



硕天通讯

苏州硕天通讯器材有限公司
Suzhou Soant Communication Equipment Co., Ltd

承认书

SPECIFICATION FOR APPROVAL

客户名称

Customer:

德传

产品名称

Product Name:

2.4/5G 4dBi 外置天线

规格描述

Description:

2.4/5GHz Dipole to SMA Plug (公 PIN)船桨型 黑色

客户料号

CUSTP/N:

硕天料号

SOANT.P/N:

STDPA301200SBL801

发出日期

Approval Date:

2018 年 1 月 15 日

核准 Approved	审核 Checked By	制作 Made By
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客户承认

Customer Approve

核准 Approved	审核 Checked By	承办 Undertake By

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TECHNICAL DATE

1. Electrical Properties : (电气特性)

1.1 Frequency Range (频率范围) 2.4~2.5GHz&5.15~5.85 GHz

1.2 Impedance (输入阻抗) 50Ω (50欧姆)

1.3 VSWR (电压驻波比) 2.0 Max (≤2.0)

1.4 Gain(peak) (最大增益) 4.0 dBi

1.5 Polarization (极化方式) Linear; Vertical

2. Physical Properties : (物理特性)

2.1 Cable (线缆) RG-187 Cable

2.2 Connector (连接器) SMA PLUG

2.3 Antenna Body (天线杆套) ABS+PC(热塑性聚酯弹性体)

2.4 Antenna Base (天线上固定座) PC(聚碳酸酯)

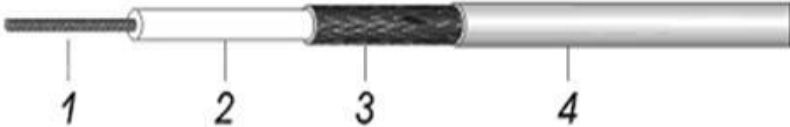
2.5 Antenna Base (天线下固定座) PBT(聚对苯二甲酸丁二醇酯)

