



Product Number: BGS-AN1000-12047B

Product Name: 10-1000MHz Omnidirectional Fiberglass Antenna

## 1. Specification

|                                                                                    |                   |
|------------------------------------------------------------------------------------|-------------------|
| <b>Sample Photo</b>                                                                |                   |
|  |                   |
| <b>A. Electrical Characteristics</b>                                               |                   |
| Frequency                                                                          | 10-1000MHz        |
| Impedance                                                                          | 50 Ohm            |
| S.W.R.                                                                             | <2.5              |
| Antenna Gain                                                                       | 2dBi              |
| Efficiency                                                                         | ≈40%              |
| Polarization                                                                       | Linear            |
| Horizontal Beamwidth                                                               | 360°              |
| Vertical Beamwidth                                                                 | 40-50°            |
| Max Power                                                                          | 50W               |
| <b>B. Material &amp; Mechanical Characteristics</b>                                |                   |
| Connector Type                                                                     | N connector       |
| Dimension                                                                          | Φ 20*470mm        |
| Weight                                                                             | 0.30Kg            |
| Radome material                                                                    | Fiberglass        |
| <b>C. Environmental</b>                                                            |                   |
| Operation Temperature                                                              | - 40 °C ~ + 80 °C |
| Storage Temperature                                                                | - 40 °C ~ + 80 °C |
| Rated Wind Velocity                                                                | 36.9m/s           |
| Lighting Protection                                                                | DC Ground         |

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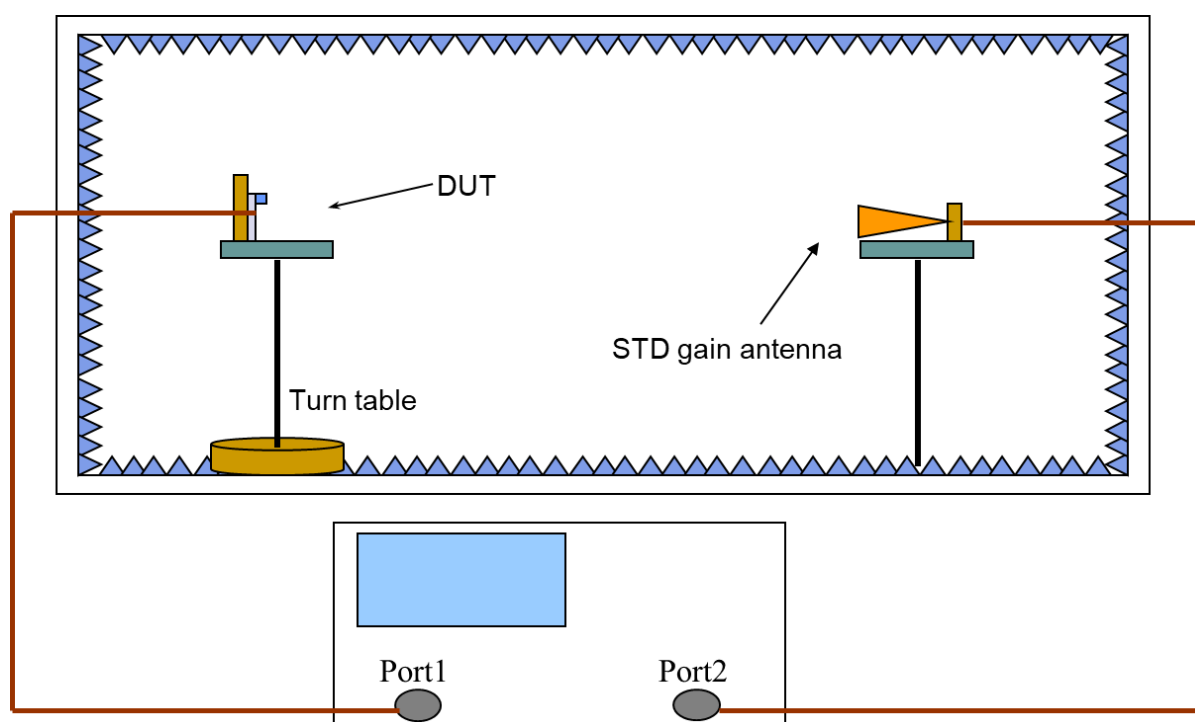
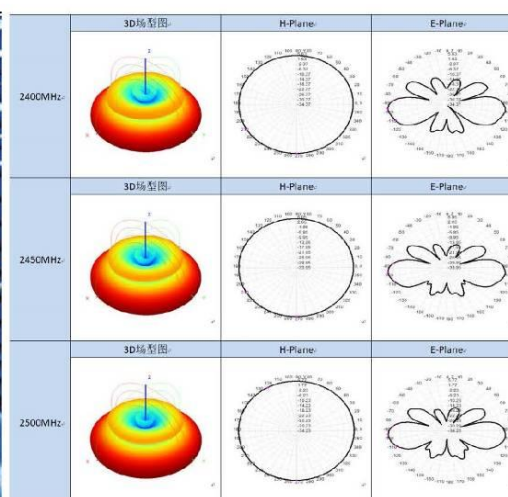
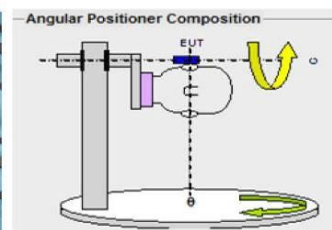
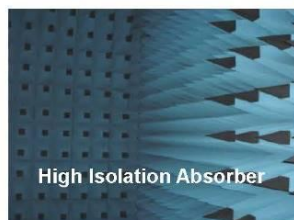
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## Test Equipment & Conditions

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



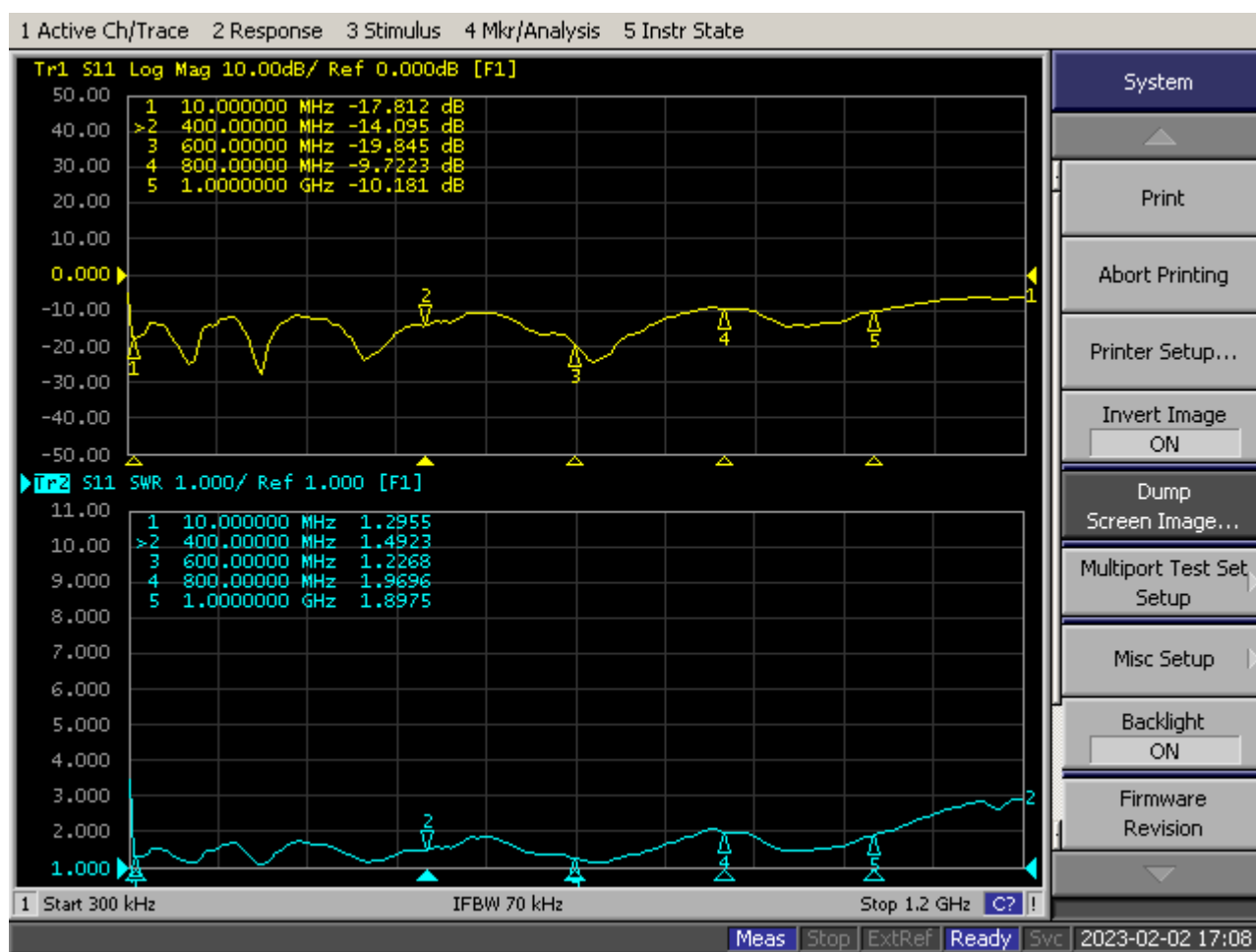


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## 2. Antenna - S Parameter Test Data

### 2.1. VSWR

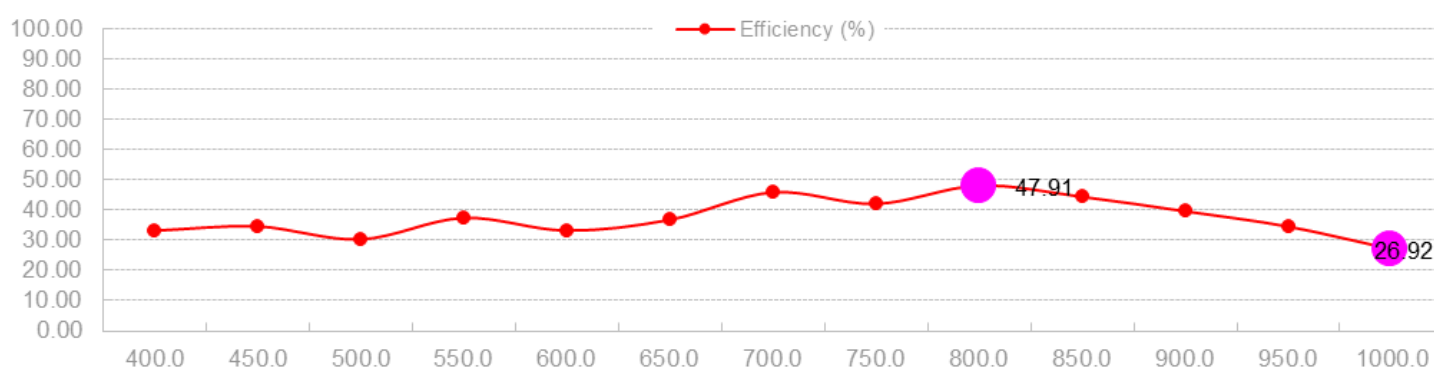




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## 2.2. Total Efficiency & Gain:

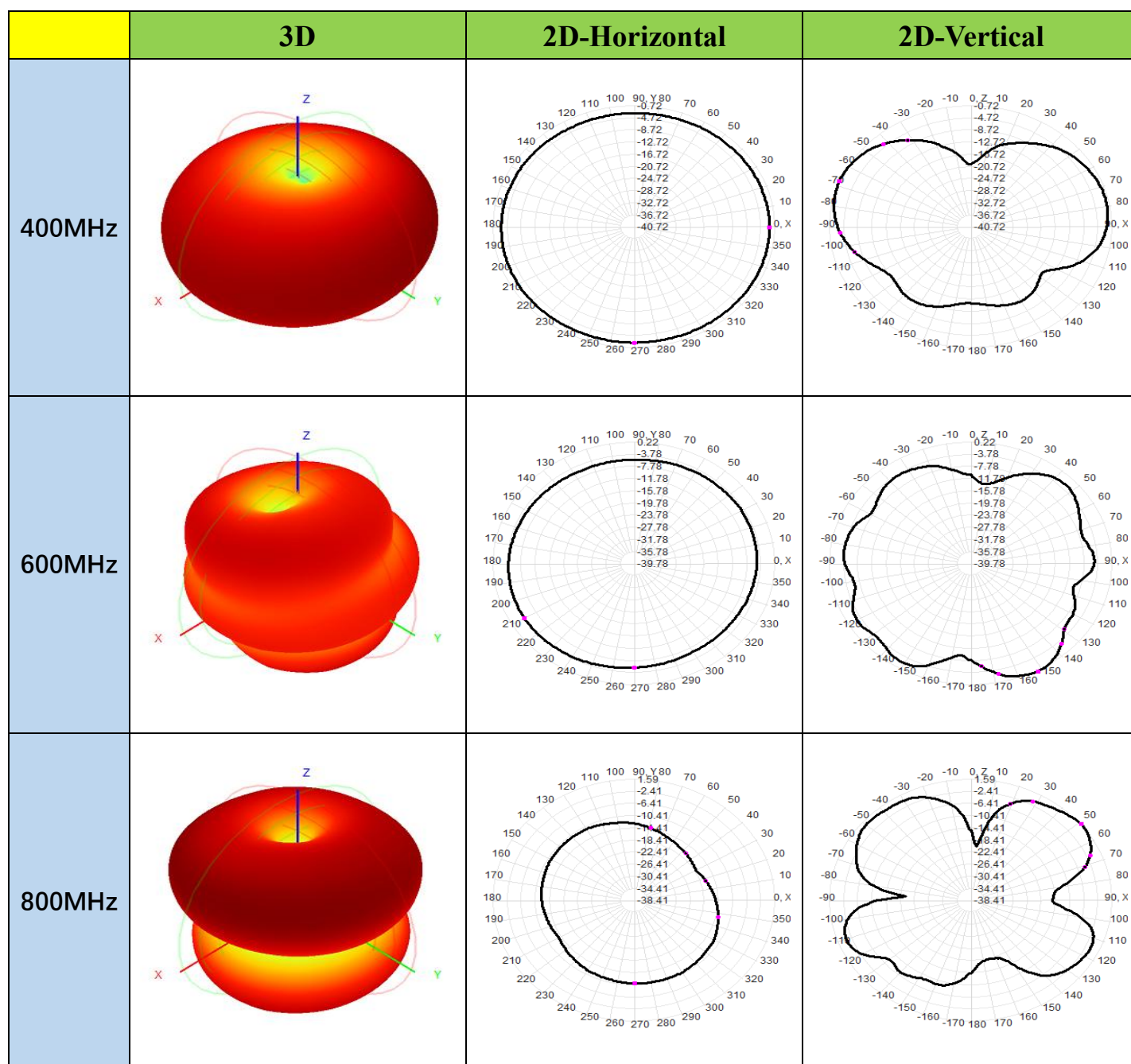
| Frequency(MHz) | 400.0 | 450.0 | 500.0 | 550.0 | 600.0 | 650.0 | 700.0 | 750.0 | 800.0 | 850.0 | 900.0 | 950.0 | 1000.0 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Gain (dBi)     | -0.64 | -0.11 | -1.16 | -0.59 | 0.22  | -0.67 | 0.11  | 0.12  | 1.69  | 2.27  | 1.71  | 0.72  | -0.83  |
| Efficiency (%) | 32.99 | 34.44 | 30.15 | 37.24 | 33.03 | 36.62 | 45.72 | 41.90 | 47.91 | 44.22 | 39.44 | 34.34 | 26.92  |





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## 2.3 Radiation Pattern





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### 3. Mechanical Drawing

