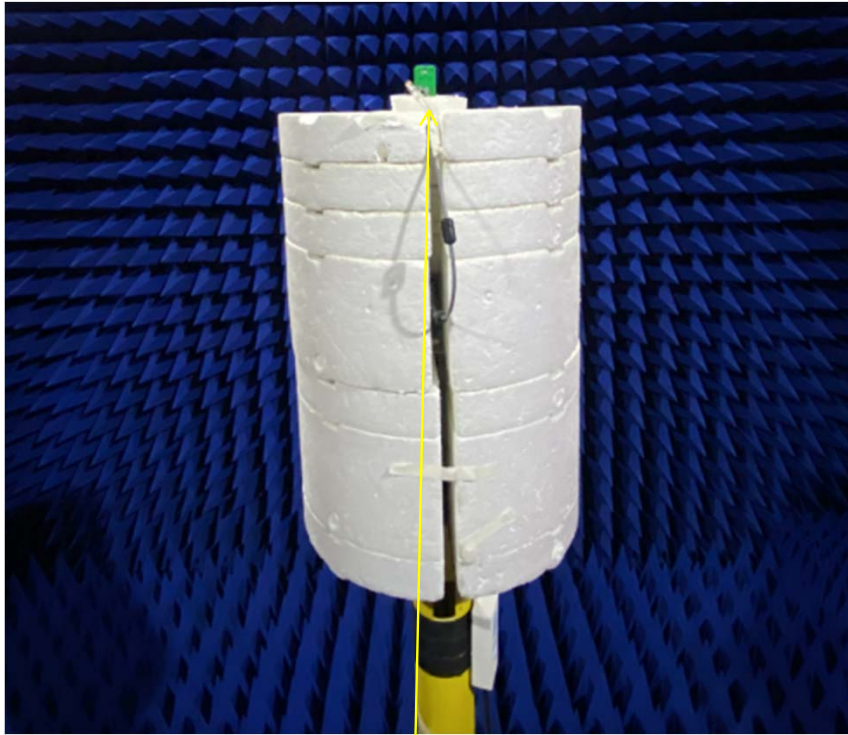


Antenna Study

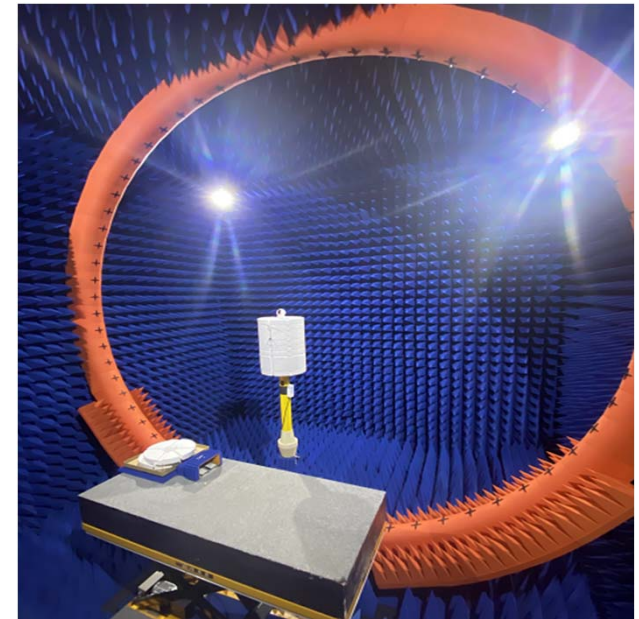
- **Client Name: Shenzhen Flamingo Technology Co., Ltd**
- **Project Name : Pet collar with led light**
- **Debugging frequency band: 433HMz**
- **Valuation date: 2024.03.25**

