

# WL1SB23 Antenna Test report

# Directory

- Test site, equipment, test method
- Physical drawings of modules
- Description of matching
- Testing environment
- Antenna passive test data

# Test site, equipment, test method

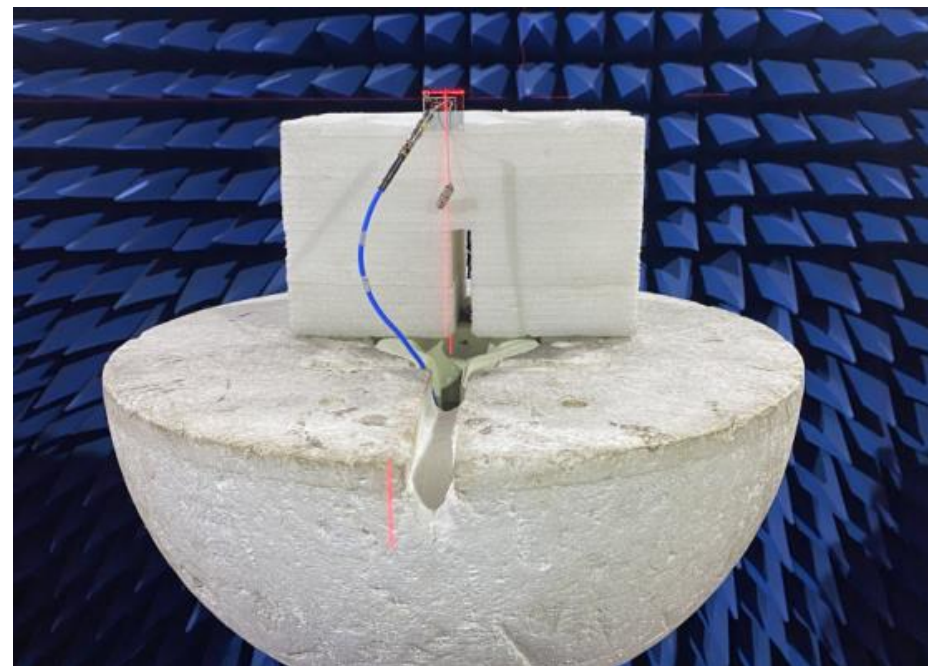
- Site: No. 34 Shilong Avenue, Shiyan Street, Baoan District, Shenzhen City; Zhongtian Xun SATIMO SG24 darkroom
- Experimental software : Satimo.Spm                      Version : 1.5.5
- Standard of experiment : GB/T 9410-2008
- Table of experimental

Test instrument	Manufacturer	Manufacturer	Series No.	Date of calibration	Calibration expiration date
Network analyzer	Keysight	E5071C	MY47002902	2023.04.20	2024.04.19
	Agilent	E5071C	MY46521960	2023.04.20	2024.04.19
SG24 antenna test system	SATIMO	SG24		2023.04.20	2024.04.19

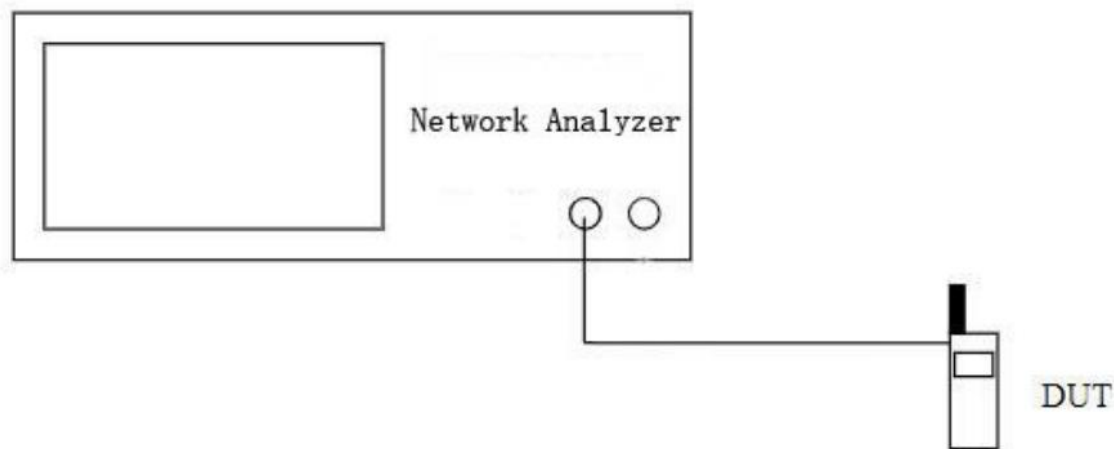
- Test setup photo
- 1. Antenna s11, s12 parameters testing :