2.6 Operating Temp (工作温度)-40℃ ~ +65℃

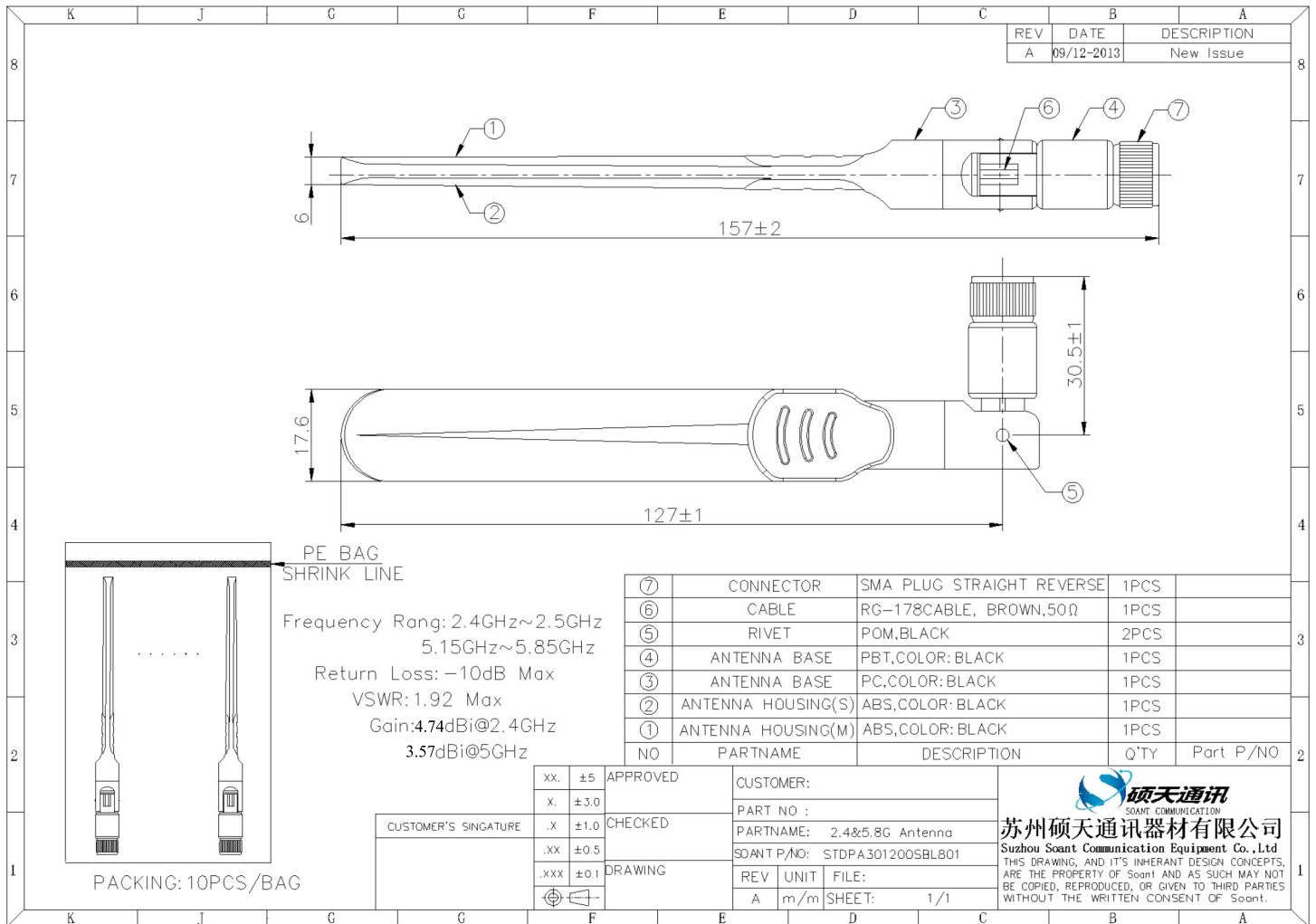
2.7 Storage Temp (存储温度)-40℃ ~ +75℃

2.8 Color (颜色) Black (黑色)

