

LR1121_2.4G_ANT_L&ANT_R

Specifications of Antenna

1. Category and Frequency

1.1 Category: this is a Internal Antenna

1.2 Frequency: 2400~2500MHZ

2. Technical Parameters and Experimental Equipments

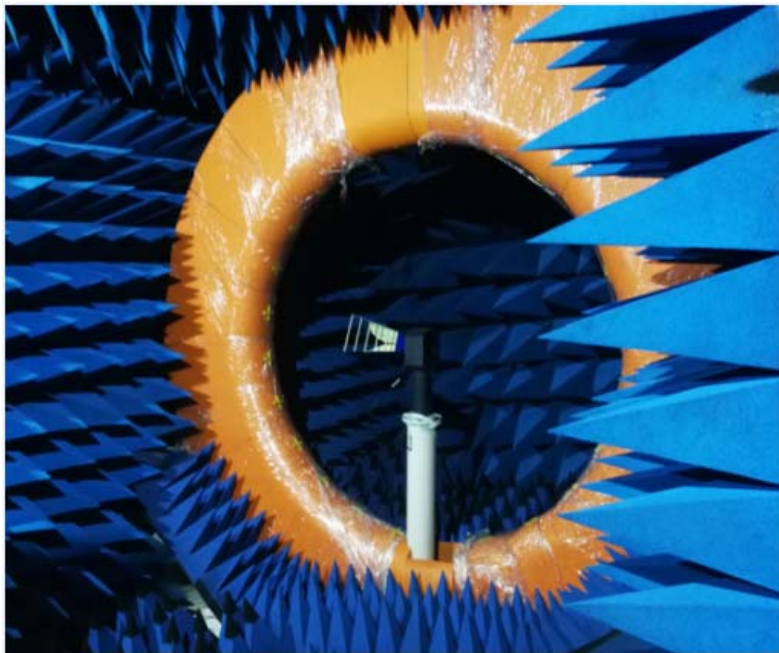
2.1	Frequency	2400~ 2500MHz
	Standing-Wave Ratio	<2.0
	Antenna Gain	2.63dBi Max
	Radiation Efficiency	>40 %
	Impedance	50 ohm
	Materials:	
	Copper tube+ OD 1.78mm 174MM length with G1 terminal	
	Work Conditions	
	Work Temperature	- 30°C ~ + 85 °C
	Stock Temperature	- 30°C ~ + 85 °C

Manufacturer: Guangzhou Cambricon Electronic Technology Co., Ltd.

Address: Room 1119, Building 1, Hongda Business Creative Park, No.96 Yuanxiang Road, Yunpu Sub-district, Huangpu District, Guangzhou City, Guangdong Province, P.R.China

