

1. Description

This antenna has the characteristics of high gain & high precision.

It is mainly made of aluminum alloy, and has the function of light weight, strong structure, better focusing and strong wind resistance.



Anray part No. : Anray211760790JA01

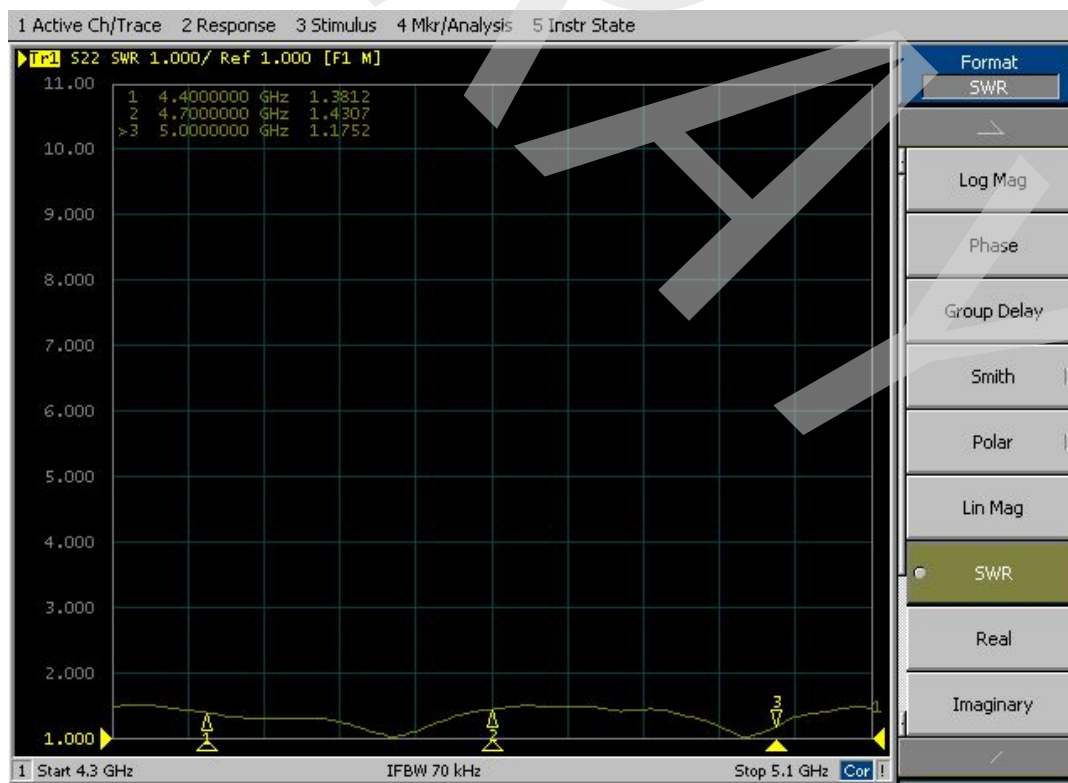
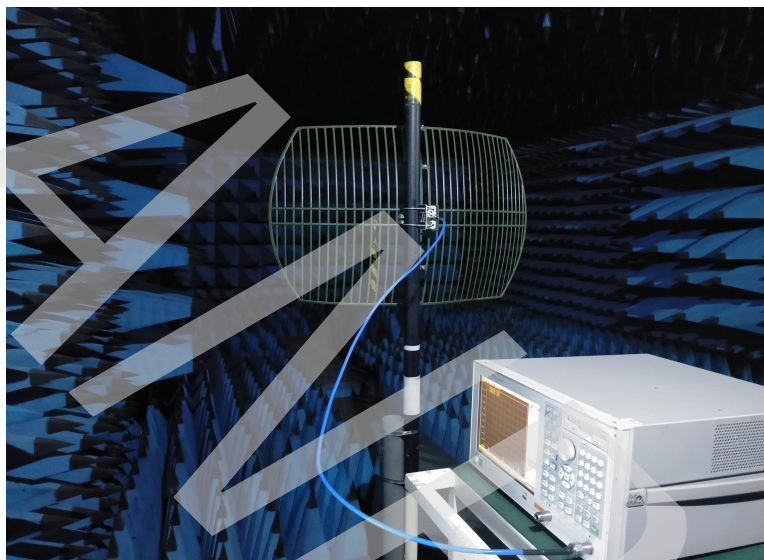
2. Electrical Properties

Item	Property
Frequency Band	4400~5000MHz
VSWR	< 1.5 (Typical)
Peak Gain	$29 \pm 2\text{dBi}$
3dB Beam width	H: 4.5° (Typical) E: 4.5° (Typical)
Front-to-Back Ration	>30dB
Cross polarization	>20dB
Forward Side lobes Ratio	0° to 90° > 15 dB 90° to 180° > 20dB
Impedance	50 Ohm Nominal
Polarization	Vertical/ Horizontal
Radiation	Direction
Continuous maximum power	50W

3. Test condition & data

VSWR:

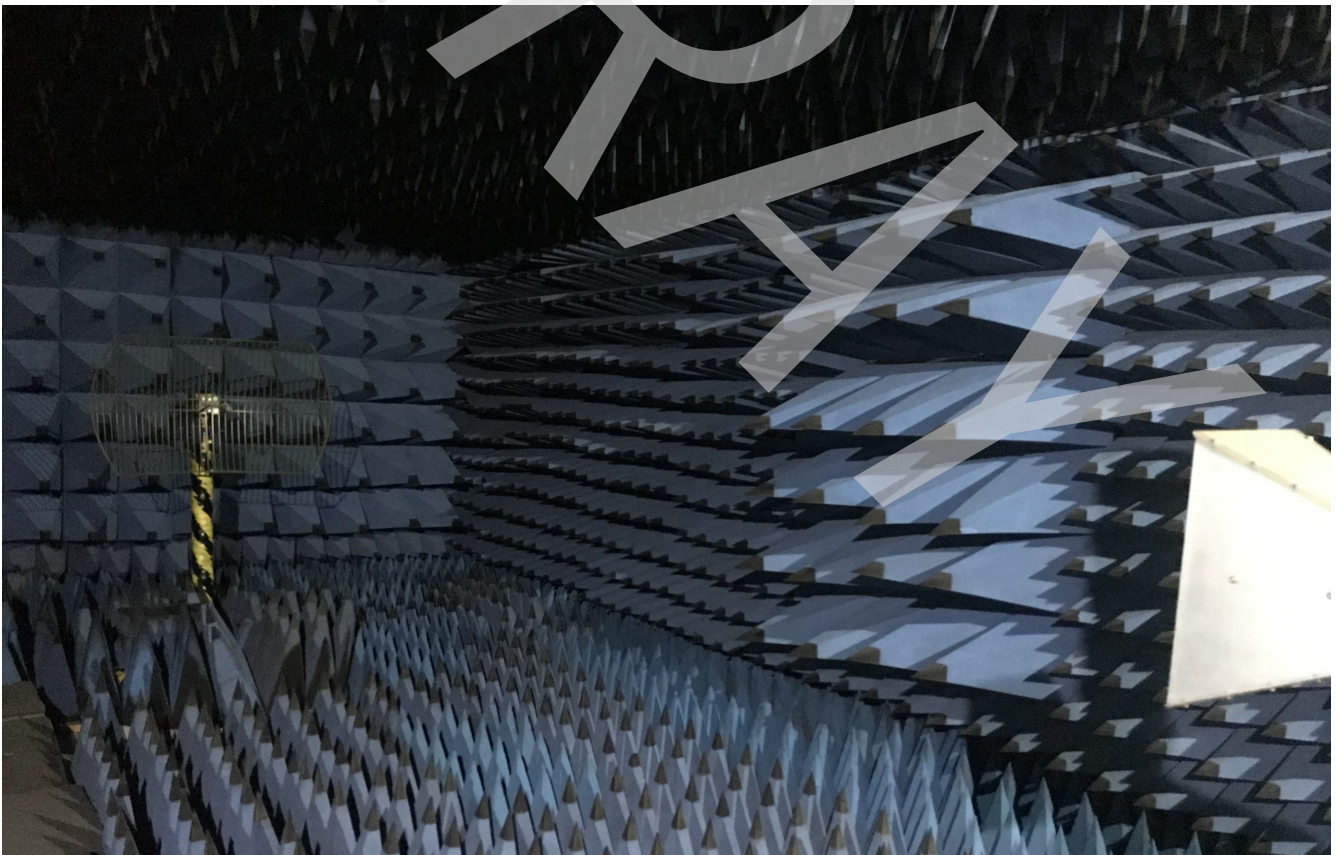
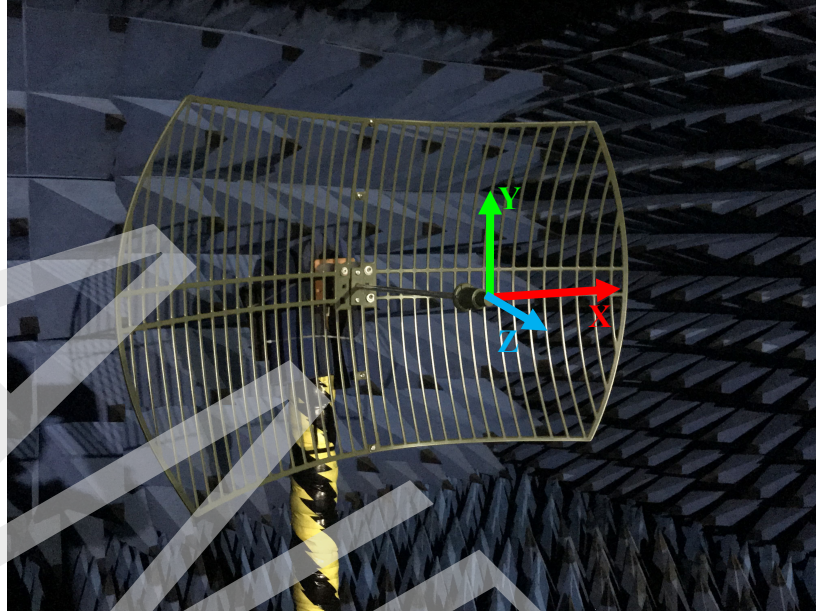
- a) Test instrument: Agilent 5071B S-parameter Network Analyzer(NA)
- b) Test condition: Anray 3D Microwave Chamber
- c) The VSWR of the coaxial cable : < 1.05

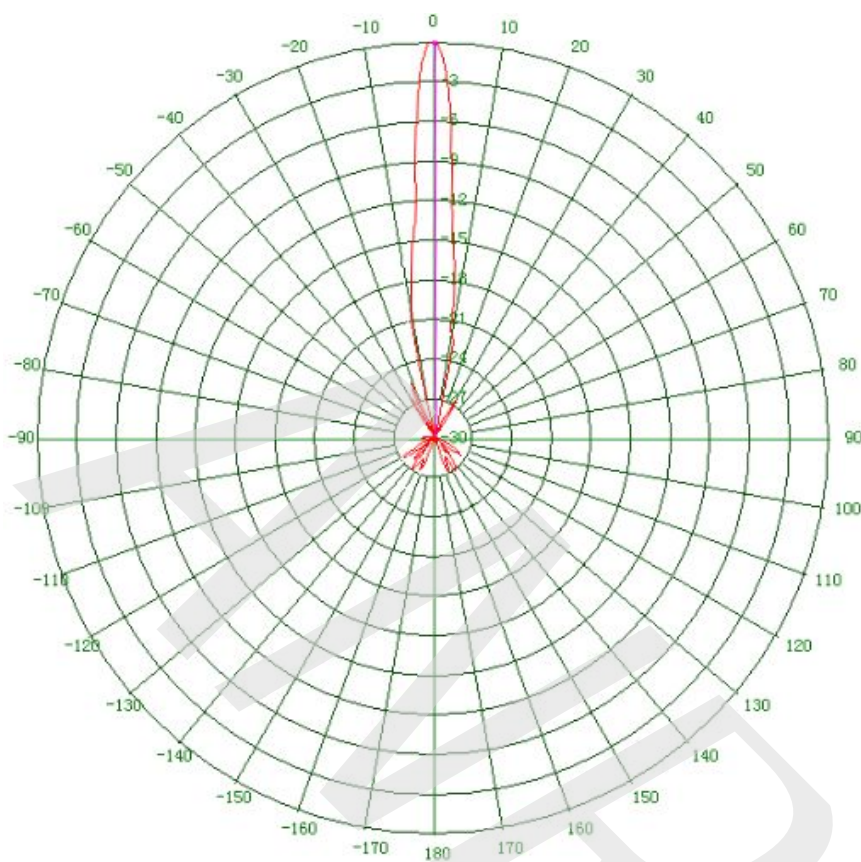


VSWR

Testing Condition:

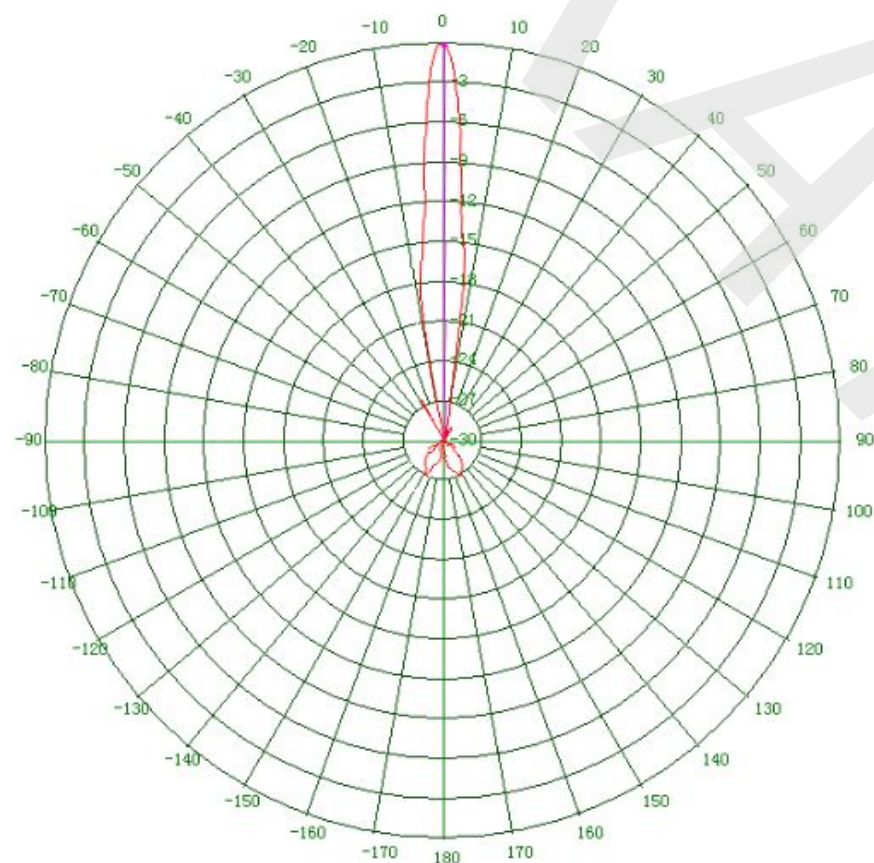
- a) Test site: Anray 3D Chamber
- b) System : Refer to picture





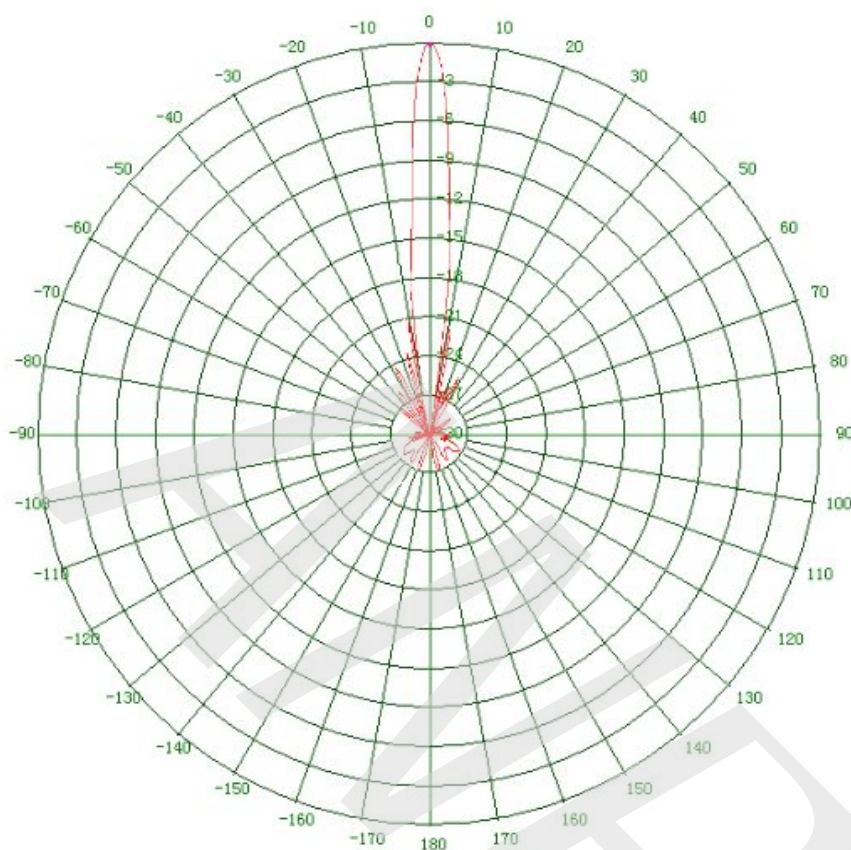
H Plane : $\Phi=0$
 Freq. : 4400MHz
 Polarization : Vertical

Radiation :
 Max. Gain : 29.49dBi
 Position : 0.0D
 HPBW : 4.5D
 F/B : 32.30dB



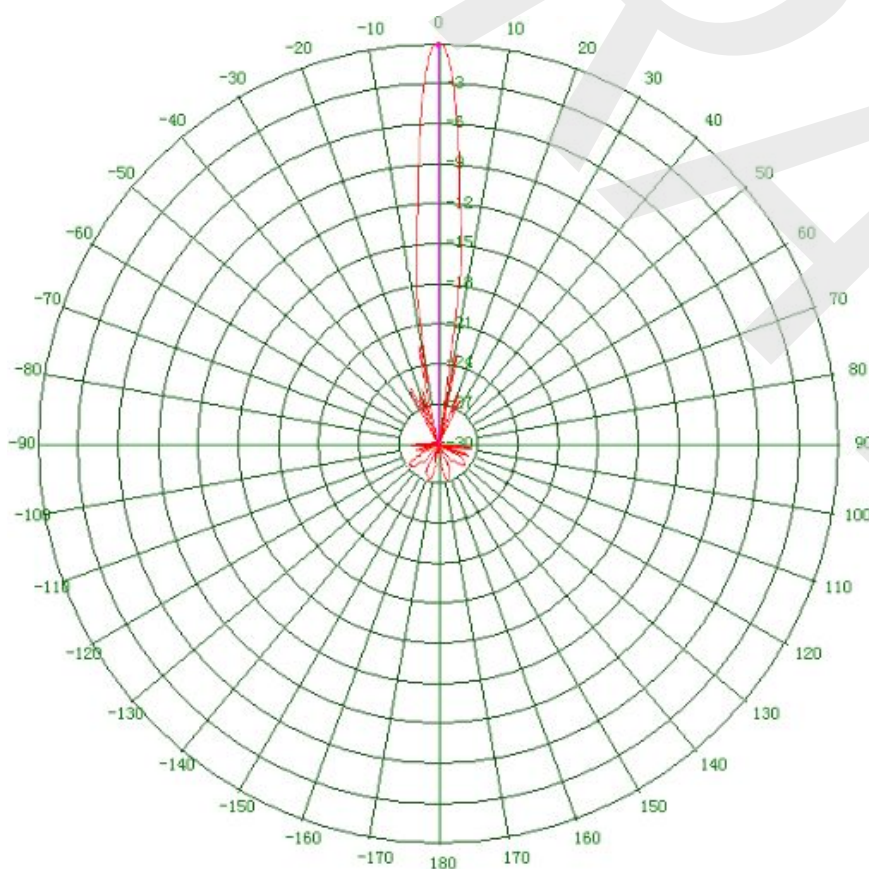
H Plane: $\Phi=0$
 Freq.: 5000MHz
 Polarization: Vertical

Radiation :
 Max. Gain : 29.11dBi
 Position : 0.00
 HPBW : 5.0D
 F/B : 32.16dB



E Plane: $\Phi=90$
 Freq.: 4400MHz
 Polarization: Horizontal

Radiation :
 Max. Gain : 28.80dBi
 Position : 0.00
 HPBW : 5.5D
 F/B : 30.82dB



E Plane: $\Phi=90$
 Freq.: 5000MHz
 Polarization: Horizontal

Radiation :
 Max. Gain : 28.66dBi
 Position : 0.00
 HPBW : 5.5D
 F/B : 31.33dB

4. Mechanical Properties

Item	Property
Antenna Size	600*985mm
Materials	Aluminum alloy , Stainless steel,etc.
Color	Olive Green RAL6003 Matte Finish
RF Connector	N-F (SISO)
Weight	<3kg (Including clamp assembly)
Wind load@150Km/h(N)	Front:350, Side:80
Lightning protection	DC Grounded
Mounted accessories	Clamp assembly
Installation pole	φ30~50mm

5. Environmental Characteristics

Operating temperature range is -40~70°C.

NO	Item	Test condition
1	High temperature test	Temperature: 90°C±3°C Time: 8h
2	Low temperature test	Temperature: -40°C±3°C Time: 8h
3	Damp heat test	Temperature: 45°C±3°C Relative humidity: 95% Time: 8h
4	Driving rain test	Operation: 10mm/Hr (18m/sec wind) Non-Operation: 36mm/Hr (18m/sec wind) Duration: 1h
5	Vibration test	Random vibration: 0.03g ² /Hz, 80Hz to 350Hz, 20-80Hz +3dB/octave, 350-2000Hz -3dB/octave; Duration: 5 min/axis (Along all three axes)
6	Salt spray test	Temperature: 35°C±2°C PH: 6.5~7.2 RH: 50% Time: 48h