



好天线 · 优比造

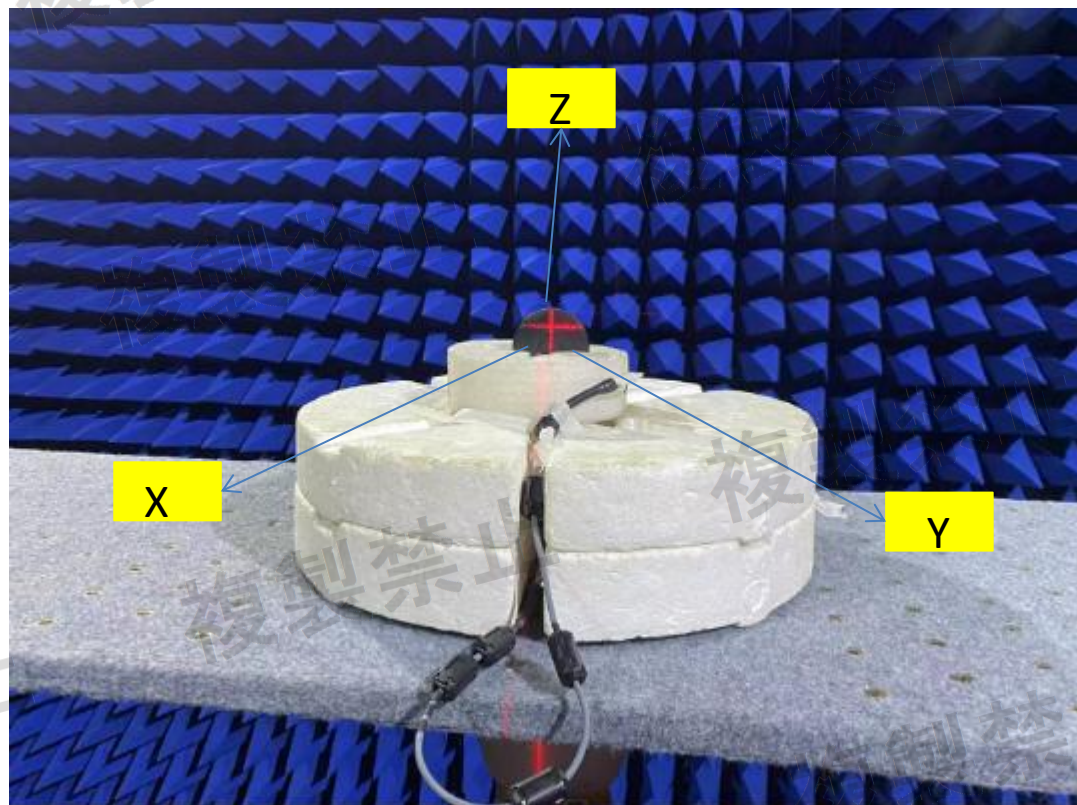
东莞市优比电子有限公司

Dongguan UB Electronics Co., Ltd

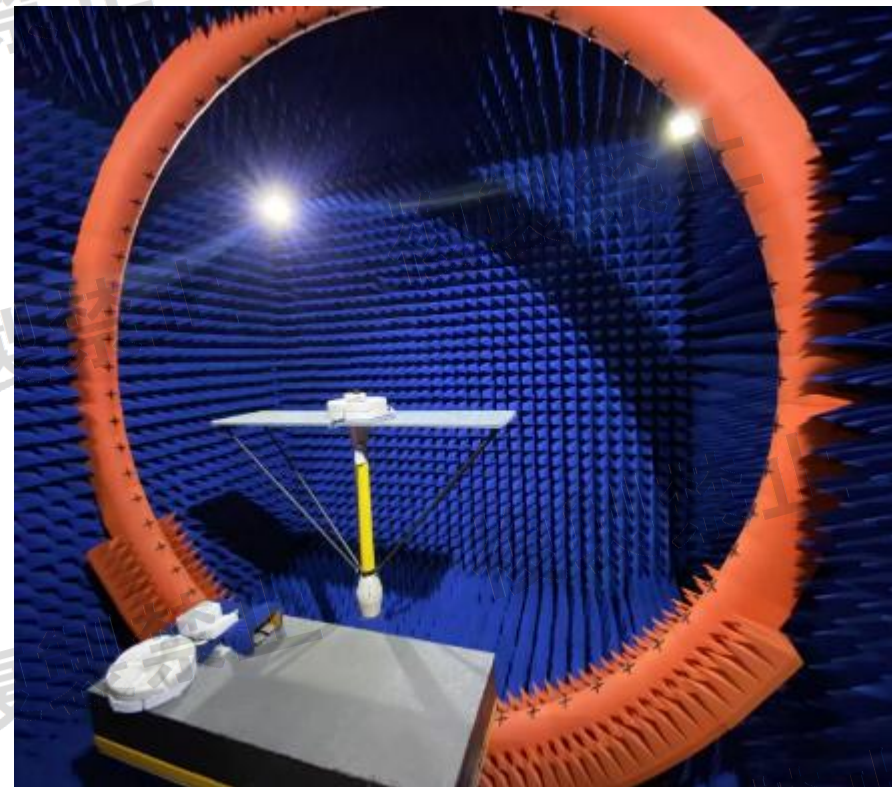
Antenna Study

- **Client Name:先智科技**
- **Project Name: S309-TX**
- **Debugging frequency band: 5.8G**
- **Valuation date: 2025.07.09**

Internal Antenna



Testing environment



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

External Antenna

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- Antenna name: 5.8G
- Antenna Type: PIFA
- Covers: 5150/5850MHz

