

Mustang Antenna Study

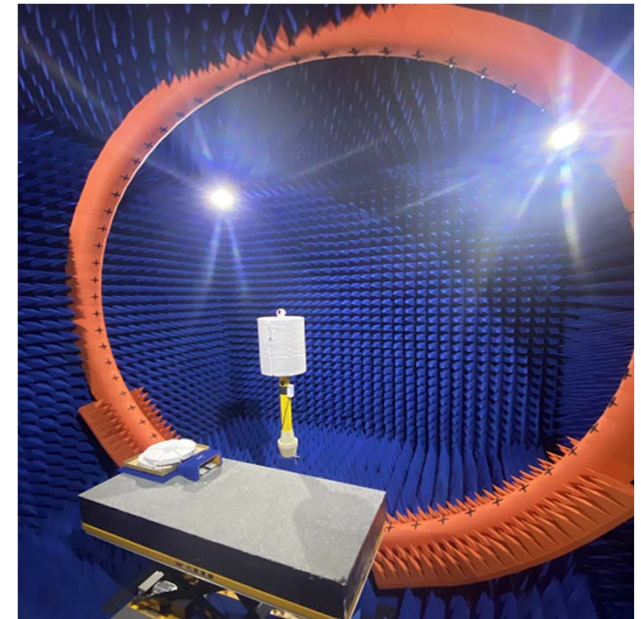
- **Client Name:MC DEVICES CO., LTD.**
- **Project Name:Mustang**
- **Debugging frequency band: 2400-2500MHz**
- **Valuation date: 2022.12.07**

Internal Antenna

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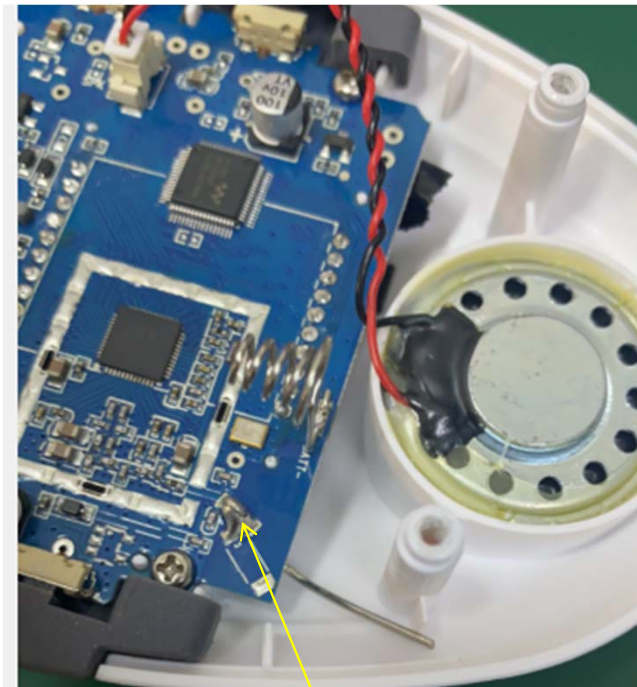
Testing environment