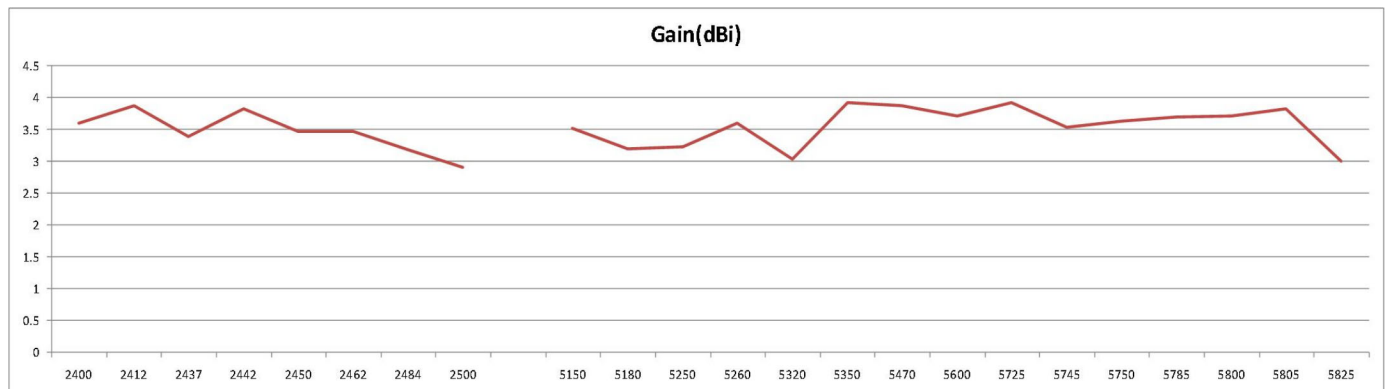
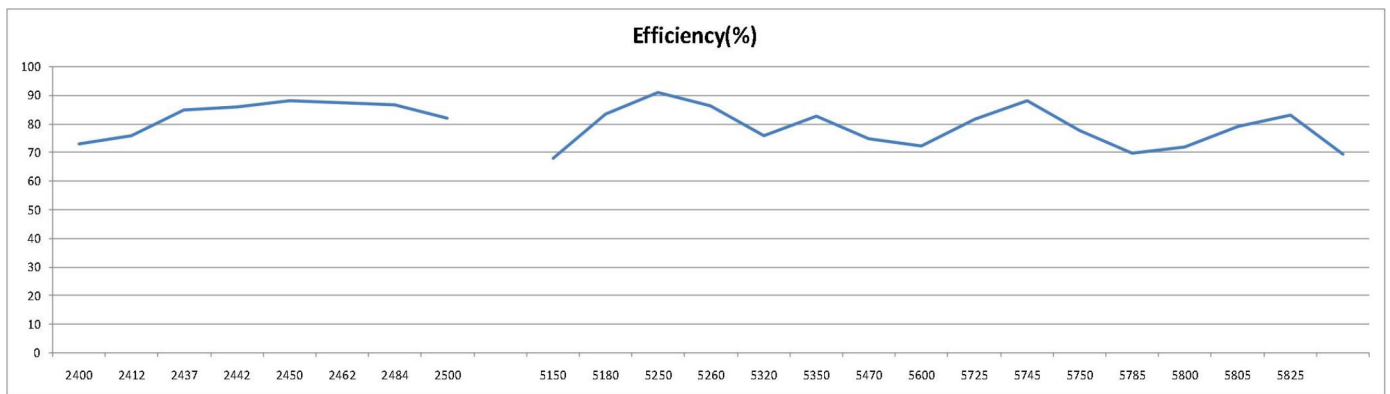
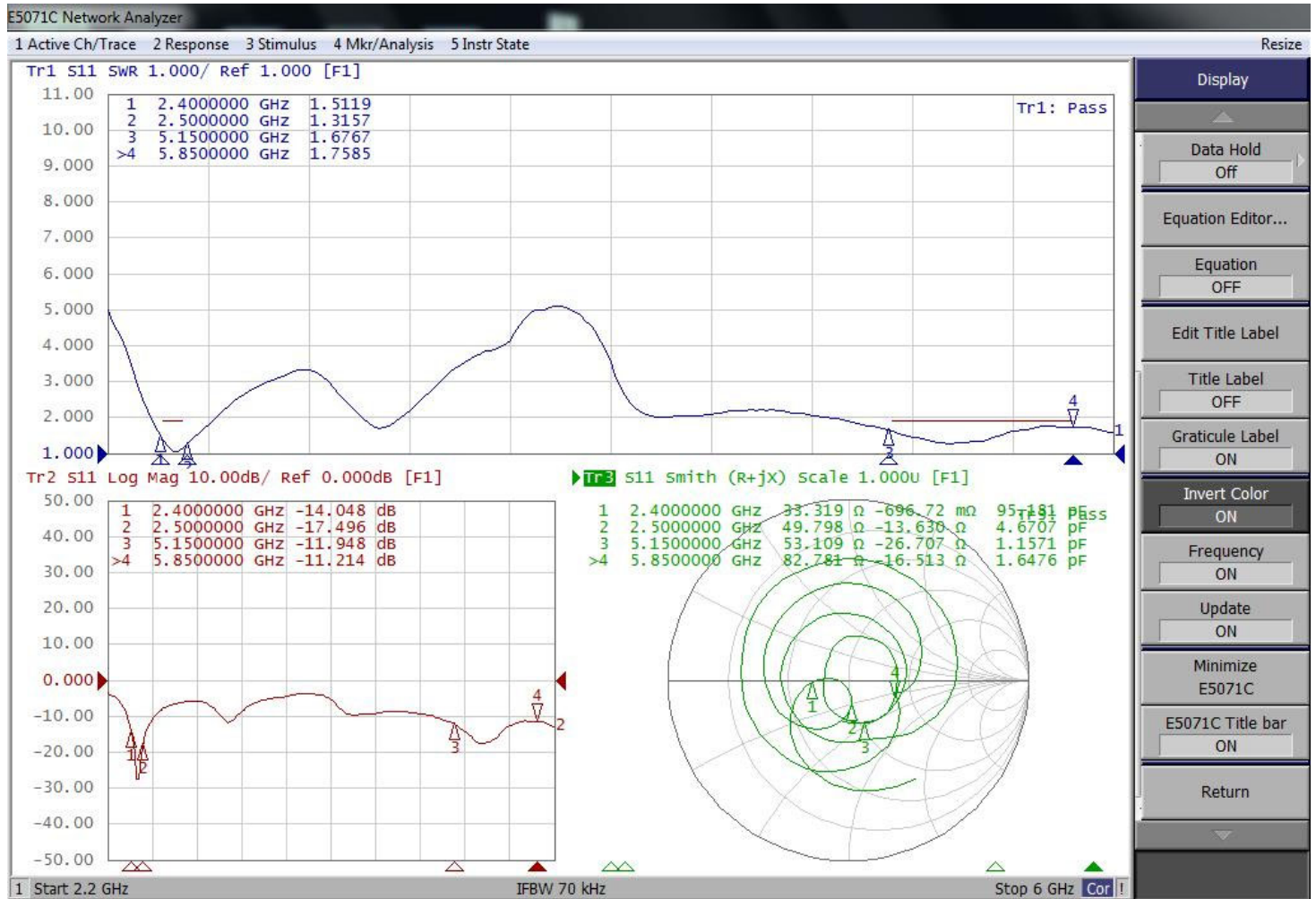
Cable SPEC

