



# 深圳市欧德声科技有限公司

ADD: 深圳龙华区工业东路 42 号品创源科技园 B 栋 501

TEL: [0755-85278545](tel:0755-85278545) FAX: 075585278546

## 1.1 Specifications

天线型号 Antennas Type	BW2.4FNX42-12B1L160
频率范围 Frequenc Range (MHz)	2400-2500
输入阻抗 Input Impedence ( $\Omega$ )	50 $\Omega$
电压驻波比 V. S. W. R	<2
增益 Gain (dBi)	1.48dBi (Max)
极化形式 Polarization Type	垂直 Vertical
功率容量 Power Capacity (w)	50
雷电保护 Lingtning Protection	None
工作电压 DC Voltage (V)	None
天线尺寸 Dimension (mm)	42x12
接口形式/Connector Type:	IPEX-1
电缆型号 Cable type (mm)	$\phi$ 1.13
电缆长度 Cable length (mm)	160
辐射体 Radiator	None
天线颜色 Color	黑色 Black
重量 Weight (g)	None
工作温度 Operating Temperature ( $^{\circ}$ C)	-40~80
储藏温度 Storage Temperature ( $^{\circ}$ C)	-20~85

\*注：以上数据仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。

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## 1.2 Antenna Picture



上图型号: BW2.4FNX42-12B1 图片仅供参考

(定制客户中间连接线长度定制, 天线形状定制)

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## **2. Electrical Specification**

### **2.1 Test Equipment**

- A. VSWR and input impedance: Agilent 8753/E5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

### **2.2 Test Setup**

#### **2.2.1 Frequency Range**

#### **2.2.2 VSWR**

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



**Figure.1**

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## 2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

