



# Antenna Approval Sheet

## For GT75 Project

Customer	富士伟业	Project	GT75
Band	WiFi 2.4GHZ		
ZC PN	FC009-CA-93		
Version	R:A	Data	2022-11-12

RF		ME	
Checked By			
Confirmed By			
Cust Confirm			



## 1. Summary of the DUT

### GT75 Picture



### Antenna Picture



## 2. Electrical Specification:

Antenna types	Built-in wifi 2.4GHZ antenna
Frequency	2400-2500 MHz
Impedance	50 $\Omega$
VSWR	< 2.0
Peak Gain	2.4GHZ 2.8 dbi
Efficiency	>40 %
Antenna Material	FPC+同轴线
Connector Type	1.13 MHF-1-Plug



### 3. Test Condition

3.1	测试项目	测试设备和型号	备注
1.有源测试	1. TRP 2. TIS	1. 3D microwave darkroom (Satimo SG24) 2. Comprehensive test instrument (CMW500) 3. Agilent 8960 E5515C	
2.无源测试	1. Antenna Gain 2. S.W.R 3. Return Loss 4. Radiation Pattern	1. Network analyzer (R&S ZVL6) 2. Network analyzer (HP 8753D)	

**3.2 Matching Circuit** The matching circuit was Default

**3.3 Antenna installation diagram:**



### 4. RF Performance

#### 4.1 Active test data

Item	Measurement	Standard	Band	Channel	Frequency	Total
1	TRP	WIFI (AP)	WIFI_B (11M)	1	2412	16.49
2	TRP	WIFI (AP)	WIFI_B (11M)	6	2437	16.2
3	TRP	WIFI (AP)	WIFI_B (11M)	11	2462	16.8
4	TIS	WIFI (AP)	WIFI_B (11M)	1	2412	82.26
5	TIS	WIFI (AP)	WIFI_B (11M)	6	2437	83.43
6	TIS	WIFI (AP)	WIFI_B (11M)	11	2462	84.18

