Shenzhen Huarui Haodi Technology Co. , Ltd.
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Specification

Customer: Shenzhen Huarui Haodi Technology Co. , Ltd.

Product: Bluetooth 2.4G antenna

Model: HRHD-PCB-2.4G-P01

Number: HRHD-PCB-2.4G-P01

2.General matters

1.1 Scope of application

1.2 Service temperature range The temperature range of this product is -20 ~ +65 ℃

1.3 Storage temperature range This product is stored at -30 ~ +75 ℃

3.General product specification

NO.	ITEMS	DETAILS
1	type	2.4G Bluetooth antenna
2	band limits	**2400MHz**
3	**VSWR**	**≤2.0**
4	**Gain**	**2.91dBi**
5	**Radiation Efficiency**	**≥50%**
6	impedance	**50Ω**
7	Antenna type	monopole
8	Antenna implementation form	FPC material + 1.13 coaxial line

4.Product specification detail

4.1 Product structure parameter

4.2 Product material composition

No	Materials	Size (MM)
1	FPC material	39 mm * 3.5 mm * 0.16 mm
2	Coaxial line	Ø1.13 / 30 mm I-PEX

4.3 appearance

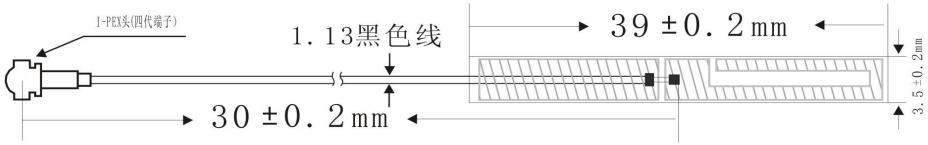
The product has good appearance, no scars, sweat, protrusions and other defects that seriously affect the appearance.

4.4 Structural dimension

Refer to product drawing:

REV	DESCRIPTION	DATE	APPD

GENERAL TOLERANCE			
DIMENTION		ANGLES	
.	±0.20	.	±2°
.0	±0.15	.0	±1°
.00	±0.10	.00	±1°
.000	±0.05		



媒体编号	
旧底图总号	
底图总号	
日期	签名

技术要求：

1.所有单位尺寸为mm。
2.材料：
背胶：3M467，0.05mm。
基材:一对半电解铜,表面哑黑。
3.线材:1.13同轴线I-PEX头四代端子。
4.所有尺寸标注前有*符号的为管控尺寸。

深圳市华瑞豪迪科技有限公司												名称
单位	比例	材料		一般加工		表面粗糙度		表面处理				零件编号
mm	1:1	建滔										
数量	颜色	设计		射频		绘制		审核		批准		第 1 页
1	红	Y	M	Y	M	Y	M	Y	M	Y	M	共 1 页

制图：　　描图：　　幅面：A4

4.2 Product electrical performance test data

4.21Test environment and equipment

Test environment:	test equipment:
temperature: 10℃——+30℃ relative humidity: ≤80% （+40℃）barometric pressure: 750mmkg ±30mmkg	HP8753DNetwork analyzer ETS: Microwave darkroom

4.22 Product electrical performance test data:

S11 diagram of the product:

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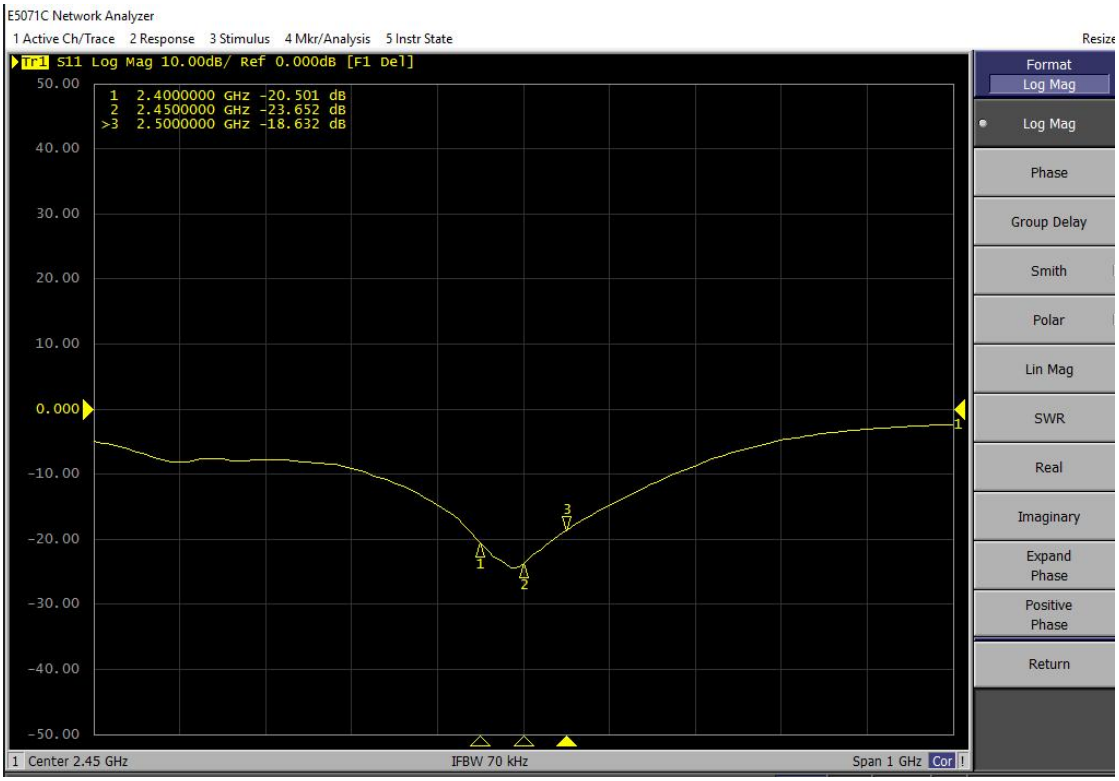
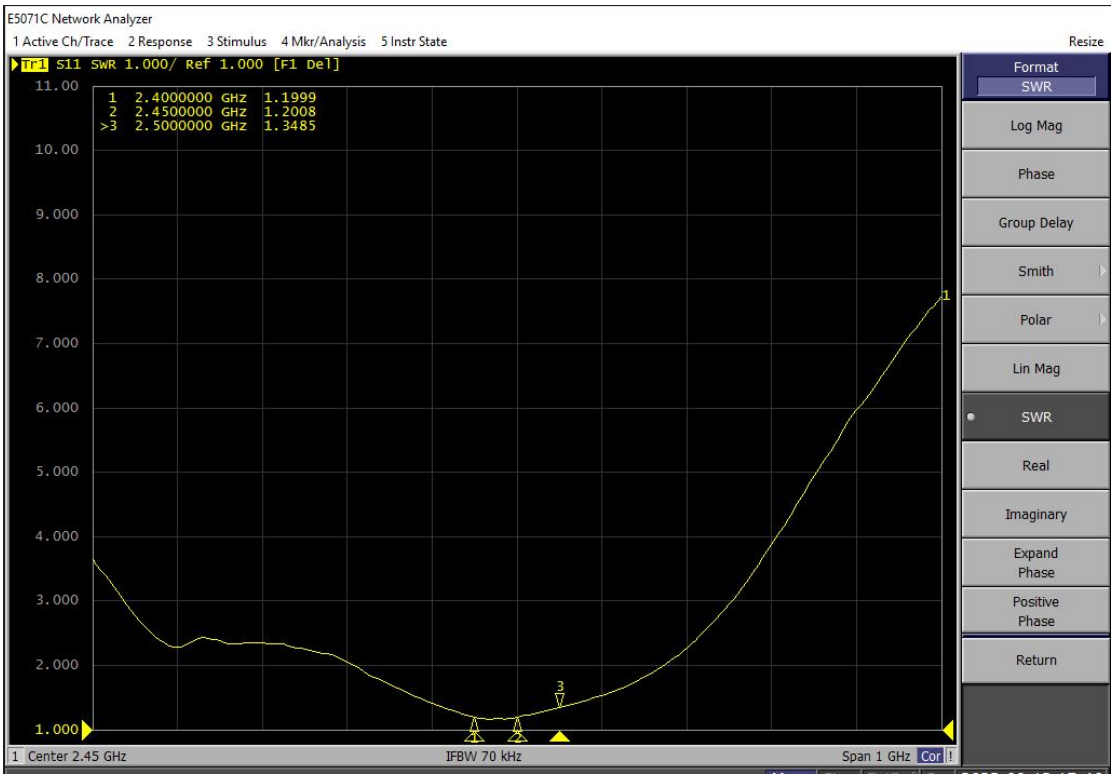
Marker	2400MHz	2450MHz	2500MHz	5700MHz	5900MHz
Return loss	-20.51	-23.65	-18.63		
VSWR	1.21	1.19	1.34		

