

R1300A **Antenna Test Report**

Customer	芯中芯
Project	R1300A
Antenna Revision	A1
Product Description	
Product No	
DATE	2023. 06. 19

Product Overview & Dimension

Front



Purpose

This report is to measure the performance of BT antenna for R1300A. The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

Content

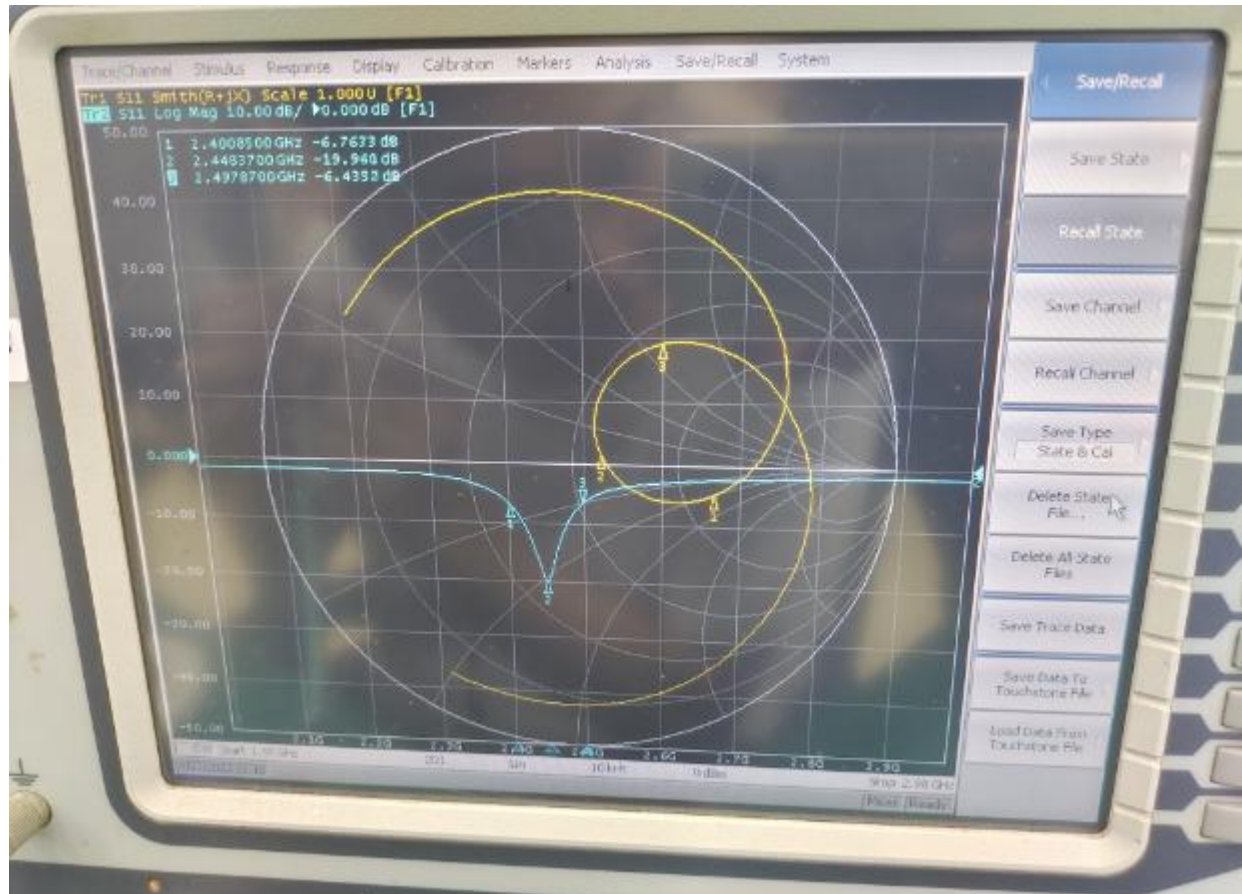
1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result
 - 4.1 S11 Parameter
 - 4.2 Test coordinate
 - 4.3 2D Pattern
 - 4.4 OTA Data
 - 4.5 BT Boot measured
 - 4.6 Antenna schematic diagram
5. Antenna Assembly & environmental processing

2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



S11—(BT ANT)



(L-R)

