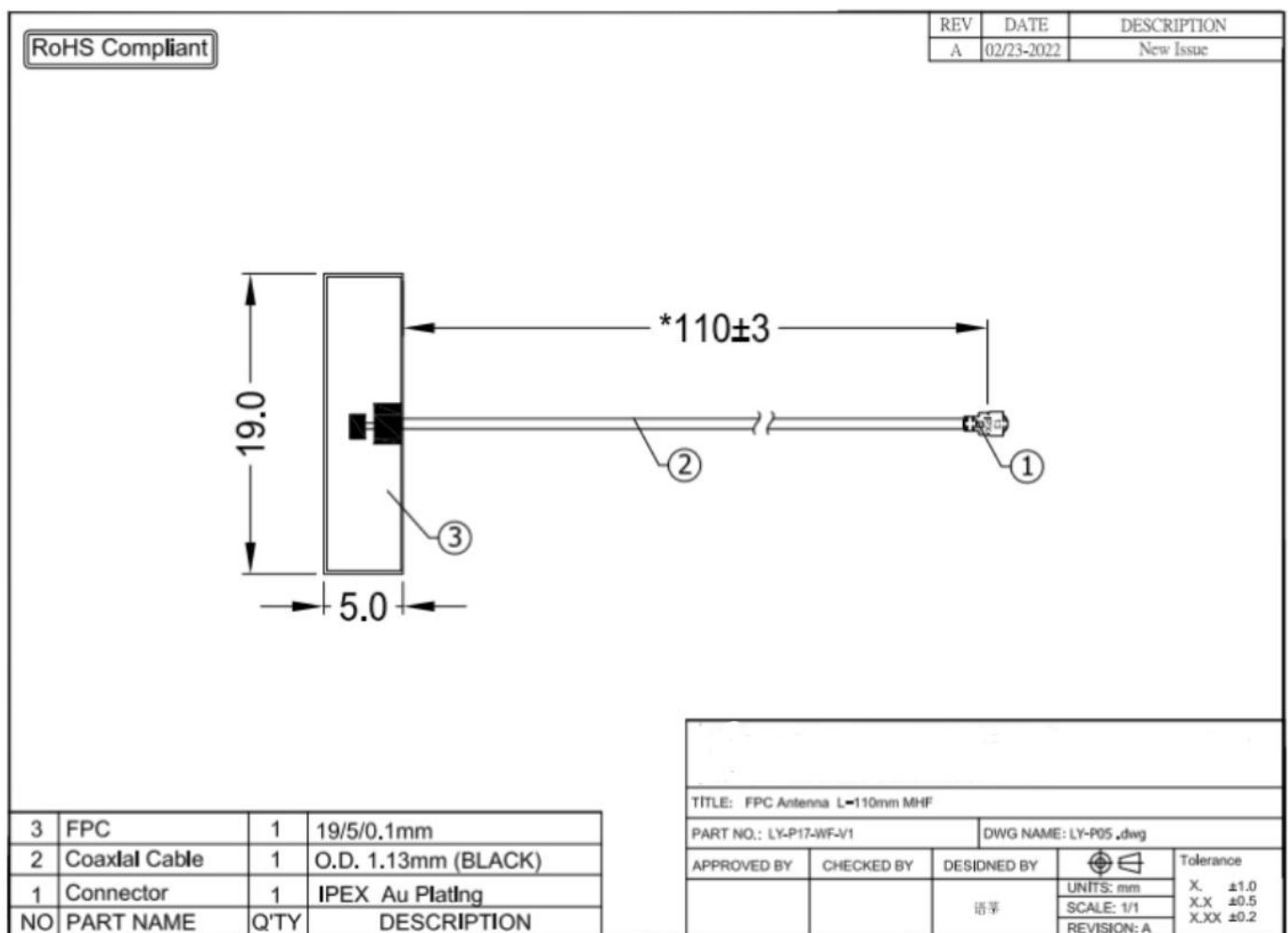




Antenna Drawing





Specification

Electrical Properties	
Model Number	HSA-2400FPCC
Frequency Range	2.4-2.5GHz
Impedance	50Ω
VSWR	2:1MAX
Return Loss	-10dB Max
Gain(peak)	3.57dBi
Cable loss	0.3dBi Max
Polarization	Vertical
Admitted Power	2W
Cable Type	O.D 1.13mm Black
Connector	IPEX
Physical Properties	
Antenna Material	FPC
Operating Temp	-40°C- +85°C



