

Shenzhen Yunding Communication Electronics Co., Ltd

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E-mail:wht0809@163.com

APPROVAL

客 户

ITEM

:

DESCRIPTION: **YD-003-WIFI -174-L500-SMA**

PART NO.:

CUS PART NO.:

D A T E:

2023.1.11

✱ Approval in duplicate, please signed by your company.

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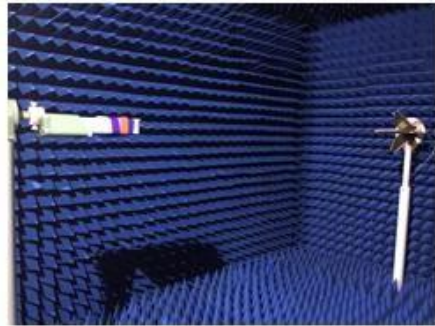
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1. Test Items And Equipment

	Test Items	Equipment
1. s11 (s-Parameter)	1. Return Loss 2. Vswr	Network Analyzer: Agilent e5071b Hp 8753d
2. Active	1. Trp 2. Tis	1. Darkroom: Ets 7x4x3 m (3d) Chamber Ets 5x3x3 m (3d) Chamber 2.Comprehensive Test Instrument: Agilent 8960 e5515b ×2 Starpoint Sp6011
3.Passive	1.Gain) 2.Efficiency	1. Darkroom: Ets 7x4x3 m (3d) Chamber Ets 5x3x3 m (3d) Chamber 2. Network Analyzer: Agilent e5071b Hp 8753d



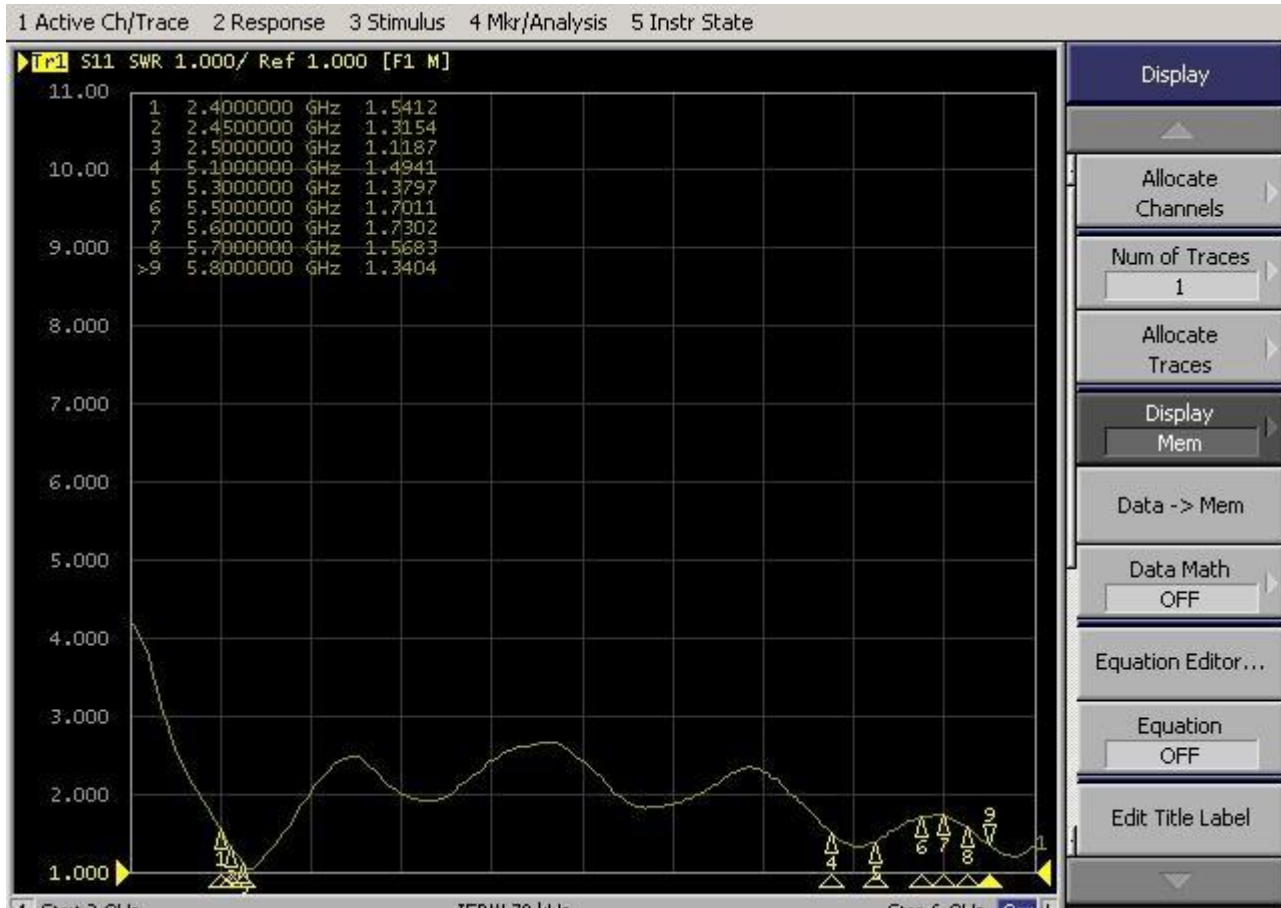
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2. Antenna performance:



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3. Darkroom passive data:

Passive Test For WIFI

Freq (MHz)	Effi	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	65.99	-1.8	2.99	0.84	35.629	30.365	2.99	-8.28	48.09	47.94
2410	61.32	-2.12	2.62	0.47	32.762	28.557	2.62	-8.32	48.07	47.87
2420	60.58	-2.18	2.52	0.37	32.121	28.457	2.52	-8.49	48.18	48
2430	61.75	-2.09	2.58	0.43	32.561	29.188	2.58	-9.08	48.17	47.99
2440	64.63	-1.9	2.73	0.58	34.122	30.503	2.73	-9.66	48.33	48.11
2450	66.86	-1.75	2.86	0.71	35.326	31.534	2.86	-9.93	48.44	48.14
2460	67.45	-1.71	2.92	0.77	35.514	31.938	2.92	-9.82	48.41	48.06
2470	68.53	-1.64	3.02	0.87	35.718	32.817	3.02	-9.44	48.49	48.11
2480	67.12	-1.73	2.94	0.79	34.493	32.624	2.94	-11.1	48.63	48.18
2490	64.57	-1.9	2.74	0.59	32.811	31.763	2.74	-12.94	48.76	48.29
2500	63.95	-1.94	2.7	0.55	32.027	31.926	2.7	-14.21	48.69	48.16

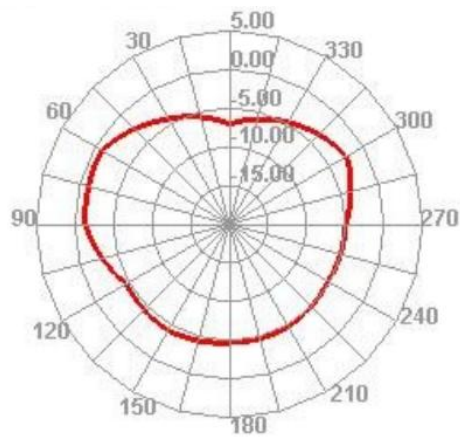
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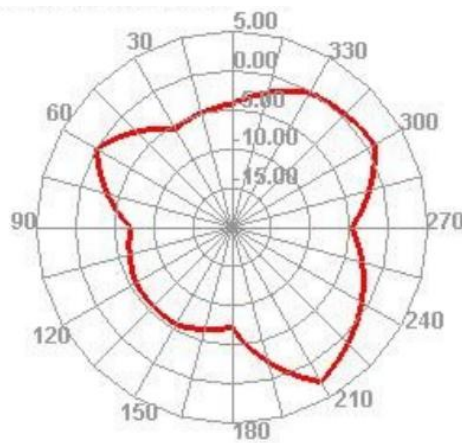
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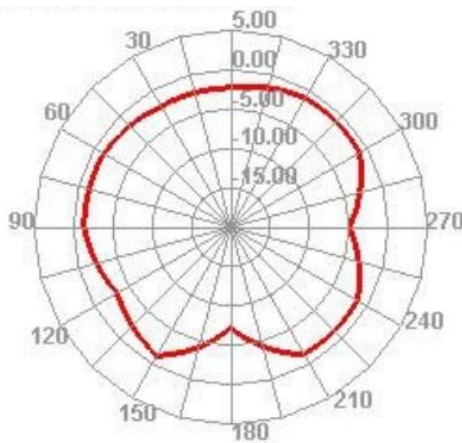
2400.000MHz H



