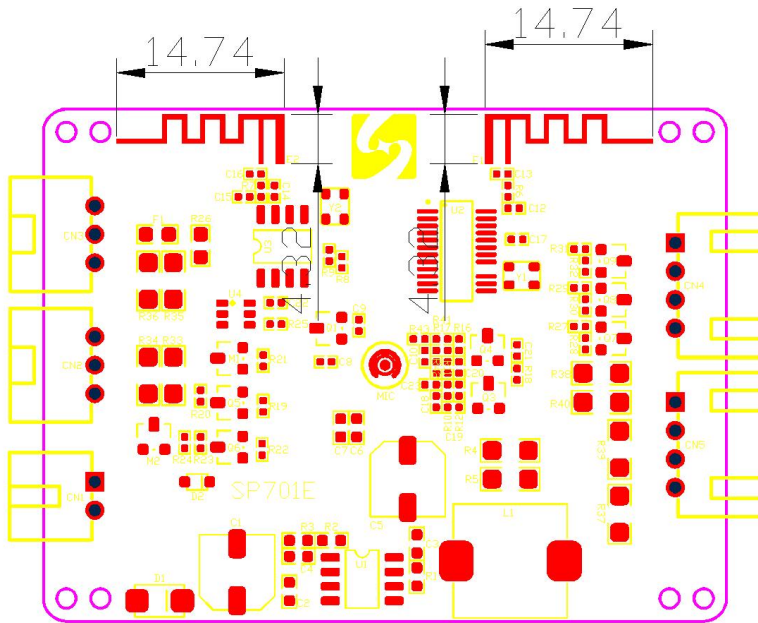


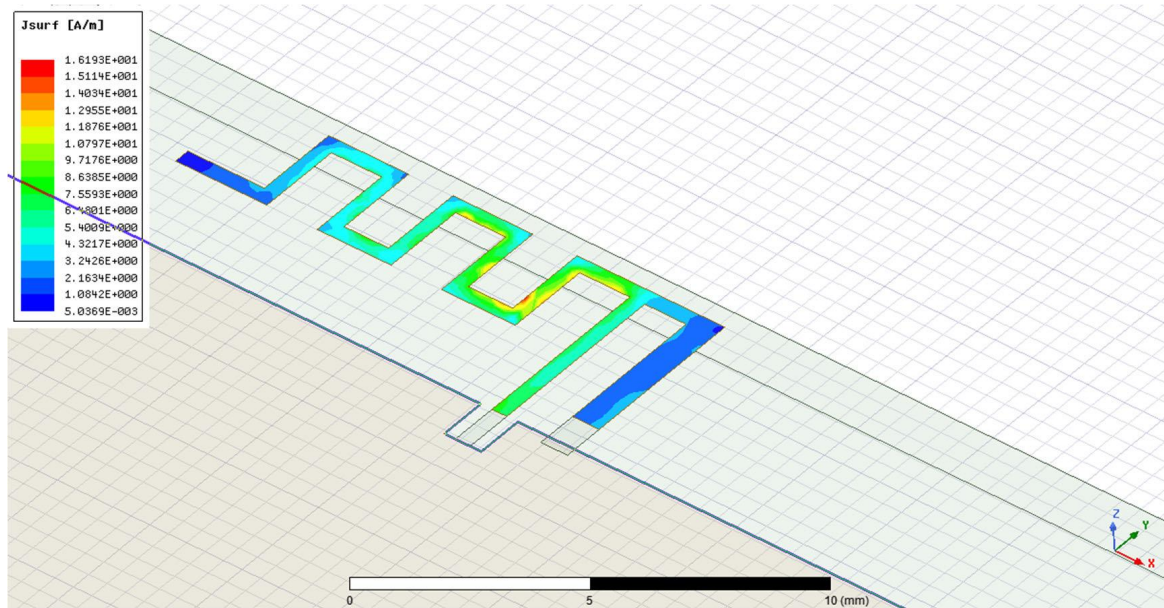
SP701E Antenna Specifications

1. Antenna location and size (mm) :

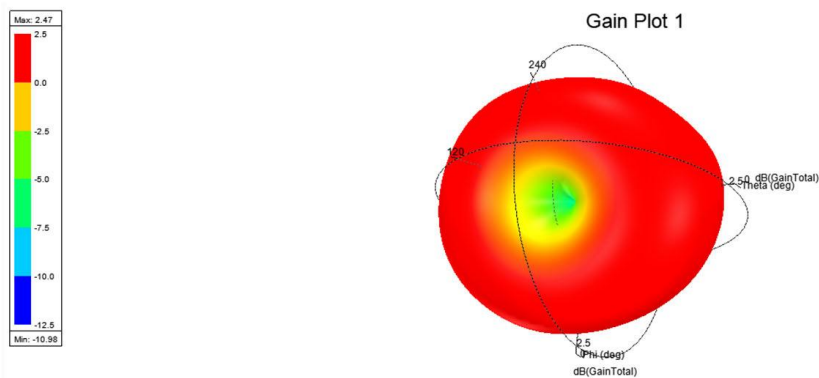


2. Antenna simulation Report:

1) Antenna surface current distribution :

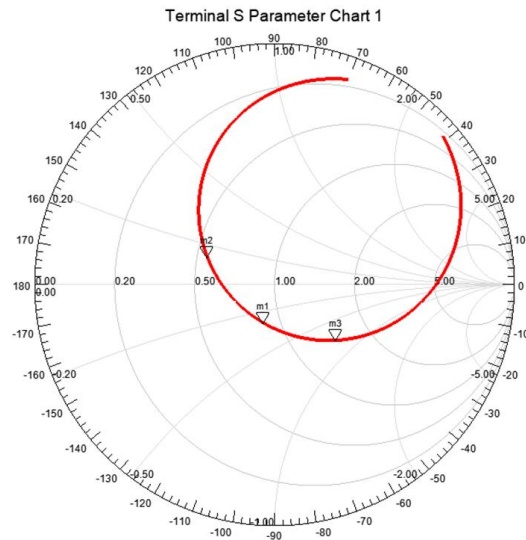