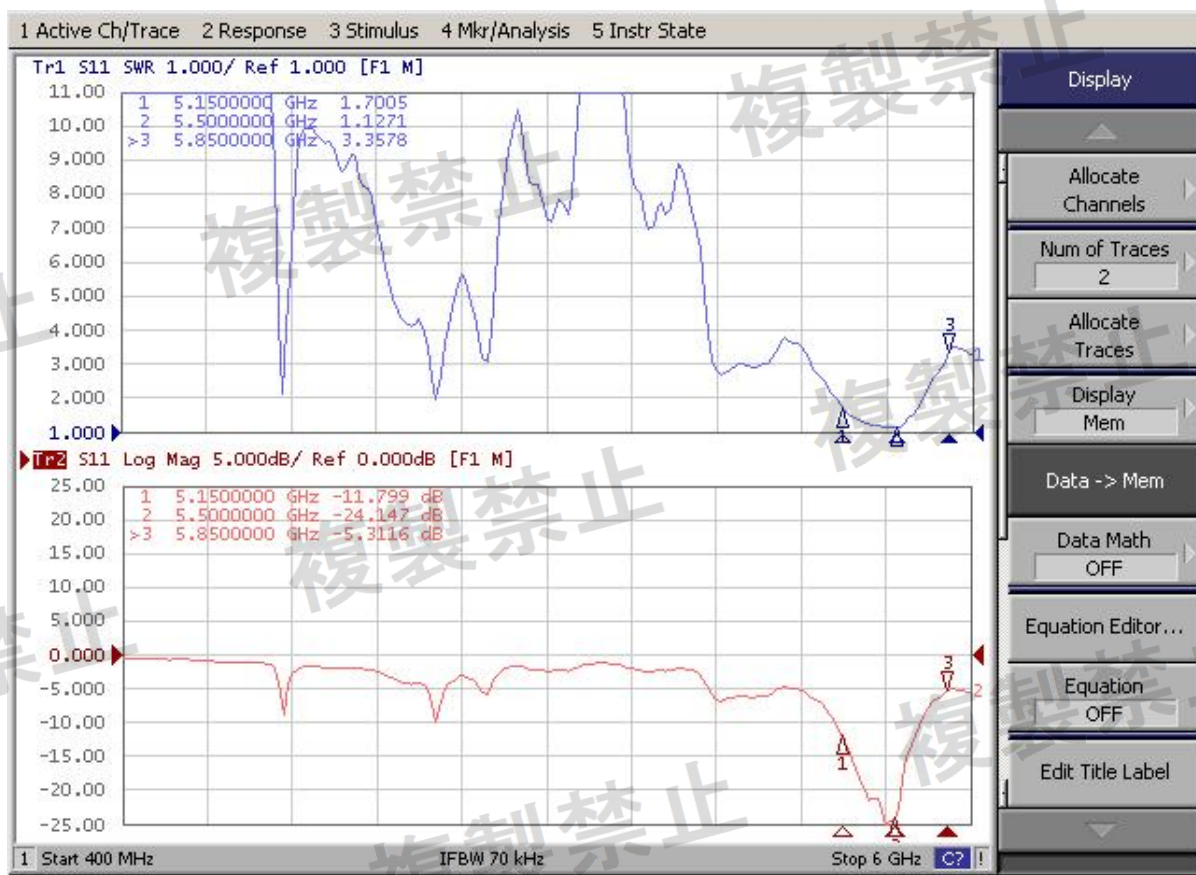


Antenna

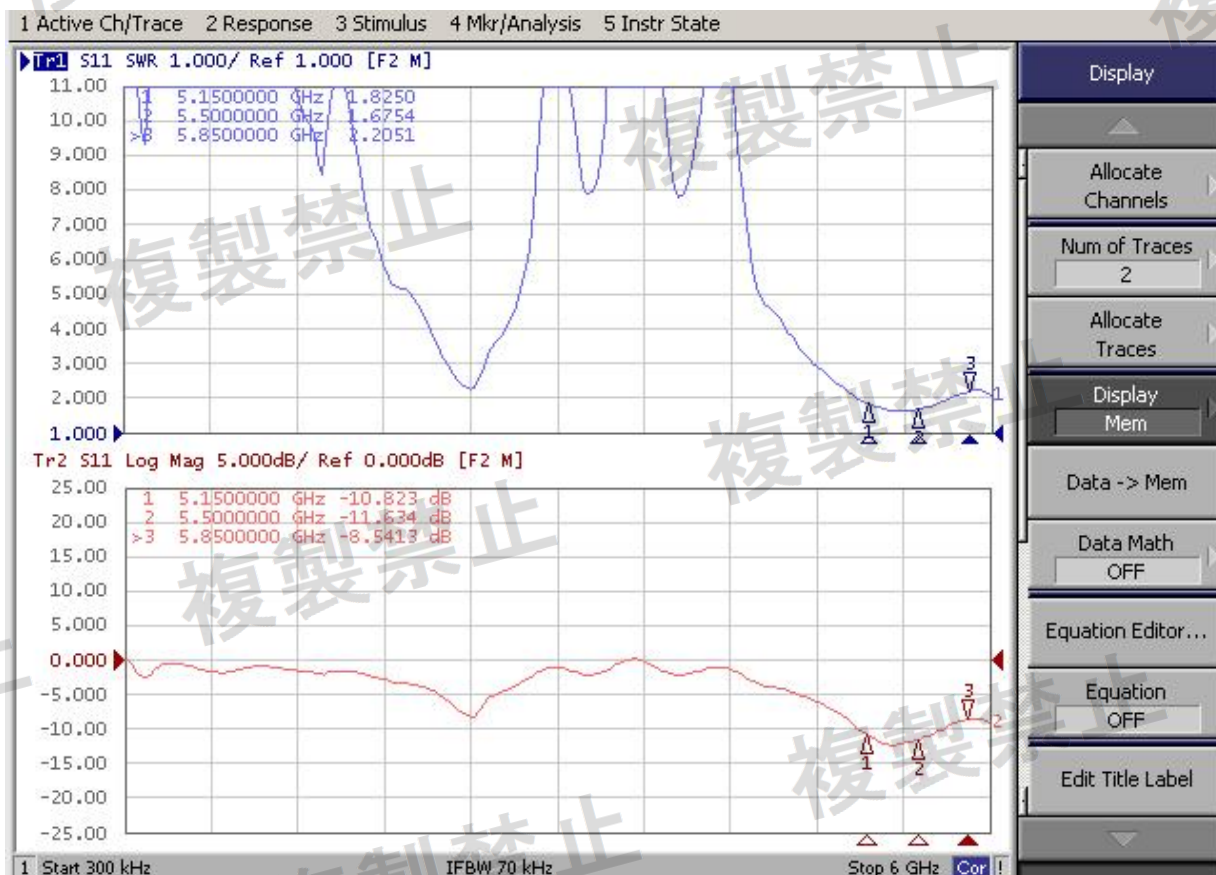
S Parameter_Return Loss&VSWR

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带磁铁



不带磁铁



Efficiency and Gain

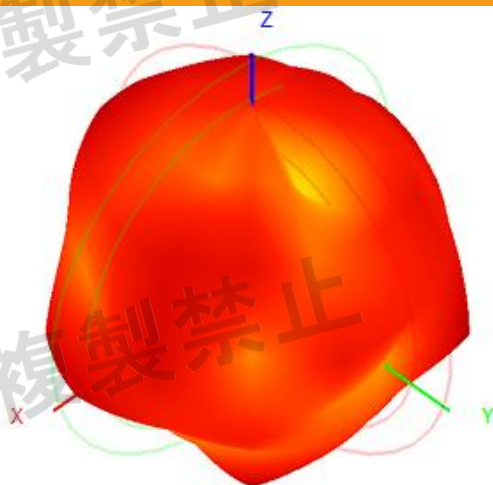