2400.000MHz E1



2400.000MHz E2



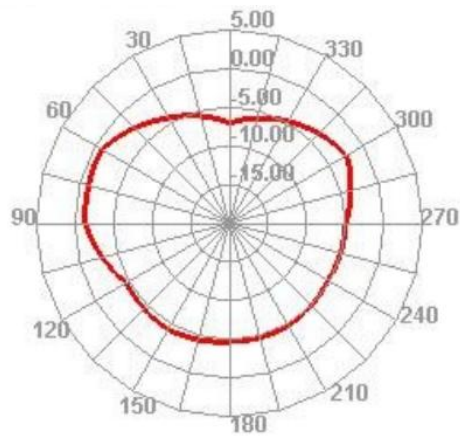
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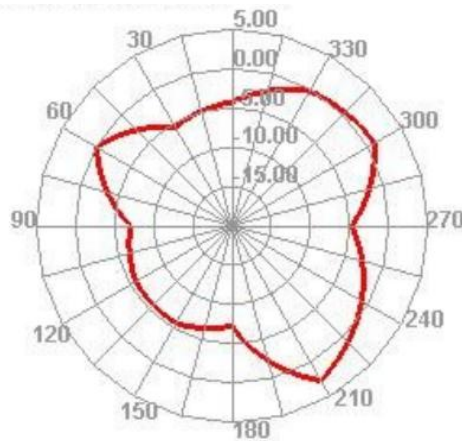
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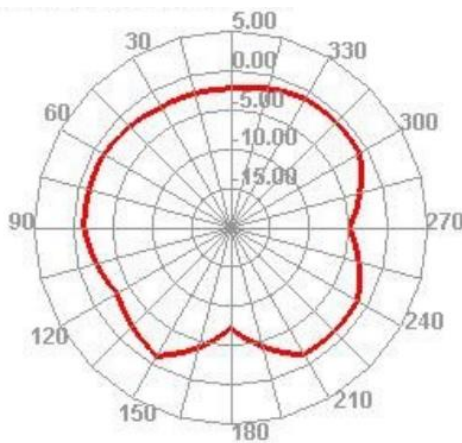
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



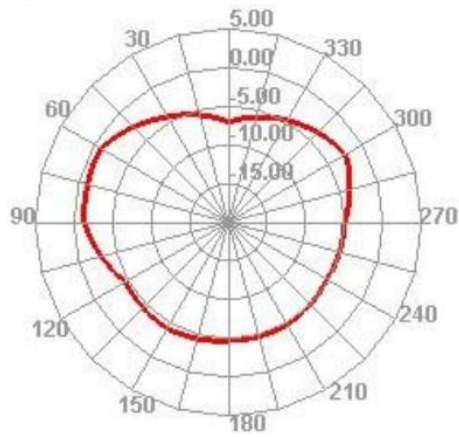
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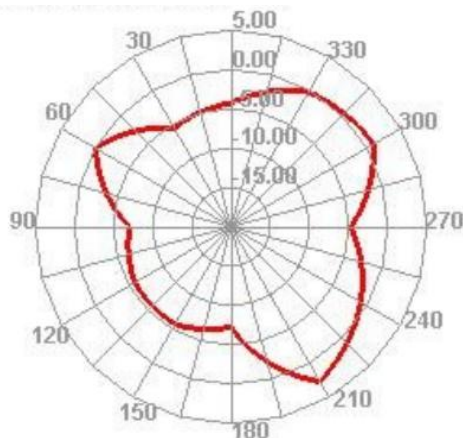
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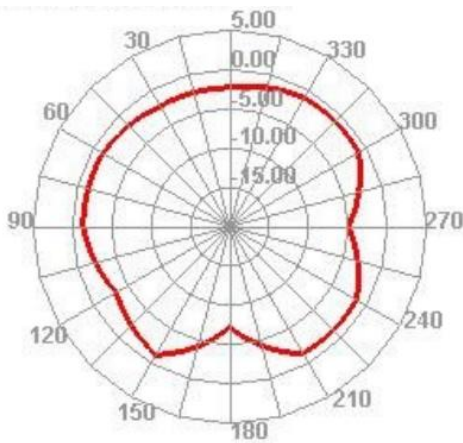
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



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Passive Test For WIFI-5G

Freq (IHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	54.37	-2.65	2.49	0.34	32.126	22.242	2.49	-17.98	57.95	57.06
5200	48.33	-3.16	2.6	0.45	28.013	20.318	2.6	-17.2	57.55	56.83
5300	45.95	-3.38	1.69	-0.46	25.207	20.746	1.69	-17.05	57.16	56.32
5400	60.66	-2.17	2.9	0.75	32.797	27.861	2.9	-17.21	58.32	57.48
5410	62.79	-2.02	3.16	1.01	33.98	28.81	3.16	-16.9	58.2	57.29
5500	66.08	-1.8	2.87	0.72	34.985	31.09	2.87	-13.91	58.91	57.66
5600	62.71	-2.03	2.4	0.25	33.019	29.692	2.4	-21.63	59.51	58.82
5700	66.41	-1.78	2.58	0.43	35.524	30.89	2.58	-18.59	60.54	59.93
5800	69.71	-1.57	3.02	0.87	36.378	33.332	3.02	-16.22	61.14	60.57
5825	70.51	-1.53	3.04	0.65	36.252	31.625	3.04	-15.924	61.03	60.24

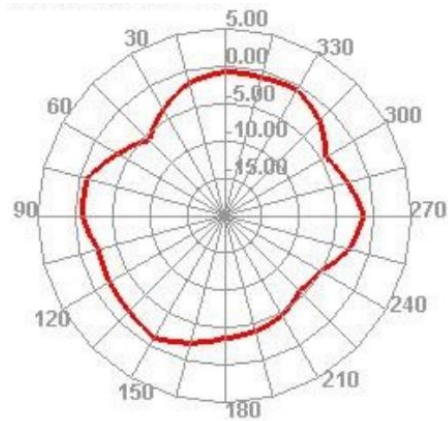
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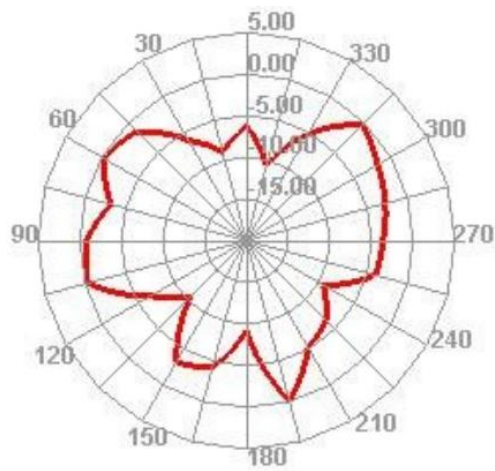
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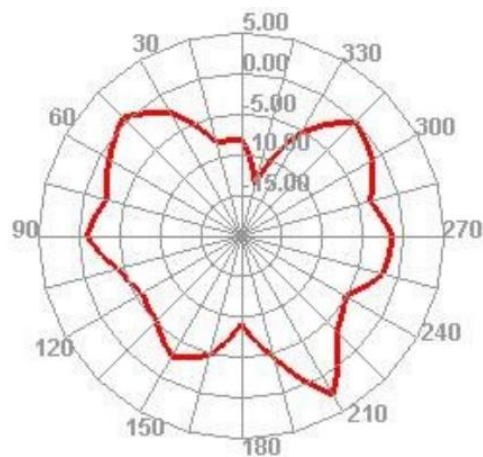
5100.000MHz H



