



深圳市鑫恒阳科技有限公司

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承 认 书

SPECIFICATION FOR APPROVAL

客户名称 Customer Name: 瑞扩

产品型号 Product Model: LA150

客户料号 Customer P/N:

鑫恒阳料号 XINHENG YANG P/N: CP. 21. 0000228

产品规格 SPECIFICATIONS: WIFI 黑色 FPC 1.13 黑色同轴线 L=245MM 带 1 代端子

制作日期 Production date: 2025-06-06

封样版本 Sample Version: R1

鑫恒阳 (XINHENG YANG)		
编制 (FICTION)	结构 (Structure)	研发 (R&D)
夏逸	何亮	夏逸
客户 (Customer)		
采 购 (PUR)	品质 (QC)	研发 (R&D)

生产厂商: 深圳市鑫恒阳科技有限公司

深圳地址: 深圳市南山区西丽街道朗山二号路 7 号航天微电机大厦 B 栋一层

电 话: 0755-83600916 邮箱: gc@xhy-2008.com

网 址: <https://www.xhy-2008.com>



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Number	Effective date	Change record
V1	2025-06-06	Initial release



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一、基本参数

A. Electrical Characteristics	
Frequency	2400MHZ-2500MHZ 5150MHZ-5850MHZ
VSWR	<2.5
Avg Efficiency	2400MHZ-2500MHZ>60% 5150MHZ-5850MHZ>45%
Impedance	50 ± 25 Ohm
Polarization	Linear
Peak Gain	2400MHZ-2500MHZ: 4.14dBi 5150MHZ-5850MHZ: 4.04dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC black
Cable Type	Φ 1.13 L=245MM Black
Connector Type	Generation
Dimension	31.20MM*26.30MM±0.15MM
C. Environmental	
Operation Temperature	- 20 °C ~ + 60 °C
Storage Temperature	- 20 °C ~ + 60 °C



二、电性规格

Those specifications were specially defined for LA150 model.

三、VSWR

1 测量方法

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

2 测量频率点和驻波比





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四、 暗室简介

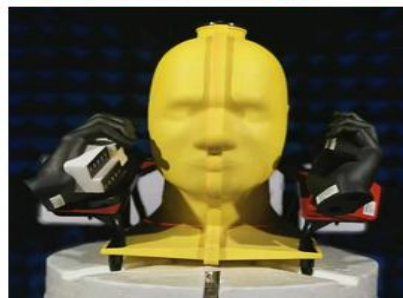
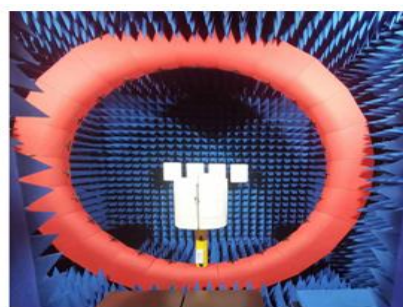
Introduction:

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 :

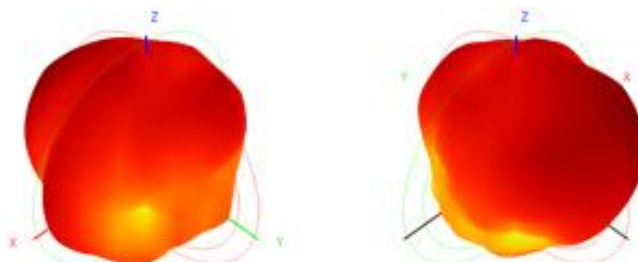
Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)



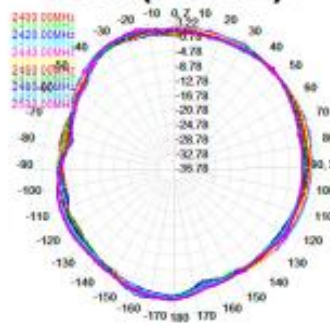
五、天线性能

无源场型图

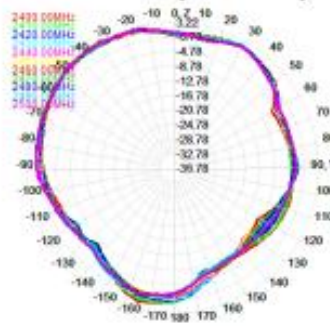
WIFI-2400MHZ-2500MHZ



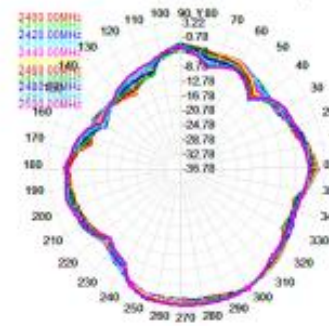
Total(E1-XZ)