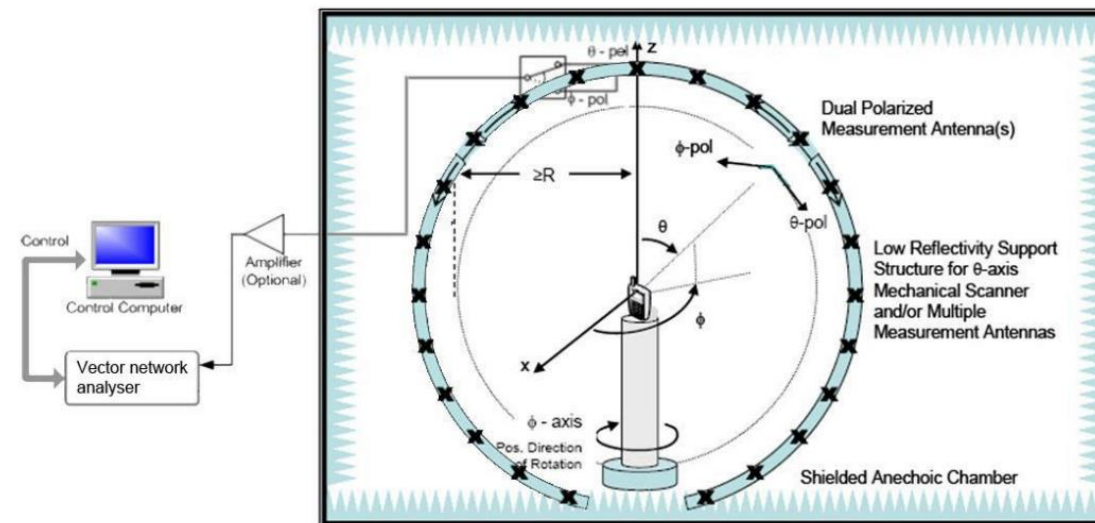
- 2. Antenna efficiency, gain and pattern test:



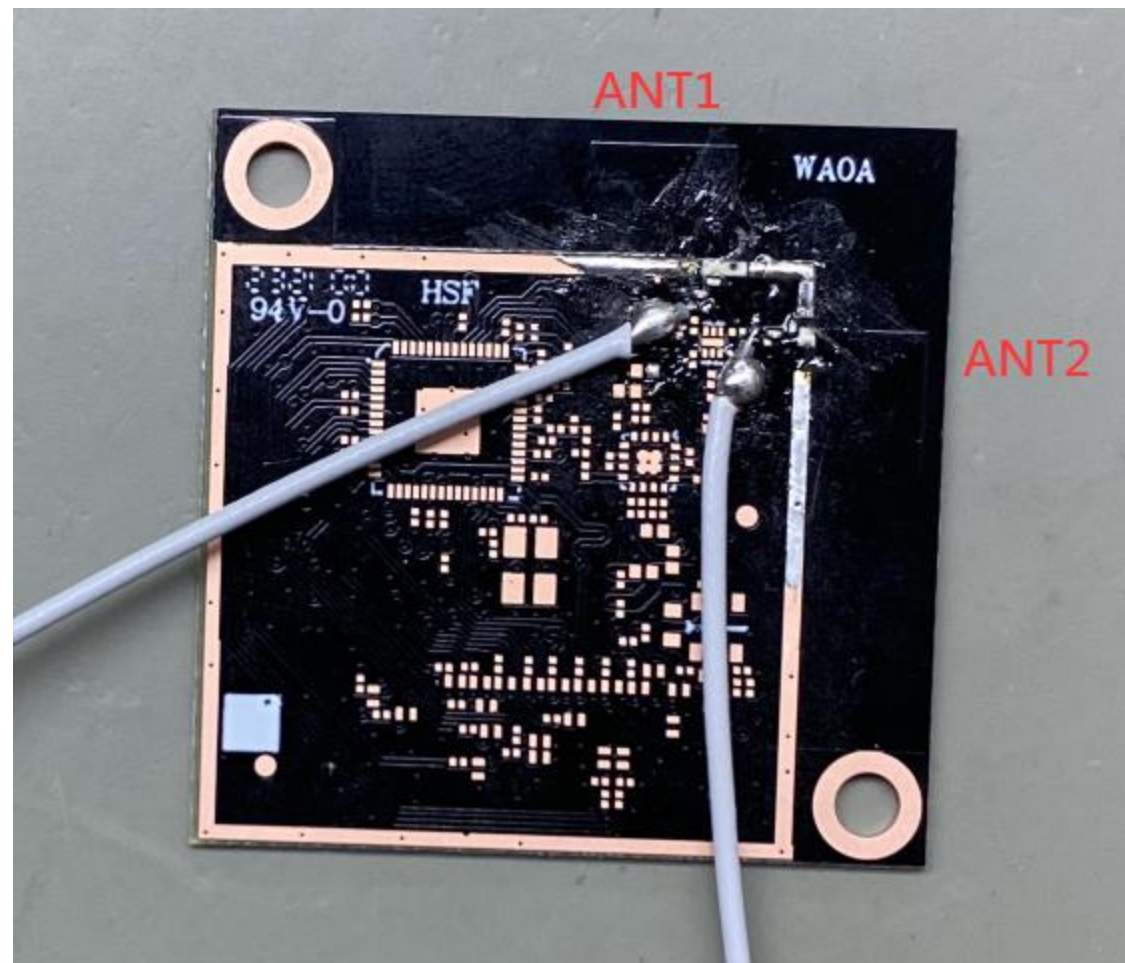
- Test program
- 1. Antenna S11, S12 parameters testing :



