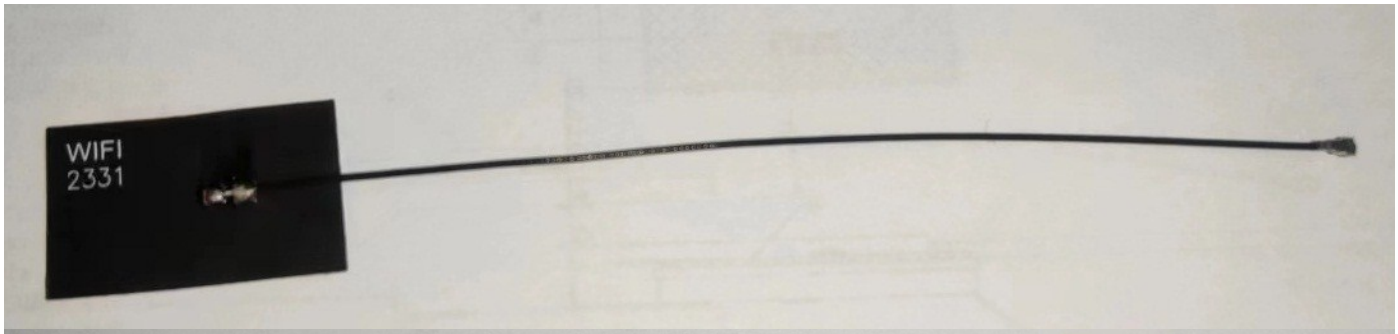
1. Antenna Specification/天线标准

Antenna Specification/天线技术参数		
Electrical Specification/电气特性		
Item/目录	**Specification/规格**	**Comment/备注**
Freq. Range/频段范围	2400MHz-2500MHz 5150MHz-5850MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	2400MHz-2500MHz≤2.5； 5150MHz-5850MHz≤2.0；	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak Gain/峰值增益	2400MHz-2500MHz 峰值增益为 3.7(dBi); 5150MHz-5850MHz 峰值增益为 4.61(dBi);	
Test condition/测试条件	passive test	
Total Efficiency/无源效率	2400MHz-2500MHz 平均效率为 41.23%; 5150MHz-5850MHz 平均效率为 31.65%;	
Mechanical Specification/机械指标		
Antenna type/天线类型	FPC+Cable	
Connector Type/连接器类型	USS RF 4 代（501）	
RF Cable Type/射频线型号	OD0.81(Black)	
Connector Torque Test/连接器扭力	N/A	
Connector Pull Test/连接器拉力	≥0.5Kgf	
Salt Spray/盐雾测试	48 H	
EnvironmentalSpecification /环境指标		
Operating temp/工作温度	-40℃ ~ +80℃	
Storage temp/存储温度	-40℃ ~ +80℃	

