UANT®
好 天 线 • 优 比 造

东莞市优比电子有限公司
Dongguan Youbi Electronics Co.,Ltd

承　认　书

APPROVAL　SHEET

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT　NAME:　FPC 内置天线 L=90mm+端子

客 户 料 号

CUSTOMER　P/N:

优比电子料号

Youbi　P/N:　UB01C90F2D4468A　REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy	
APPROVED BY:	Changxing.Liu	
DATE:	2024/7/10	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-7-10

Content

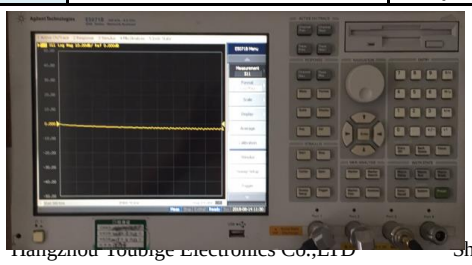
ltem ***Description***

1.Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	35.2x8,L90	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	≤ 2	
Polarization	Linear Polarization	
Gain	3.0±0.5	dBi
Efficiency	> 50	%
Connector Type	RF 1	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	
Frequency	5000-5800	MHz
Gain	1.50	dBi

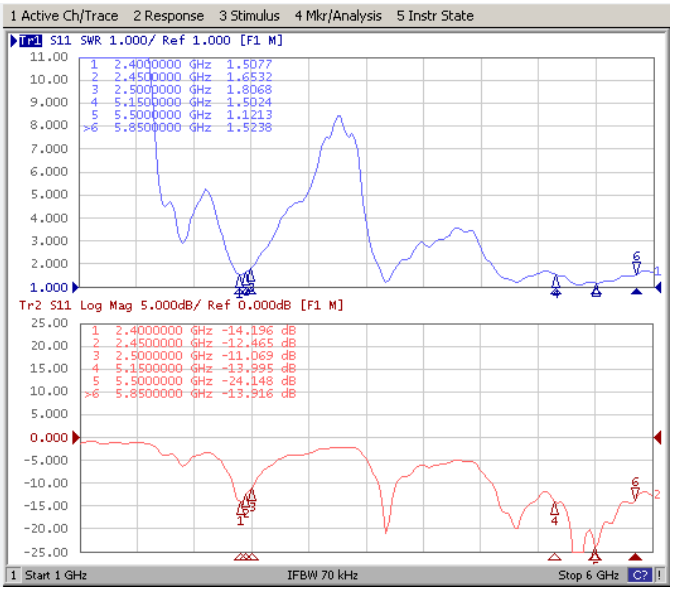
2.Test Items and Equipment

	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

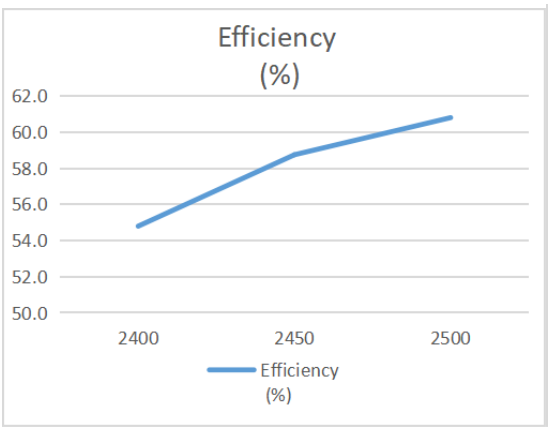
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-14.19	1.50
2450	-12.46	1.65
2500	-11.06	1.80

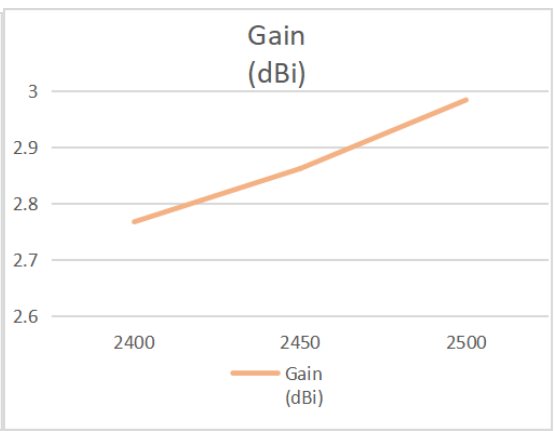


* Voltage Standing Wave Ratio(VSWR)
  Return Loss(RL)
  RL=20*log10[(VSWR+1)/(VSWR-1)