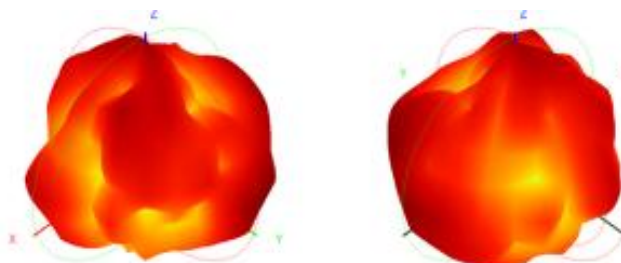
Total(E2-YZ)



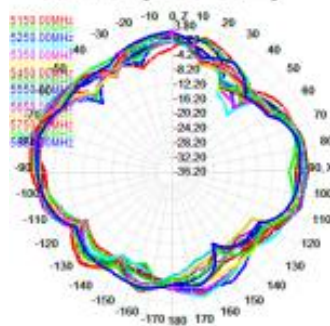
Total(H-XY)



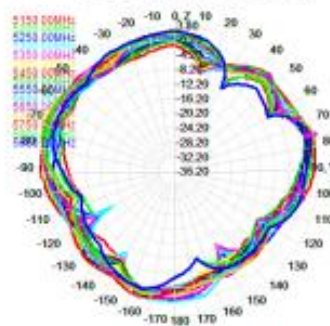
WIFI-5150MHZ-5850MHZ



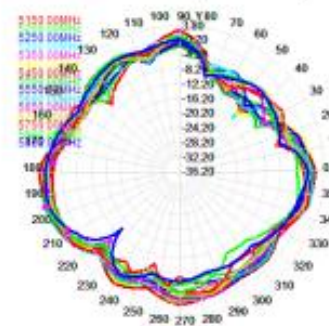
Total(E1-XZ)



Total(E2-YZ)



Total(H-XY)





无源效率增益

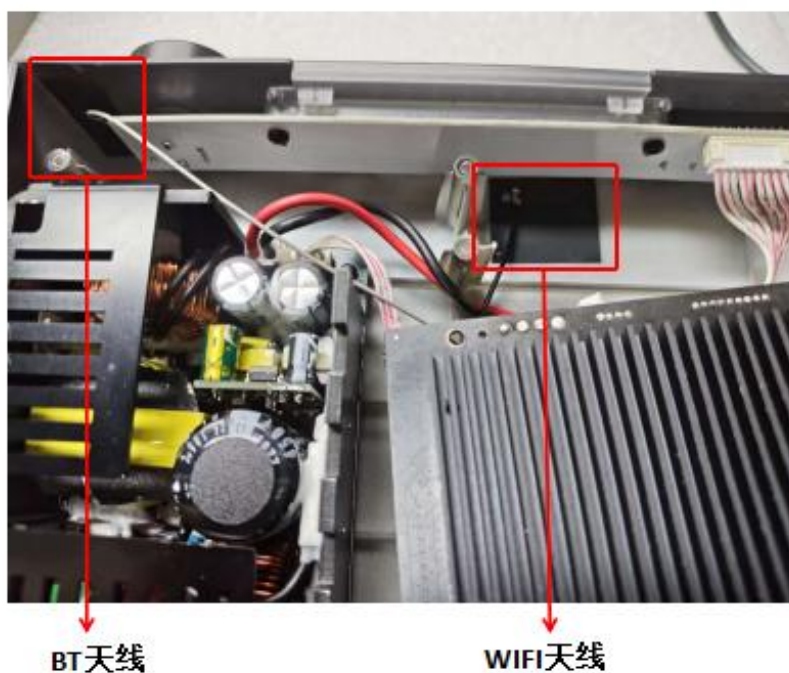
WIFI (2400MHZ-2500MHZ)			
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-1.98	3.84	63.43
2410	-1.88	4.12	64.86
2420	-1.93	4.10	64.16
2430	-1.85	4.14	65.31
2440	-1.93	4.00	64.09
2450	-1.97	3.90	63.51
2460	-2.05	3.74	62.43
2470	-2.07	3.67	62.10
2480	-2.06	3.60	62.25
2490	-2.06	3.76	62.23
2500	-1.97	3.99	63.58

