



东莞市蓝霖电子科技有限公司

Dongguan Lanlin Electronic Technology Co., Ltd

SPECIFICATIONS

CUSTOMER: _____

PRODUCT: ZL-PB2400-W4015FN16

PARTNO: FPC 2.4GHz 天线 RF1.13 黑色 一代端子 L: 130mm

Date: 2026-3-6

公司承認章	客戶承認章

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統一編號: B-2.0

RoHS

Compatible

CUSTOMER

PART NO

REV.

A

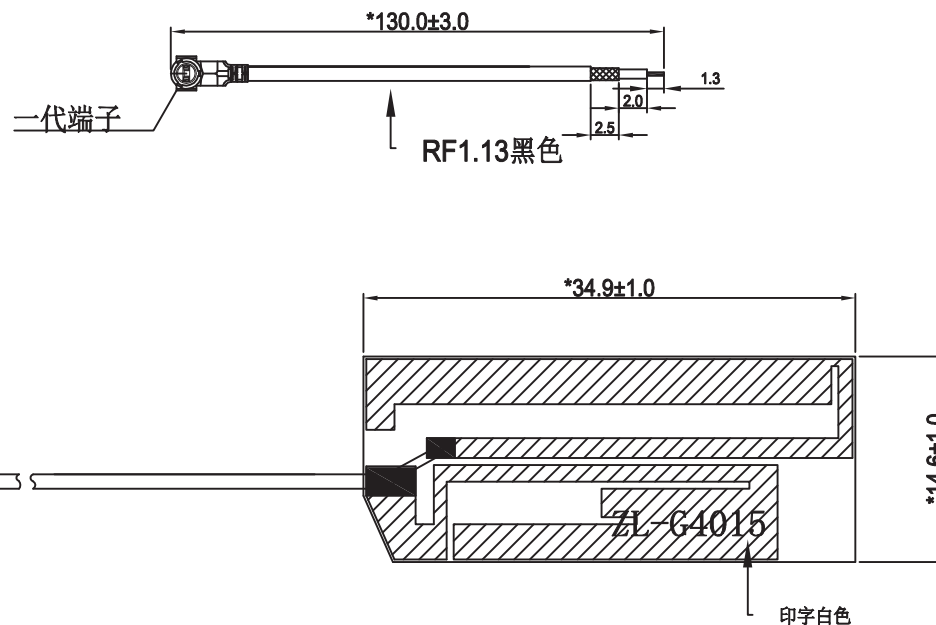
DESCRIPTION

首次发行

8

DATE

2026-3-5

 : 代表布线区 : 代表镀镍区

备注:

1. FPC厚度 $0.1 \pm 0.05\text{mm}$, 表面黑色。
2. 背胶厚度 0.05mm 。
3. 背面为3M背胶。
4. 带"*"为重点尺寸。
5. 图纸比例按1:1量测, 未标注公差请参照标准公差。
6. 裸铜区镀镍

东莞市蓝霖电子科技有限公司

PART NAME: 2.4GHz 天线/RF1.13黑色

PART NO.: ZL-PB2400-W4015FN16

DATE: 2026-3-5

APPROVED BY

CHECKED BY

DESIGNED BY



Tolerance

X.X ± 0.50 X.XX ± 0.15 X° $\pm 3^\circ$

UNITS: mm

SCALE: 1/1

REVISION: A

Darren

Product Number: ZL-PB2400-W4015FN16
Product Name: 2.4GHz Antenna

Index:

- 1. Specification / Page 2**
- 2. Characteristics and Reliability Test / Page 3**
- 3. Antenna - S Parameter Test Data / Page 4**
- 4. Antenna - Radiation Pattern Test Data / Page 5**
- 5. Mechanical Drawing / Page 6~end**

Product Number: ZL-PB2400-W4015FN16

Product Name: 2.4GHz Antenna

1. Specification

Sample Photo	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
S.W.R.	≤ 2.0 Terminal -I
Antenna Gain	1.11 dBi
Polarization	Linear
Impedance	50 Ohm
Admitted Power	1W
B. Material & Mechanical Characteristics	
Material of Radiator	/
Cable Type	RF1.13
Connector Type	一代端子
Connector Pull Test	/
Connector Torque Test	/
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

Product Number: ZL-PB2400-W4015FN16

Product Name: 2.4GHz Antenna

2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2011/65/EU
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

Product Number: ZL-PB2400-W4015FN16
Product Name: 2.4GHz Antenna
3. Antenna - S Parameter Test Data



PASSIVE	TRP(dBm)	-4.27	-3.7	-3.62
	参数\频率(mhz)	2400	2450	2500
	Peak Gain(dBi)	1.03	0.69	1.11
	Efficiency(%)	37.41	42.66	43.45