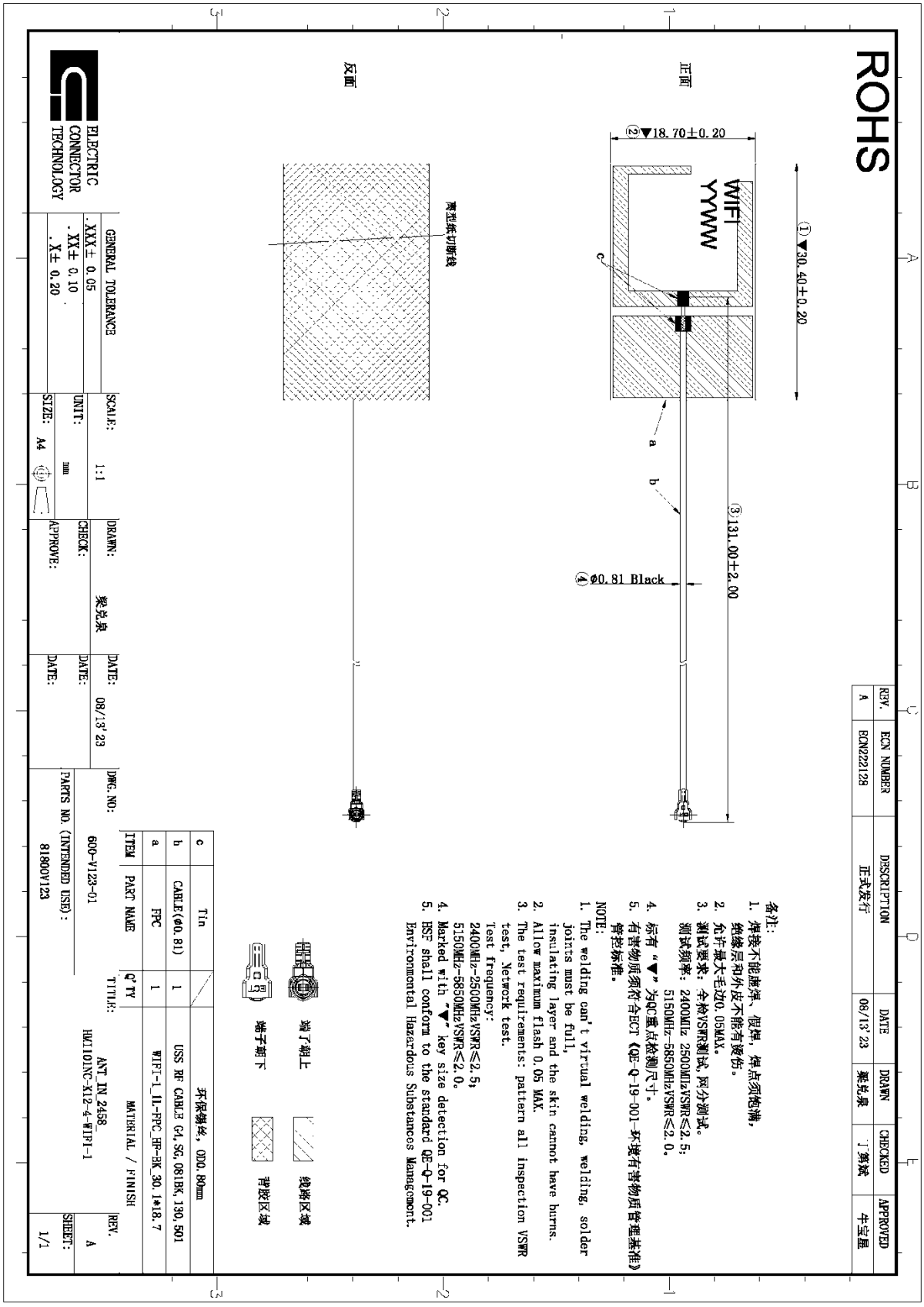
样品规格书 Sample Specification Sheet

2.Antenna Picture/天线图片



样规格
Sample Specification Sheet

3.DWG/工程图纸


ROHS
正面
反面
①▼30.40±0.20
②▼18.70±0.20
③131.00±2.00
④Φ0.81 Black
WIFI
YYWW
离型纸切断线
REV. ECN NUMBER DESCRIPTION DATE DRAWN CHECKED APPROVED
A ECN222128 正式发行 08/13'23 梁兑泉 丁筠斌 牛宝星
备注:
1. 焊接不能虚焊、假焊，焊点须饱满，绝缘层和外皮不能有烫伤。
2. 允许最大毛边0.05MAX。
3. 测试要求：全检VSWR测试，网分测试。测试频率：2400MHz 2500MHzVSWR≤2.5；5150MHz-5850MHzVSWR≤2.0。
4. 标有"▼"为QC重点检测尺寸。
5. 有害物质须符合ECT《QE-Q-19-001-环境有害物质管理基准》管控标准。
NOTE:
1. The welding can't virtual welding, welding, solder joints must be full, insulating layer and the skin cannot have burns.
2. Allow maximum flash 0.05 MAX.
3. The test requirements: pattern all inspection VSWR test, Network test.
Test frequency:
2400MHz-2500MHzVSWR≤2.5;
5150MHz-5850MHzVSWR≤2.0。
4. Marked with "▼" key size detection for QC.
5. HSF shall conform to the standard QE-Q-19-001 Environmental Hazardous Substances Management.
端子朝上
线路区域
端子朝下
背胶区域
ELECTRIC CONNECTOR TECHNOLOGY
GENERAL TOLERANCE
.XXX± 0.05
.XX± 0.10
.X± 0.20
SCALE: 1:1
UNIT: mm
SIZE: A4
DRAWN: 梁兑泉
CHECK:
APPROVE:
DATE: 08/13'23
DATE:
DATE:
DWG. NO: 600-V123-01
PARTS NO. (INTENDED USE): 81800V123
c Tin 环保锡丝, OD0.80mm
b CABLE(Φ0.81) 1 USS RF CABLE G4,SG,081BK,130,501
a FPC 1 WIFI-1_1L-FPC_HF-BK_30.1*18.7
ITEM PART NAME Q'TY MATERIAL / FINISH
TITLE: ANT_IN_2458 HMI101NC-K12-4-WIFI-1
REV. A
SHEET: 1/1

