

Shanghai HEDA Electronics Co., Ltd

Antenna Specification

Product Number	HD002B-09-A01		
Product Type	915MHz Rod Antenna		
Frequency band	915MHz		
Released Date	2023-07-03		
Version	A		
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1. Summary

This document is the HD002B-09-A01 antenna specification.

The supported frequency band is 915 MHz.

Specification	Typical	Units
Antenna Structure	Rod Antenna	Pcs
Frequency Band	915	MHz
Peak Gain	3.01	dBi
Antenna Efficiency	105.5	%
VSWR	≤ 2	-
Polarization	Perpendicular	-
Axial Ratio	-	-
Radiation Pattern	Omni-directional	-
Impedance	50	ohm
Power Handling	50W	dBm
Interface	SMA	-
Overall Dimensions	168 ± 2	mm
Weight	16	g
Operation Temperature	-20 °C to +85 °C	°C
Storage Temperature	-40 °C to +90 °C	°C

2. Antenna Type

Omni-directional Rod antenna

3. Antenna Test Environment

Antenna input characteristics were tested using a vector network analyzer.

The antenna radiation characteristics are tested using a OTA Chamber, and the test coordinate system is shown in Figure 1.

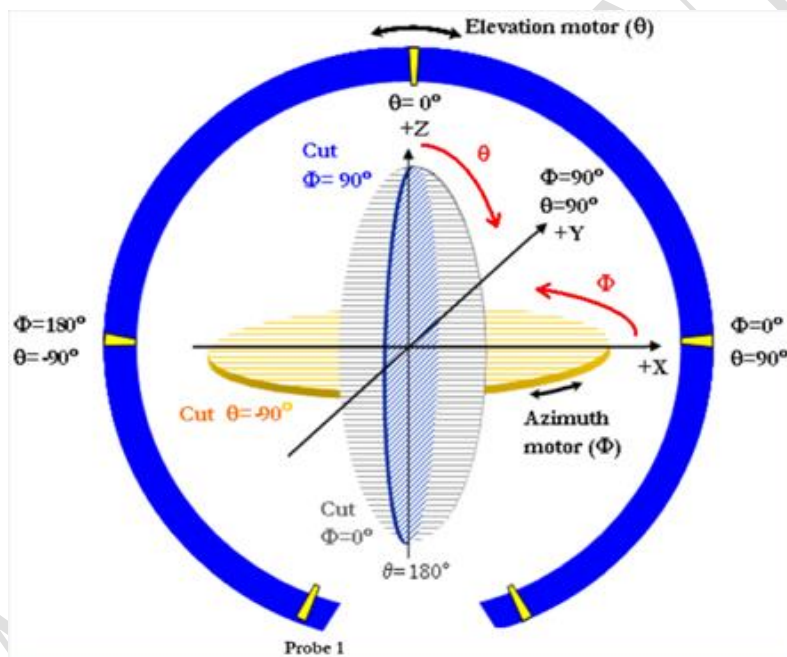


Figure 1: 3D Test coordinate system of the OTA chamber

4. Antenna Test Results

4.1 VSWR

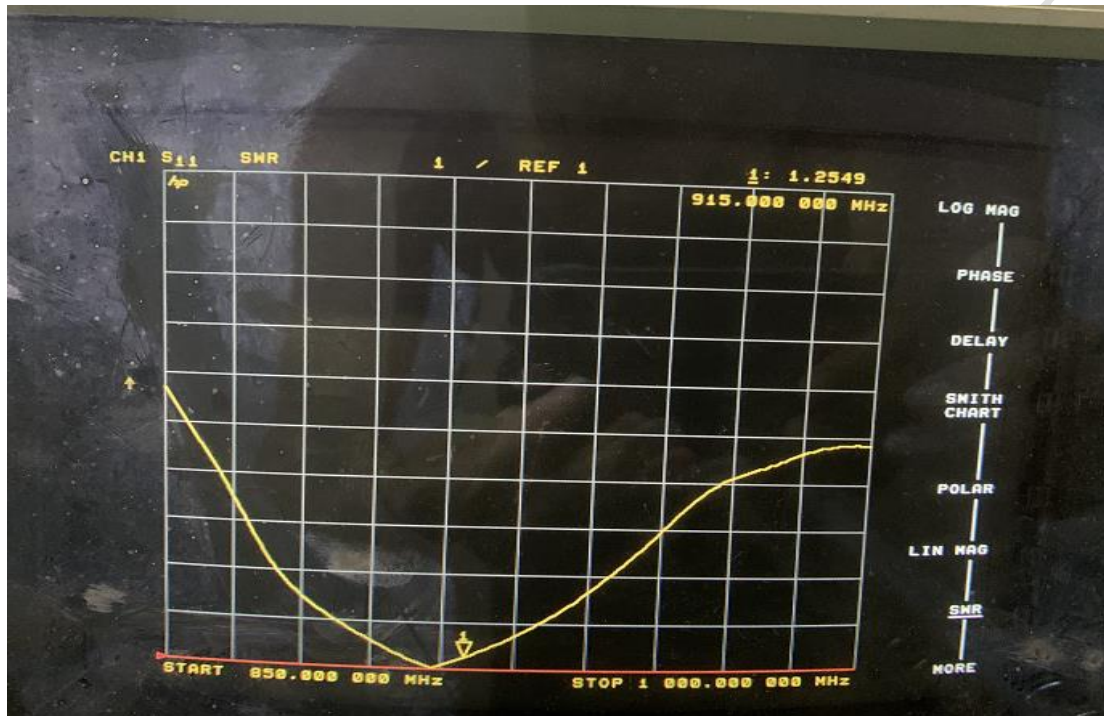


Figure 2: Antenna VSWR

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4.2 Efficiency and Gain

Freq. (MHz)	Gain (dBi)	Efficien y (%)
900.0	2.84	104.0%
905.0	2.94	108.5%
910.0	2.97	109.0%
915.0	3.01	105.5%
920.0	2.69	104.0%
925.0	2.65	97.2%
930.0	2.55	97.8%

4.3 2D & 3D Radiation Pattern

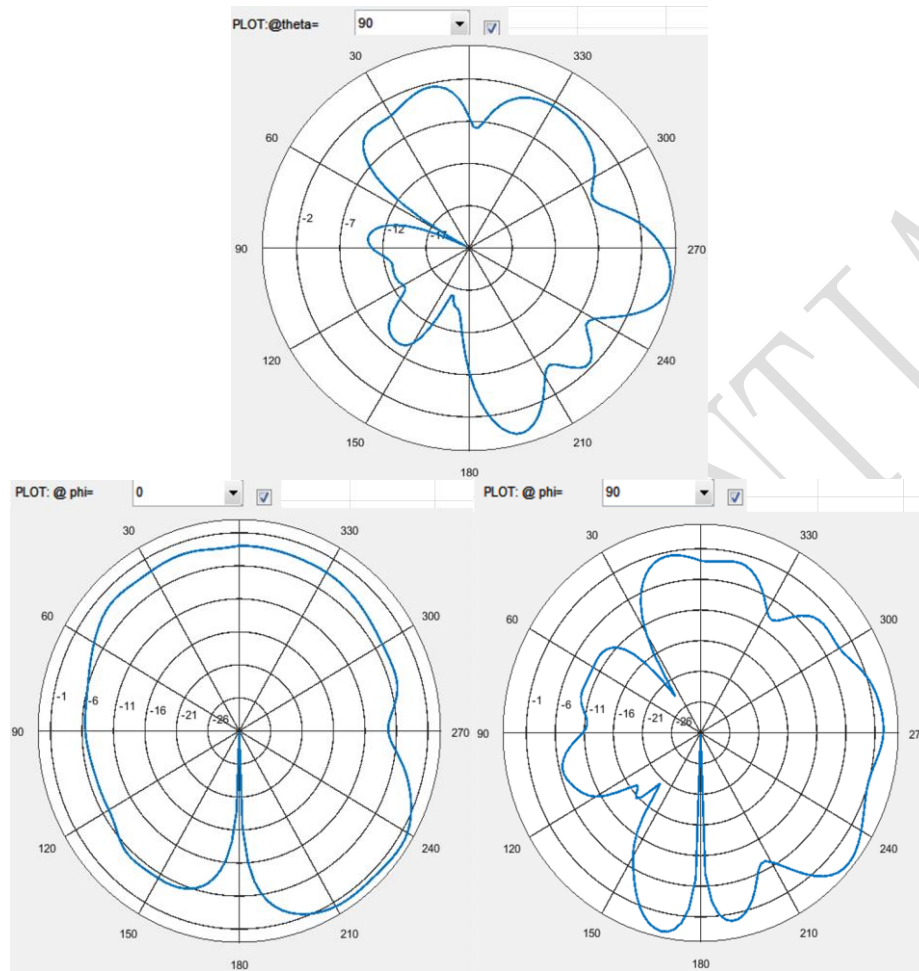


Figure 3: 2D Radiation Pattern

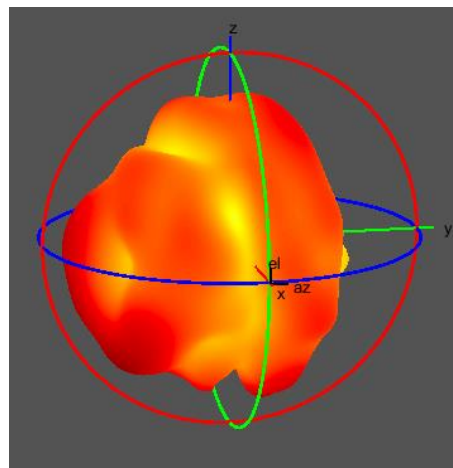


Figure 4: 3D Radiation Pattern

5. Antenna Drawing