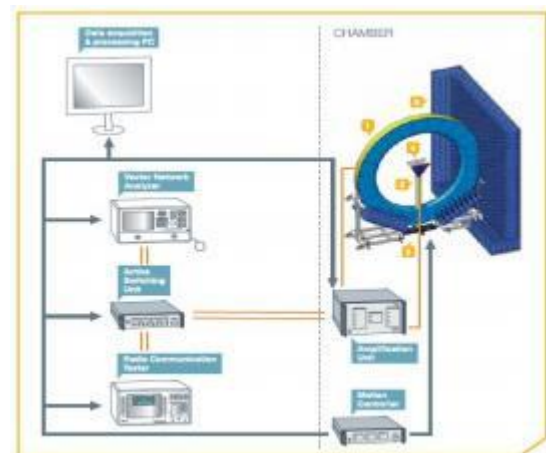
宏信创科

Wireless Products Provider

Global Service

Test Equipment

- SATIMO SG24 3D Microwave Chamber
- Agilent E5017B Network Analyzer and 8960 Comprehensive Analyzer



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Tel: 86-0755 84868897

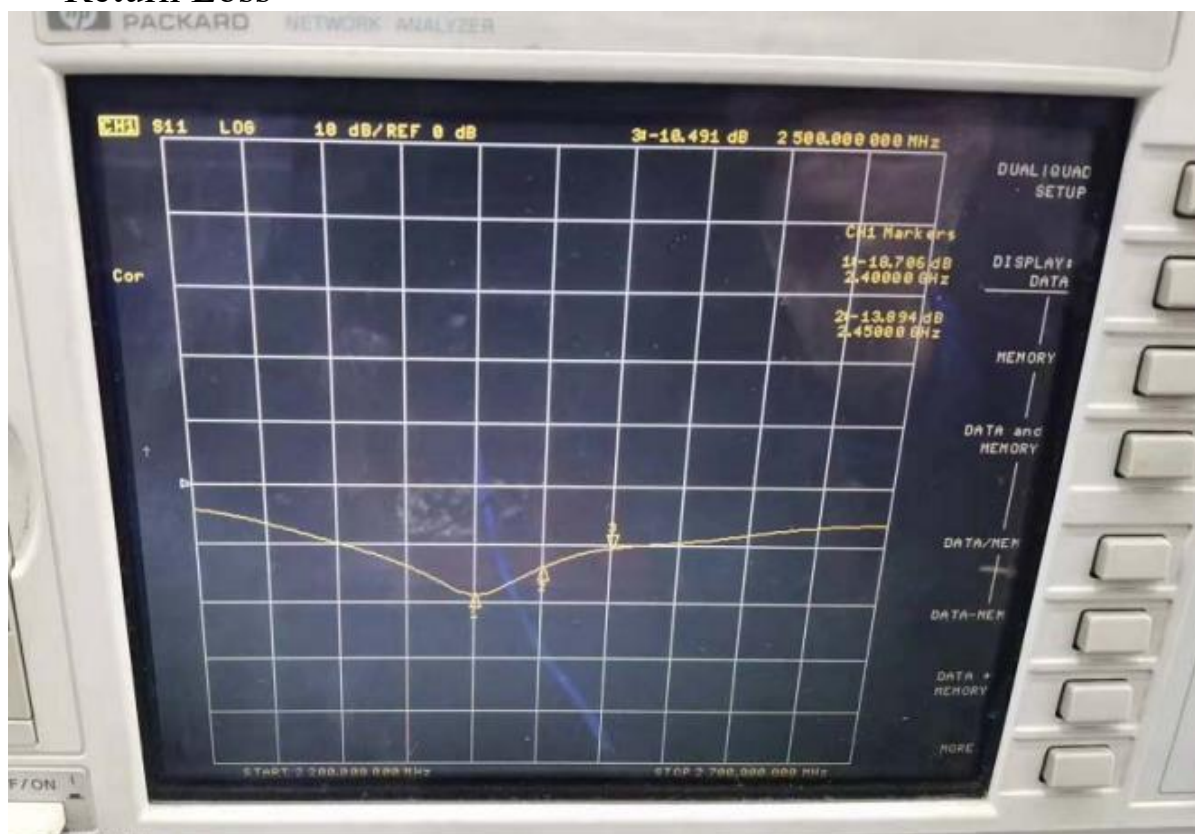


Environment and Reliability Experiment

Item	Experimental conditions	Performance requirements	Test Equipment
low temperature storage	Temperature- $30^{\circ}\text{C}\pm 2^{\circ}\text{C}$ /humidity%/RH/time 48H	Appearance and function tests have no effect after the test	Constant temperature and humidity testing machine
High temperature and high humidity storage	Temperature 70°C , Humidity 90~95%/RH Time 48H	Appearance and function tests have no effect after the test	Constant temperature and humidity testing machine
temperature shock	Product environment: - 35°C for 2H, transfer to 80°C for 2H, 12 cycles for 48H in total	Appearance and function tests have no effect after the test	Thermal shock testing machine