Antenna type: PCB Antenna

2.2 Experimental Equipments



24-probe microwave chamber



R&S CMW500



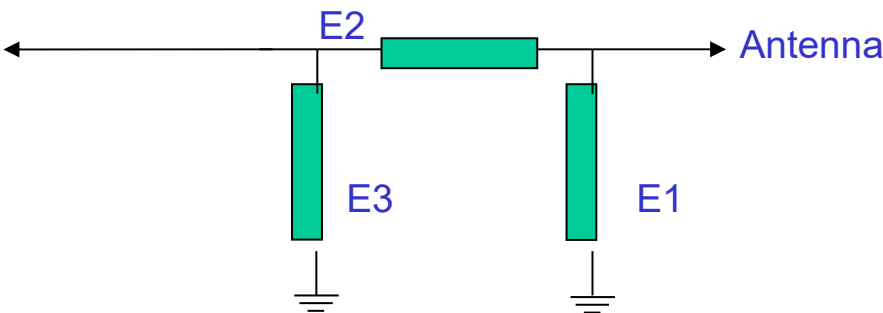
Agilent E4405B 频谱仪



Agilent Technologies E5071B

3. Matching Circuit Description

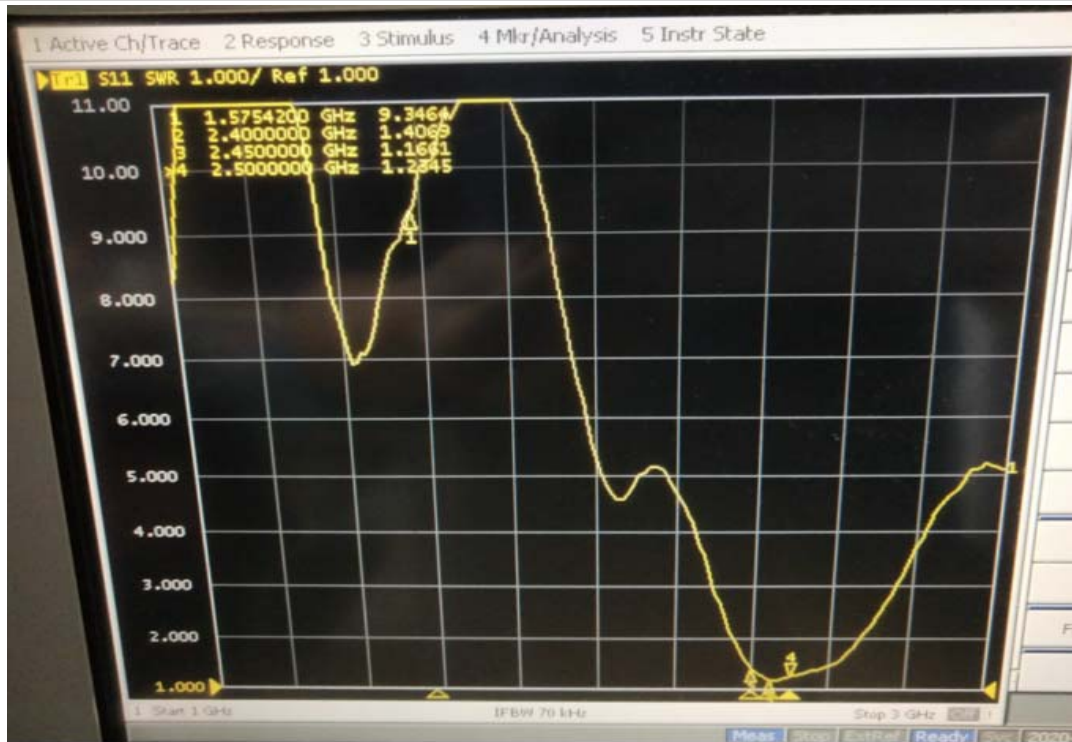
RF Module



Element	Value	Vender
E1(0201)		
E2(0201)		
E3(0201)		

