

Shenzhen Qixin Tongda Technology Co., Ltd

Antenna test data report

Client: Och

project: S187

G2/3/5/8+W1/2/4/5/8+

FDD-1/2/3/4/5/7/8/12/17/19/20/25/26/28/66+TDD-38/40/41

Engineering: Jason (137 6025 5827)

date: 2025-12-19

Factory address: Bao'an District, Shenzhen, Shajing Street, Shayi North

Yongfa Science and Technology Park, the first third floor

1. Test Project

	Test Project	Equipment
1. S Parameter	1. Return Loss (RL) 2. VSWR	Network Analyzer: Agilent 5071B
2. RF Test (2/3/4/5G)	1. power 2. level 3. TRP/TIS	Comprehensive Test: SP9500/CMW500/8960 Test Environment: Anechoic Chamber

2. Test Equipment



Agilent 5071B (S Parameter (RL/VSWR) Test Equipment)



Agilent 8960 (2G/3G Test Equipment)

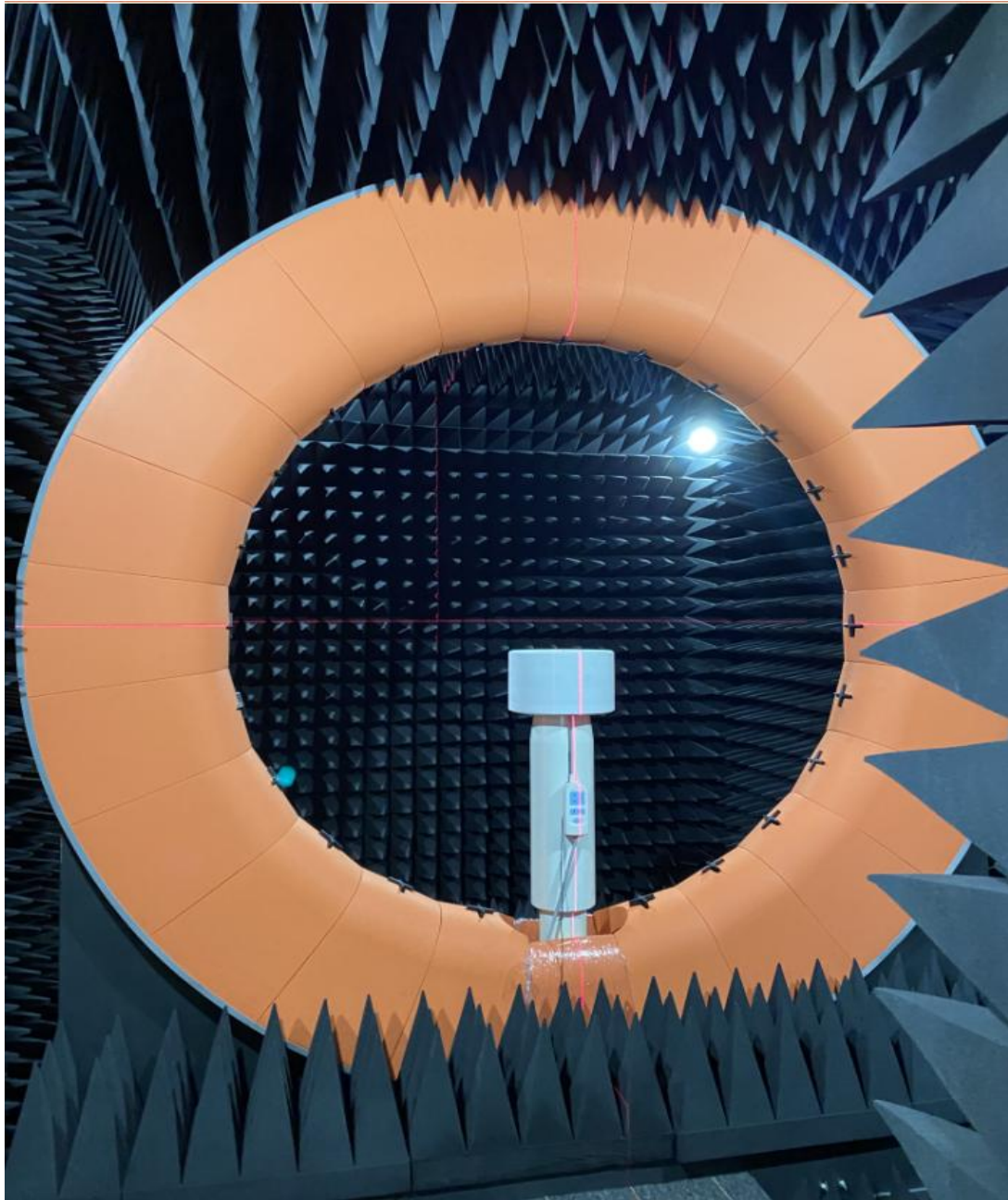


CMW 500 (2G/3G/4G Test Equipment)



SP9500 (5G Test Equipment)