RG、细微射频同轴电缆		RG-178 /50Ω		
结构图 Structure drawing				
结构特性 Structure characteristics				
结构 Structure		项目 Item		标准值 Standard value
①内导体 Inner conductor	材料 Material		镀银铜线 Silverplated copper wire	
	(绞合)标称外径(mm) (Intertwist)NOM.O.D.(mm)		0.306±0.02	
②绝缘层 Insulation	材料 Material		聚四氟乙烯 PTFE	
	标称外径(mm) NOM.O.D.(mm)		0.86±0.05	
③外导体 Outer conductor	材料 Material		镀银铜线 Silverplated copper wire	
	标称外径(mm) NOM.O.D.(mm)		1.3±0.05	
	覆盖率(%) Coverage ratio(%)		≥90	
④外导体 Outer conductor	材料 Material		聚全氟乙丙烯 FEP	
	颜色 Color		透明 Clarity	
	标称外径(mm) NOM.O.D.(mm)		1.78±0.05	
电性能特性 Electrical characteristics				
项目 Item		标准 Standard value	项目 Item	标准值 Standard value
电容(pF/m) Capacitance(pF/m)		96	衰减 Attenuation	0.1GHz
速率(%) Velocity(%)		70		0.4GHz
阻抗(Ω) Impedance(Ω)		50±2		1GHz
驻波比 Standing wave ratio		≤1.3@0~6GHz		2GHz
最大工作电压(V)		1000		3GHz
Max.operating voltage(V)				4GHz
最大工作频率(GHz)		6		5GHz
Max.operating frequency(GHz)				6GHz
单位: dB/m				
可靠性 Dependability				
项目 Item		单位 Unit	标准值 Standard value	
最小弯曲半径(一次)Min.bending radius static		mm	10	
最小弯曲半径(重复)Min.bending radius repeated		mm	—	
工作温度范围 Operating temperature		℃	FEP -55~+200	
使用提示 Use tips				
存储环境 Storage environment		温度：30℃以下；湿度：20%~65%		
保质期 Quality guarantee period		1 年（上锡效果除外）		
最佳保存周期 The best save cycle		2 个月； 2 个月以上作业性下降，如上锡效果变差,但电性能不受影响。夏季高温高湿环境开剥后需尽快流转		
加工温度 Processing temperature		260℃的极限情况下，可短时间承受；300℃以上分子通常带有的等端基会分解； 400℃以上发生显著的热分解		
铁氟龙收缩 Teflon Shrink		固有材料特性。绝缘：0.2mm 以下；护套：0.3mm 以下		
护套窜动 Jacket traverse		加工长度（护套残留长度）低于 5cm 易发生		