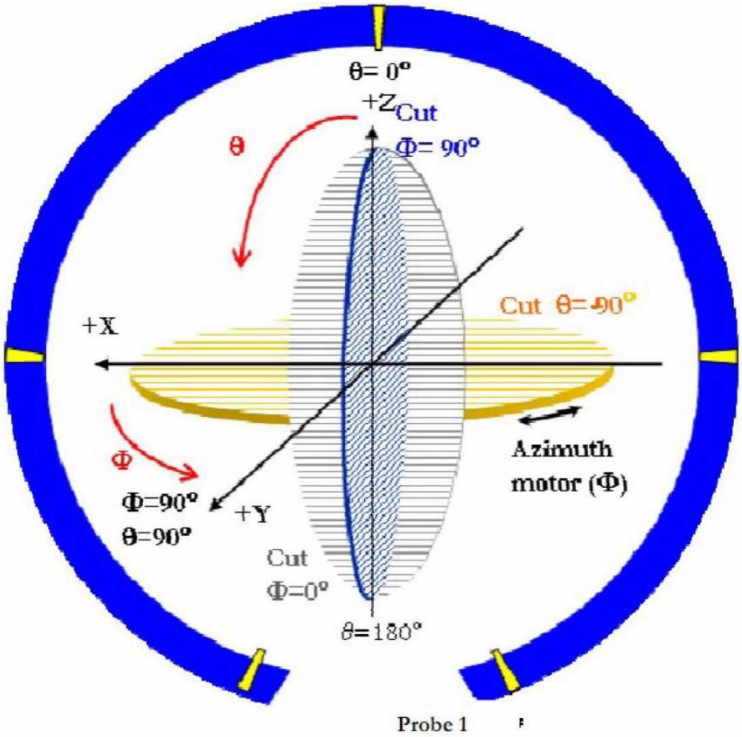
4. Antenna test result/测试结果

4.1Return loss/Smith chart/VSWR/回波损耗/史密斯图/驻波比

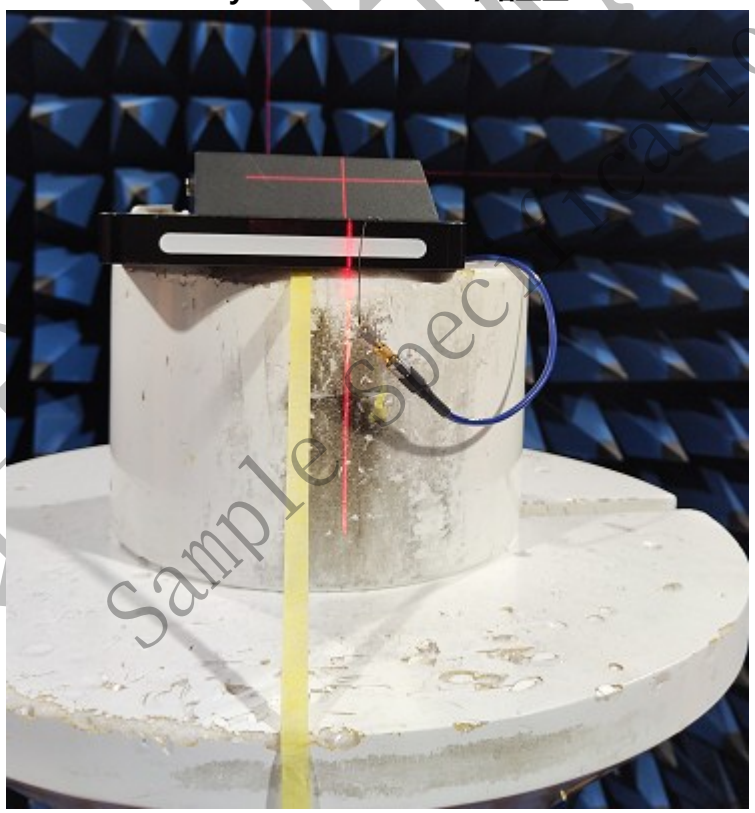
样本 Sample Specification Sheet

4.2The gain and total efficiency test/增益和效率测试

4.2.1 The definition of coordinate system/坐标系定义-Satimo SG24



The coordinate system of Chamber/暗室坐



The production test position/天线测试放置位置

Sample Specification Sheet

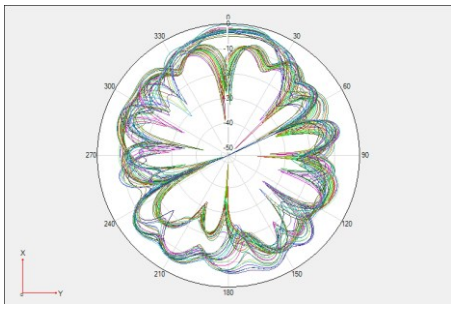
4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

Frequency / MHz	Efficiency / %	Gain/ dB	Frequency / MHz	Efficiency / %	Gain/ dB
2400	37.76	2.30	5150	29.93	3.28
2405	41.40	2.99	5185	31.29	3.35
2410	40.09	2.31	5220	31.59	3.48
2415	40.36	2.67	5255	30.95	3.40
2420	42.56	3.12	5290	30.10	3.03
2425	41.50	2.55	5325	31.41	3.61
2430	42.85	3.02	5360	31.47	3.97
2435	40.46	2.87	5395	35.99	4.33
2440	44.26	2.90	5430	31.59	3.21
2445	38.46	2.64	5465	30.60	3.29
2450	41.69	2.78	5500	29.71	3.36
2455	42.76	2.81	5535	30.49	3.29
2460	41.11	3.07	5570	33.10	3.95
2465	44.06	3.12	5605	33.67	4.08
2470	39.45	2.58	5640	33.73	4.20
2475	43.85	3.44	5675	29.93	3.58
2480	40.64	2.90	5710	31.00	3.88
2485	40.46	3.00	5745	35.44	4.61
2490	41.50	3.63	5780	32.18	4.33
2495	39.36	3.23	5815	30.55	3.64
2500	40.64	3.70	5850	29.77	3.84
AVG	41.23	2.95	AVG	31.65	3.70

