

深圳市麒新弘泽科技有限公司 ShenZhen Keesun Technology Co., Ltd

产品承认书 specification

产品 P/N Model : HDC-300

产品描述 Description : 2.4 ~ 5.8GHz 天线增益 5dBi (2.4 ~ 5.8GHz Gain 5dBi)

产品规格概述

●Electrical Performance:

1. Frequency Range: 2.4~5.8GHz
2. Impedance: 50 Ohms nominal
3. VSWR: ≤ 1.92
4. Gain: 5dBi
5. Connector Type: SMA Plug

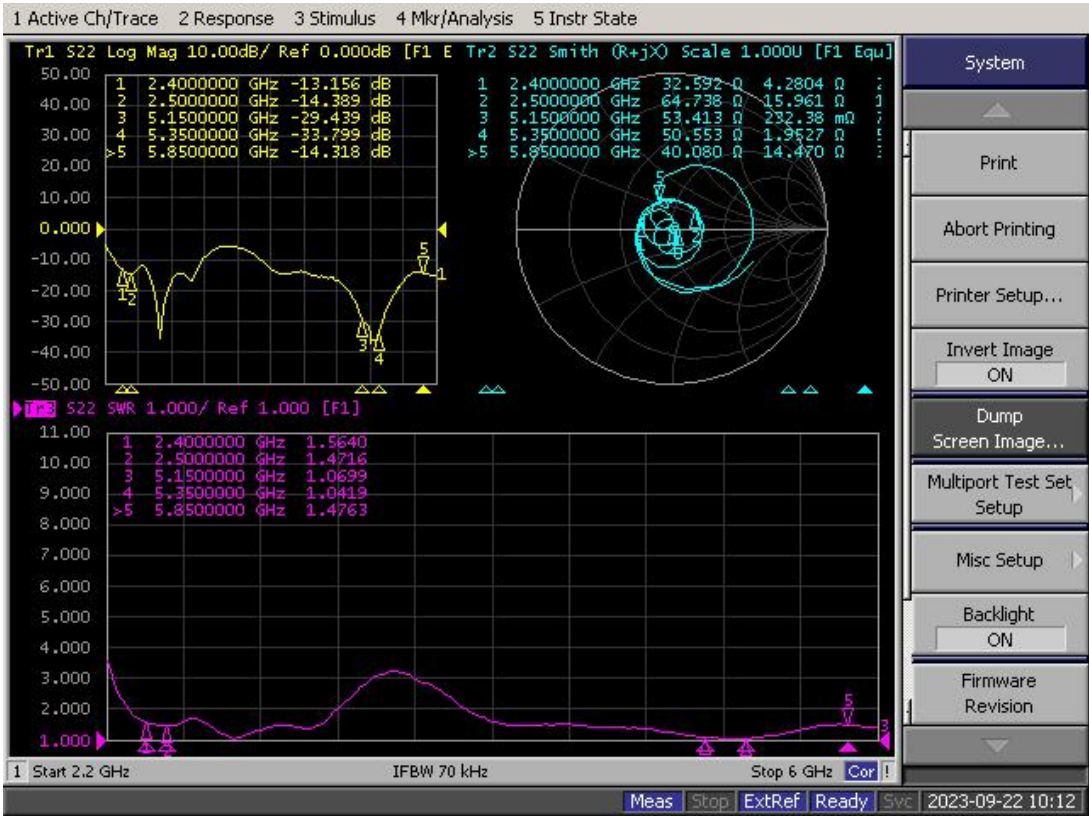
●Mechanical properties:

1. Cable: RG178 cable, 50 Ohm
2. Operation temperature range: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$
3. Storage temperature range: $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$
4. Color: Black

