

Note:

1.Technology Parameter

1.1 Voltage Rating	60VAC (R.M.S)
1.2 Frequency Range	0~6G Hz
1.3 Nominal Characteristic Impedance	50 ohms
1.4 Operating Temperature Range	-40℃~+85℃
1.5 Operating Humidity	95%R.H.MAX

2.Electric Performance

2.1 Insulation Resistance	500M ohms
2.2 Contact Resistance	
2.2.1 Inner Contact	20 mohms Max.
2.2.2 Outer Contact	10 mohms Max.
2.3 Withstand Voltage	200V AC 1 Min
2.4 VSWR*	<=1.5@ 0~6.0GHz

3. Mechanism Performance

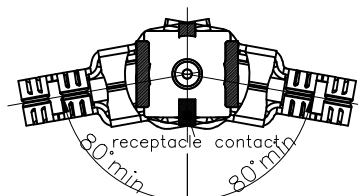
3.1 Durability	30 Cycles
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4. All the material followed the ROHS standard.

5. HSF shall conform to the standard QE-Q-19-001 "

Environmental Hazardous Substances Management "

文档密级:
商业秘密



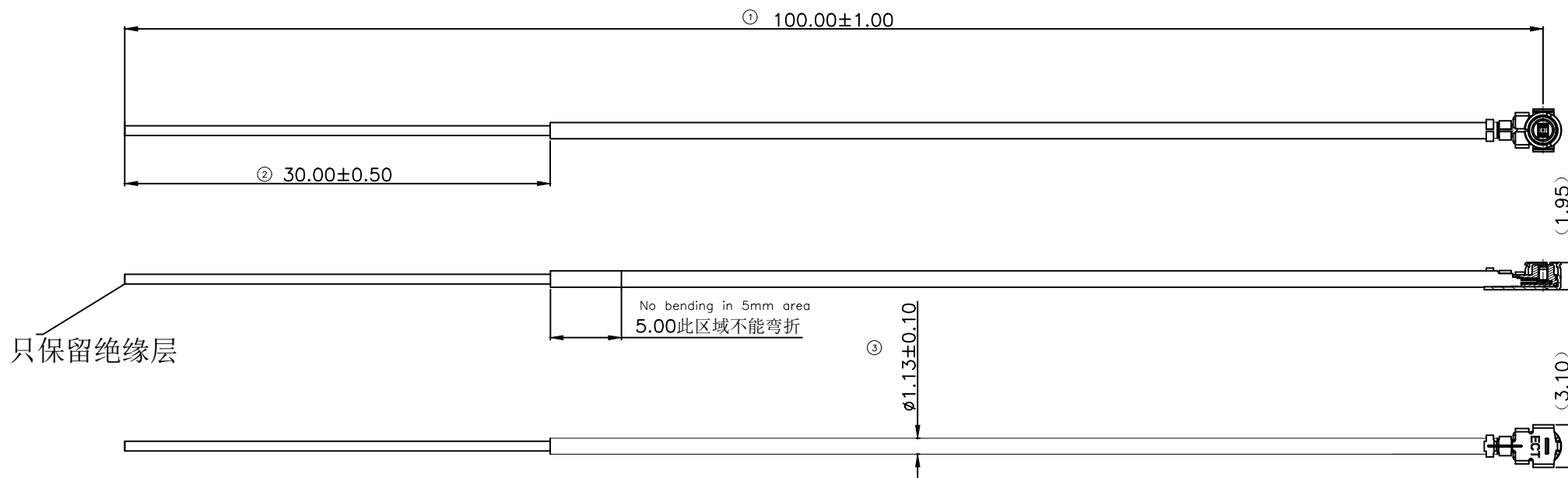
Recommended connector orientation:
The signal contact solder tail of board side receptacle MUST keep a rotation angle of 80° Min. to the plug crimping portion of cable assembly, in order to avoid short risk occur after assembled.
为了避免安装后的短路风险，板端母座的信号焊脚必须与同轴组件连接器铆压部保持至少80° 的旋转角度

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
A	ECN236075	FIRST RELEASE	11/23'23	Han	MARLIN	MARLIN

