



acknowledgment

SPECIFICATION FOR APPROVAL

Customer Name: Expand the benefits

Product model: LP100

Customer part number Customer P/N: _____

Xin Hengyang material number XINHENGYANG P/N: CP.
21.0000225 Product Specifications IFFCATIONS: WIFI/black _ FPC/1_.13_
Gray coaxial cable _ L=120mm / 1st generation terminal

Production date: 2025.06.06 Sealed Sample Version: R1

Xinhengyang (XINHENGYANG)		
Production (FICT-ION)	Structure (S)	research and development (R&D)
Customer		
purchase (PUR)	character (QC)	research and development (R&D)

Manufacturer: Shenzhen Xinhengyang Technology Co., LTD

Address: Shenzhen Nanshan District Xili Street Langshan No.2 Road, Building B,
Aerospace Micro Motor Building, 1st floor

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I. Basic Parameters

A. Electrical Characteristics	
Frequency	2400MHZ-2500MHZ 5150MHZ-5850MHZ
VSWR	<2.0 2400MHZ-2500MHZ>50% 5150MHZ-5850MHZ>50%
Avg Efficiency	50 ± 25 Ohm Linear
Impedance	2400MHZ-2500MHZ: 4.22dBi
Polarization	5150MHZ-5850MHZ: 4.84dBi
Peak Gain	
B. Material & Mechanical Characteristics	
Material of Radiator	FPC black
Cable Type	Φ 1.13 L=120MM±3MM Grey
Connector Type Dimension	Generation 31.50MM*14.40MM±0.15MM
C. Environmental	
Operation Temperature	- 20 °C ~ + 60 °C
Storage Temperature	- 20 °C ~ + 60 °C



2. Electrical Specifications

Those specifications were specially defined for LP100 model.

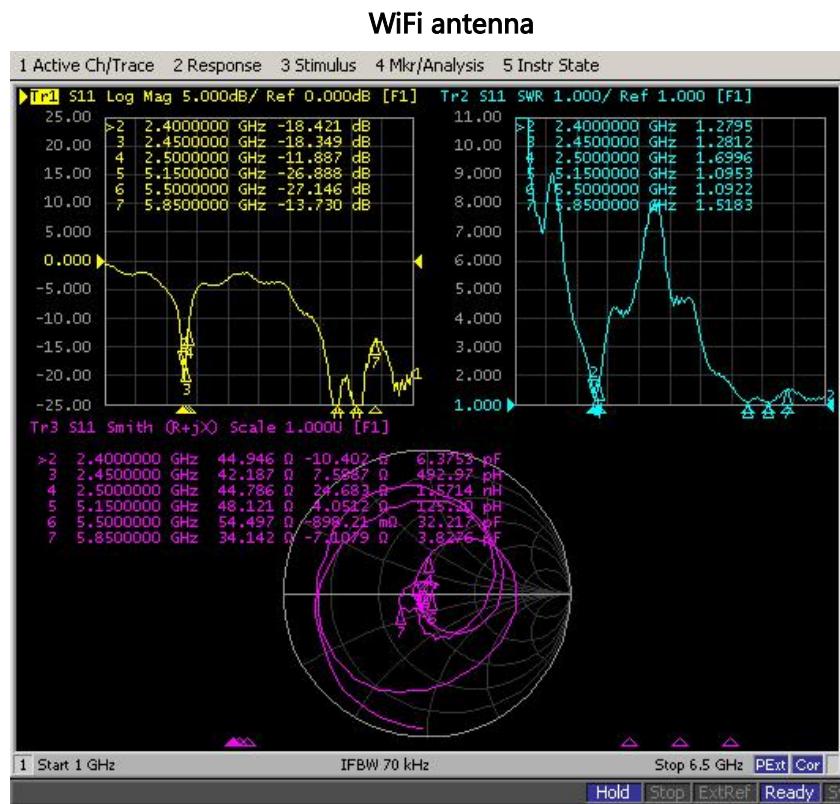
Three 、VSWR

1 measuring method

1. A 50Ω 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

2 Measure the frequency points and the standing wave ratio





IV. Introduction to the Dark Room

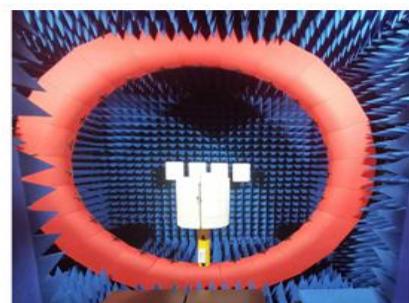
Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

main performance :

