



Empowering Connectivity

Low-profile RFID Antenna - US band
Nominal 12 dBic Gain with
SMA Female Connector

Technical Data Sheet



RA-UC-SFF-622602

Product Information

SKU	RA-UC-SFF-622602
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Description

The RA-US-SFF-622602 is a Radio Frequency Identification Antenna operating in the US-band from 900 MHz to 928 MHz, featuring a nominal gain of **12.0 dBic**. It comes with an SMA Female connector output. One crucial feature is the low-profile design coming with a **total antenna thickness of only 11 mm**, which makes it well suited for flush-mounted application. The antenna features a **good sidelobe level** while **keeping axial ratio low in the entire US band**. 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 **circular polarized (CP)** and well-suited for applications in Inventory Management, Asset Tracking, Access Control, Vehicle Identification, Healthcare Systems, and Smart Shelves.

Technical Specification

Electrical Specification	
Frequency, Min (GHz)	0.902
Frequency, Max (GHz)	0.928
Patch Type	Aluminum
Ground Type	Aluminum
Gain, Typ (dBic)	12.0
Polarization	RHCP (or LHCP)
Axial Ratio (typ.)	1.5 dB
VSWR	≤ 1.4
Front to Back Ratio	> 20 dB
Power, Max	10 watts
Impedance, (Ohm)	50
3-dB beamwidth (XZ plane)	33 deg
3-dB beamwidth (YZ plane)	60 deg
Sidelobe (typ.)	13 dB

Interface	
Output Type	Coaxial
Connector	SMA
Connector Gender	Female
Mechanical Specification	
Cover	Acrylic
Size, H (mm)	11
Size, W (mm)	620
Size, L (mm)	260



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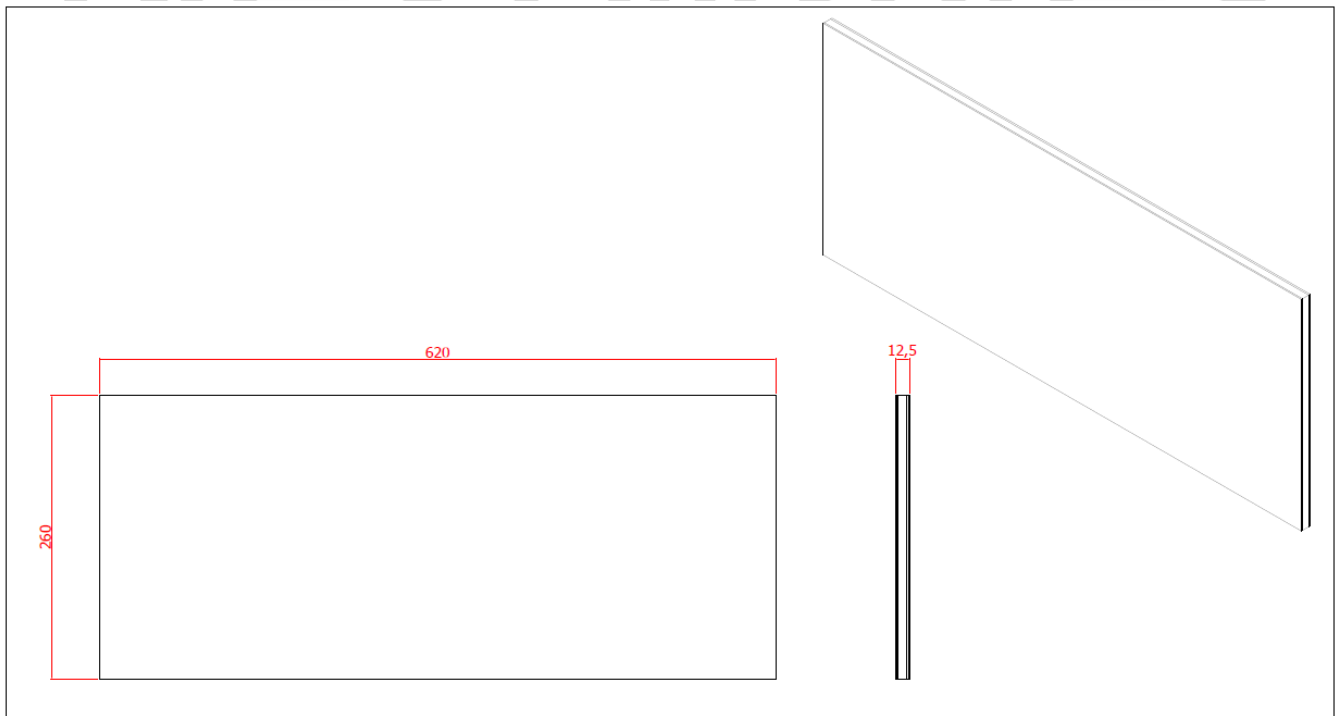
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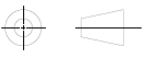
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Additional Information

