

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4/5.8G PIFA Antenna

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C210F2D385aA REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Eddy	
APPROVED BY:	Changxing. Liu	
DATE:	2023/6/17	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-6-17

Content

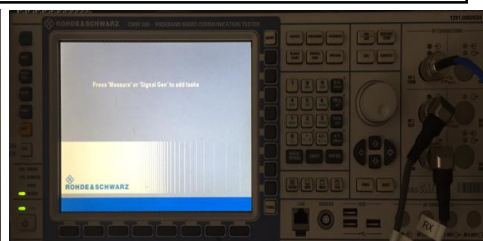
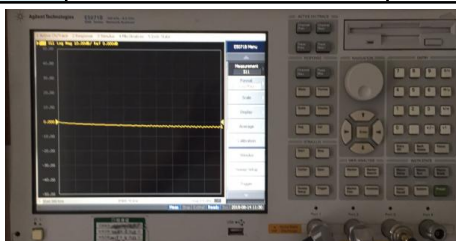
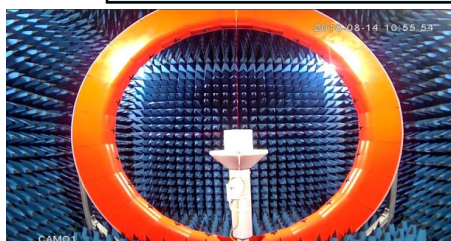
<i>Item</i>	<i>Description</i>
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1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	33.45x29.2,L210	mm
Frequency	2400-2500;5150-5850	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	1 REF	dBi
Efficiency	>30	%
Connector Type	RF 1	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

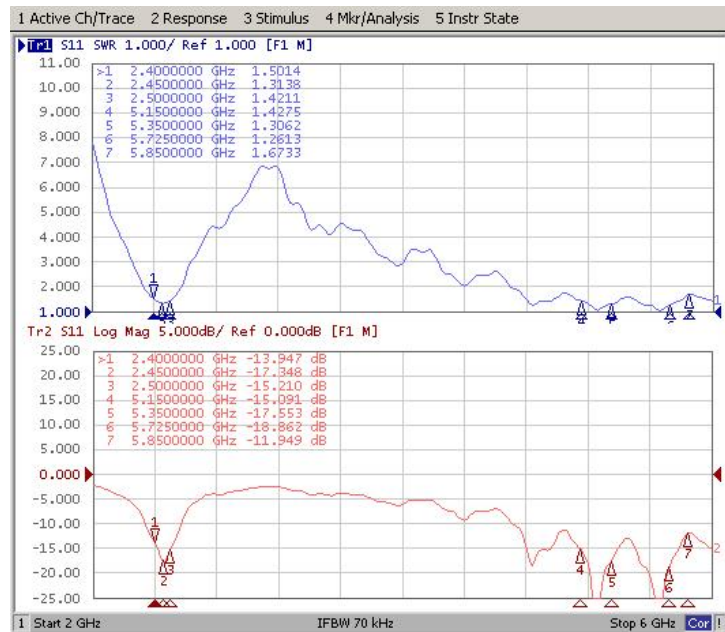
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



3. S Parameter

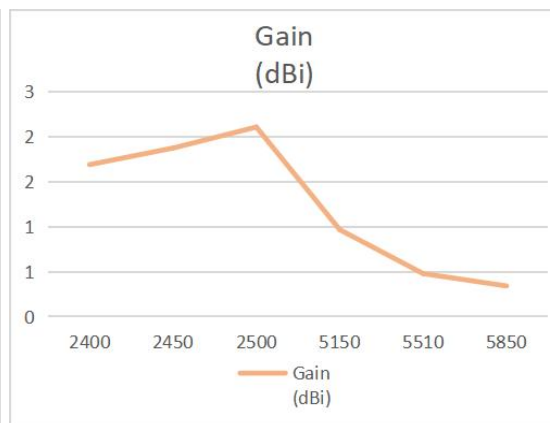
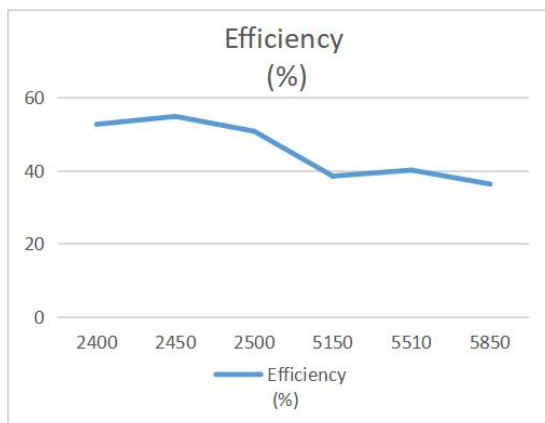
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-13.94	1.50
2450	-17.34	1.31
2500	-15.21	1.42
5150	-15.09	1.42
5350	-17.55	1.30
5725	-18.86	1.26
5850	-11.94	1.67