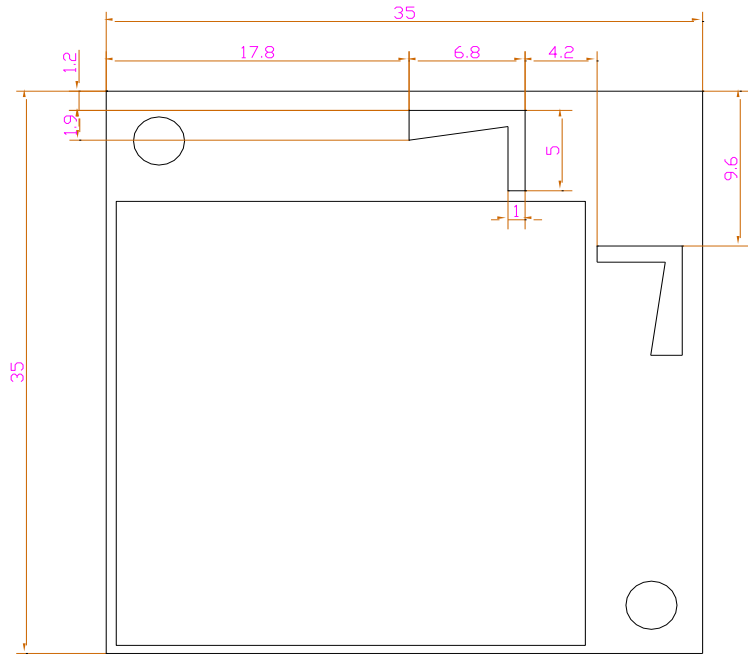
- 2. Antenna efficiency, gain and pattern test:



# Physical drawings of modules

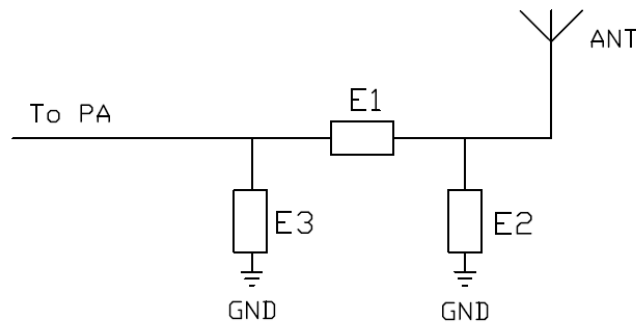


# Antenna Type&number



- Antenna Type: PCB Printing Antenna
- Antenna number: WA0A-PCB

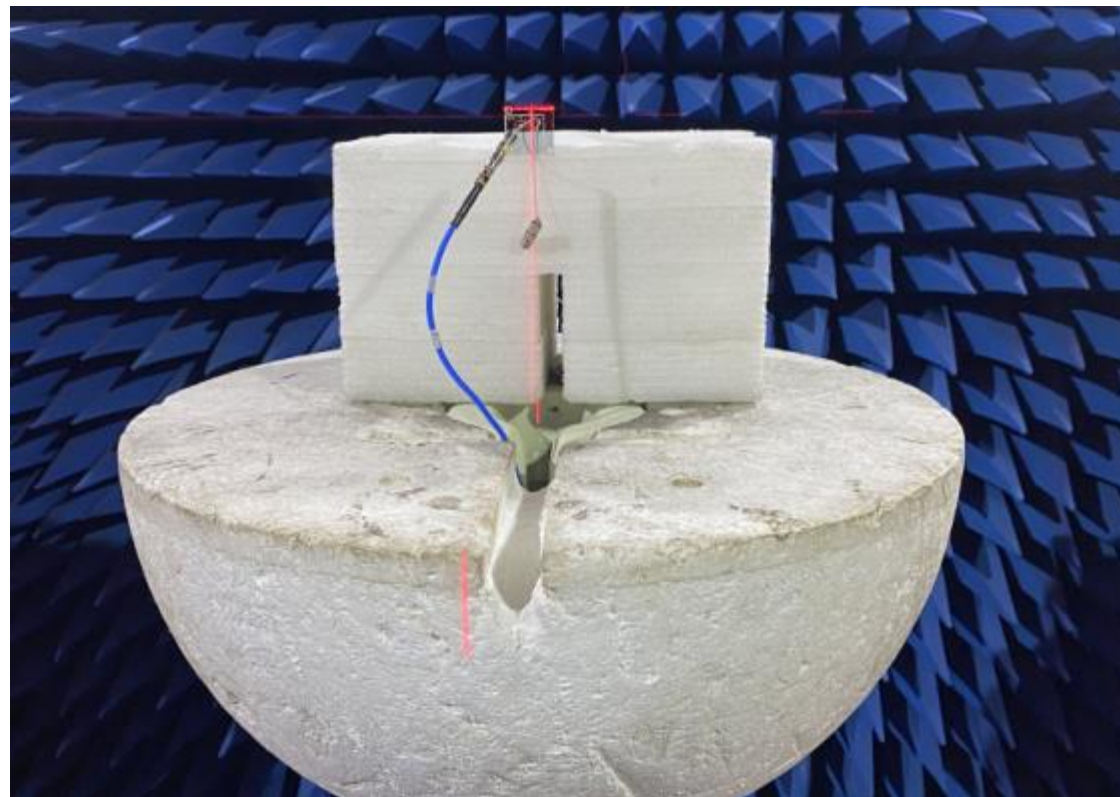
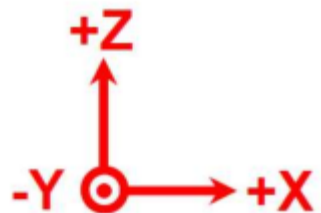
# Description of matching