PCB Antenna

Dongguan UB Electronics Co., Ltd



Testing environment

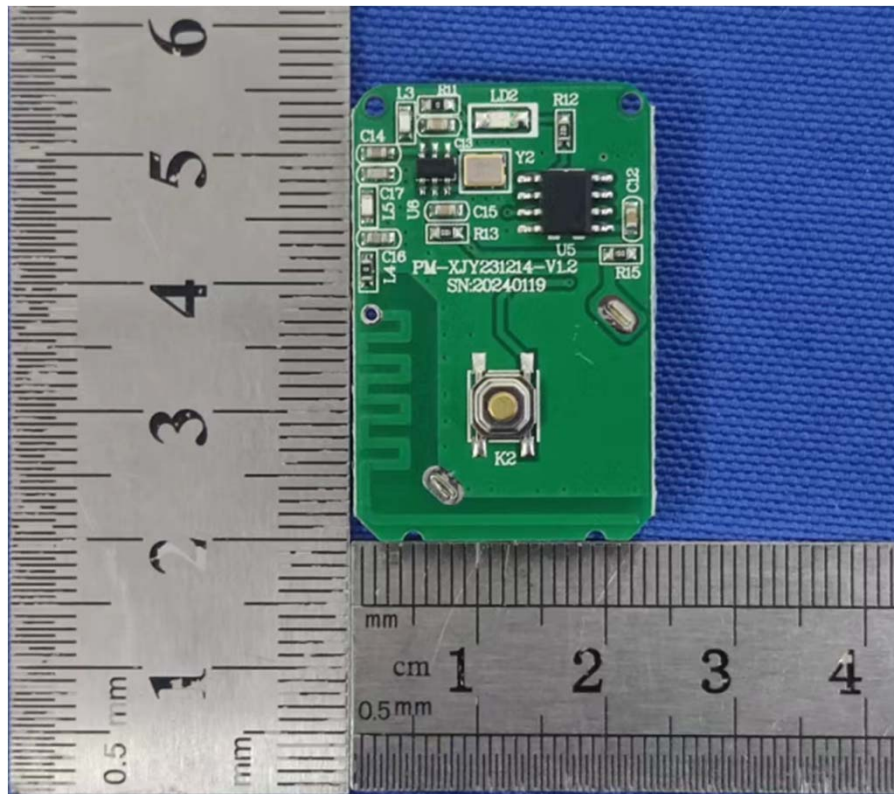


Testing 3D microwave darkroom(6m*6m*6m)