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Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Gain (dBi)	2.22	1.79	2.23	2.64	2.56	2.30	2.37	3.32	3.22	3.46	3.63	3.53	3.88	4.23	3.50
Efficiency (%)	52.49	47.66	50.53	58.18	53.22	48.11	49.11	53.57	51.96	53.43	54.03	49.52	50.29	54.21	47.25

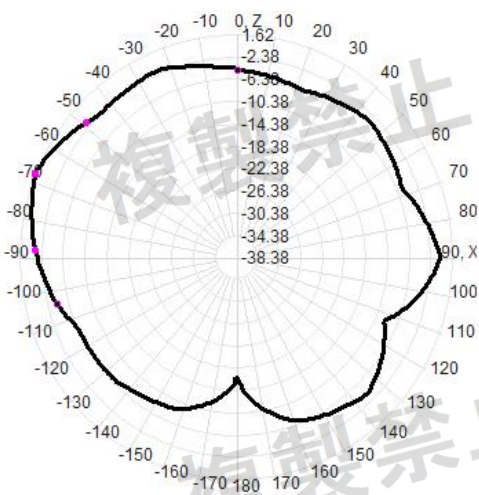
不带磁铁

2D/3D方向图-5500MHz-带磁铁

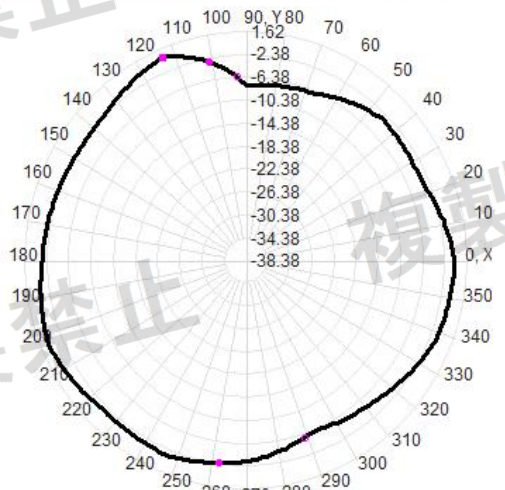
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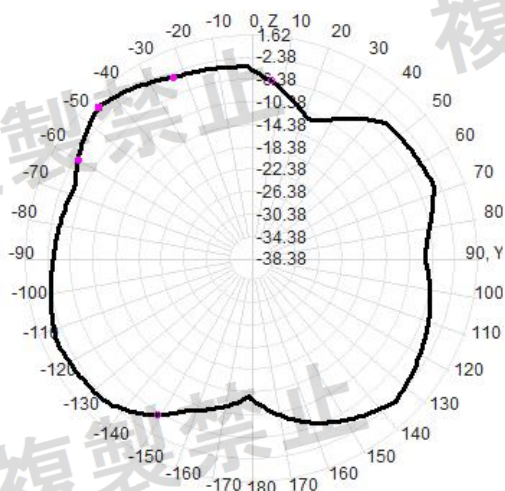
远场方向图



