

深圳市福瑞通讯科技有限公司

Shenzhen Furui Communication Technology Co., Ltd.

天线规格书

Antenna specifications

客户 Customer	Shenzhen Sperll Optoelectronic Technology Co., Ltd.
客户料号 Customer Material Number	60200078
产品名称 product name	2.4 / 5.8 GHz Pagoda Rubber-Duck Antenna
天线类型 product model	Rod Antenna
频段 frequency range	2400-2500-5750-5850
日期 Date	2026-08-03

客户确认 Customer Confirmation

检查 check up	审核 examine and verify	批准 ratify

供方确认 Supplier confirmation

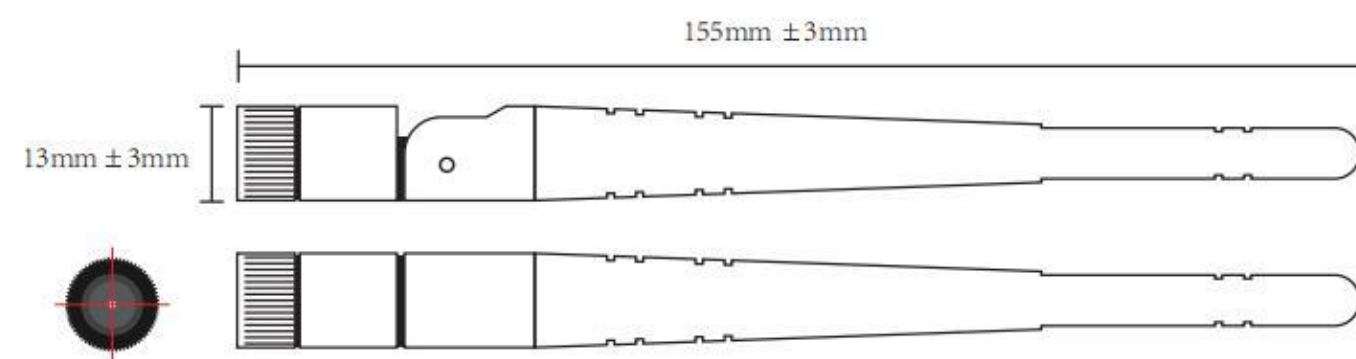
设计 design	结构 structure	批准 ratify

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一、产品图片/product picture



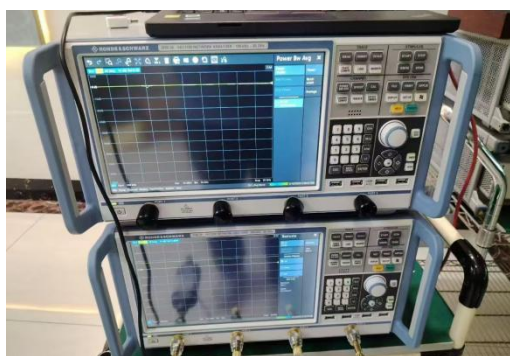
二、产品参数/Product Parameter

参数/parameter	典型值/TYP	单位/unit	备注/Notes
电气参数/Electrical Parameters			
产品名称 product name	2.4 / 5.8 GHz Pagoda Rubber-Duck Antenna	/	
频率 frequency	2400-2500-5750-5850	MHZ	
输入阻抗 input impedance	50	Ω	
驻波比 VSWR	1.5	/	
增益 gain	3.55	DBI	
极化方式 Polarization method	Vertical	/	
最大功率 maximum power	5	W	
雷电保护 Lightning Protection	Direct grounding	/	
工作电压 working voltage	10	V	
辐射体 radiator	Omnidirectional	/	
机械参数/Mechanical Parameters			
尺寸 size	155*13	mm	
接口 joggle	<u>RP-SMA</u>	/	
电缆型号 Cable Model	RG178	mm	
电缆长度 Cable length	55	mm	
安装方式 mounting method	Screw mounting	/	
颜色 color	Black	/	
材料 material	ABS	/	

重量 weight	30	g	
环境参数/enviromental parameter			
防护等级 Ingress Protection	-	/	
ROHS 标准 ROHS standard	Compliant	/	
工作温度 working temperature	-45~+85	℃	
储存温度 storage temperature	-45~+85	℃	