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)



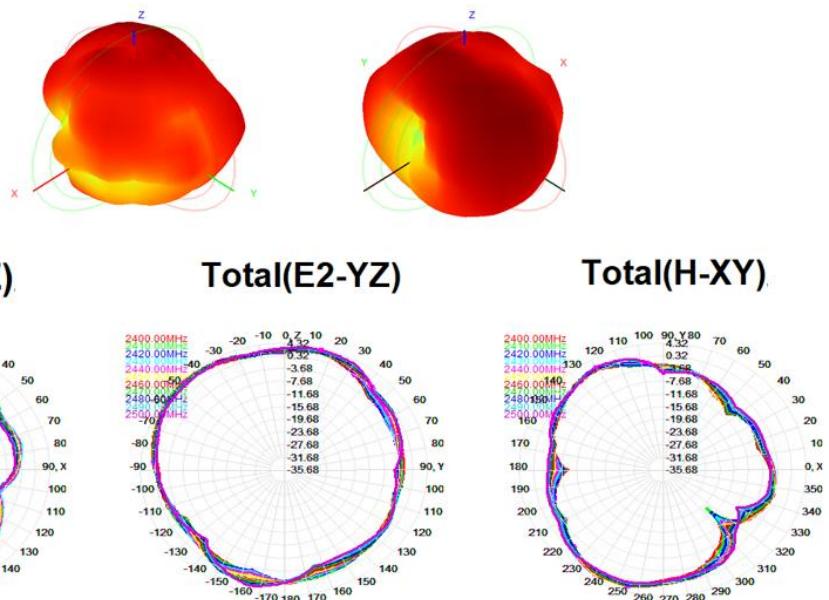


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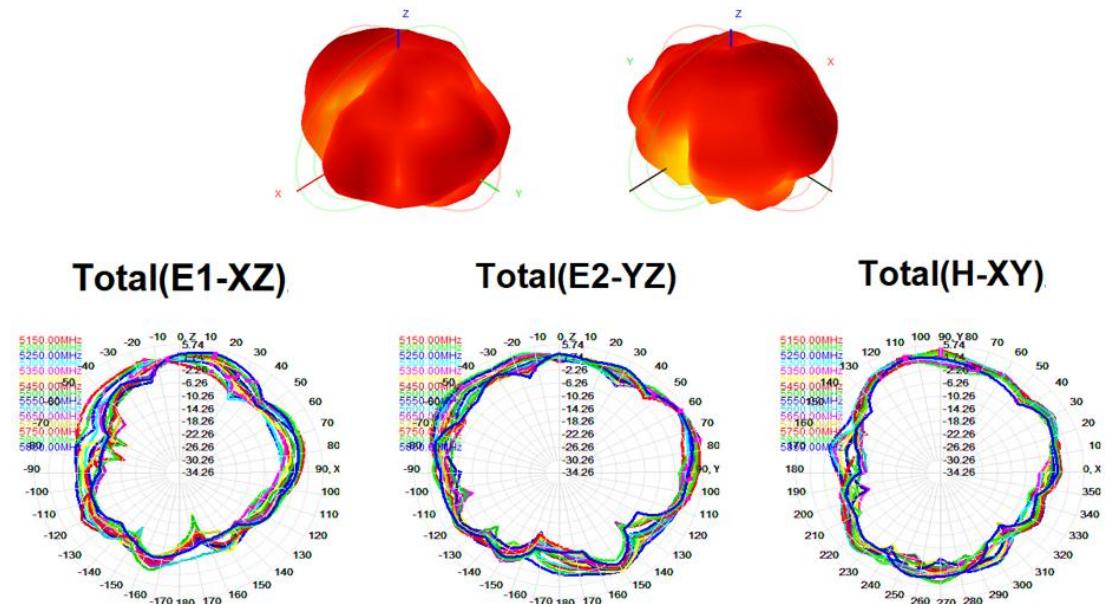
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V. Antenna Performance

