



Antenna Approval Sheet

For
HT60 Project

Customer	Ai jian	Project	HT60
Band	WiFi 2.4GHZ		
ZC PN	AC016-CA-93		
Version	R:A	Data	2022-12-14

RF		ME	
Checked By			
Confirmed By			
Cust Confirm			



1. Summary of the DUT

HT60 Picture



Antenna Picture



2. Electrical Specification:

Antenna types	Built-in wifi 2.4GHZ antenna
Frequency	2400-2500 MHz
Impedance	50 Ω
VSWR	< 2.0
Gain	2.4GHZ 2.4 dbi
Efficiency	>40 %
Antenna Material	FPC+Coaxial Cable
Connector Type	Soldering



3. Test Condition

3.1	Test items	Test equipment and models	Remark
1.Active test	1.TRP 2.TIS	1. 3D microwave darkroom (Satimo SG24) 2. Comprehensive test instrument CMW500) 3. Agilent 8960 E5515C	
2.Passive test	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

3.3Antenna 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	19.3
2	TRP	WIFI (AP)	WIFI_B (11M)	6	2437	19.36
3	TRP	WIFI (AP)	WIFI_B (11M)	11	2462	18.71
4	TIS	WIFI (AP)	WIFI_B (11M)	1	2412	-81.65
5	TIS	WIFI (AP)	WIFI_B (11M)	6	2437	-81.25
6	TIS	WIFI (AP)	WIFI_B (11M)	11	2462	-82.81

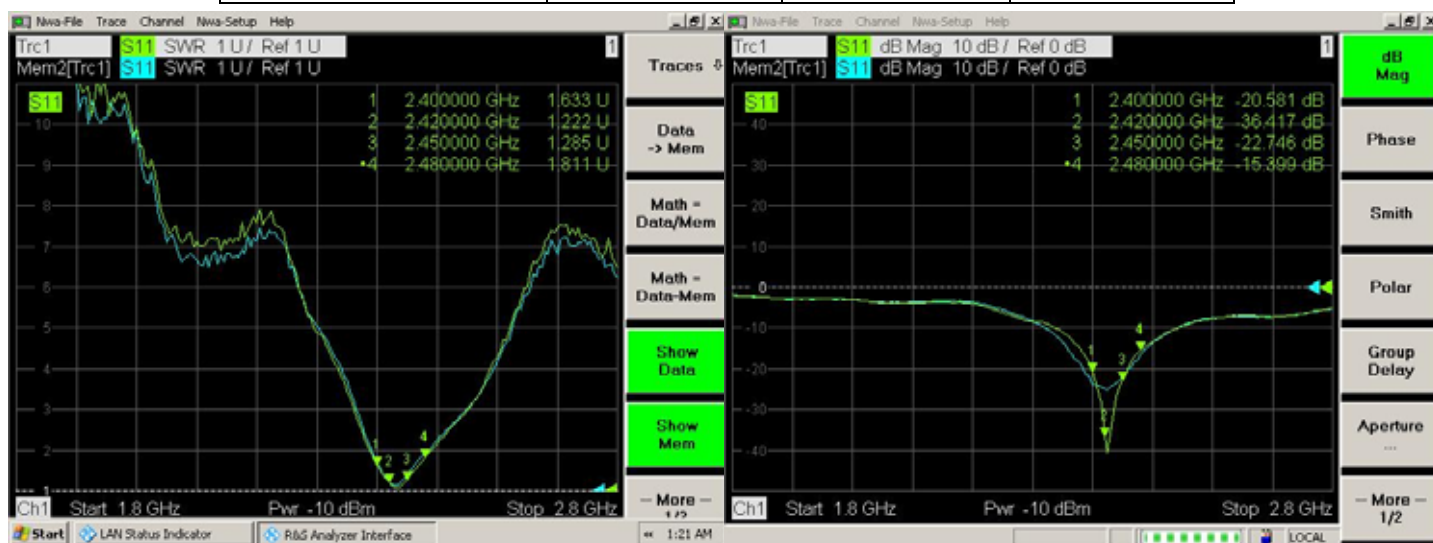


4.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.09	2.18	2.23	2.44	2.38	2.28	2.13	1.78	1.21	1.16	0.75

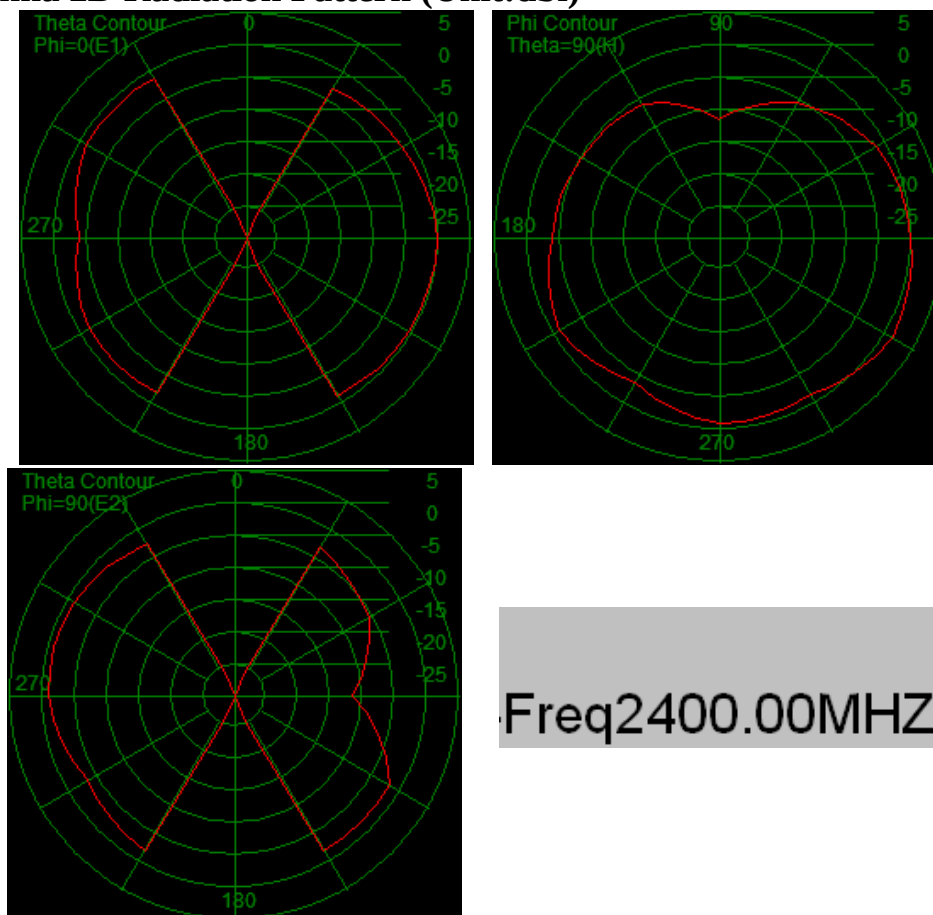
4.3 S Parameter

Frequency (MHz)	2400	2450	2480
Return Loss(dB)	-20.58	-22.74	-15.39
VSWR	1.63	1.28	1.81

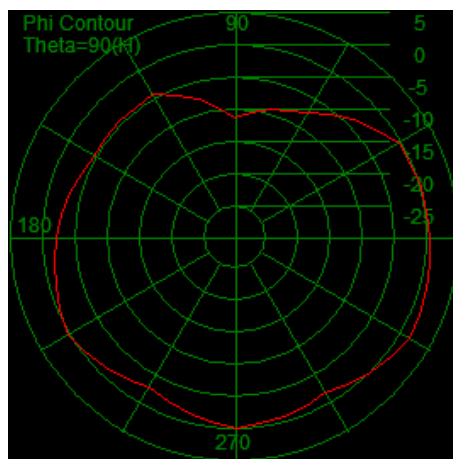
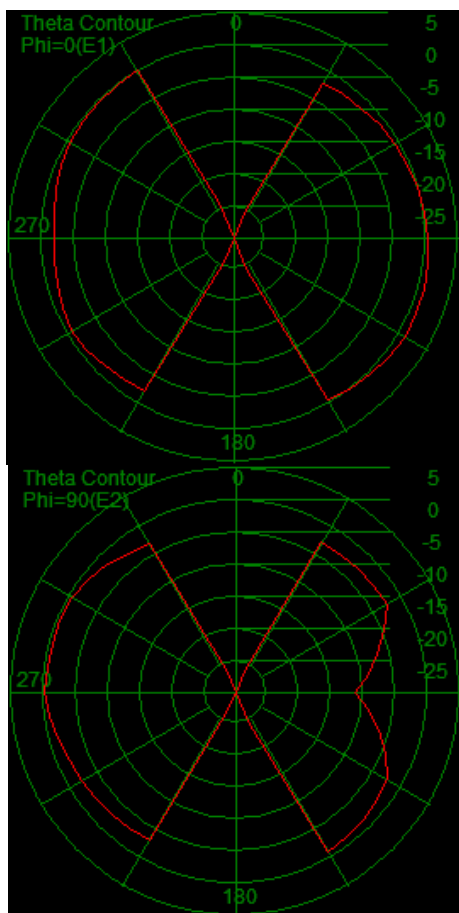


4.4 Radiation Pattern

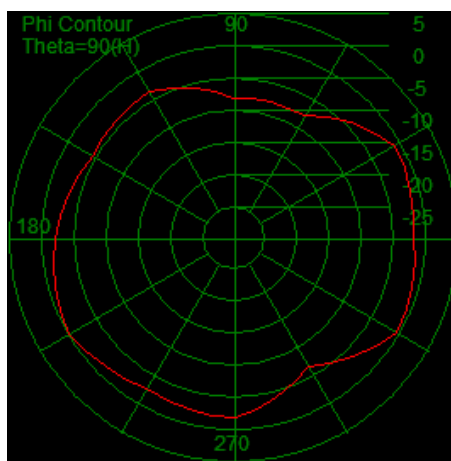
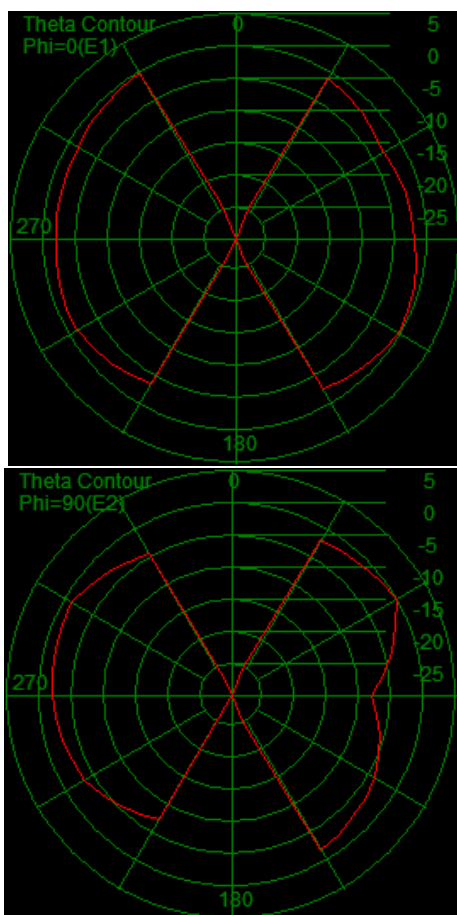
4.4.1 Antenna 2D Radiation Pattern (Unit:dbi)



Freq2400.00MHZ



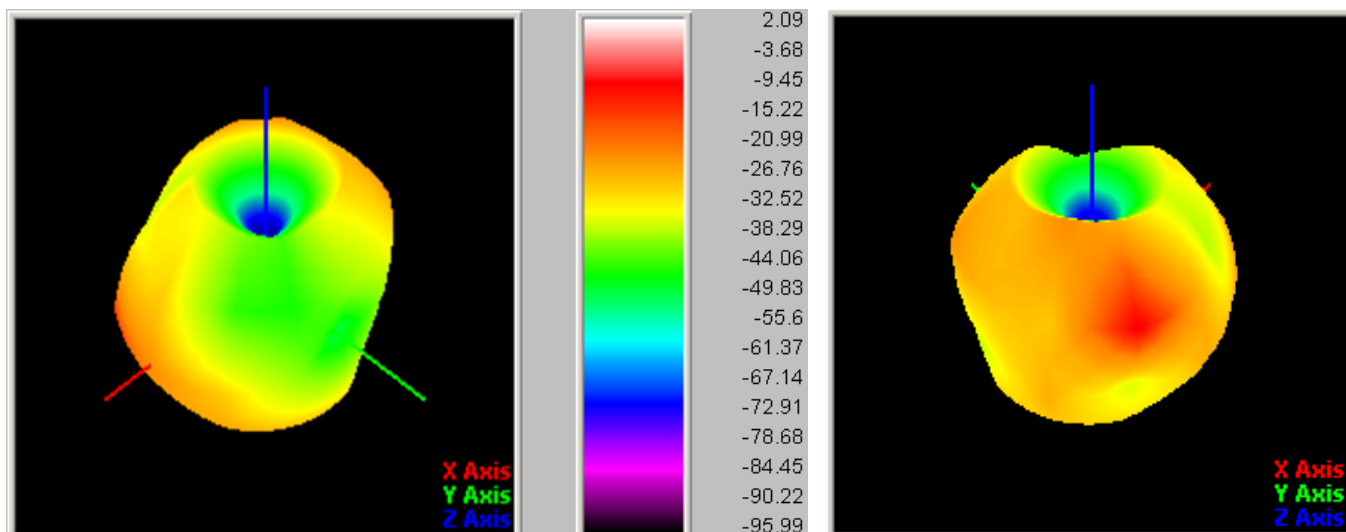
Freq2430.00MHZ



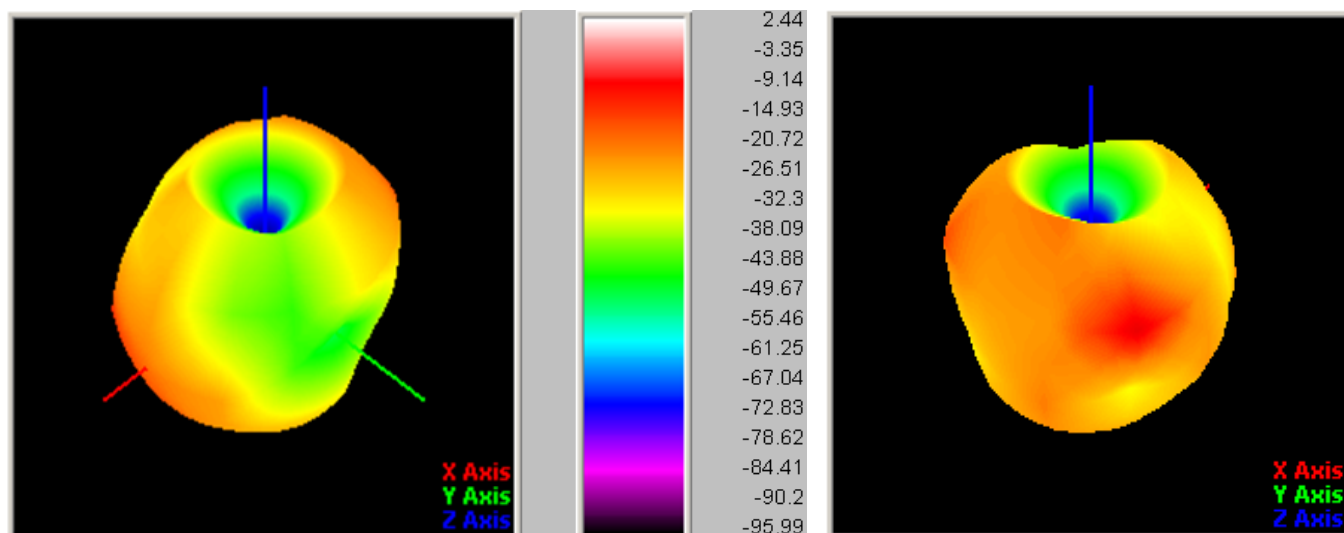
Freq2500.00MHZ



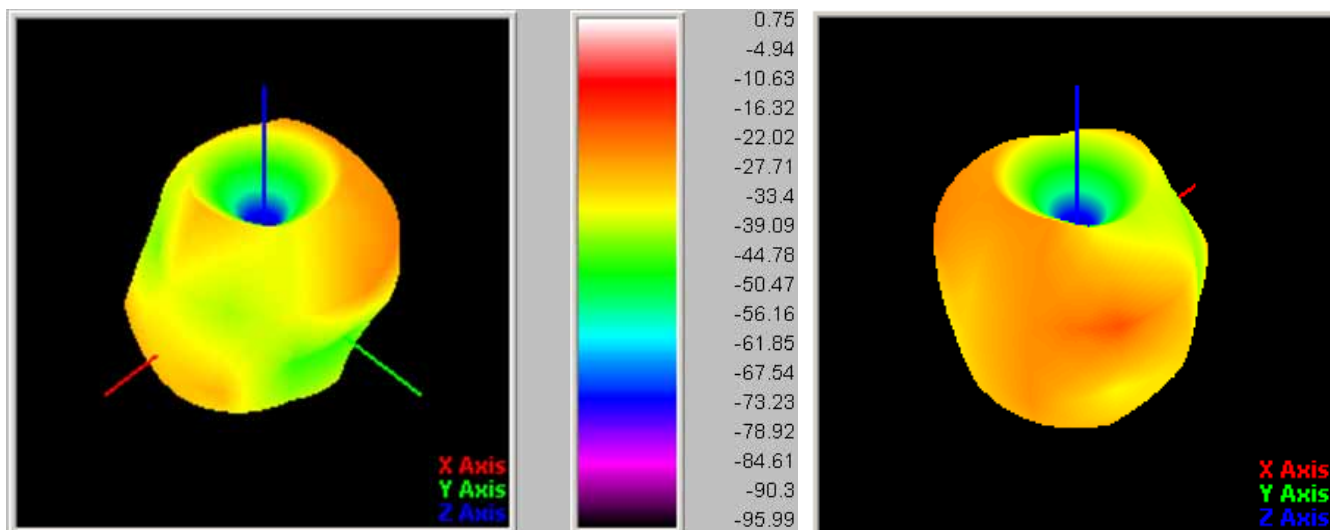
4.4.2 Antenna 3D Radiation Pattern (Unit:dbi)



Freq2400.00MHZ



Freq2430.00MHZ



Freq2500.00MHZ

Page7