芯中芯

R1300A

2023. 05. 16

RF-L

2.7PF

0Ω

NC

HT-R1300A-L-V3

RF-R

2.4PF

0Ω

NC

HT-R1300A-R-V3

Test Result

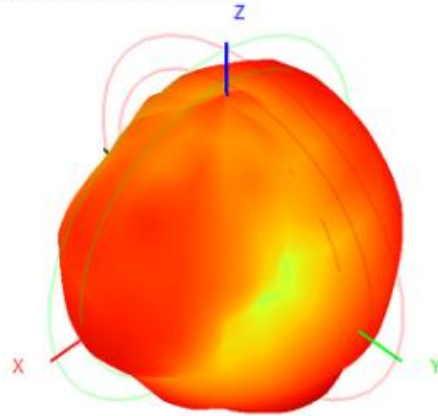
Gain & Efficiency——**BT- ANT(L/R)**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	20.77	-1.28
2410	20.81	-1.31
2420	20.50	-1.08
2430	20.47	-1.04
2440	19.60	-1.25
2450	19.18	-1.23
2460	18.45	-1.52
2470	17.76	-1.78
2480	16.03	-2.12
2490	15.66	-2.23
2500	15.05	-2.57

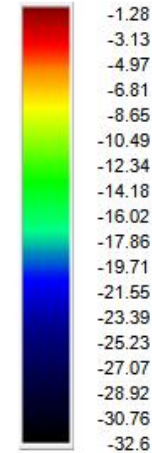
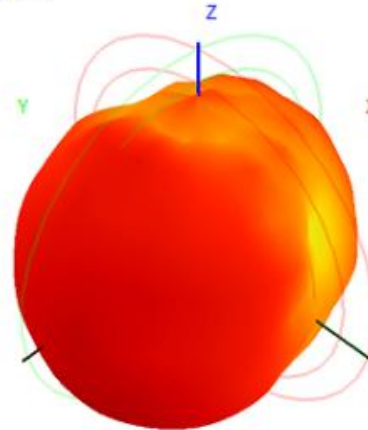
Test Result

