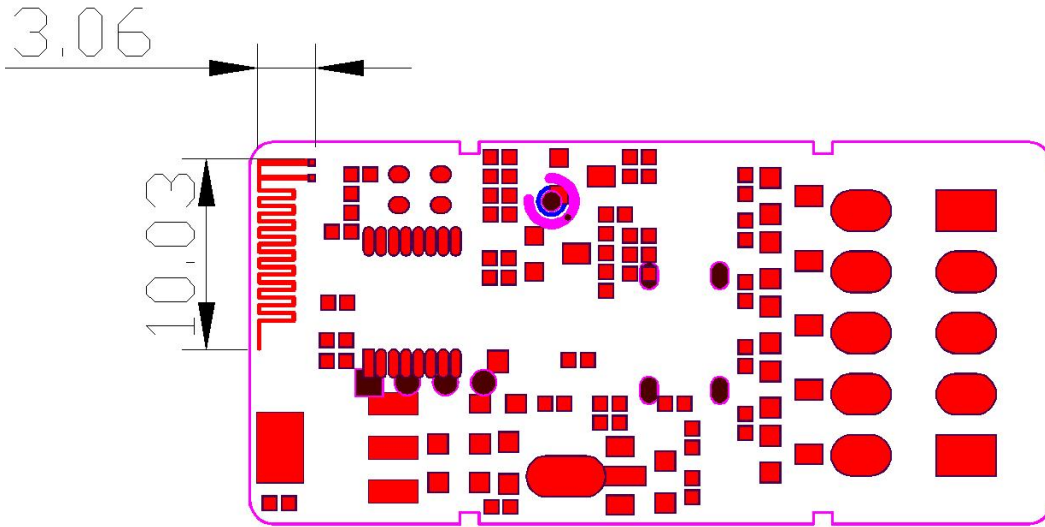


SP64XE Antenna Specifications

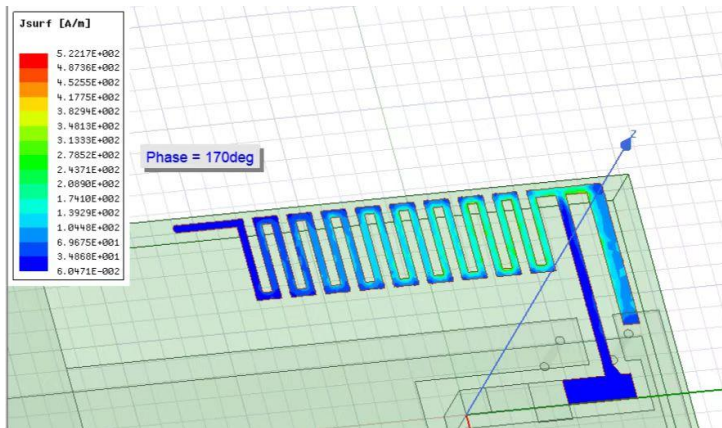
Manufacturer : Shenzhen Sperll Optoelectronic Technology Co., Ltd.

