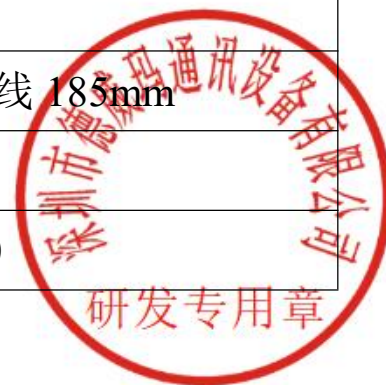


Shenzhen DEWEIMA Communication Equipment Co.Ltd

SPECIFICATION SHEET FOR APPROVAL

CUSTOMER NAME (客户名称)	富兰瓦时
CUSTOMER P/N (客户料号)	22010004
PART NAME (品 名)	智能配电箱 WIFI 天线 185mm
DWM P/N (料 号)	
APPROVAL REV. 版次	DWM-V1.0



CONTRACTOR			DATE: 2023-11-07
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED
高春彦	段燕林	吴周恒	余奇学

CUSTOMER		DATE:
Approved By	Checked By	Prepared By

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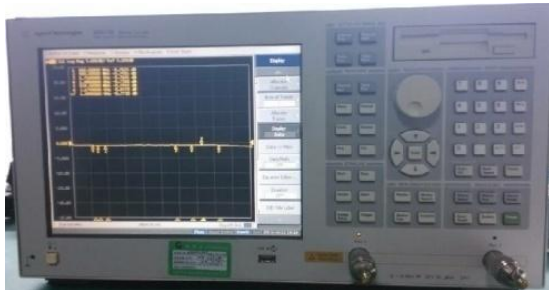
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1. Product Application/产品应用

该天线产品用于智能配电箱 WIFI 天线信号的传输。

2. The test environment, equipment/测试环境、设备

Item 项目	Description 项目描述	Test Condition/测试条件	Requirement /规格要求
2.1	Passive testing /无源测试	The VSWR measurement devices are connected in sequence: Agilent5071B Network Analyzer → measurement Cable → Customer-providing Devices. (VSWR 测量装置依次连接: 网络分析仪测量电缆 agilent5071B→→客户提供终端。)	驻波比: 2400-2500MHz<2.0 5150 - 5850MHz<2.0 阻抗: 50 ohm
		Test equipment/测试设备	
			
Item 项目	Description 项目描述	Test Condition/测试条件	Requirement /规格要求
2.2	增益及 效率测试	Follow picture shows the measurement condition of the antenna been put on the measurement device, which is used for all measurement of electric performances. (以下图片显示的天线的测量条件被放在测量装置,它是用于所有的测量电性能。)	天线增益: 2400-2500MHz:3.5±1dBi 5150 -5850MHz:3.5±1.5dBi 天线效率: 2400 ~ 2500MHz>60 % 5150 ~5850MHz>45 %



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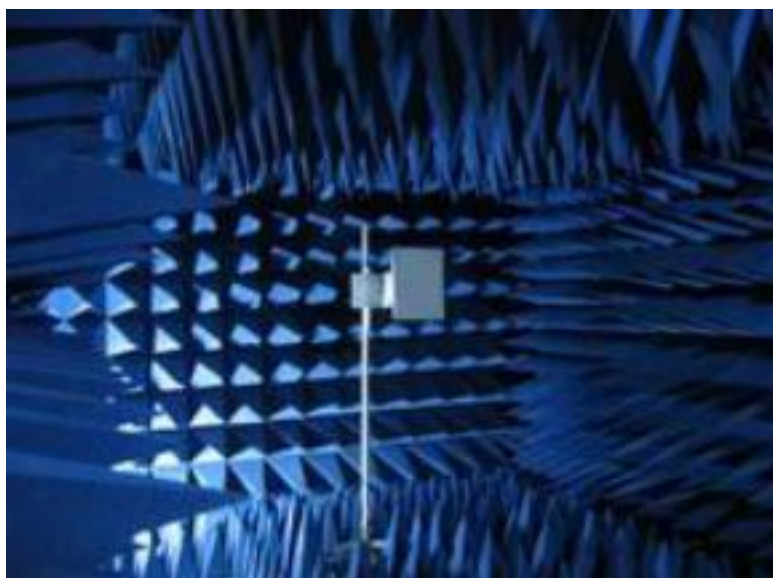
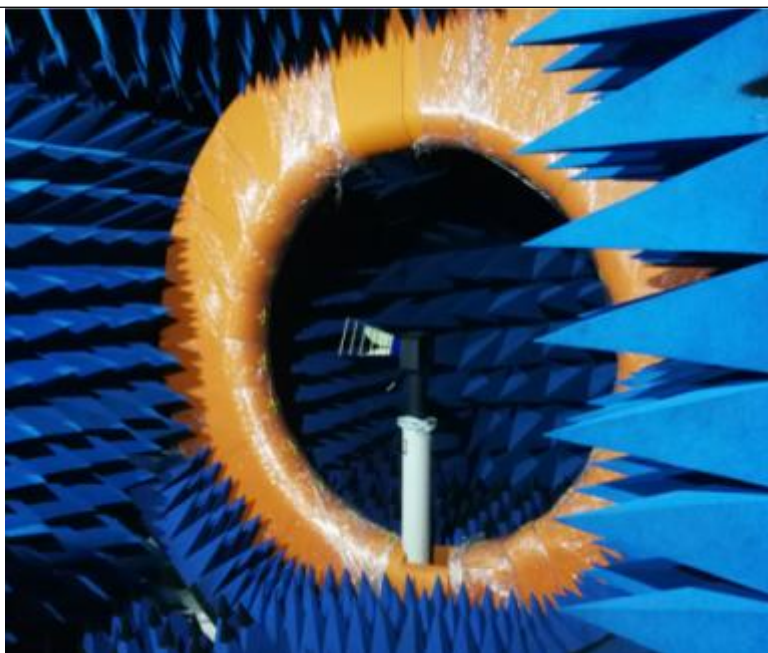
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Test equipment/测试设备

2.3

Microwave
Anechoic
(Satimo&ETS
)
/微波暗室





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CMW500

Agilent5071B

2.4

AgilentE4405B

Agilent8960





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3. Technology Parameters/技术参数

Frequency Range/频率范围:

2400-2500MHz&5150~5850MHz

Operating Humidity/工作湿度:

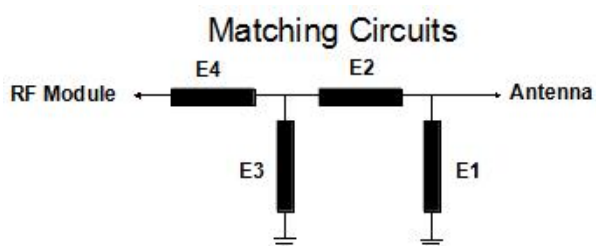
85% R.H.MAX

Temperature Rating/温度范围:

-40℃~+85℃

3.1 The matching test value/调试匹配值

Element	Value
E1(0402)	
E2(0402)	
E3(0402)	
E4(0402)	





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3.2 VSWR/驻波比:



3.3. Efficiency And Gain/效率和增益

Frequency	Efficiency	Efficiency /	Frequency	Gain/ dBi
2400	-1.93	64.12	2400	4.11
2410	-2.06	62.23	2410	3.64
2420	-1.7	67.61	2420	4.11
2430	-1.68	67.92	2430	4.13
2440	-1.91	64.42	2440	3.51
2450	-1.83	65.61	2450	3.71
2460	-1.75	66.83	2460	3.92
2470	-1.94	63.97	2470	3.56
2480	-1.86	65.16	2480	3.69
2490	-1.66	68.23	2490	4.06
2500	-1.82	65.77	2500	3.48
5150	-2.75	53.09	5150	2.6
5200	-2.47	56.62	5200	3.09
5250	-2.59	55.08	5250	2.94
5300	-2.57	55.34	5300	2.84
5350	-2.62	54.7	5350	2.92
5400	-2.78	52.72	5400	2.91
5450	-3.12	48.75	5450	2.72
5500	-2.57	55.34	5500	3.72
5550	-2.9	51.29	5550	3.71
5600	-3.21	47.75	5600	3.76
5650	-3.17	48.19	5650	3.99
5700	-3.55	44.16	5700	3.87
5750	-3.37	46.03	5750	4.23
5800	-3.44	45.29	5800	4.39
5850	-3.66	43.05	5850	4.15



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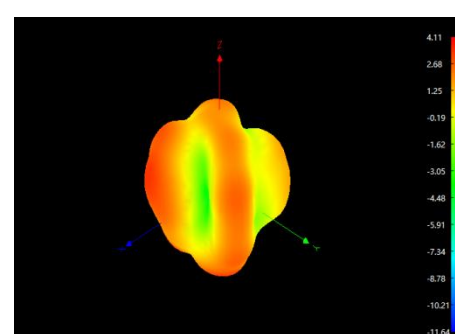
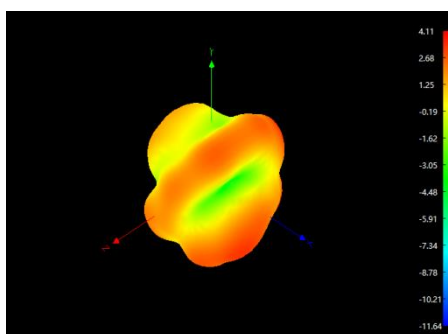
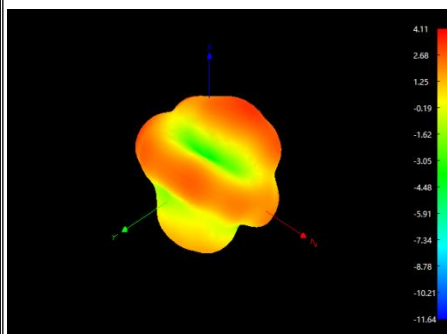
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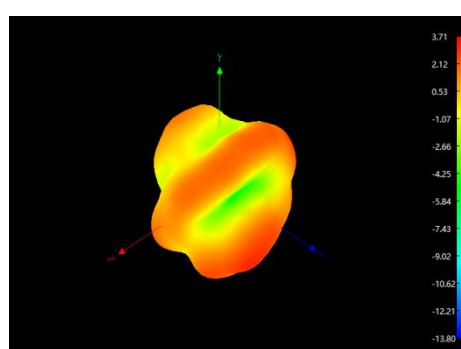
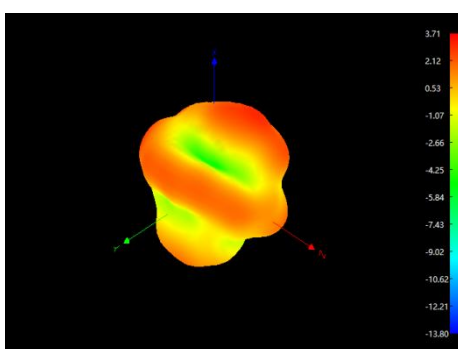
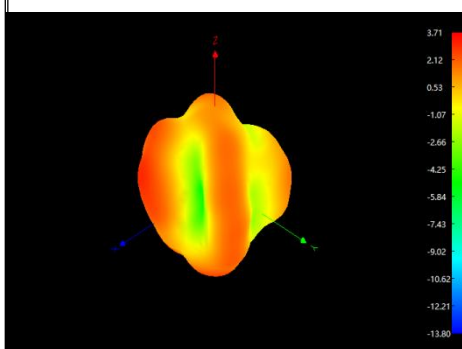
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3.4 3D Pattern

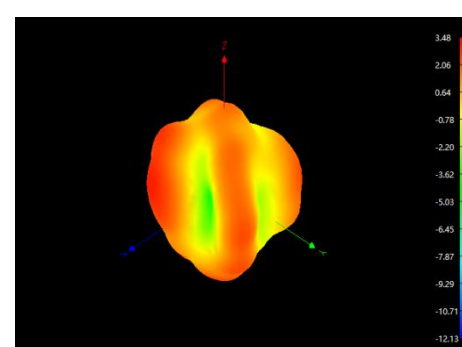
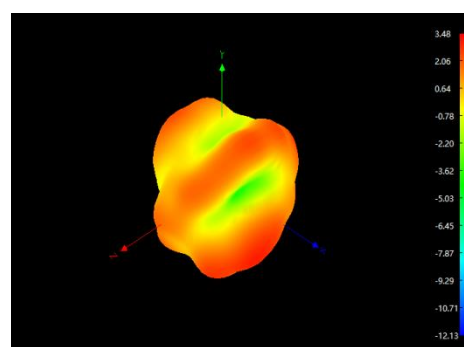
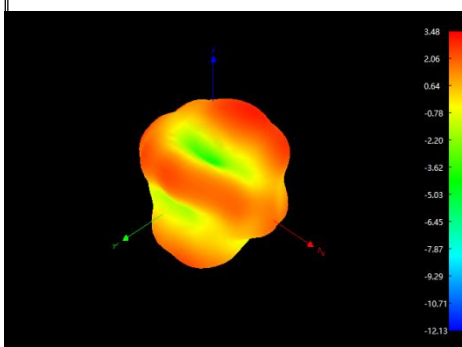
2400MHz 3D Pattern/方向图:



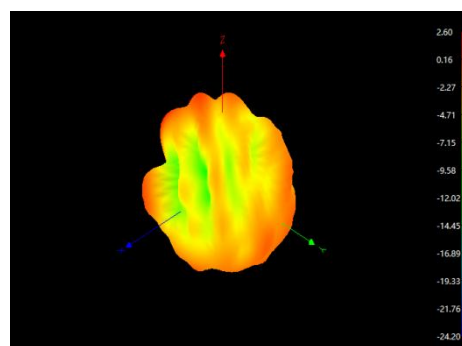
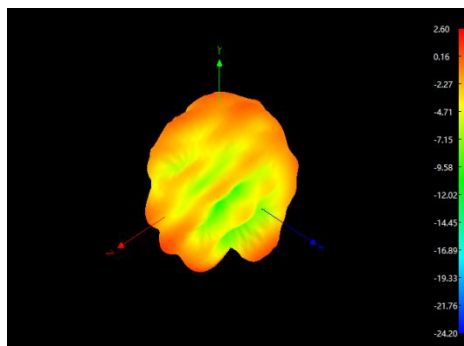
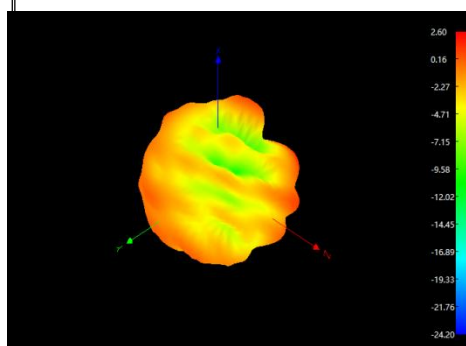
2450MHz 3D Pattern/方向图:



2500MHz 3D Pattern/方向图:



5150MHz 3D Pattern/方向图:





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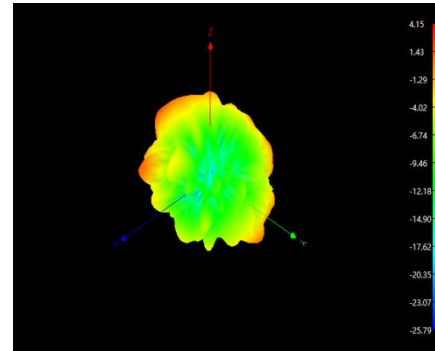
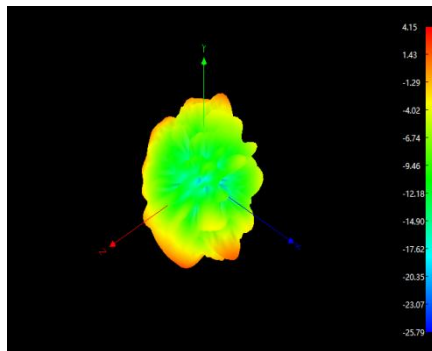
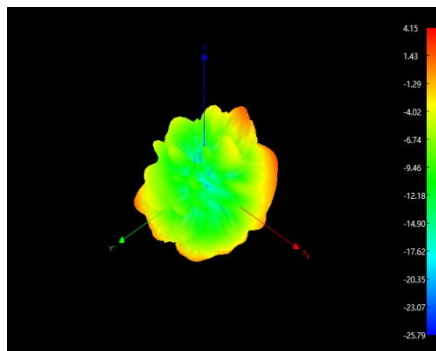
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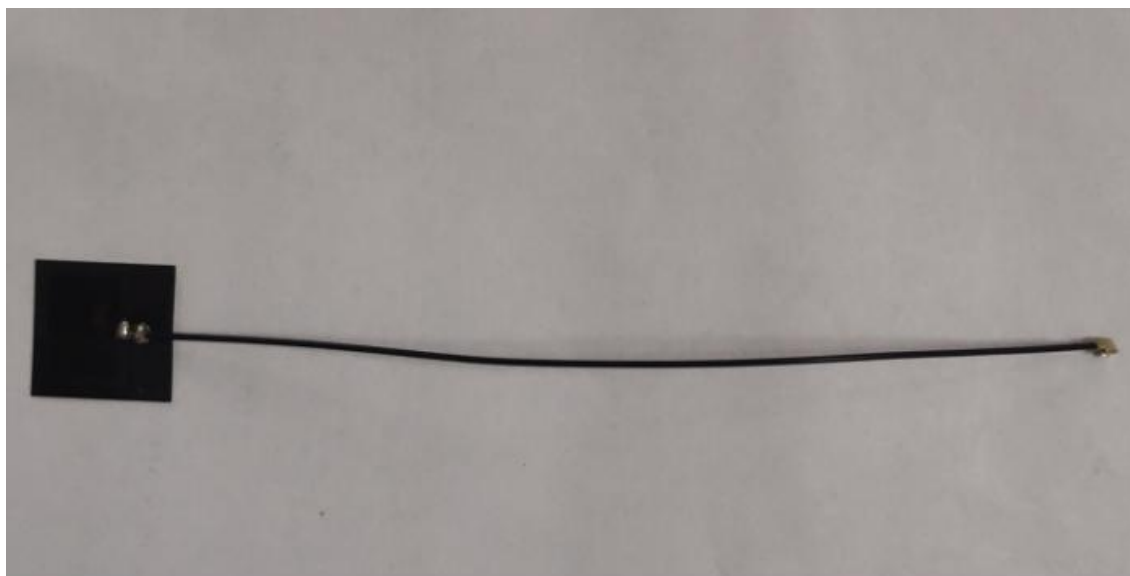
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5850MHz 3D Pattern/方向图:



4. Product photo/产品实物图片:





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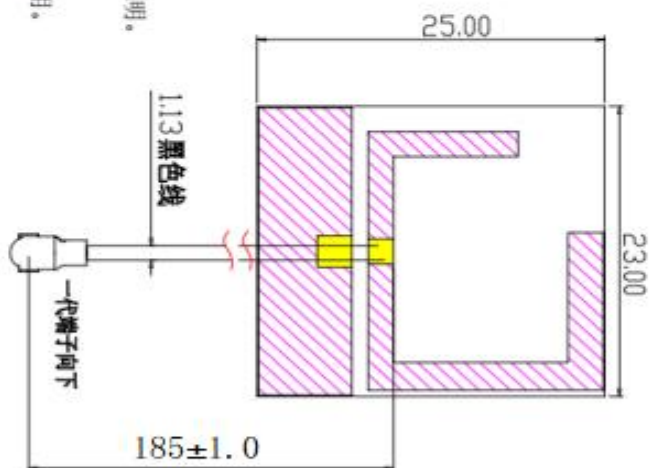
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5.Product structure diagram/产品结构图:

由 Autodesk 教育版产品制作

NOTE:

- 1 打*为重点检测尺寸, 孔位尺寸以实配为准。
- 2 未注圆角R=0.30mm, 图中尺寸做到中间值为佳, 其它未标公差参见图框内说明。
3. 材料为电解铜+PI (一对半), 整体厚度小于0.07 MM (不包括3M胶)。
4. 表面黑色, 背面背整块 3M 300 LSE 胶。
5. 十字剖面部分为铜皮线路, 绿色斜线剖面部分不布铜, 留基材, 起连接作用。整体外形随着剖面外形轮廓而走。
6. 表面不能刮伤露铜, 电镀不良, 氧化, 缺口, 压痕, 气泡, 裂纹, 以及不允许有异物, 脏点, 偏位等现象。
7. 袋装出货, 镀锌。



铜铂线路
金手指
背胶面

深圳市德威玛通讯设备有限公司
Shenzhen DeWeiMa Communication Equipment Co., Ltd.