* Voltage Standing Wave Ratio(VSWR)
Return Loss(RL)
 $RL = 20 * \log_{10}[(VSWR+1)/(VSWR-1)]$



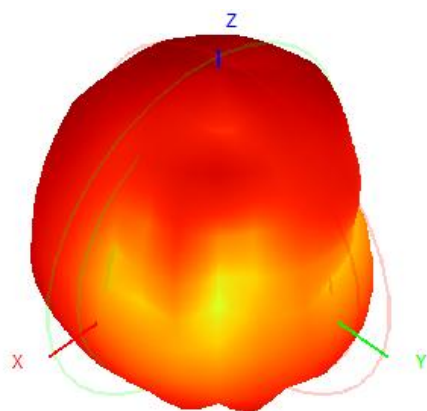
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500	5150	5510	5850
Efficiency (%)	52.75	54.89	50.83	38.55	40.18	36.36
Gain (dBi)	1.69	1.87	2.11	0.97	0.48	0.34

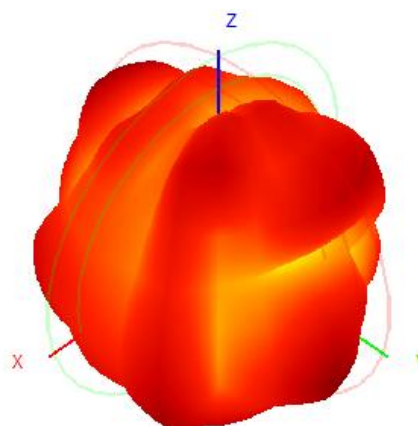


5. Radiation Pattern

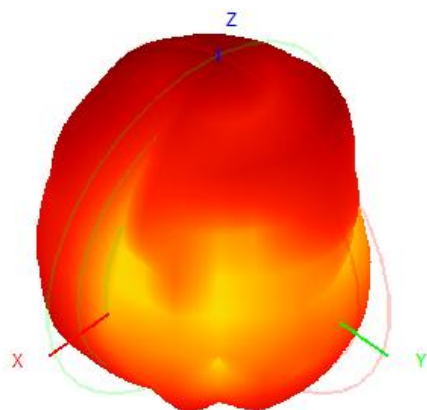