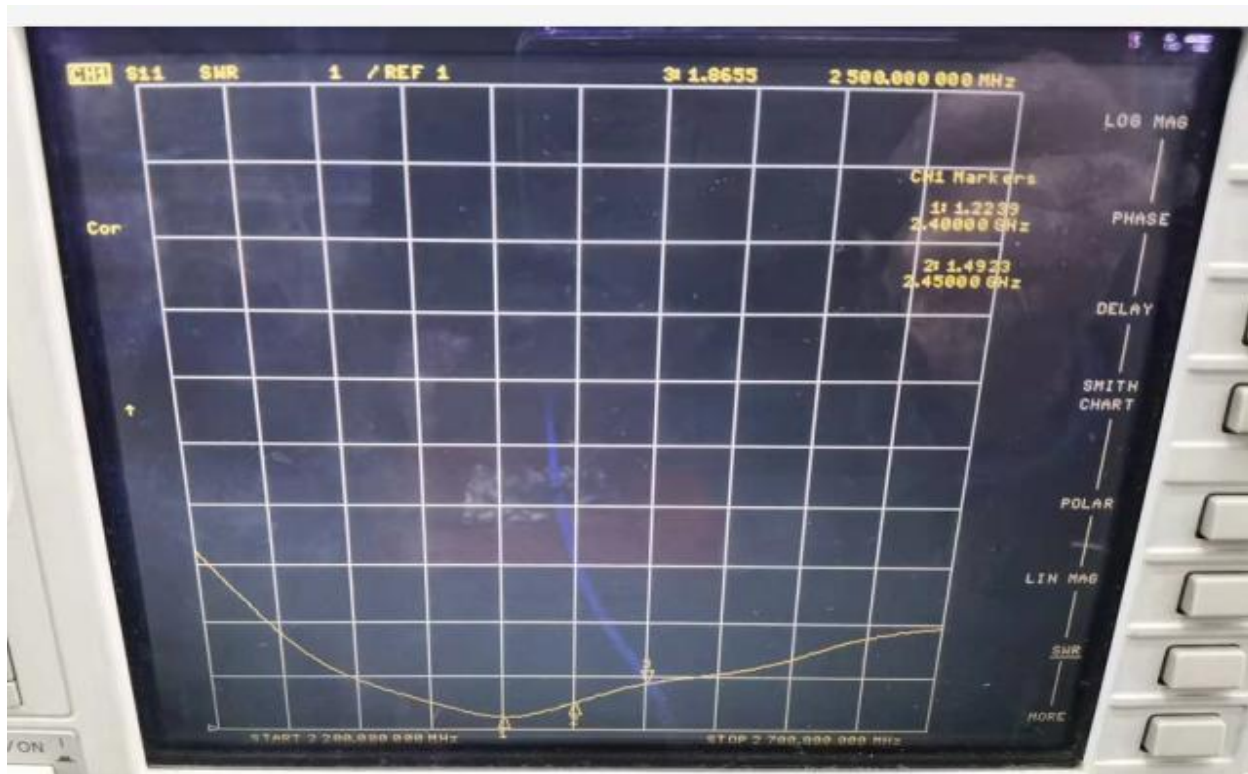
Test Data

● Return Loss





● V.S.W.R

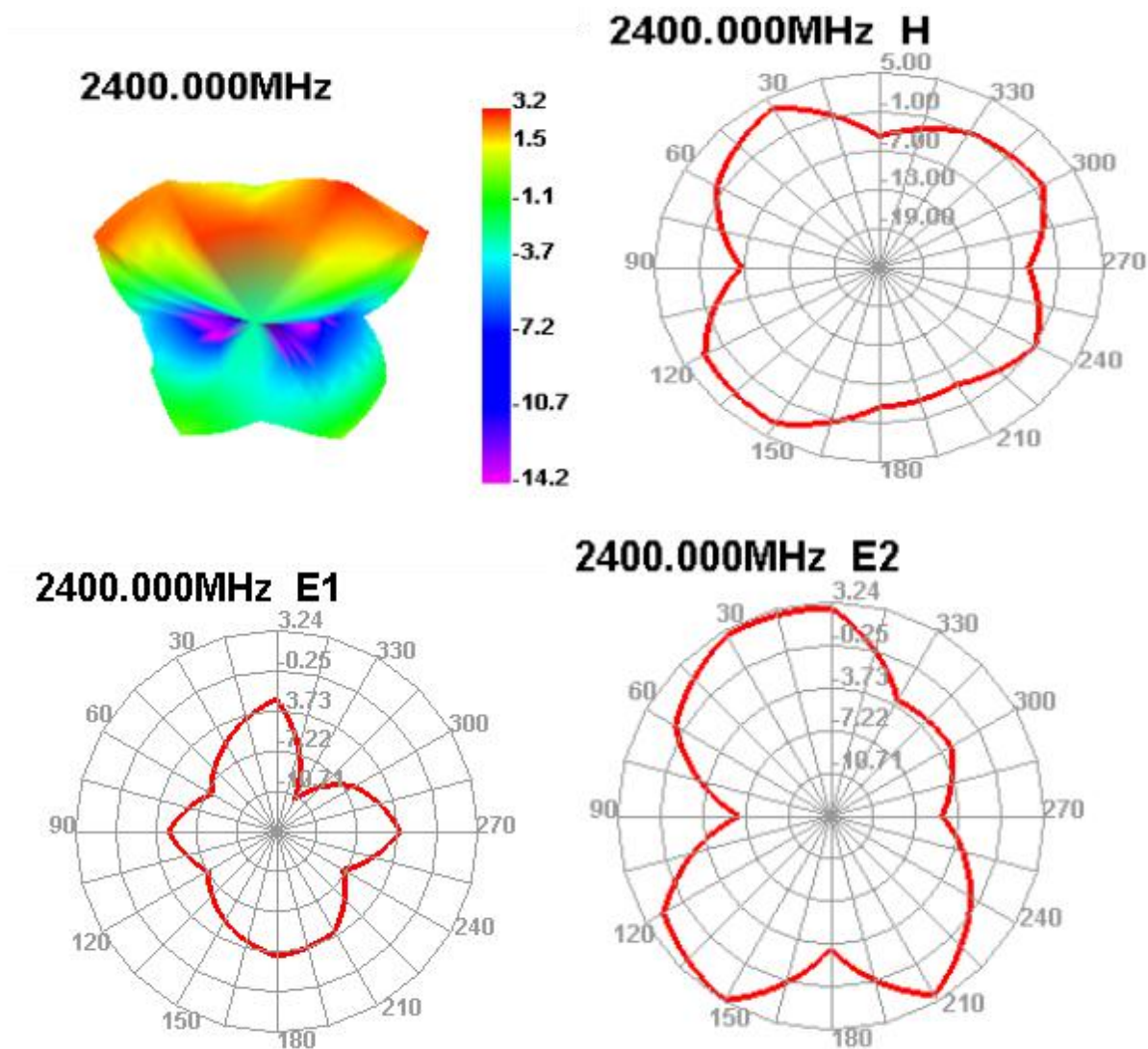


● Gain Table

Passive Test For WIFI1										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	67.69	-1.69	3.41	1.26	30.675	37.019	3.41	-13.67	51.59	51.29
2410	58.84	-2.3	2.93	0.78	27.244	31.596	2.93	-14.66	50.23	49.94
2420	71.44	-1.46	3.53	1.38	34.199	37.239	3.53	-13.16	50.68	50.46
