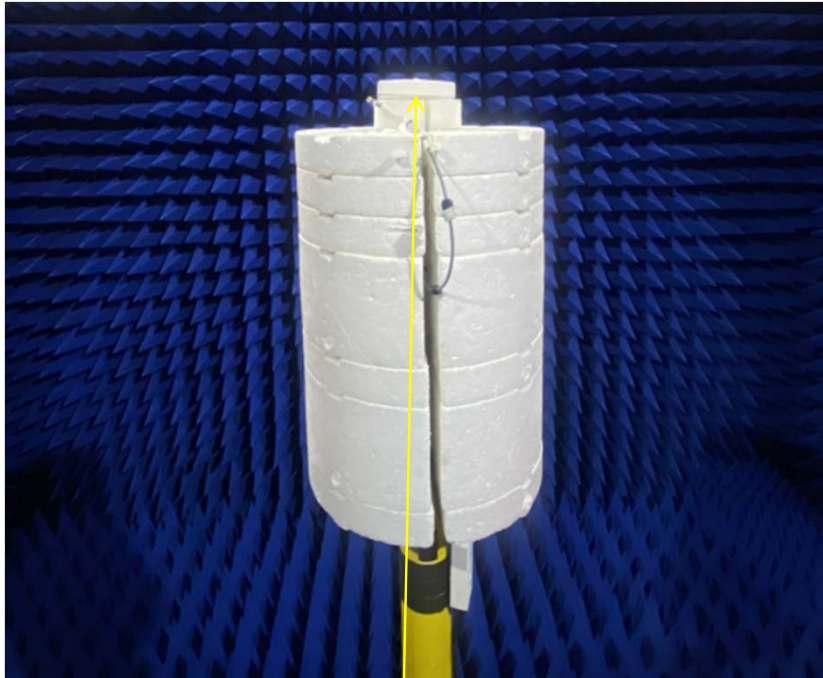


Antenna Study

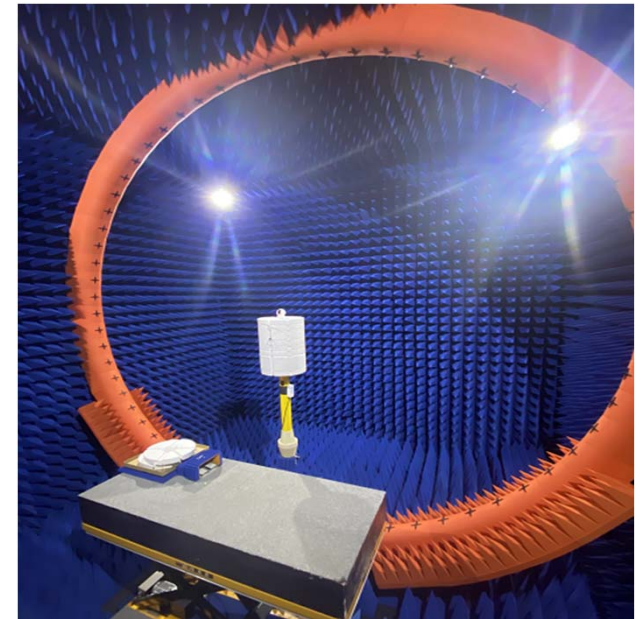
- **Client Name:**DwarfConnection GmbH & Co KG
- **Project Name:**Wireless Video Transmission Kit
- **Debugging frequency band:** 2400-2500MHz
- **Valuation date:** 2023.05.20