5-1 Antenna 3D Radiation Pattern



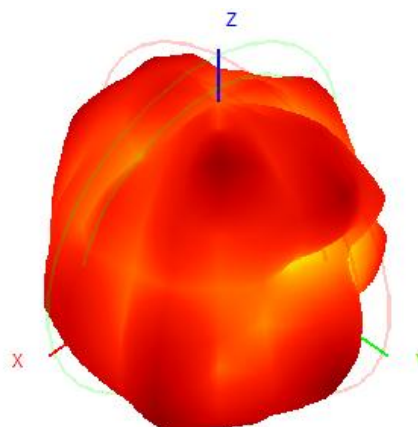
2400MHz



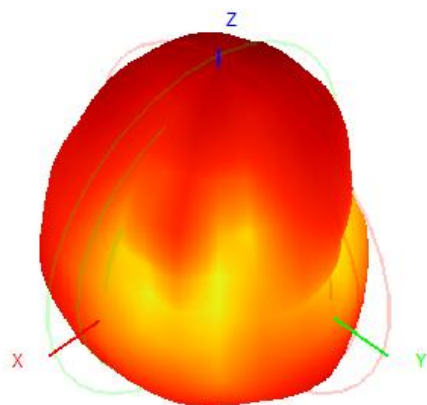
5150MHz



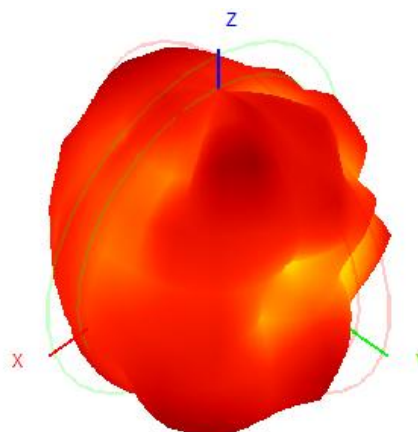
2450MHz



5510MHz

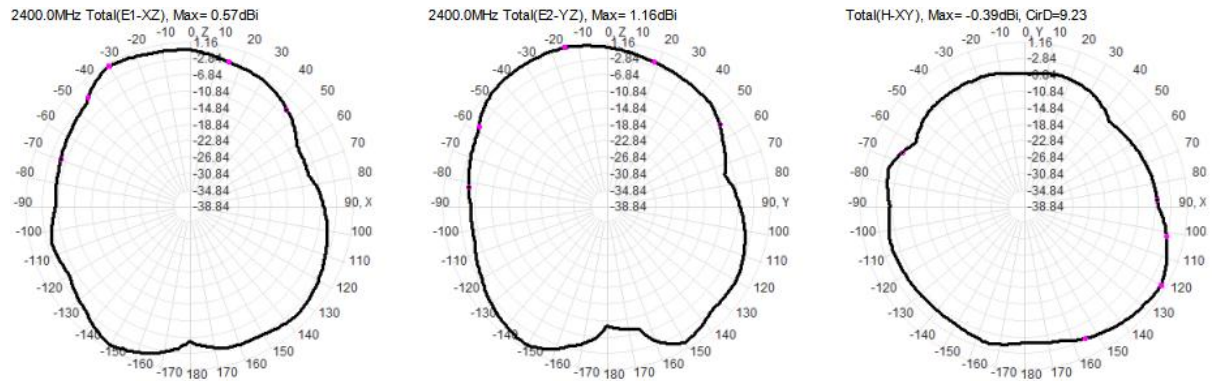


2500MHz

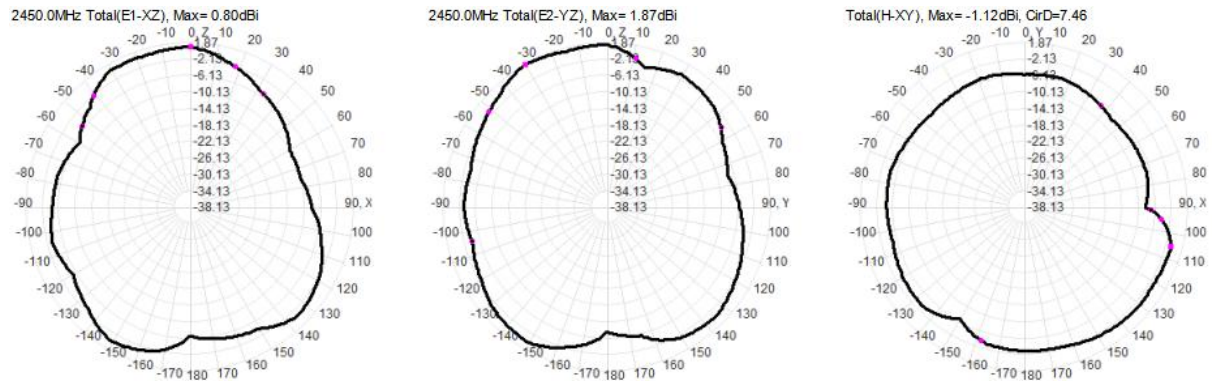


5850MHz

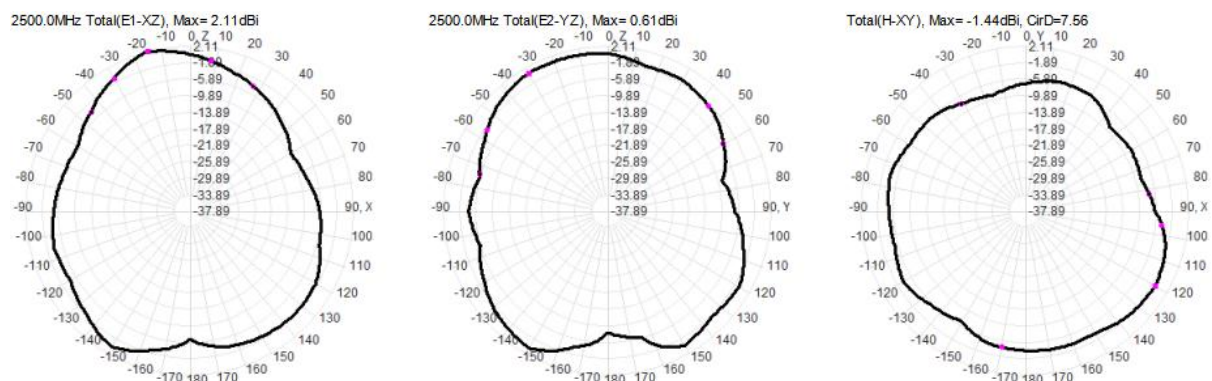
5-2 Antenna 2D Radiation Pattern



2400MHz

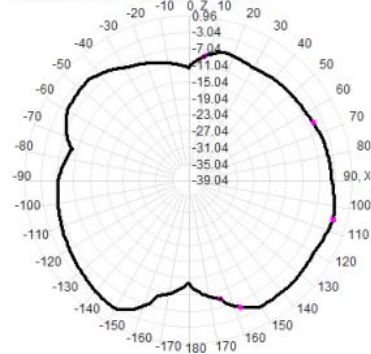