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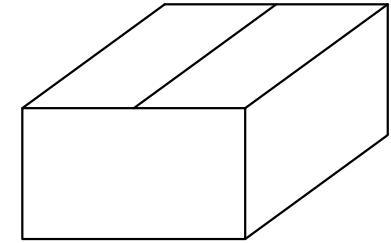
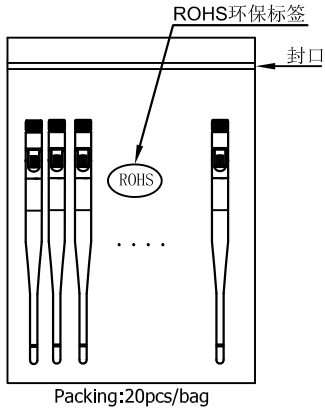
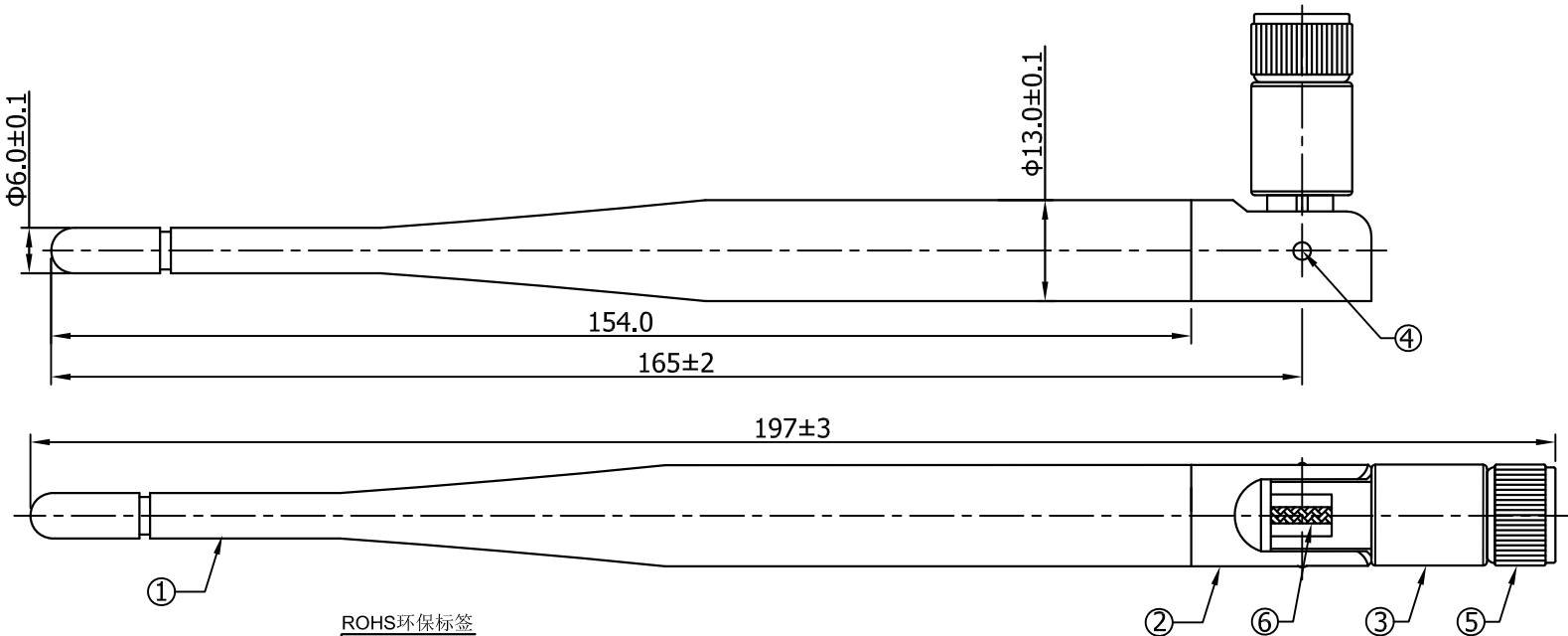
网络分析仪测试图