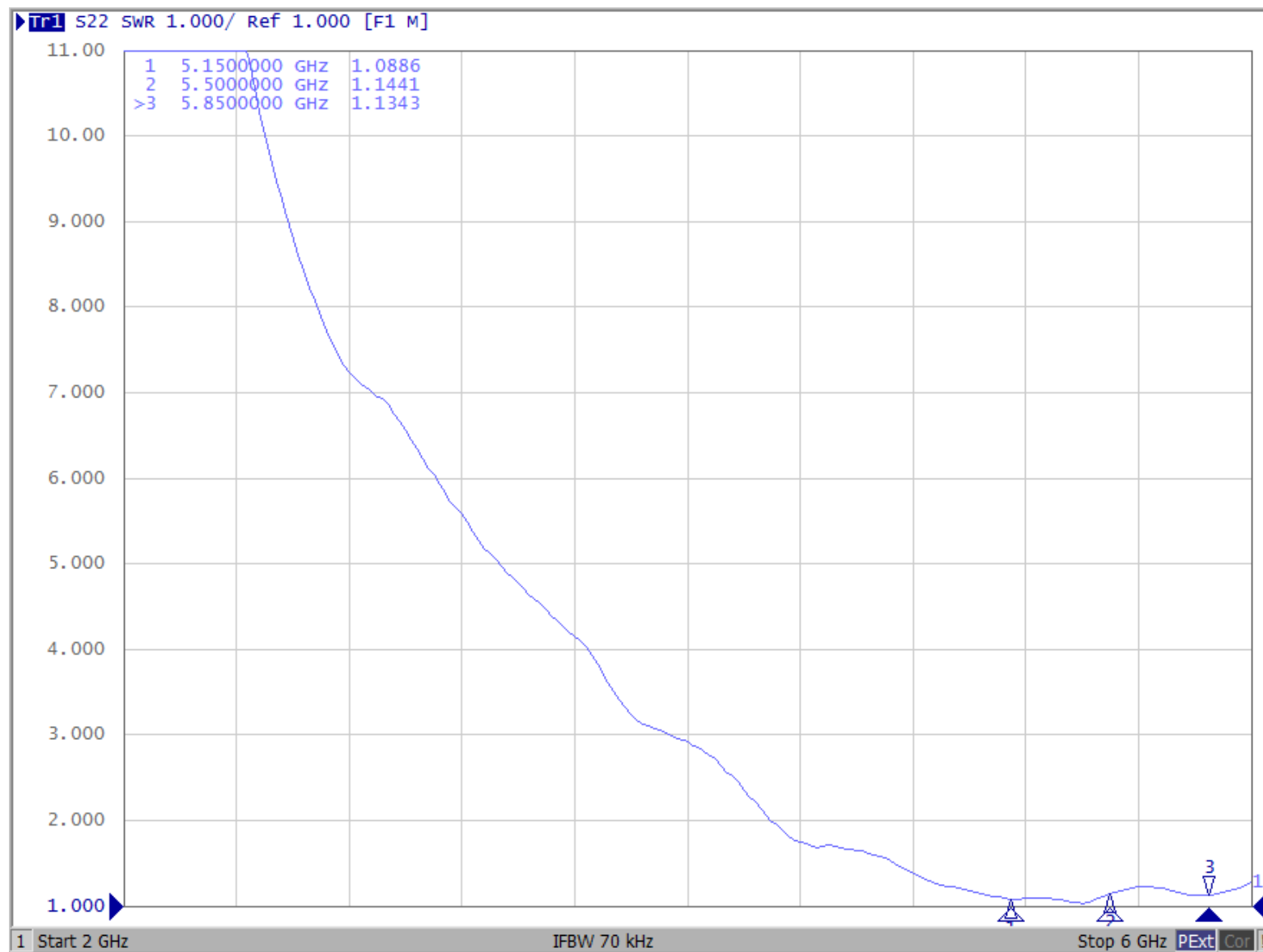
Component	ANT1	ANT2
E1	1.5nH	1.5nH
E2	0.3pF	0.3pF
E3	NC	NC