2450MHz

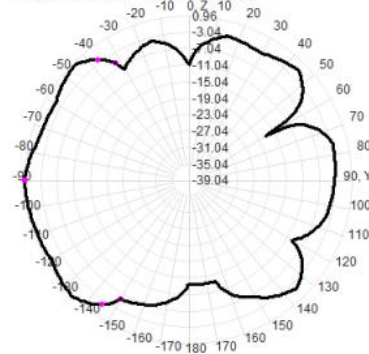


2500MHz

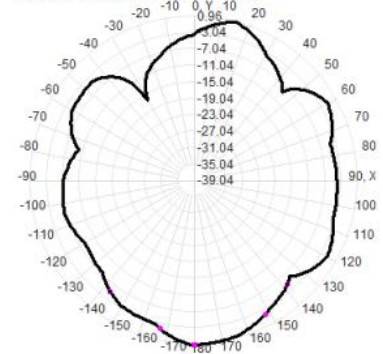
5150.0MHz Total(E1-XZ), Max=-2.67dBi



5150.0MHz Total(E2-YZ), Max=0.96dBi

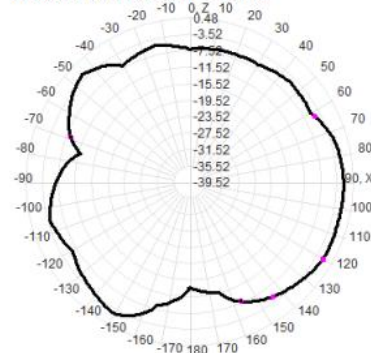


Total(H-XY), Max=0.96dBi, CirD=17.56

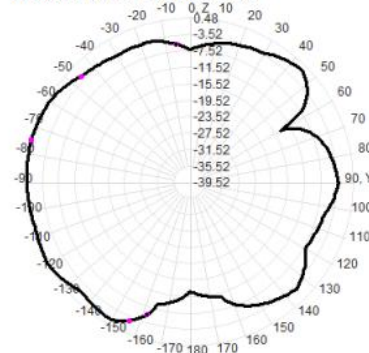


5150MHz

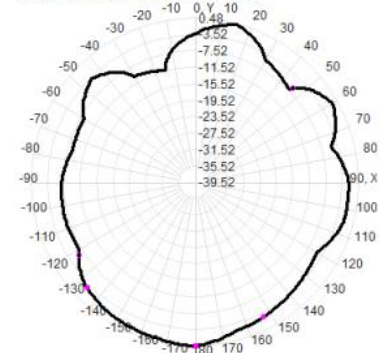
5510.0MHz Total(E1-XZ), Max=-2.12dBi