料号:HDC-300
品名规格:2.4~2.5GHz /5.15~5.85GHz 5dBi Φ13.0ANTENNA
测试数值:Return Loss/VSWR



成品图

ROHS



1. 外箱需贴1PCS/ROHS标签于外箱标签上
2. 外箱需贴1PCS/外箱标签于外箱侧麦右上角

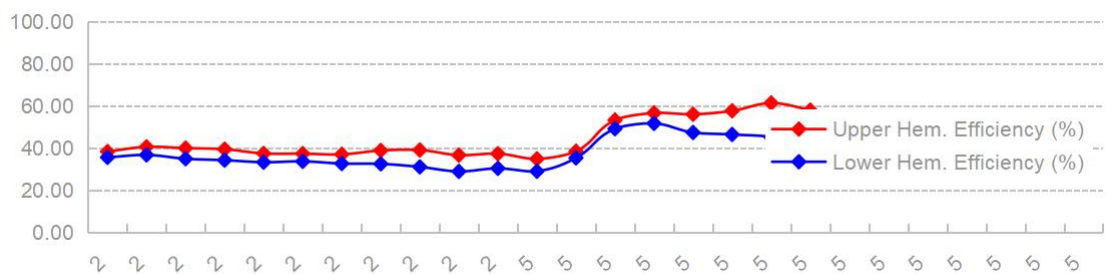
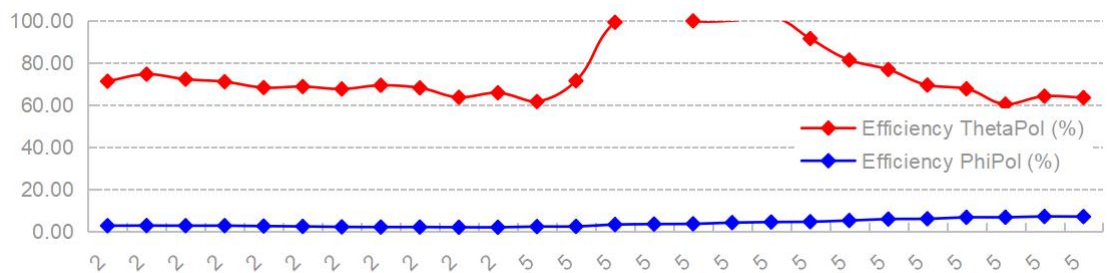
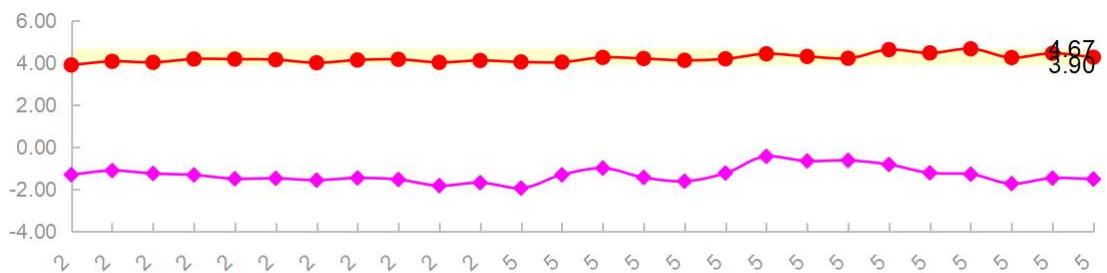
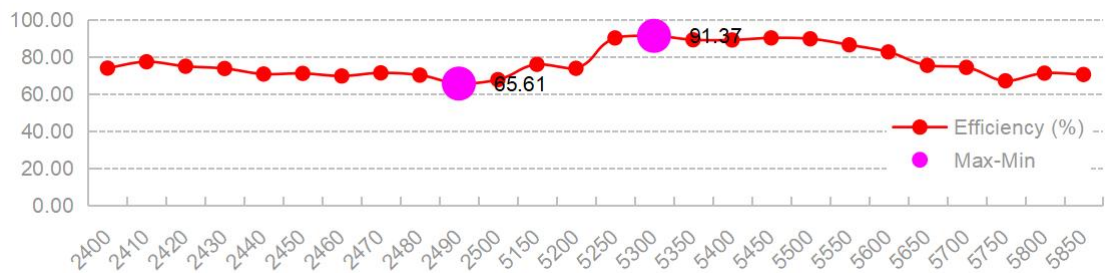
Specification:
Frequency Rang: 2.4GHz & 5.85GHz
Return Loss: -10dB or less
VSWR: 1.92 Max
Gain: 5.0 dBi

6	Cable	RG-178 Cable, Transparency Brown, 50Ω	1	
5	Connector	SMA Straight Plug Reverse for RG-178	1	
4	Rivet	PBT+PC, Color: Black	2	
3	Bottom Base	PBT+PC, Color: Black	1	
2	Upper Base	PBT+PC, Color: Black	1	
1	Antenna Cap	TPEE, Color: Black	1	
NO	DESCRIPTION		Q'TY	REMARK

TITLE:		2.4G~5.8G 5dBi Antenna		深圳市麒新弘泽科技有限公司 ShenZhen Keesun Technology Co.,Ltd							
P/N:											
CUSTOMER:		HDC-300									
DRAW NO.:											
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED						APPROVED					
一般公差 TOLERANCE						SHEET: 1/1		SCALE: 1:1		CHECKED	
				UNIT: mm		REV.A		DRAWED		JULIA	