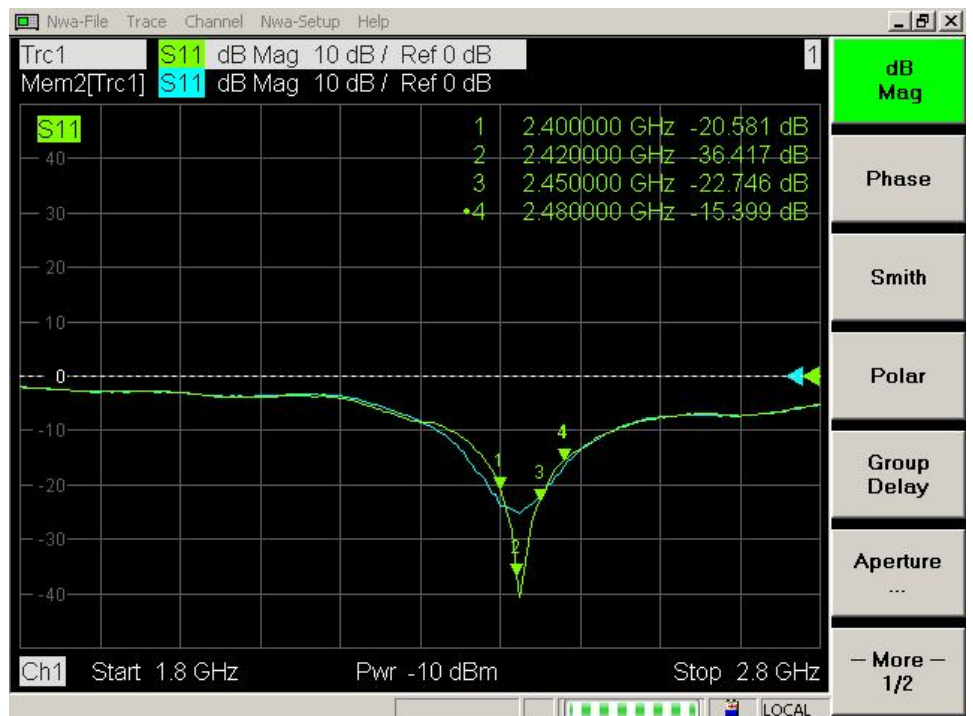
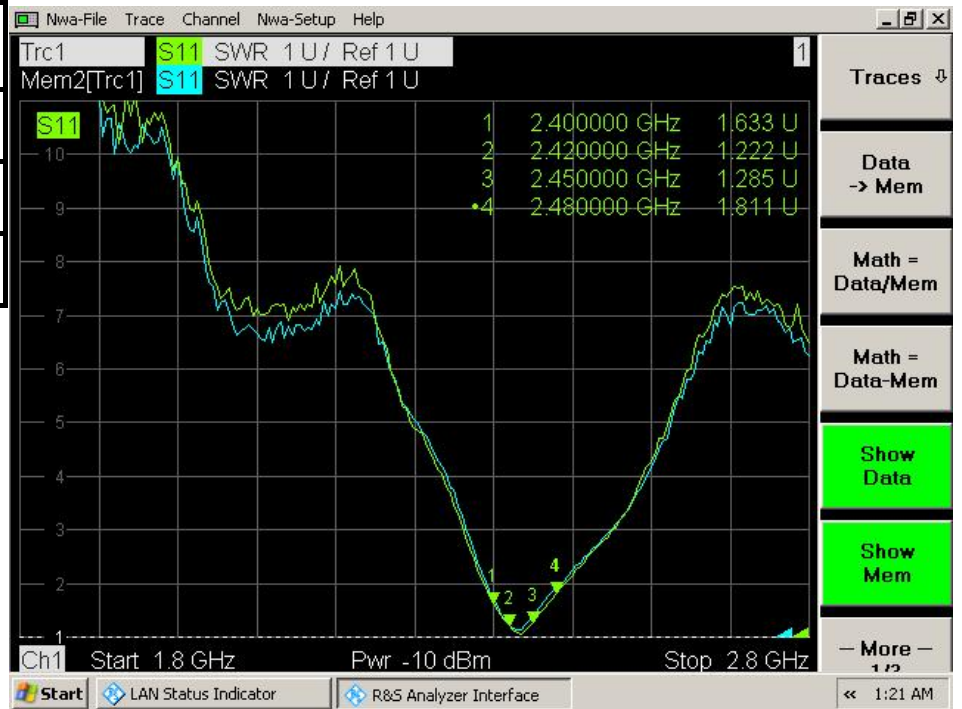


## 4.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.67	1.8	2.13	2.56	2.53	2.85	2.88	2.45	1.99	1.98	1.95
Efficiency (%)	43.5	43.2	45.5	47.3	50.2	52.1	53.8	52.7	51.4	51.6	48.3

## 4.3 S Parameter

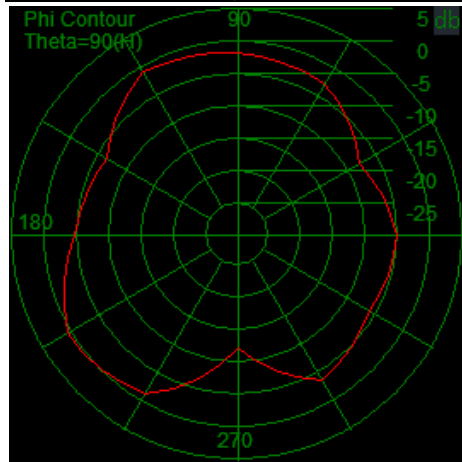
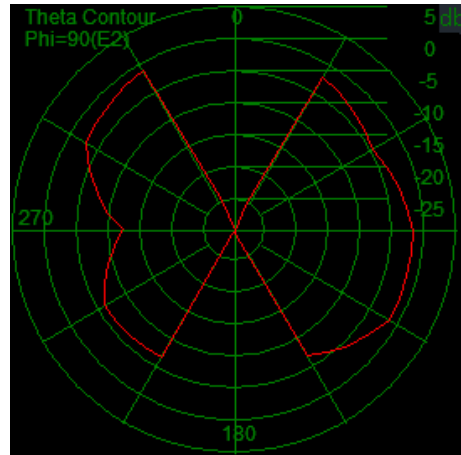
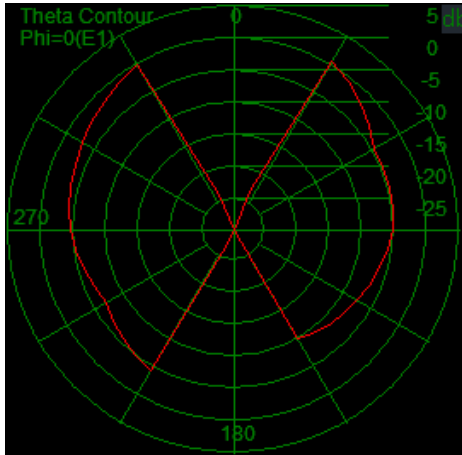
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-13.2	1.63
2450	-20.6	1.28
2480	-13.9	1.81



