




Product Number: BGS-AN2458-13162B  
Product Name: 2.4/5.8GHz WIFI External Antenna

## 1. Specification

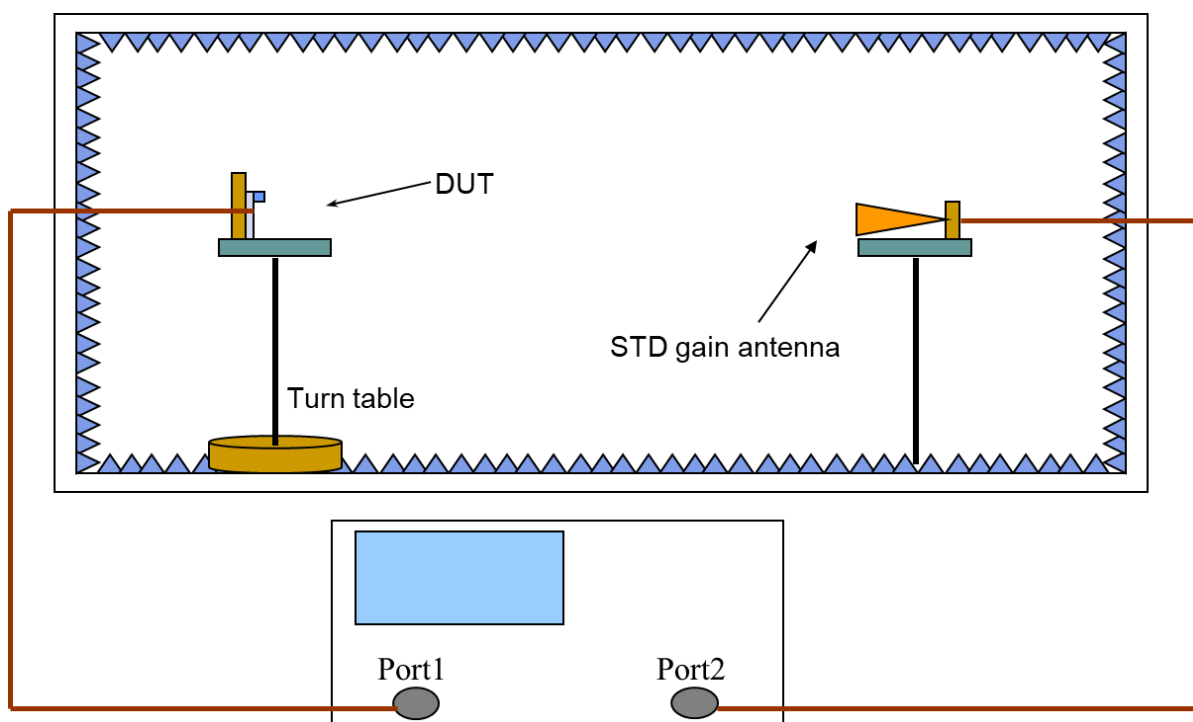
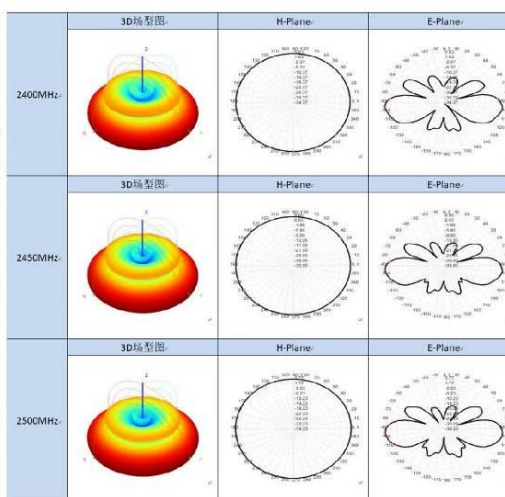
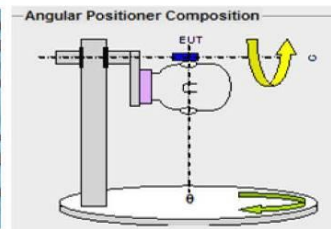
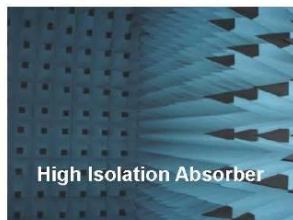
Sample Photo		
		
A. Electrical Characteristics		
Frequency	2400-2500MHz	5150-5850MHz
Impedance	50 Ohm	50 Ohm
S.W.R.	<2.0	<2.3
Gain	4dBi	5dBi
Efficiency	≈70%	≈60%
Polarization	Linear	Linear
Max Power	50W	50W
B. Material & Mechanical Characteristics		
Connector Type	RP-SMA connector	
Dimension	Φ 13*162mm	
Weight	0.02Kg	
Antenna material	PCB	
C. Environmental		
Operation Temperature	- 40 °C ~ + 80 °C	
Storage Temperature	- 40 °C ~ + 80 °C	

## Test Equipment & Conditions

1. Network Analyzer: Keysight E5071C

2. 3D Chamber Test System

- .Chamber Size: 9 x 5 x 4 m<sup>3</sup>
- .Freq. Range: 0.4 ~ 18.0 GHz
- .Double Ridge Horn Antenna
- .VNA: Agilent E5071C
- .3D Turning Table and Positioner
- .ADT Solution 3D Testing Software

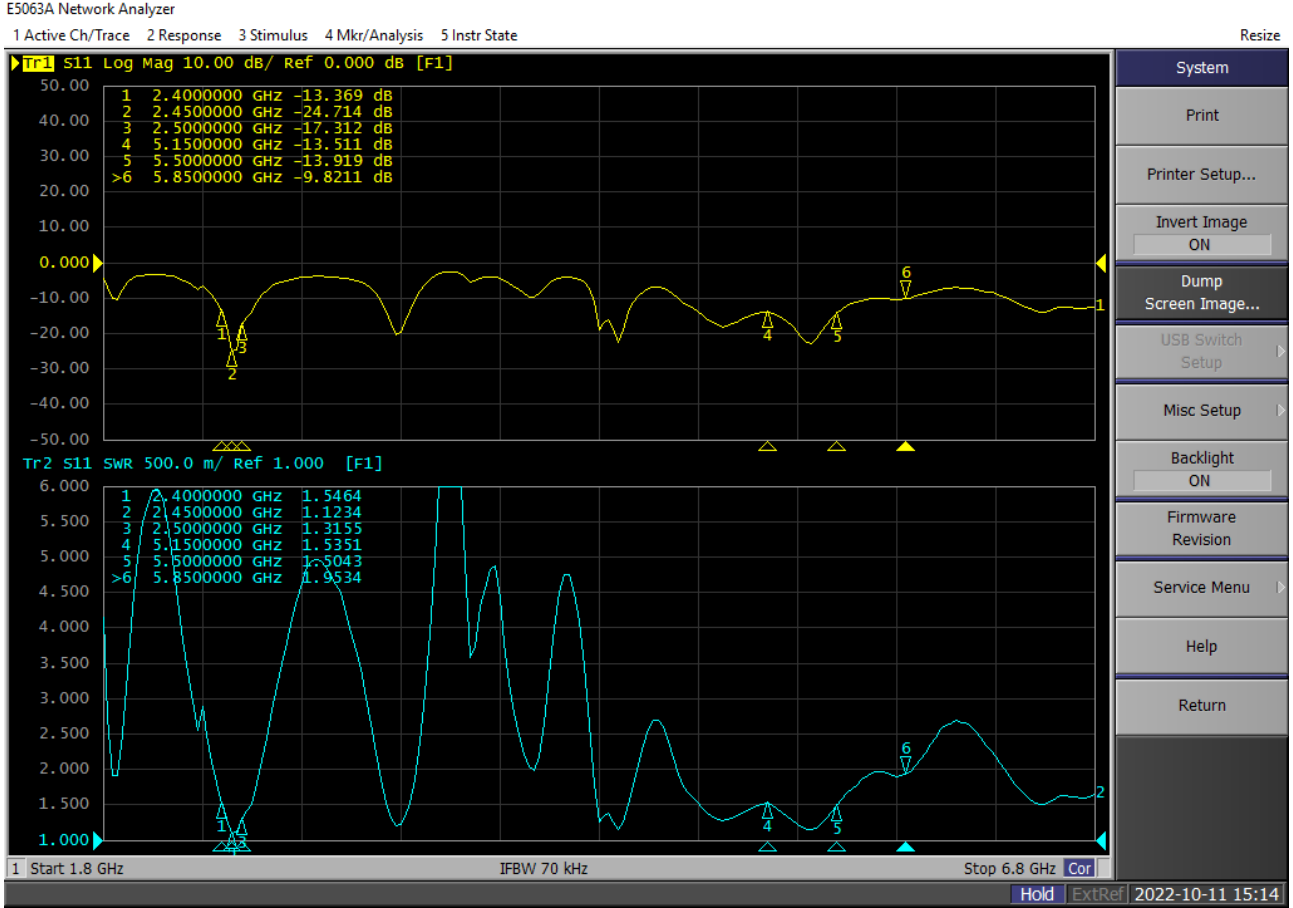




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## 2. Antenna - S Parameter Test Data

### 2.1. VSWR



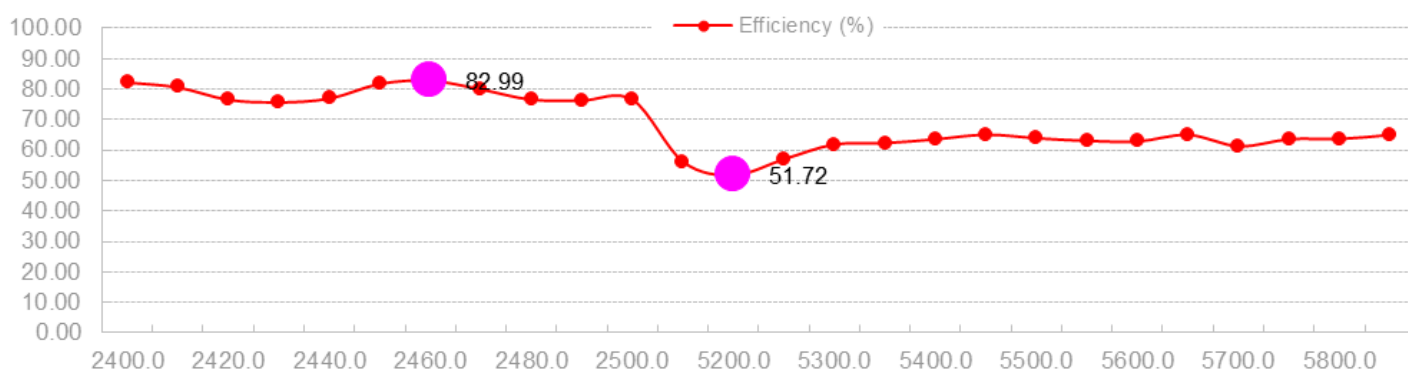


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## 2.2 Total Efficiency & Gain:

Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	4.03	3.90	3.74	3.85	4.00	4.25	4.23	4.09	4.10	4.28	4.27
Efficiency (%)	82.39	80.78	76.67	75.78	77.08	81.95	82.99	80.12	76.72	76.47	76.68

Frequency (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
Gain (dBi)	4.11	4.73	4.38	4.93	4.97	4.10	4.69	4.73	4.52	4.21	4.33	4.11	4.22	4.05	4.11
Efficiency (%)	56.15	51.72	57.05	61.91	62.36	63.62	65.13	63.95	63.05	62.89	65.07	61.28	63.66	63.70	65.08





### 2.3 Radiation Pattern

	3D	2D-Horizontal	2D-Vertical
2400M Hz			
2450M Hz			
2500M Hz			



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	3D	2D-Horizontal	2D-Vertical
5150M Hz		 0.10 -3.90 -7.90 -11.90 -15.90 -19.90 -23.90 -27.90 -31.90 -35.90	 0.10 -3.90 -7.90 -11.90 -15.90 -19.90 -23.90 -27.90 -31.90 -35.90
5500M Hz		 0.73 -3.27 -7.27 -11.27 -15.27 -19.27 -23.27 -27.27 -31.27 -35.27	 0.73 -3.27 -7.27 -11.27 -15.27 -19.27 -23.27 -27.27 -31.27 -35.27
5850M Hz		 4.11 -3.89 -7.89 -11.89 -15.89 -19.89 -23.89 -27.89 -31.89 -35.89	 4.11 -3.89 -7.89 -11.89 -15.89 -19.89 -23.89 -27.89 -31.89 -35.89





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### 3. Mechanical Drawing

