

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME: 熵基科技股份有限公司 ZKTECO CO LTD

产 品 名 称

PRODUCT NAME: 2.4/5.8G FPC L=125mm

客 户 料 号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C125F2D248aA REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Yongxin Lu 	
APPROVED BY:	工程专用章 Changxing. Liu	
DATE:	2021/11/26	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Yongxin. Lu	2021-11-26

Content

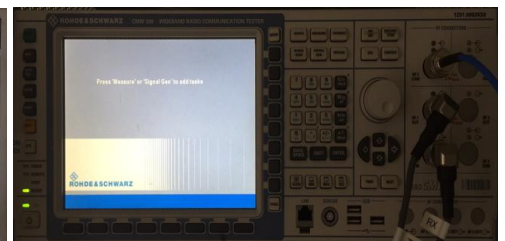
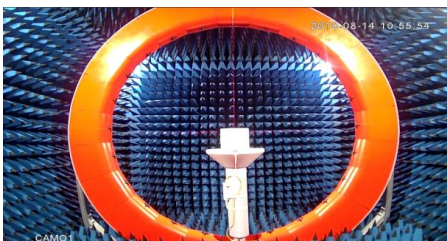
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Active test data
7.-----	Antenna installation diagram
8.-----	Mechanical Specification

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	10x31.5,L125	mm
Frequency	2400-2500; 5150-5850	MHz
Impedance	50	Ω
Return Loss	-10 Max	dB
Polarization	Linear Polarization	
Gain	0 REF	dBi
Efficiency	>50	%
Connector Type	1.13MHF-1-Plug	
Operating temperature	-20℃~+70℃	
Storage Temp	-20℃~+50℃	

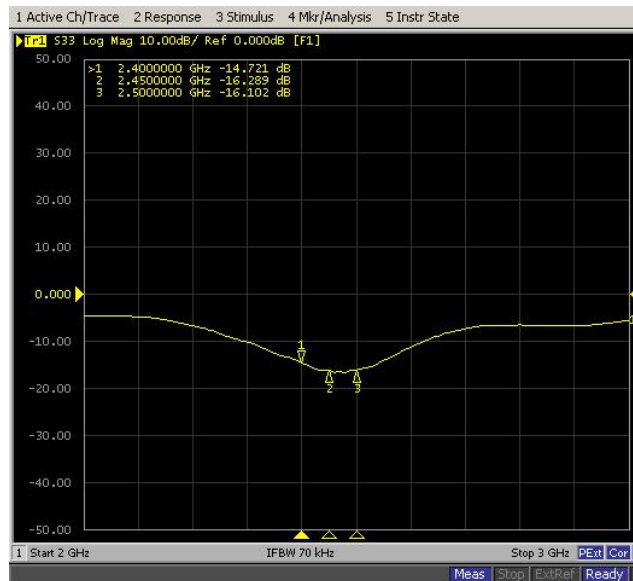
2. Test Items and Equipment

	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)
2400	-14.72
2450	-16.28
2500	-16.10



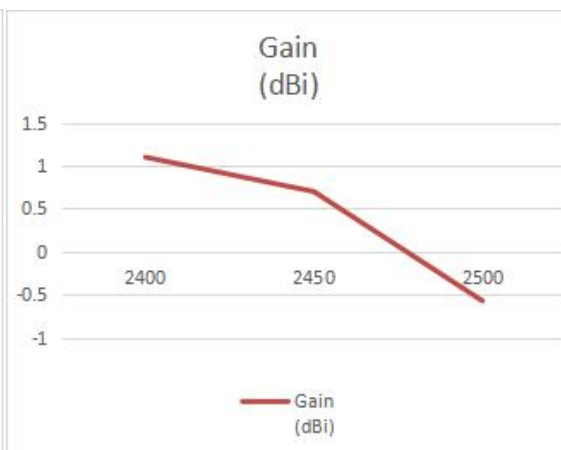
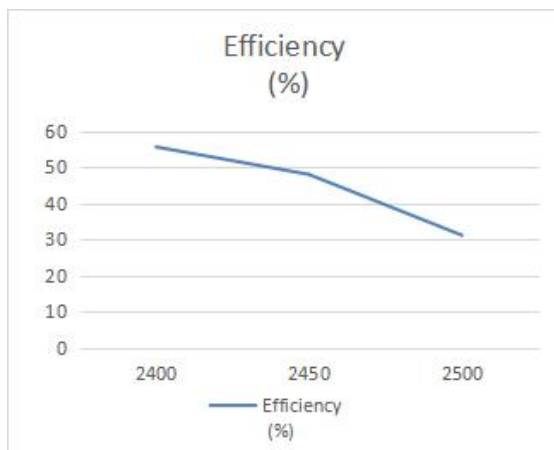
* Voltage Standing Wave Ratio(VSWR)

Return Loss(RL)

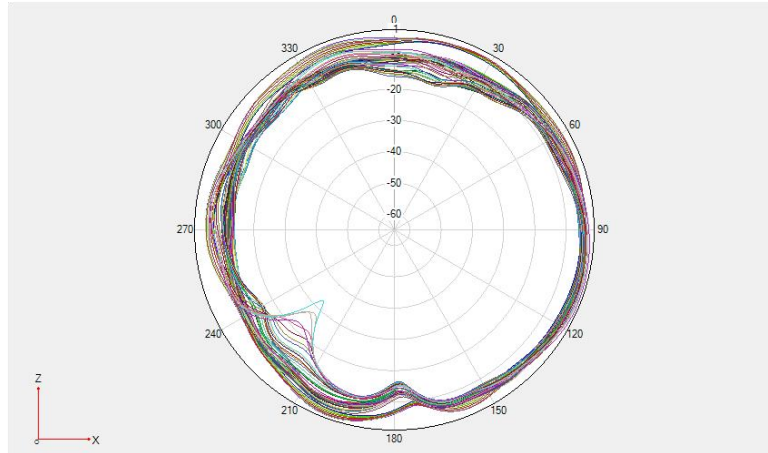
$$RL = 20 \cdot \log_{10}[(VSWR + 1)/(VSWR - 1)]$$

4. Efficiency and Gain

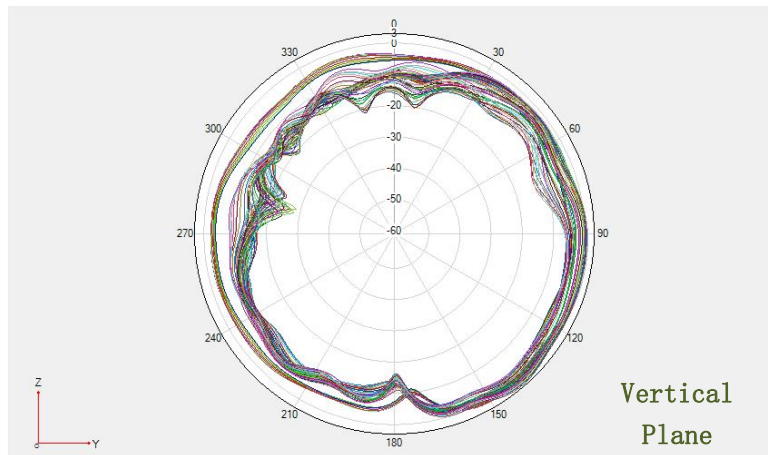
Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	55.59	47.97	31.12	32.28	45.39	24.27
Gain (dBi)	1.1	0.7	-0.57	2.32	3.89	-0.08



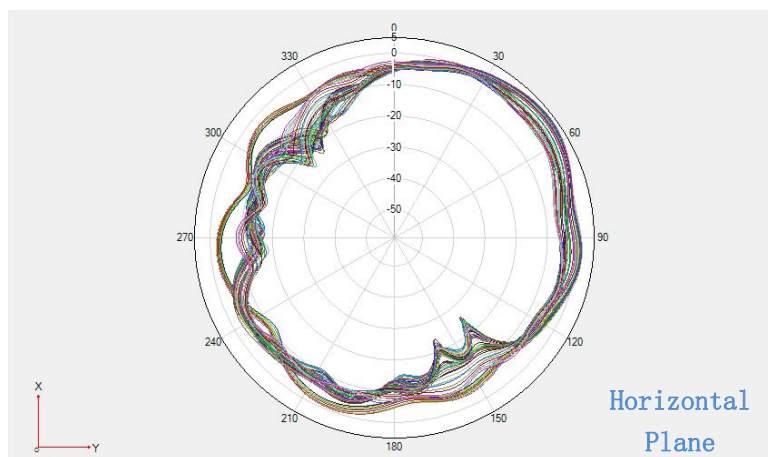
5. Radiation Pattern



Phi 0 2D



Phi 90 2D



Theta 90 2D

8. Mechanical Specification:

