

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	$\leq 2/\leq 2.5$	
Directional/辐射方向	Omni directional/全向天线	
Polarization/极化形式	Vertical/垂直	
Peak gain/峰值增益	4.10(dBi)/4.45(dBi)	
Test condition/测试条件	passive test/无源测试	
Total efficiency/无源效率	$\geq 50\%/\geq 40\%$	
Mechanical Specification/机械指标		
Antenna type/天线类型	FPC+Cable	
Connector type/连接器类型	USS RF I	
RF cable type/射频线型号	1.13 LOW LOSS (L=95mm)	
Connector pull test/连接器拉力	10N MIN	
Salt spray/盐雾测试	48(H)	
Environmental specification /环境指标		
Operating temp/工作温度	-40℃~+70℃	
Storage temp/存储温度	-40℃~+75℃	

2. Antenna picture/天线图片



文档密级：
商业秘密

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN
X1	ECN260393	初版发行	01/16'26	丁第斌
X2	ECN260393	△×4 更新端子方向	04/02'26	丁第斌
X3	ECN260393	△×1 更改线长105改为95	04/30'26	丁第斌
X4	ECN260393	△×1 更改整体线路+更新丝印	05/14'26	丁第斌

说明

1.焊接不能虚焊、假焊，焊点须饱满。

WELDING CAN NOT BE FALSE WELDING,
WELDING SPOT MUST BE FULL.

有害物质须符合TQE-Q-19-001《环境有害物质管理基准》管控
标准及最终客户要求

HSF shall conform to the standard QE-Q-19-001
Environmental Hazardous Substances Management.

3. 尺寸特性要求DIMENSIONAL CHARACTERISTIC REQUIREMENTS:

3-1: 标有"▲"为产品关键特性;

MARKED WHIT"▲":THE CRITICAL CHARACTERS;

3-2: 标有"★"为产品重要特殊特性,要求做CPK或者SPC管控;

MARKED WHIT "★":THE SIGNIFICIENT CHARACTERS,
REQUIRE CPK OR SPC CONTROL;

3-3: 标有"▼"为产品重点检验尺寸;

MARKED WHIT"▼":THE KEY INSPECTION DIMENSIONS;

3-4: 标有" "为产品FAI全检尺寸;

MARKED WHIT"⊗":THE FAI FULL INSPECTION DIMENSIONS;

3-5: 标有" "为产品CCD全检尺寸;MARKED WHIT " "THE CCD FULL INSPECTION DIMENSIONS.

4.VSWR测试一致性(CONSISTENCY TEST)

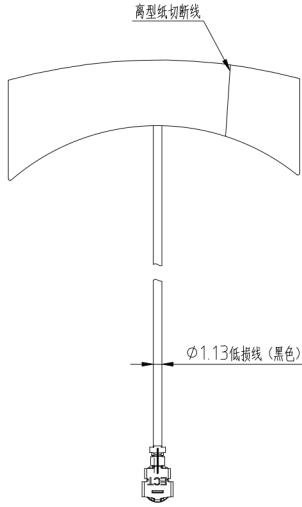
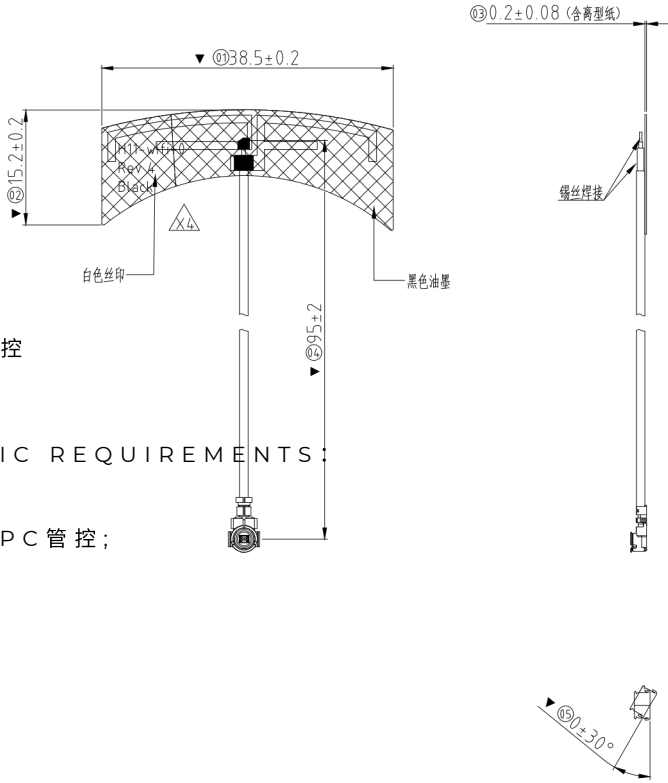
VSWR测试频率(TEST FREQUENCY):

2400-2500MHZ, VSWR:<2.0

5150-5850MHZ, VSWR:<2.5

校正频率:100-6000MHZ

Correction frequency: 100-6000MHZ.