2D&3D—BT- ANT

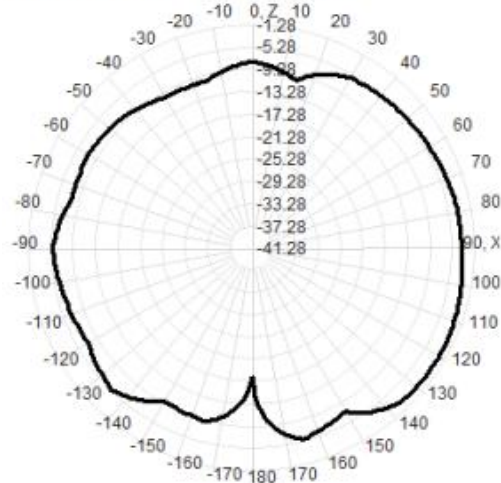
2400.0MHz H+V, Eff: 20.8%



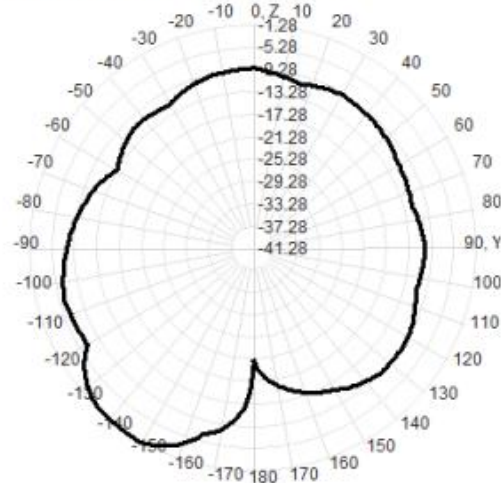
Back View



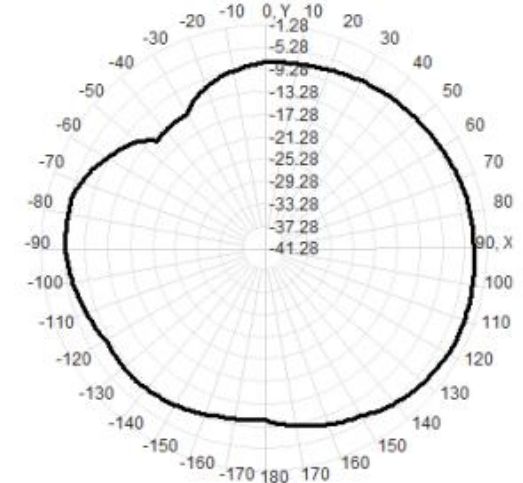
2400.0MHz Total(E1-XZ), Max=-2.71dBi



2400.0MHz Total(E2-YZ), Max=-1.28dBi



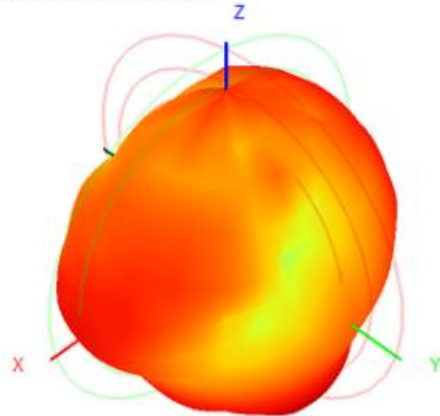
Total(H-XY), Max=-3.38dBi, CirD=10.65



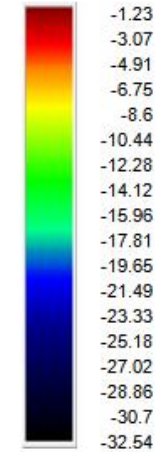
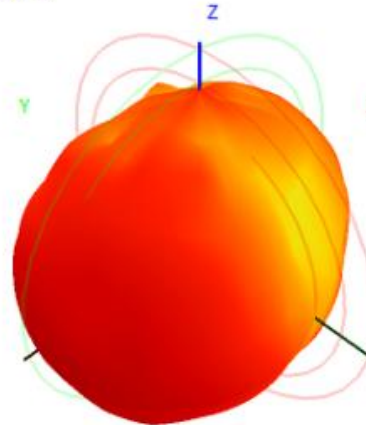
Test Result

