

Shenzhen Boyi Electronics Co., LTD

Add: Block B6, Block 201, Building B, Futong Panlongju, South Side of Xincheng Avenue,
Xixiang Street, Shenzhen

Project: CY103

Date: December 19, 2023

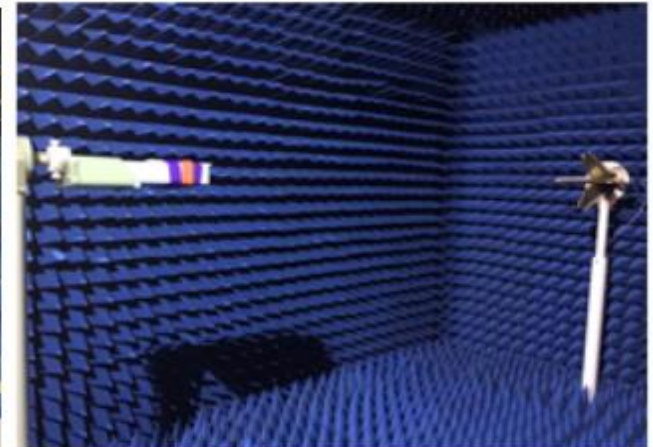
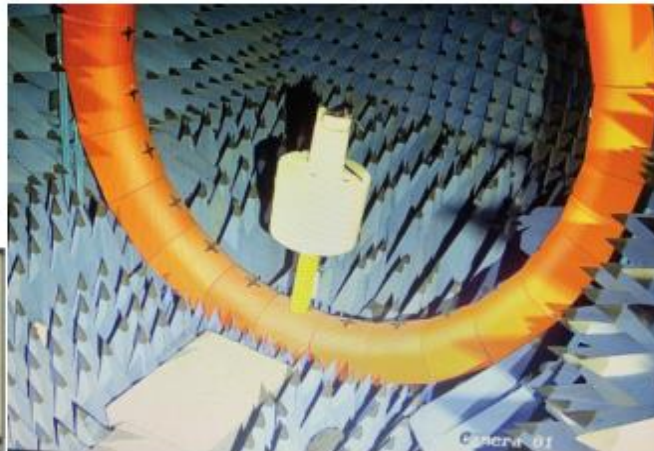
RF: ZHANG LI

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Testing environment

	Test items	Equipment
1. S参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比 (VSWR)	网络分析仪: Agilent E5071B ×2 HP 8753D PROTEK A338
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度 (TIS) 3. 频率误差 4. 屏灭、屏亮	1. 暗室: 飞图 7x4x3 m (24探头 3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 综合测试仪: Agilent 8960 ×2 CMW500 ×3/CMU200
3. 无源测试 (Passive)	1. 天线增益 (Gain) 2. 天线效率 (Efficiency)	1. 暗室: 飞图 7x4x3 m (24探头 3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 网络分析仪: Agilent E5071B



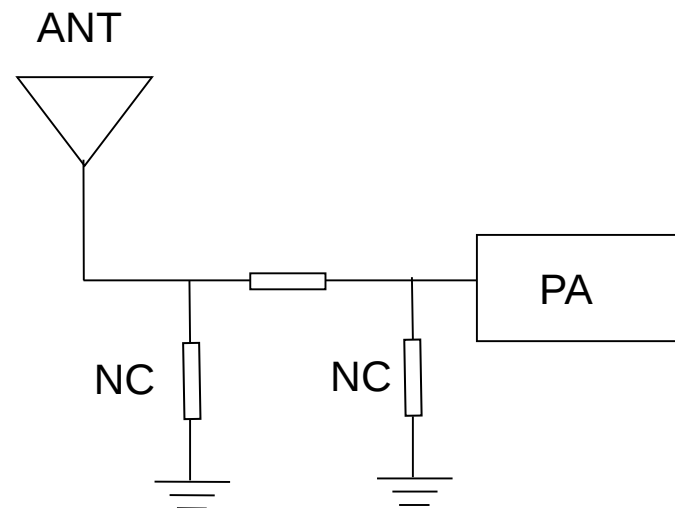
Explanation of Previous Debugging Records