机种

品名

料号

材质

表面处理

位置

日期

设计

审核

结构

确认

单位

2022/09/27

吴华生

射頻

版本

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6.Environmental Performance/环境性能

Item 项目	Description 项目描述	Test Condition 测试条件	Requirement 规格要求
5.1	High and low temperature test 高低温测试	Temp.: -40 °C Time: 48 hours Temp.: 85°C Time: 48 hours	1. No visible damage. (无可见损伤) 2. The electric performances reach the standard. (电气性能达标)
Item 项目	Description 项目描述	Test Condition 测试条件	Requirement 规格要求
5.2	Salt Spray 盐雾测试	5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1 °C Time:24 hours	1. No color change. (无颜色变化) 2. the appearance of the antenna does not flake off. (天线无外观脱落)

7.Usage Precaution/使用禁忌或注意事项

No	Items 项目	Matter 事项
6.1	Precautions 禁忌	a)Please avoid the cleaning of this product a)请避免清洁此产品
No	Items 项目	Matter 事项
6.2	Stockpile condition 存储条件	Use this product within 6 months after receipt Condition : Temp: 5~30°C Humidity:≤70% 有效期: 请在产品接收后的 6 个月内使用 存储环境: 温度:5~30°C; 湿度:≤70%



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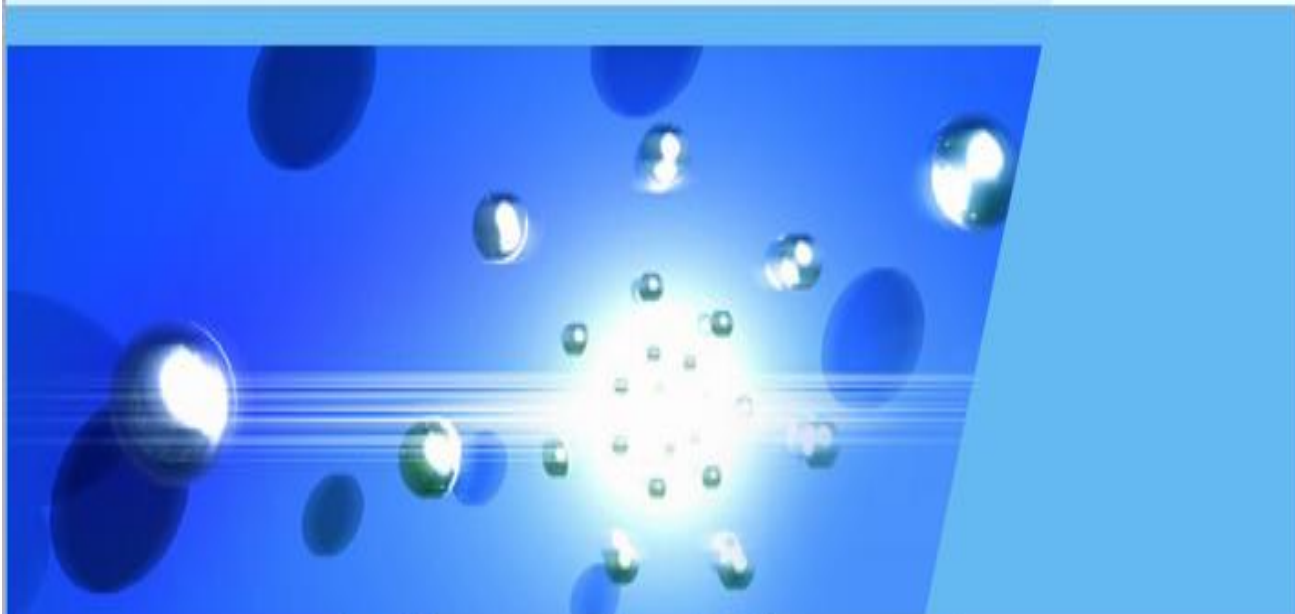
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专业的**RF**研发机构



Thank You !

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