Product Name: Bluetooth antenna

Manufacturer: ELECTRIC CONNECTOR TECHNOLOGY

Address: No. 171, Changfeng Road, Yutang Sub-district, Guangming District, Shenzhen City, Guangdong Province, DCT Industrial Park



①	820089003	1	CABLE(Ø1.13,Colour:Gray)	灰色线
②	820089202	1	CONTACT	COPPER ALLOY/Au PLATED OVER Ni
③	830089101	1	HOUSING	High Temp.Plastic /BLACK
④	710089204	1	SHELL	COPPER ALLOY/Au PLATED OVER Ni
ITEM	PART NO.	Q'TY	DESCRIPTION	MATERIAL/FINISH
BOM LIST				



GENERAL TOLERANCE	
XX.± 0.50	XX.*± 2.0*
X.± 0.35	X.*± 1.0*
.X± 0.25	.X*± 0.5*
.XX± 0.15	

SCALE:

1:1

UNIT:

mm

SIZE:

A4

DRAWN:

Han

CHECK:

APPROVE:

DATE:

11/23'23

DATE:

DATE:

DWG.NO:

600-47545-01

PARTS NO.(INTENDED USE):

818047545

TITLE:

USS RF PLUG I SERIES

RF PLUG CONN CUSTOMER DRAWING

REV.