Connector facing d



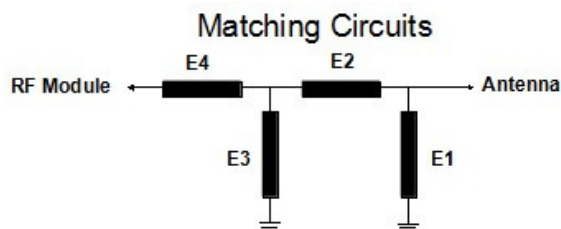
Connector facing u

ITEM	PART No.	DESCRIPTION	QTY	BASE QTY	UNIT
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	GENERAL TOLERANCE		SCALE:	1:1	DRAWN:	DATE:	DWG No.: 600-1020108-01	TITLE ANT_IN_FPC+CABLE(BK)_L=95_H11_WIFI_0	REV. X4
	CXX.± 0.20	ANGLE	UNIT:	mm	CHECK:	DATE:			SHEET:
	0.15	XX.°± 2°	SIZE: A4		APPROVE:	DATE:	PARTS No.: 8181020108		1/1
	0.10	X.°± 1°							
	XX± 0.08	.X°± 0.5°							

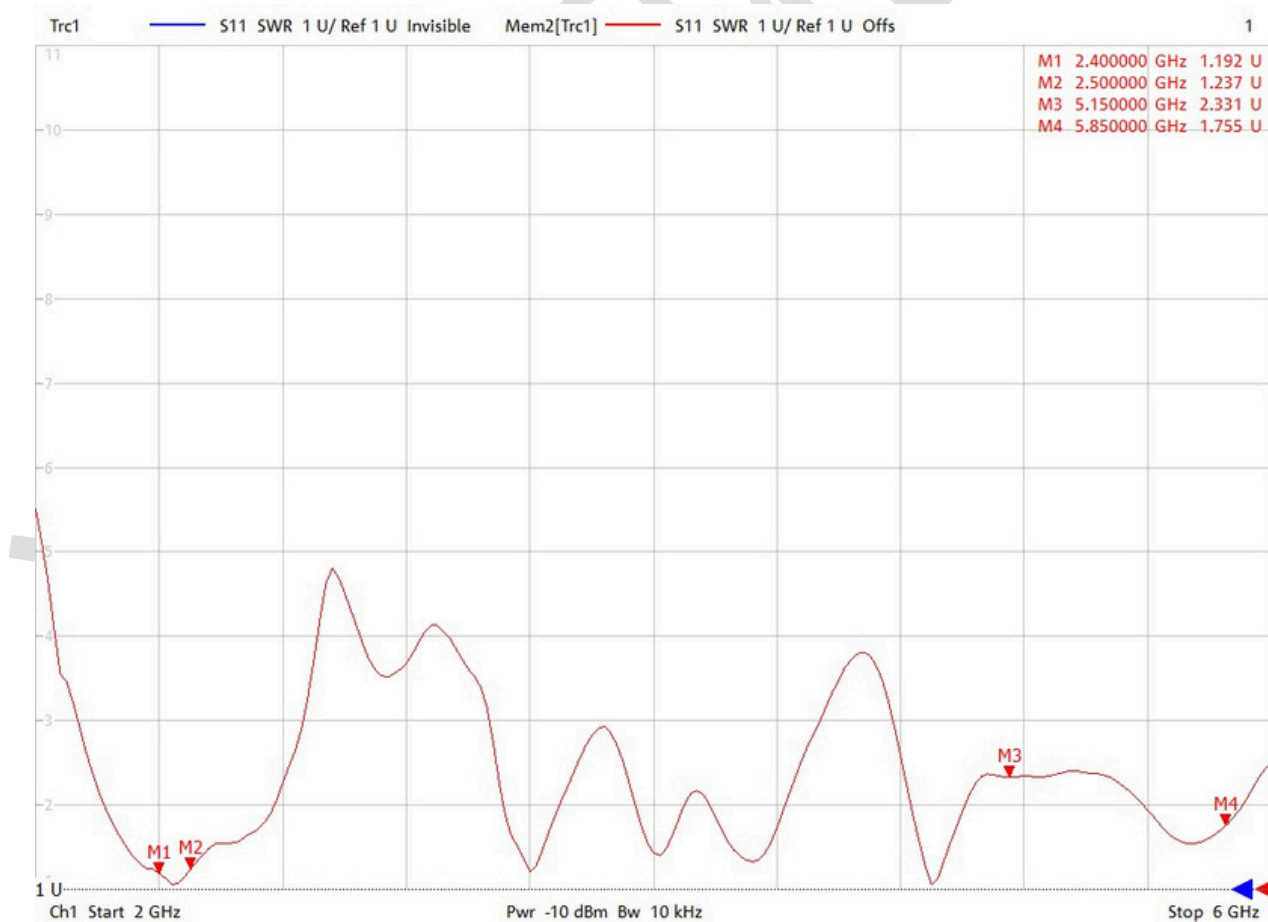
4. Antenna test result/测试结果

4.1 The matching circuits/匹配电路



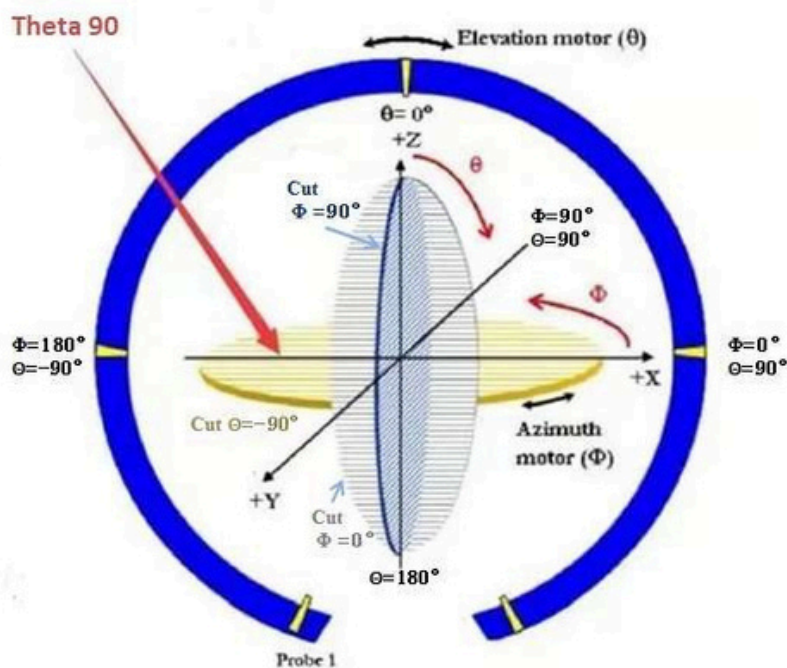
Element	Value
E1(0201)	NC
E2(0201)	0Ω
E3(0201)	NC
E4(0201)	0Ω

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



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

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



The coordinate system of Chamber/暗室坐标系

The production test position/天线测试放置位置

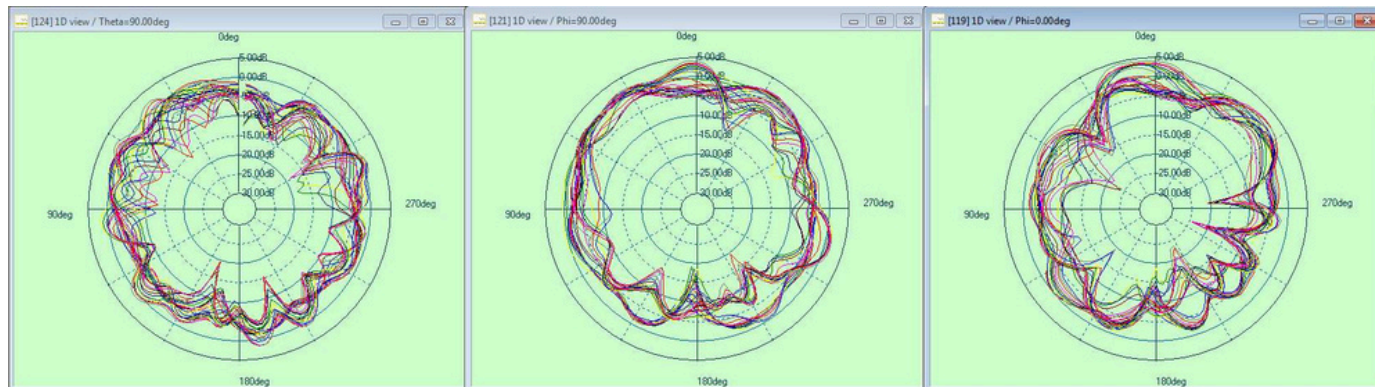
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz/5150MHz-5850MHz