2D&3D — BT- ANT

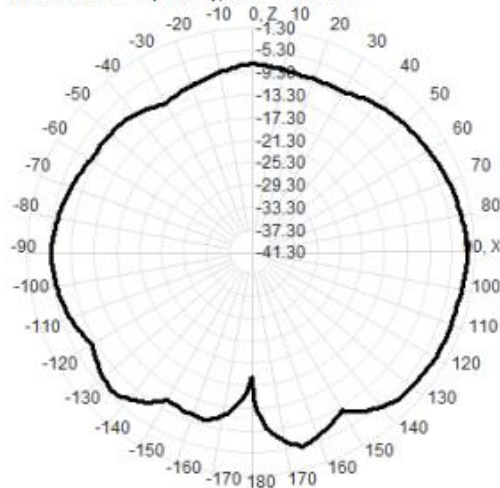
2450.0MHz H+V, Eff: 19.2%



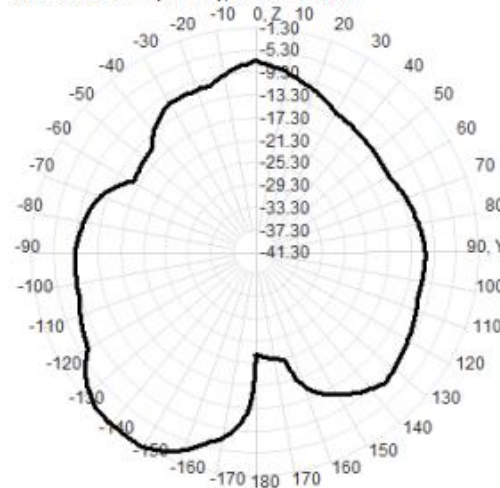
Back View



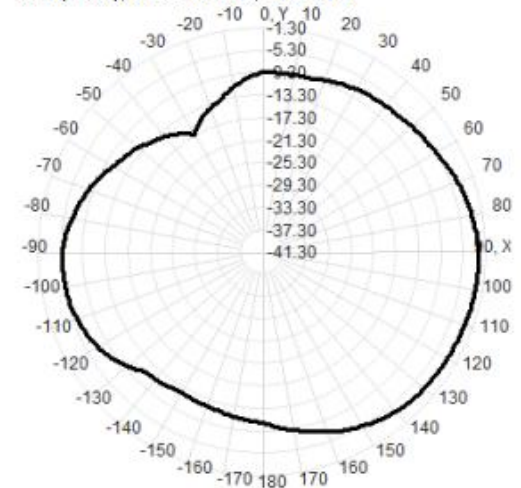
2450.0MHz Total(E1-XZ), Max=-2.80dBi



2450.0MHz Total(E2-YZ), Max=-1.30dBi



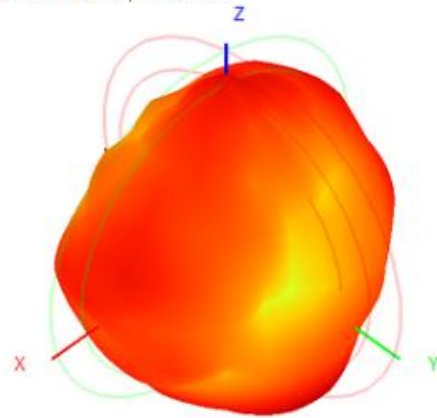
Total(H-XY), Max=-2.80dBi, CirD=14.31



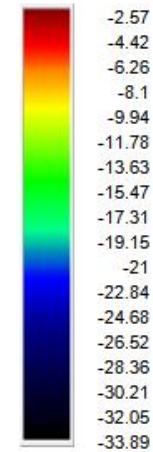
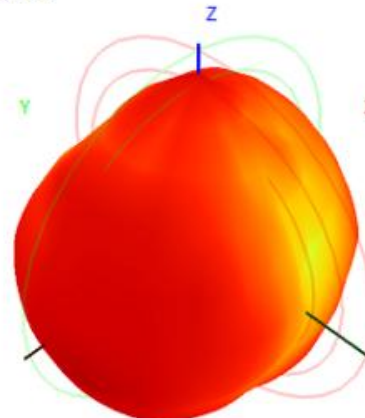
Test Result

