.0MHz H+V, Ef: 24.1%



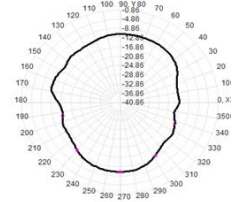
Back View



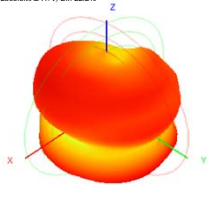
2490.0MHz Total(E2-YZ), Max=-3.27dB



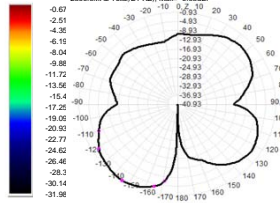
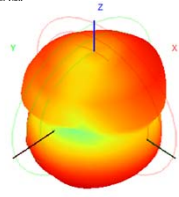
Total(H+V), Max=-10.84dB, CirD=7.78



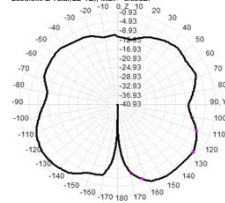
2500.0MHz H+V, Ef: 22.2%



Back View



2500.0MHz Total(E2-YZ), Max=-3.80dB



Total(H+V), Max=-11.11dB, CirD=9.11