PCB Antenna

Dongguan UB Electronics Co., Ltd



Testing environment



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

PCB Antenna

Dongguan UB Electronics Co., Ltd

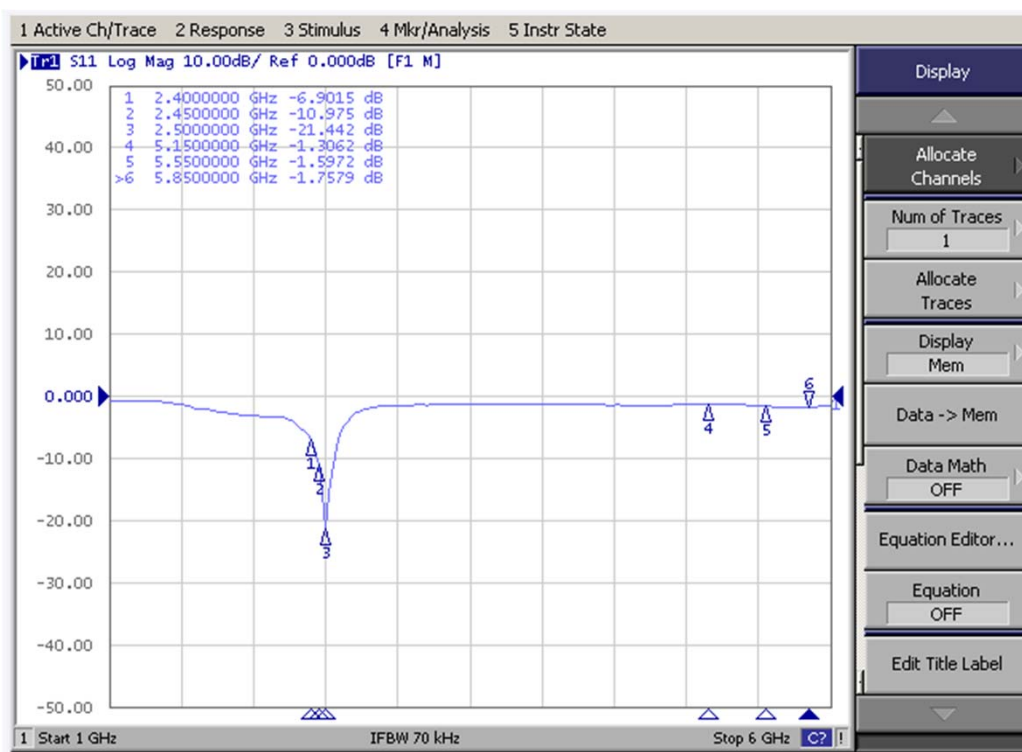
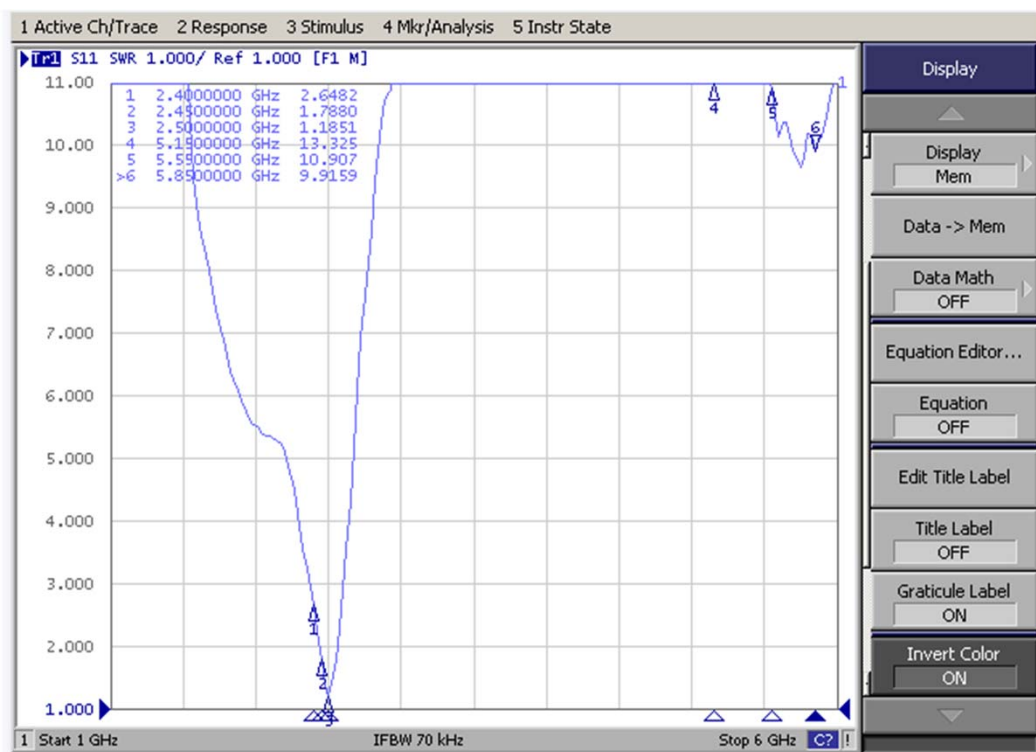