# Testing environment



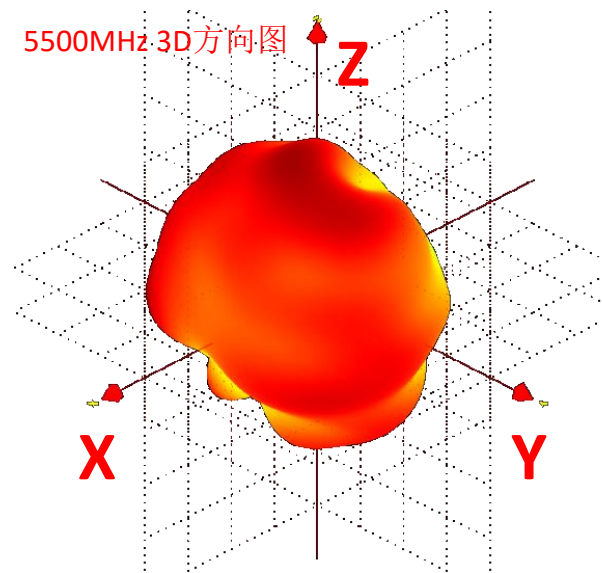
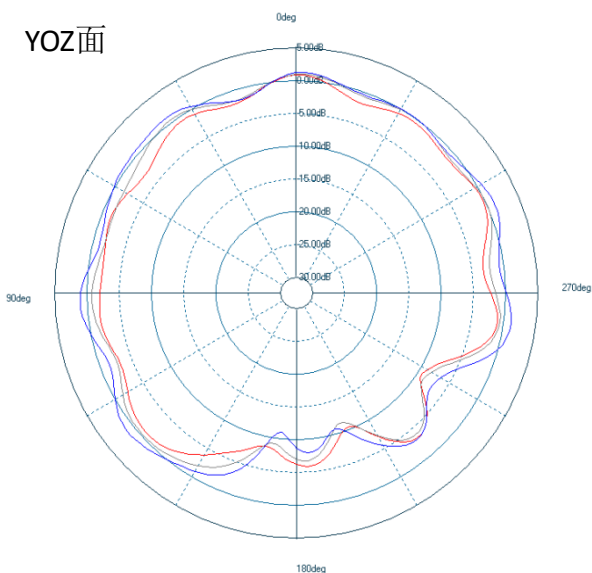
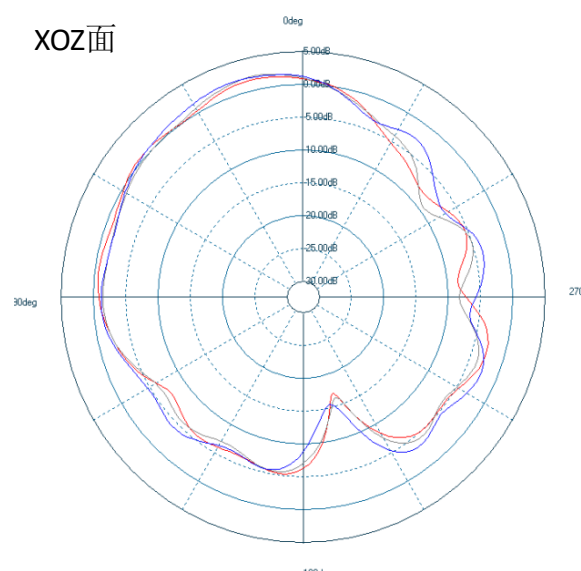
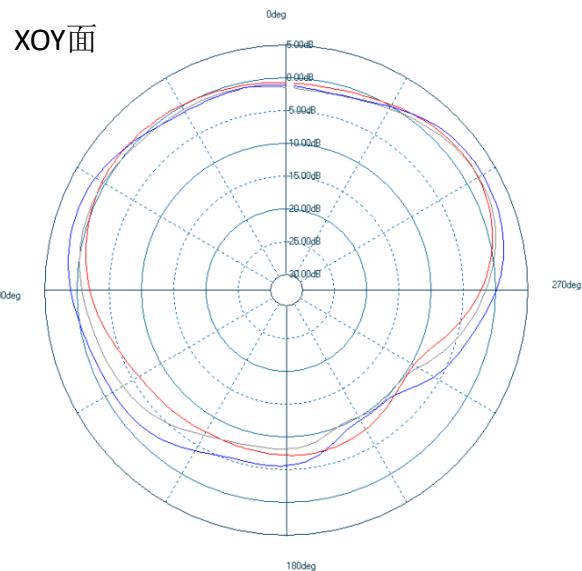
# Passive data (ANT1- VSWR)