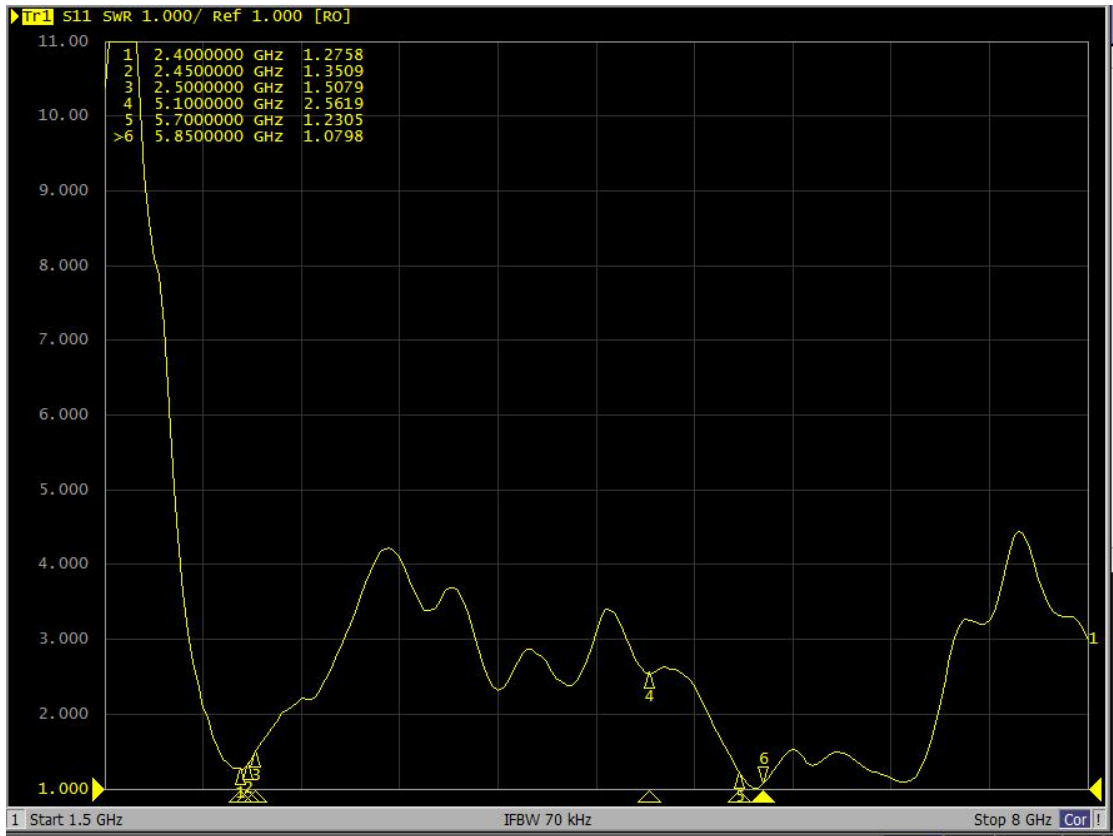
三、测试项目与设备/Test items and devices

参数/parameter	测试项目/test item	设备/equipment
S11 参数 S11 parameters	1. 回波损耗/return loss 2. 电压驻波比/VSWR	1. Network analyzer: Agilent E5071B
有源测试 Active test	1. 发射功率/transmitting power 2. 接收灵敏度/receiving sensitivity	1. Anechoic chamber : ETS7 X4X3m (3D) Chamber ETS5X3X3m (3D) Chamber 2. Comprehensive tester : Agilent 8960 E5515B
无源测试 Passive test	1. 天线增益/antenna gain 2. 天线效率/antenna efficiency	1. Anechoic chamber: ETS 7X4X3m (3D) Chamber ETS 5X3X3m (3D) Chamber 2. Network analyzer: Agilent E5071B