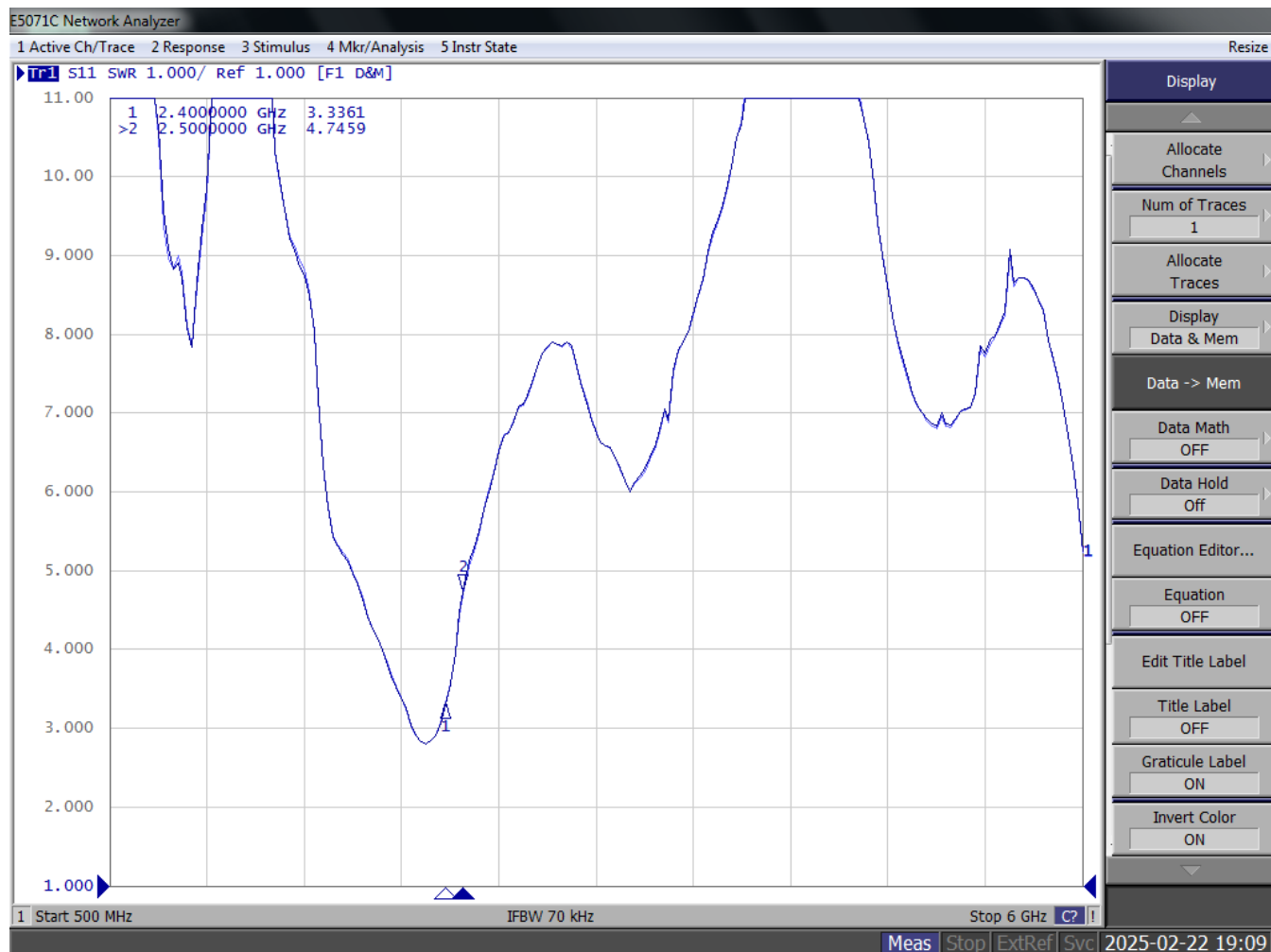
A

SHEET:

1/1

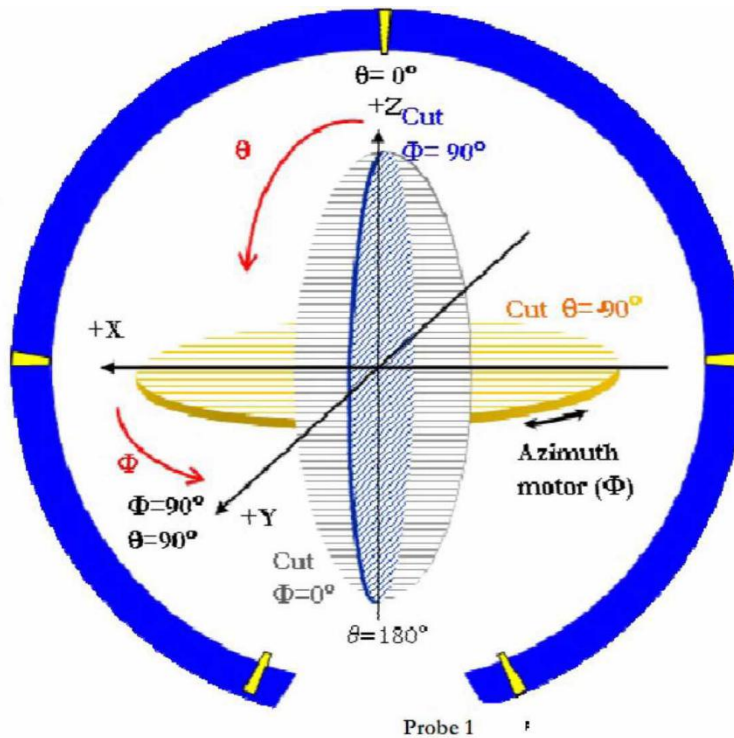
1. Antenna test result/测试结果

1.1 Return loss/Smith chart/VSWR/回波损耗/史密斯图/驻波比

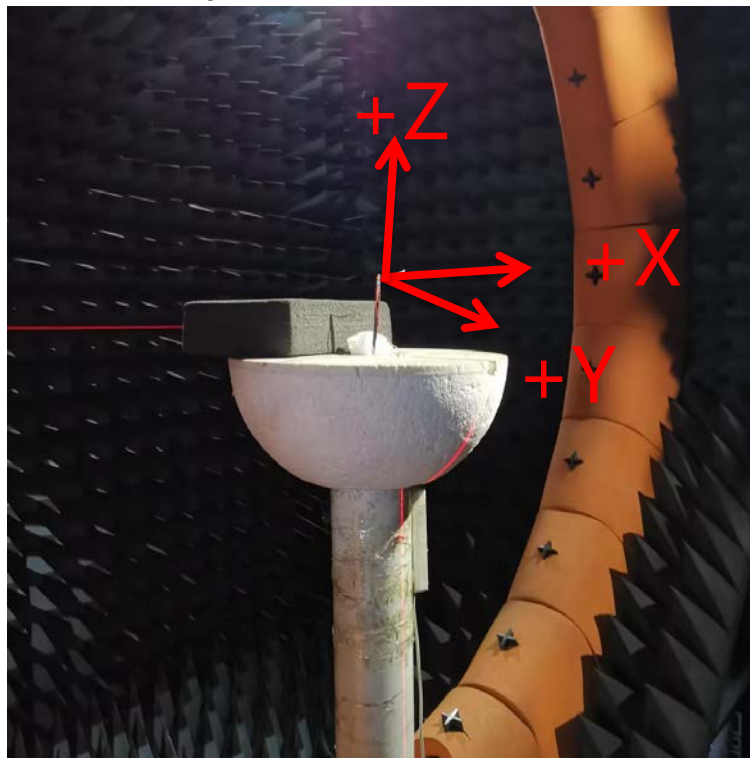


1.2 The gain and total efficiency test/增益和效率测试

1.2.1 The definition of coordinate system/坐标系定义-Satimo SG24



The coordinate system of Chamber/暗室坐标系



The production test position/天线测试放置位置

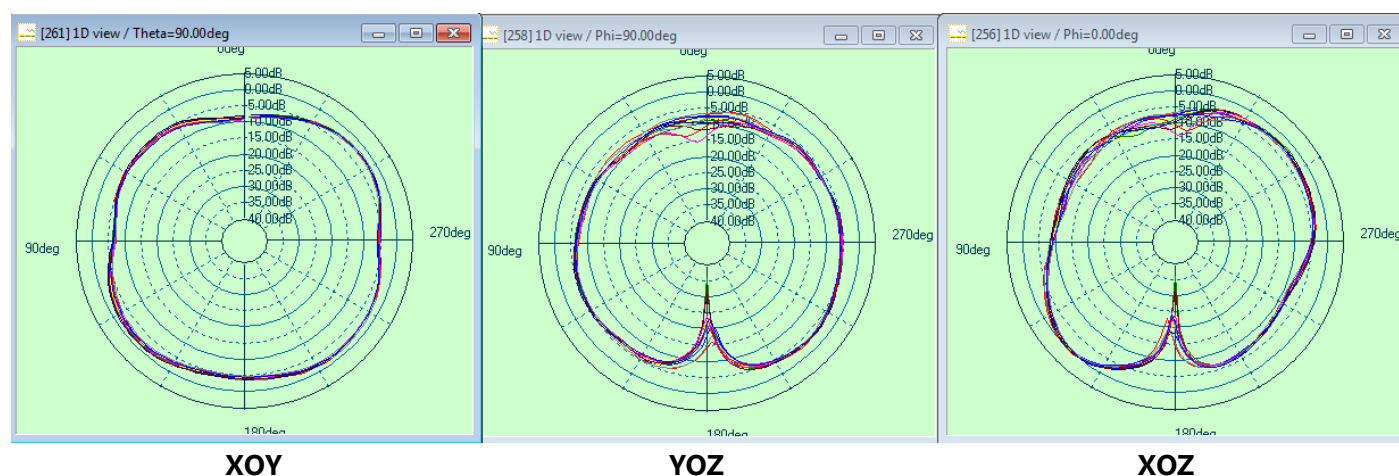
1.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz

Frequency	Efficiency (%)	Gain (dBi)
2400MHz	40%	0.72
2410MHz	39%	0.58
2420MHz	36%	0.21
2430MHz	37%	0.34
2440MHz	39%	0.38
2450MHz	40%	0.47
2460MHz	38%	0.38
2470MHz	35%	0.07
2480MHz	34%	-0.01
2490MHz	33%	-0.10
2500MHz	36%	0.24