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

External Antenna

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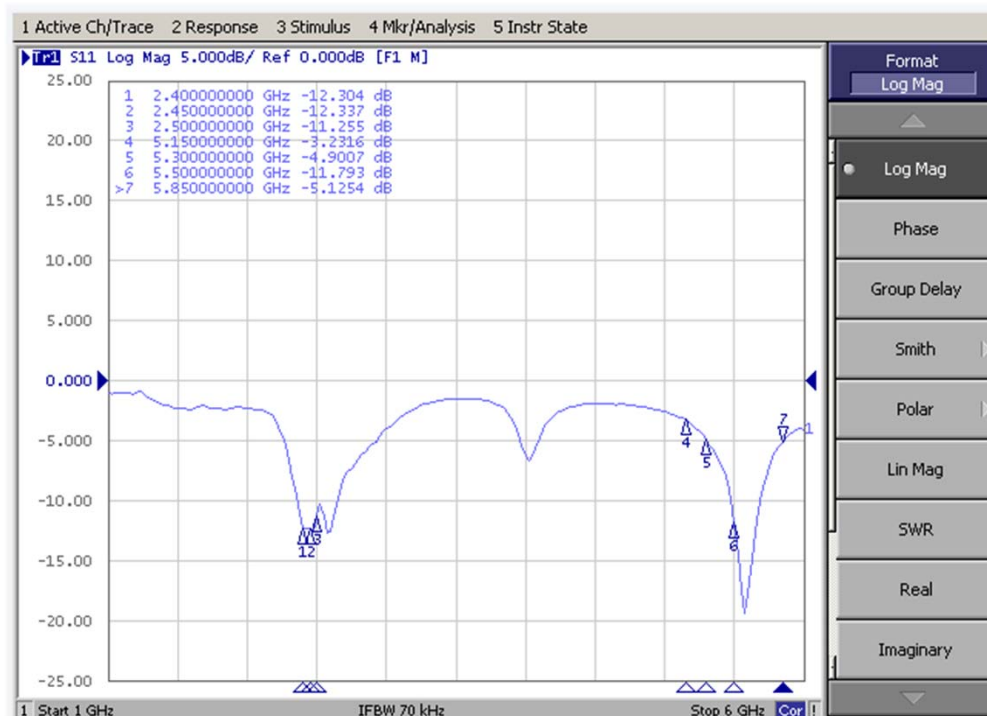
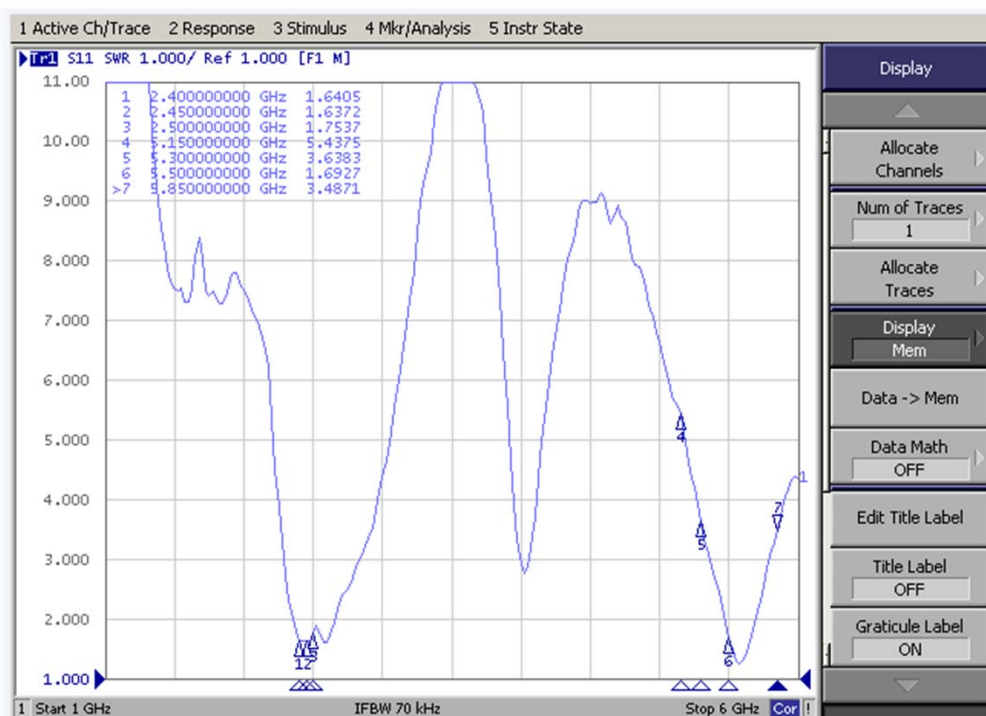