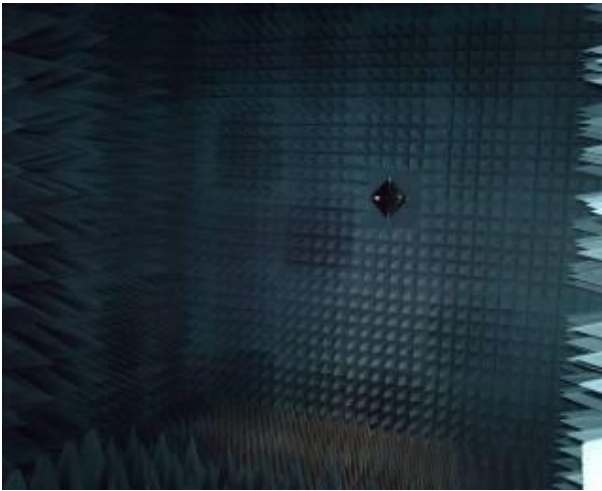


Figure.2



Figure.3

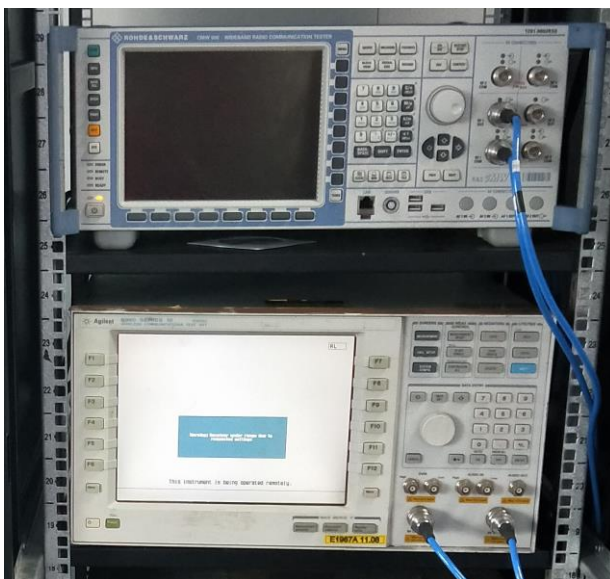


Figure.4



Figure.5

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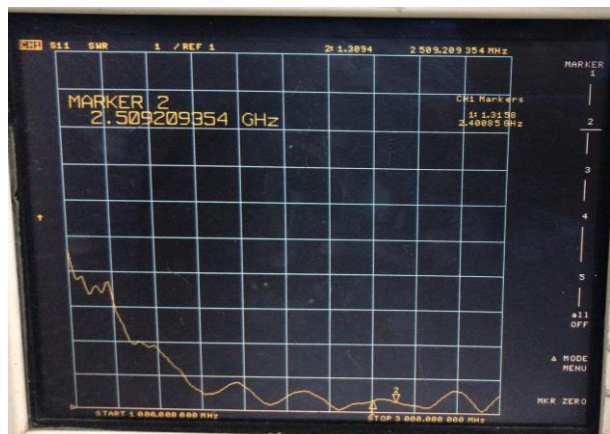
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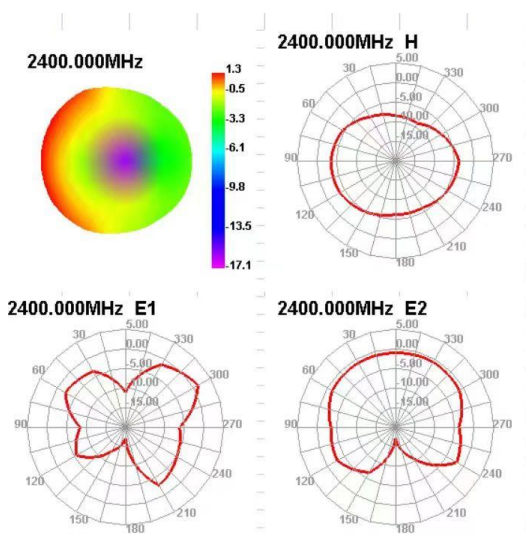
## 3. Performance Data

### 3.1 Passive data

VSWR (电压驻波比) / Return Loss (回波损耗) / Smith Chart (史密斯圆图) 增益数据表和测试结果 2D/3D 图



Passive Test For WIFI											
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver	
2400	49.22	-3.08	1.3	-0.85	33.132	16.091	1.3	-17.14	48.09	47.94	
2410	49.19	-3.08	1.23	-0.92	33.264	15.926	1.23	-16.88	48.07	47.87	
2420	48.97	-3.1	1.12	-1.03	33.097	15.873	1.12	-16.27	48.18	48	
2430	48	-3.19	1	-1.15	32.445	15.554	1	-15.74	48.17	47.99	
2440	49.81	-3.03	1.21	-0.94	33.883	15.924	1.21	-15.97	48.33	48.11	
2450	51.97	-2.84	1.44	-0.71	35.717	16.249	1.44	-16.43	48.44	48.14	
2460	51.39	-2.89	1.4	-0.75	35.752	15.64	1.4	-17.57	48.41	48.06	
2470	51.84	-2.85	1.43	-0.72	36.544	15.292	1.43	-17.85	48.49	48.11	
2480	52.99	-2.76	1.48	-0.67	37.586	15.4	1.48	-17.28	48.63	48.18	
2490	53.53	-2.71	1.45	-0.7	38.058	15.476	1.45	-16.92	48.76	48.29	
2500	50.61	-2.96	1.1	-1.05	35.976	14.631	1.1	-17.94	48.69	48.16	



