

D5810 WIFI Antenna

□ Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
VSWR	<2.0
Efficiency	>40%
Peak Gain	2.46 dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	NA
Cable Type	NA
Connector Type	NA
Dimension	At Attachment
Heat-durability	280±5°C, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C

□ Test Equipment & Conditions

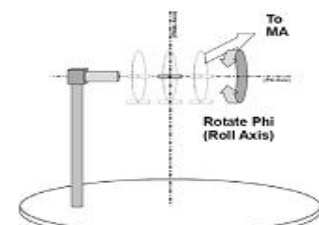
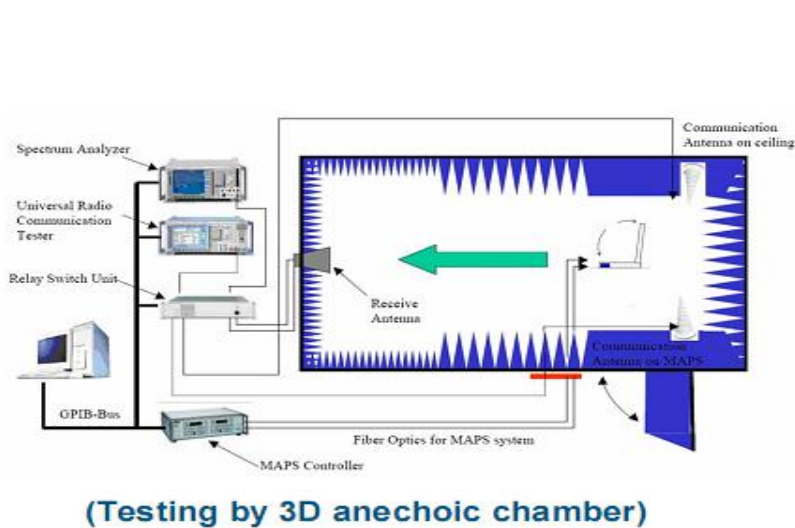
1. Network Analyzers :

Agilent 8753D 5071B

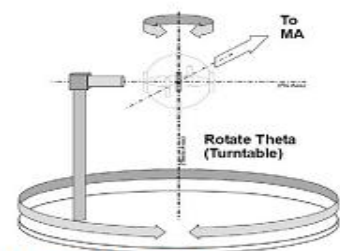
Communications Test Set:

Agilent E5515C CMW500

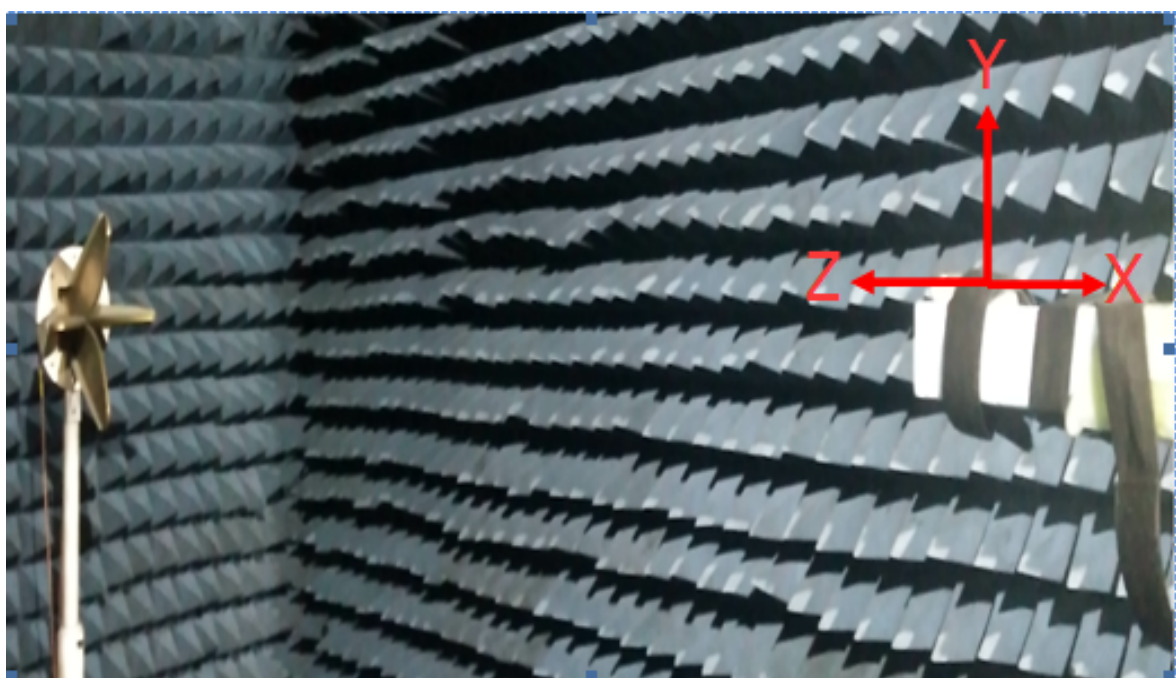
2. 3D Chamber Test System

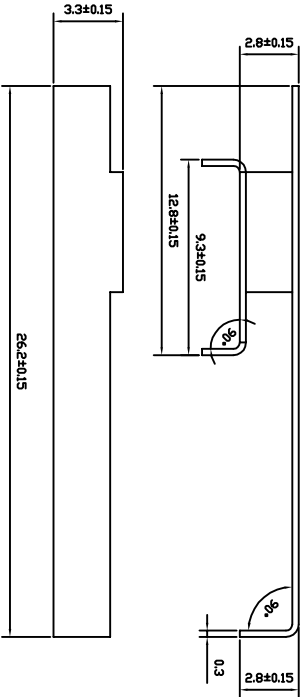
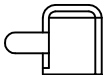
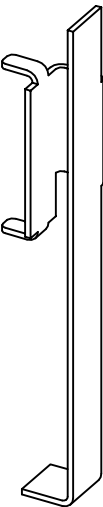
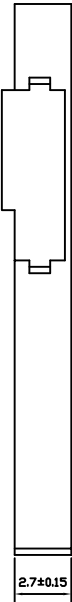
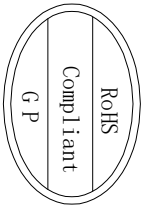


Phi axis test



Theta axis test

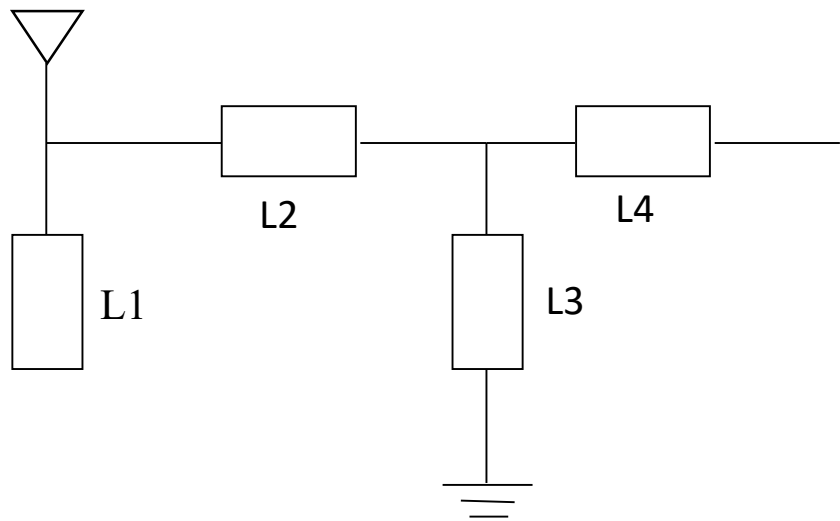




深 圳 天 联 凌 科 技 有 限 公 司				SHEN ZHEN SKYLINK CO., LTD			
Third Angle		Project	Date	2021-07-20			
0~10	±0.05	○	0.02	Part Name			
10~18	±0.10	◎	∅.03	Part No.	TY03		
18~30	±0.12	⊥	0.02	Material			
30~40	±0.15	∇	0.04				
40~	±0.20	Angle	±0.5°	DWG No.			
Location				Approved by	Unit	mm	Scale 1:1 Rev A