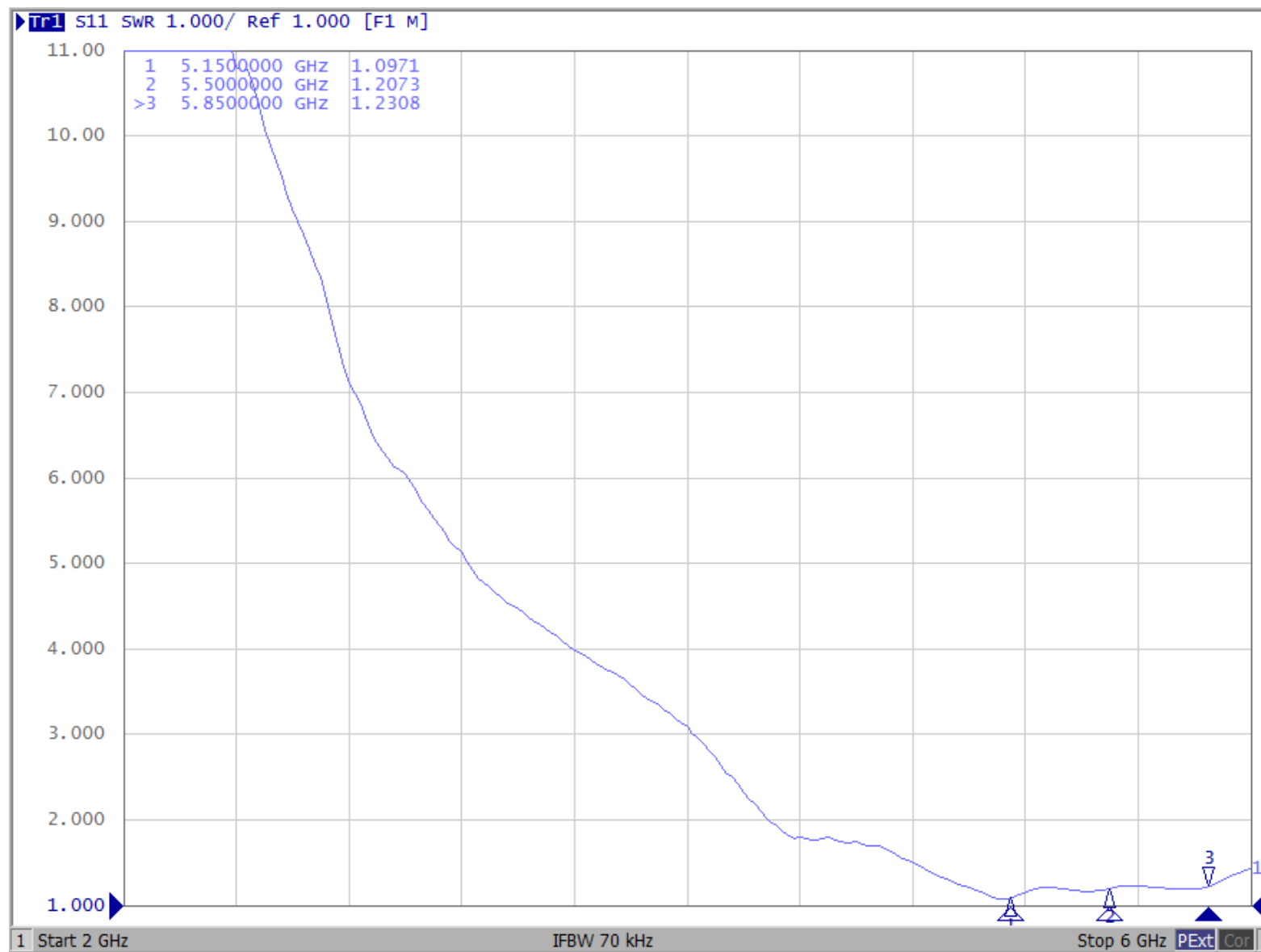
# Passive data (ANT1- efficiency/gain)

Frequency	Efficiency		Peak Gain
	Mhz	%	dB
5150	52.99	-2.76	2.64
5200	52.64	-2.79	2.55
5250	50.71	-2.95	2.66
5300	51.65	-2.87	2.79
5350	53.98	-2.68	2.94
5400	53.40	-2.72	2.85
5450	56.20	-2.50	2.92
5500	53.96	-2.68	2.57
5550	55.90	-2.53	2.82
5600	57.16	-2.43	3.10
5650	57.30	-2.42	3.17
5700	57.52	-2.40	3.49
5750	59.43	-2.26	3.30
5800	59.88	-2.23	3.07
5850	60.60	-2.18	3.21