Antenna

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

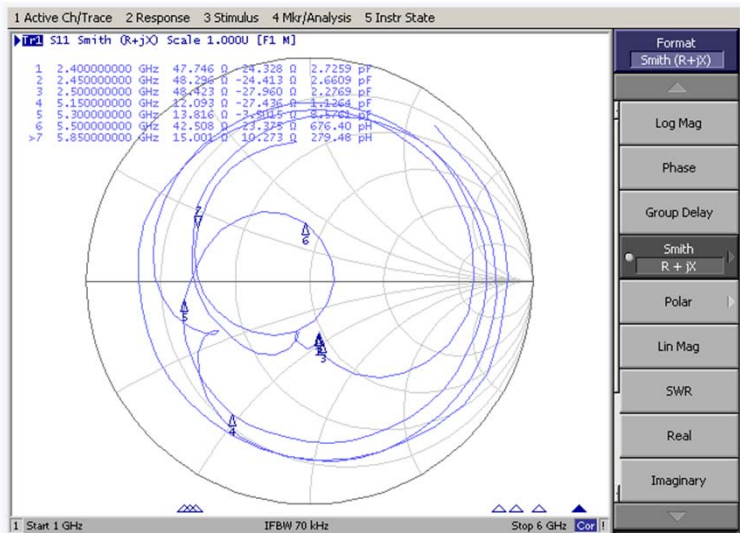
S Parameter_Return Loss&VSWR

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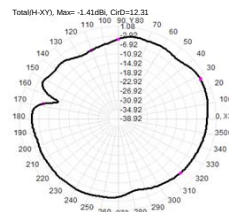
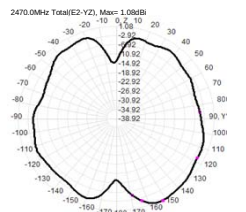
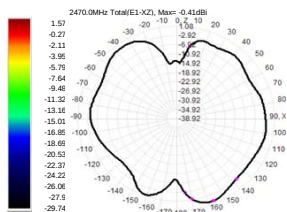
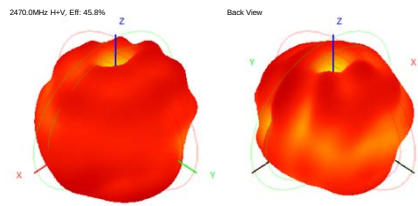
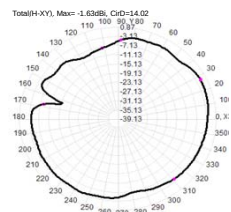
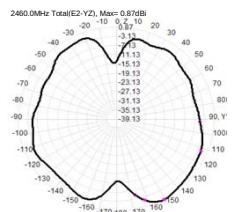
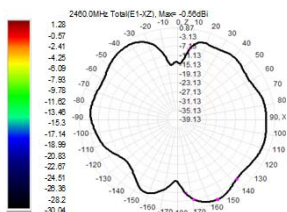
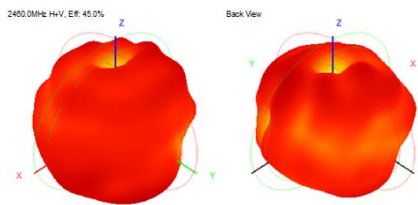
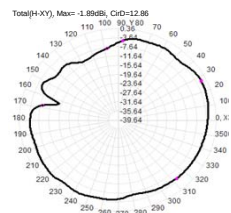
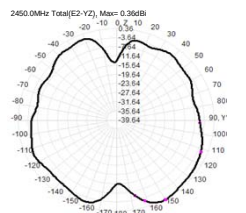
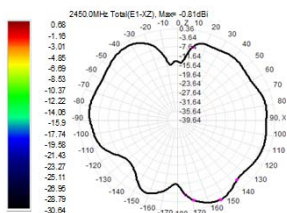
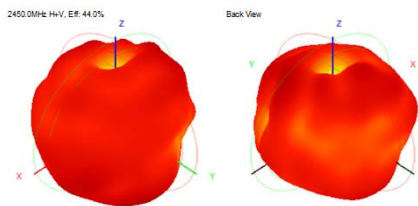
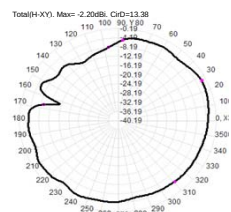
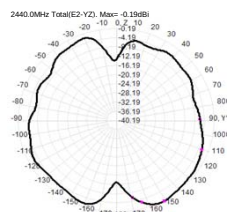
