

恩业 X101 WiFi GPS 天线规格书

Nye X101 WiFi GPS antenna specification

客户：恩业科技			Model：X101	
频段：WIFI/GPS		日期：2025.1.05	版本：R:A	
研发	结构：王工	审核：韦春燕		批准：陈亲民
	射频：胥工	审核：韦春燕		
HDZX-J102 WIFI GPS 天线				
客户审核：			客户批准：	
Customer: Nye Technology Project			name: X101	
Frequency band: WIFI/GPS		Date:2025.1.05	Version: R:A	
R&d structure:	structure: Wang Gong	Audit: Wei Chunyan		Chen Jinmin Radio
	frequency: Xugong	Audit: Wei Chunyan		
HDZX-J102 WIFI GPS antenna				
Customer audit:			Customer approval	

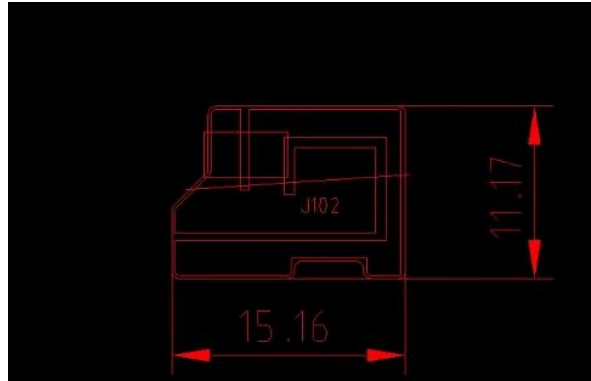
WIFI GPS 天线 HDZX-J102 FPC 天线
WIFI GPS antenna HDZX-J102 FPC antenna

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天线型号 对应的实物图

WIFI GPS 天线 HDZX-J102 FPC 天线
WIFI GPS antenna HDZX-J102 FPC antenna



1. Project information and Electrical Specification

Those specifications were specially defined for WIFI/BT model, and all characteristics were measured under the model's handset testing jig .

1-1 Project picture

1-2 Frequency Band:

Frequency Band	MHz
WiFi/BT 频率	
GPS	2380-2500 4900~5800
WiFi/BT frequency	1565~1585
GPS	
天线增益	
Antenna gain	1.3dbi

天线最大功率 Antenna maximum power	16.13dbi
调试类别 Debug class	FPC

1-3 Impedance matching

天线原匹配

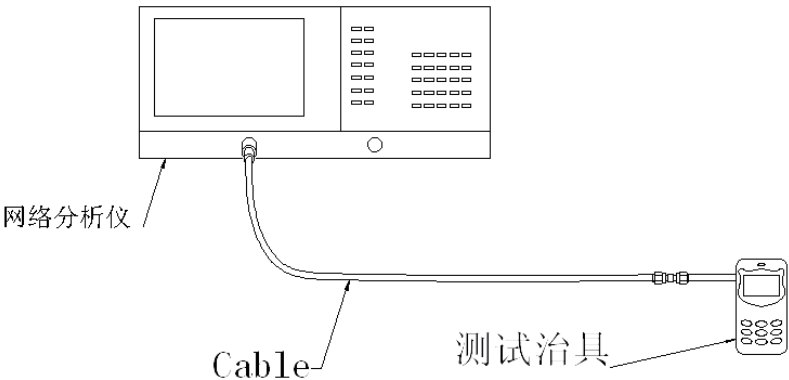
Antenna primary matching

2.VSWR

2-1 Measuring Method:

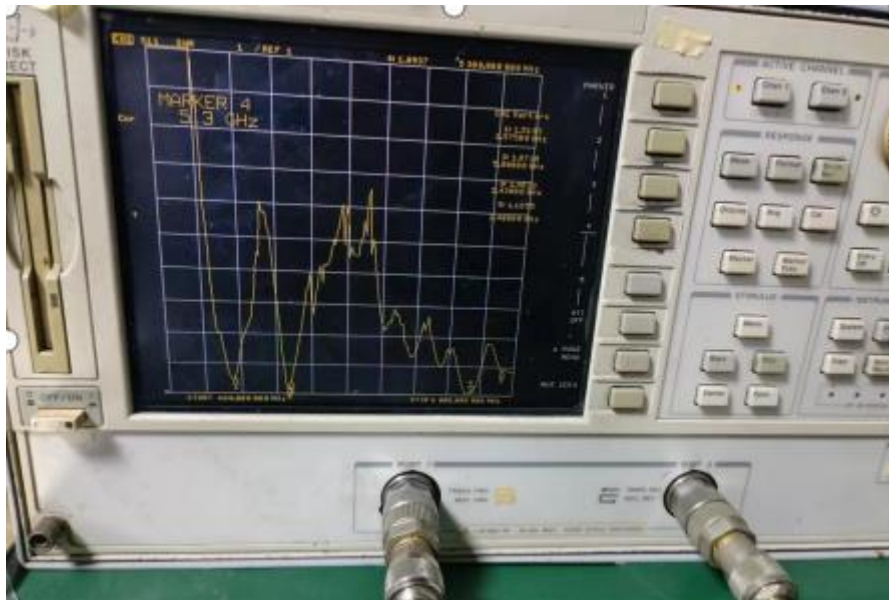
1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,
2. Keeping this jig away from metal at least 20cm.