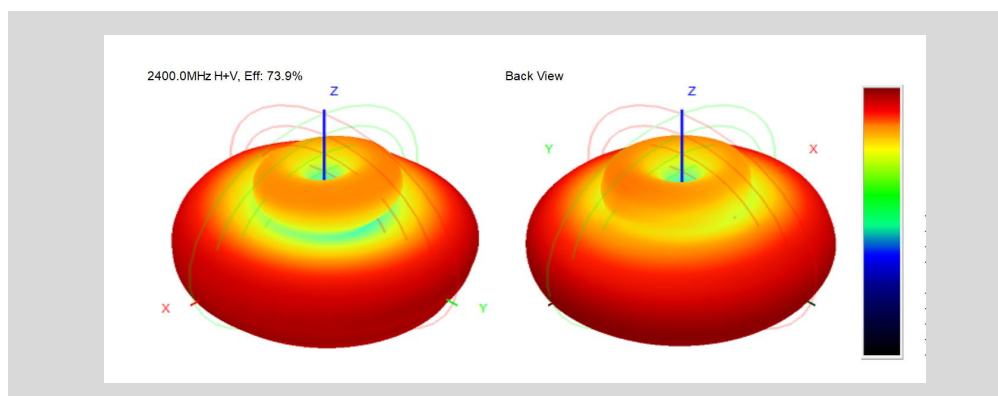
Antenna Peak Gain&Efficienc

深圳市麒麟弘泽有限公司																										
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Efficiency (dBi)	-1.31	-1.11	-1.25	-1.32	-1.50	-1.48	-1.57	-1.46	-1.54	-1.83	-1.69	-1.95	-1.32	-1.00	-1.44	-1.62	-1.23	-0.44	-0.66	-0.63	-0.83	-1.22	-1.29	-1.73	-1.47	-1.52
Gain (dBi)	3.50	4.08	4.03	4.19	4.18	4.16	4.01	4.34	5.17	4.03	4.12	4.05	4.04	4.26	4.21	4.12	4.20	4.43	4.31	4.22	4.63	4.48	4.67	4.26	4.46	4.27
Efficiency (%)	73.95	77.38	74.95	73.75	70.77	71.10	69.71	71.39	70.18	65.61	67.74	75.98	73.85	90.23	91.37	89.25	86.14	90.25	89.78	86.51	82.68	75.44	74.35	67.69	71.25	70.51
Directivity (dB)	5.21	5.19	5.28	5.51	5.69	5.64	5.58	5.60	5.71	5.86	5.81	5.99	5.36	5.26	5.65	5.74	5.43	4.87	4.97	4.85	5.46	5.70	5.96	5.99	5.93	5.79
Peak Gain Position (Theta)	89.00	88.00	88.00	89.00	88.00	88.00	89.00	88.00	88.00	89.00	89.00	37.00	38.00	39.00	103.00	103.00	104.00	96.00	96.00	96.00	32.00	97.00	98.00	98.00	98.00	99.00
Peak Gain Position (Phi)	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	90.00	90.00	90.00	90.00	90.00	90.00	180.00	180.00	180.00	90.00	180.00	180.00	180.00	180.00	180.00
Efficiency ThetaPol (%)	71.28	74.65	72.28	71.07	68.28	68.76	67.61	69.37	68.15	63.68	65.82	61.65	71.51	99.33	105.01	99.95	100.10	102.19	91.56	81.37	76.87	69.48	67.71	60.42	64.19	63.51
Efficiency PhiPol (%)	2.67	2.72	2.67	2.68	2.49	2.34	2.10	2.02	2.02	1.93	1.92	2.25	2.34	3.20	3.44	3.56	4.11	4.40	4.56	5.14	5.81	5.97	6.64	6.68	7.05	6.99
Upper Hem. Efficiency (%)	38.34	40.61	40.00	39.47	37.46	37.39	37.03	38.87	39.09	36.68	37.35	34.88	38.50	53.31	56.71	56.08	57.73	61.42	58.04	53.57	52.38	47.07	44.53	38.37	38.65	36.17
Lower Hem. Efficiency (%)	35.60	36.77	34.95	34.27	33.30	33.72	32.68	32.51	31.09	28.93	30.39	29.01	35.36	49.23	51.74	47.42	46.48	45.17	38.07	32.95	30.30	28.38	29.81	28.72	32.60	34.24
T90(H)角度	1.55	1.47	1.50	1.59	1.67	1.66	1.67	1.58	1.62	1.67	1.72	1.50	1.62	1.51	1.53	1.82	1.68	1.26	1.33	1.36	1.57	1.55	2.11	3.21	3.83	3.52
Gain 15deg (dBi)	29.00	28.00	27.00	27.00	26.00	26.00	27.00	26.00	26.00	25.00	25.00	21.00	20.00	21.00	20.00	14.00	20.00	18.00	16.00	13.00	13.00	12.00	11.00	11.00	11.00	11.00
E1(XZ)增益角度	7.17	7.21	7.39	7.54	7.55	7.26	7.09	7.17	7.42	7.52	7.25	2.82	2.86	3.29	3.33	4.36	5.59	6.67	7.85	8.77	9.19	8.03	7.38	6.85	6.65	6.24
E2(YZ)增益角度	36.00	37.00	36.00	34.00	32.00	32.00	35.00	37.00	36.00	36.00	36.00	13.00	13.00	24.00	15.00	15.00	15.00	18.00	22.00	16.00	15.00	14.00	16.00	15.00	15.00	15.00
E2(YZ)增益比	8.02	7.88	8.17	8.54	8.75	8.60	8.21	8.08	8.41	8.63	8.38	2.82	2.99	3.34	3.80	4.50	5.59	6.17	7.09	8.07	7.90	6.10	4.89	4.03	2.05	2.09
最大增益轴比(P)	16.99	15.37	18.79	36.26	18.55	16.57	48.49	35.50	16.65	10.52	9.94	44.32	24.75	13.95	15.58	12.86	14.45	27.83	23.13	17.80	13.35	10.21	15.47	10.12	16.04	15.18
Theta(Theta=0)轴比(P)	3.19	1.16	1.74	3.19	5.68	6.43	7.04	7.71	8.48	8.79	9.87	14.59	10.39	9.92	9.23	10.16	10.36	18.86	10.45	8.74	13.15	17.76	5.72	1.90	3.32	5.88
Theta(Theta=0)轴比(P)	47.82	56.94	55.00	46.92	58.29	69.04	49.51	64.21	69.00	67.63	65.01	62.76	64.40	55.26	71.87	59.01	86.09	69.11	59.11	68.98	50.63	54.94	55.83	47.01	49.57	49.12
Hc(XY)增益角度	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00	360.00
Hc(XY)轴比	0.52	0.54	0.58	0.61	0.63	0.66	0.67	0.70	0.76	0.75	0.74	1.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
左旋圆极化效率(%)	39.76	42.28	41.09	40.26	38.66	39.07	38.23	38.82	37.98	35.53	36.80	34.25	38.54	53.21	55.83	52.92	51.70	52.86	49.49	46.53	44.65	40.18	39.49	35.54	37.06	35.76
右旋圆极化效率(%)	34.19	35.10	33.87	33.49	32.11	32.03	31.48	32.57	32.20	30.08	30.93	29.64	33.31	49.33	52.61	50.99	52.51	53.73	46.63	39.98	38.03	35.26	34.65	31.56	34.19	34.74