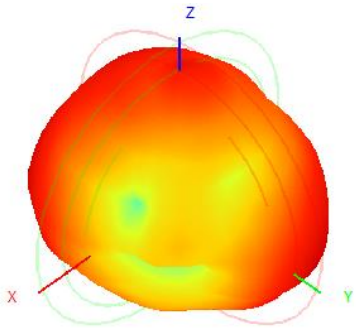
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500
Efficiency (%)	54.79	58.74	60.80
Gain (dBi)	2.77	2.86	2.98

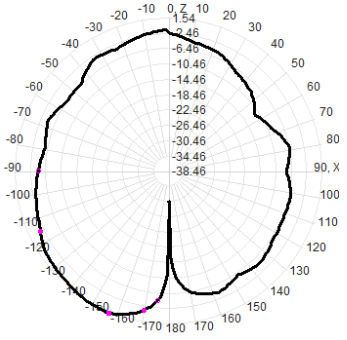




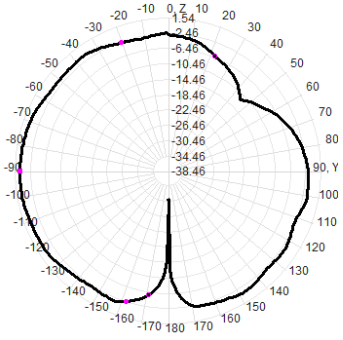
5. Radiation Pattern



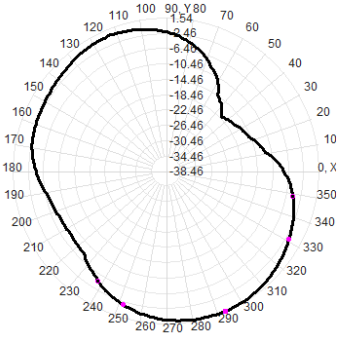
2450MHz