PCB Antenna

Dongguan UB Electronics Co., Ltd

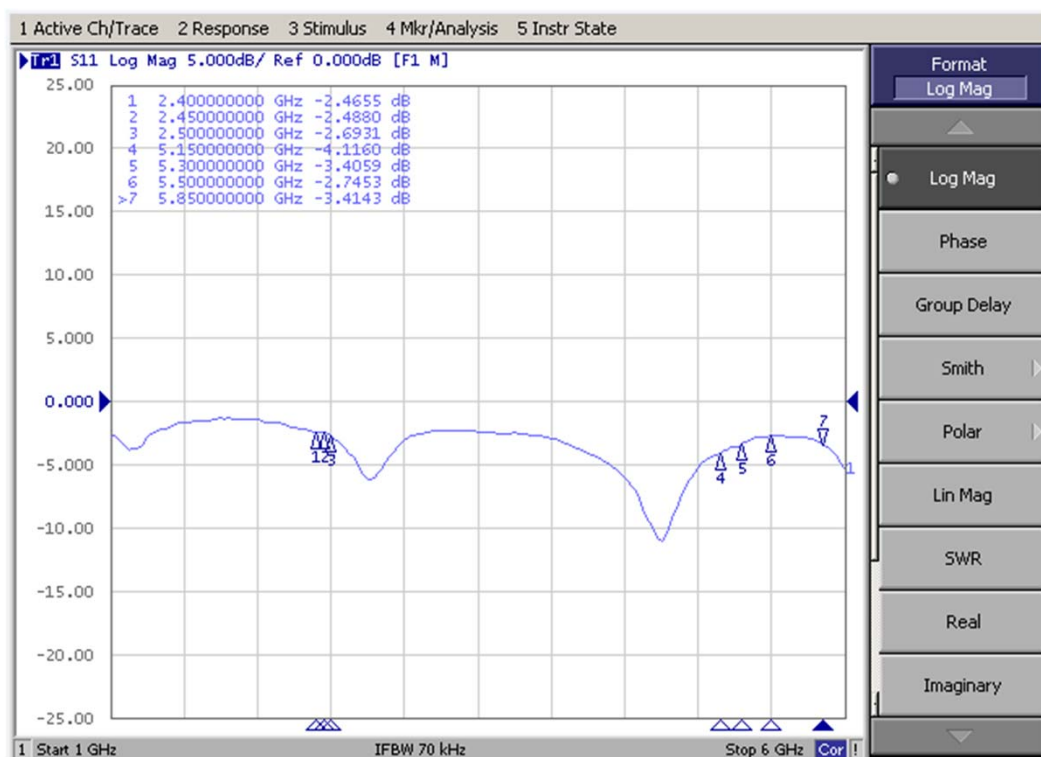
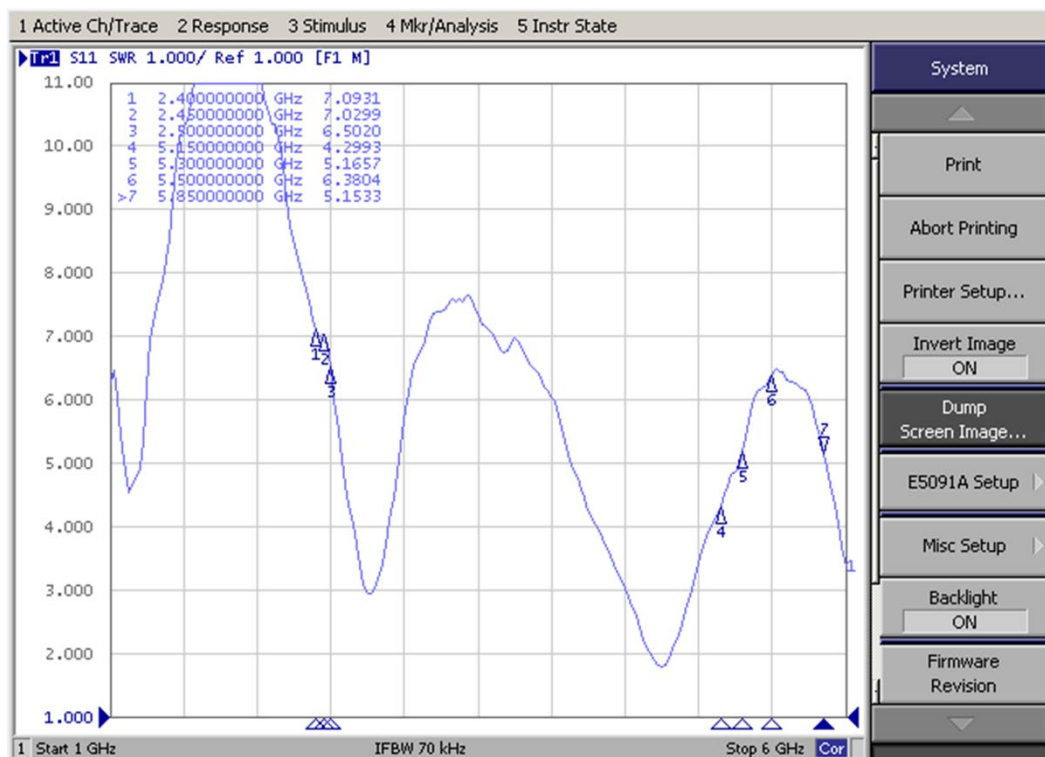
- Antenna name: 433HMz
- Antenna Type: PCB
- Covers : 433MHz