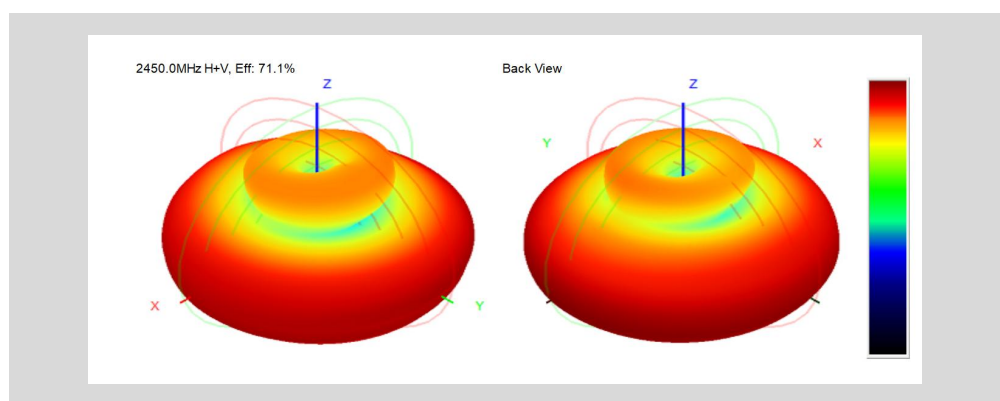


3D 图 (2.4~2.5MHz&5.15~5.85MHz)