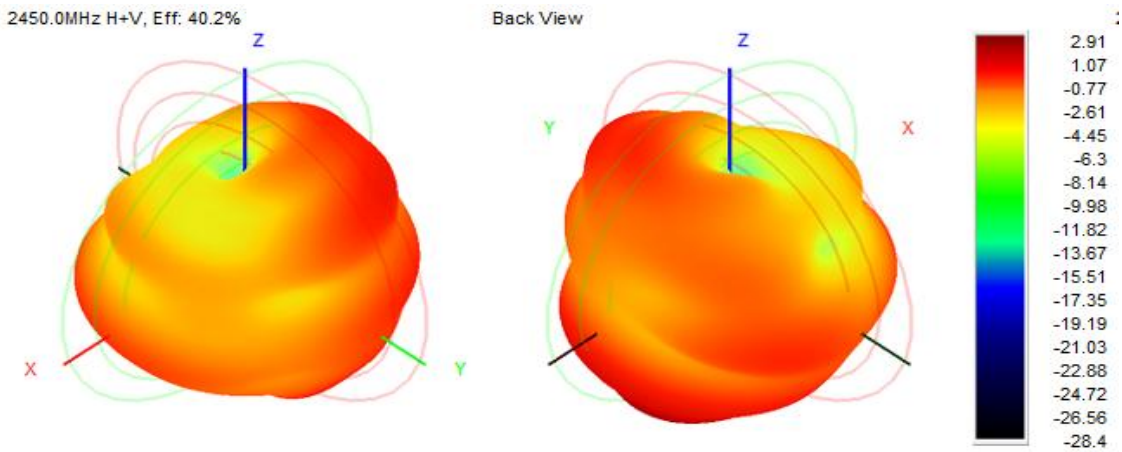




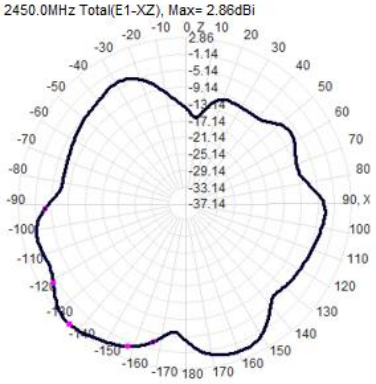
Gain efficiency and pattern data:

band (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.91	2.90	2.82	2.71	2.73	2.89	2.59	2.79	2.47	2.11	2.15
Efficency (%)	37.8	38.1	38.06	38.5	39.1	40.1	40.3	39.3	38.2	37.4	37.6

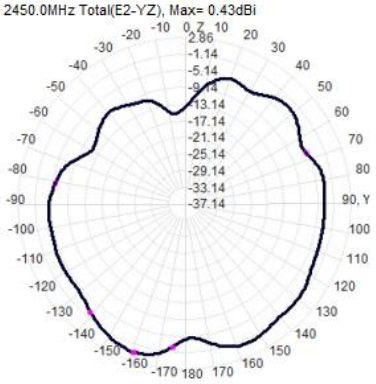
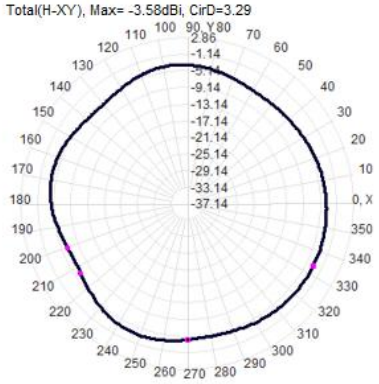
2400MHz：



2450.0MHz Total(E1-XZ), Max= 2.86dBi



2450.0MHz Total(E2-YZ), Max= 0.43dBi



Total(H-XY), Max= -3.58dBi, CirD=3.29