



Shenzhen Yingjia Chuang electronic technology Co., LTD

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APPROVAL SHEET

CUSTOMER NAME 客户名称		
CUSTOMER P/N 客户料号		
PART NAME 品 名	2.4G 板载天线 2.4G Onboard antenna	
P/ N 料 号		
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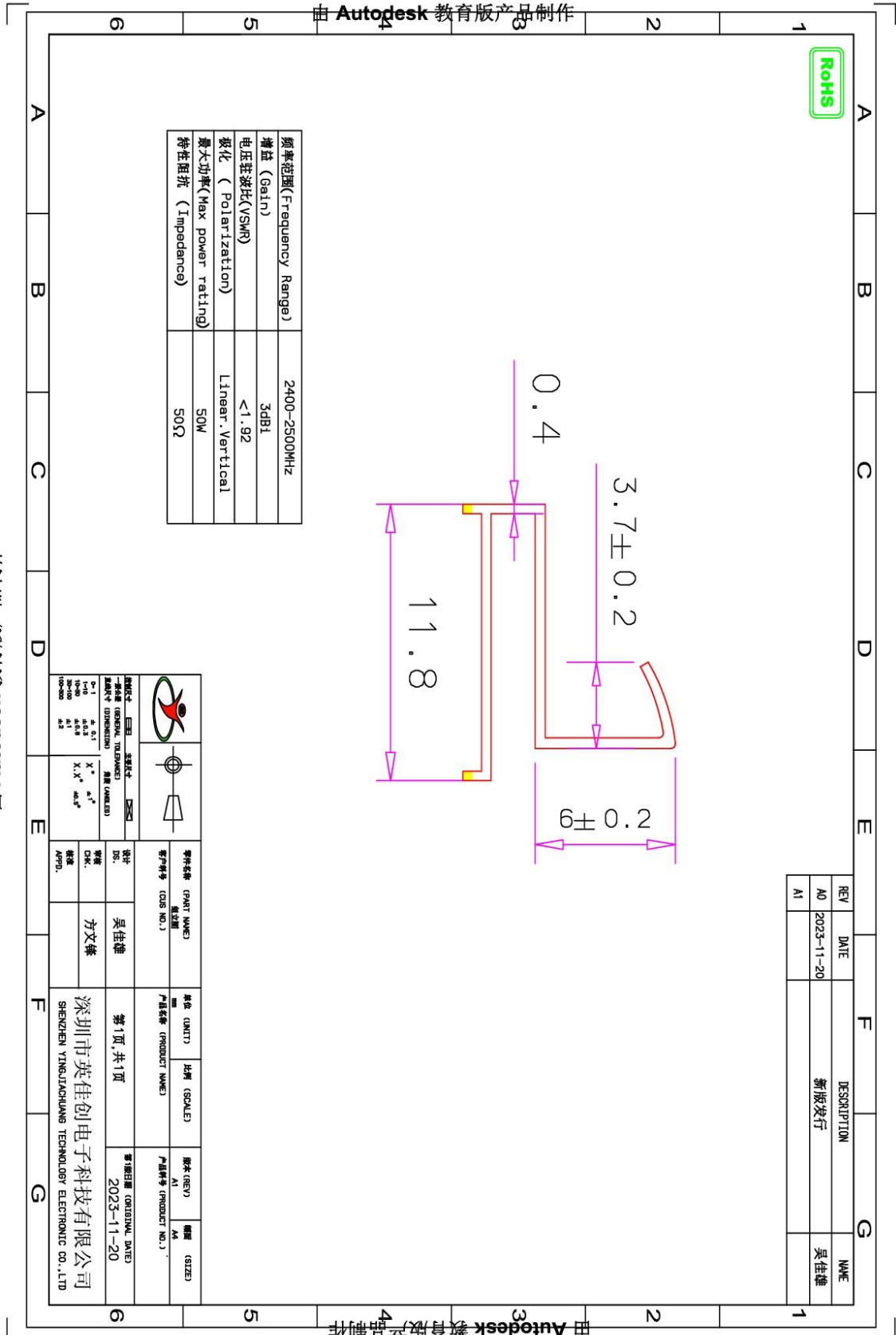


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天线平面图 (Antenna plan):





天线技术参数及环境测试 (Antenna technical parameters and environmental testing) :

电气技术参数 (Electrical technical parameter)			
电性能指标 (Mechanical Specifications)			
频率范围 Frequency Range	2400-2500MHz	工作温度 Working Temperature	-20°C~+70°C
电压驻波比 VSWR	<1.92	工作湿度 Working Humidity	20%~80%
输入阻抗 Input Impedance	50 Ω	方向 Direction	All
增益 Gain	BLE: 3.13 dBi 2.4G WIFI: 3.05 dBi		