Antenna

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

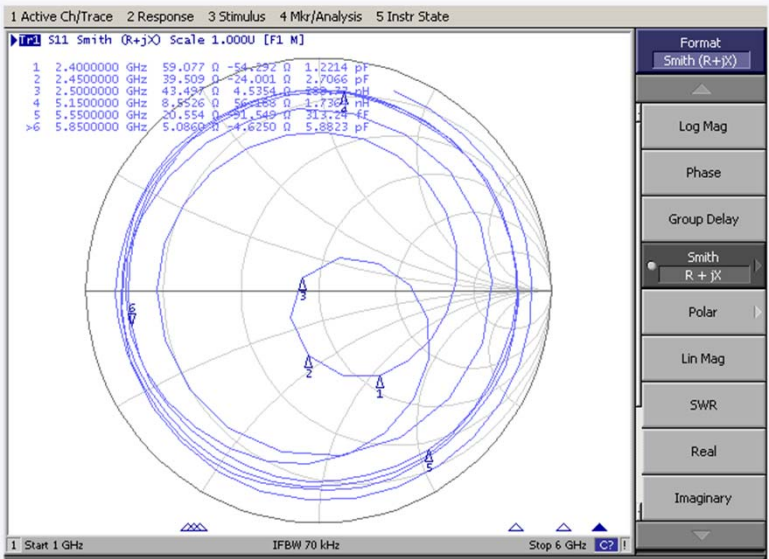
S Parameter_Return Loss&VSWR

Dongguan UB Electronics Co., Ltd

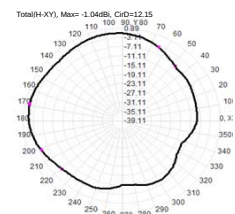
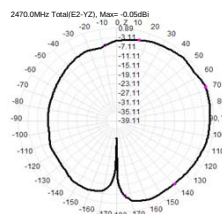
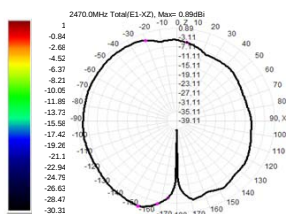
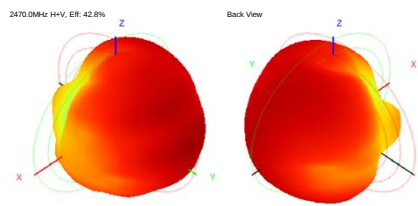
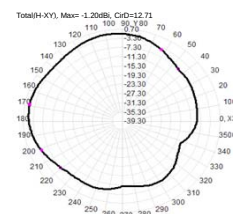
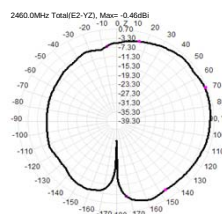
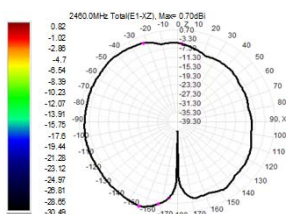
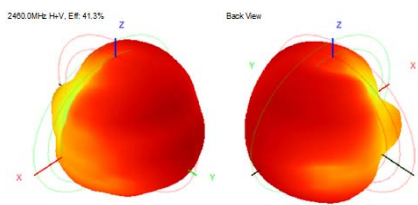
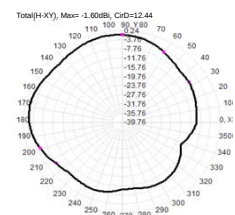
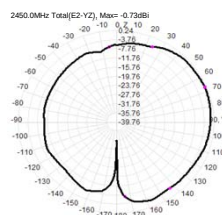
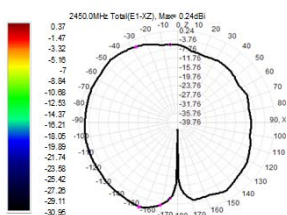
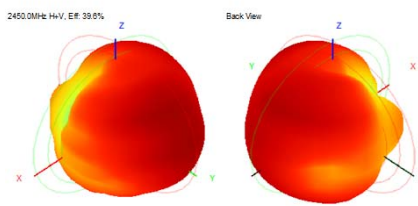
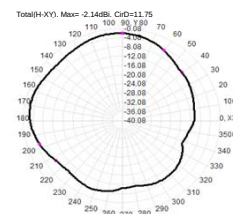
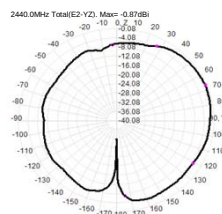