Product Number: ZL-PB2400-W4015FN16

Product Name: 2.4GHz Antenna

4. Antenna - Radiation Pattern Test Data

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 6 x 3 x 3 m

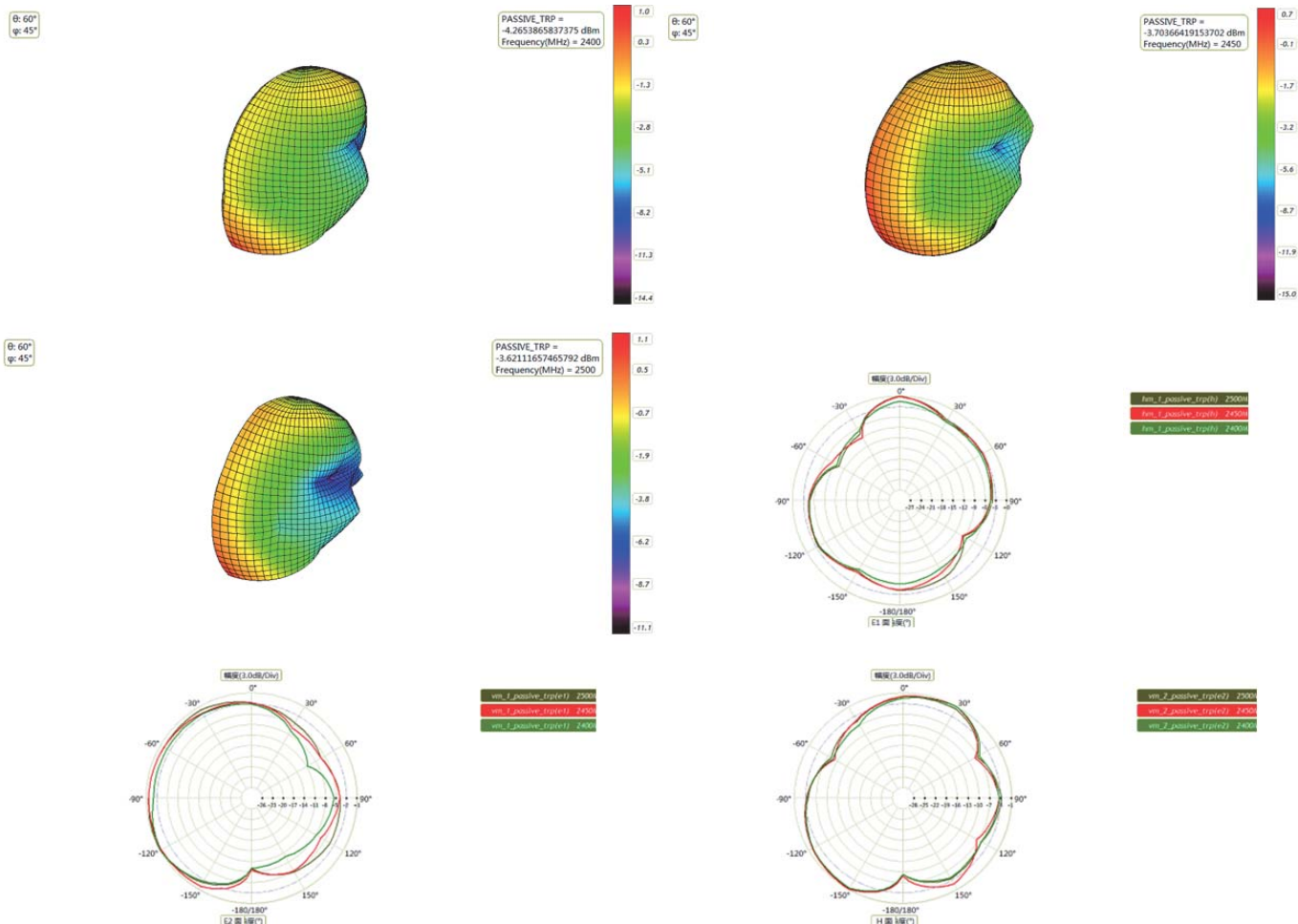
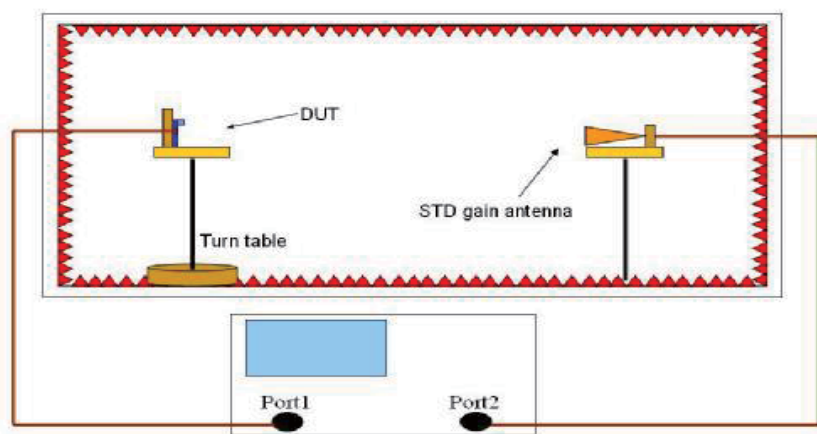
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna



Product Number: ZL-PB2400-W4015FN16

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5. Mechanical Drawing

See attached files

6. Material Description and RoHS Test Report

See attached files