天线实物图 (antenna physical picture) :



天线性能测试图 Antenna performance test diagram:

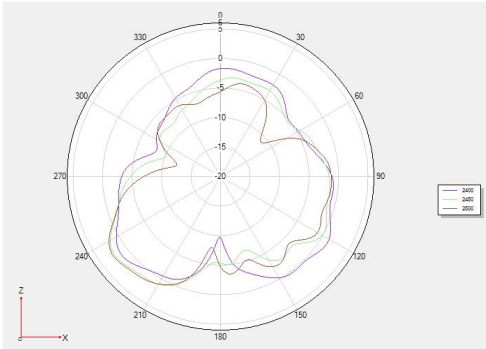


2D、3D 测试数据 (2D and 3D test data (2.4G)) :

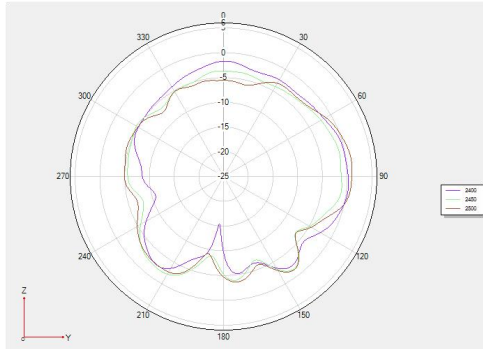
Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	52.48	1.79
2410MHz	52.00	2.07
2420MHz	52.00	2.19
2430MHz	49.32	2.48
2440MHz	48.75	2.72
2450MHz	45.92	2.88
2460MHz	45.29	3.05
2470MHz	42.85	3.13
2480MHz	41.50	3.16
2490MHz	40.18	3.21
2500MHz	40.55	3.25



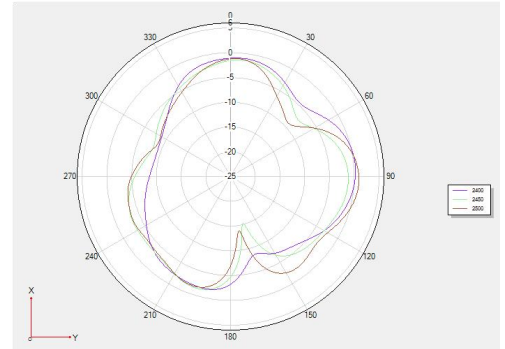
Phi 0 2D:



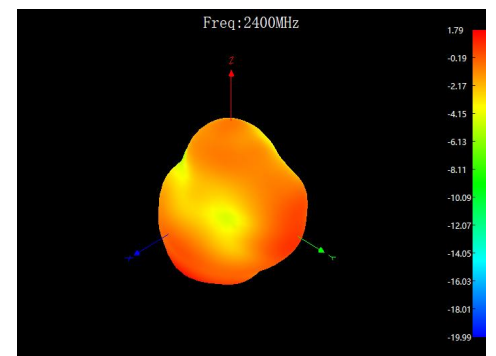
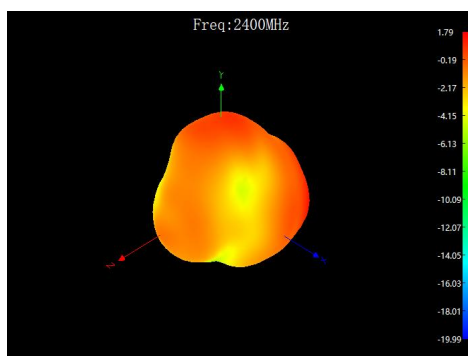
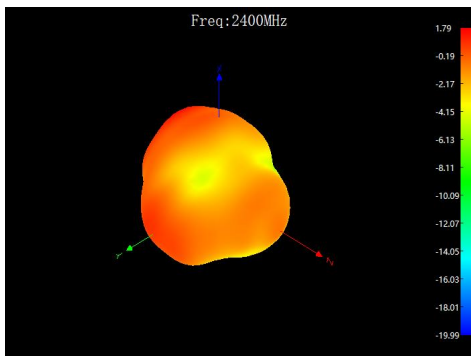
Phi 90 2D:



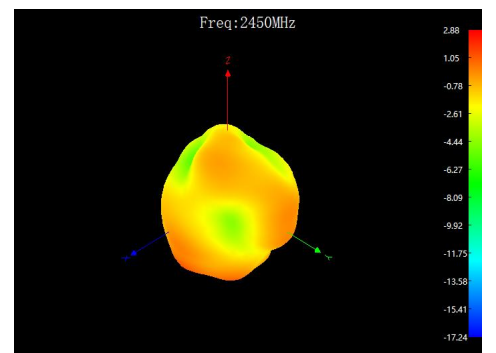
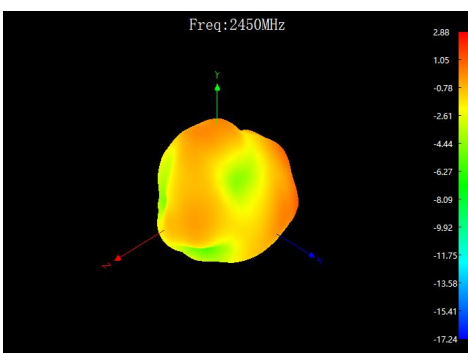
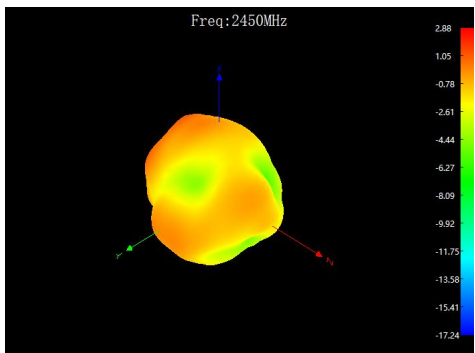
Theta 90 2D:



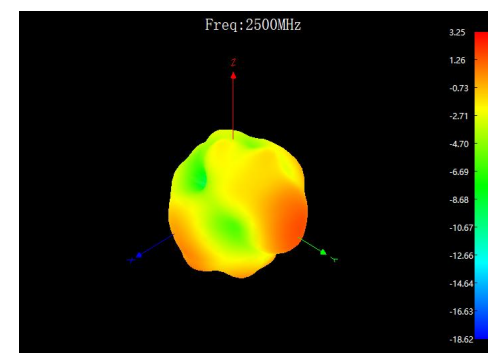
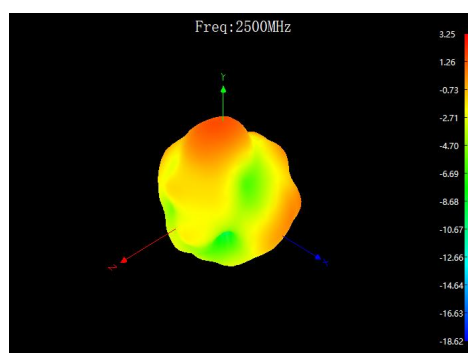
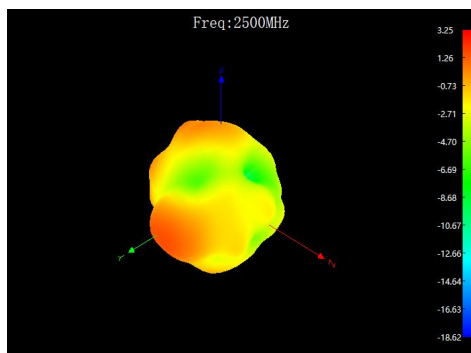
3D 2400:



3D 2450:



3D 2500:





OTA 有源测试数据统计 (OTA active test data statistics) :

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_B (11M)	1	2412	16.16
2	TRP	WIFI_B (11M)	6	2437	16.42
3	TRP	WIFI_B (11M)	11	2462	15.58
4	TIS(EIRP)	WIFI_B (11M)	1	2412	-75.73
5	TIS(EIRP)	WIFI_B (11M)	6	2437	-81.18
6	TIS(EIRP)	WIFI_B (11M)	11	2462	-76.78
7	TRP	WIFI_G (54M)	1	2412	13.6
8	TRP	WIFI_G (54M)	6	2437	13.18
9	TRP	WIFI_G (54M)	11	2462	12.65
10	TIS(EIRP)	WIFI_G (54M)	1	2412	-59.91
11	TIS(EIRP)	WIFI_G (54M)	6	2437	-67.42
12	TIS(EIRP)	WIFI_G (54M)	11	2462	-65.77
13	TRP	WIFI_N_ISM (65M)	1	2412	13.12
14	TRP	WIFI_N_ISM (65M)	6	2437	12.99
15	TRP	WIFI_N_ISM (65M)	11	2462	12.54
16	TIS(EIRP)	WIFI_N_ISM (65M)	1	2412	-58.4
17	TIS(EIRP)	WIFI_N_ISM (65M)	6	2437	-66.58
18	TIS(EIRP)	WIFI_N_ISM (65M)	11	2462	-65.21