



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: 2.4/5.8 GFPC built-in antenna with L = 70mm + terminals

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C70F2D4525A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy 	
APPROVED BY:	Changxing.Liu 	
DATE:	2024/4/1	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2024-4-1

Content

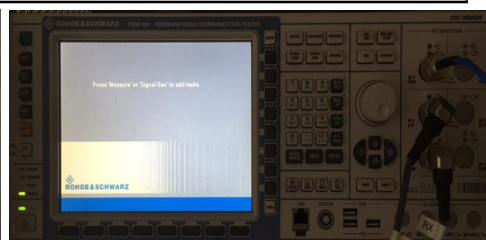
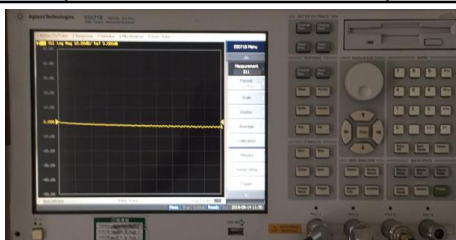
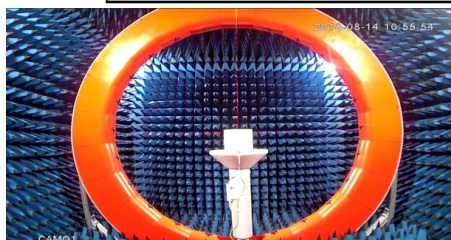
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
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7.-----	Antenna installation diagram
8.-----	Mechanical Specification

1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	31x14,L70	mm
Frequency	2400-2500; 5150-5850	MHz
Impedance	50	Ω
VSWR	≤ 2	
Polarization	Linear Polarization	
Gain	3 REF	dBi
Efficiency	>50	%
Connector Type	MHF-1-Plug	
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)



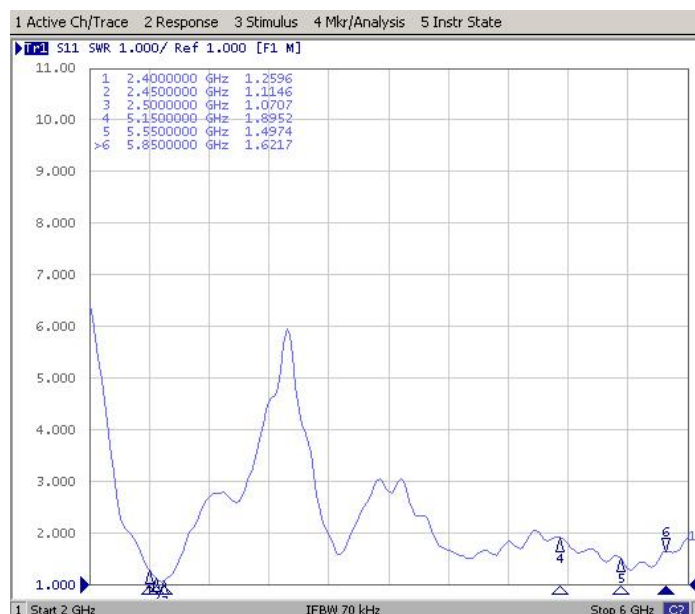
3. S Parameter

Frequency (MHz)	VSWR
2400	1.25
2450	1.1
2500	1.07
5150	1.89
5550	1.49
5850	1.62

* Voltage Standing Wave Ratio(VSWR)

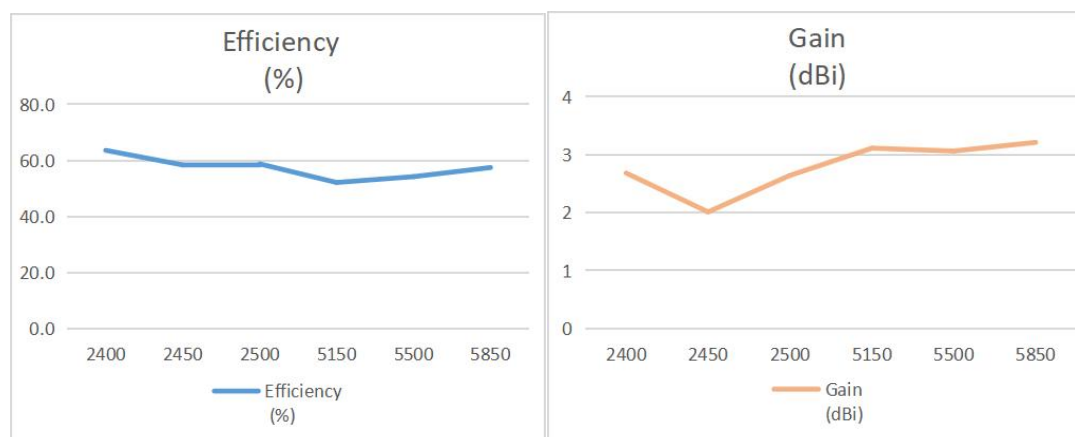
Return Loss(RL)

$$RL = 20 * \log_{10}[(VSWR + 1) / (VSWR - 1)]$$

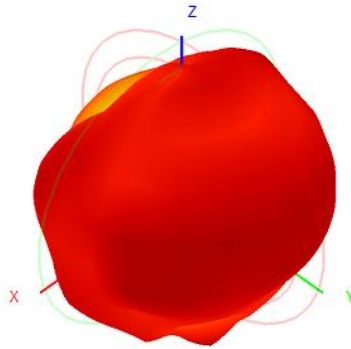


4. Efficiency and Gain

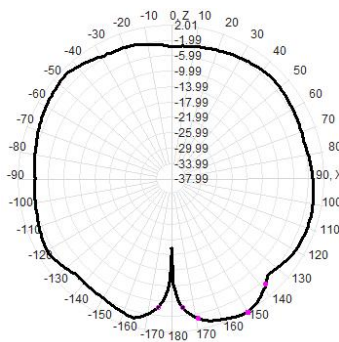
Frequency (MHz)	2400	2450	2500	5150	5550	5850
Efficiency (%)	63.55	58.36	58.73	52.11	54.19	57.44
Gain (dBi)	2.68	2.01	2.64	3.11	3.06	3.21



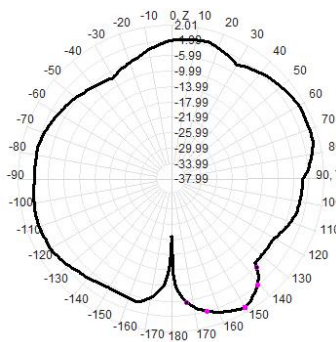
5. Radiation Pattern



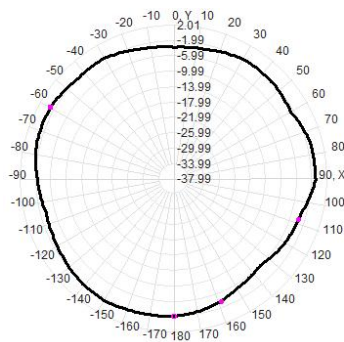
2450MHz



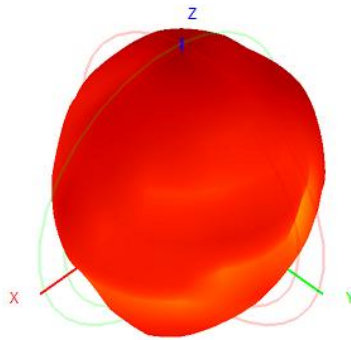
E1-Plane



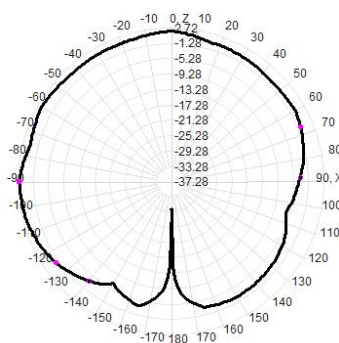
E2-Plane



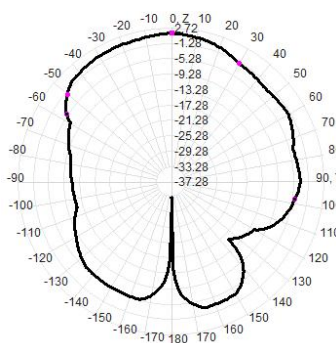
H-Plane



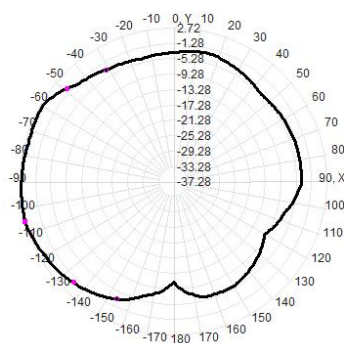
5550MHz



E1-Plane



E2-Plane



H-Plane

6.Active test data

Item	Measurement	Total
1	TRP	13.95
6	TRP	14.13
11	TRP	13.53
1	TIS(EIRP)	-81.98
6	TIS(EIRP)	-78.57
11	TIS(EIRP)	-78.76

Item	Measurement	Total
36	TRP	12.00
149	TRP	11.88
165	TRP	9.91
36	TIS(EIRP)	-71.62
149	TIS(EIRP)	-71.48
165	TIS(EIRP)	-70.62