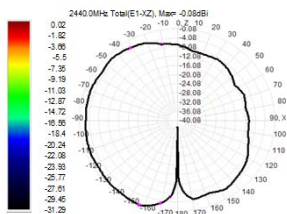
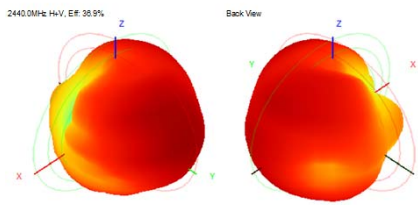
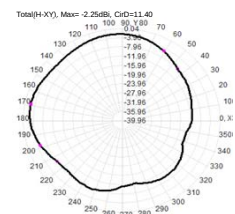
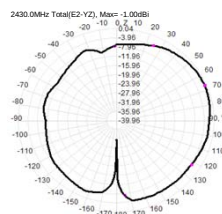
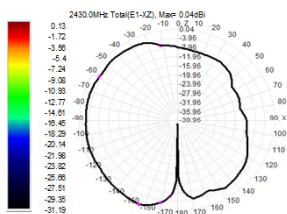
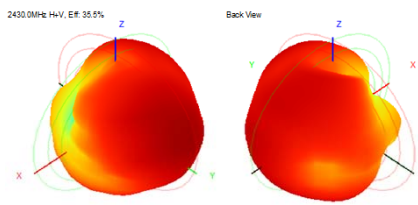
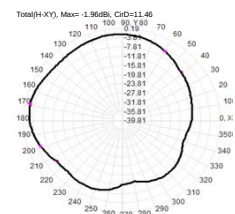
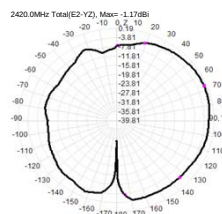
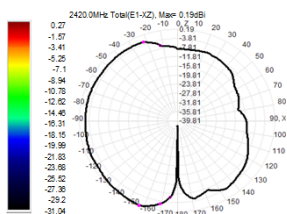
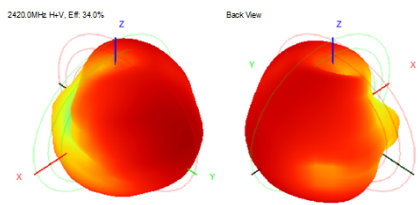
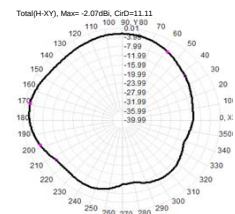
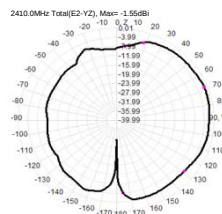
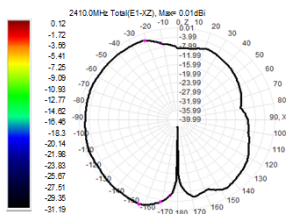
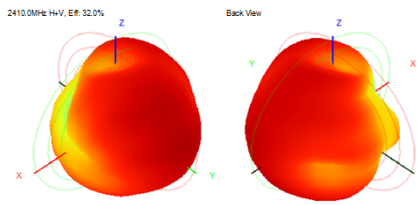
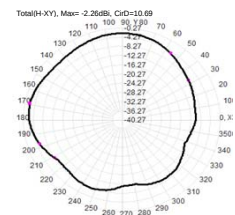
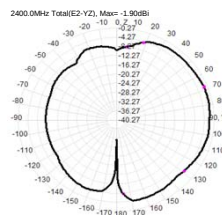
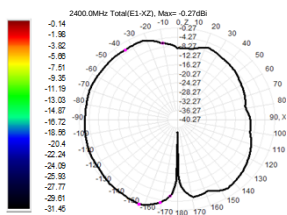
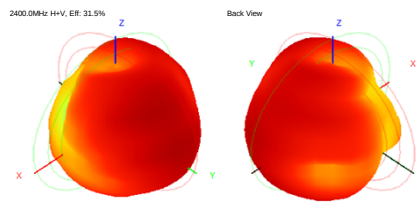


