

RDA-9W258R 9dBi 圆极化天线(258)

RDA-9W258R 9dBi Circularly polarized antenna(258)

1. 产品图片/ Picture



图 1 正面图片/Figure 1 Front view

2. 产品应用领域/Product Application Fields

9dBi 圆极化天线(258)是适用于 UHF 频段 RFID 应用场合的通用型远场天线，具有高增益、低驻波的特点。可方便地应用于门禁、仓储、物流、零售等 UHF 频段的 RFID 场合中。

The 9dBi Circularly Polarized Antenna (Model 258) is a general-purpose far-field antenna designed for UHF-band RFID applications, featuring high gain and low VSWR (Voltage Standing Wave Ratio). It is ideally suited for access control, warehousing, logistics, retail, and other UHF RFID scenarios.

3. 技术参数/Technical data:

表 1 9dBi 圆极化天线(258)产品参数定义/Table1 technical data

频率范围/Frequency(MHz)	902MHz~928MHz
极化方式/polarized type	圆极化/Circularly polarized
增益(dBi)/Gain(dBi)	>9dBi
轴比/Axial Ratio(dB)	<3dB
H 面 HPBW/H-plane HPBW	62°
E 面 HPBW/E-plane HPBW	56°
阻抗(Ω)/Impedance (Ω)	50 Ω
电压驻波比(VSWR)/VSWR	$\leq 1.3:1$
接头类型/Connector Type	N 型外螺纹母头 /N-type female (external thread)
接头位置/Connector Position	侧馈/Side-fed
产品尺寸(mm)/Dimensions (mm)	258mm×258mm×32mm (不含背面铆柱) 258×258×32 (excluding rear studs)
重量/Weight	850g (不包含支架)

	850g (excluding bracket)
材料/Material	工程塑料 ABS+铝 ABS engineering plastic + aluminum
颜色/Color	乳白色/Cream white
安装方式/Installation Method	抱杆（最大抱杆直径 50mm） Pole Mounting (Max. Pole Diameter): 50mm
工作温度(° C)/Operating Temperature	-40° C ~ +85° C

4. 暗室实测天线特性曲线/Anechoic Chamber Test Results:

(1) 增益随频率变化曲线/Gain vs. Frequency

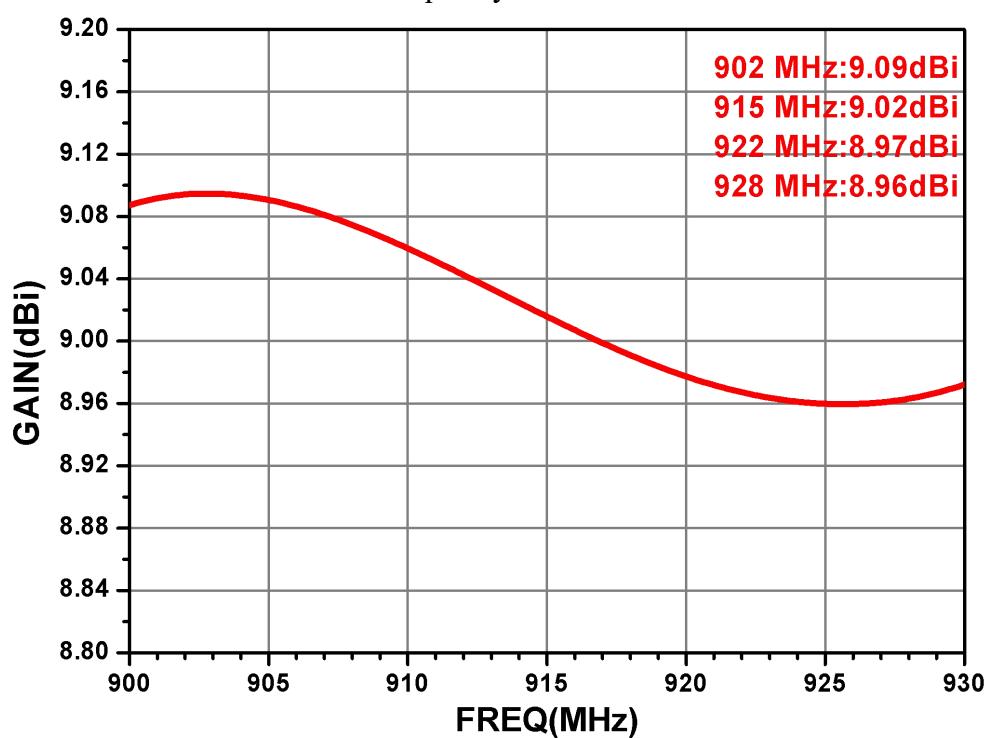


图 2 增益随频率变化曲线/Figure 2: Gain vs. Frequency

(2) 轴比随频率变化曲线/Axial Ratio vs. Frequency

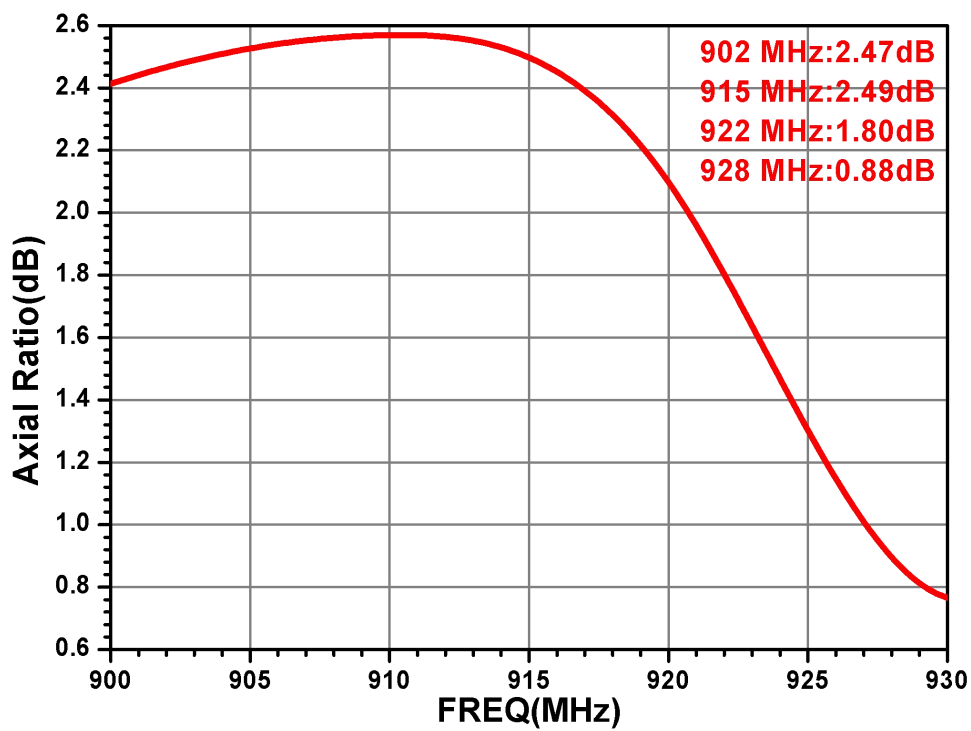


图 3 轴比随频率变化曲线/Figure 3: Axial Ratio vs. Frequency

(3) H 面二维方向图（水平波瓣方向图）/H-plane 2D Radiation Pattern (Horizontal Beam)

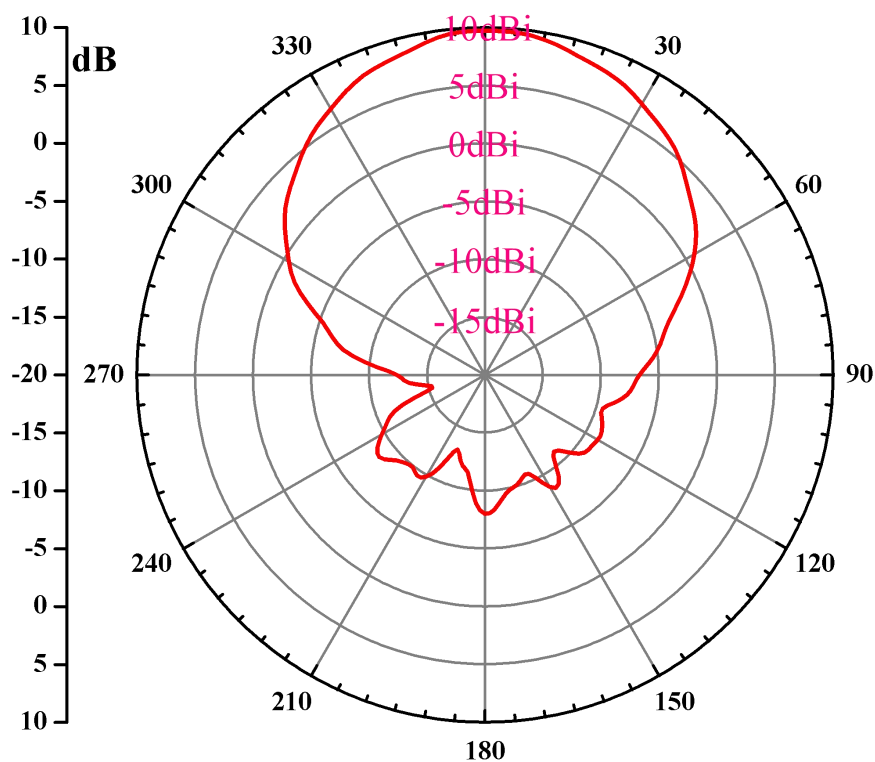


图 4 H 面二维方向图/Figure 4: H-plane 2D Radiation Pattern

(4) E 面二维方向图（垂直波瓣方向图）/E-plane 2D Radiation Pattern (Vertical Beam)

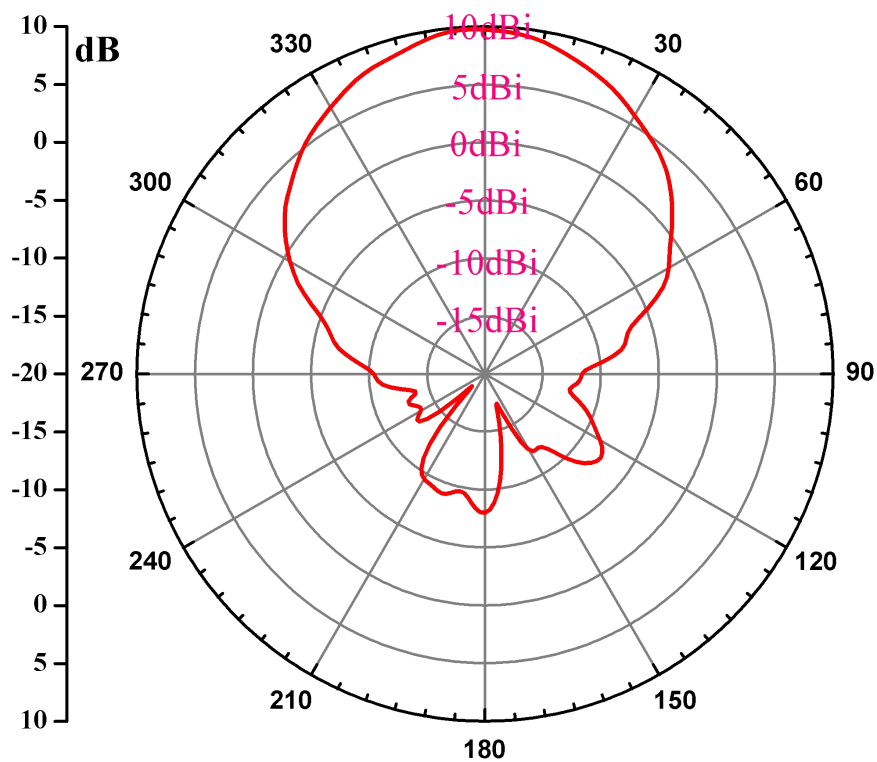


图 5 E 面二维方向图/Figure 5: E-plane 2D Radiation Pattern

(5) 回波损耗 S11 随频率变化曲线/Return Loss (S11) vs. Frequency

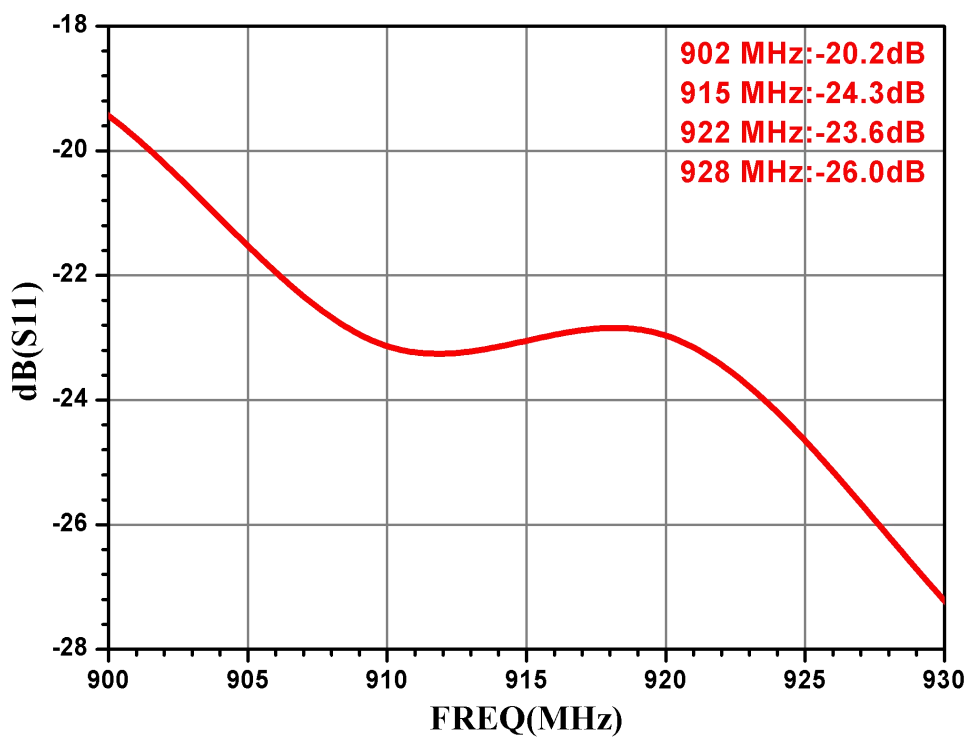


图 6 回波损耗 S11 随频率变化曲线/Figure 6: Return Loss (S11) vs. Frequency

(6) 电压驻波比 VSWR 随频率变化曲线/VSWR vs. Frequency

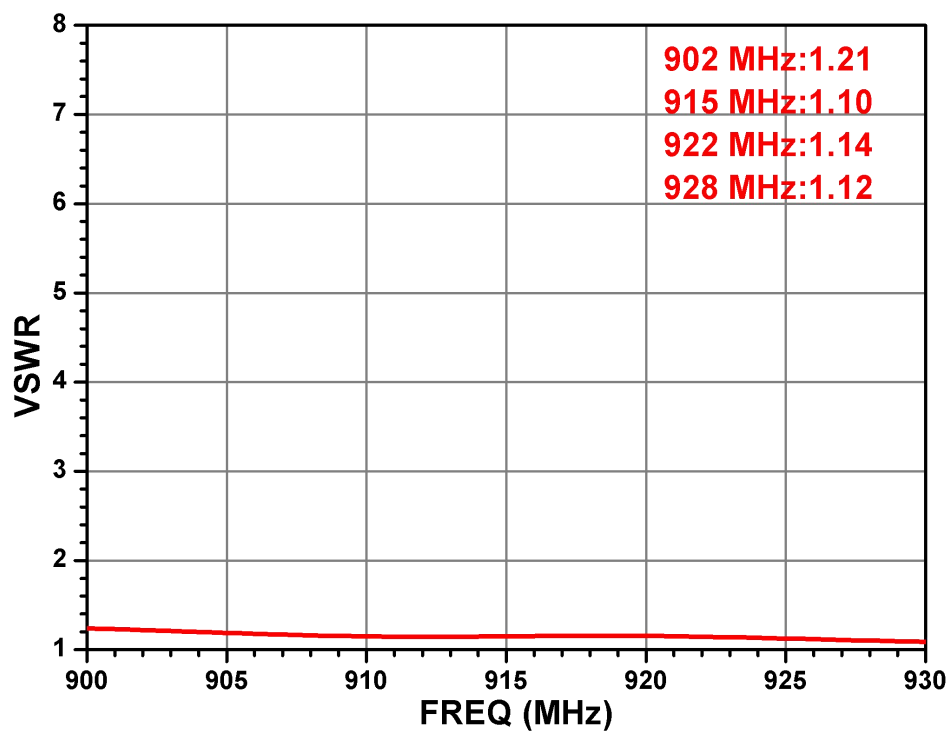


图 7 电压驻波比 VSWR 随频率变化曲线/Figure 7: VSWR vs. Frequency

5. 产品尺寸参数/Product Dimensions

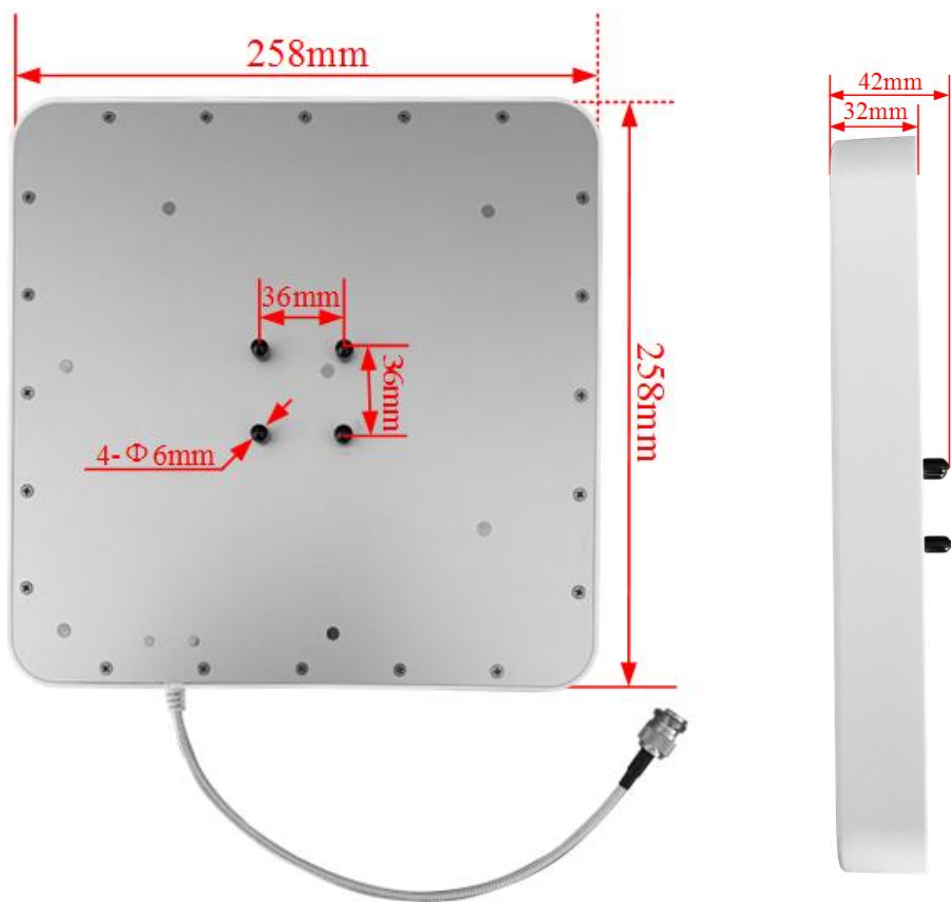


图 8 258 天线长宽、厚度及背面铆柱位置尺寸
/Figure 8: Dimensions (Length/Width/Thickness) and Rear Stud Locations