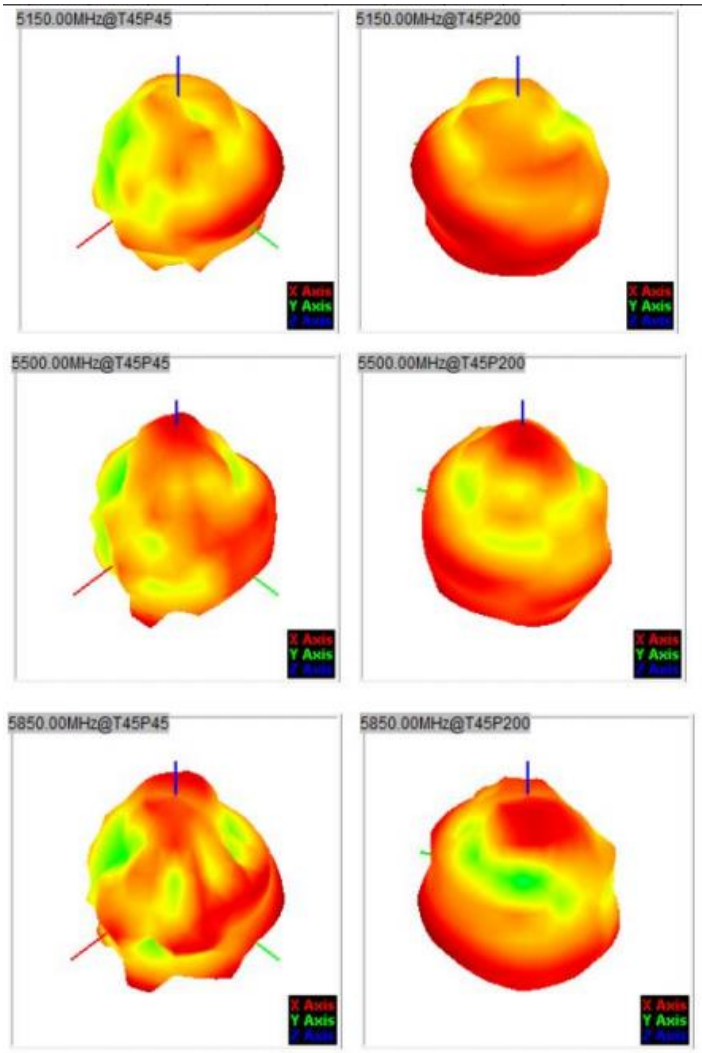
E1-Plane



E2-Plane



H-Plane



6. Active test data

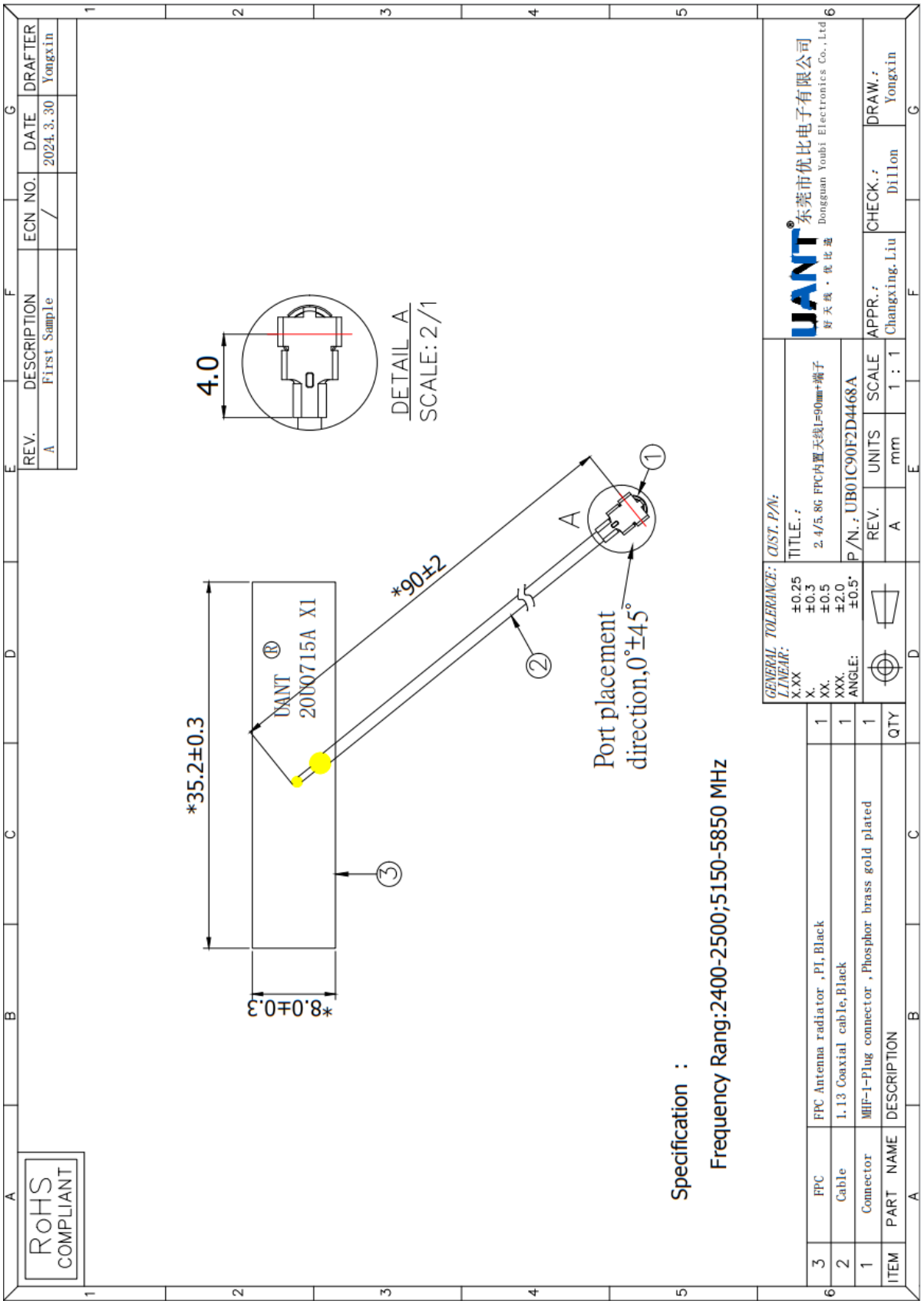
Channel	Measurement	Total-B 模	Total-G 模
1	TRP	17.89	16.50
6	TRP	18.04	16.78
11	TRP	18.50	16.50
1	TIS(EIRP)	-85.39	-74.87
6	TIS(EIRP)	-87.06	-76.24
11	TIS(EIRP)	-89.93	-76.24

	WIFI 5000~5800MHz 802.11a 54MBps		
Channel	36	161	165
TRP	8.99	8.64	8.6
TIS	-68.07	-68.34	-68.4

Frequency (MHz)	2750	5800	5850
Efficiency (%)	16.3	15.4	16.6
Gain (dBi)	1.15	1.23	1.5

Frequency ID	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Ant. Port Input Pwr. (dBm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot. Rad. Pwr. (dBm)	-5.88	-6.17	-6.19	-5.87	-6.5	-6.81	-6.58	-7.12	-7.19	-7.28	-7.95	-7.81	-7.88	-8.12	-7.8
Peak EIRP (dBm)	-0.77	-0.89	-0.77	-0.21	-1.22	-1.74	-1.23	-1.97	-2.04	-2.4	-2.93	-2.64	-2.67	-2.85	-2.38
Directivity (dBi)	5.11	5.27	5.42	5.66	5.28	5.07	5.35	5.15	5.14	4.89	5.02	5.17	5.21	5.27	5.42
Efficiency (dB)	-5.88	-6.17	-6.19	-5.87	-6.5	-6.81	-6.58	-7.12	-7.19	-7.28	-7.95	-7.81	-7.88	-8.12	-7.8
Efficiency (%)	25.8	24.2	24	25.9	22.4	20.8	22	19.4	19.1	18.7	16	16.5	16.3	15.4	16.6
Gain (dBi)	-0.77	-0.89	1.5	-0.21	-1.22	-1.74	-1.23	-1.97	-2.04	-2.4	-2.93	-2.64	1.15	1.23	1.50
NHPRP ±Pi/4 (dBm)	-6.65	-6.99	-7.02	-6.67	-7.41	-7.78	-7.45	-8.05	-8.12	-8.13	-8.83	-8.72	-8.77	-9.08	-8.76
NHPRP ±Pi/6 (dBm)	-7.6	-8	-8	-7.59	-8.44	-8.85	-8.45	-9.08	-9.19	-9.13	-9.84	-9.73	-9.75	-10.09	-9.76
NHPRP ±Pi/8 (dBm)	-8.35	-8.79	-8.76	-8.31	-9.24	-9.74	-9.3	-10.02	-10.2	-10.1	-10.83	-10.71	-10.69	-11.02	-10.7
Upper Hem. PRP (dBm)	-8.44	-8.64	-8.76	-8.55	-9.05	-9.41	-9.31	-9.72	-9.78	-9.94	-10.51	-10.39	-10.52	-10.71	-10.41
Lower Hem. PRP (dBm)	-9.39	-9.79	-9.69	-9.23	-10.02	-10.27	-9.89	-10.58	-10.66	-10.67	-11.45	-11.3	-11.3	-11.6	-11.25
Upper Hem. PRP (%)	14.33	13.67	13.31	13.96	12.44	11.44	11.72	10.66	10.52	10.13	8.89	9.13	8.87	8.5	9.1
Lower Hem. PRP (%)	11.51	10.51	10.73	11.93	9.94	9.39	10.25	8.76	8.6	8.56	7.16	7.41	7.42	6.93	7.51

7. Mechanical Specification


REV. DESCRIPTION ECN NO. DATE DRAFTER
A First Sample / 2024.3.30 Yongxin
DETAIL A
SCALE: 2/1
4.0
*90±2
*35.2±0.3
*8.0±0.3
UANT ®
2000715A X1
Port placement direction,0°±45°
Specification :
Frequency Rang:2400-2500;5150-5850 MHz
RoHS COMPLIANT
ITEM PART NAME DESCRIPTION QTY
3 FPC FPC Antenna radiator , PI, Black 1
2 Cable 1.13 Coaxial cable,Black 1
1 Connector MHF-1-Plug connector , Phosphor brass gold plated 1
GENERAL TOLERANCE:
LINEAR: X.XX ±0.25 X. ±0.3 XX. ±0.5 XXX. ±0.1
ANGLE: ±0.5°
CUST. P/N:
TITLE.:
2.4/5.8G FPC内置天线L=90mm+端子
P/N.: UB01C90F2D4468A
REV. UNITS SCALE
A mm 1 : 1
APPR.: Changxing.Liu
CHECK.: Dillon
DRAW.: Yongxin
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