

承 认 书

APPROVAL SHEET

客 户 名 称

CUSTOMER NAME: Zhuhai Raysharp Technology Co.,Ltd.

产 品 名 称

PRODUCT NAME: External Antenna 900-930MHZ Large SMA Male
Female Needle Dragon Yuan Sword Black Antenna

客 户 料 号

CUSTOMER P/N: 1015020023

优比电子料号

Youbi P/N: UB02S177B2D1129A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:	Changxing.Liu	
DATE:	2023/7/26	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	lina	2023-7-26

Content

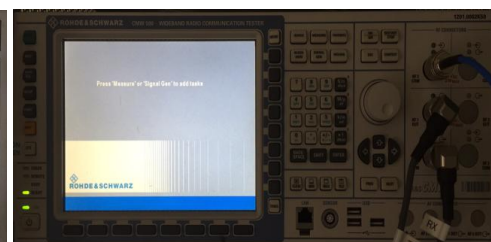
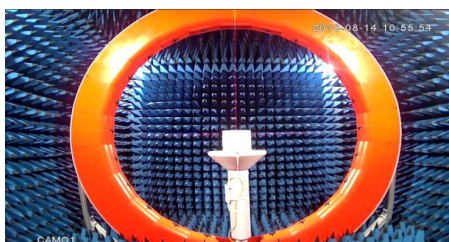
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Mechanical Specification

1.Electrical Specification

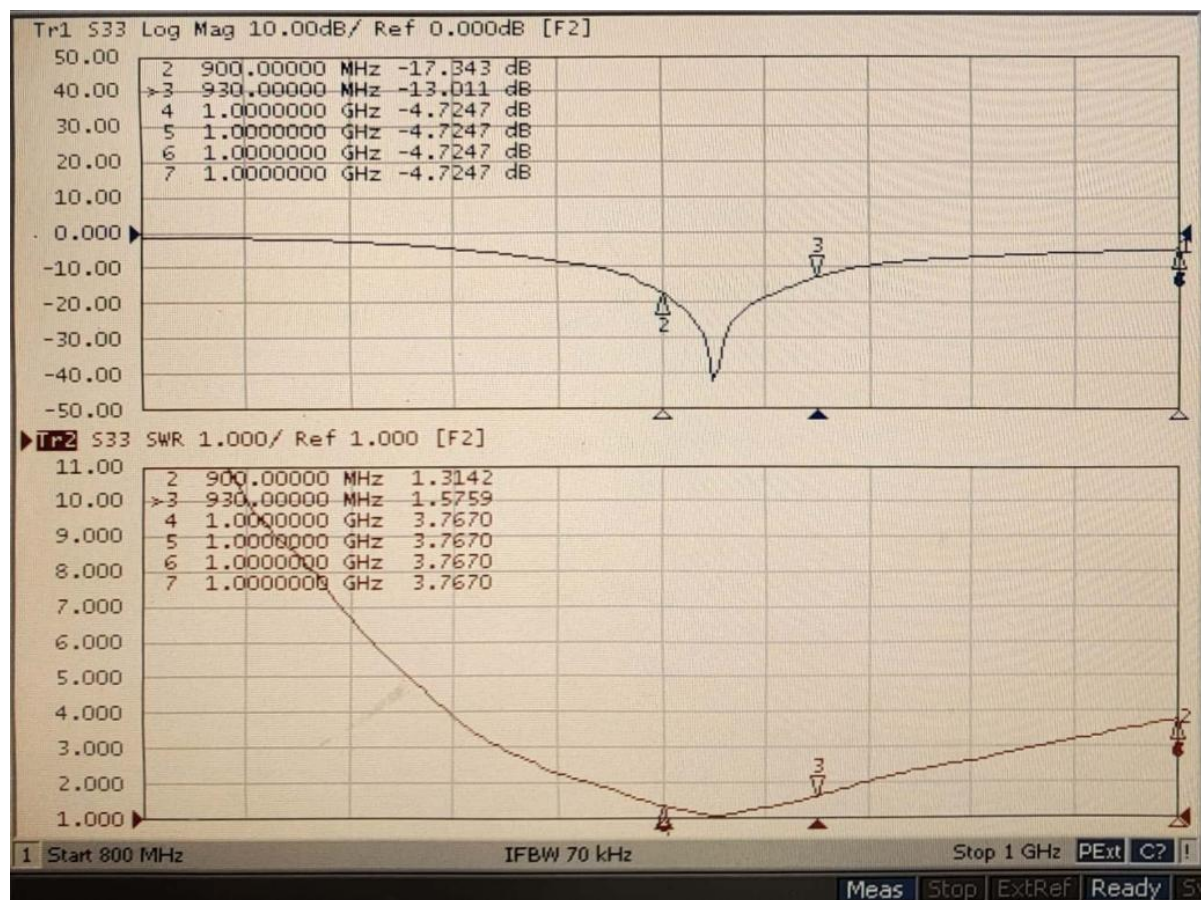
Characteristics	Specifications	Unit
Outline Dimensions	Ø12.89x200	mm
Frequency	900-930	MHz
Impedance	50	Ω
VSWR	≤ 1.92	
Polarization	Linear Polarization	
Gain	2±0.5	dBi
Efficiency	≥ 60	%
Connector Type	SMA Male (center pin)	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

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)

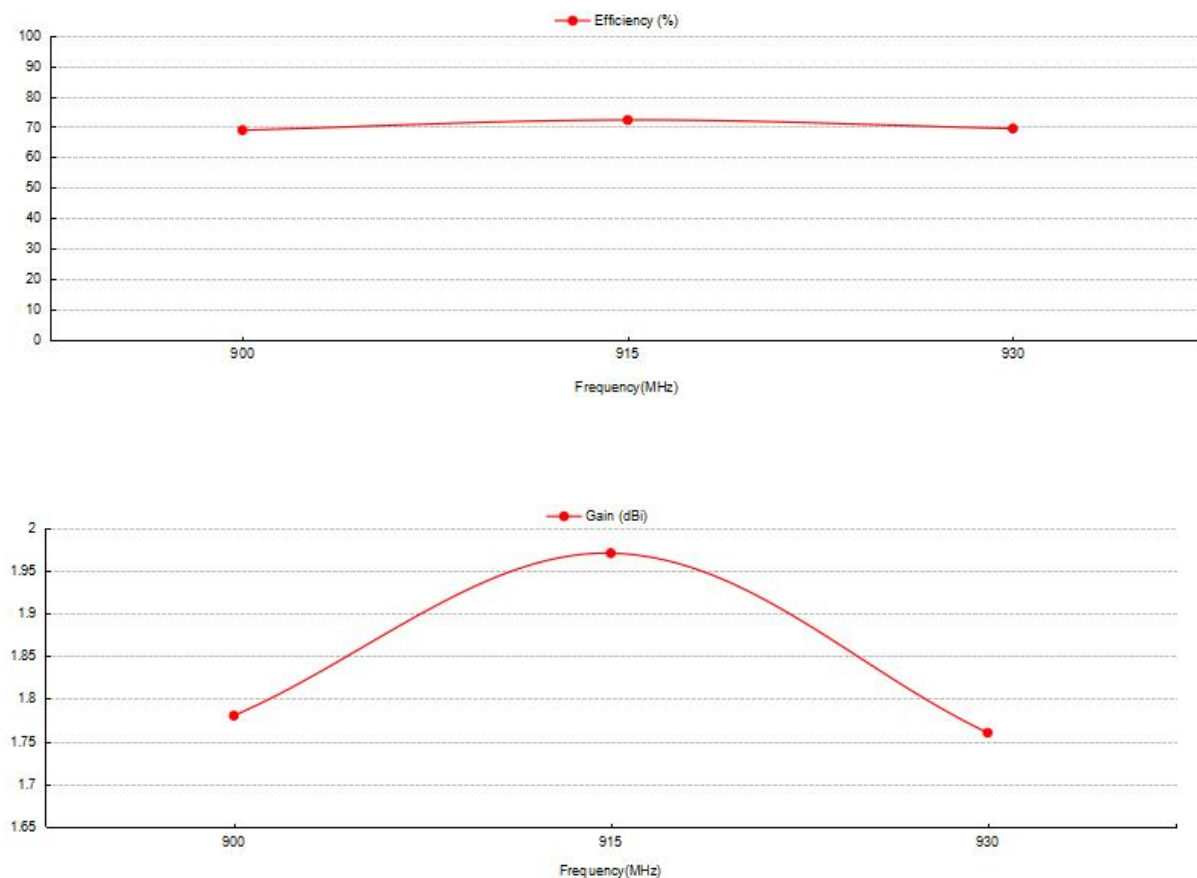


3. S Parameter



Frequency (MHz)	Return Loss (dB)	VSWR
900	-17.343	1.314
930	-13.011	1.575

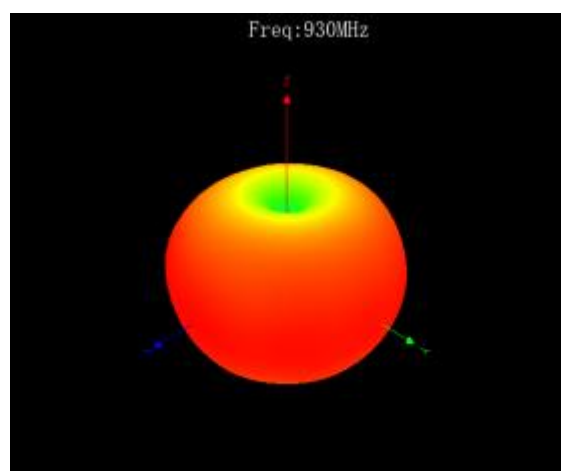
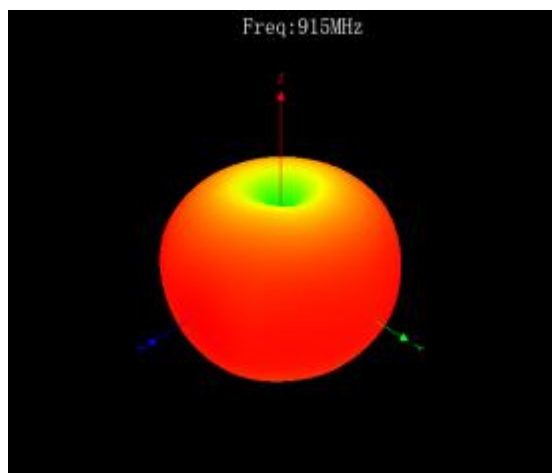
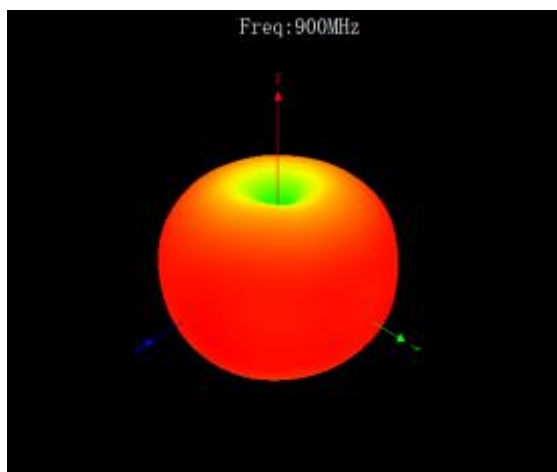
4. Efficiency and Gain



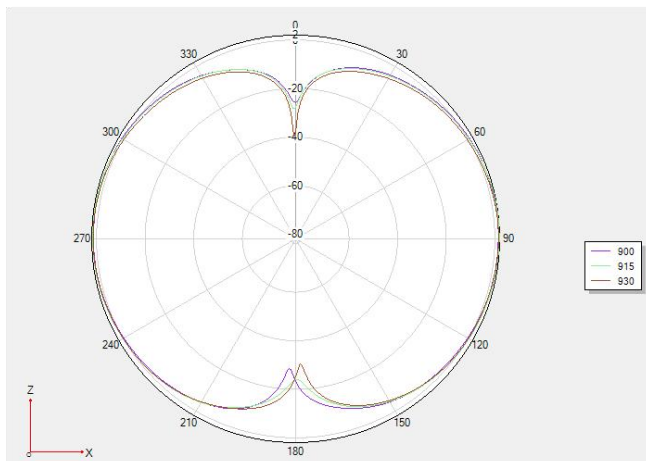
Frequency (MHz)	900	915	930
Gain (dBi)	1.78	1.97	1.76
Efficiency (%)	68.89	72.25	69.43

5. Radiation Pattern

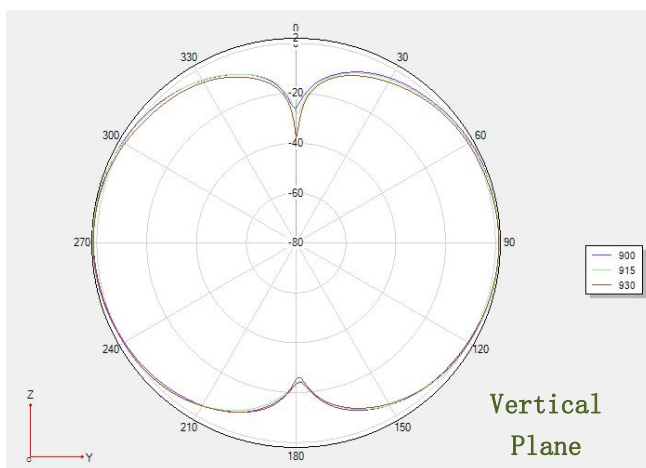
5-1 Antenna 3D Radiation Pattern



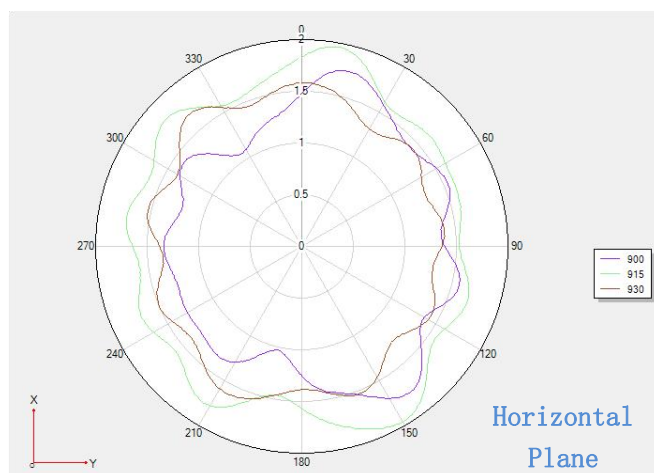
5-2 Antenna 2D Radiation Pattern



Phi 0 2D 图



Phi 90 2D 图



Theta 90 2D 图