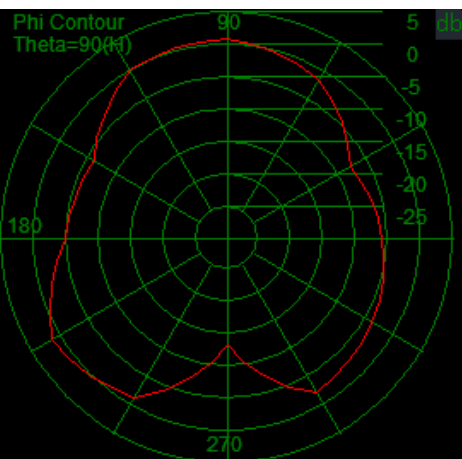
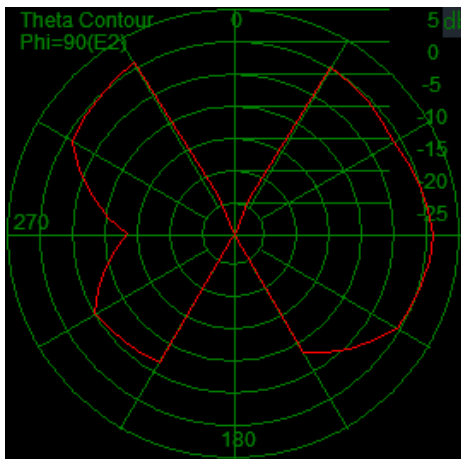
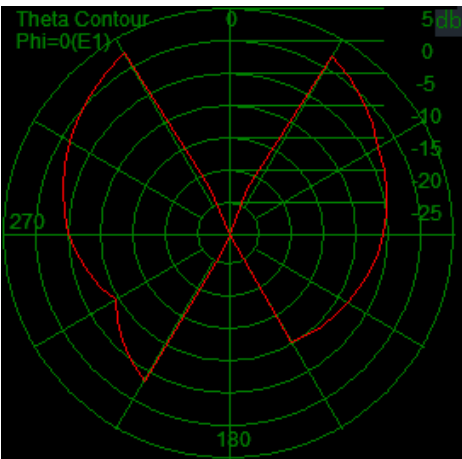


## 4.4 Radiation Pattern

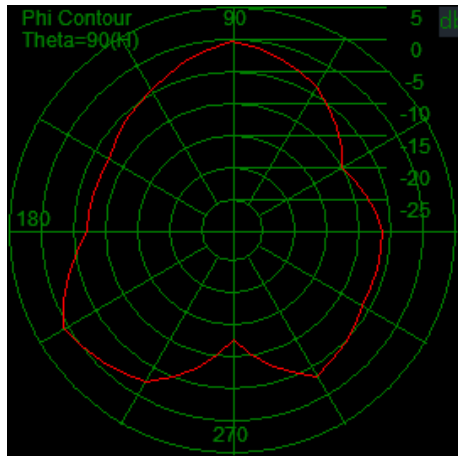
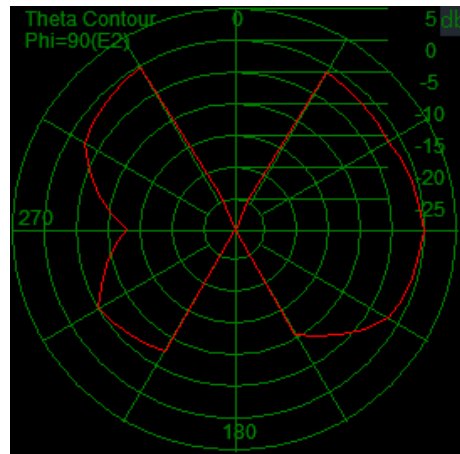
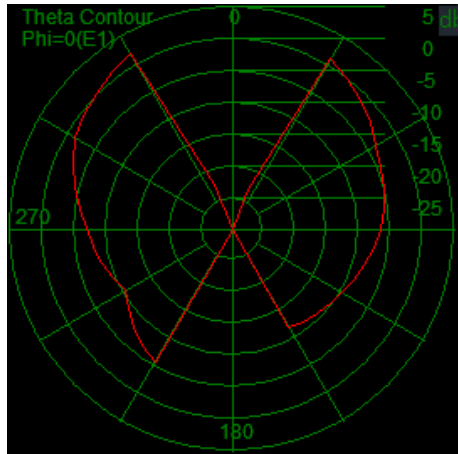
### 4.4.1 Antenna 2D Radiation Pattern