Field type diagram-WiFi-2400MHZ-2500MHZ



Field type diagram-WiFi-5150
MHZ-5850MHz





No-source efficiency gain

WIFI (2400MHZ-5850MHZ)							
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-2.14	3.61	61.14	5250	-1.60	2.97	59.14
2410	-2.02	3.85	62.84	5300	-1.82	3.08	55.79
2420	-2.10	3.83	61.70	5350	-1.75	3.39	56.90
2430	-1.95	3.91	63.79	5400	-1.65	3.52	58.36
2440	-2.02	3.69	62.76	5450	-1.50	3.82	60.79
2450	-1.99	3.96	63.26	5500	-1.91	3.60	54.41
2460	-2.01	4.22	63.02	5550	-1.74	4.84	57.05
2470	-2.04	3.89	62.48	5600	-1.65	4.31	58.38
2480	-2.10	3.51	61.65	5650	-2.11	3.84	51.53
2490	-2.11	3.48	61.55	5700	-2.15	4.30	50.98
2500	-2.08	3.36	62.00	5750	-2.04	4.38	52.49
5150	-1.70	3.58	57.56	5800	-2.07	4.24	52.03
5200	-1.71	3.66	57.41	5850	-2.30	4.63	58.93

OTA active

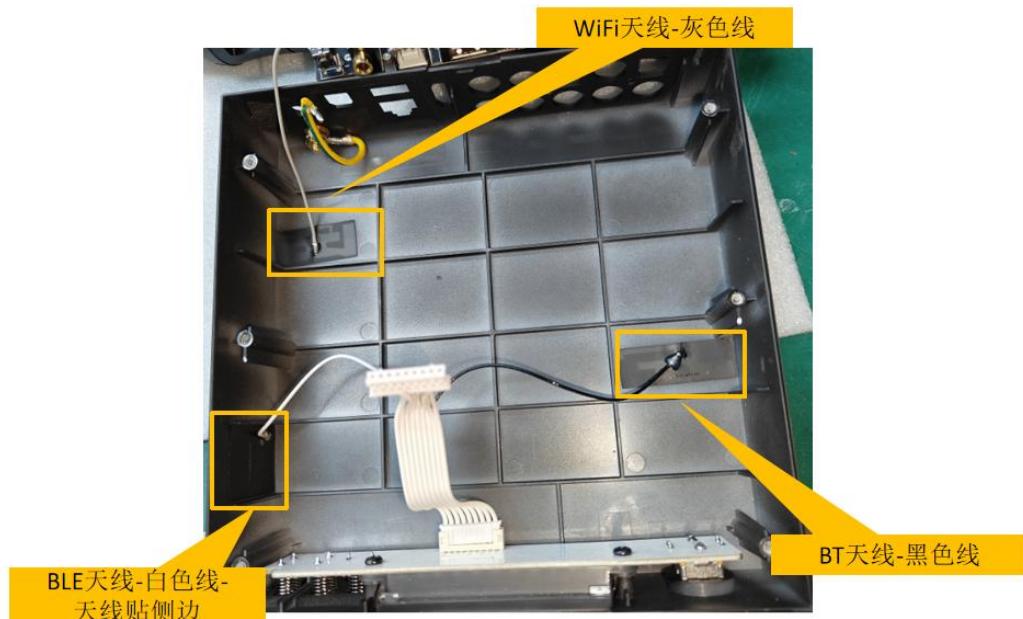
OTA有源			
Test Condition		OTA	
band	Channel	TRP (dBm)	TIS (dBm)
802.11B.11M	1	13.71	-71.65
	6	13.63	-78.68
	11	13.71	-72.88
802.11G.54M	1	13.30	-56.53
	6	13.05	-63.40
	11	13.74	-56.66
802.11N.MCS7	1	12.20	-54.43
	6	11.92	-61.87
	11	11.74	-54.90
802.11A.54M	149	10.42	-67.58
	157	11.31	-69.29
	165	11.12	-67.55



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VI. Antenna Assembly Drawing