2430	71.54	-1.45	3.57	1.42	34.869	36.675	3.57	-12.89	50.88	50.56
2440	71.04	-1.48	3.47	1.32	34.962	36.08	3.47	-13.22	50.24	49.98
2450	69.1	-1.61	3.17	1.02	34.663	34.439	3.17	-13.8	50.38	50.16
2460	60.05	-2.21	2.54	0.39	30.157	29.896	2.54	-15.41	49.33	49.05
2470	46.58	-3.32	1.56	-0.59	23.139	23.439	1.56	-16.56	49.47	49.17
2480	54.76	-2.62	2.06	-0.09	27.308	27.454	2.06	-15.49	50.28	50.02
2490	52.88	-2.77	2.01	-0.14	26.608	26.274	2.01	-15.45	50.1	49.74
2500	59.77	-2.24	2.52	0.37	29.969	29.801	2.52	-13.68	49.02	48.64

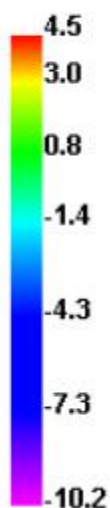
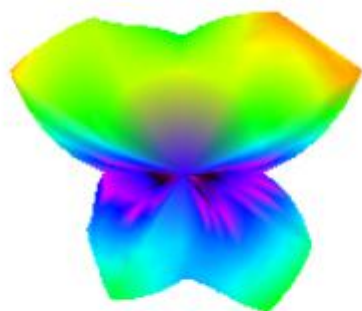


- Antenna 2.4G 3D Gain pattern

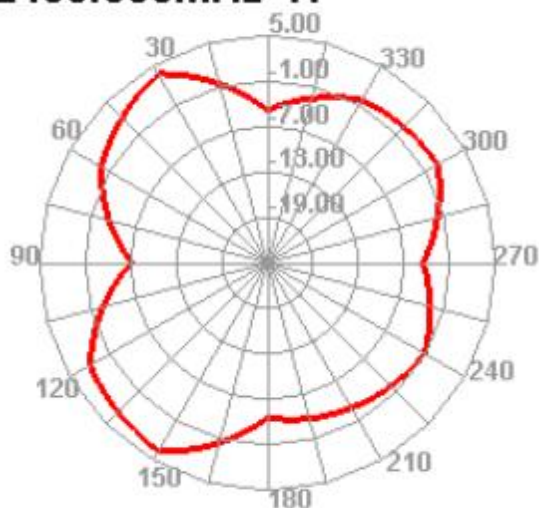




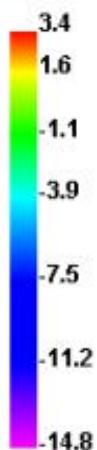
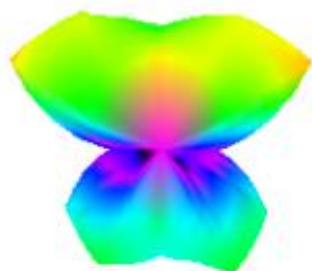
2450.000MHz



2450.000MHz H



2500.000MHz



2500.000MHz H