**2400MHZ**

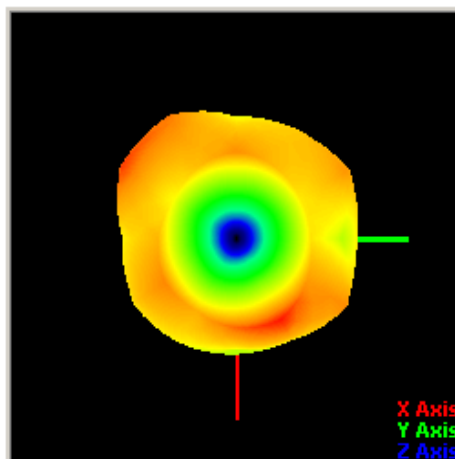
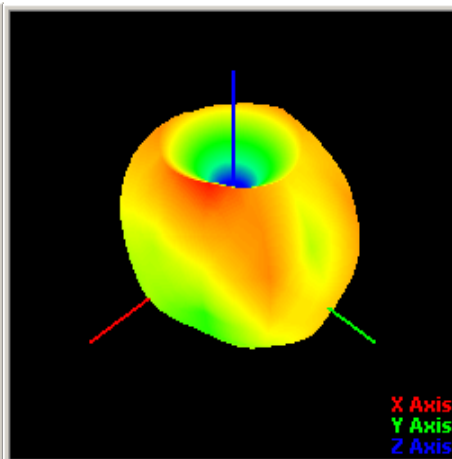
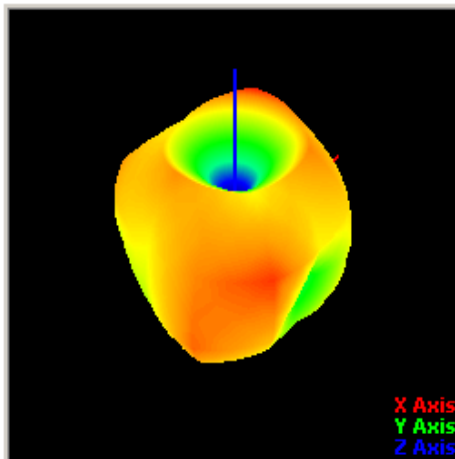