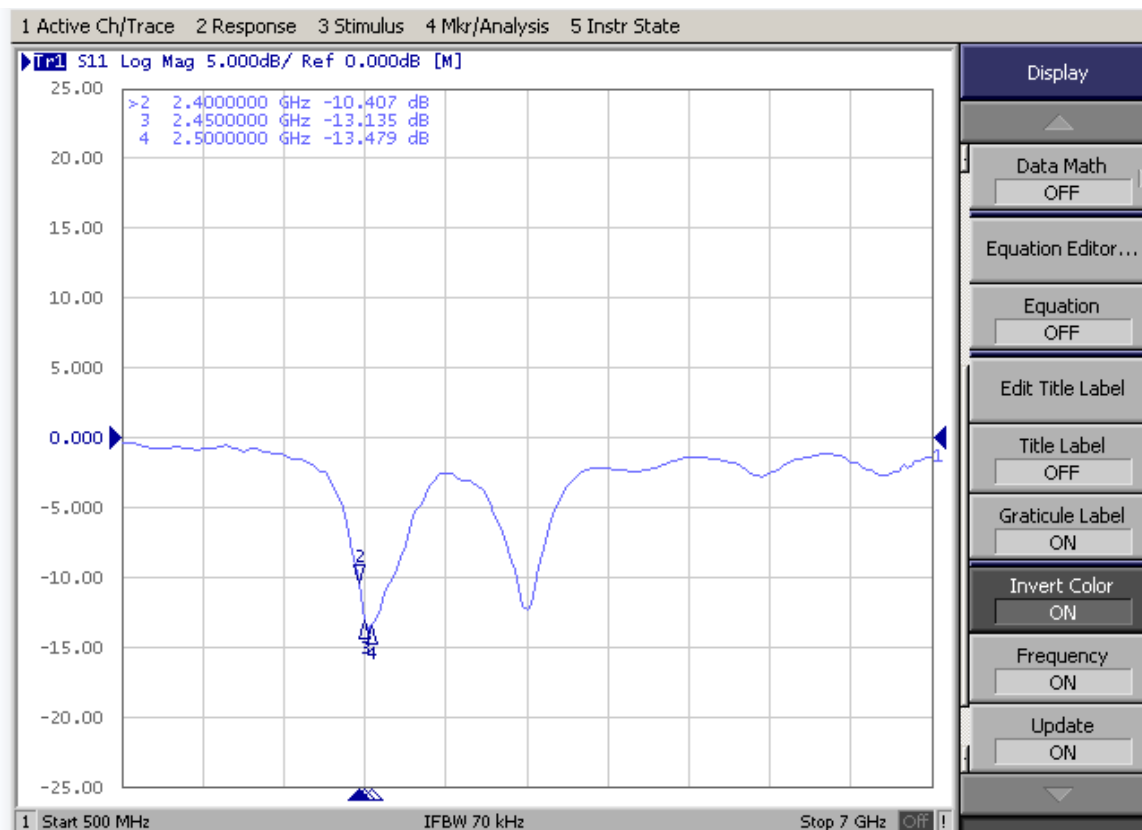
1		2		3		4		5		6		7		8	
A		B		C		D		A		B		C		D	
Rev		Description		Date		Remark									
A		New drawing													
1															