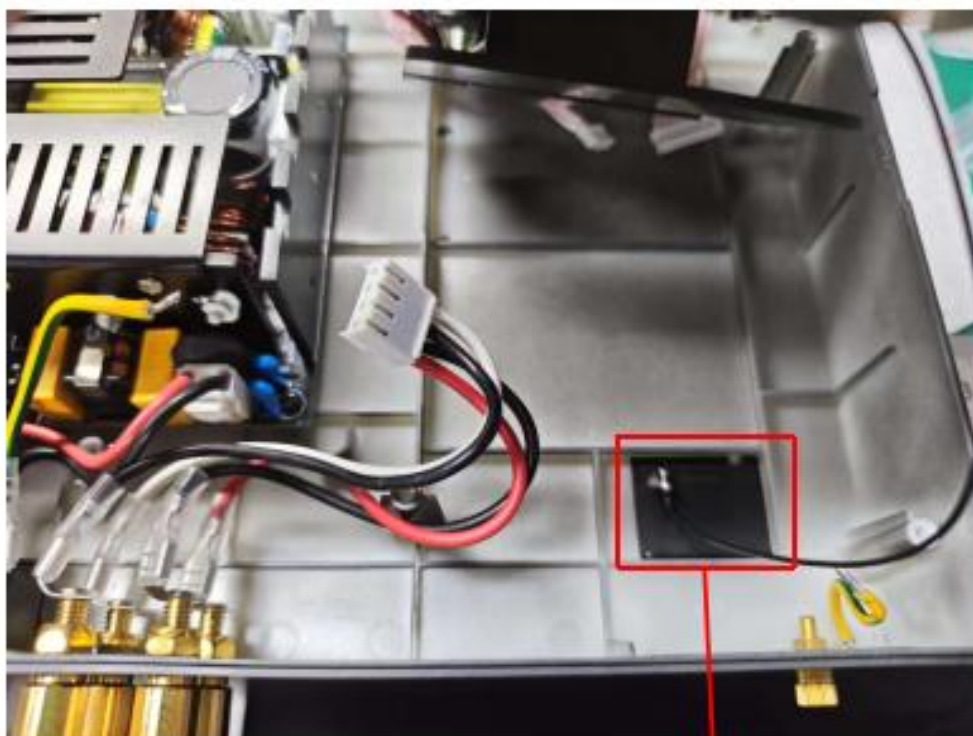
WIFI (5150MHZ-5850MHZ)			
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
5150.0	-2.98	3.17	50.40
5200.0	-3.16	3.63	48.29
5250.0	-3.00	3.49	50.11
5300.0	-3.02	3.31	49.86
5350.0	-3.12	3.43	48.80
5400.0	-2.97	2.51	50.47
5450.0	-2.82	2.53	52.19
5500.0	-3.19	2.61	48.00
5550.0	-2.87	2.51	51.67
5600.0	-2.62	2.95	54.70
5650.0	-2.77	3.24	52.79
5700.0	-2.72	3.80	53.41
5750.0	-2.53	3.44	55.84
5800.0	-2.66	4.04	54.23
5850.0	-3.01	3.74	50.02

有源 OTA

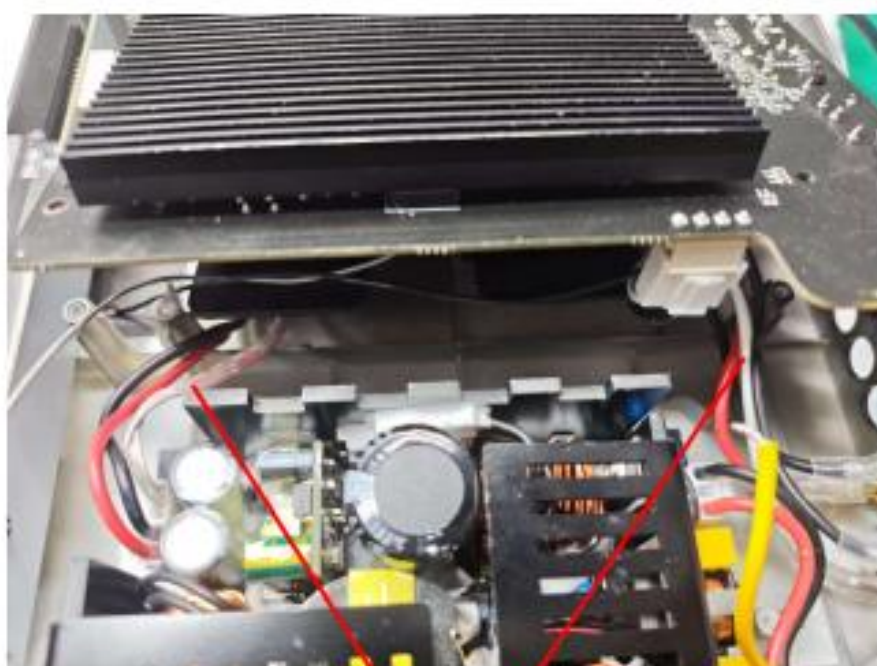
Test Condition		鑫恒阳天线	
band	Channel	TRP (dBm)	TIS (dBm)
802. 11B 11M	1	13. 55	-83. 19
	6	13. 04	-80. 67
	11	12. 76	-62. 09
802. 11G 54M	1	12. 83	-50. 96
	6	12. 40	-47. 92
	11	12. 74	-48. 25
802. 11N MCS7	1	13. 04	-49. 35
	6	12. 47	-48. 81
	11	12. 68	-49. 12
802. 11A 54M	149	8. 54	-66. 10
	157	9. 68	-66. 04
	165	9. 22	-64. 74