# Passive data (ANT1-5G pattern)



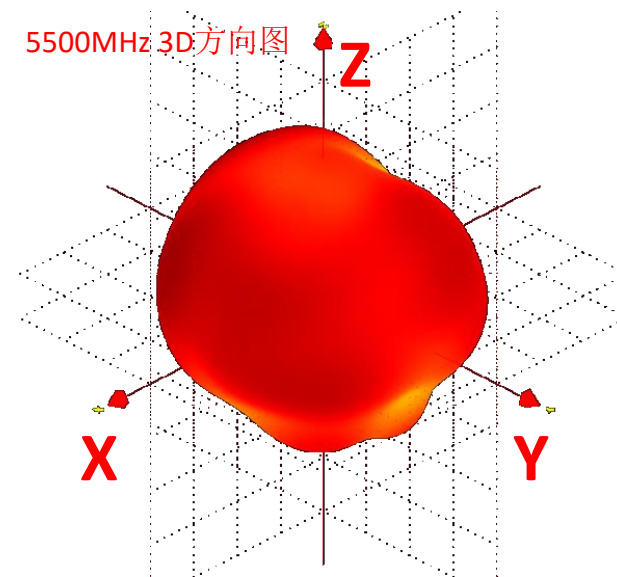
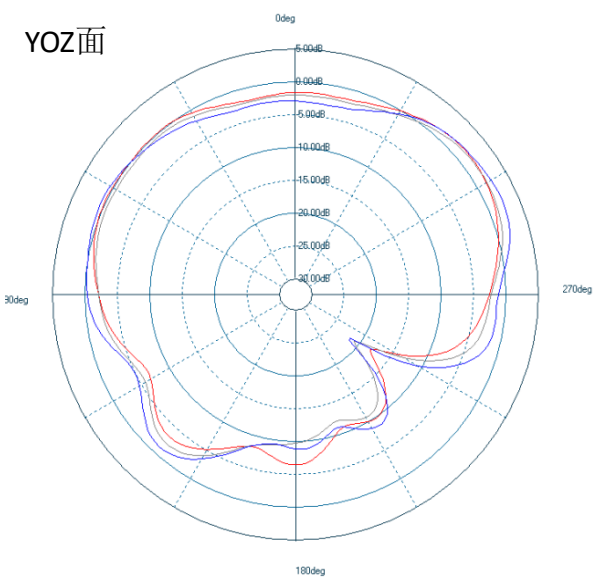
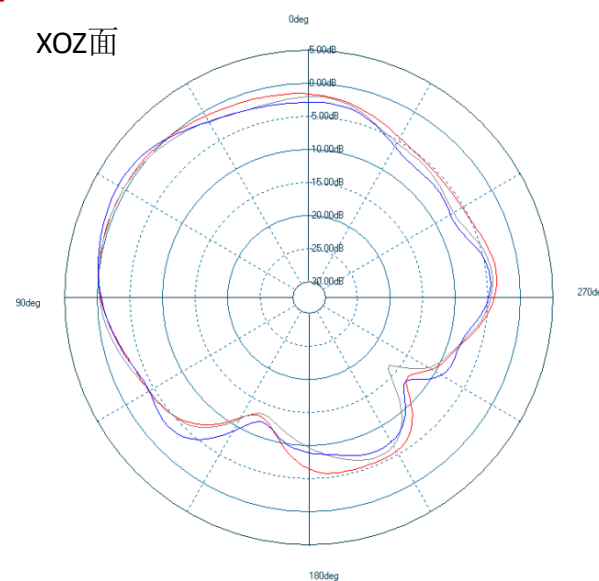
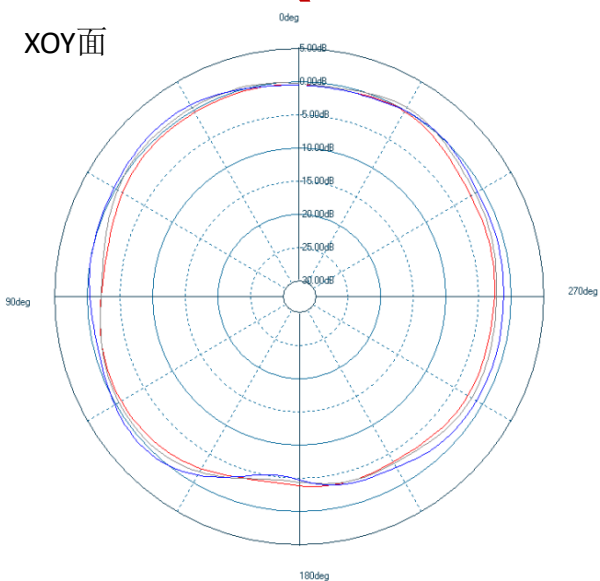
# Passive data (ANT2- VSWR)