5510.0MHz Total(E2-YZ), Max=0.48dBi

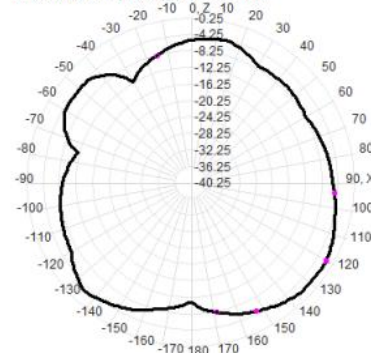


Total(H-XY), Max=0.21dBi, CirD=17.58

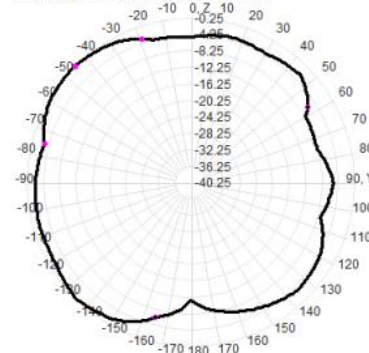


5510MHz

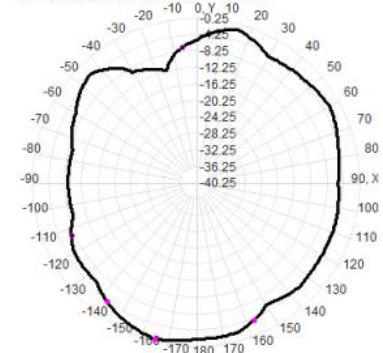
5850.0MHz Total(E1-XZ), Max=-2.23dBi



5850.0MHz Total(E2-YZ), Max=-0.25dBi



Total(H-XY), Max=-1.09dBi, CirD=11.01

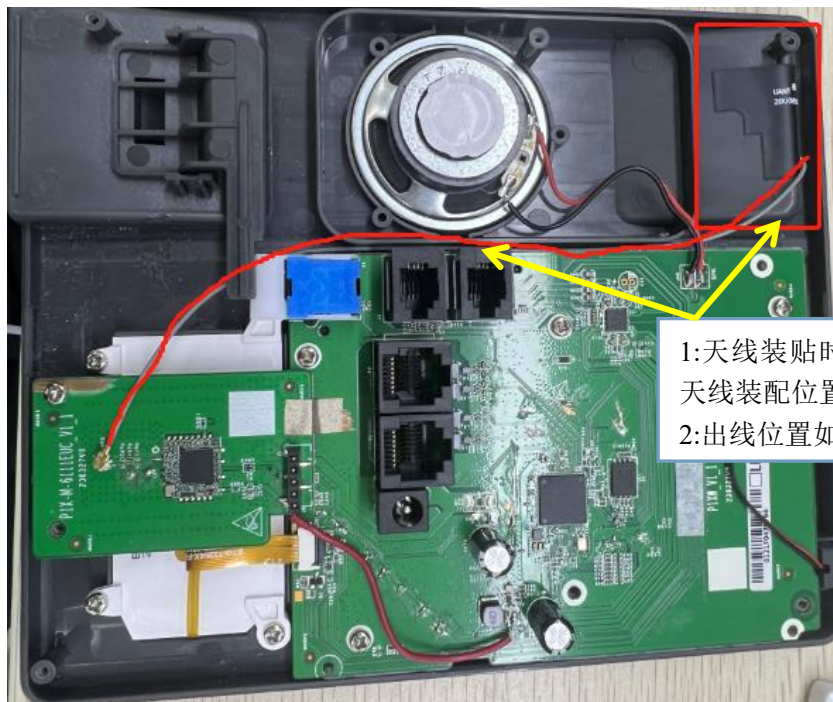
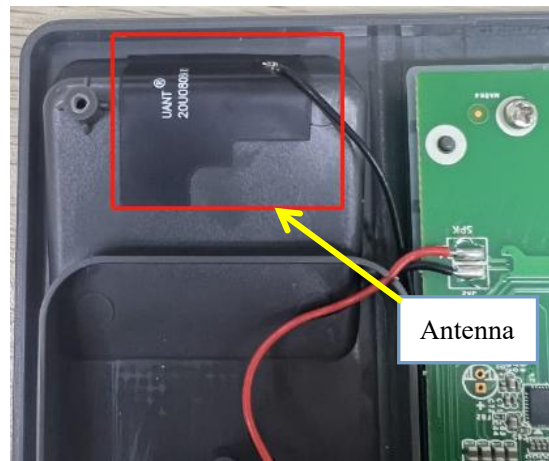