测试示意图如下:



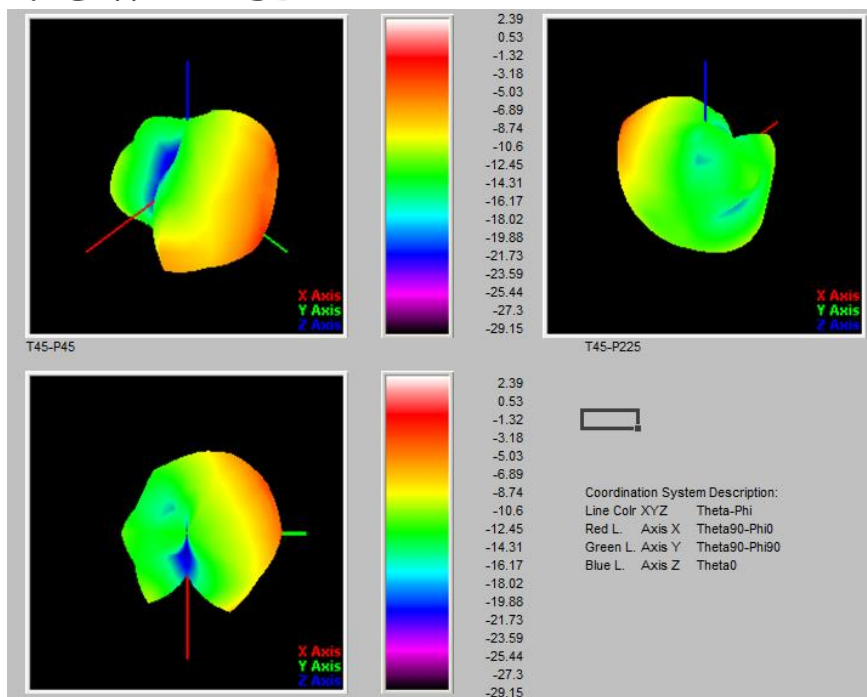
2-2 S11 parameter values

频率 (MHZ) Frequency (MHZ)	1575	2400	5500	5800
驻波 Standing wave	1.3	1.3	1.8	1.6

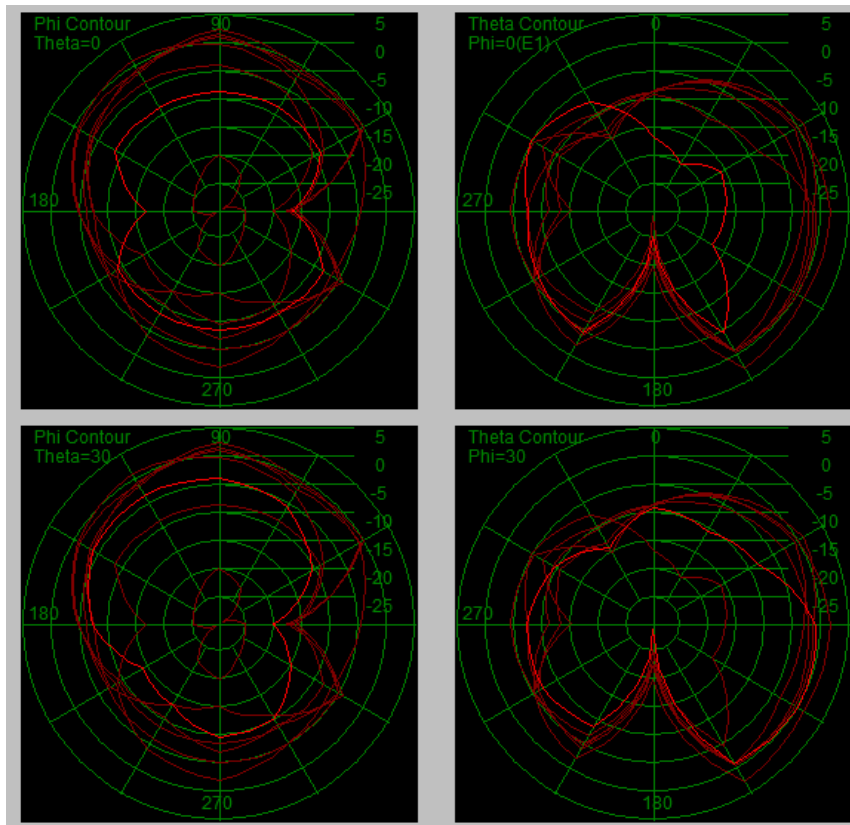


2. Efficiency and Gain

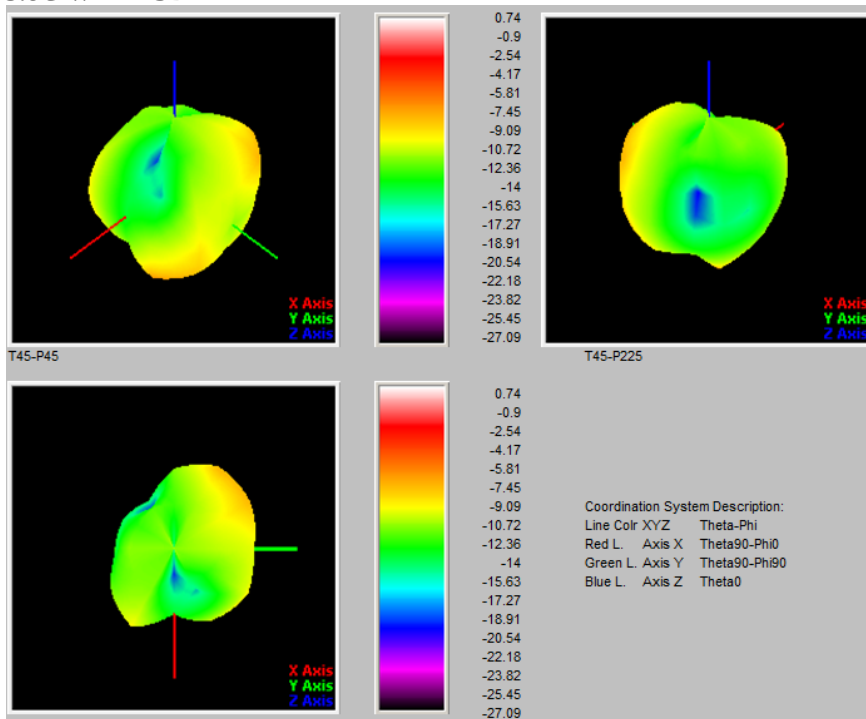
2.4G WIFI 3D



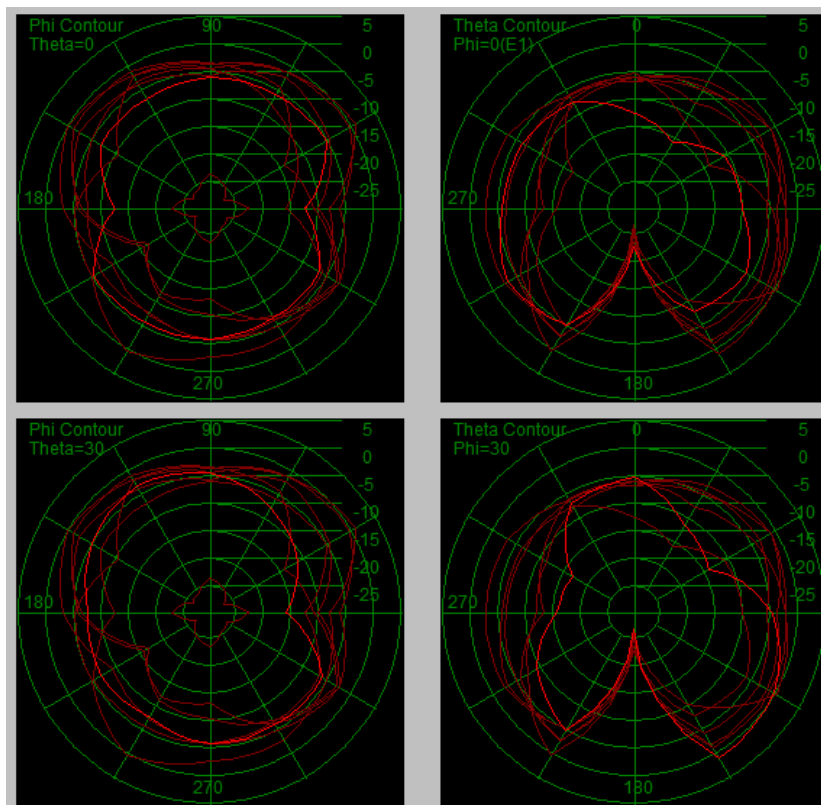
2. 4G WIFI 2D



5.8G WiFi 3D



5.8G WiFi 2D



3-1 Efficiency/Peak Gain-

2.4G 5.8G 天线测试数据 2.4G 5.8G Antenna test data

Test Result	802.11B, Wifi 2.4G 11M		
	12	6	1
Frequency (MHz)	2467	2437	2412
TRP (dBm)	12.89	15.05	11.76
TIS (dBm)	-81.53	-78.61	-80.32

5.8G

Test Result	802.11A, Wifi 5,8G 54M		
	36	149	161
Frequency (MHz)	5180	5745	5805
TRP (dBm)	9.33	9.16	9.69
TIS (dBm)	-72.01	-71.07	-73.32

4. The production index

天线量产时，以驻波比作为量产测试标准。根据项目本身的差异, 给出如下标准:

In the mass production of antenna, the standing wave ratio is used as the test standard. According to the differences of the project itself, the following criteria are given

频率 Frequency mass	量产标准 production standard
WIFI /BT(2400-2500MHZ)	VSWR (量产产品) < VSWR(设计样品)+0.5

GPS 实际测试 30 秒点位，40 以上的 3 颗。效果优。

The GPS actually tests 30 second points, 3 points above 40.
Excellent effect