E1-XZ



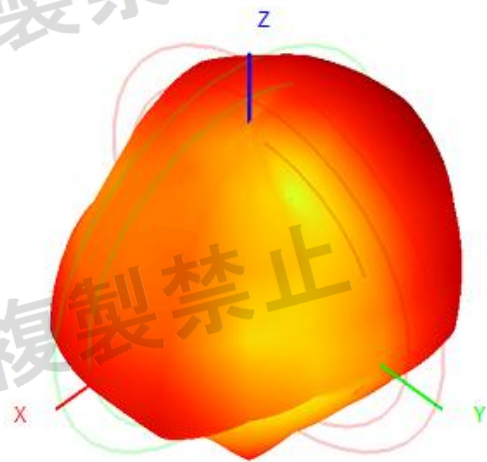
H-XY



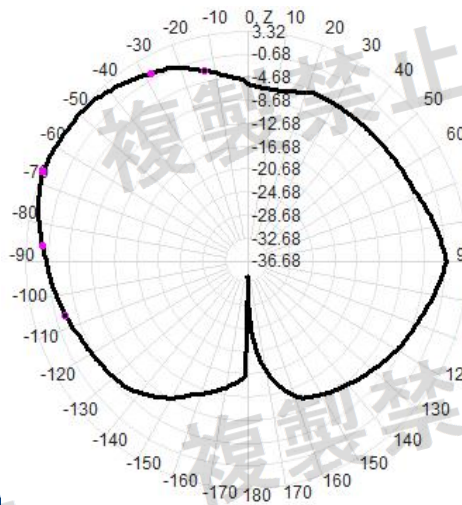
E2-YZ

2D/3D方向图-5500MHz-不带磁铁

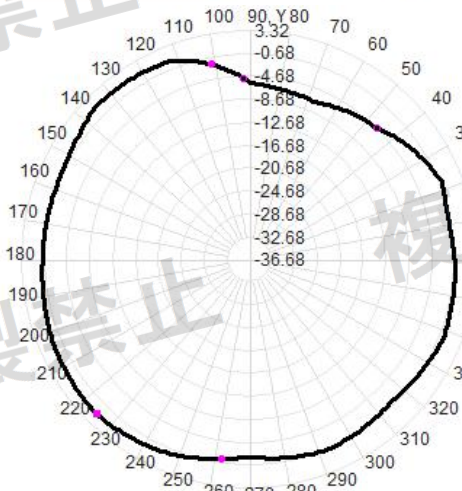
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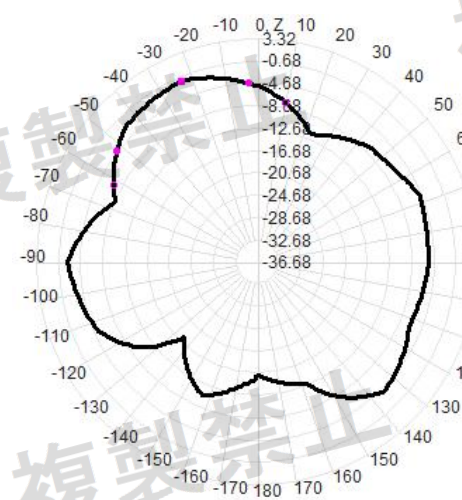
远场方向图



E1-XZ



H-XY



E2-YZ

Conclusion

Dongguan UB Electronics Co., Ltd

- Antenna covers 5.8G
- Test shows excellent performance, VSWR match < 3.3in working band.