5850MHz

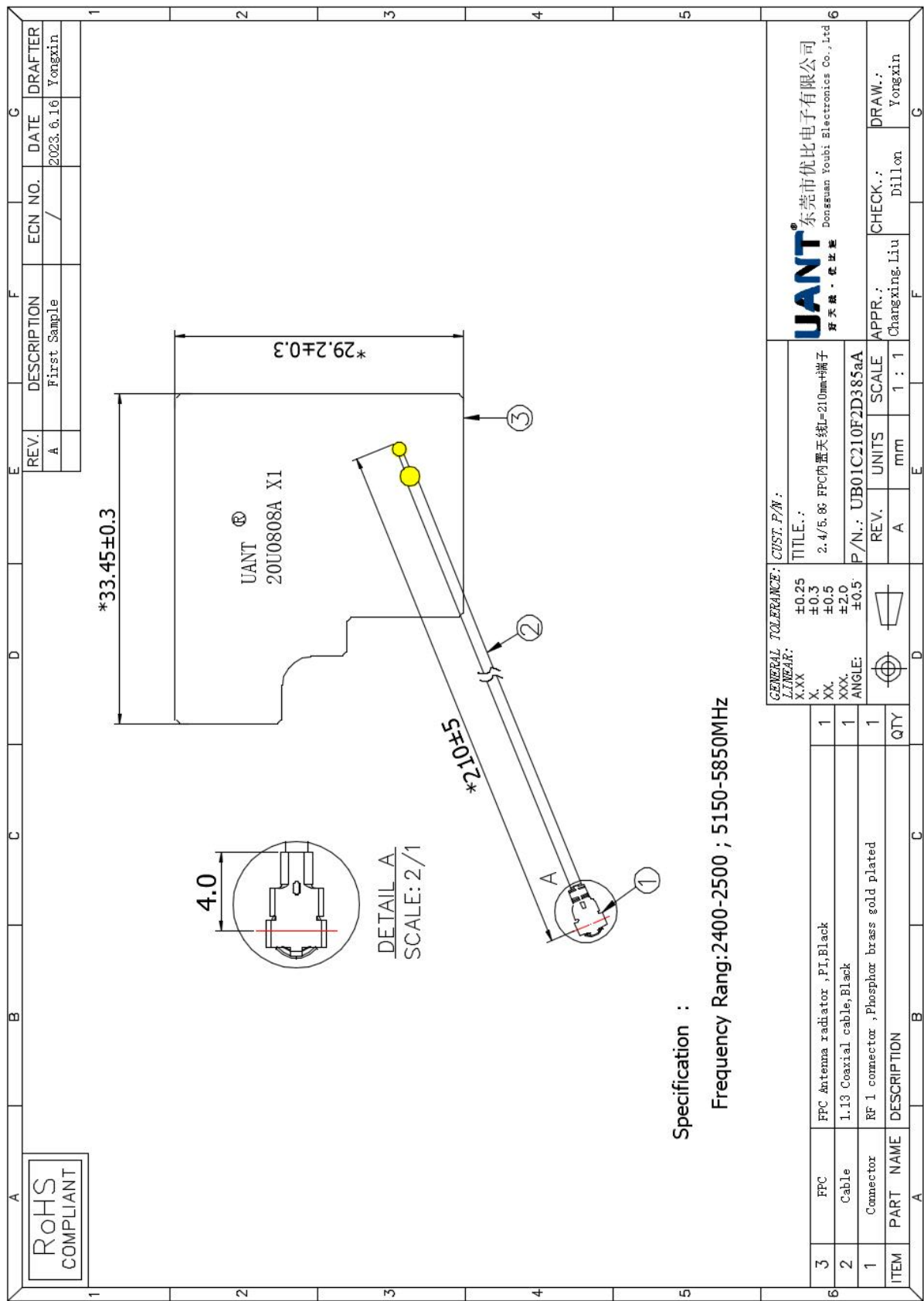
6. Active test data

Channel	Measurement	Channel	B(11M)	G(54M)	N(MCS7)	Channel	A(54M)
1	TRP	1	13.18	14.46	13.86	36	11.03
6	TRP	6	13.36	14.27	14.11	149	11.83
11	TRP	11	13.36	15.08	13.62	165	11.82
1	TIS(EIRP)	1	-81.55	-73.77	-68.42	36	-72.09
6	TIS(EIRP)	6	-86.93	-74.14	-67.95	149	-70.62
11	TIS(EIRP)	11	-82.94	-73.42	-68.86	165	-72.03