工程图

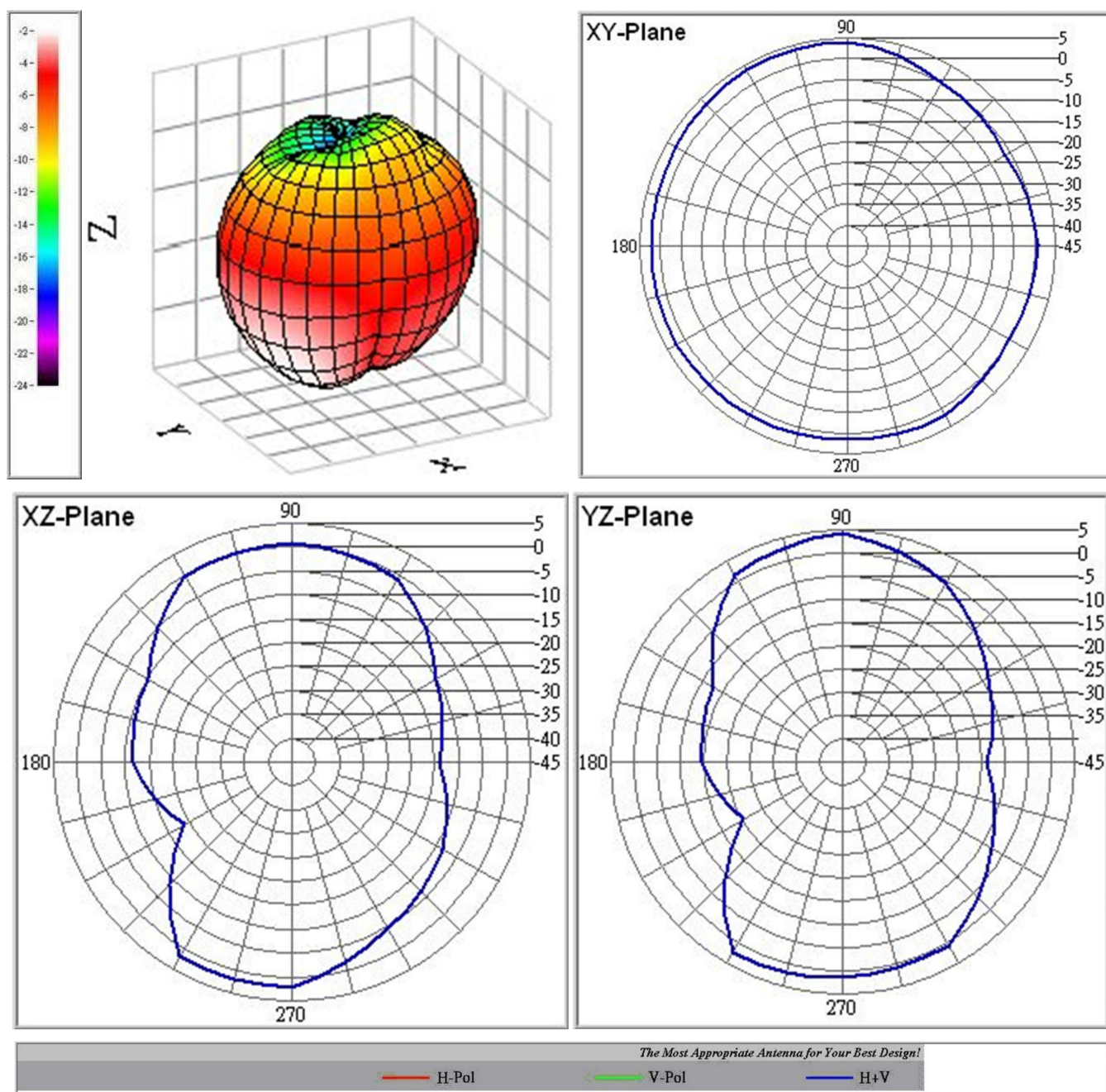


测试报告



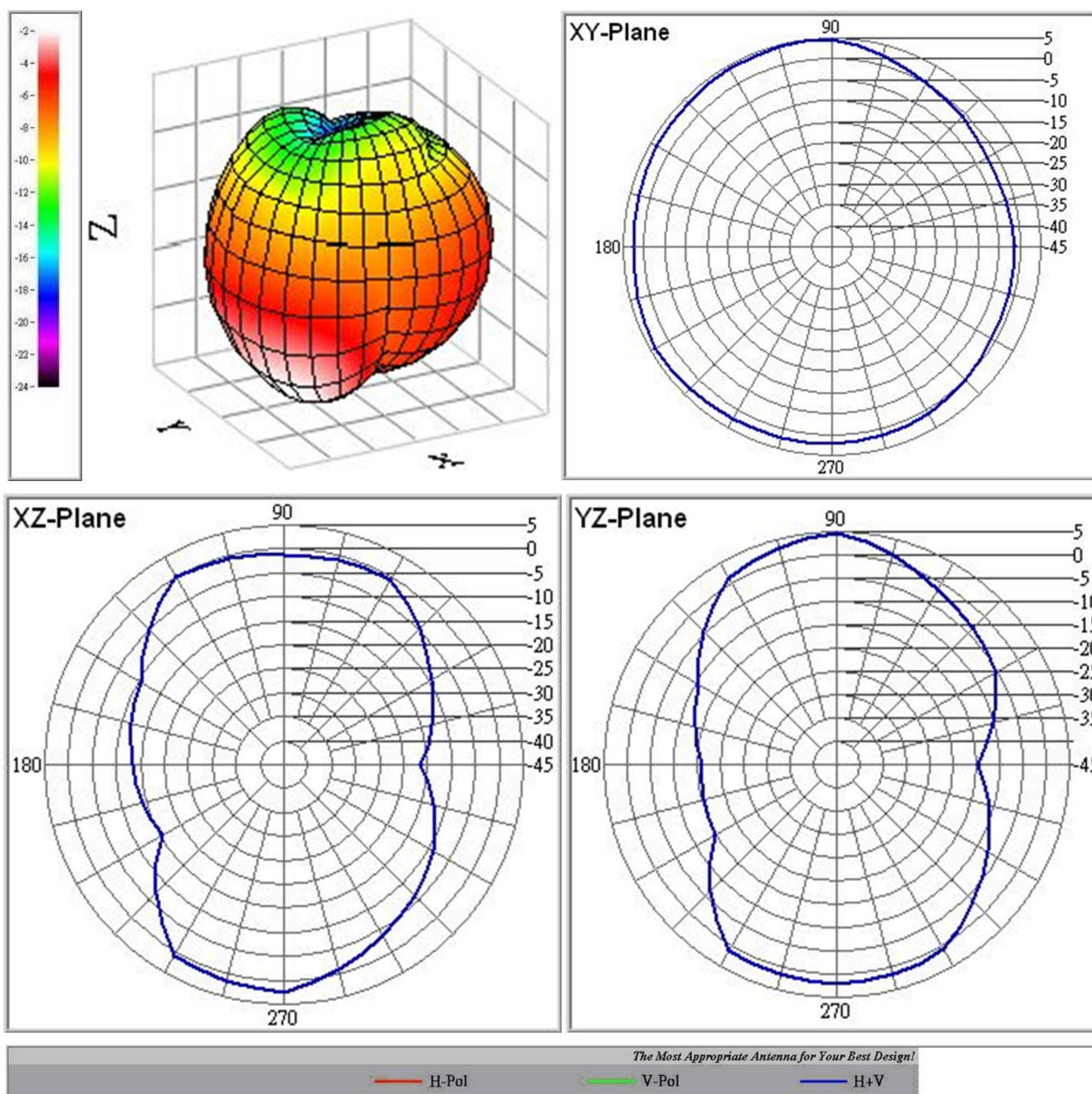
Frequency = 2400 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.296006	1.761174	1.261882
V-Pol. (Peak.)	0.962428	-6.490586	0.962428
H+V. (Peak.)	4.125035	2.051732	4.125035
H-Pol. (Avg.)	-0.165797	-2.848378	-3.425074
V-Pol. (Avg.)	-2.199446	-11.884441	-4.591384
H+V. (Avg.)	1.945642	-2.337427	-0.958894
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	210	240	90
V-Pol. (Peak.)	90	90	90
H+V. (Peak.)	90	270	90