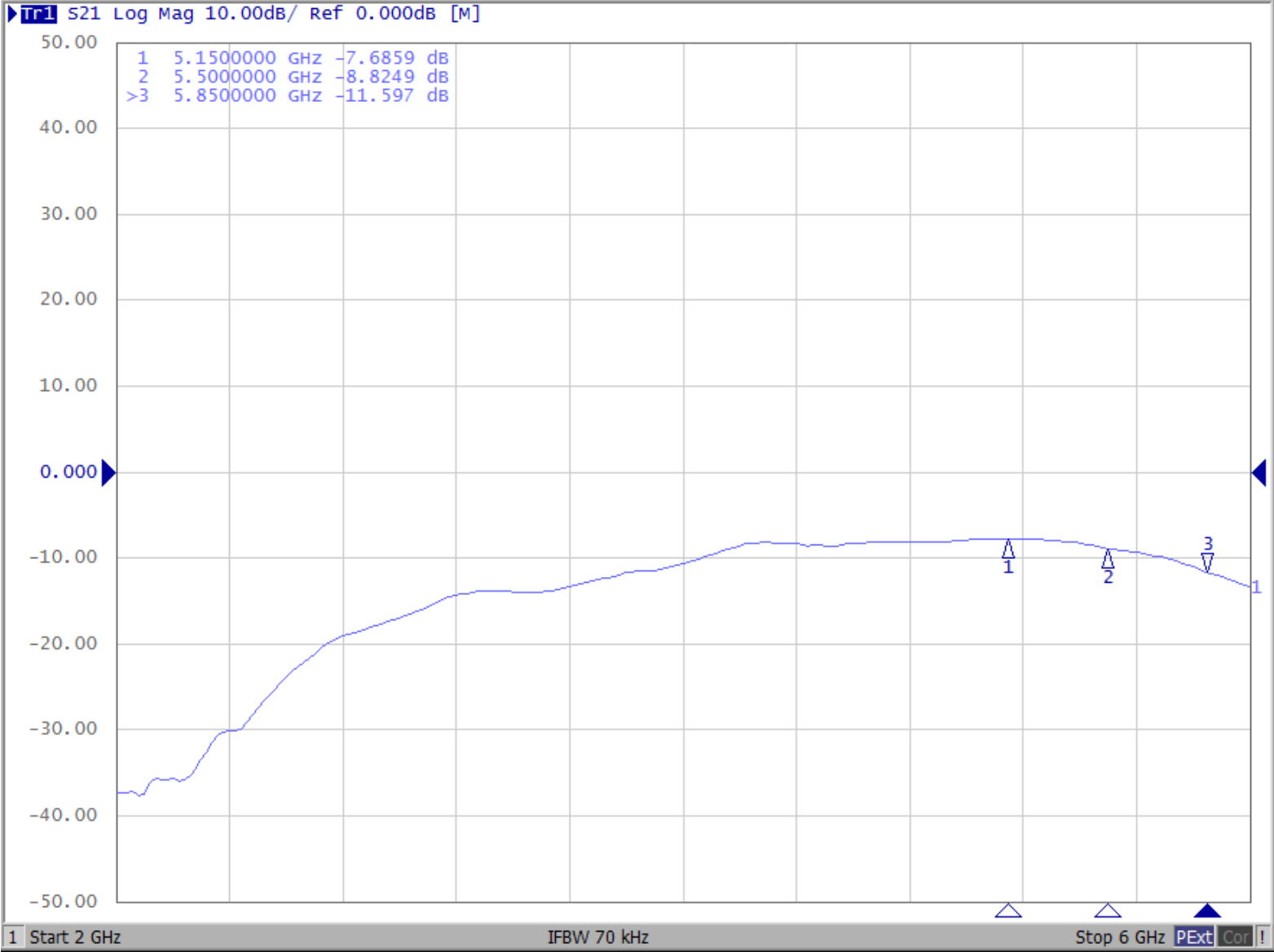
# Passive data (ANT2- efficiency/gain)

Frequency	Efficiency		Peak Gain
	Mhz	%	dB
5150	53.06	-2.75	1.84
5200	52.89	-2.77	1.94
5250	51.89	-2.85	1.38
5300	51.77	-2.86	1.48
5350	53.57	-2.71	1.59
5400	52.66	-2.79	1.60
5450	56.38	-2.49	2.07
5500	54.82	-2.61	1.98
5550	55.25	-2.58	1.89
5600	57.21	-2.42	2.06
5650	57.17	-2.43	2.22
5700	55.95	-2.52	1.76
5750	56.51	-2.48	2.45
5800	57.26	-2.42	2.94
5850	60.57	-2.18	2.97

# Passive data (ANT2-5G pattern)



# Passive data (ANT1&ANT2 antenna isolation)





# Thank You