六，天线装配图



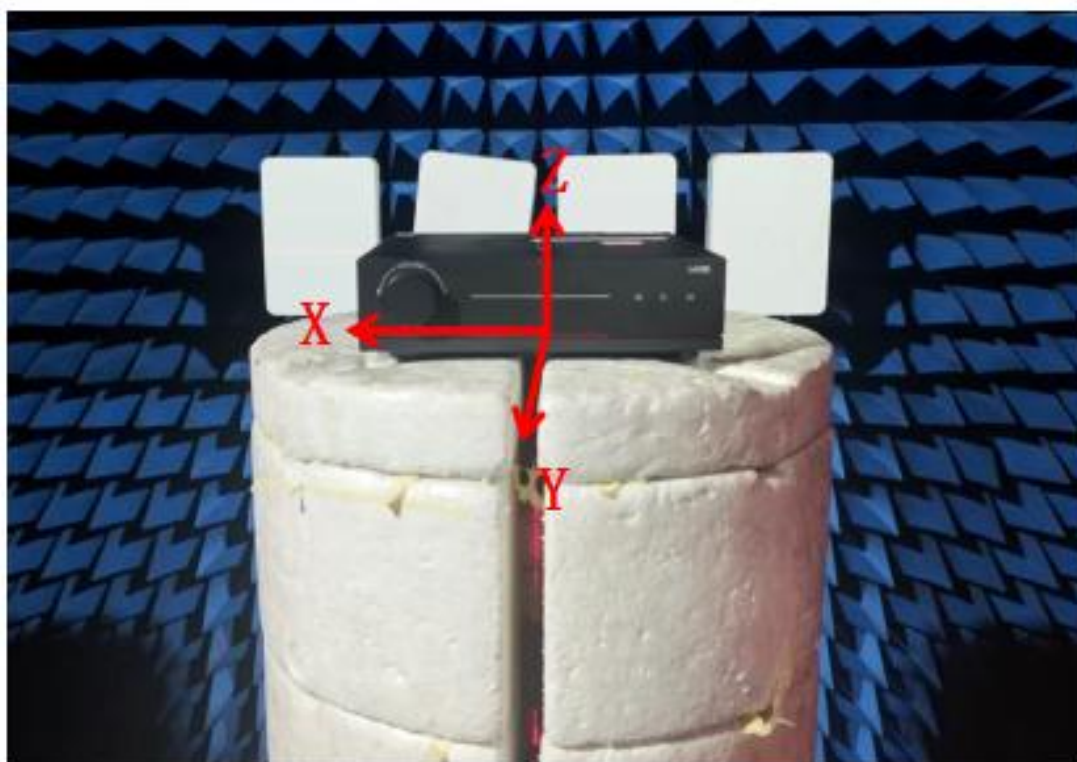
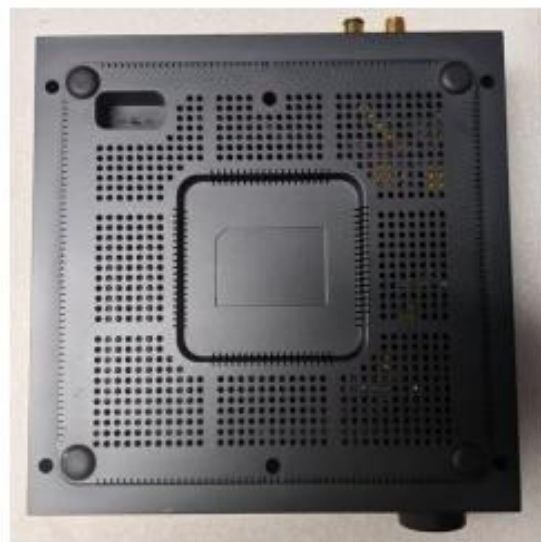


