

Report Number:SZ250423YF03

Test Report

Sample name:4G Antenna

model:Single function/SMA male connector/SMD housing/RG174/2m/4G/SMA
injection curved

Test Standards: GB/T 9410-2008

Release date: April 23, 2025

Version: A1

Prepared By	Reviewed By	Approved By
Fan Min	Li Qiannan	Liu Yujia
Change Log		
Version	date	Reason for change
A1	2025/04/23	

Company: Shenzhen Zhengda Xinwei Communication Equipment Co., Ltd.
Address: Zhangbei Road, Longcheng Street, Longgang District,
Shenzhen486Number
Telephone:0755-2883-9286
fax:0755-8990-9291



1.testPurpose:

According to customer project requirements, we provide test reports that meet customer requirements for the electrical performance technical requirements and test standards of 4G antennas.

2. Sample Information:

Product Name:4G Antenna

Product Model:Single function/SMA male connector/SMD
housing/RG174/2m/4G/SMA injection curved

Material code: 66355-91A8C5077

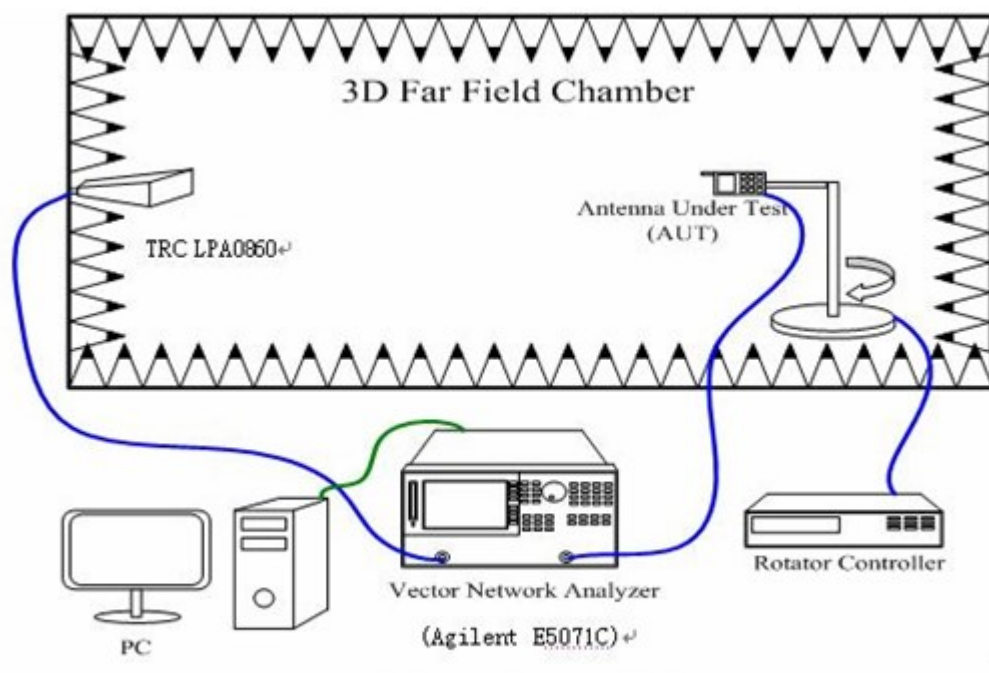
3. References

Main reference documents for testing:

Serial number	Document Name	Document Title
1	GB/T 9410-2008	General technical specifications for mobile communication antennas

