

Production Name	Production Number	Version
2.4G&5.8G Collapsible Rod Antenna	AR195-2.4&5.8G-SZ (Double frequency full copper)	V1.0

1. Antenna Performance

NO.	Item	Specifications
1	Range of Receiving Frequency(MHz)	2400-2500/5150-5850MHz
2	V.S.W.R(in Center Frequency)	≤ 2.0
3	Gain (Zenith)(dBi typ)	$> 5\text{dBi}$
4	Radiation	Omnidirectional
5	Power Capacity(W)	50
6	Polarization	Vertical

2. Mechanical Specifications

Size	$\Phi 13 \times 200\text{mm}$	Cable	---
Mounting	Screw	Weight	18.6g
Connector	SMA Straight male	Color	Black
Operating Temp.	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$	Operating Humidity	0 % $\sim$ 95 %
Storage Temp.	$-45^{\circ}\text{C} \sim +85^{\circ}\text{C}$	Storage Humidity	0 % $\sim$ 95 %

3. SMA Header Characteristics

3.1 Materials And Coatings

NO.	Part name	Material quality	Cladding material	Remarks
1	Inner conductor	Brass Wire	Gold-plating	Internal thread gold plating
2	Dielectric	Teflon		
3	Hull	Brass(HPb59-1)	Cataphoresis	

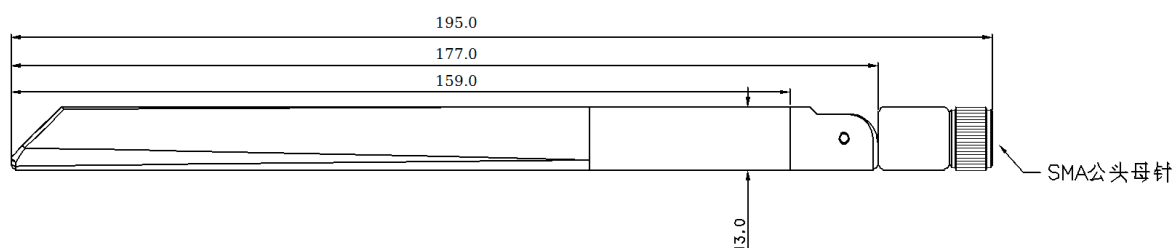
3.2 Behaviour Of Electricity

NO.	Surveillance project	qualification	remarks
1	Characteristic impedance	50Ω	
2	Temperature range	-65~+165℃	
3	Frequency range	0~12GHZ	
4	Dielectric Strength	1000V(rms)	
5	Contact resistance	Inner conductor $\leq 3\text{m}\Omega$ Outer conductor $\leq 2\text{m}\Omega$	
6	Insulation resistance	$\geq 5000\text{M}\Omega$	
7	V.S.W.R	≤ 1.25 (soft cable)	
8	Salt spray test(hour)	24	

3.3 Mechanical Properties

NO.	Mechanical behavior	Qualification	Remarks
1	Mechanical endurance	≥ 500 times	

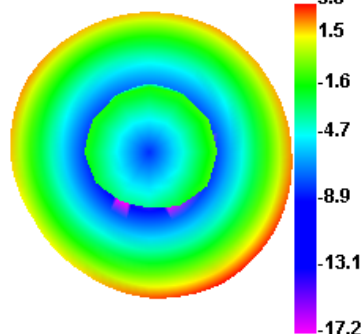
4. Structural Dimension Diagram(unit: mm)



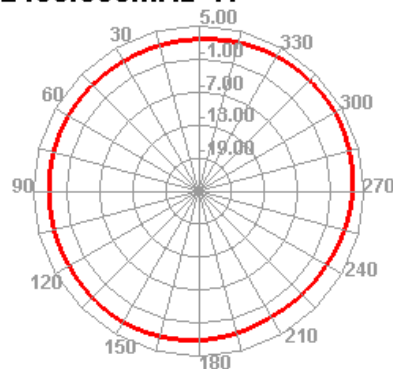
5. Antenna test data:

Passive Test For 2400-2500		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	67.87	3.62
2410	68.7	3.55
2420	65.98	3.39
2430	67.89	3.39
2440	71.62	3.63
2450	77.94	4
2460	77.99	3.98
2470	74.78	3.86
2480	78.64	4.02
2490	72.39	4.26
2500	79.35	4.14