4. Passive Standing Wave Chart & Smith Chart

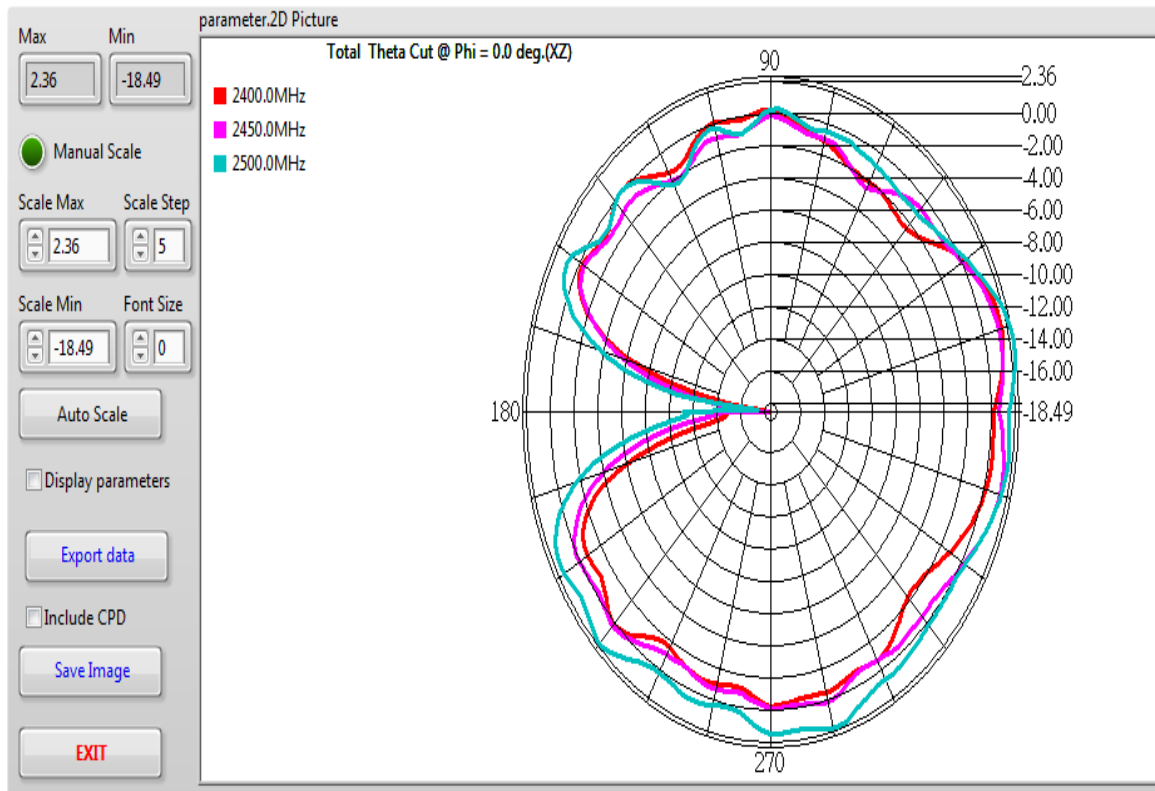
VSWR



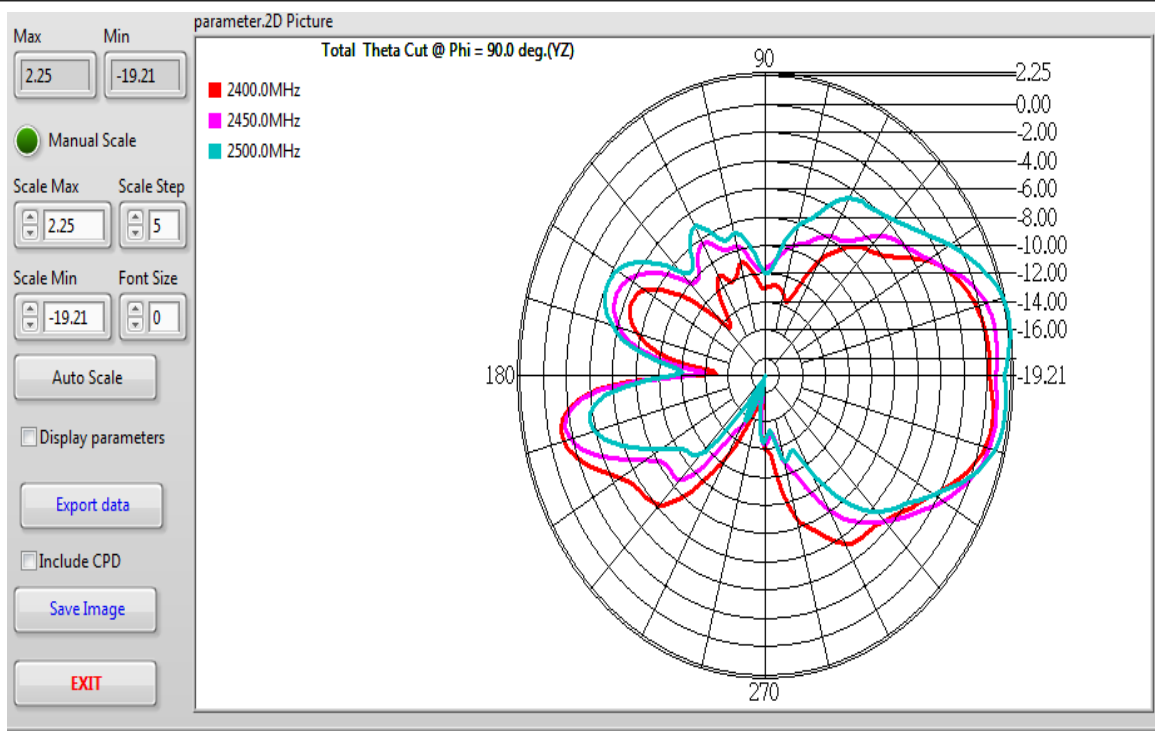
Efficiency
and Gain

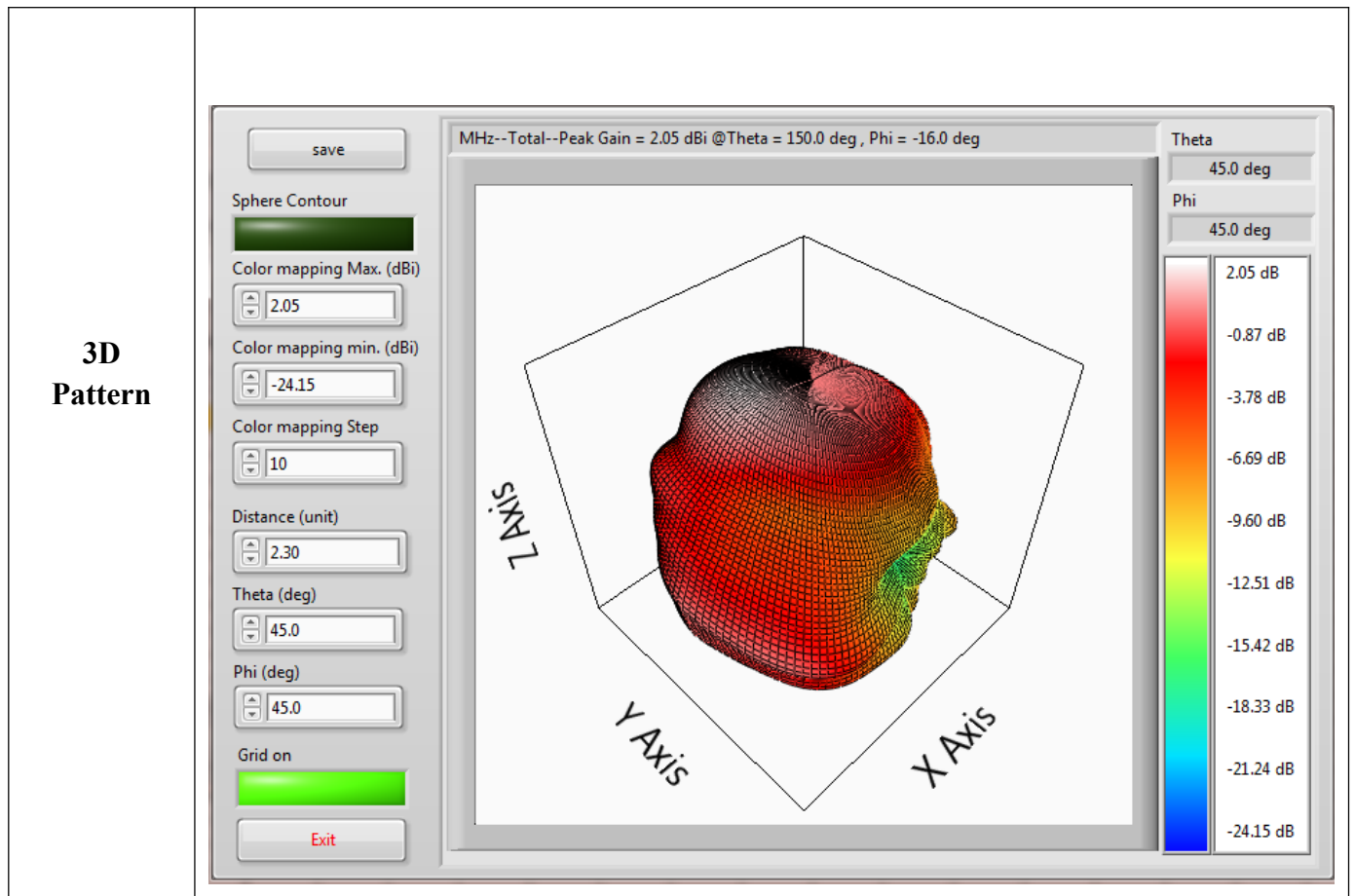
Frequency(MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	
Peak Gain(dBi)	2.05	2.03	1.83	1.82	1.86	1.52	1.39	1.57	1.64	2.16	2.63	
Directivity(dBi)	5.55	5.63	5.56	5.35	5.17	4.74	4.33	4.49	4.58	4.78	5.01	
Average Gain(dBi)	-3.50	-3.59	-3.73	-3.54	-3.31	-3.22	-2.94	-2.92	-2.93	-2.61	-2.38	
Efficiency(%)	44.66	43.71	42.37	44.28	46.62	47.64	50.76	51.02	50.89	54.77	57.81	
Upper HEM , EIRP(dB)	-5.99	-6.01	-6.05	-5.81	-5.54	-5.46	-5.21	-5.20	-5.25	-4.91	-4.68	
Lower HEM , EIRP(dB)	-7.11	-7.30	-7.56	-7.44	-7.29	-7.17	-6.86	-6.81	-6.77	-6.48	-6.24	
Upper HEM , EIRP(%)	25.19	25.08	24.83	26.23	27.94	28.44	30.14	30.17	29.85	32.27	34.02	
Lower HEM , EIRP(%)	19.47	18.62	17.54	18.05	18.68	19.20	20.62	20.85	21.04	22.49	23.79	
Peak Gain @ Theta(degree)	-16.00	-18.00	-18.00	-18.00	-16.00	-16.00	12.00	12.00	12.00	12.00	-12.00	
Peak Gain @ Phi(degree)	150.00	154.00	156.00	158.00	28.00	32.00	134.00	108.00	106.00	110.00	150.00	
Null @ Phi(degree)	-100.00	-100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.00	98.00	98.00	
Null @ Theta(degree)	104.00	102.00	122.00	122.00	122.00	122.00	122.00	122.00	122.00	120.00	120.00	
Roundness @90degree	17.58	18.85	19.35	18.81	18.55	17.39	18.09	17.88	18.23	19.21	19.91	
Roundness @60degree	9.95	10.66	10.25	9.52	9.17	9.74	10.85	12.19	13.53	15.04	16.55	
Roundness @30degree	4.18	4.62	4.81	4.99	4.59	3.64	2.81	2.35	2.38	2.73	3.13	

E1 Pattern



E2 Pattern





5. Structure