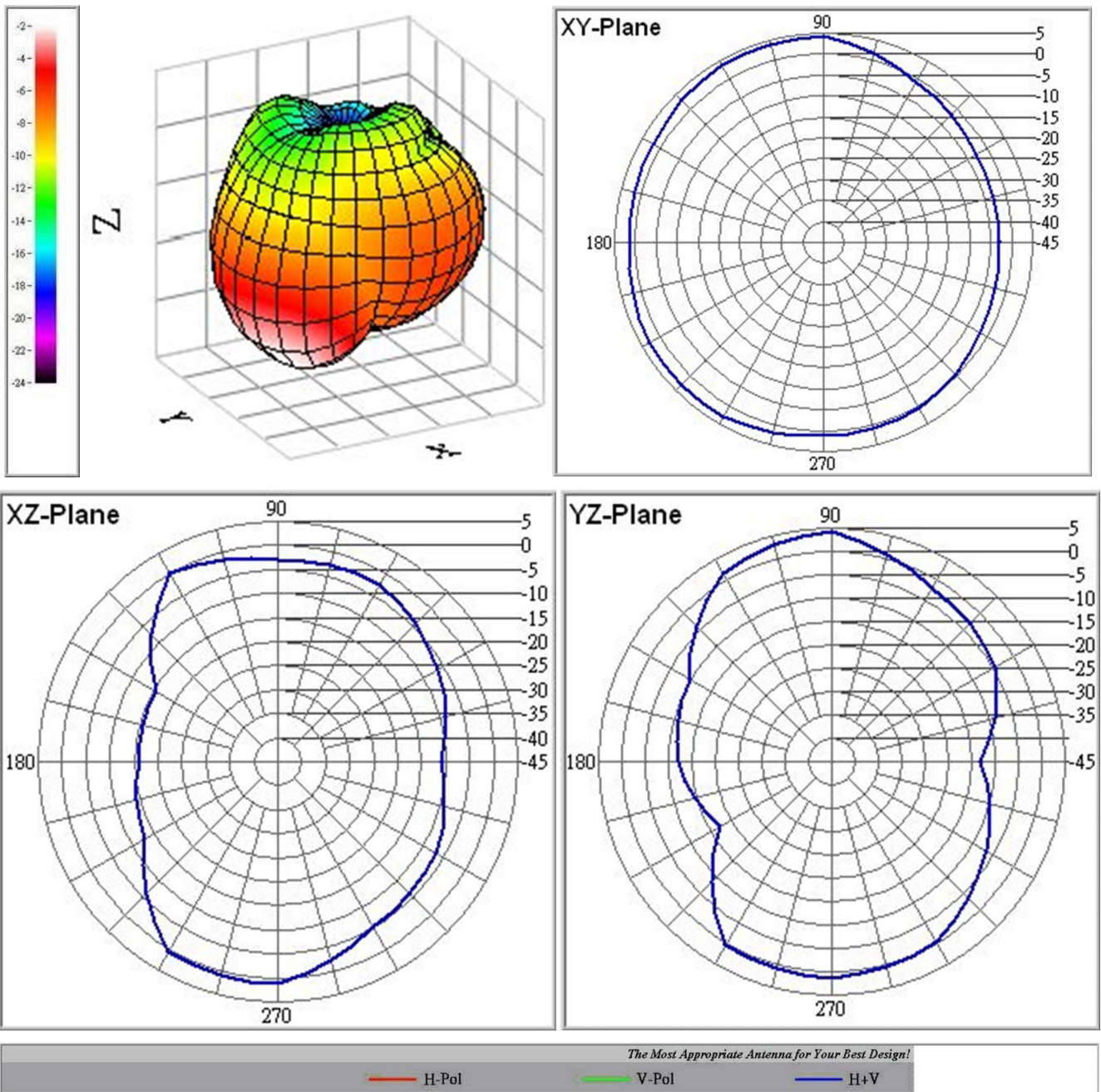
Frequency = 2450 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	3.741152	2.13612	1.624976
V-Pol. (Peak.)	1.834526	-9.176842	1.834526
H+V. (Peak.)	4.741314	2.429035	4.741314
H-Pol. (Avg.)	0.485179	-2.969876	-3.077092
V-Pol. (Avg.)	-2.721829	-13.991935	-4.828045
H+V. (Avg.)	2.181507	-2.63954	-0.854618
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	210	270	90
V-Pol. (Peak.)	90	90	90
H+V. (Peak.)	90	270	90