5100.000MHz E1



5100.000MHz E2



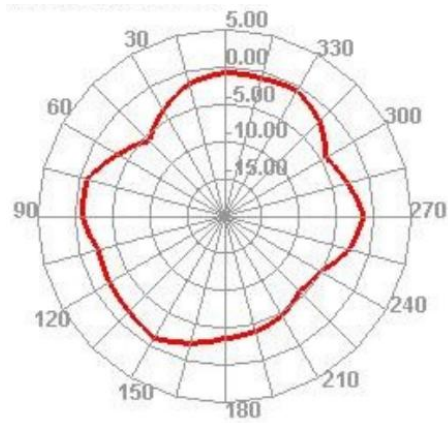
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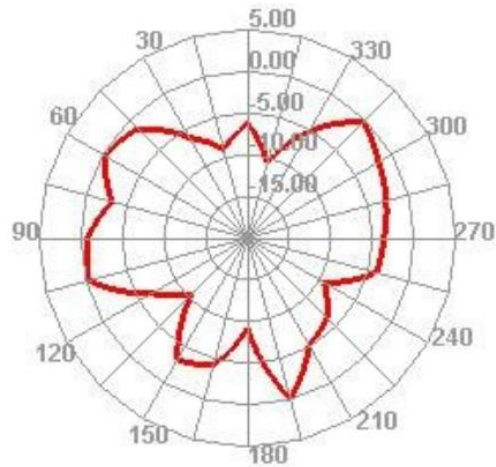
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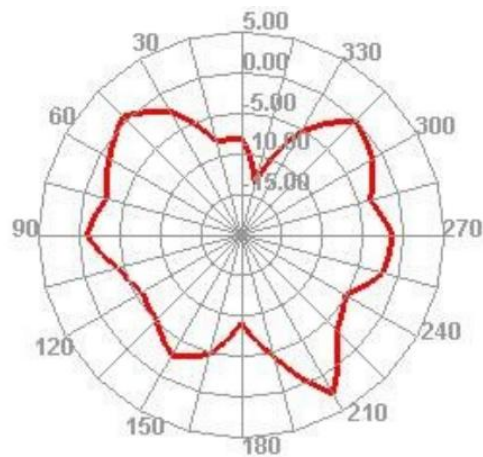
5500.000MHz H