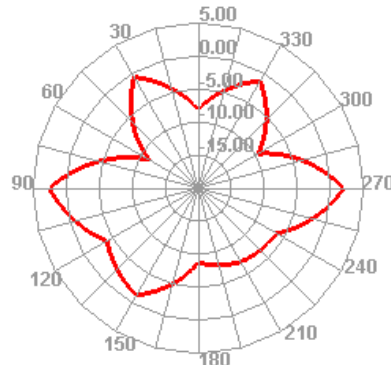
2400.000MHz



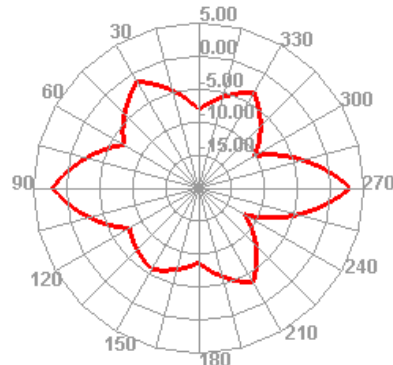
2400.000MHz H



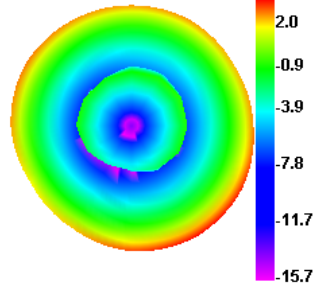
2400.000MHz E1



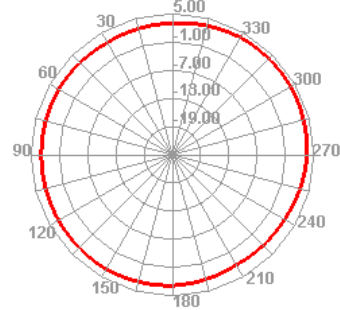
2400.000MHz E2



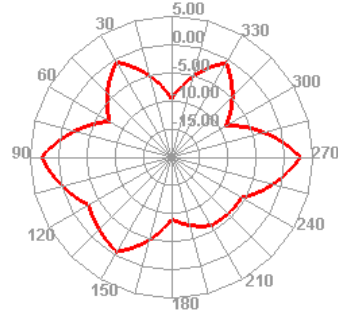
2450.000MHz



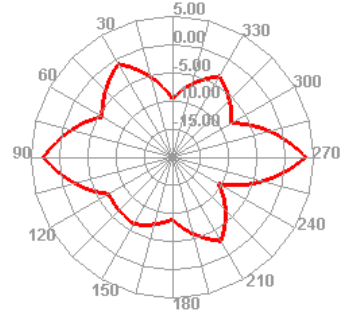
2450.000MHz H



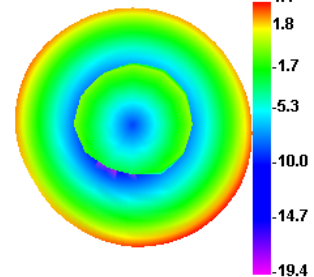
2450.000MHz E1



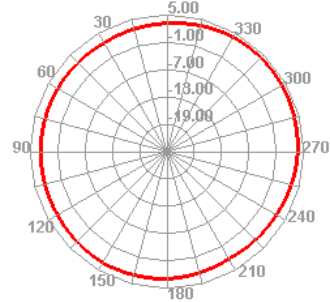
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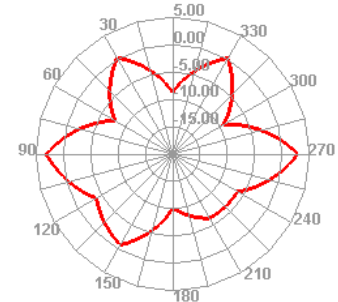
2500.000MHz



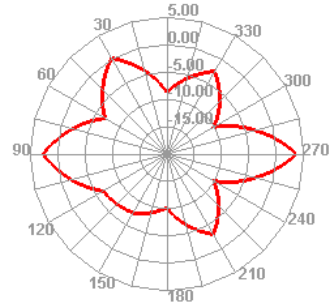
2500.000MHz H



2500.000MHz E1

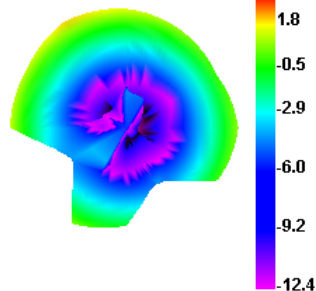


2500.000MHz E2

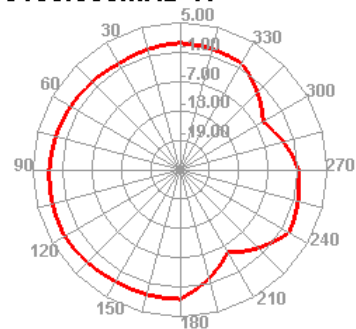


Passive Test For 5.8g		
Freq (MHz)	Effi (%)	Gain (dBi)
5150	61.87	3.41
5160	58.07	3.69
5170	51.18	3.11
5180	57.3	2.4
5190	58.87	2.33
5200	54.77	2.76
5250	56.34	2.53
5300	60.7	2.9
5350	55.45	2.73
5400	65.57	3.53
5450	67.87	3.63
5500	66.29	3.1
5550	64.55	3.1
5600	55.58	2.15
5650	66.31	2.83
5700	74.65	2.99
5750	73.05	2.82
5800	70.14	3.05
5850	73.64	2.94

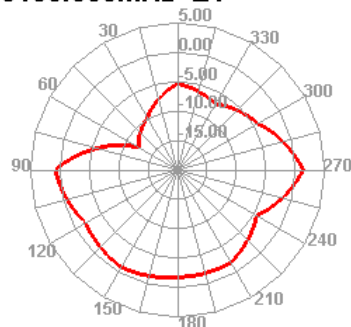
5150.000MHz



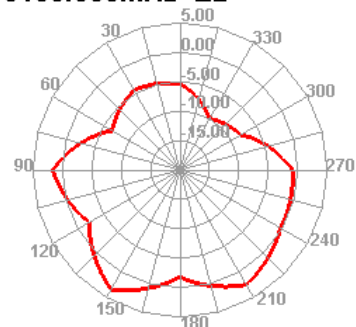
5150.000MHz H



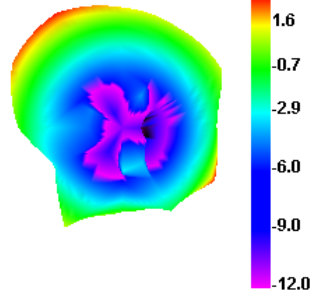
5150.000MHz E1



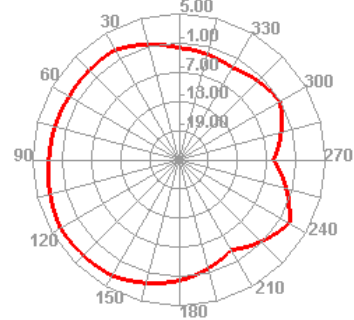
5150.000MHz E2



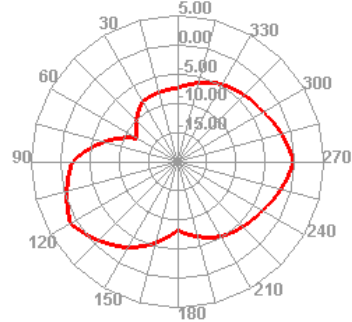
5500.000MHz



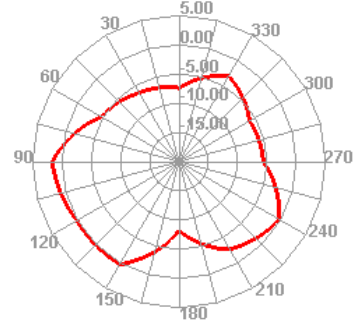
5500.000MHz H



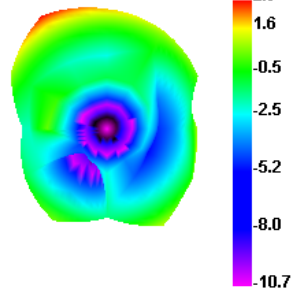
5500.000MHz E1



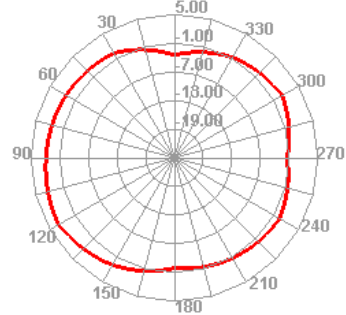
5500.000MHz E2



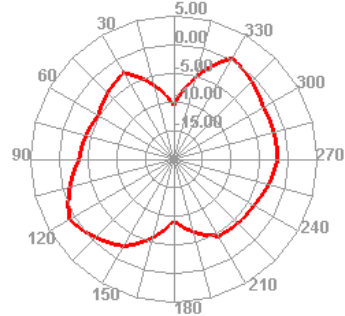
5850.000MHz



5850.000MHz H



5850.000MHz E1



5850.000MHz E2