Antenna

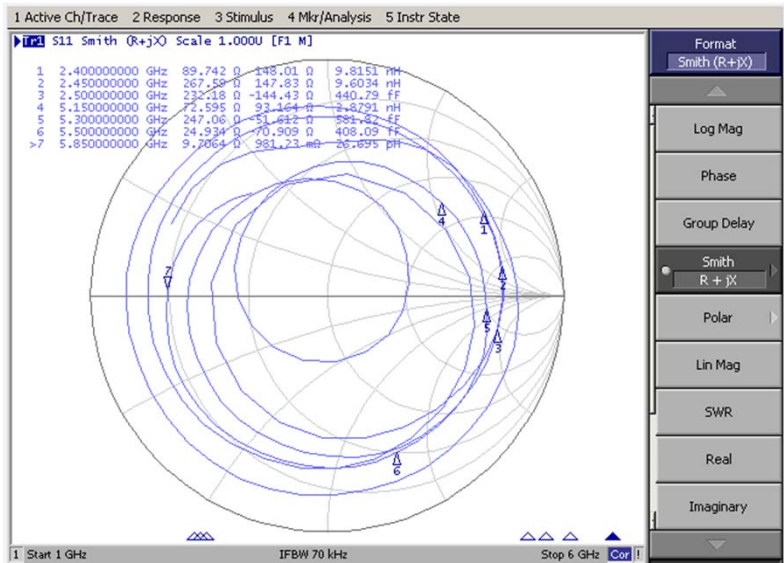
S Parameter_Return Loss&VSWR

Dongguan UB Electronics Co., Ltd



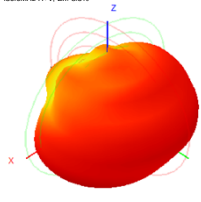
Efficiency and Gain-Smith

Dongguan UB Electronics Co., Ltd

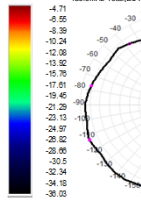
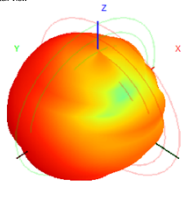


Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	430.0	431.0	432.0	433.0	434.0	435.0	436.0	437.0	438.0	439.0	440.0
Gain (dBi)	-4.71	-4.47	-4.25	-4.01	-3.77	-3.54	-3.50	-3.45	-3.40	-3.36	-3.34
Efficiency (%)	8.51	8.82	9.14	9.46	9.78	10.16	10.35	10.59	10.84	11.09	11.30

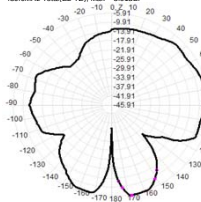
430.0MHz H+V, Eff: 8.5%



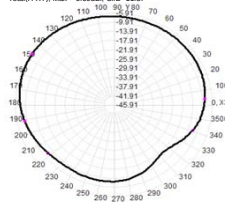
Back View



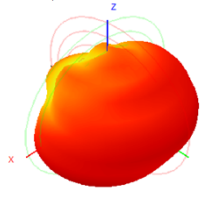
430.0MHz Total(E2-YZ), Max=-5.91dB



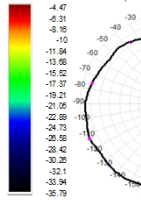
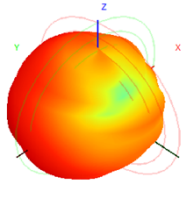
Total(H+V), Max=-6.09dB, C/D=11.37



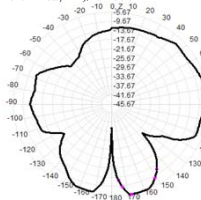
431.0MHz H+V, Eff: 8.8%



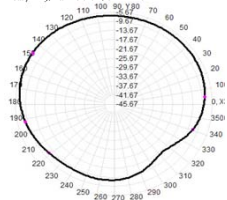
Back View



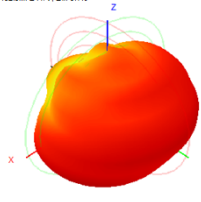
431.0MHz Total(E2-YZ), Max=-5.67dB



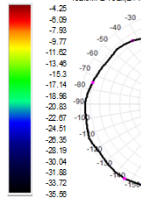
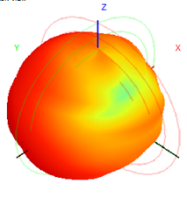
Total(H+V), Max=-5.91dB, C/D=11.26



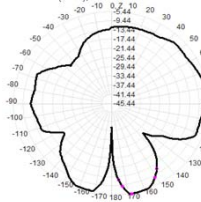
432.0MHz H+V, Eff: 9.1%



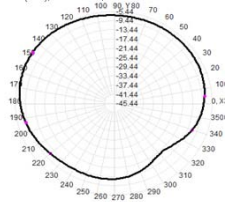
Back View



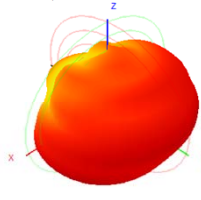
432.0MHz Total(E2-YZ), Max=-5.44dB



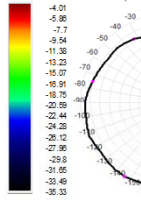
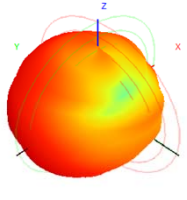
Total(H+V), Max=-5.72dB, C/D=11.18