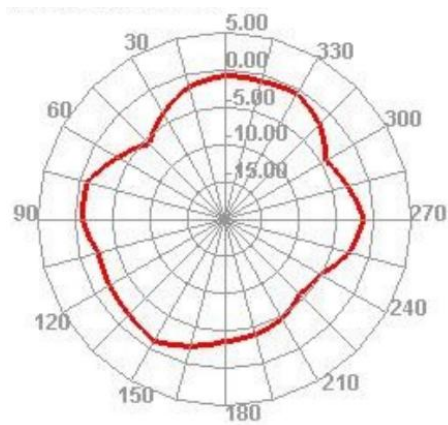
5500.000MHz E1



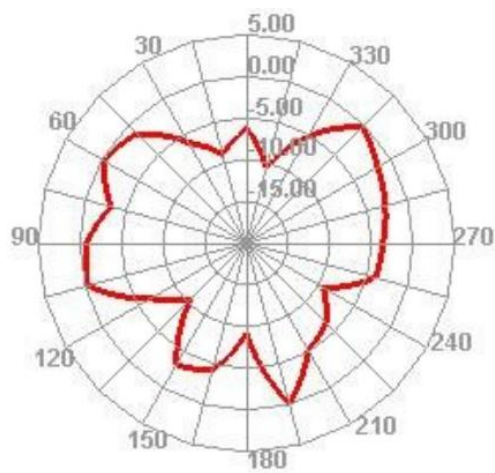
5500.000MHz E2



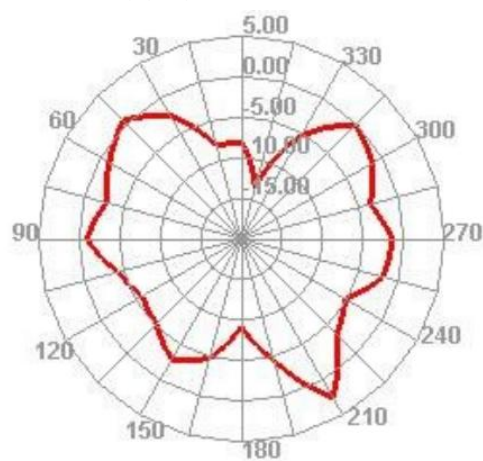
5825.000MHz H



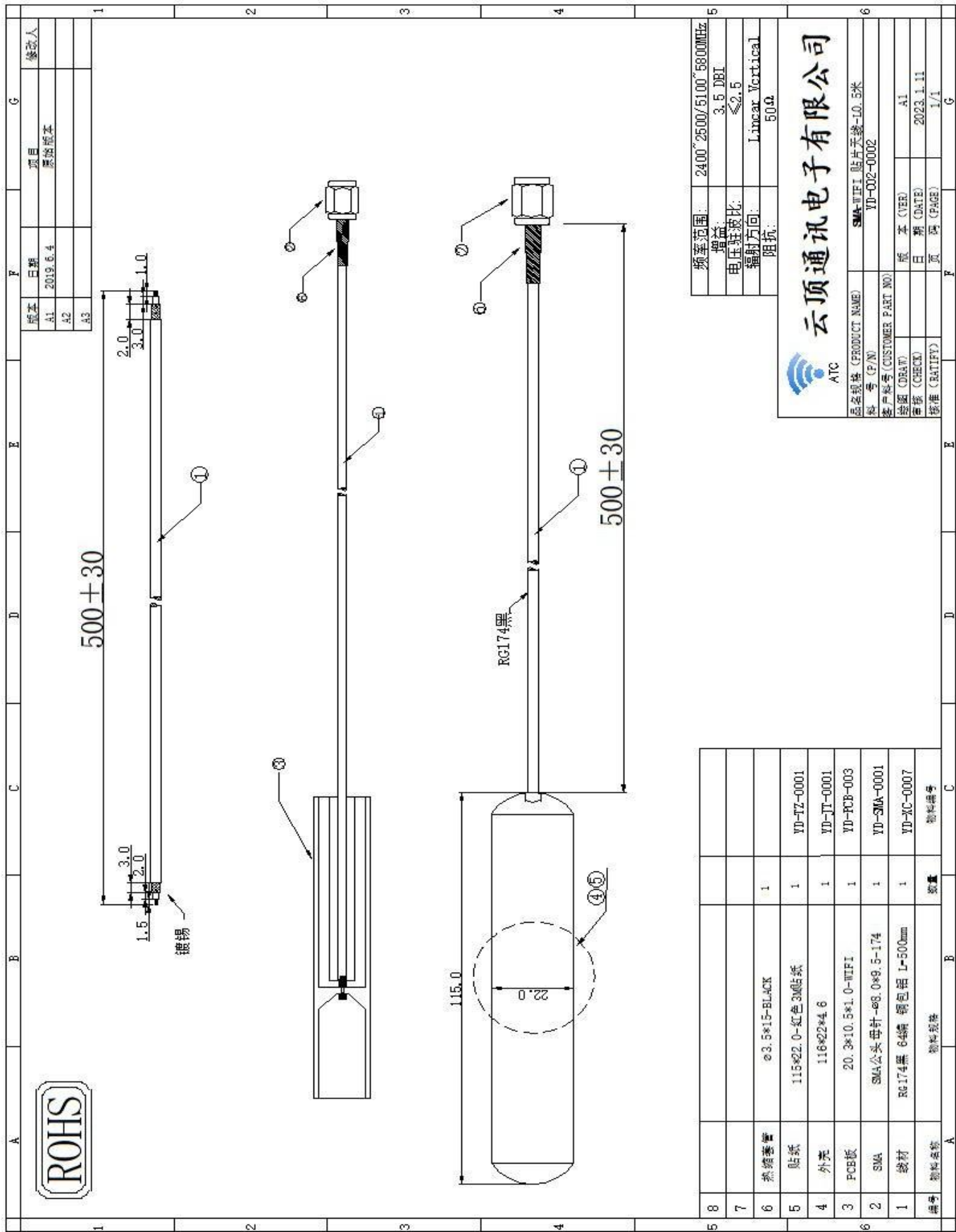
5825.000MHz E1



5825.000MHz E2



4.天线结构图:



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Environment performance test:

Project	Test condition	Test results
Storage environment	Test temperature, humidity, pressure without stated condition as follwings:1.Temperature: -30 ℃ ~ +80 ℃ ;2.Relative humidity: 45%-85%;3,Pressure: 86kpa-106kpa	Electrical and mechanical performance normal
High and low temperature test	Having 5 times cycle between -40℃ to 70℃,Then in common condition 1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Resistance constant hot and humid test	Relative humidity: $95\pm 3\%$,Test temperature: 40℃,last 2 hours ,put it after 5 min test the electrical function .Test products during common condition 1-2 hours ,Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Vibration test	Vibrate Frequency:10-55HZ; Distance :0.35mm;Acceleration :50.0m/s;Sweep frequency cycle:30 times	Electrical and mechanical performance normal