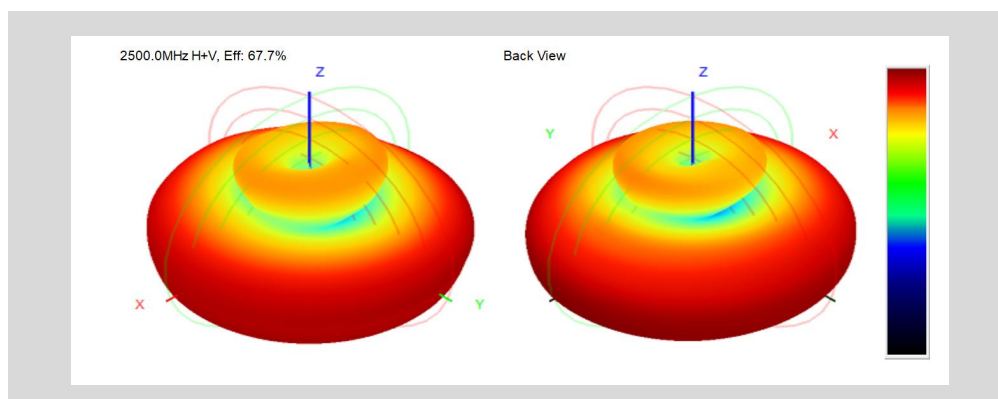
2400MHz



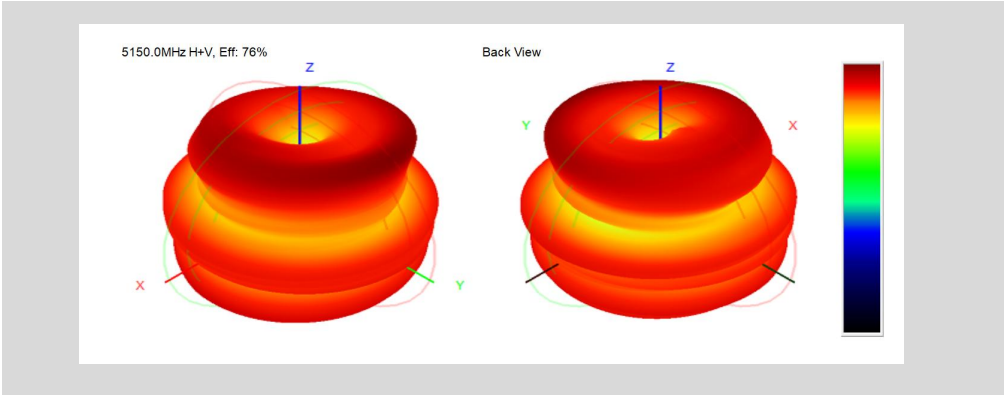
2450MHz



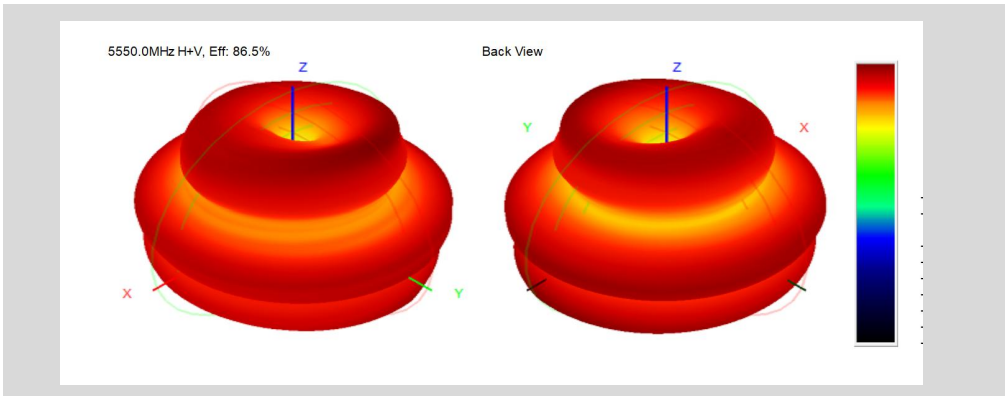
2500MHz



