

Antenna test data report

Client: LANGZETONG

Project Name: F284

Frequency Band:GSM B2/3/5/8+WCDMA B1/2/5/8+FDD

B2/4/5/12/13/17/66/71

date: 2025-09-17

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)

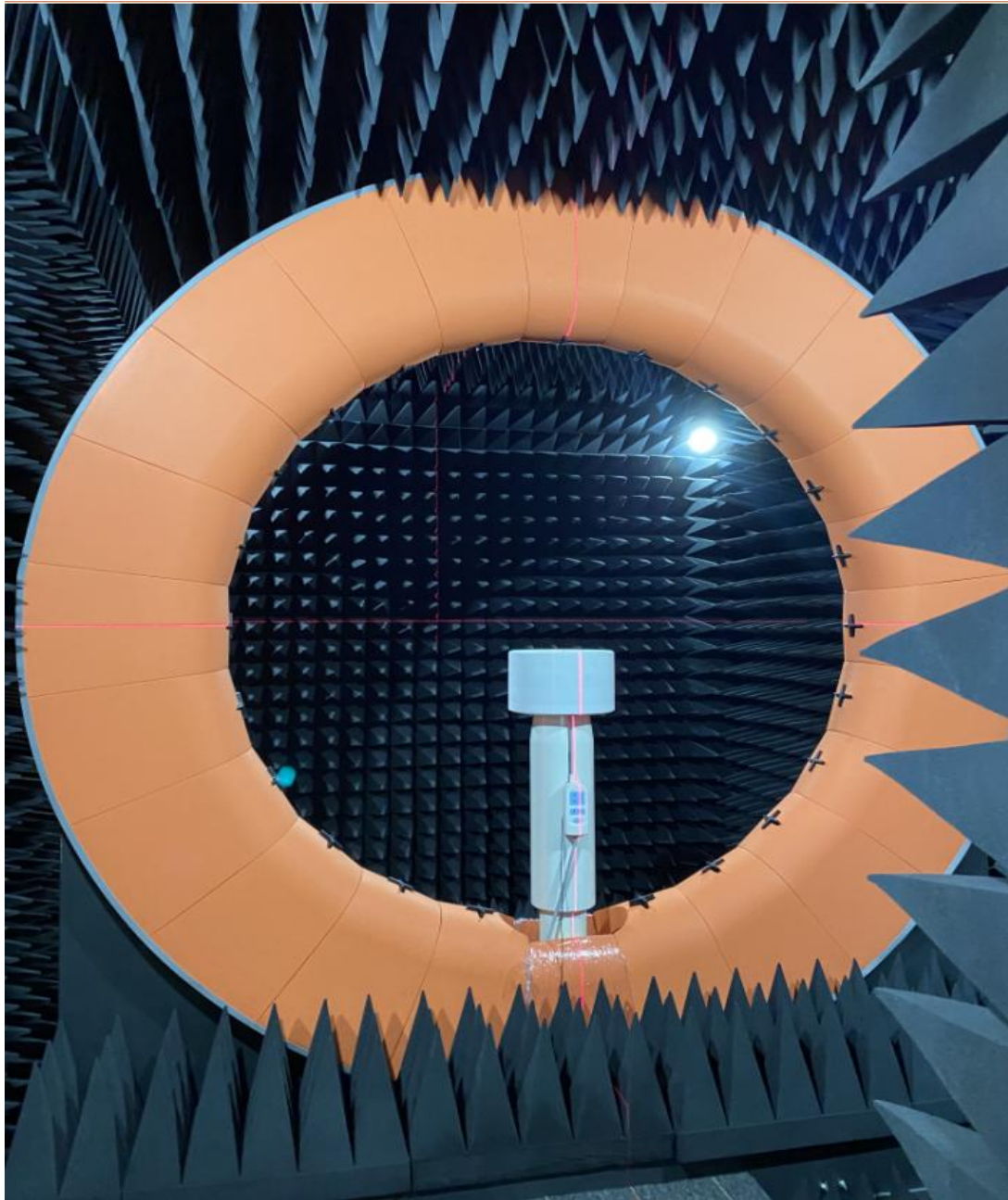


CMW 500 (2G/3G/4G Test Equipment)



SP9500 (5G Test Equipment)

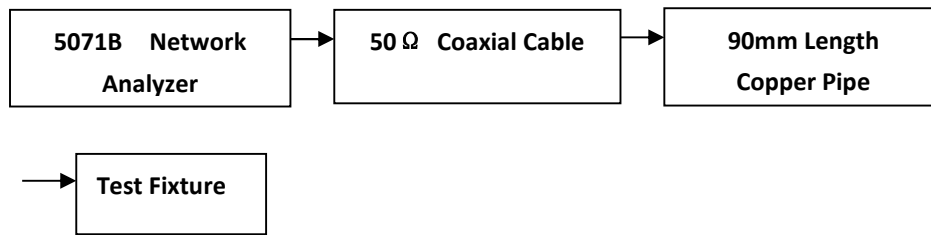
3. TestEnvironment



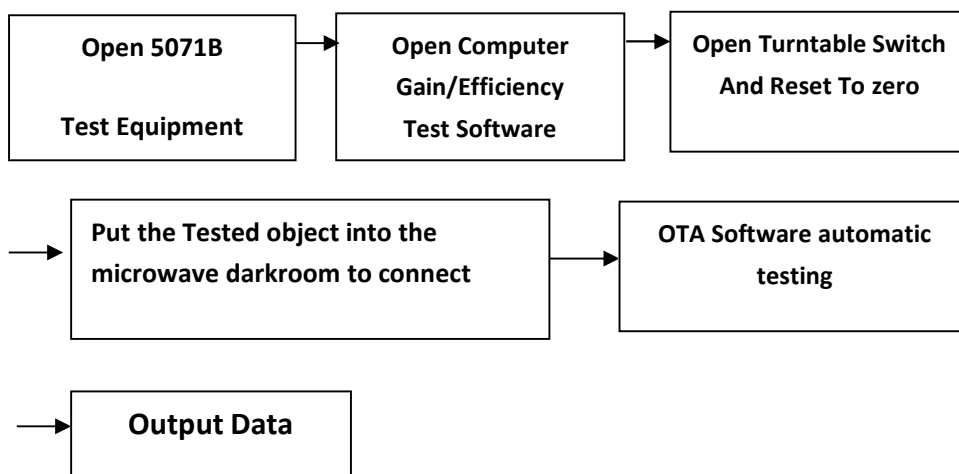
Microwave Anechoic Chamber

4.Test Steps

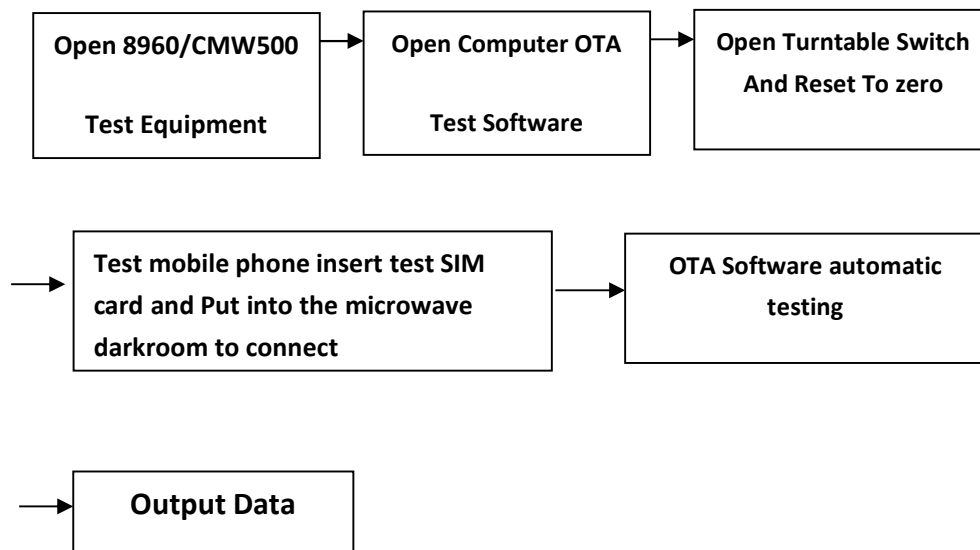
Passive VSWR/RL Test Steps:



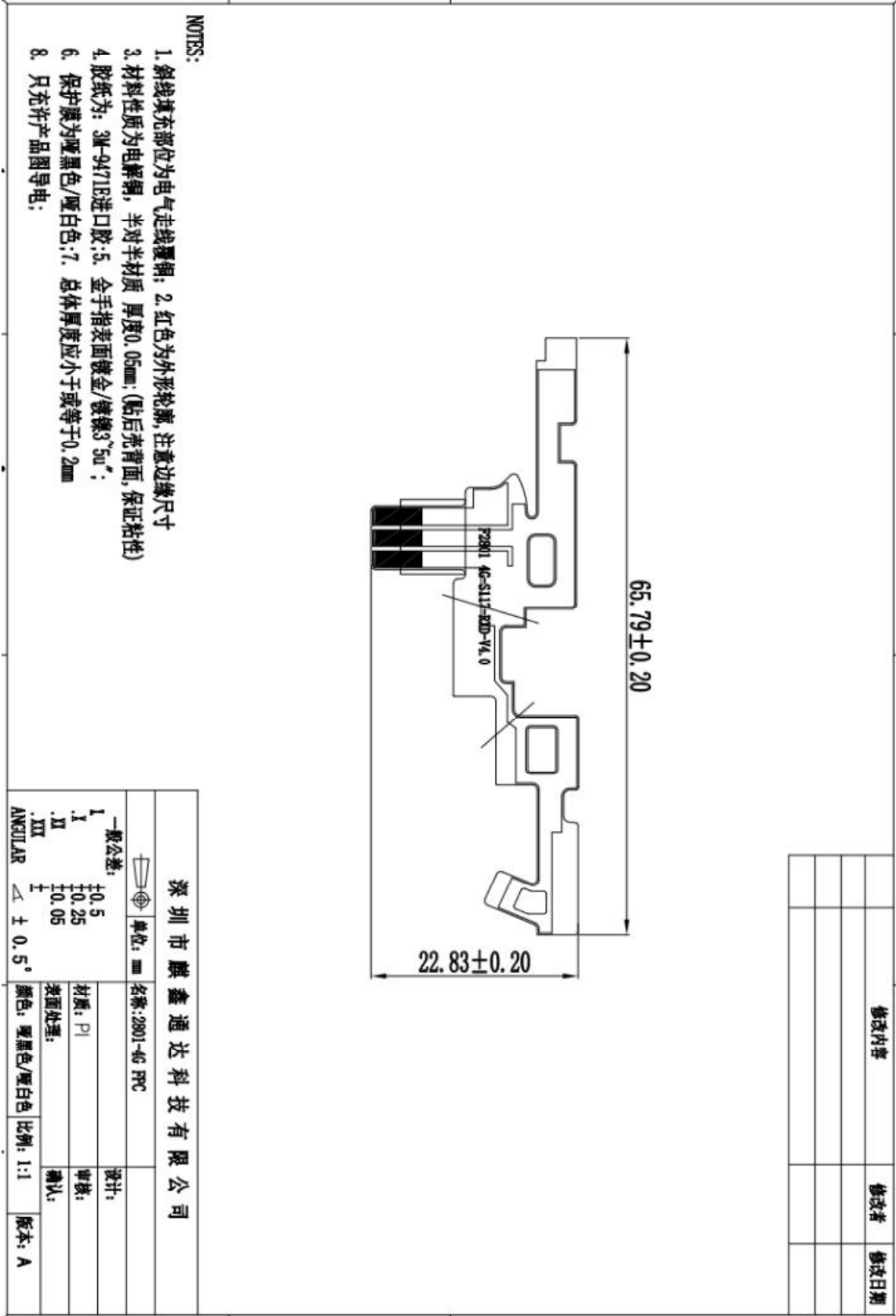
Gain/Efficiency Test Steps:



Active TRP/TIS Test Steps:



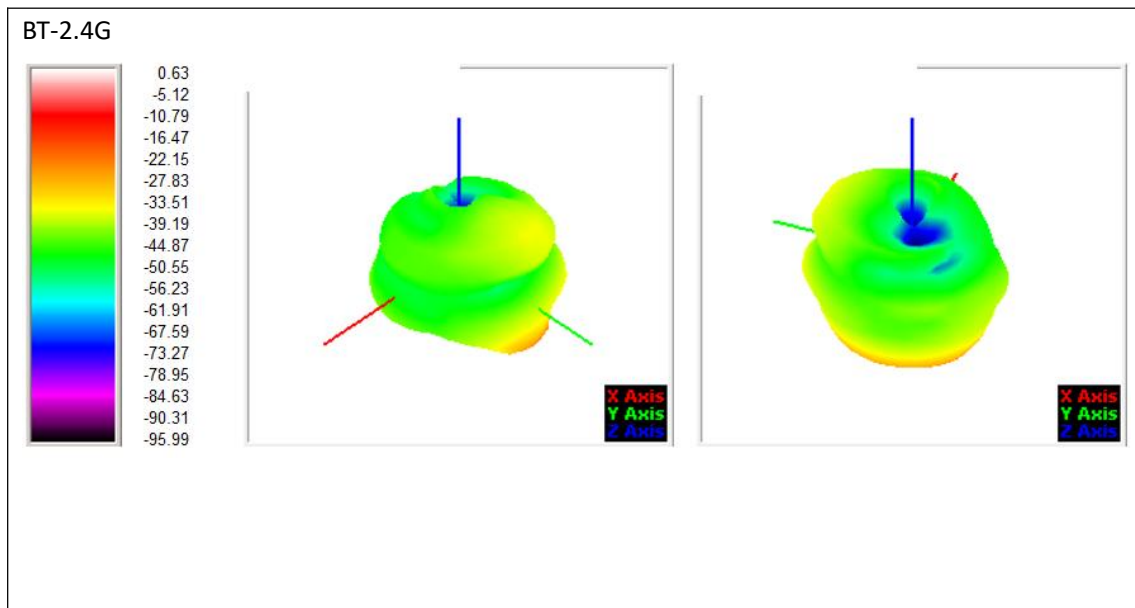
5. Antenna size diagram



7. Antenna Gain

Band	Max Gain
GSM850 (824-894MHZ)	-2.83
GSM900 (880-960MHZ)	-2.55
DCS1800 (1710-1880MHZ)	0.35
PCS1900 (1850-1990MHZ)	0.22
WCDMA-B1 (1920-2170MHZ)	0.31
WCDMA-B2(1850-1990MHZ)	0.22
WCDMA-B5 (824-894MHZ)	-2.83
WCDMA-B8 (880-960MHZ)	-2.55
LTE-B2 (1850-1990MHZ)	0.22
LTE-B4 (1710-2155MHZ)	0.25
LTE-B5 (824-894MHZ)	-2.83
LTE-B12 (699-746MHZ)	-3.13
LTE-B13 (746-787MHZ)	-2.98
LTE-B17 (704-746MHZ)	-3.05
LTE-B66 (1710-2200MHZ)	0.33
LTE-B71 (617-698MHZ)	-3.56
BT-2.4G(2402-2480MHZ)	0.05

8.2D&3D Lobe Diagram



9.Introduction to Antenna Information

F284-4G	
Antenna type and frequency band	MAIN ANTENNA(PIFA):2G/3G/4G BT ANTENNA(Monopole):BT-2.4G
Antenna materia	FPC