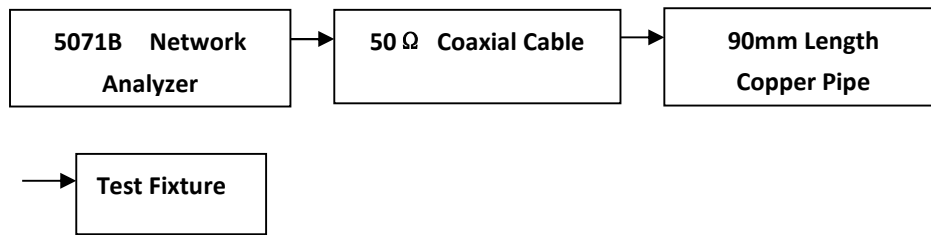
3. TestEnvironment



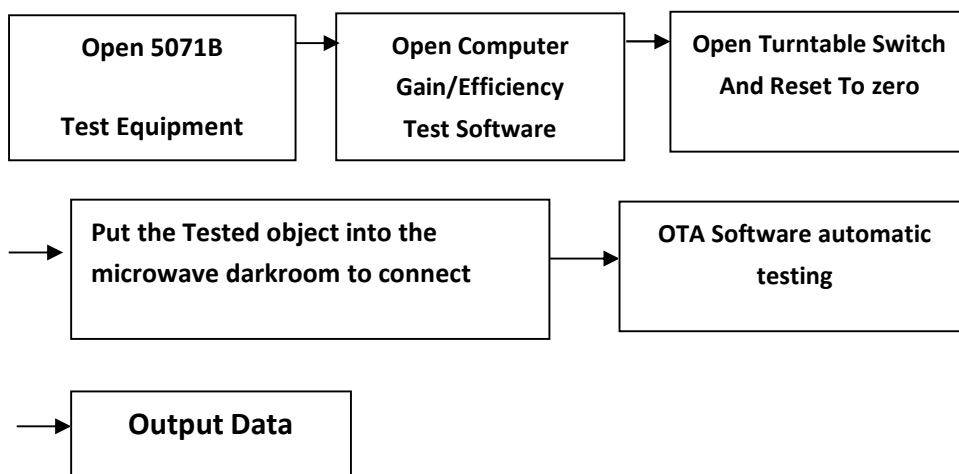
Microwave Anechoic Chamber

4.Test Steps

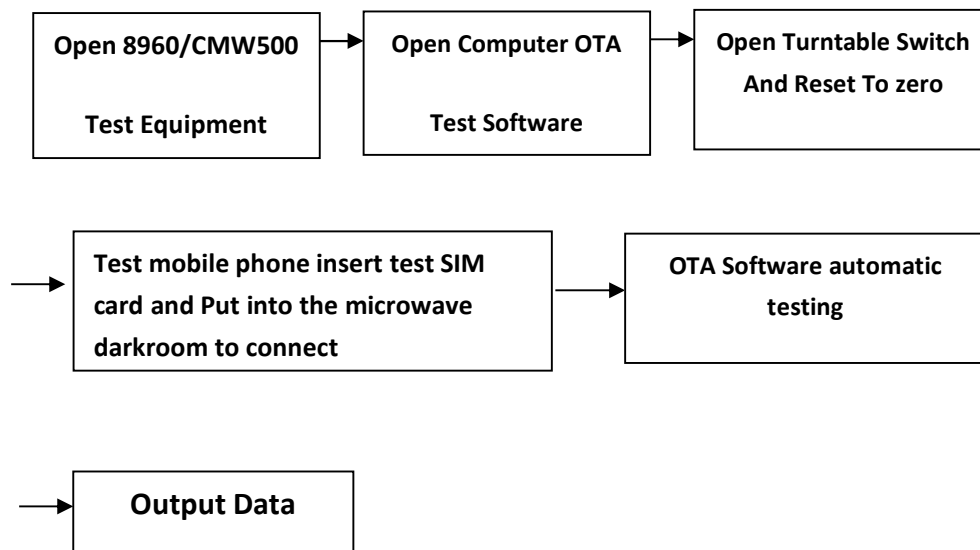
Passive VSWR/RL Test Steps:



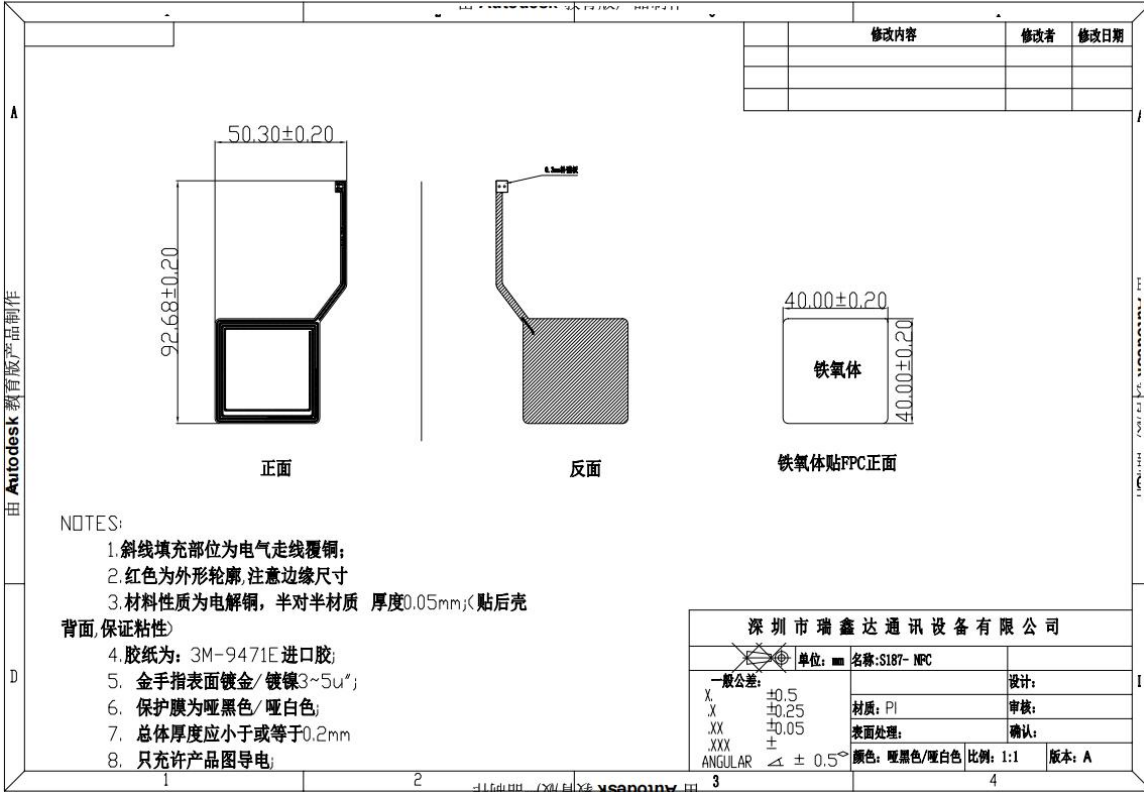
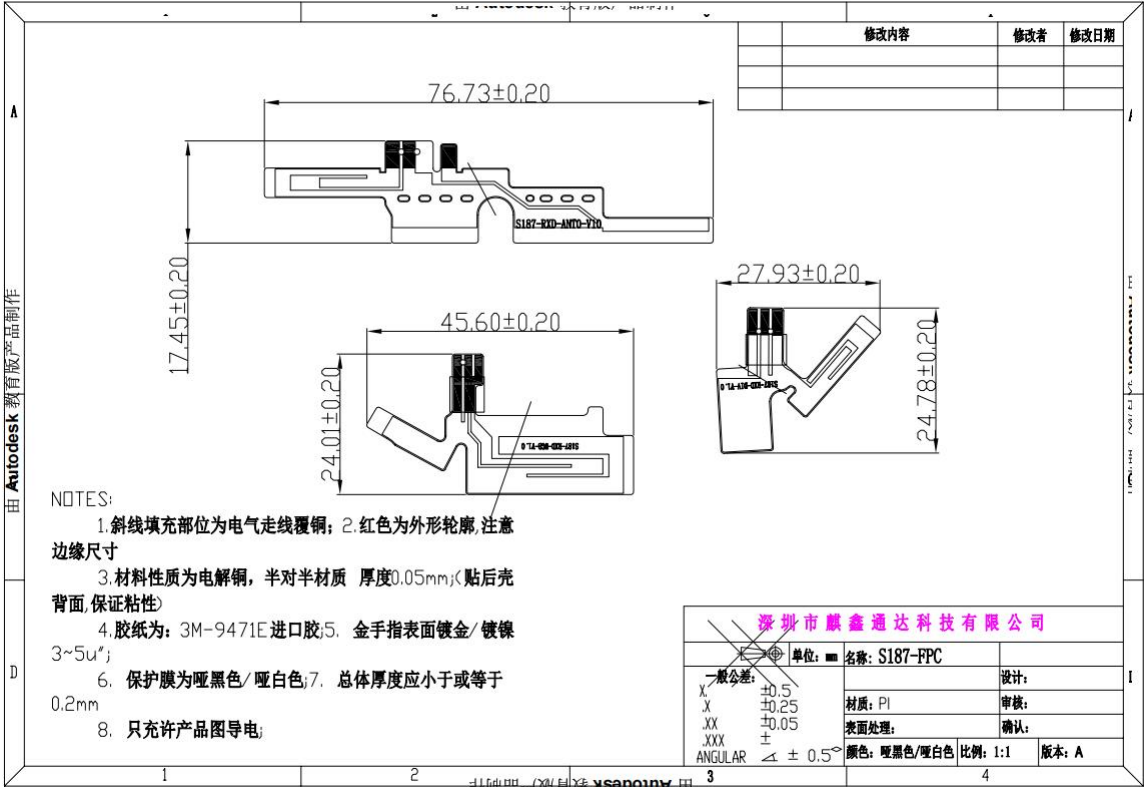
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps:



5. Antenna size diagram



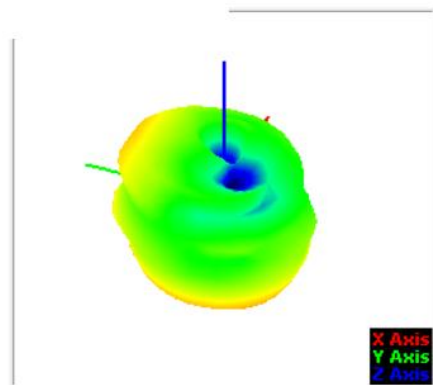
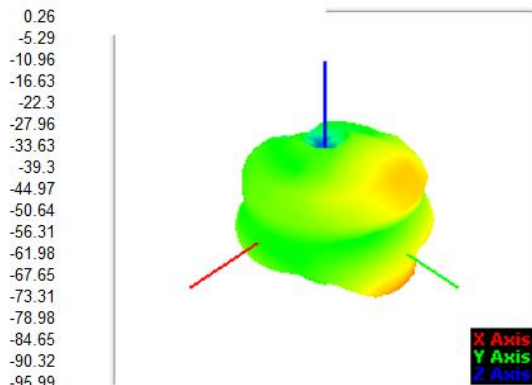
6. Antenna Gain