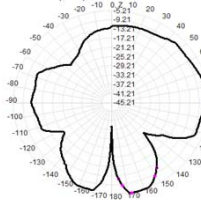
433.0MHz H+V, Eff: 9.5%



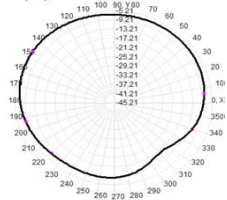
Back View



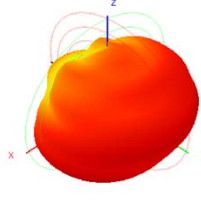
433.0MHz Total(E2-YZ), Max=-5.21dB



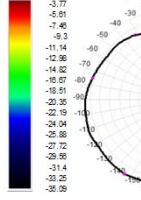
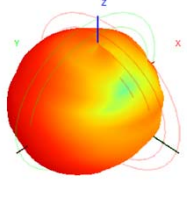
Total(H+V), Max=-5.56dB, C/D=11.02



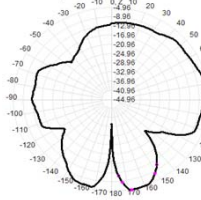
434.0MHz H+V, Eff: 9.8%



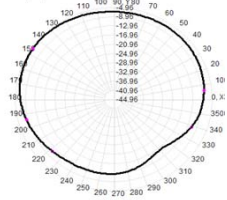
Back View



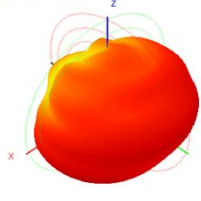
434.0MHz Total(E2-YZ), Max=-4.96dB



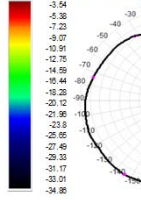
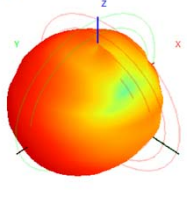
Total(H+V), Max=-5.39dB, C/D=10.95



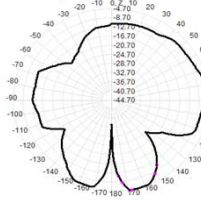
435.0MHz H+V, Eff: 10.2%



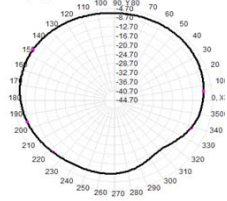
Back View



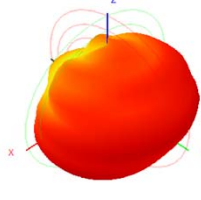
435.0MHz Total(E2-YZ), Max=-4.70dB



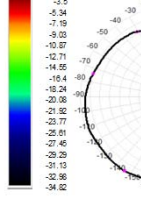
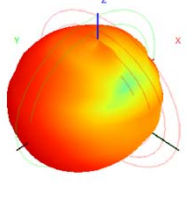
Total(H+V), Max=-5.22dB, C/D=10.81



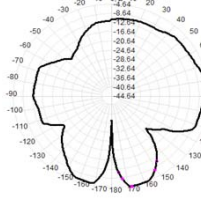
436.0MHz H+V, Eff: 10.4%



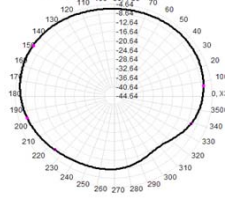
Back View



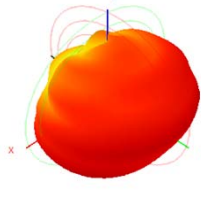
436.0MHz Total(E2-YZ), Max=-4.64dB



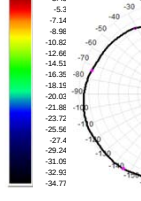
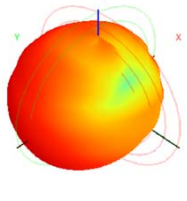
Total(H+V), Max=-5.20dB, C/D=10.89



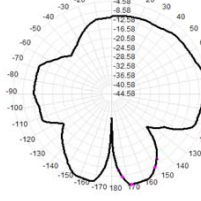
437.0MHz H+V, Eff: 10.6%



Back View



437.0MHz Total(E2-YZ), Max=-4.59dB



Total(H+V), Max=-5.16dB, C/D=11.02