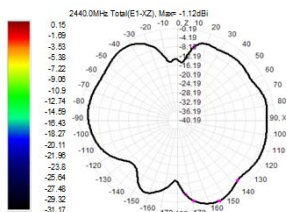
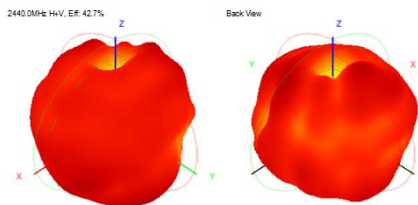
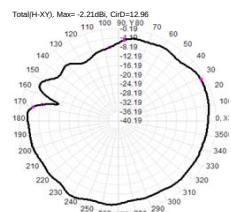
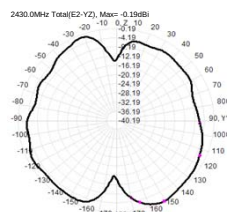
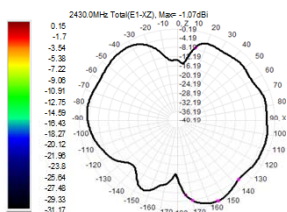
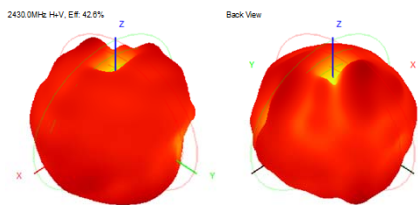
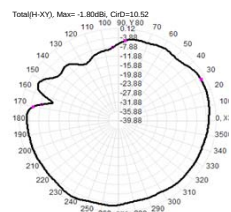
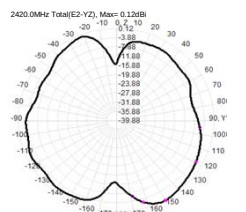
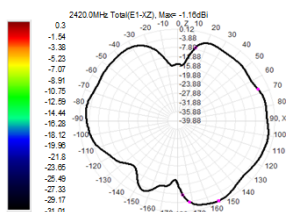
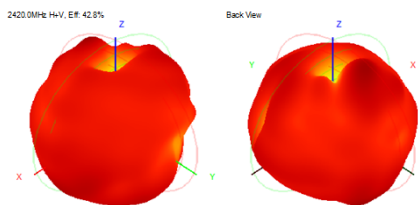
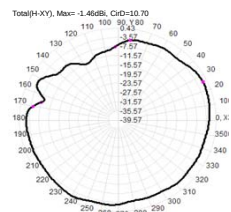
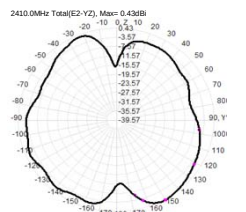
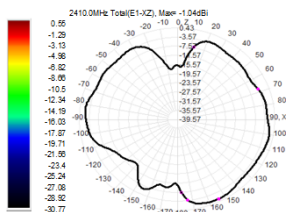
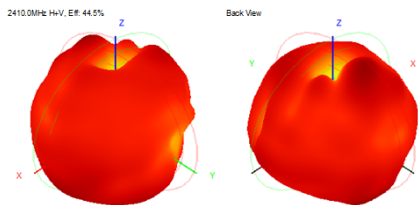
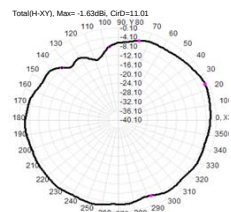
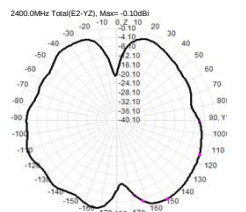
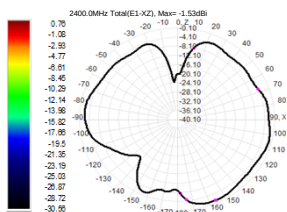
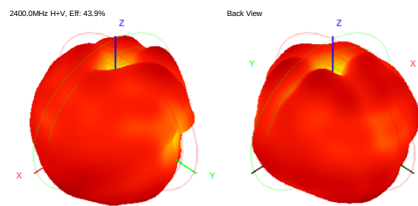