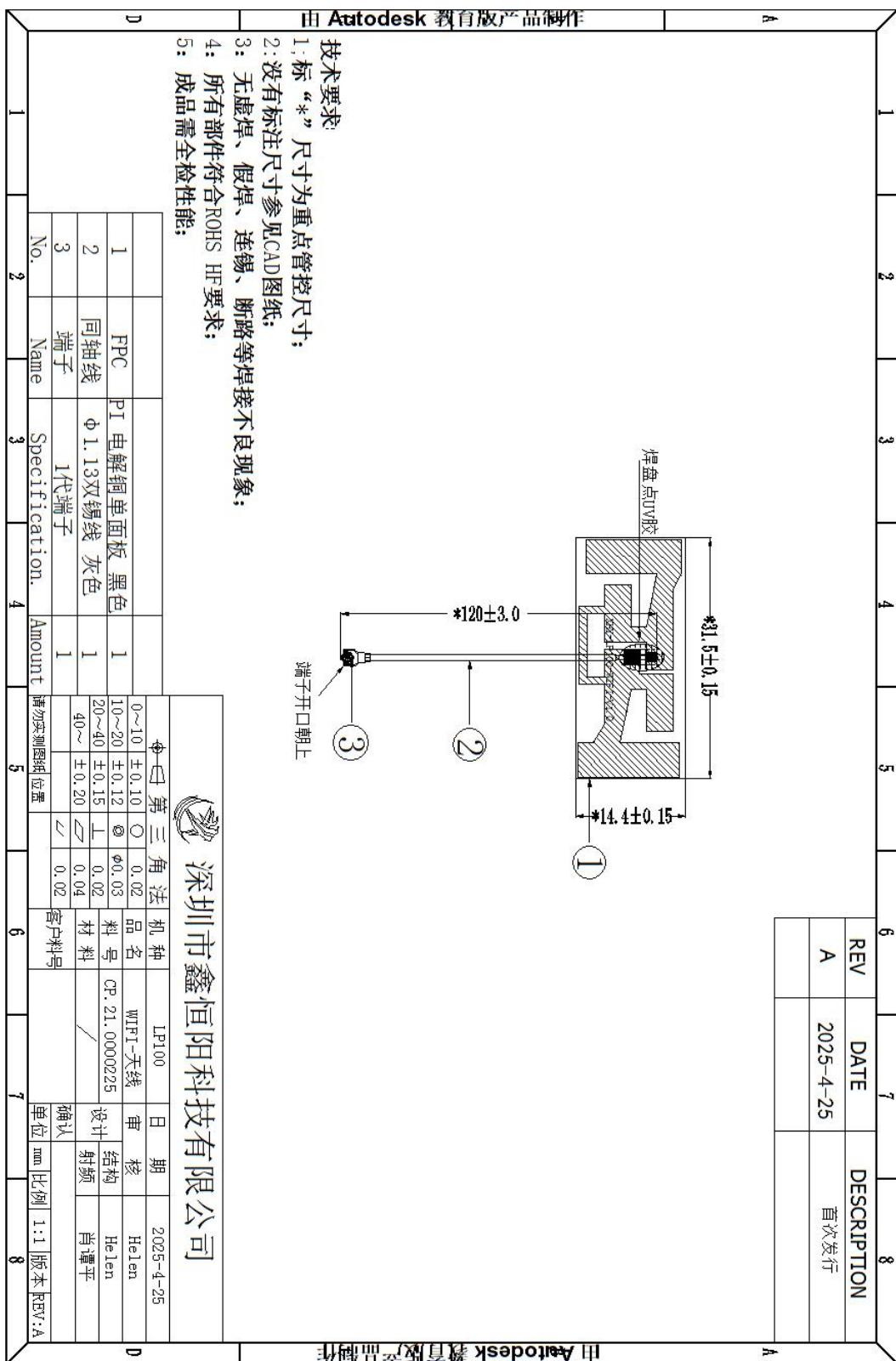


VII. Whole Machine & Machine Motherboard Pictures





VIII. Antenna Drawing Dimensions





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Eight 、 ROHS

Antenna CP.21.0000225 meets RoHS requirements.

9. Product Packaging Instructions

- A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.
- B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.
- C. in the attached packing list, certificate of approval, and the factory inspection report.

*****END*****