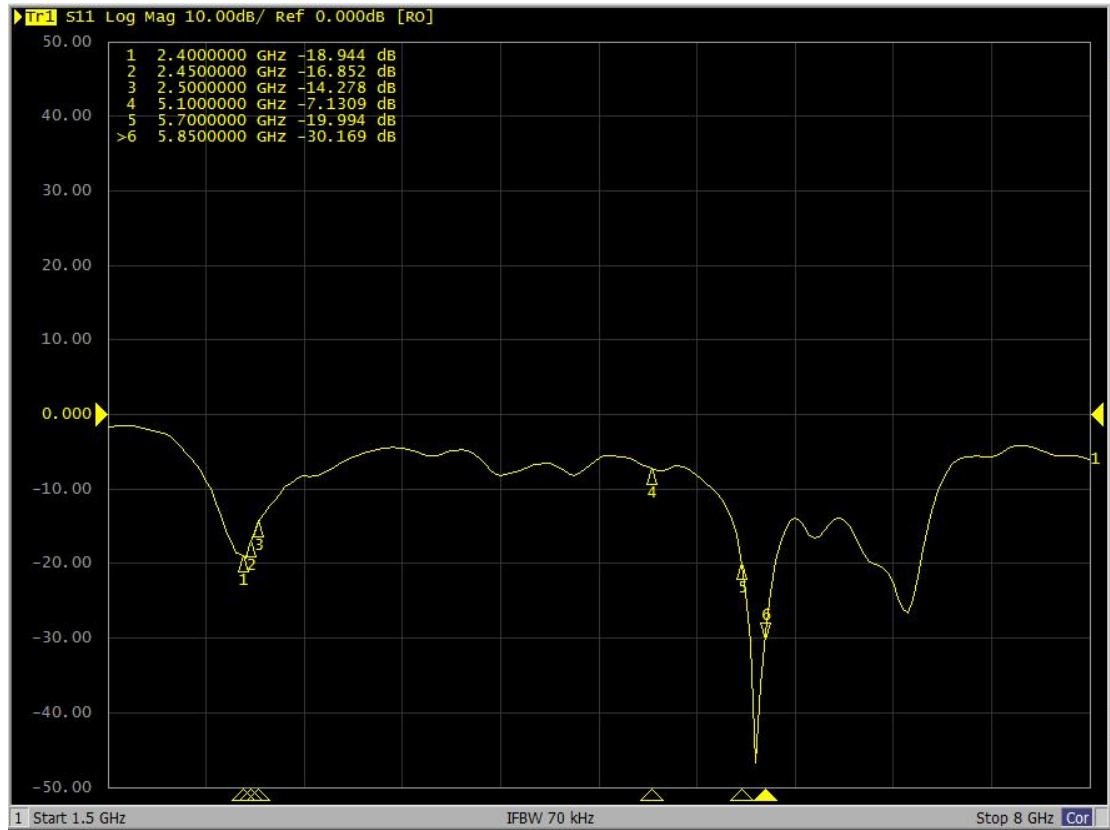
四、性能数据/performance data

1. 电压驻波比/VSWR



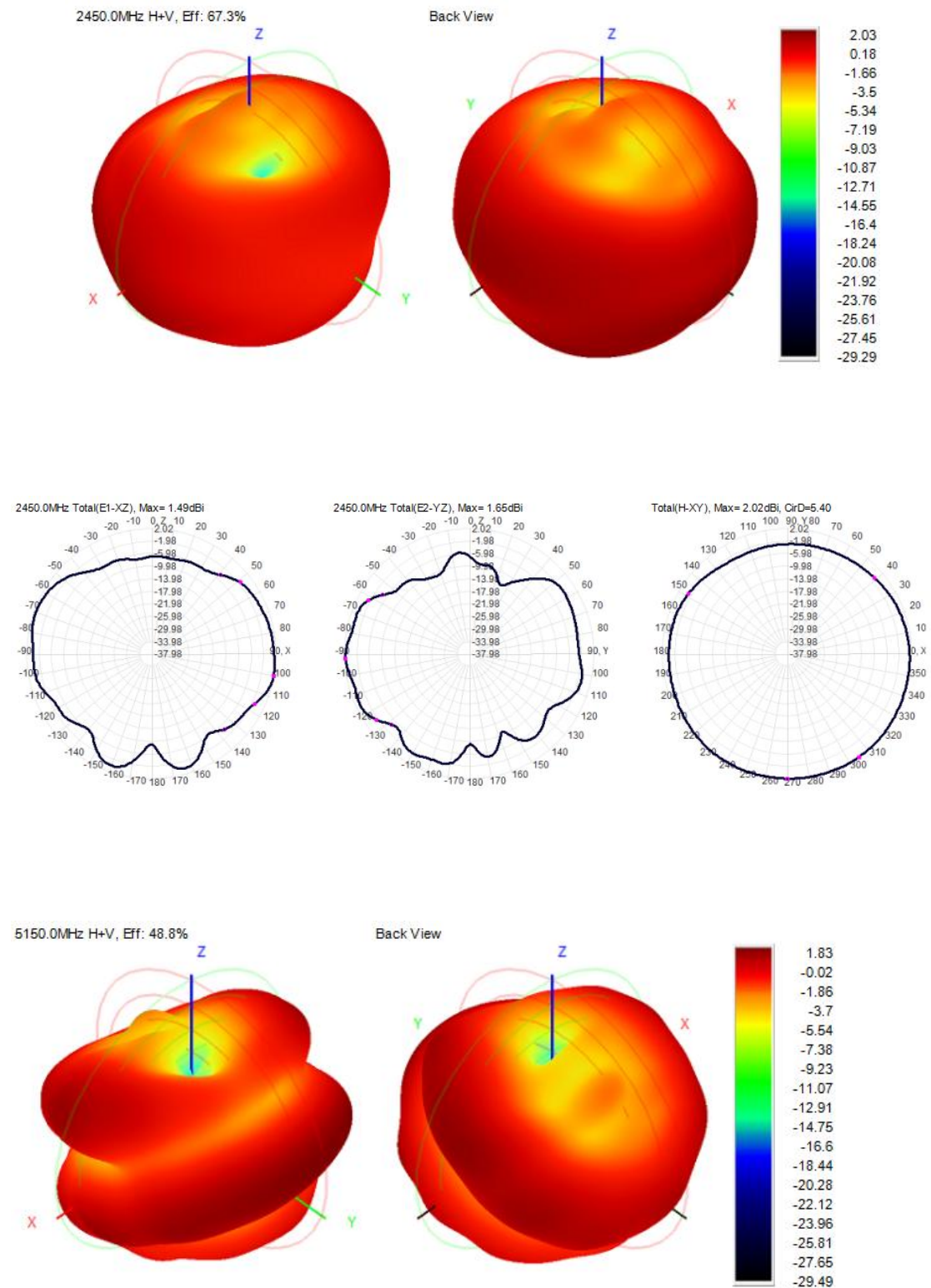
2. 天线效率与增益/Antenna efficiency and gain

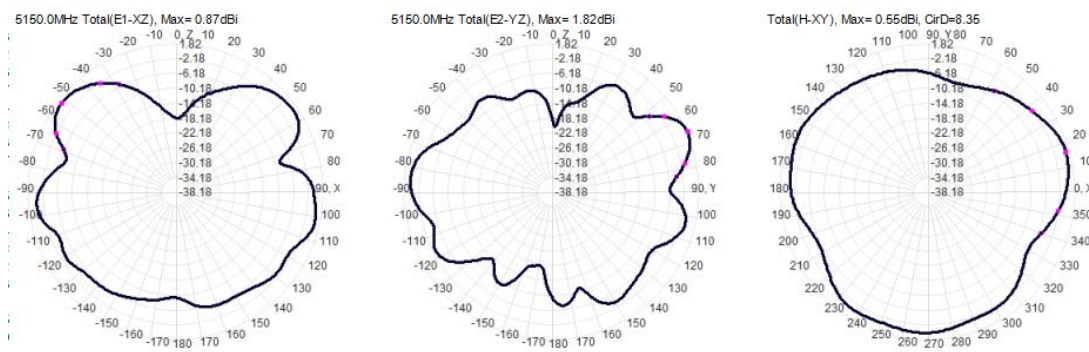
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.37	0.83	0.72	0.97	1.49	2.02	1.47	1.11	1.25	1.2	1.37
Efficiency (%)	68.08	65.16	62.81	63.53	61.94	67.30	61.66	61.52	64.42	64.71	63.10
Frequency (MHz)	5000	5050	5100	5150	5200	5250	5300	5350	5400	5450	5500
Gain (dBi)	1.39	1.01	1.45	1.82	1.95	2.30	2.88	3.55	3.35	3.52	3.38
Efficiency (%)	48.66	43.89	43.08	48.80	44.77	47.97	52.48	54.08	54.95	57.94	56.10
Frequency (MHz)	5550	5600	5650	5700	5750	5800	5850				
Gain (dBi)	3.05	3.31	3.26	3.22	1.03	2.38	2.78				
Efficiency (%)	54.70	53.46	52.00	48.98	48.40	41.30	39.99				



频率 (MHz)	2400	2450	2500	5100	5700	5850
Return Loss	-18.94	-16.85	-14.27	-7.13	-19.99	-30.16
VSWR	1.27	1.35	1.50	2.56	1.23	1.07

4. 3D 辐射图/3D radiation map





5750.0MHz H+V, Eff: 48.4%

Back View