4. Test the OTA passive parameters of the 4G antenna:

4.1 Test system connection



4.2 Test equipment

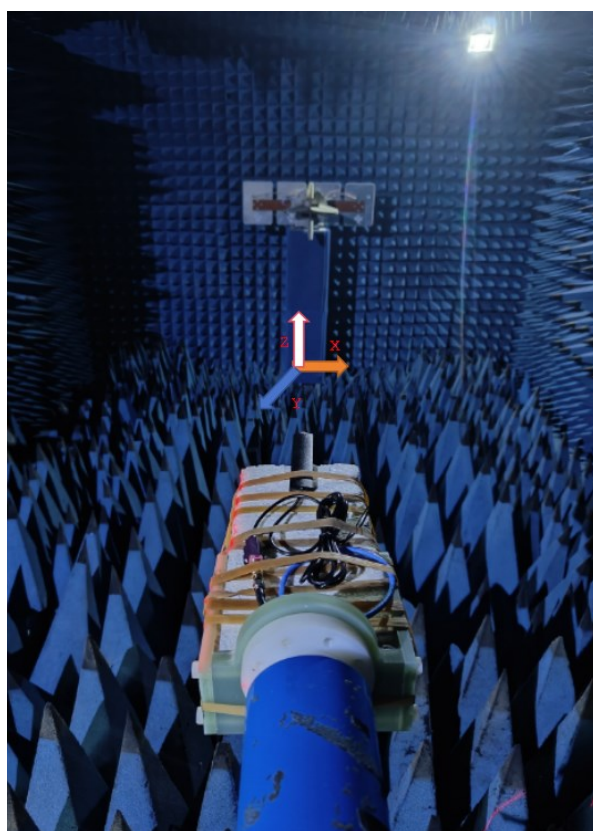
Network Analyzer E5071C

4G Antenna

computer

Microwave darkroom

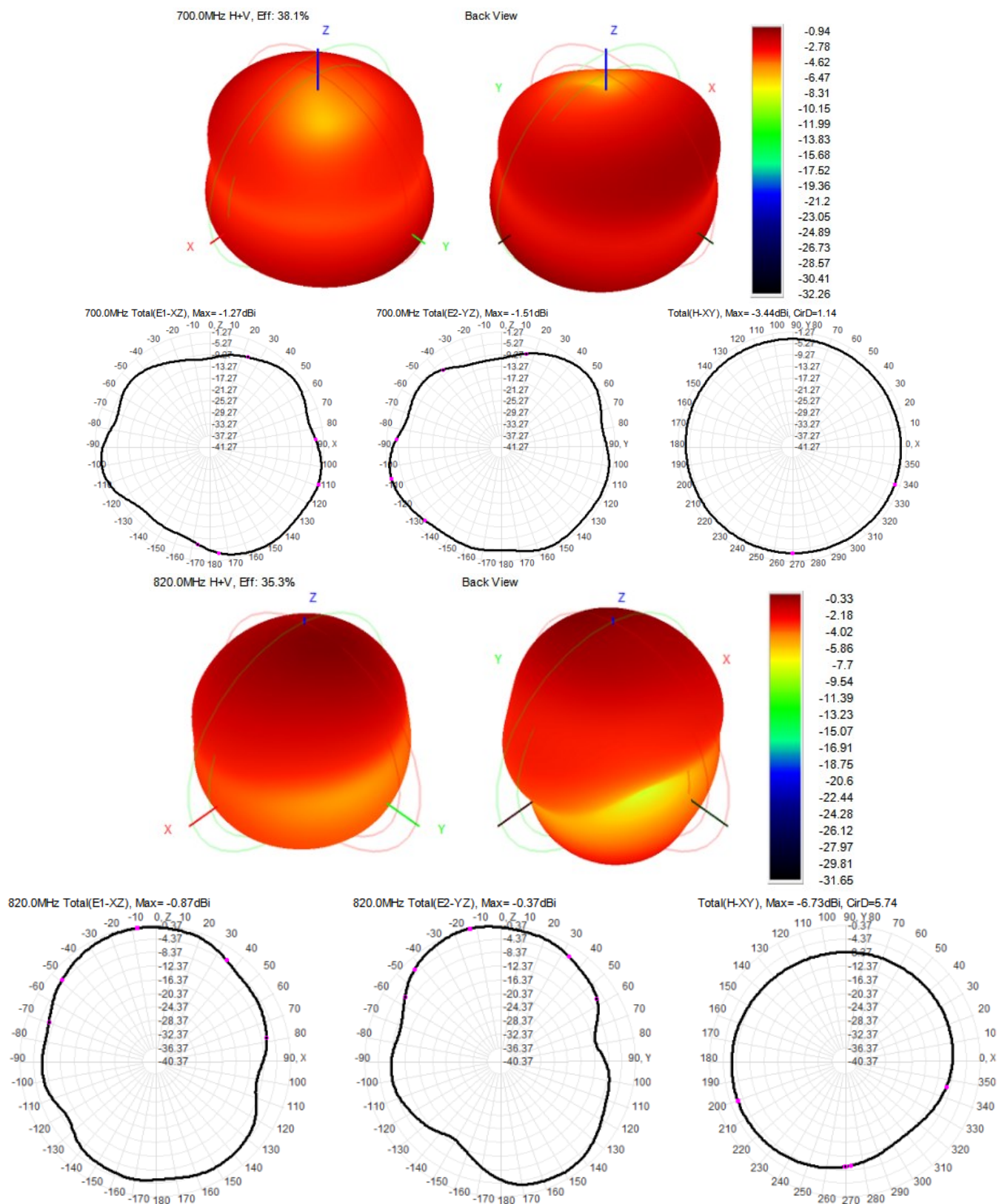
4.3 Antenna test scene diagram



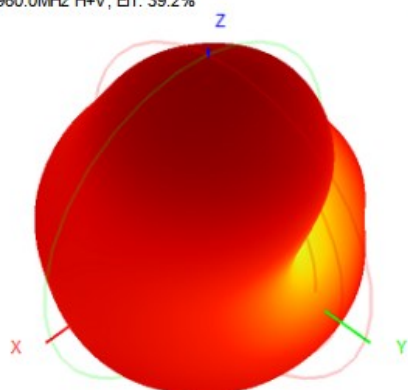
4.4 OTA passive test data:

Frequency (MHz)	Gain (dBi)	Efficiency(%)	Frequency (MHz)	Gain (dBi)	Efficiency(%)
700.0	-0.94	38.14	1700.0	-1.33	28.55
710.0	-1.55	32.59	1750.0	-1.44	31.92
720.0	-1.15	36.21	1800.0	-0.83	32.34
730.0	-1.37	30.89	1850.0	-0.06	30.94
740.0	-0.84	32.15	1900.0	-0.26	30.84
750.0	-0.84	30.99	1950.0	-1.09	29.68
760.0	-1.94	35.81	2000.0	-1.62	29.95
770.0	-2.35	35.14	2050.0	-0.30	30.74
780.0	-1.66	33.27	2100.0	-1.42	28.12
790.0	-2.29	33.41	2150.0	-1.37	28.70
800.0	-2.62	30.60	2200.0	0.08	28.02
810.0	-1.92	32.29	2250.0	-1.59	26.53
820.0	-0.33	35.34	2300.0	-1.88	26.61
830.0	-0.93	34.12	2350.0	-1.23	27.01
840.0	-0.44	33.26	2400.0	-1.13	23.84
850.0	-0.90	31.56	2450.0	-2.49	21.83
860.0	-0.45	33.71	2500.0	-3.13	19.91
870.0	-0.68	30.09	2550.0	-2.18	23.41
880.0	-0.95	36.65	2600.0	-2.22	23.94
890.0	-0.50	39.39	2650.0	-2.59	23.77
900.0	-0.91	37.32	2700.0	-2.42	24.28
910.0	-1.30	37.76			
920.0	-1.19	29.10			
930.0	-1.47	29.12			
940.0	-0.71	30.03			
950.0	-0.42	39.05			
960.0	0.67	39.15			