\*注：以上为实测数据，仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。



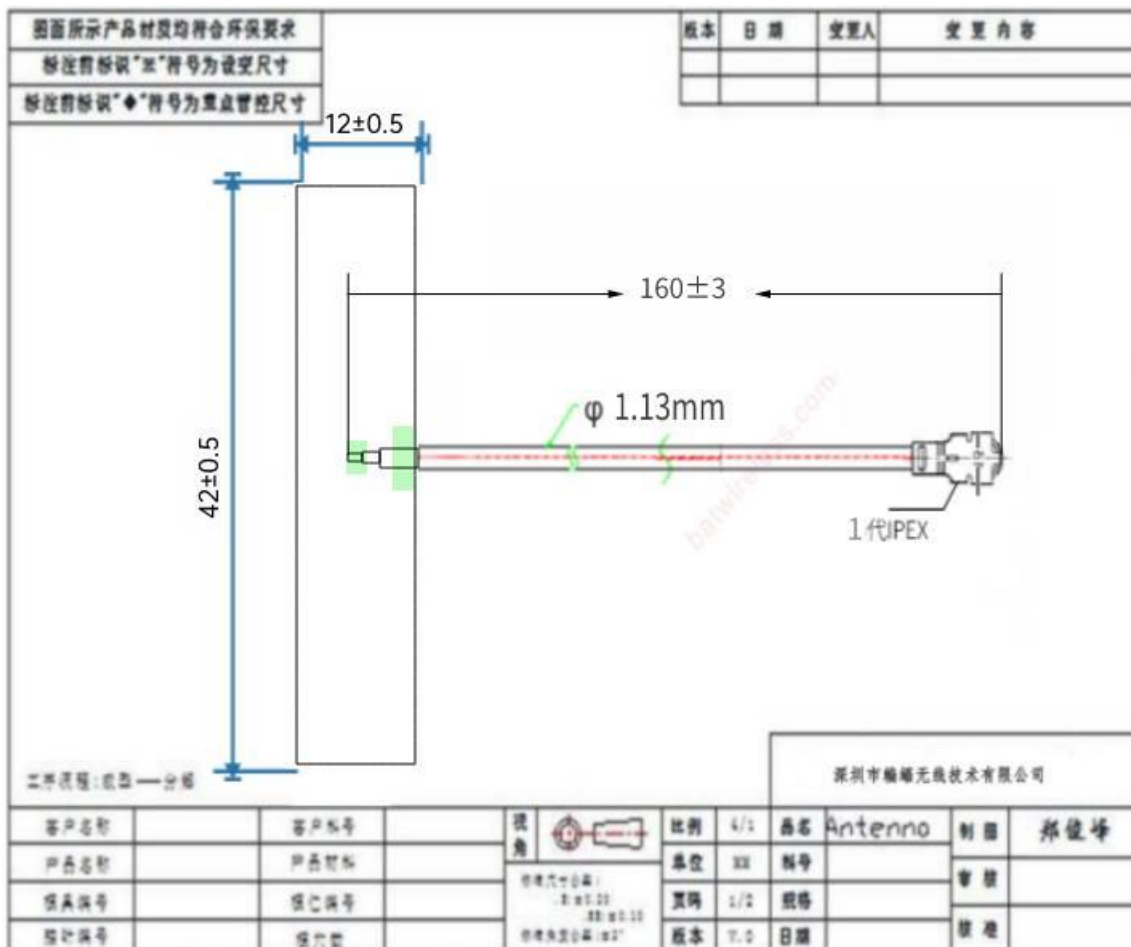
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## 4. Mechanical Specification

### 4.1 Assembly Drawing



注：以上尺寸产品型号为：BW2.4FNX42-12B1L160

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## 5. RF113

### 1. 适用范围

本规格书制定了电线的结构和电气特性

同轴线  
AWG 32

### 1. Scope

This specification covers the construction and the electrical properties of wire.

Coaxial Wire  
AWG 32

### 2. 结构/Construction

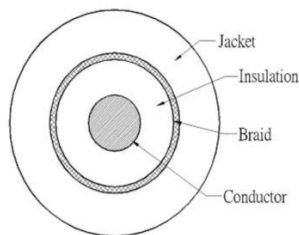
单位/Unit: mm

项目/Item	单位/Unit	详细资料/Details
Conductor 导体	材料/Material	- 绞合镀银铜丝 Silver-coated copper wire
	构成/Composition	(No./mm) 7/0.08
	外径/OD.	mm 0.24
	绞向/Orientation	- S
Insulation 绝缘层	材料/Material	- FEP(进口料)
	绝缘颜色/Insulation color	- 本色/Natural
	标称绝缘厚度/ Nom. Thickness	mm 0.22
	绝缘线径/OD.	mm 0.69
Braid Shield 编织	材料/Material	- 镀锡铜丝 Tinned copper wire
	构成/Composition	(No./mm) 16/4/0.05
	编织密度/Coverage	(%) ≥90
Jacket 外被	材料/Material	- FEP
	标称绝缘厚度/ Nom. Thickness	mm 0.12
	外径/OD.	mm 1.13±0.10

### 3. Electrical Properties (at 20°C) / 电气特性 (20°C时)

项目/Item	单位/Unit	详细资料/Details
导体电阻/Conductor Resistance	Ω/km	571 (Max.)
绝缘电阻/Insulation Resistance	MΩ · km	100 (Min.)
耐压强度(AC)/Dielectric Strength(AC)	V/ 1 Min	500
特性阻抗/Impedance	Ω	50±3
耐温等级/ Temperature	°C	200
额定电压/rated voltage	V	30

### 4. 电线截面图示如下:





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## 6.免责声明:

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