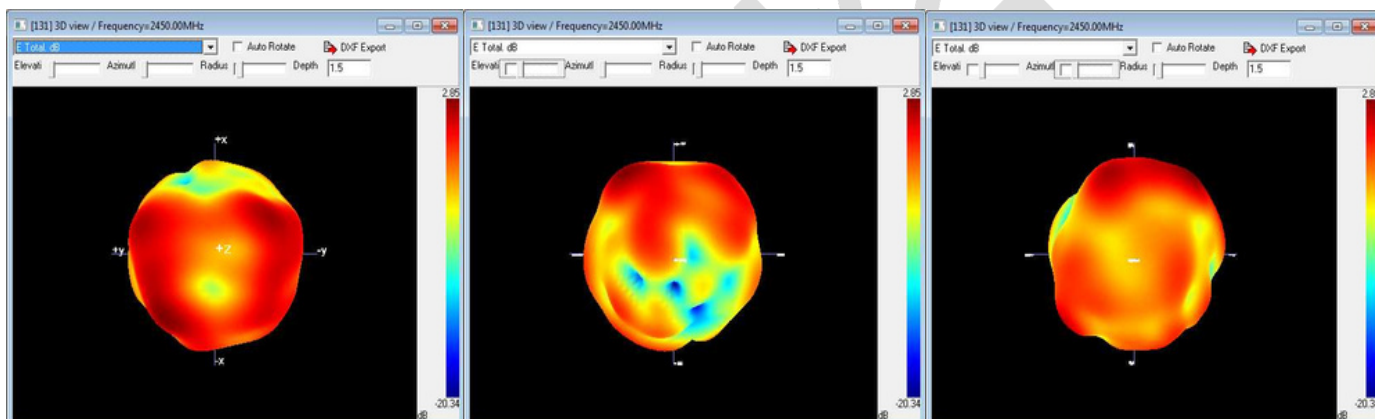
Frequency(MHz)	Gain (dBi)	Efficiency(%)
2400MH	4.03	55
Z	4.10	%
2410MH	3.77	55
Z	3.48	%
2420MH	3.55	53
Z	3.68	%
2430MH	3.62	53
Z	3.49	%
2440MH	3.49	54
Z	3.58	%
2450MH	3.48	56
Z	2.11	%
2460MH	2.89	55
Z	2.80	%
2470MH	3.06	55
Z	3.61	%
2480MH	3.15	55
Z	3.66	%
2490MH	3.21	55
Z	3.64	%
2500MH	3.56	53
Z	3.47	%
5150MH	3.75	43
Z	3.74	%
5200MH	3.78	45
Z	4.45	%
5250MH		44
Z		%
5300MH		44
Z		%
5350MH		45
Z		%
5400MH		43
Z		%
5450MH		

4.3.3 The antenna radiation pattern (2D/3D View)/天线辐射方向图 (2D/3D)

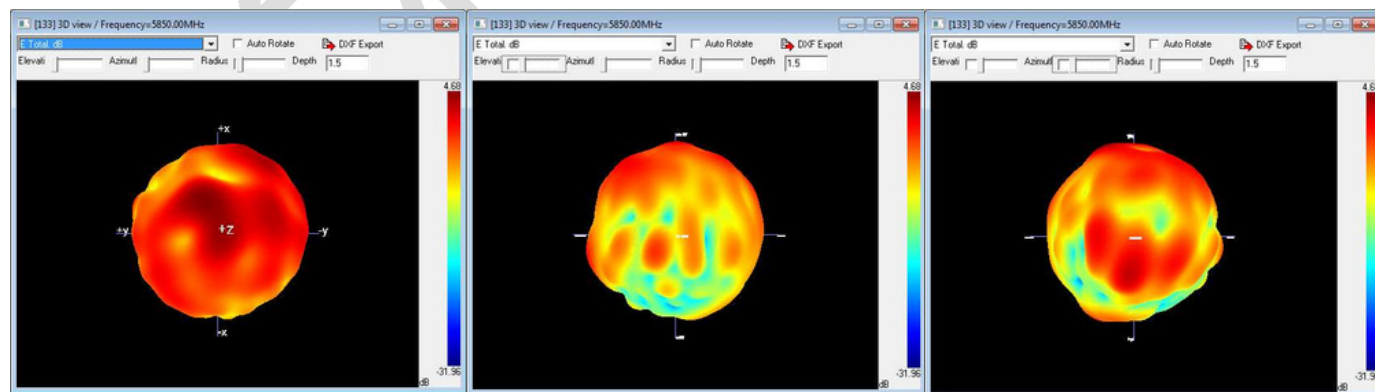
2400MHz-2500MHz/5150MHz-5850MHz



2450MHz



5850MHz



XOY

YOZ

XOZ