



Empowering Connectivity

Low-profile Linear RFID Antenna - US band
Nominal 17 dBi Gain with
SMA Female Connector



Technical Data Sheet

RA-UL-SFF-1204001

Product Information

SKU	RA-UL-SFF-1204001
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Description

The RA-US-SFF-1204001 is a **linear** Radio Frequency Identification Antenna operating in the US-band from 900 MHz to 928 MHz, featuring a nominal gain of **17 dBi**. It comes with an SMA Female connector output. One crucial feature is the low-profile design coming with a **total antenna thickness of only 12.5 mm**, which makes the well suited for flush-mounted application. With a large size, the antenna provides **small beamwidth in both directions (about 13° and 37°)** with **excellent Front to Back ratio of more than 20 dB**. This antenna model plays a crucial role in enhancing the overall controlled system and ensures reliable communication, as well as radio frequency (RF) signals. The antenna is **linear polarized** (LP) and well-suited for applications where the orientation of tags are fixed.

Technical Specification

Electrical Specification	
Frequency, Min (GHz)	0.902
Frequency, Max (GHz)	0.928
Patch Type	Aluminum
Ground Type	Aluminum
Gain, Typ (dBi)	17.0
Polarization	Linear
VSWR	≤ 2.0
Front to Back Ratio	> 20 dB
Power, Max	10 watts
Impedance, (Ohm)	50
3-dB beamwidth (XZ plane)	13 deg
3-dB beamwidth (YZ plane)	37 deg
Sidelobe (typ.)	10 dB

Interface	
Output Type	Coaxial
Connector	SMA
Connector Gender	Female

Mechanical Specification	
Cover	Acrylic
Size, H (mm)	12.5
Size, W (mm)	1218
Size, L (mm)	428



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Additional Information

Application	enhance overall system supervision and control assigned at Dock doors, portals, outdoor gates	Solution for	Inventory Management Asset Tracking Access Control Vehicle Identification Healthcare Systems Smart Shelves
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Outline Drawing

THE INFORMATION CONTAINED
HEREIN SHALL NOT BE
REPRODUCED OR
DISSEMINATED WITHOUT THE
PRIOR WRITTEN PERMISSION
OF NEXTWAVES VIETNAM

THIRD ANGLE PROJECTION
DIMENSIONS ARE IN MILLIMETERS

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TOL:

DESIGN BY:

DRAWN BY:
Hoàng_Phan

DATE:

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APPROVED BY:

MATERIAL:

PROJECT:

QUANTITY:

NAME: RA-UL-SFF-1204001



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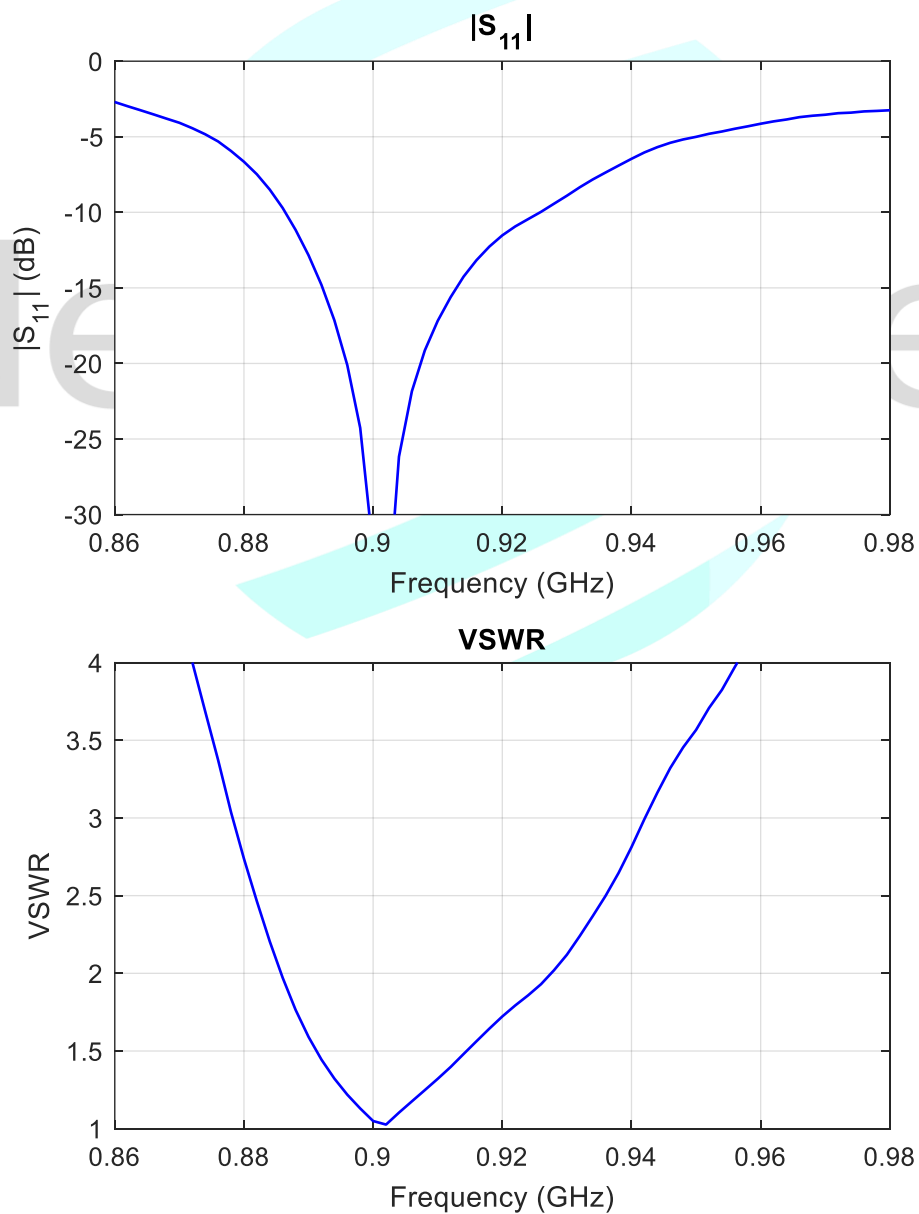
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Typical Test Results – Reflection Coefficient and VSWR





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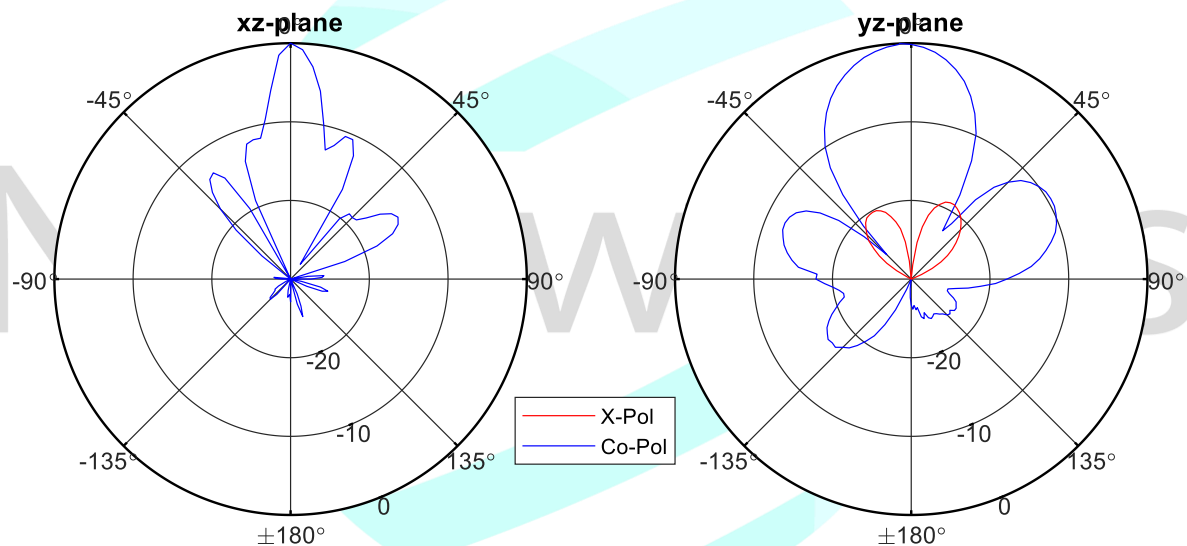


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Typical Test Results

Measured normalized radiation pattern at 915 MHz





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Typical Test Results