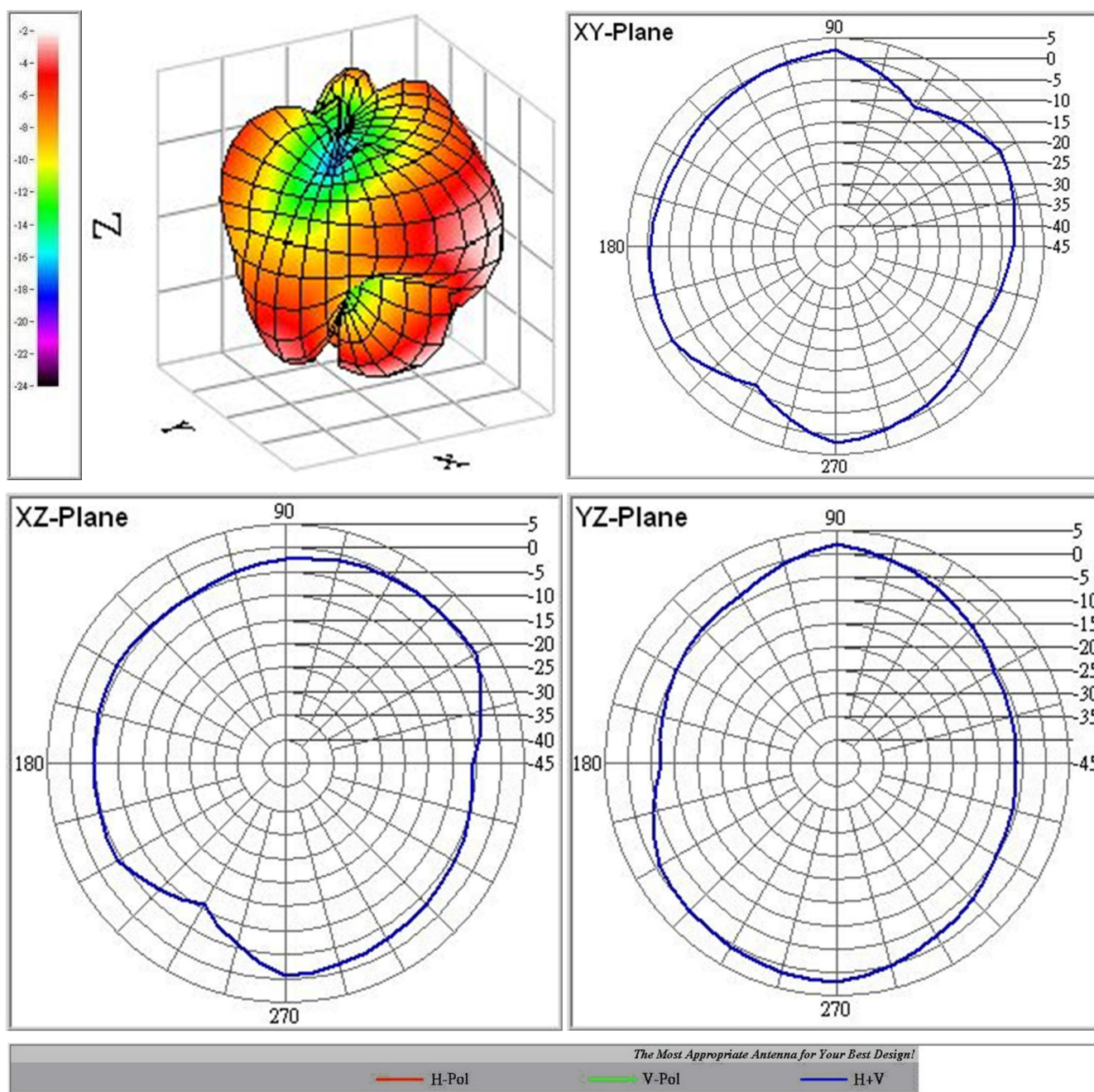
Frequency = 2500 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	3.082123	1.071906	1.276167
V-Pol. (Peak.)	1.110518	-11.691541	1.110518
H+V. (Peak.)	4.204432	1.295877	4.204432
H-Pol. (Avg.)	-0.021553	-3.691696	-3.372855
V-Pol. (Avg.)	-3.706997	-15.49871	-5.498438
H+V. (Avg.)	1.525764	-3.414276	-1.296583
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	210	270	90
V-Pol. (Peak.)	90	270	90
H+V. (Peak.)	90	270	90