Fall test	From 1m height fall down 3 times freely (vertical direction)	Electrical and mechanical performance normal

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产品规格说明 SPECIFICATION

品名 STYLE		RG-174 (CCA)		执行标准 STANDARD		MIL-C-17F/133		产品编号 Product No		JTPRORG174005	
规格 SIZE											
											
				结构 CONSRUCTION		材质 MATERIAL		颜色 Color			
1	导体 CONDUCTOR			7/0.15±0.10 mm		裸铜丝 BC		黄色 Yellow			
2	绝缘 INSULATION			1.50±0.15 mm		聚乙烯 PE		透明色			
3	编织 WIRE BRAID			16*3*0.12 mm 节: 22		铜包铝丝 CCA		黄色 Yellow			
4	外被 JACKET			2.7±0.20		聚氯乙烯 PVC		黑色 Black			
标志 MARKING				RG-174							
物理、电气性能 ELECTRICAL & PHYSICAL PROPERTIES											
项目 ITEM				单位 Unit		典型值 Value					
电容 Capacitance				pF/m		101.05					
阻抗 Impedance				Ω		50 ± 3					
速率 Velocity ratio				%		66					
弯曲半径 Bent radius				mm		10					
最大工作电压 Max voltage				VMS		1500					
最大工作频率 Max Frequency				MHz		3000					
温度范围 Temperature scope				℃		-40 ~ +80					
驻波系数 SWR				40MHz~1500MHz		≤1.20					
				1000MHz~2000MHz		≤1.30					
衰减常数 Attenuation		100 MHz		dB/100m		37.6					
		400 MHz		dB/100m		66.8					
		550 MHz		dB/100m		78.85					
		800 MHz		dB/100m		95.57					
		1000 MHz		dB/100m		105.76					
		2000 MHz		dB/100m		125.67					
		2500 MHz		dB/100m		155.30					