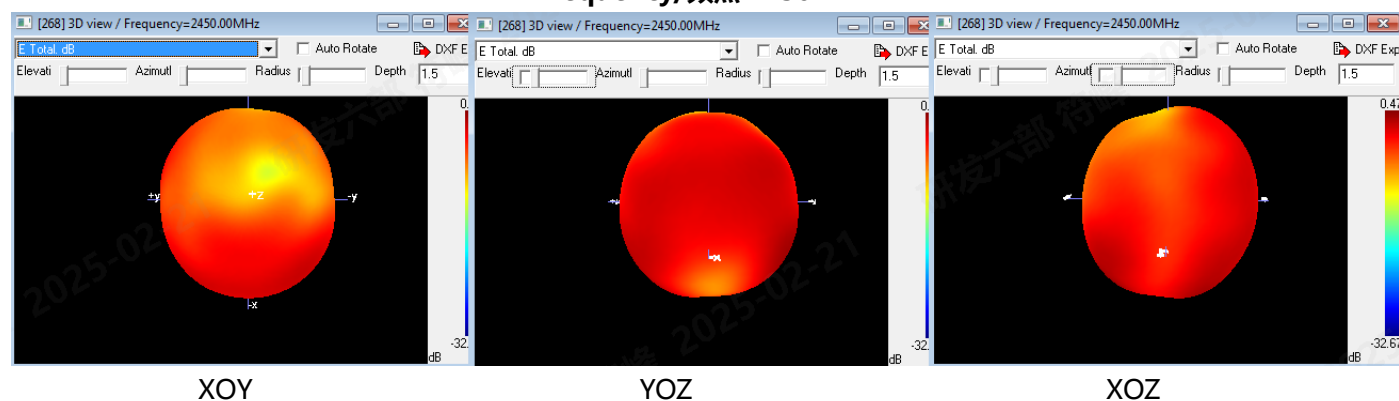
1.2.3 The antenna radiation pattern(2D)/天线辐射方向图 (2D)

2400MHz-2500MHz



1.2.4 The antenna radiation pattern(3D)/天线辐射方向图 (3D)

Frequency/频点 2450MHz





测试报告
TEST REPORT

Conclusion结论		OK		备注		/				
产品型号: Model		L=100mm Φ1.13mm		样品数量 Sample quantity	5pcs	测试日期 Test date	2025. 01. 12			
产品规格书文件编号 Product specification DOC No. :		651-0089-01				温度/Temperature: 25 ⁰ C				
						湿度/Humidity: 62%RH				
判定基准: Judgment criterion		☐ 依客户试验标准 Refer to test standard"of customer								
使用设备 Equipment used		显微镜		网络分析仪	/	/	/			
型号Model		20*40		EV515	/	/	/			
下次校准日期		N/A		2026. 01. 04	/	/	/			
项目 Items	判定标准 Criteria Spec.	频点 Frequency point	试验结果 Test result							
			1#	2#	3#	4#	5#	max.	min.	aver.
电压驻波比 V. S. W. R 单位: /	0~6GHz 1.5Max	700MHz,	1.055	1.049	1.043	1.042	1.053	1.055	1.042	1.048
		1.0GHz,	1.060	1.047	1.048	1.057	1.051	1.060	1.047	1.053
		2.0GHz,	1.087	1.071	1.061	1.082	1.074	1.087	1.061	1.075
		3.0GHz,	1.070	1.073	1.049	1.071	1.058	1.073	1.049	1.064
		4.0GHz,	1.043	1.066	1.041	1.061	1.054	1.066	1.041	1.053
		5.0GHz,	1.037	1.058	1.057	1.084	1.057	1.084	1.037	1.059
插入损耗 Insertion loss 单位: -dB	0~6GHz 1.2Max	700MHz,	0.350	0.349	0.334	0.335	0.350	0.350	0.334	0.344
		1.0GHz,	0.413	0.408	0.359	0.399	0.410	0.413	0.359	0.398
		2.0GHz,	0.579	0.564	0.553	0.563	0.571	0.579	0.553	0.566
		3.0GHz,	0.693	0.672	0.675	0.686	0.677	0.693	0.672	0.681
		4.0GHz,	0.786	0.747	0.720	0.748	0.733	0.786	0.720	0.747
		5.0GHz,	0.850	0.801	0.780	0.814	0.800	0.850	0.780	0.809
		6.0GHz,	0.893	0.833	0.831	0.864	0.861	0.893	0.831	0.856
		