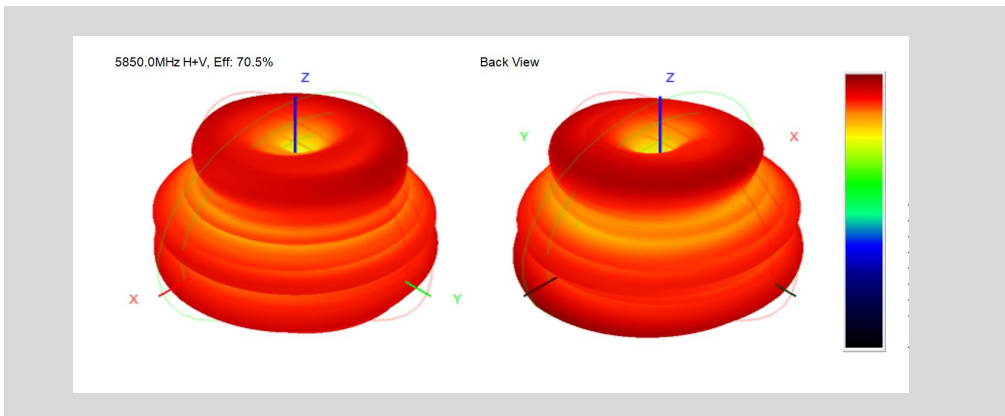
5150MHz



5550MHz

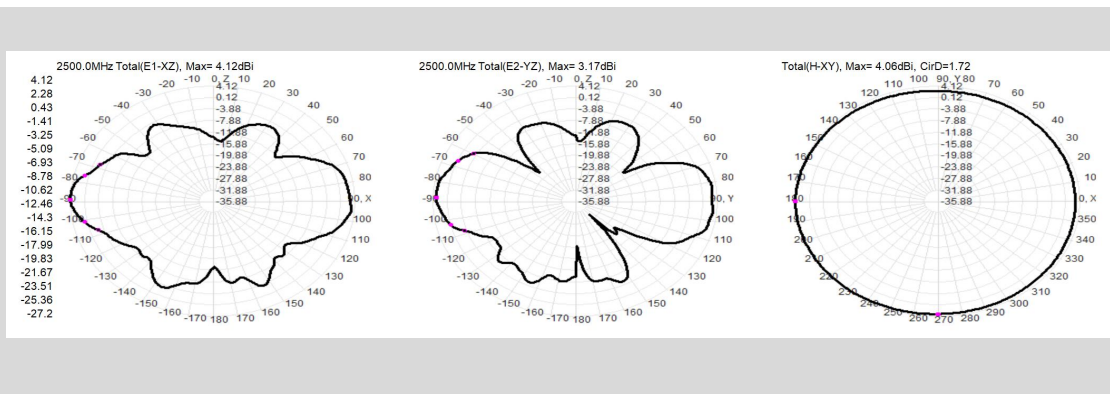
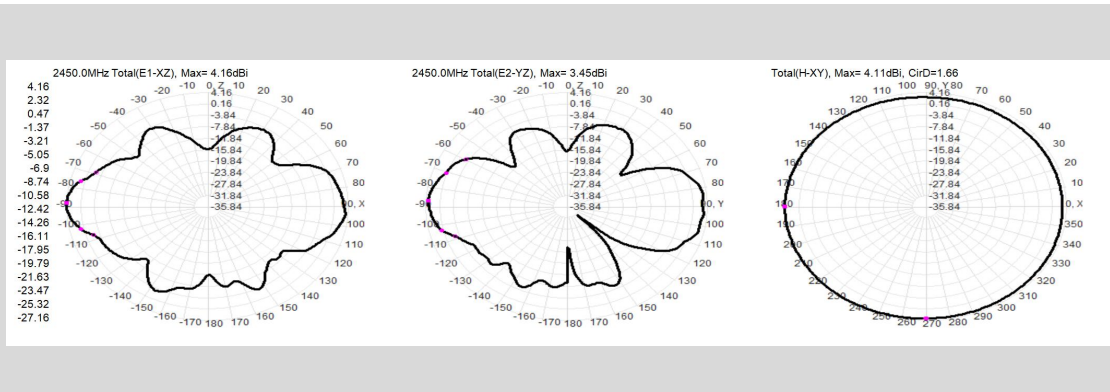
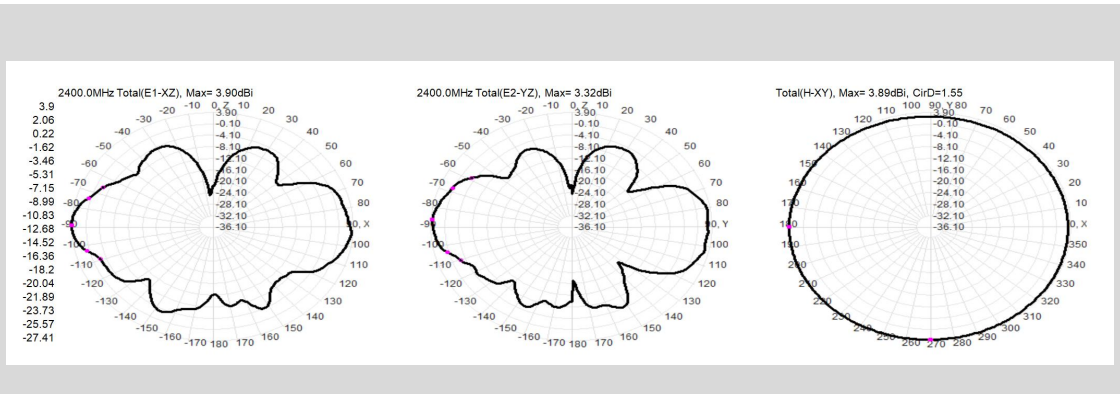