Data	version	Debugging Record Description
2023-12-05	T:A	FPC

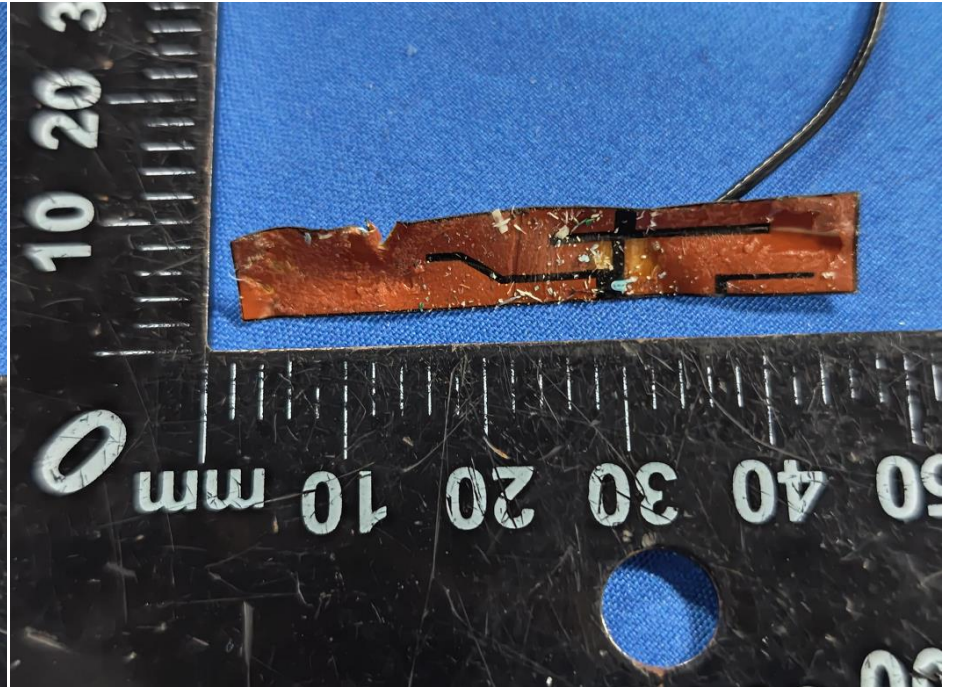
Complete machine debugging instructions

model	BY960						
pattern	motherboard						
Antenna Overview	ANT	frequency		Antenna status	antenna form	DESIGN AREA	
		2400~2500MHz		FPC	IFA		

Matching Circuit-ANT



ANT:



antenna
Efficiency
and gain:

ANT 1

Frequency ID	1	2	3	4	5	6	7	8	9	10
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0
Point Values										
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-5.94	-5.87	-5.65	-5.37	-5.29	-5.02	-5.01	-5.20	-5.11	-4.89
Peak EIRP (dBm)	-0.38	-0.36	-0.16	0.15	0.28	0.48	0.37	0.17	0.36	0.62
Directivity (dBi)	5.55	5.51	5.49	5.52	5.56	5.50	5.38	5.37	5.47	5.52
Efficiency (dB)	-5.94	-5.87	-5.65	-5.37	-5.29	-5.02	-5.01	-5.20	-5.11	-4.89
Efficiency (%)	25.50	25.90	27.20	29.00	29.60	31.50	31.50	30.20	30.80	32.40
Gain (dBi)	-0.38	-0.36	-0.16	0.15	0.28	0.48	0.37	0.17	0.36	0.62
NHPRP $\pm$ Pi/4 (dBm)	-7.98	-7.87	-7.59	-7.28	-7.18	-6.89	-6.88	-7.07	-6.99	-6.78
NHPRP $\pm$ Pi/6 (dBm)	-9.61	-9.47	-9.18	-8.87	-8.78	-8.48	-8.46	-8.65	-8.59	-8.38
NHPRP $\pm$ Pi/8 (dBm)	-10.86	-10.70	-10.39	-10.07	-9.97	-9.65	-9.62	-9.80	-9.74	-9.54
Upper Hem. PRP (dBm)	-7.79	-7.73	-7.49	-7.21	-7.11	-6.83	-6.84	-7.03	-6.95	-6.72
Lower Hem. PRP (dBm)	-10.52	-10.47	-10.25	-10.00	-9.94	-9.67	-9.66	-9.83	-9.74	-9.53
Upper Hem. PRP (%)	16.62	16.87	17.80	19.01	19.47	20.73	20.72	19.80	20.18	21.27
Lower Hem. PRP (%)	8.87	8.98	9.44	10.01	10.14	10.78	10.81	10.41	10.62	11.13

A15天线方向图:

ANT1 2.4G