1. Antenna location and size (mm) :

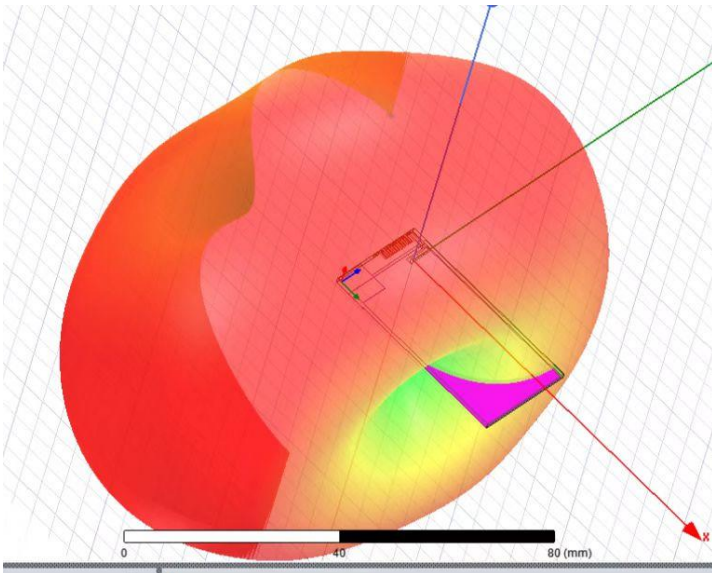


2. Antenna simulation Report:

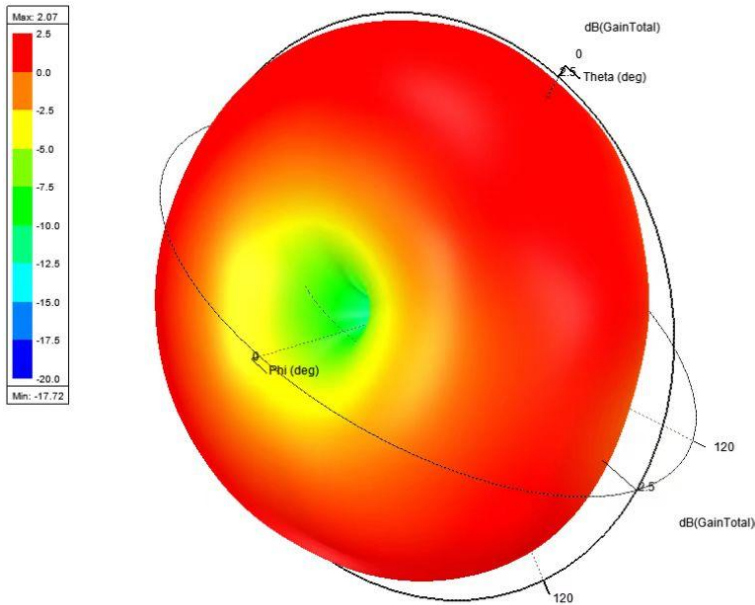
1) Antenna surface current distribution :



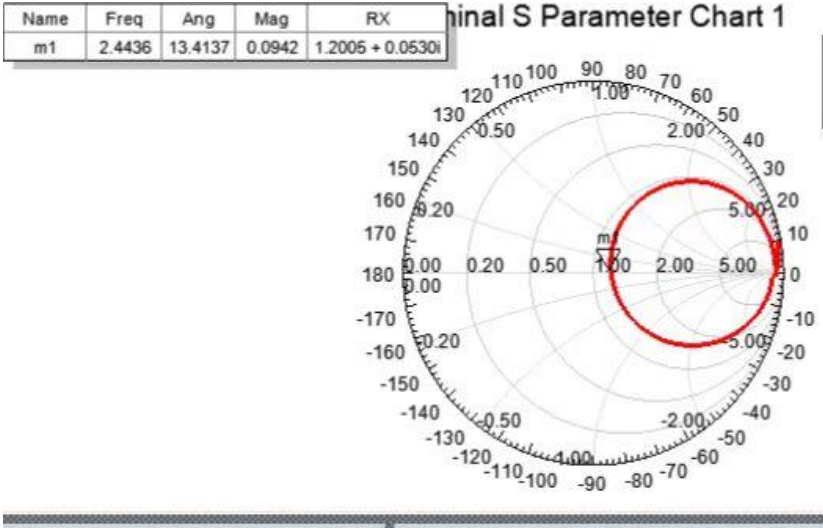
2) Antenna and antenna radiation pattern:



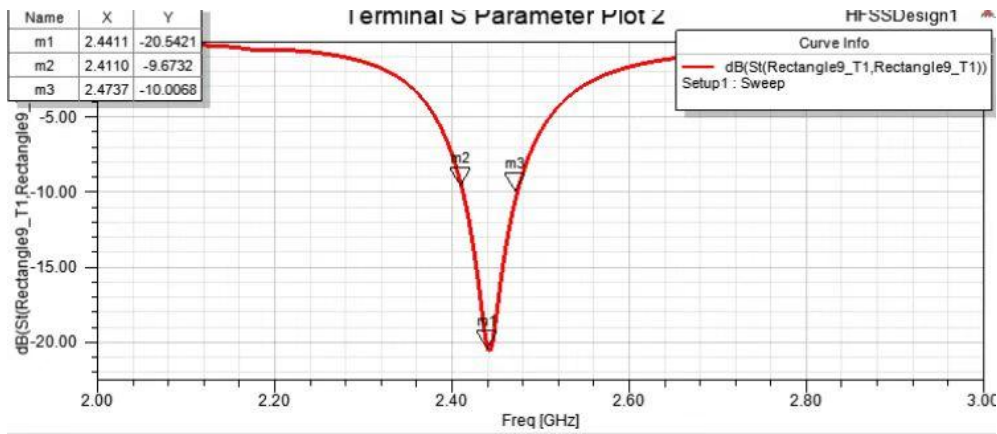
3)Antenna radiation pattern and gain pattern::