5850MHz

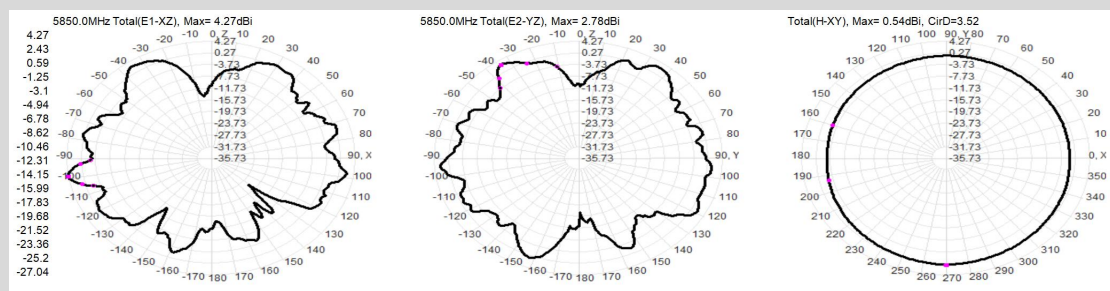
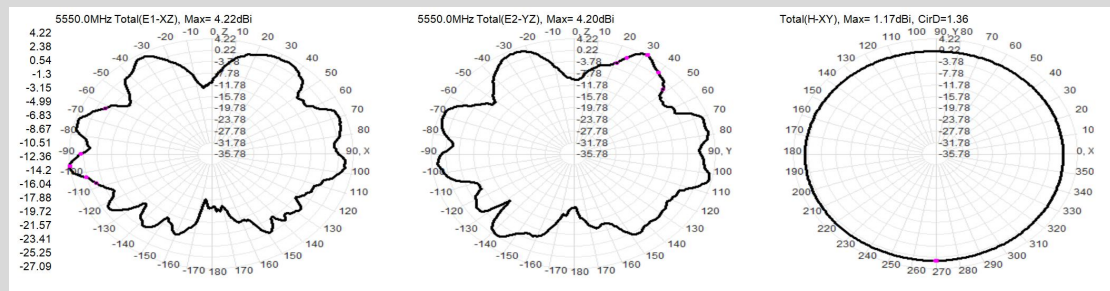
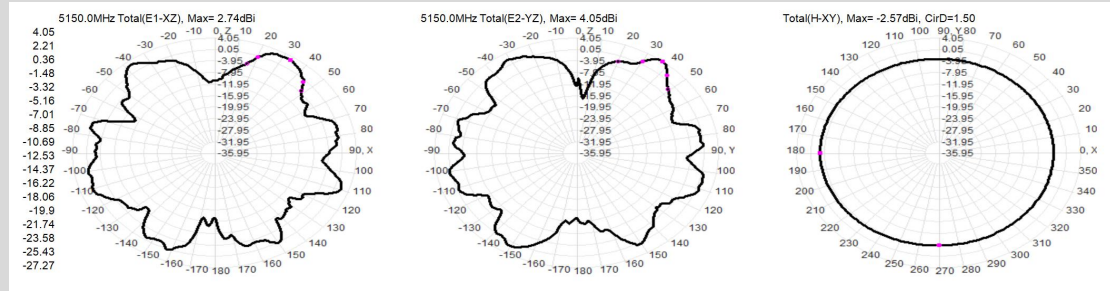


2D 图 (2.4~2.5MHz&5.15~5.85MHz)

1.1 2D (2.4G#1)



1.2 2D (5.8G#1)



标 准 参 数

一、技术规范		
工作频率范围	2.4~2.5GHz /5.15~5.85GHz	
S. W. R	≤1.92	
天线增益	5dbi	
转接方式	SMA	
阻抗	50 Ohm	

二、信赖性测试

项目	测试条件	规格
储存环境	在没有指定的情况下测试温度、湿度、气压如下： 1. 温度为-30℃~+80℃ 2. 相对湿度为 45%-85% 3. 气压为 86kpa-106kpa	电气机械性能正常
高低温试验	在 70℃与 40℃之间进行 5 次循环，然后在正常条件下 1-2H，检查外观质量。	尺寸应满足规定并应满足满足于机械、电气性能
耐恒定湿热试验	相对湿度 95±3%，试验温度：40℃.持续 2H 作用后，试品取出后 5min 之内测定电气性能，试品在正常条件下 1-2H，检查外观质量	尺寸应满足规定并应满足满足于机械、电气性能
振动试验	振频范围 10-55HZ，位移幅值：0.35MM，加速度幅值：50.0M/S，扫频循环次数：30 次	电气机械性能正常
跌落试验	1m 高空跌落	电气机械性能正常
拉拔力测试		
耐电压	1. 绝缘火花电压 1.5KV 2. 护套火花电压 1.5KV 3. 绝缘对护套耐电压 0.5KV	电气机械性能正常
衰减值	2.0(nominal) 1.0GHz 2.9(nominal) 2.0GHz 3.2(nominal) 2.4GHz 3.7(nominal) 3.0GHz 4.3(nominal) 4.0GHz 4.8(nominal) 5.0GHz 5.3(nominal) 6.0GHz	3.3dB/m (at20℃)