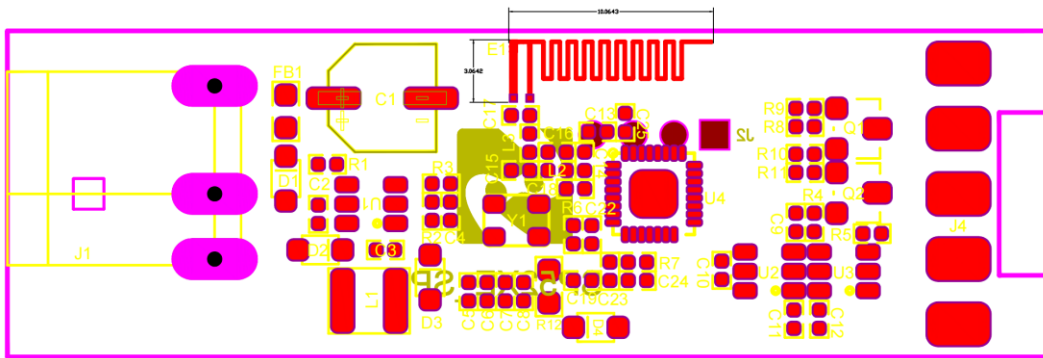


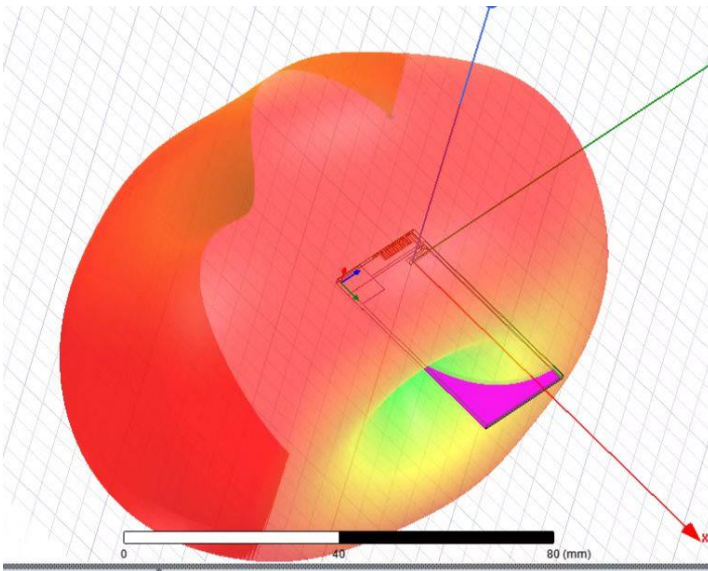
SP52XE Antenna Specifications

1. Antenna location and size (mm) :

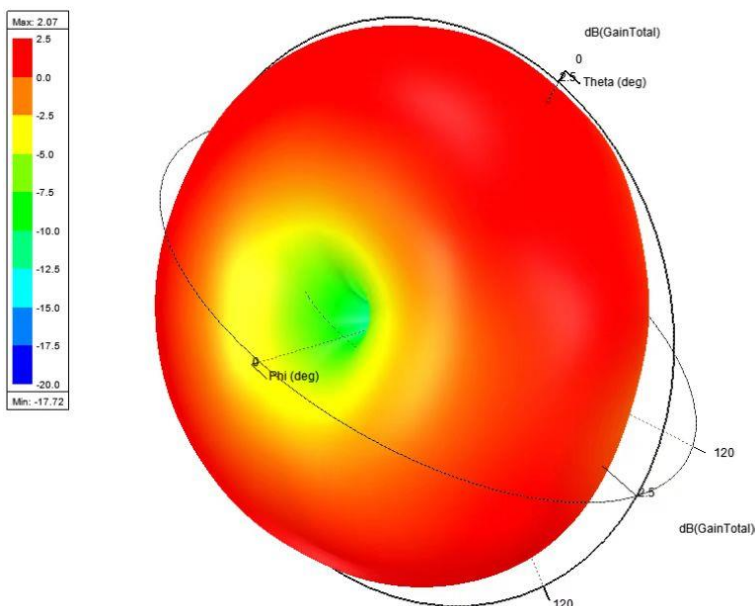


2. Antenna simulation Report:

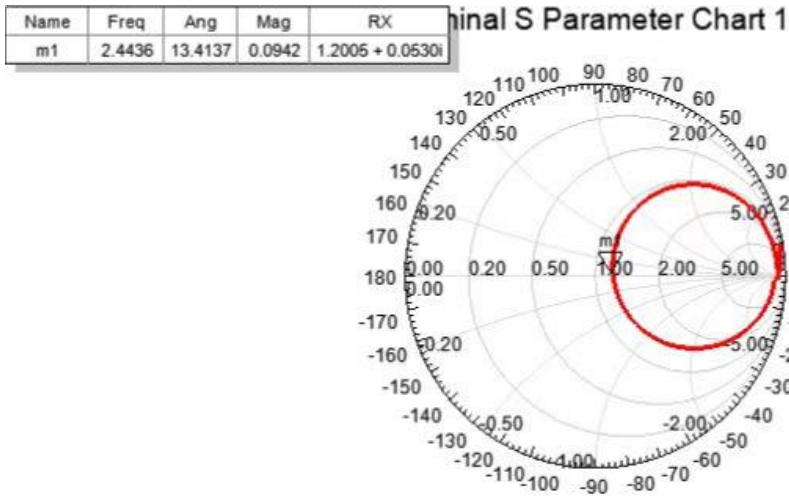
1) Antenna and antenna radiation pattern:



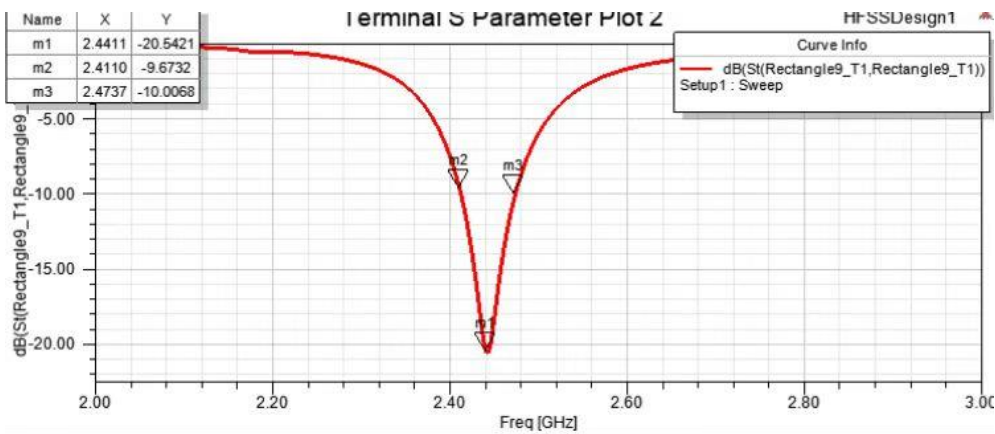
2) Antenna radiation pattern and gain pattern: :



3)Smithchart:

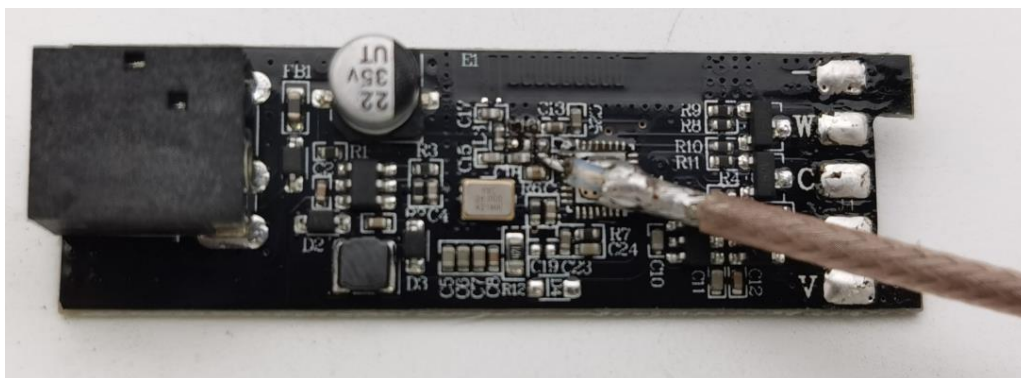


4)S Parameter Plot:

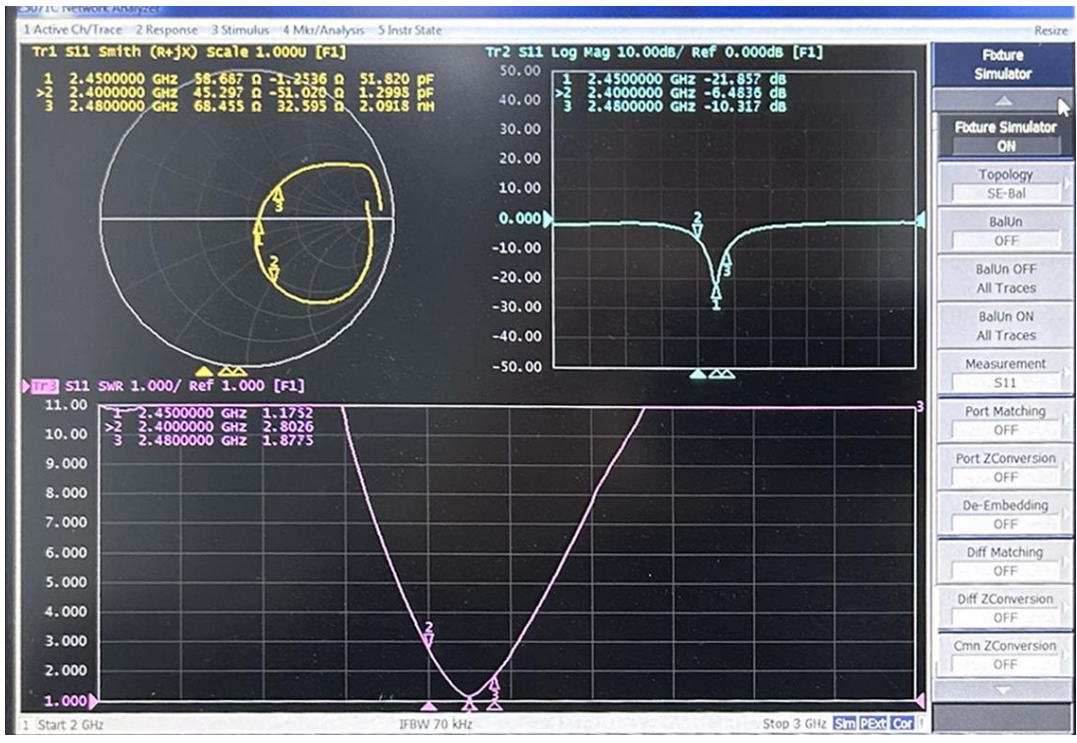


3.Test Report:

1)Appearance :



2)Antenna Smithchart ,VSWR and Return Loss:



4. Basic Characteristics:

A. Electrical Characteristics:	
Frequency	2400~2500 MHz
S.W.R.	<=2.5 @2400~2500 MHz
Max. Gain	1.32 dBi @2400~2500 MHz
Efficiency	40~50% @2400~2500 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics:	
Material of Radiator	PCB
Cable Type	0.D.1.13 mm//112mm (gray)
Connector Type	NONE
Pull Test	/
C. Environmental:	
Operation Temperature	-40°C~+65°C
Storage Temperature	-40°C~+80°C

5. Gain and Efficiency:

frequency (GHz)	2.4	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48	2.49	2.5
efficiency (%)	48.96	51.76	55.12	58.09	60.9	63.08	66.51	67.74	67.76	66.47	71.02
Gain (dBi)	1.03	1.18	1.31	1.12	1.2	0.98	1.23	1.26	1.32	1.3	1.13

Manufacturer: Shenzhen Sperll Optoelectronic Technology Co., Ltd.
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