2) 3D Polar plot:



3) Smithchart:

Name	Freq	Ang	Mag	RX
m1	2.4561	-106.0283	0.1655	0.8893 - 0.2844j
m2	2.5263	157.7630	0.3027	0.5499 + 0.1385j
m3	2.3960	-41.7358	0.3464	1.4593 - 0.7647j

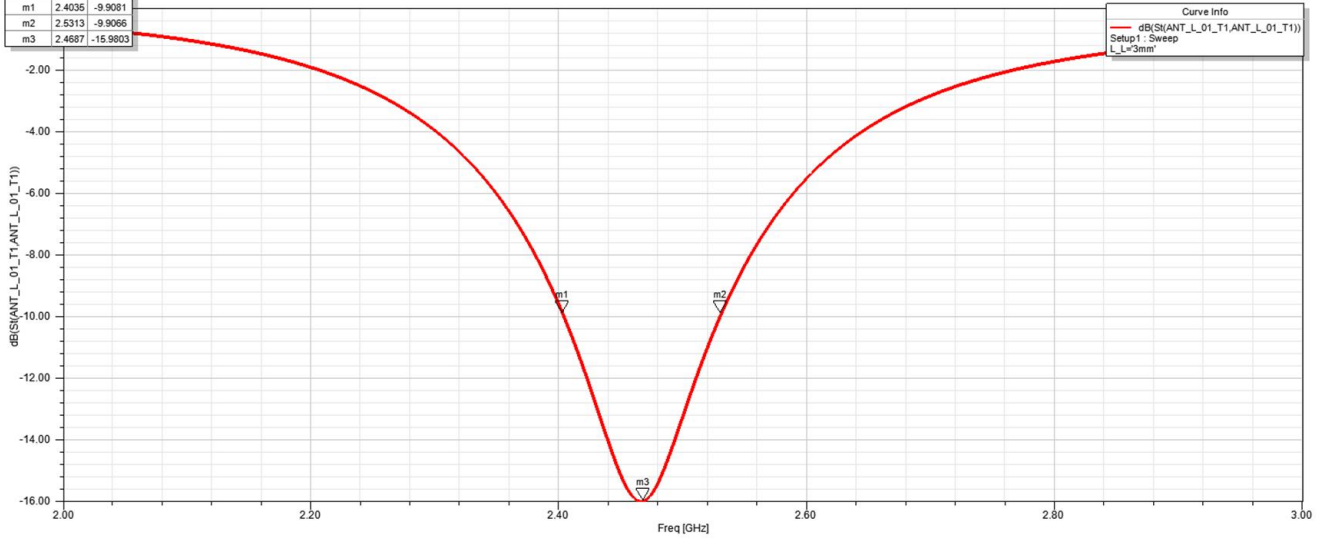


HFSSDesign1	
Curve Info	
—	S1(ANT_L_01_T1,ANT_L_01_T1)
Setup1:	Sweep
L_L=	3mm

4)S11:

Name	X	Y
m1	2.4035	-9.9081
m2	2.5313	-9.9066
m3	2.4687	-15.9803

Terminal S Parameter Plot 3

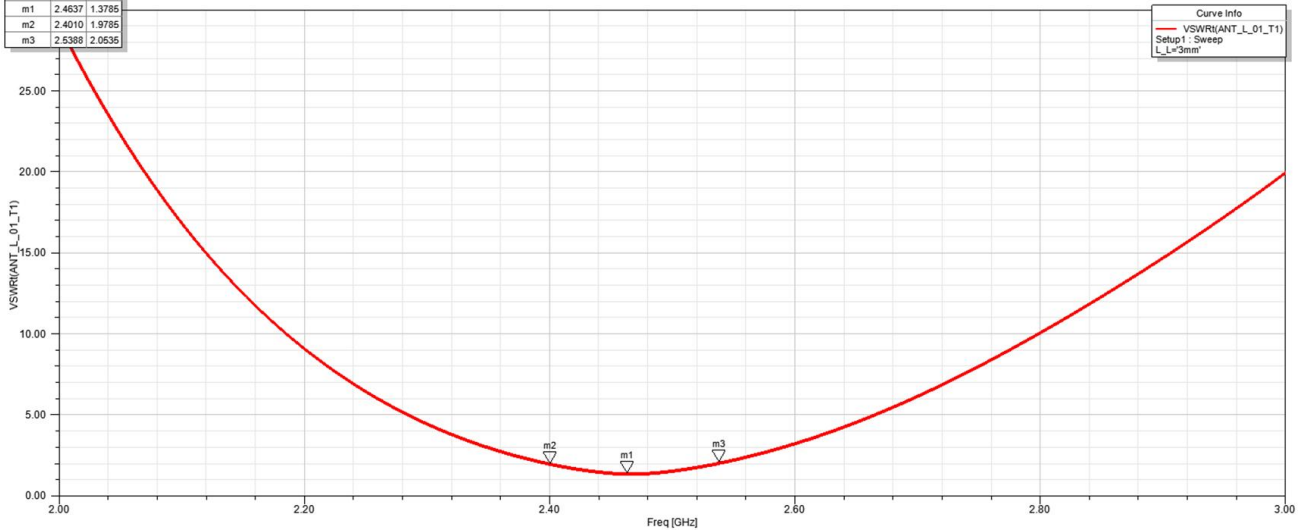


HFSSDesign1	
Curve Info	
—	dBS(S1(ANT_L_01_T1,ANT_L_01_T1))
Setup1:	Sweep
L_L=	3mm

5)VSWR:

Name	X	Y
m1	2.4637	1.3785
m2	2.4010	1.9785
m3	2.5388	2.0535

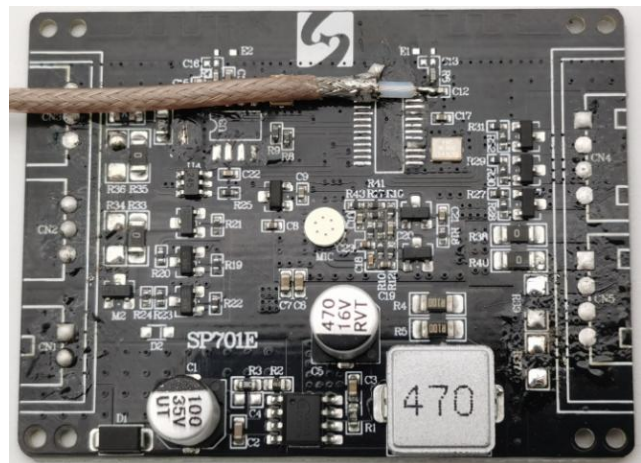
Terminal VSWR Plot 1



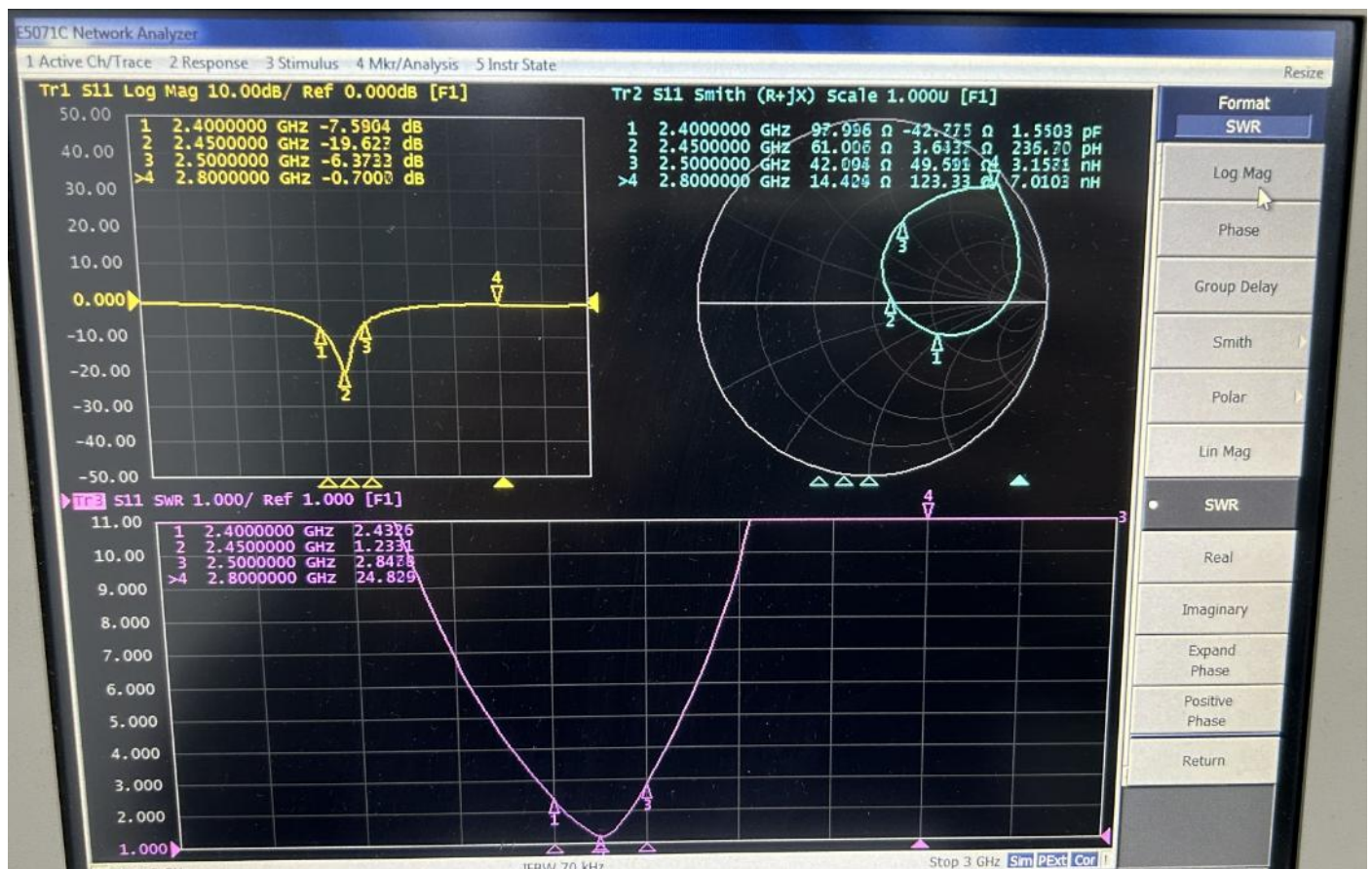
HFSSDesign1	
Curve Info	
—	VSWR(S1(ANT_L_01_T1))
Setup1:	Sweep
L_L=	3mm

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	2.68 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	NONE
Connector Type	NONE
Pull Test	/
C.Environmental:	
Operation Temperature	-20°C~+60°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 (%)	41.76	42.44	43.26	52.34	49.87	49.98	51.12	47.23	42.32	43.31	42.18
Gain (dBi)	1.81	1.97	2.24	2.68	2.45	2.50	2.61	2.32	2.19	2.27	2.00