**2460MHZ**



**2500 MHZ**

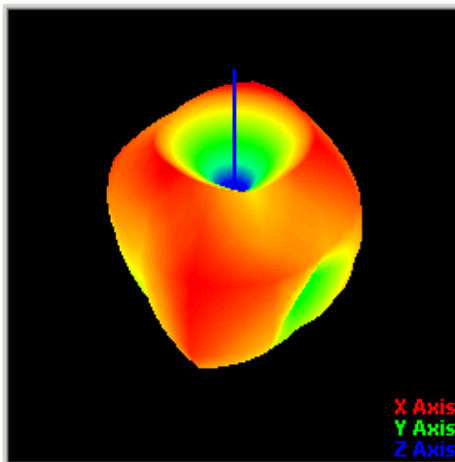
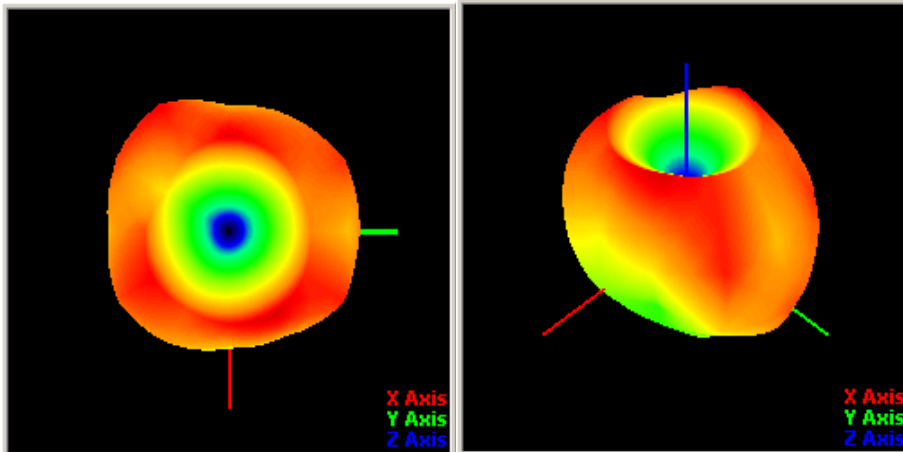
## 4.4.2 Antenna 3D Radiation Pattern



Coordination System Description:

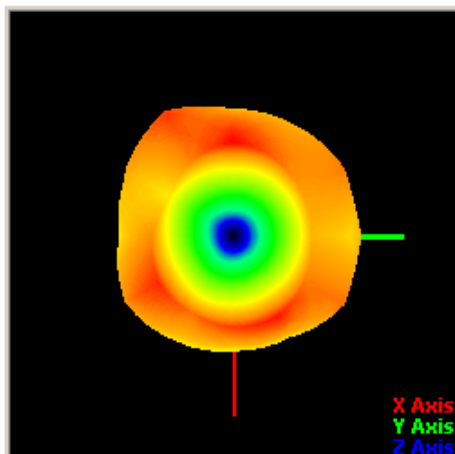
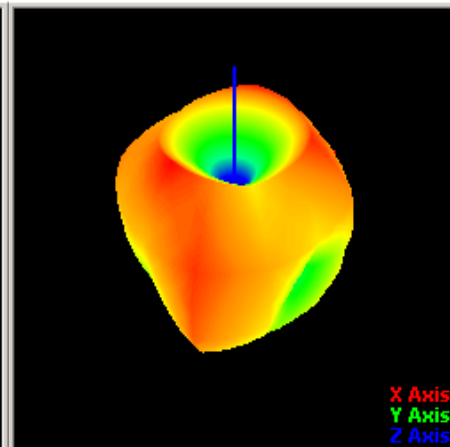
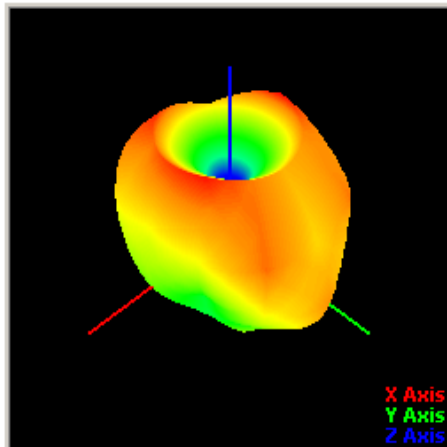
Line	Color	XYZ	Theta-Phi
Red	L.	Axis X	Theta90-Phi0
Green	L.	Axis Y	Theta90-Phi90
Blue	L.	Axis Z	Theta0

**2400MHZ**



Coordination System Description:  
Line Colr XYZ      Theta-Phi  
Red L.    Axis X    Theta90-Phi0  
Green L.   Axis Y    Theta90-Phi90  
Blue L.    Axis Z    Theta0

**2460MHZ**



Coordination System Description:  
Line Colr XYZ      Theta-Phi  
Red L.    Axis X    Theta90-Phi0  
Green L.   Axis Y    Theta90-Phi90  
Blue L.    Axis Z    Theta0

**2500MHZ**





## 5. ME Drawing for the antenna