4)Smithchart:

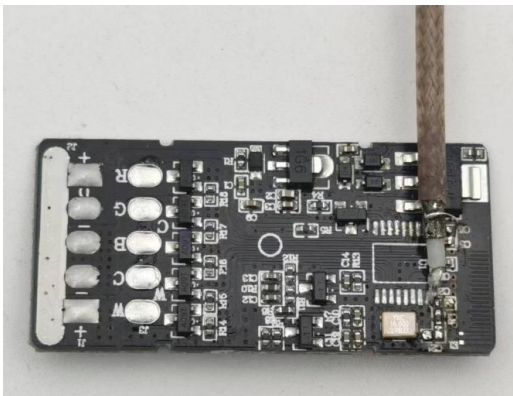


5)S Parameter Plot:

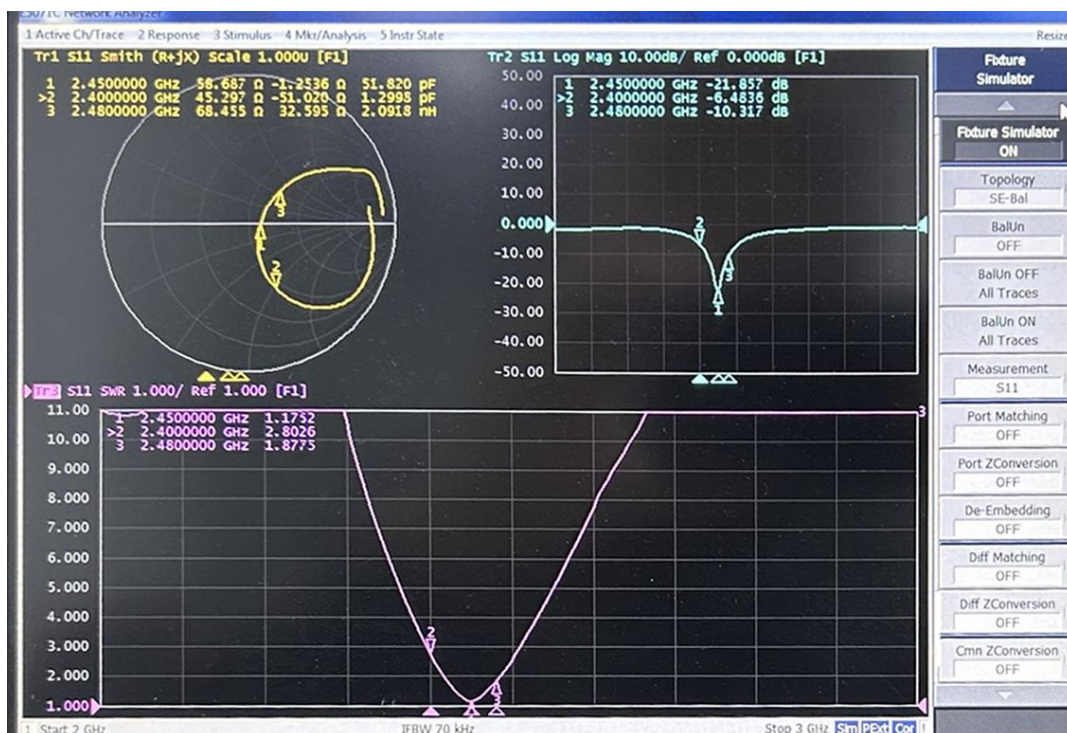


3.Test Report:

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	2.5 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	60.09	62.9	63.08	67.51	67.74	67.76	66.47	71.02
Gain (dBi)	2.00	2.00	1.98	2.00	2.00	2.50	2.00	1.98	2.00	1.99	2.00