2D&3D — BT- ANT

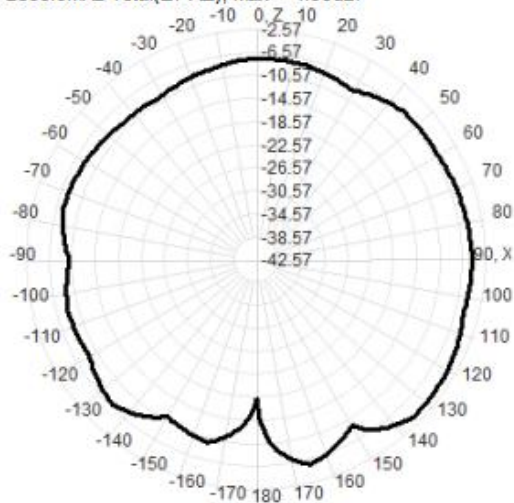
2500.0MHz H+V, Eff: 15.0%



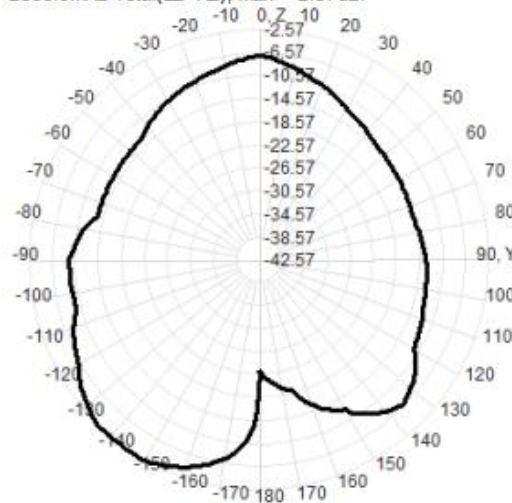
Back View



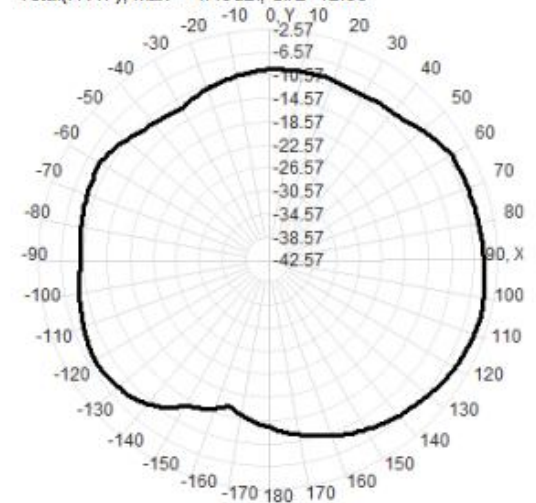
2500.0MHz Total(E1-XZ), Max=-4.06dBi



2500.0MHz Total(E2-YZ), Max=-2.57dBi



Total(H-XY), Max=-4.48dBi, CirD=12.06



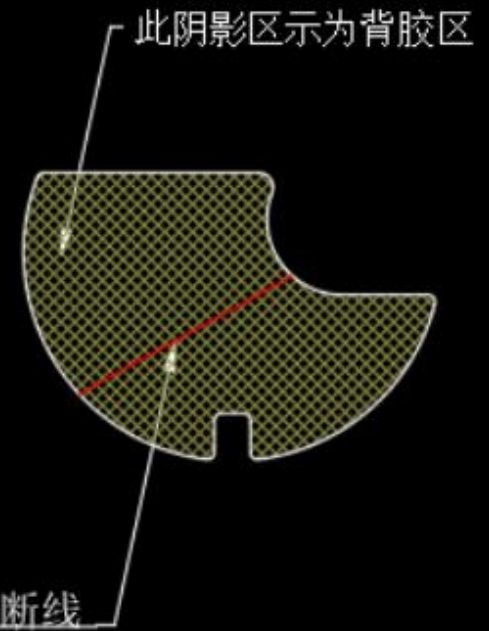
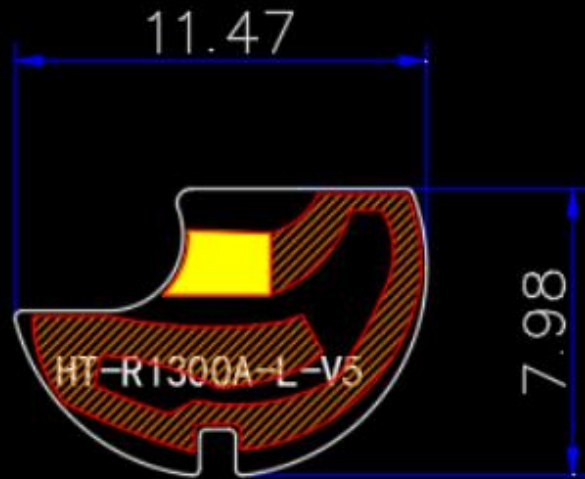
OTA DATA(L-R)

L

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	3.93	-85.39
		39	3.45	-84.80
		78	3.44	-84.76

R

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	2.11	-85.06
		39	2.86	-84.71
		78	2.44	-84.47



技术要求

- 1.需符合欧盟RoHS,REACH, 具体详见附录;
- 2.单机用量: 1 PCS
- 3.A面FPC 铜箔走线部分, 线路曝光工艺 B面代表 3M 9471 胶纸部分;
- 4.FPC 总厚度为0.11~1.15mm(不包括背胶离型纸, 接触点及焊盘需做沉金工艺)
- 5.请使用PII对基材, 电解铜 表面黑色油墨 丝印白色字符
- 6.油墨不含金属颗粒, 表面UV耐摩擦紫外线;
- 7.高温抗氧化性: 200°C、40分钟后, 铜箔表面允许有少量氧化点,

 深圳合拓科技有限公司										Drawn	
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DATE: 20230614 DRAWN: 1001 CHECKED: 1002 APPROVED: 1003 DESIGNED: 1004 MANUFACTURED: 1005 ASSEMBLED: 1006 TESTED: 1007 SHIPPED: 1008 RETURNED: 1009 REWORKED: 1010 REJECTED: 1011 REPAIRED: 1012 REUSED: 1013 RECYCLED: 1014 REBUILT: 1015 REFINISHED: 1016 REPAINTED: 1017 REPAIRED: 1018 REUSED: 1019 RECYCLED: 1020 REBUILT: 1021 REFINISHED: 1022 REPAINTED: 1023 REPAIRED: 1024 REUSED: 1025 RECYCLED: 1026 REBUILT: 1027 REFINISHED: 1028 REPAINTED: 1029 REPAIRED: 1030 REUSED: 1031 RECYCLED: 1032 REBUILT: 1033 REFINISHED: 1034 REPAINTED: 1035 REPAIRED: 1036 REUSED: 1037 RECYCLED: 1038 REBUILT: 1039 REFINISHED: 1040 REPAINTED: 1041 REPAIRED: 1042 REUSED: 1043 RECYCLED: 1044 REBUILT: 1045 REFINISHED: 1046 REPAINTED: 1047 REPAIRED: 1048 REUSED: 1049 RECYCLED: 1050 REBUILT: 1051 REFINISHED: 1052 REPAINTED: 1053 REPAIRED: 1054 REUSED: 1055 RECYCLED: 1056 REBUILT: 1057 REFINISHED: 1058 REPAINTED: 1059 REPAIRED: 1060 REUSED: 1061 RECYCLED: 1062 REBUILT: 1063 REFINISHED: 1064 REPAINTED: 1065 REPAIRED: 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