□ 匹配电路（matching circuit）

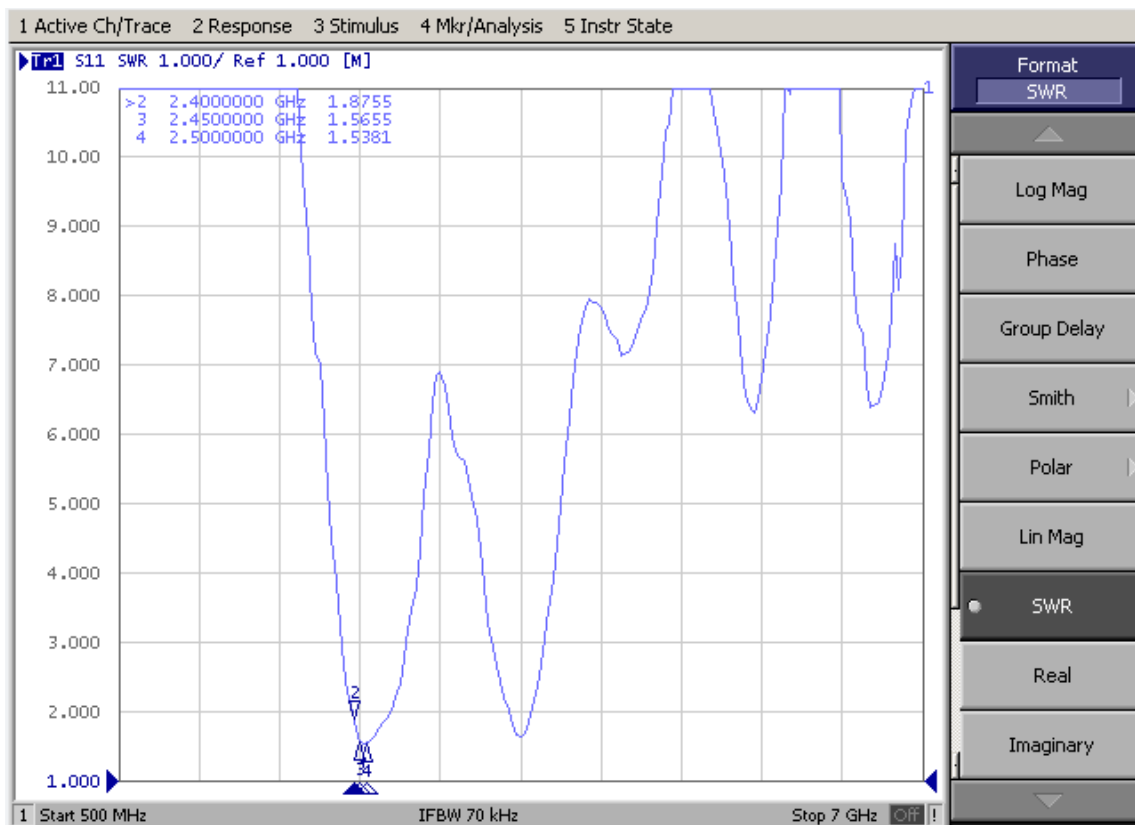


L1	1.2PF
L2	3.9NH
L3	/
L4	0

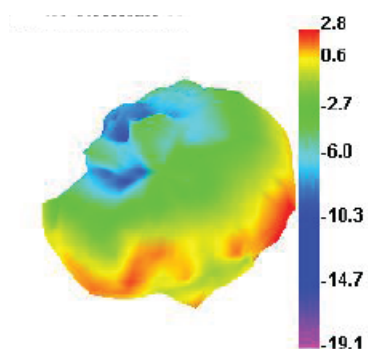
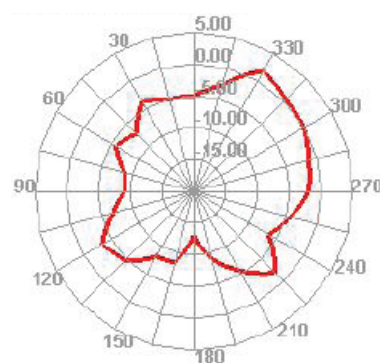
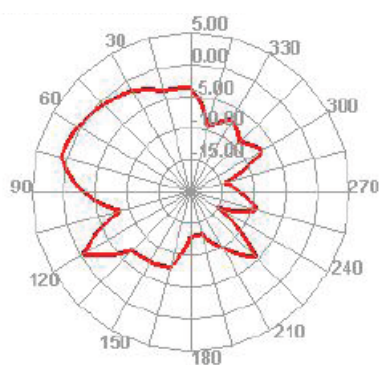
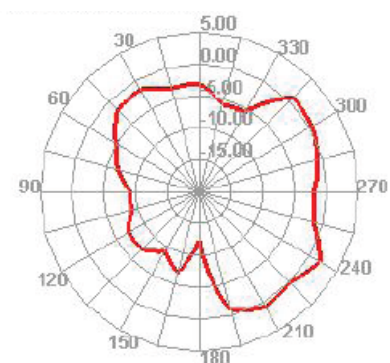
Return Loss