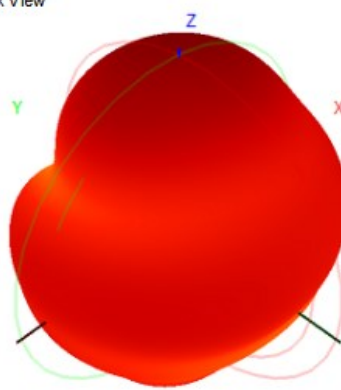
4.5 OTA Direction Pattern



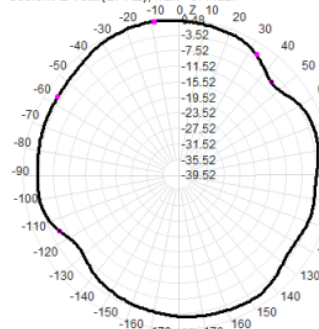
960.0MHz H+V, Eff: 39.2%



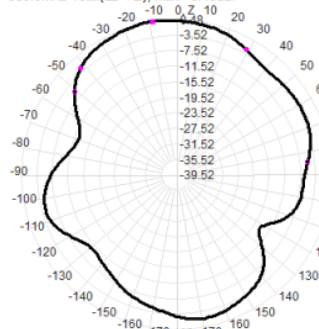
Back View



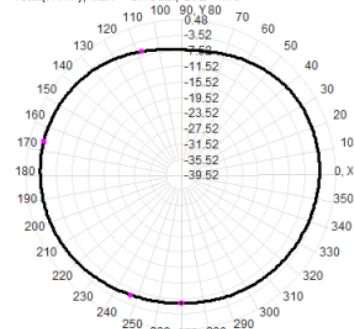
960.0MHz Total(E1-XZ), Max= 0.44dBi



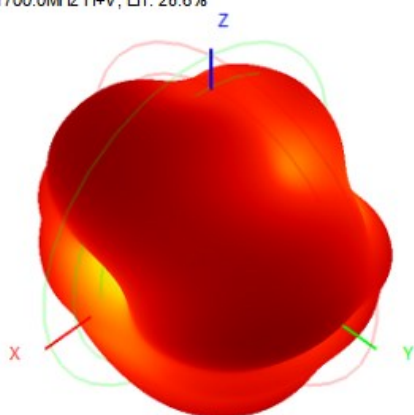
960.0MHz Total(E2-YZ), Max= 0.48dBi



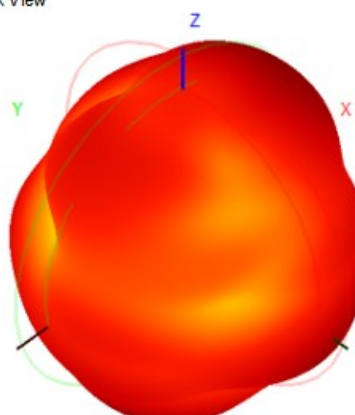
Total(H-XY), Max= -3.10dBi, CirD=4.18



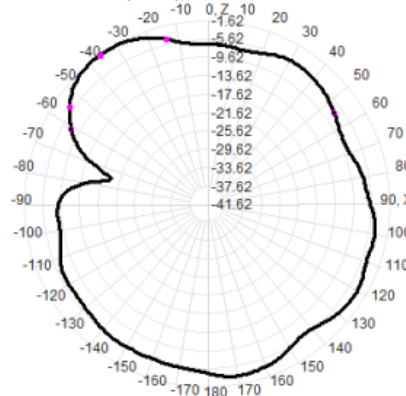
1700.0MHz H+V, Eff: 28.6%



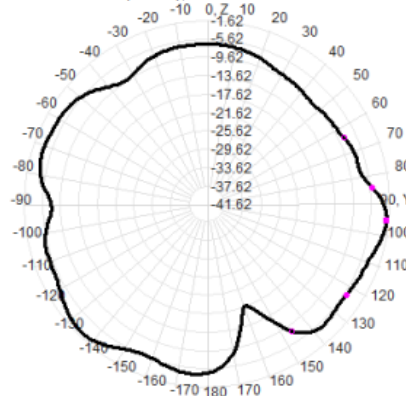
Back View



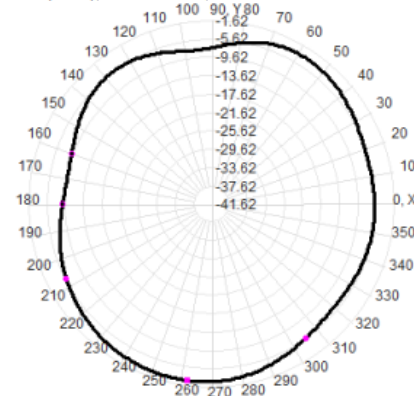
1700.0MHz Total(E1-XZ), Max= -1.62dBi



1700.0MHz Total(E2-YZ), Max= -2.42dBi

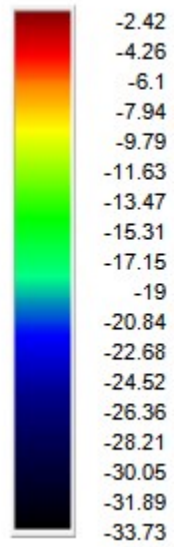
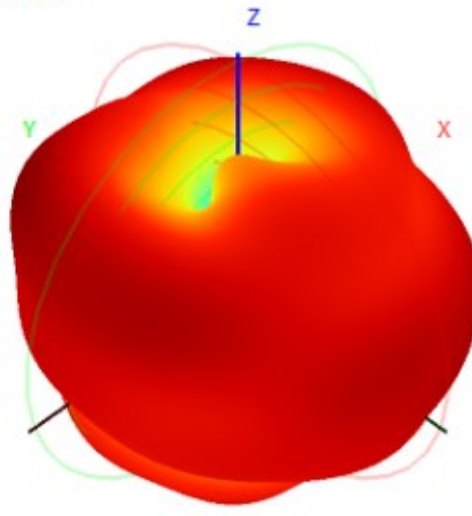
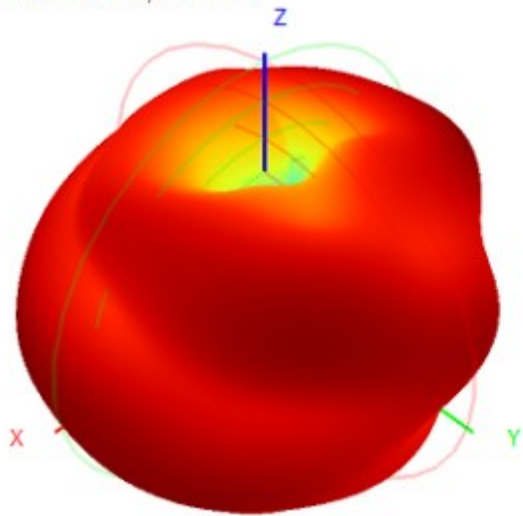