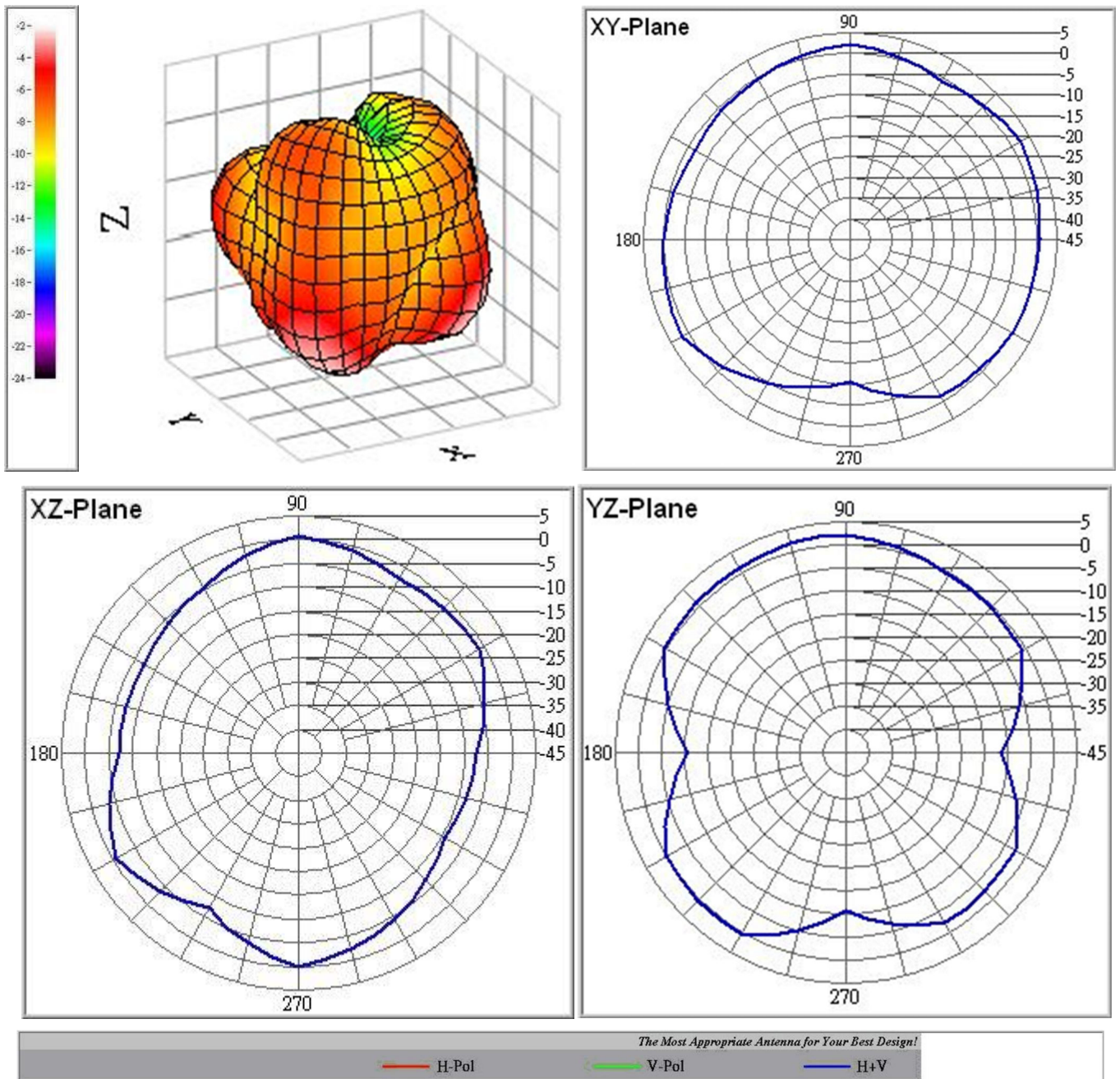
Frequency = 5150 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.220263	-0.290437	2.220263
V-Pol. (Peak.)	-4.481174	-4.481174	-1.132965
H+V. (Peak.)	2.258463	0.911037	2.258463
H-Pol. (Avg.)	-1.720219	-4.385929	-2.84705
V-Pol. (Avg.)	-7.934686	-7.811424	-7.611585
H+V. (Avg.)	-0.789206	-2.759053	-1.595993
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	270	30	270
V-Pol. (Peak.)	180	270	210
H+V. (Peak.)	270	30	270



Frequency = 5550 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.301025	-0.138756	1.460018
V-Pol. (Peak.)	-4.50109	-2.132682	-0.29056
H+V. (Peak.)	2.556831	0.670118	2.275328
H-Pol. (Avg.)	-0.894828	-4.237625	-3.733099
V-Pol. (Avg.)	-7.474582	-9.187944	-4.411267
H+V. (Avg.)	-0.031947	-3.032326	-1.048659
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	30	90	90
V-Pol. (Peak.)	300	210	210
H+V. (Peak.)	30	90	90



Frequency = 5850 MHz

dBm	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	2.203566	1.759623	2.576109
V-Pol. (Peak.)	-3.62567	-2.765532	-0.929579
H+V. (Peak.)	3.211619	2.400898	3.573761
H-Pol. (Avg.)	-0.63166	-3.766019	-3.049738
V-Pol. (Avg.)	-6.736037	-9.081011	-5.16618
H+V. (Avg.)	0.320813	-2.646327	-0.96999
Angle	XY-Plane	XZ-Plane	YZ-Plane
H-Pol. (Peak.)	330	270	240
V-Pol. (Peak.)	330	210	210
H+V. (Peak.)	330	270	240