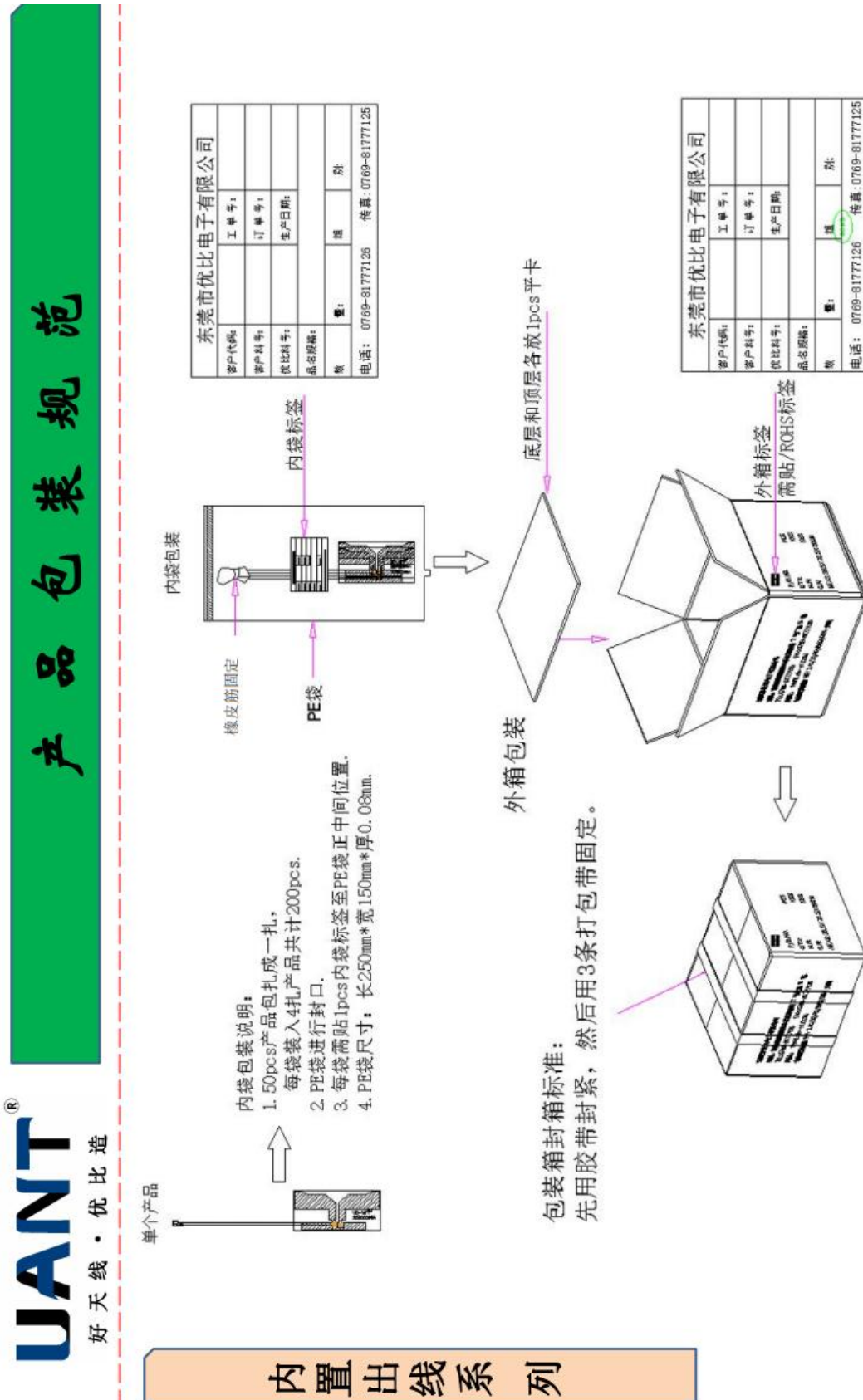
7. Antenna installation diagram



8.Mechanical Specification



9. Packaging



注: 此份包装规范适用于FPC, PCB天线类的线材总长 $\geq 90\text{mm}$ 带ipex和不带ipex产品, 属于通用类型.

1. **中号纸箱**装10000pcs产品每箱.