Total(H-XY), Max= -2.99dBi, CirD=6.54

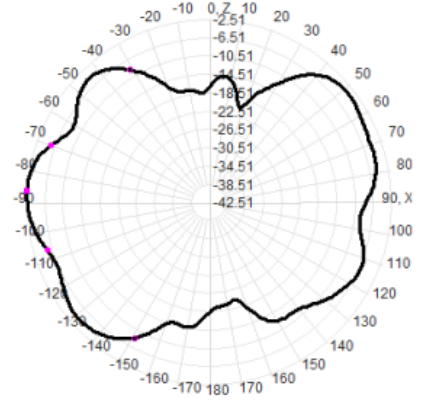


2700.0MHz H+V, Eff: 24.3%

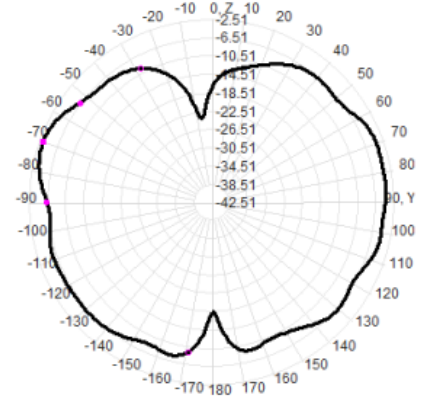
Back View



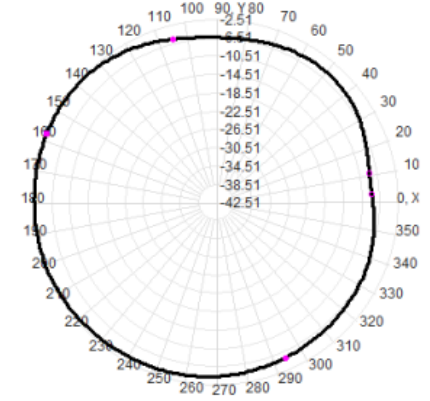
2700.0MHz Total(E1-XZ), Max=-2.55dBi



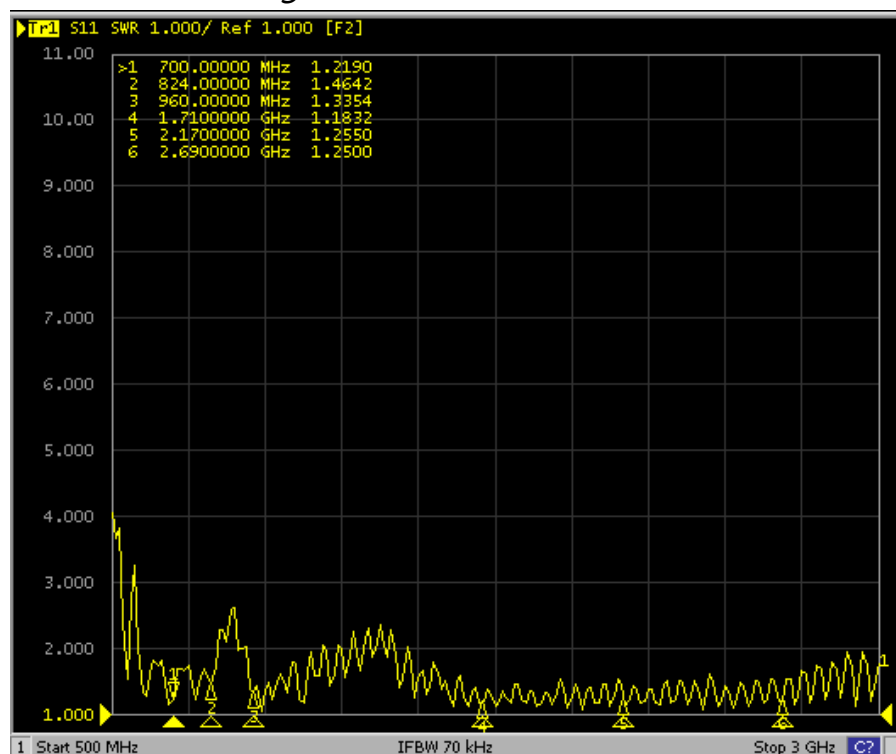
2700.0MHz Total(E2-YZ), Max=-3.29dBi



Total(H-XY), Max=-2.51dBi, CirD=6.11



4.6 VSWR test diagram



Frequency (MHz)	VSWR
700	1.21
824	1.46
960	1.33
1710	1.18
2170	1.25
2690	1.25