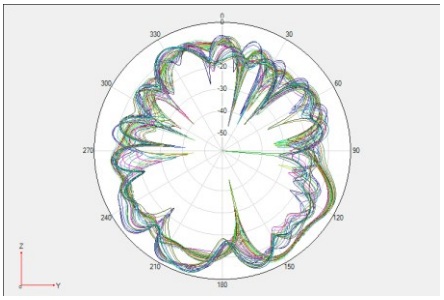
样规格书
Sample Specification Sheet

4.2.3The antenna radiation pattern(2D)/天线辐射方向图（2D）

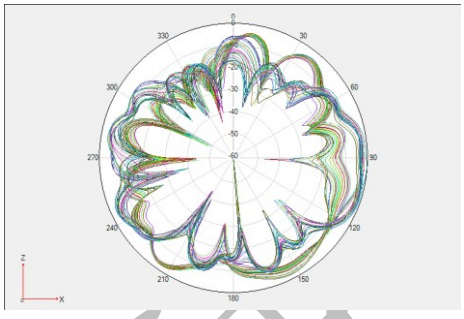
2400MHz-2500MHz，5150MHz-5850MHz



XOY



YOZ



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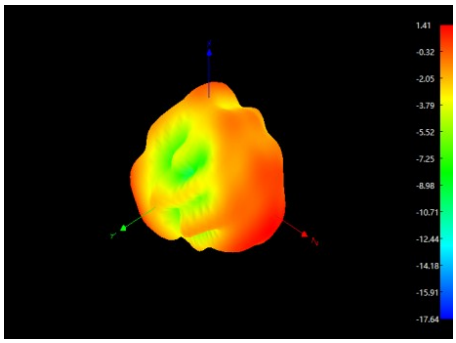
4.2.4The antenna radiation pattern(3D)/天线辐射方向图（3D）

Frequency/频点 2450MHz



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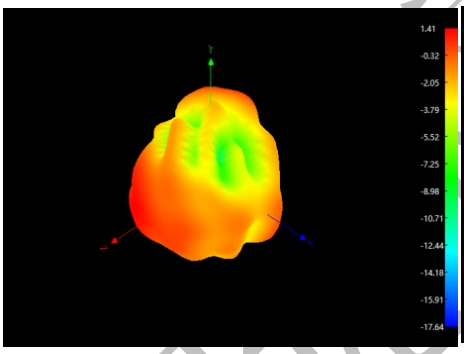

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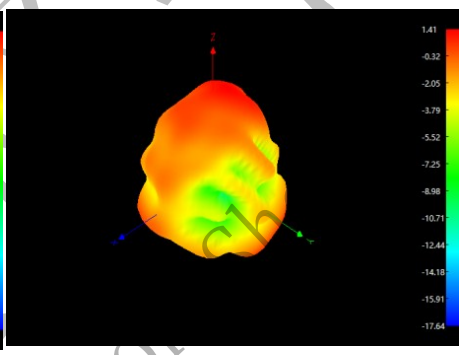

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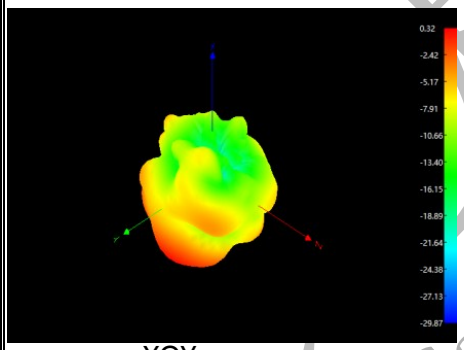
Frequency/频点 5500MHz



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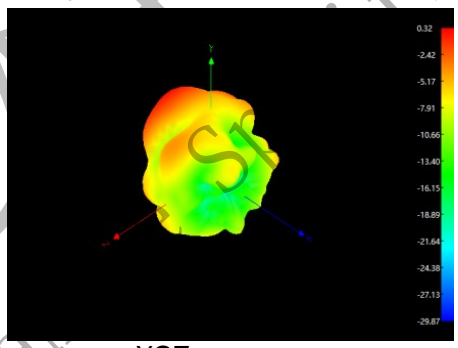

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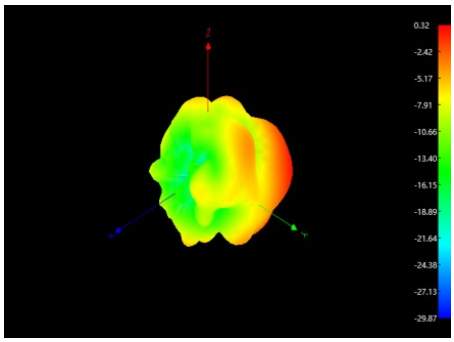

XOZ