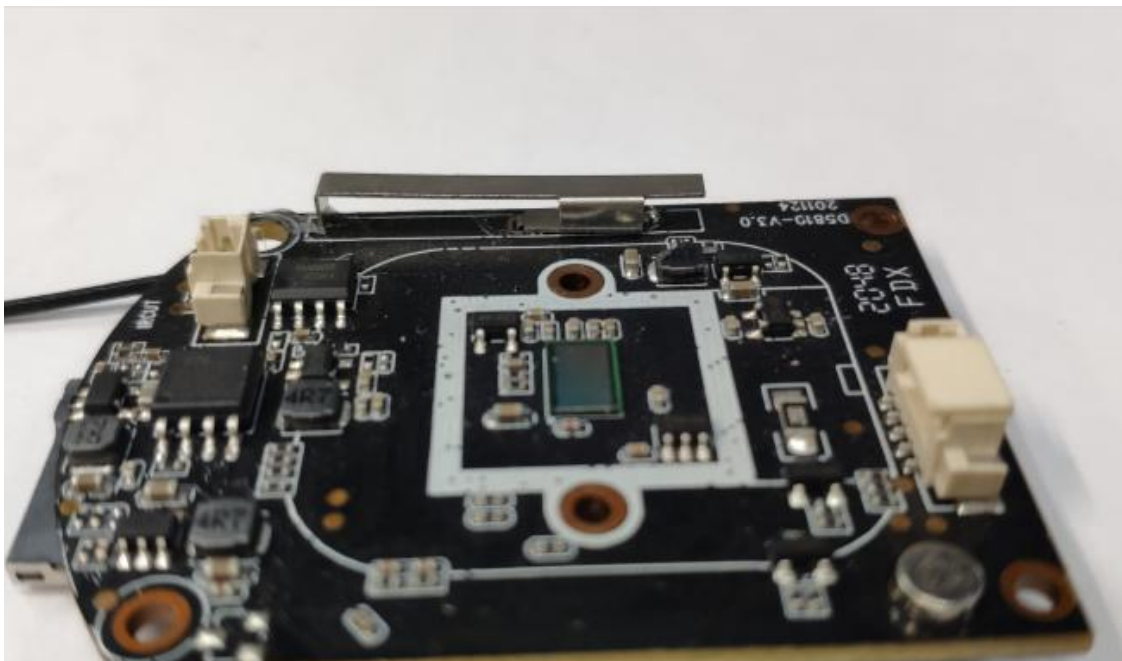
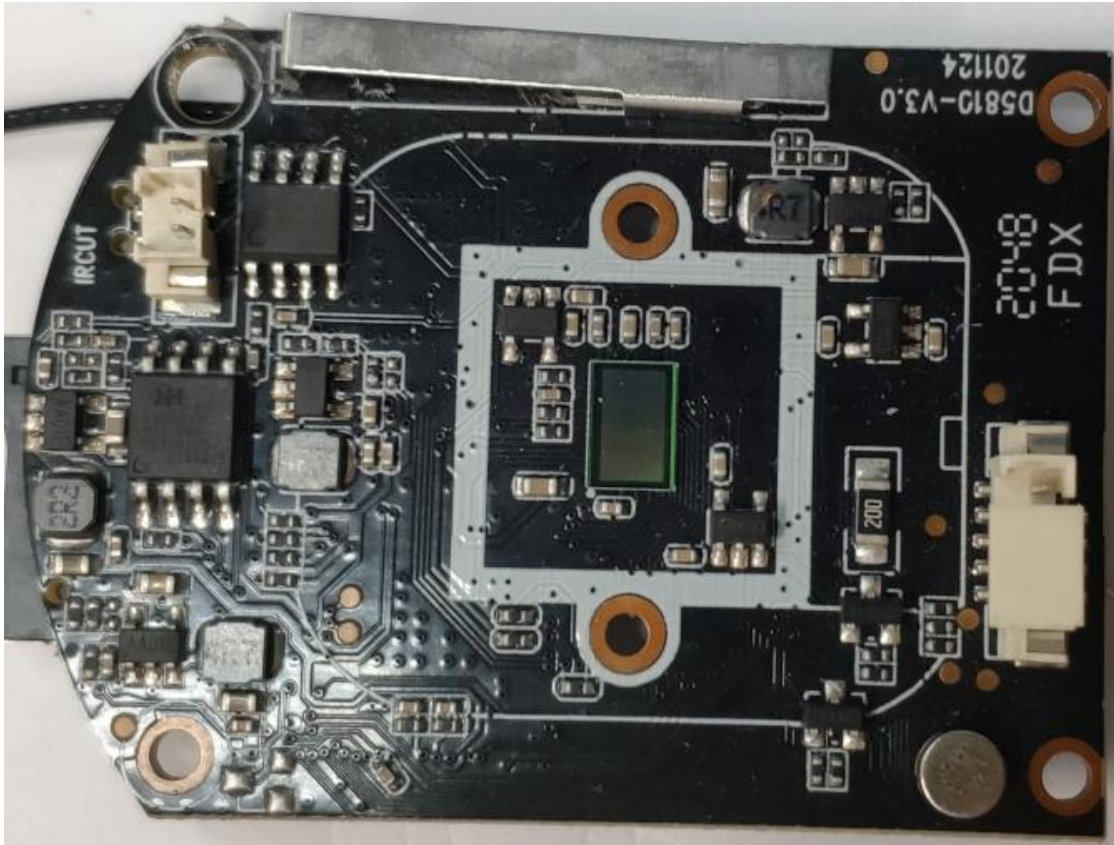
VSWR



□ Gain & Efficiency



Freq (MHz)	Effi (%)	Gain (dBi)
2400	42.66	1.42
2410	42.21	1.48
2420	42.06	1.54
2430	42.75	1.75
2440	44	1.86
2450	45.4	2.05
2460	46.25	2.26
2470	46.39	2.46
2480	47.23	2.36
2490	48.99	2.21
2500	49.95	2.12



□ Reliability Test

Test Item		Test condition	Equipment	Specification	Result
1	Low Temp. Storage Test	Temperature: -30℃ , Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2	High Temp./High Humid Storage Test	Temperature: 85℃ Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-up the temp. to 80℃ and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3	Salt-Spray 6 pray Test	Placing antenna in the Salt-Spray Tester ,set the test condition , Temp: $35\pm 2^{\circ}\text{C}$ Humidity: 85% NaCl salt spray :$5\pm 1\%$.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS