Characteristic Impedance (R)	/	
Working Temperature	-20 ~ +70	℃
Storage Temperature	-20 ~ +80	℃
Frequency Range	2400-2500	MHz
Dielectric Strength	/	
Contact Impedance	50	ohm
Insulation Impedance	/	
VSWR	<2	
Antenna Efficiency	52.72 ~ 58.58	%
Gain	2.0 ~ 2.84	dB
Radiation Direction	omnidirectional	
Power Capacity	33	dBm
Polarization Mode	Linear polarization	
Joint Type	/	

0337 (A12 Project) WIFI Antenna Specification

1、Indication

The report mainly provides the test status of various electrical performance parameters of the 0337 (A12 Project) WIFI Antenna. （As shown in Figure 1 below）

Figure 1　0337 (A12 Project) WIFI Antenna

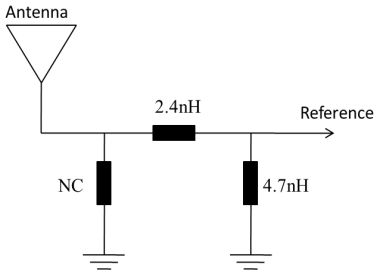
2、 Electrical Performance

2.1 Specification standard

0337 (A12 Project) WIFI Antenna working band is at 2400-2500Mhz.

2.2 Antenna matching circuit

0337 (A12 Project) WIFI Antenna matching for the motherboard is a series 2.4nH inductor, parallel 4.7nH inductor.



2.4nH：Laminated common inductor 0402-±0.3nH-400mA-85℃-0.15R，manufacturer：CHILISIN

4.7nH：Laminated common inductor 0402-±0.3nH-300mA-125℃-0.2R，manufacturer：Shenzhen Sunlord Electronics Co., Ltd.

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2.3 VSWR Test

A. Test setup

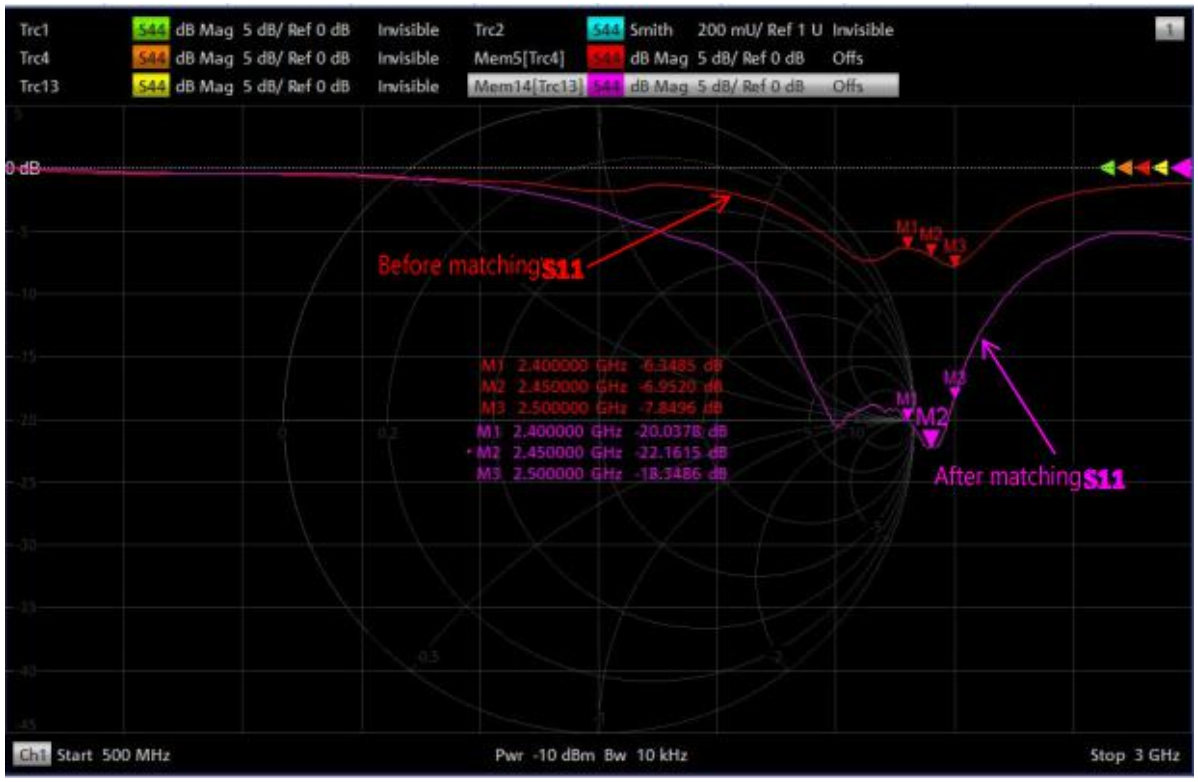
VSWR measurements (S11) were performed using Agilent E5071B Network Analyzer and the previously described test fixture. A ferrite-loaded coaxial cable was used to mitigate surface currents on the outside of the cabling. The testing was performed in free space ETS AMP8500S chamber..

B. VSWR

The table below shows the standing wave ratio value of the edge frequency of the working band of 0337 (A12 Project) WIFI Antenna.

frequency	frequency (MHz)	Log
2.4G WiFi	2400	-20.03
	2500	-18.34

2.3.1 SWR parameter



2.3.2 antenna passive efficiency

Test method: The near-field data of DUT spherical surface are collected by multiple probes, and then the pattern of DUT is calculated by strict mathematical near-field to far-field conversion. The passive gain efficiency is calculated according to the directivity coefficient on the pattern.
Test equipment: Agilent 5071C
Test environment: GTS RayZone OTA Darkroom

Gain&Efficiency			
frequency (MHz)	gain (dB)	efficiency (dB)	efficiency (%)
2400	2.41	-2.32	58.58%
2410	2.59	-2.33	58.54%
2420	2.25	-2.55	55.64%
2430	2.57	-2.51	56.15%
2440	2.84	-2.47	56.65%
2450	2.46	-2.55	55.59%
2460	2.35	-2.66	54.15%
2470	2.72	-2.51	56.07%
2480	2.55	-2.48	56.49%
2490	2	-2.78	52.72%
2500	2.19	-2.67	54.04%
Average	2.45	-2.53	55.87%

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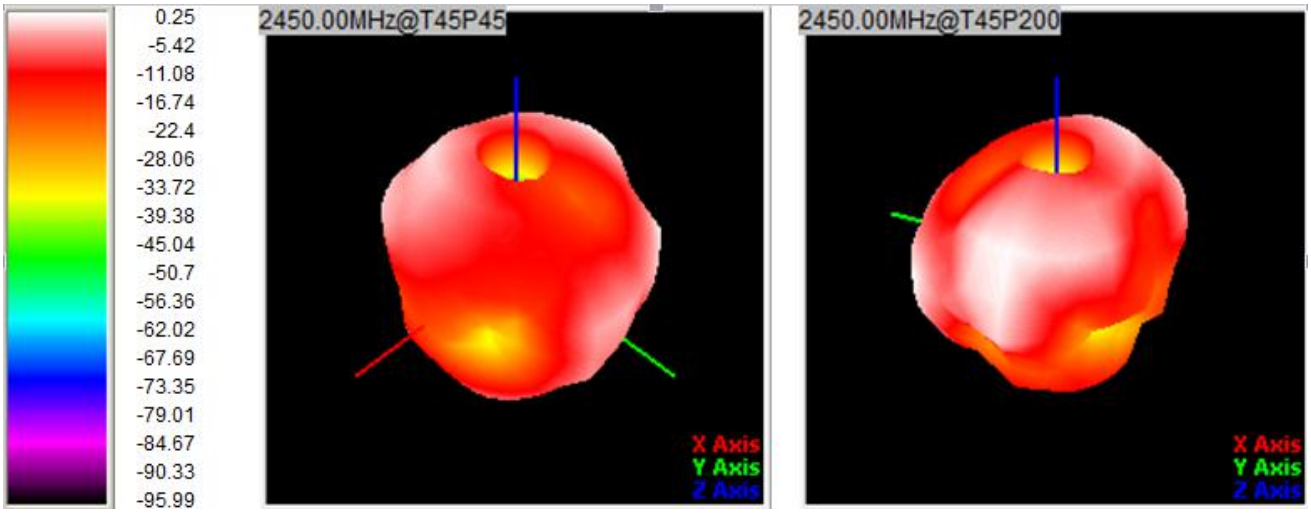
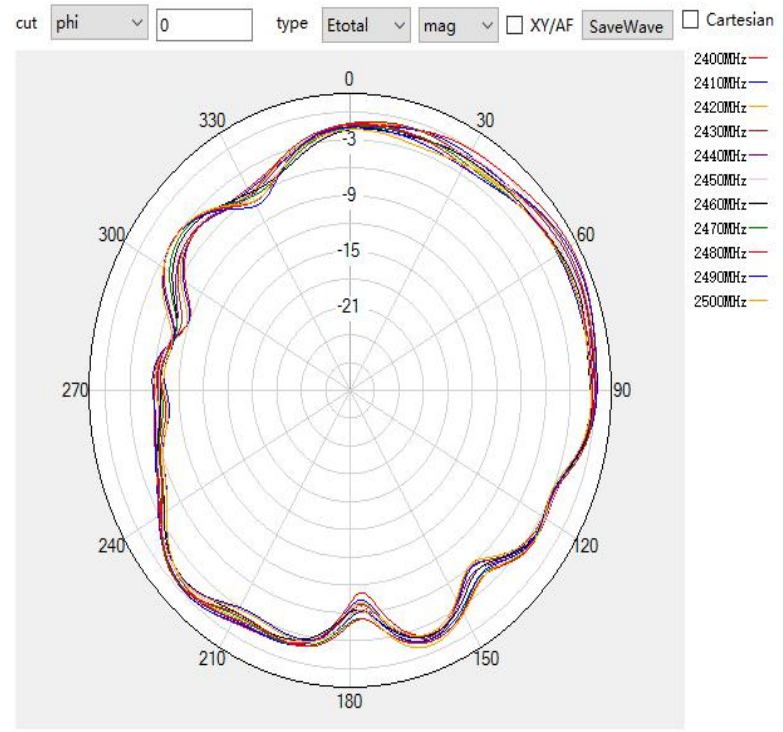
2.3.3 3D pattern

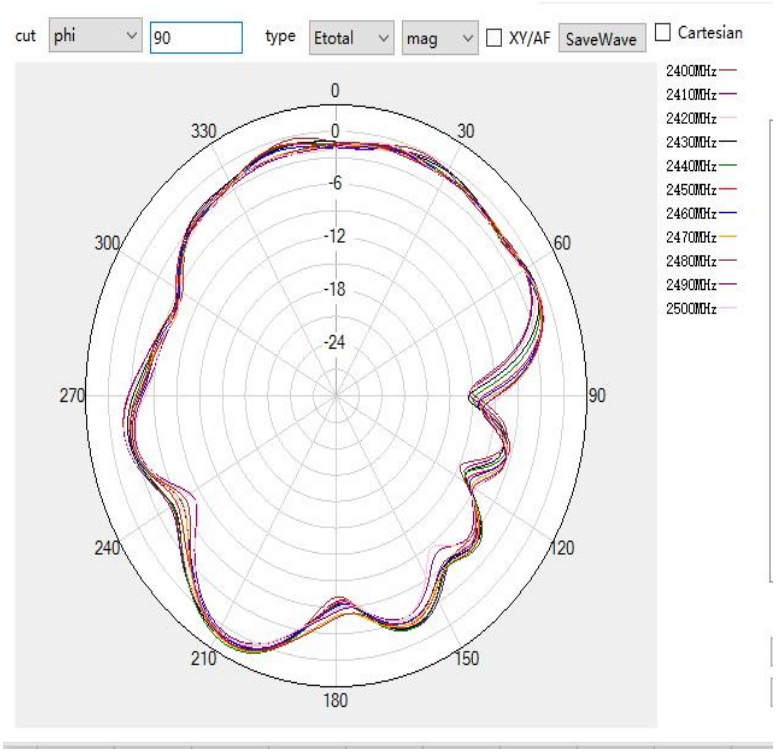


2.3.4 2D pattern

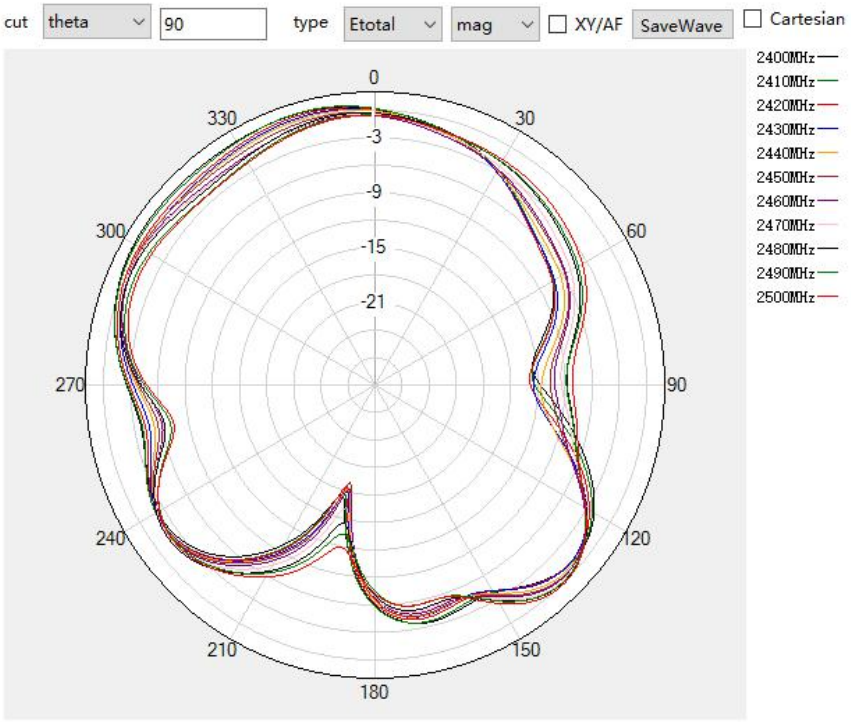
E1-Plane (Phi=0°)



E2-Plane (Phi=90°)



H-Plane (Theta=90°)



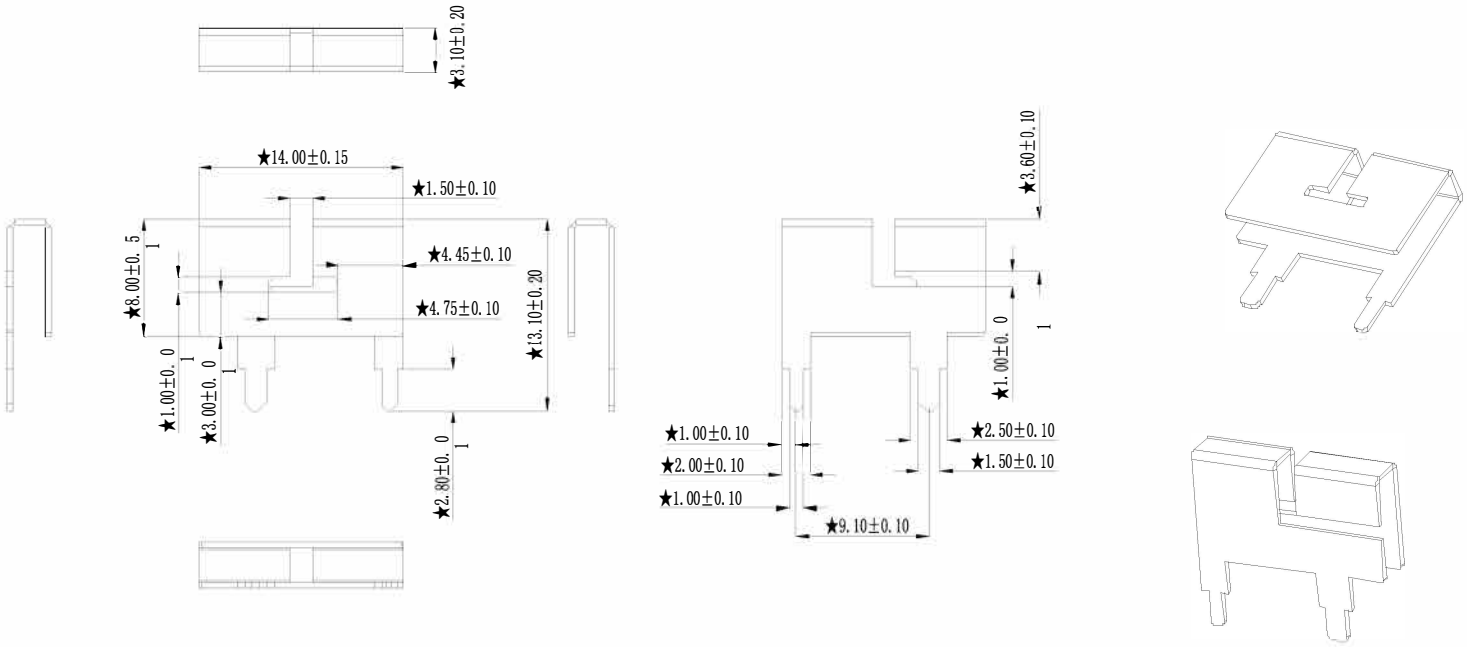
3、suggestion and solution

This report is according to the customer provide 0337 (A12 Project) WIFI Antenna the final version of the electrical performance of antenna.

As can be seen from the above test data, this antenna provides better electrical performance.

We are looking forward to your confirmation. Thank you for your cooperation!

4、Appearance drawing


★3.10±0.20
★14.00±0.15
★1.50±0.10
★4.45±0.10
★4.75±0.10
★8.00±0.5
★13.10±0.20
★1.00±0.0
★3.00±0.0
★2.80±0.0
★3.60±0.10
★1.00±0.0
★1.00±0.10
★2.00±0.10
★1.00±0.10
★2.50±0.10
★1.50±0.10
★9.10±0.10

1/1

Date