Frequency Band	Gain (dBi)
GSM850 (824-894MHz)	-2.25
GSM900 (880-960MHz)	-1.16
DCS1800 (1710-1880MHz)	0.23
PCS1900 (1850-1990MHz)	0.19
WCDMA850 (824-894MHz)	-2.25
WCDMA900 (880-960MHz)	-1.16
WCDMA1700 (1710-2155MHz)	0.21
WCDMA1900 (1850-1990MHz)	0.19
WCDMA2100 (1920-2170MHz)	0.17
FDD B 1 (1920-2170MHz)	0.17
FDD B 2 (1850-1990MHz)	0.19
FDD B 3 (1710-1880MHz)	0.23
FDD B 4 (1710-2155MHz)	0.24
FDD B 5 (824-894MHz)	-2.25
FDD B 7 (2500-2690MHz)	0.33
FDD B 8 (880-960MHz)	-1.16
FDD B 12 (699-746MHz)	-2.45
FDD B 17 (704-746MHz)	-2.45
FDD B 19 (830-890MHz)	-2.26
FDD B 20 (791-862MHz)	-2.27
FDD B 25 (1850-1995MHz)	0.15
FDD B 26 (814-894MHz)	-2.25
FDD B 28 (703-803MHz)	-2.53
FDD B 66 (1700-2200MHz)	0.25
TDD B 38 (2570-2620MHz)	0.33

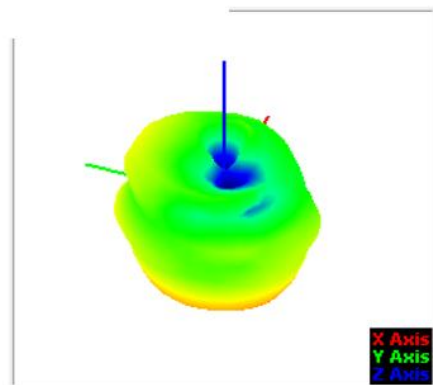
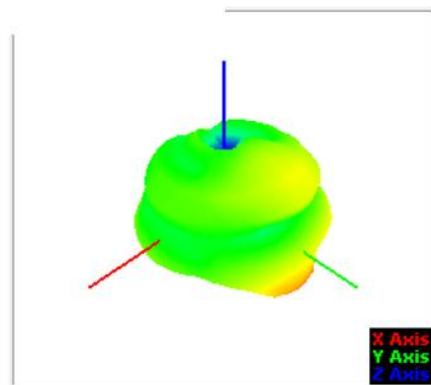
TDD B 40 (2300-2400MHz)	0.35
TDD B 41 (2496-2690MHz)	0.33
Bluetooth	0.25
WIFI-2.4G	0.25
WIFI-5G	0.33
GPS	0.10