BLE天线

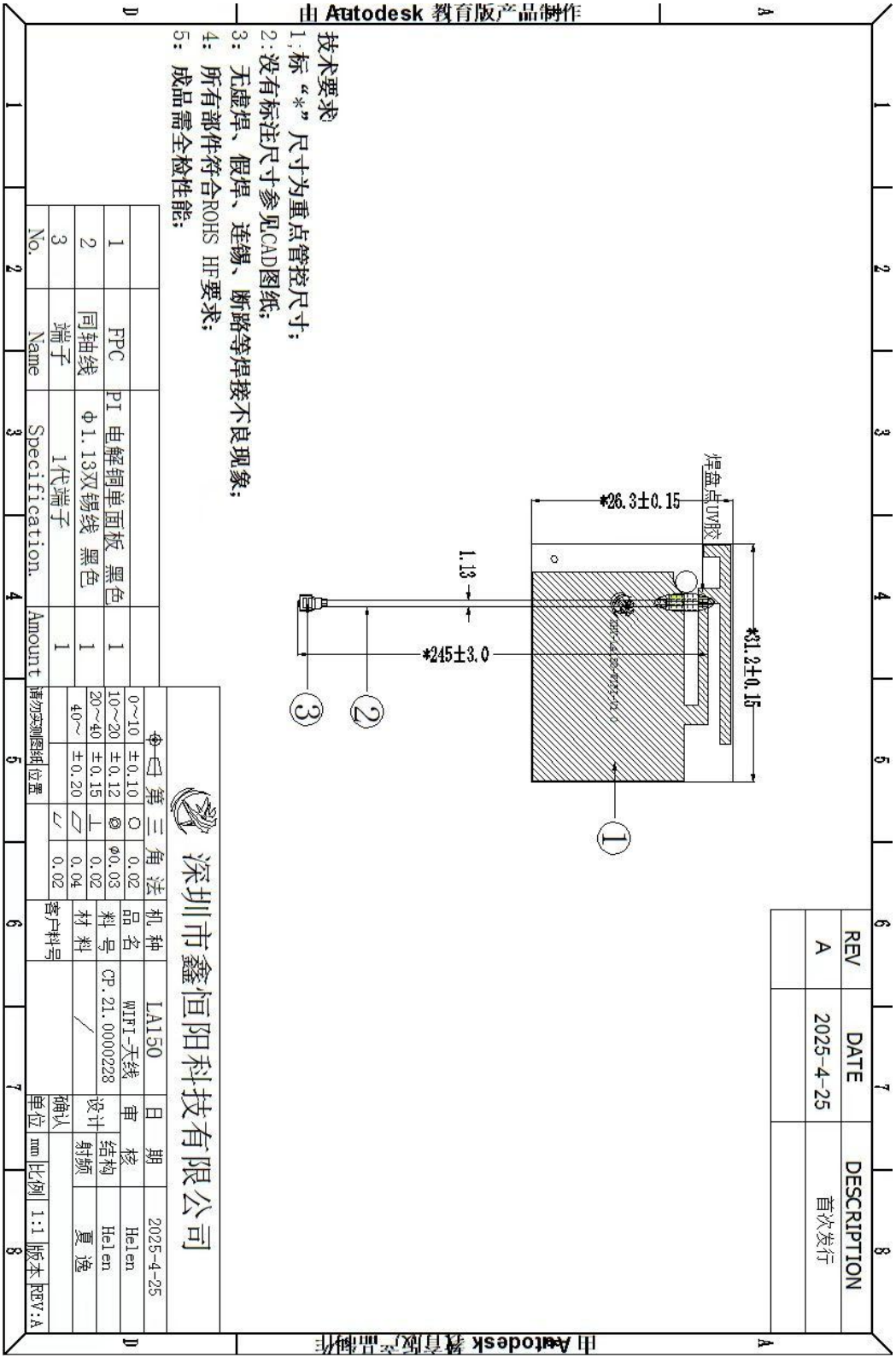


整理排线，避免从天线上方经过

七，机台图片及暗室摆放



八、天线图纸尺寸





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九、 ROHS

Antenna CP. 21. 0000228 meets ROHS requirements.

十、 产品包装说明

A. packing should meet the moisture-proof, 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*****