Efficiency and Gain-Smith

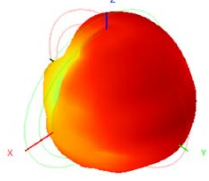
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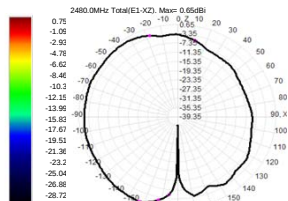
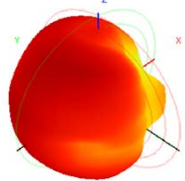
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	-0.14	0.12	0.27	0.13	0.02	0.37	0.82	1.00	0.75	0.50	0.27
Efficiency (%)	31.48	31.95	33.95	35.46	36.95	39.59	41.25	42.77	42.35	41.43	40.57



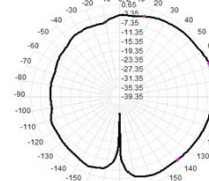
2480.0MHz H+V, ER: 42.4%



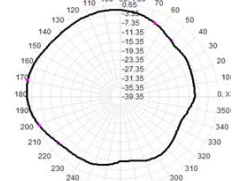
Back View



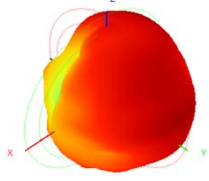
2480.0MHz Total(E2-YZ), Max:-0.14dB



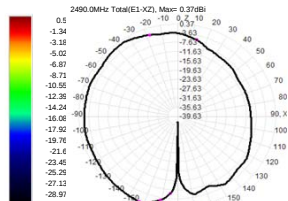
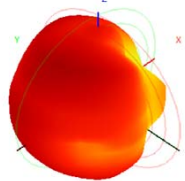
Total(H+V), Max:-1.32dB, Crd:11.26



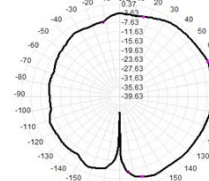
2490.0MHz H+V, ER: 41.4%



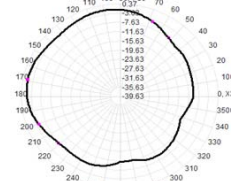
Back View



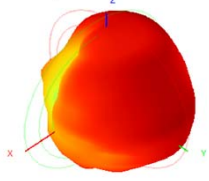
2490.0MHz Total(E2-YZ), Max:-0.69dB



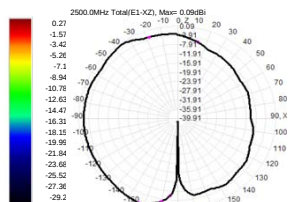
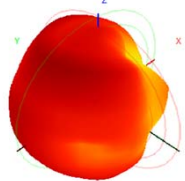
Total(H+V), Max:-1.57dB, Crd:11.76



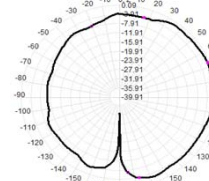
2500.0MHz H+V, ER: 40.6%



Back View



2500.0MHz Total(E2-YZ), Max:-1.00dB



Total(H+V), Max:-1.62dB, Crd:13.29