8.2D&3D Lobe Diagram

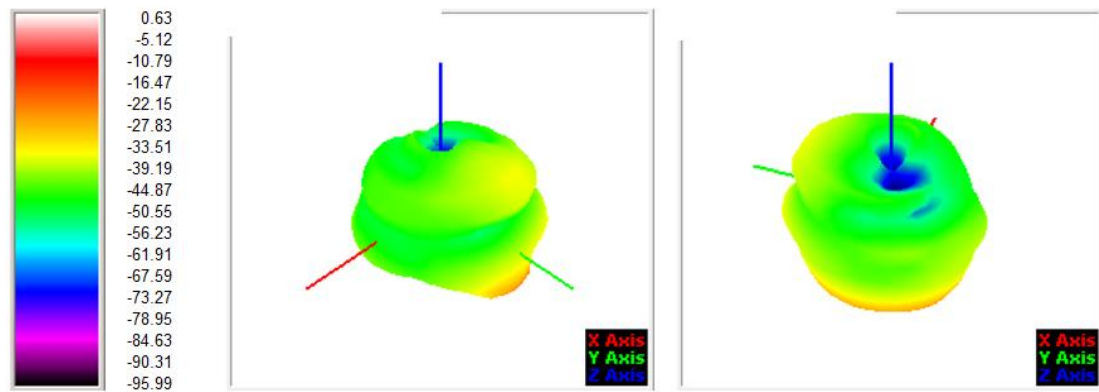
GPS-L1



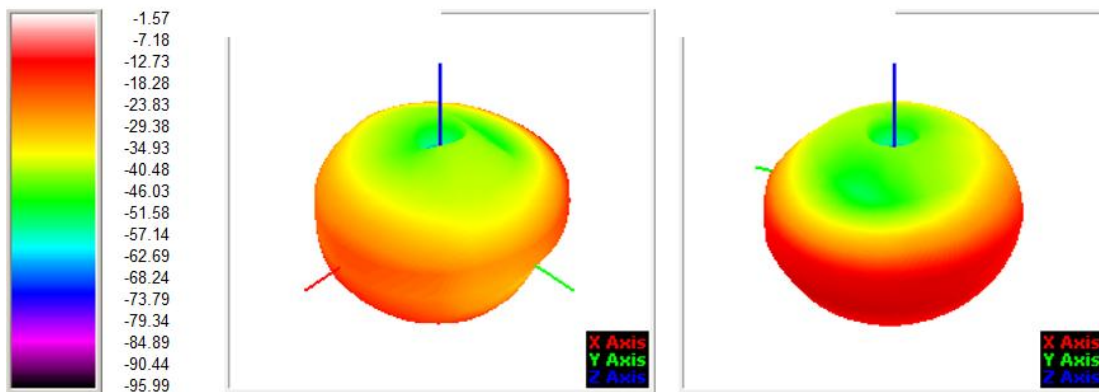
BT



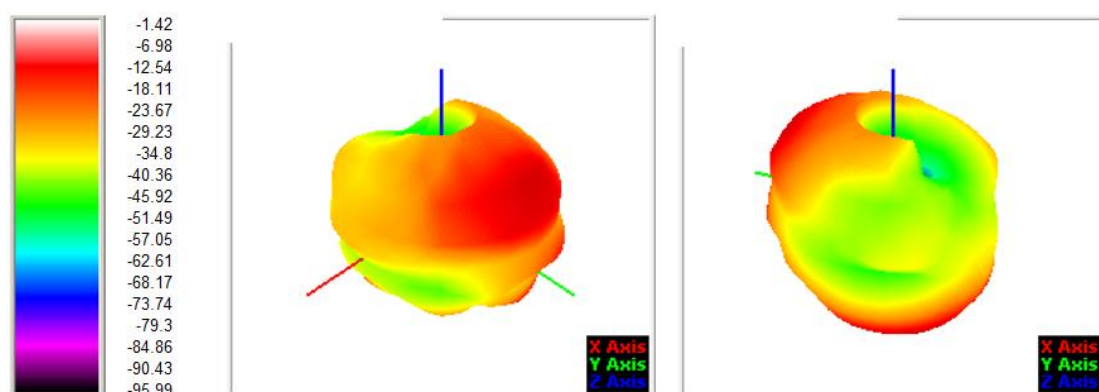
2.4G-WIFI



5.1G-WIFI



5.8G-WIFI



9.Introduction to Antenna Information

S187	
Antenna type and frequency band	MAIN ANTENNA(PIFA):2G/3G/4G DIV ANTENNA(PIFA):2G/3G/4G GPS/WIFI/BT ANTENNA(PIFA):L1/2.4GWIFI/5G WIFI/BT
Antenna materia	FPC