Efficiency and Gain-Smith

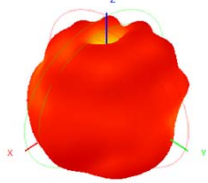
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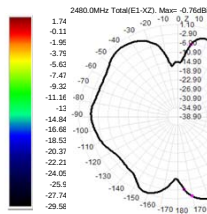
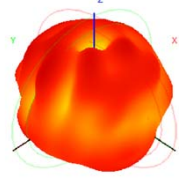
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	0.76	0.55	0.30	0.15	0.15	0.68	1.28	1.57	1.74	1.47	1.37
Efficiency (%)	43.89	44.53	42.75	42.56	42.75	44.02	44.98	45.79	46.35	45.45	44.67



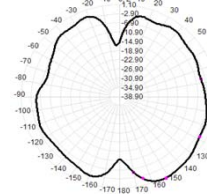
2480.0MHz H+V, ER: 46.3%



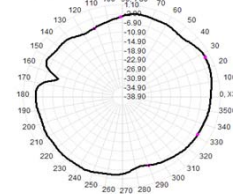
Back View



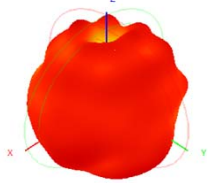
2480.0MHz Total(E2-YZ), Max=1.10dBi



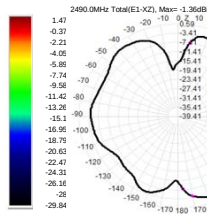
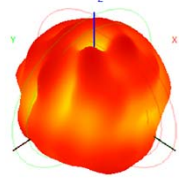
Total(H+V), Max=-1.20dBi, CRD=10.83



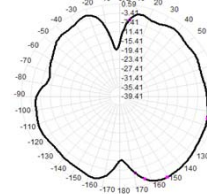
2490.0MHz H+V, ER: 45.5%



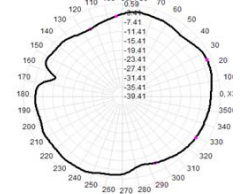
Back View



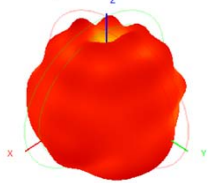
2490.0MHz Total(E2-YZ), Max=0.59dBi



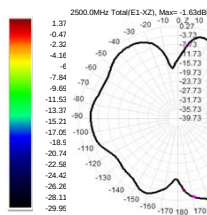
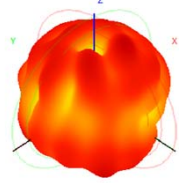
Total(H+V), Max=-1.62dBi, CRD=9.61



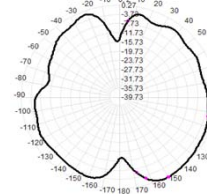
2500.0MHz H+V, ER: 44.7%



Back View



2500.0MHz Total(E2-YZ), Max=0.27dBi



Total(H+V), Max=-2.13dBi, CRD=8.34