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



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				DESIGN BY:	DRAWN BY: Hoàng_Phan	CHECKED BY:	APPROVED BY:
				MATERIAL:		PROJECT:	
				QUANTITY:		NAME: RA-UC-SFF-622602	



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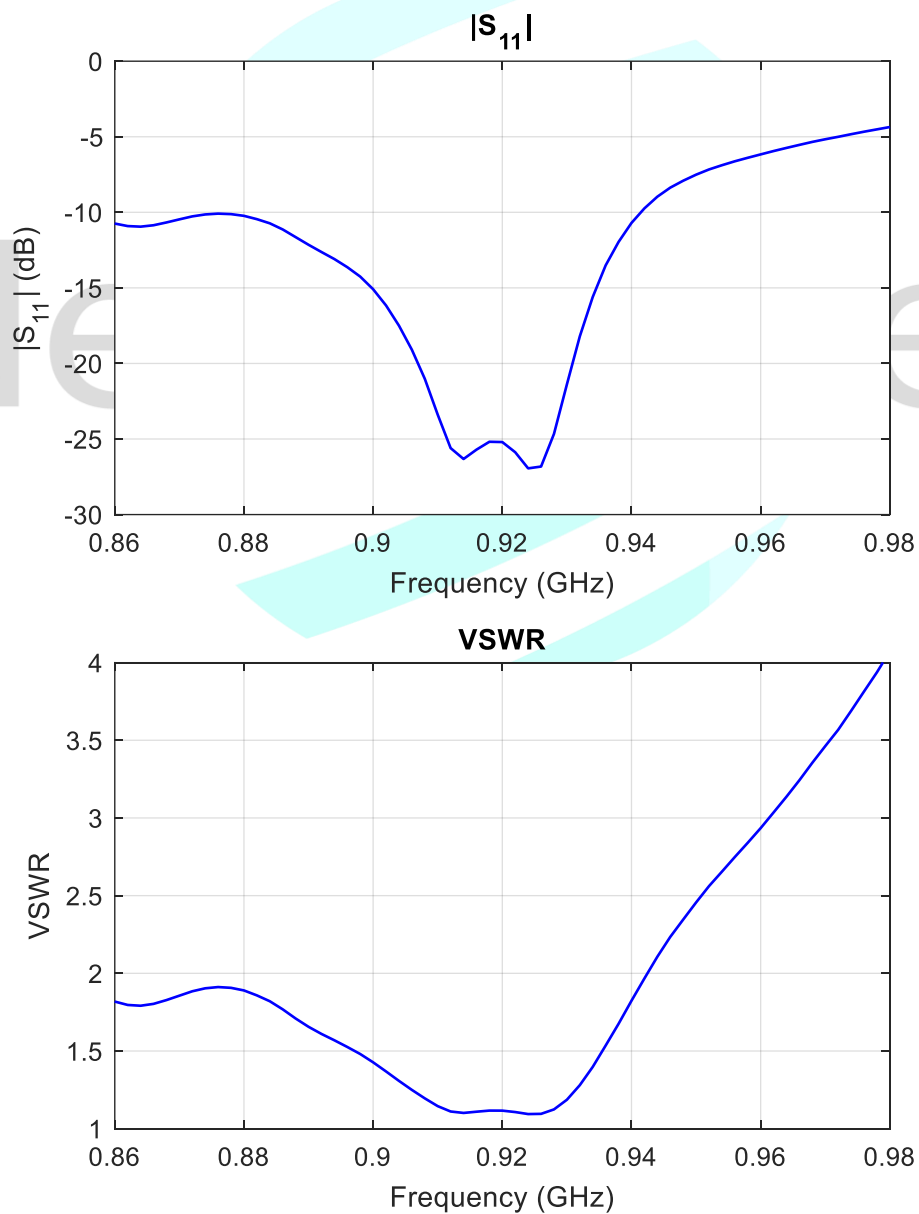
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Typical Test Results – Reflection Coefficient and VSWR





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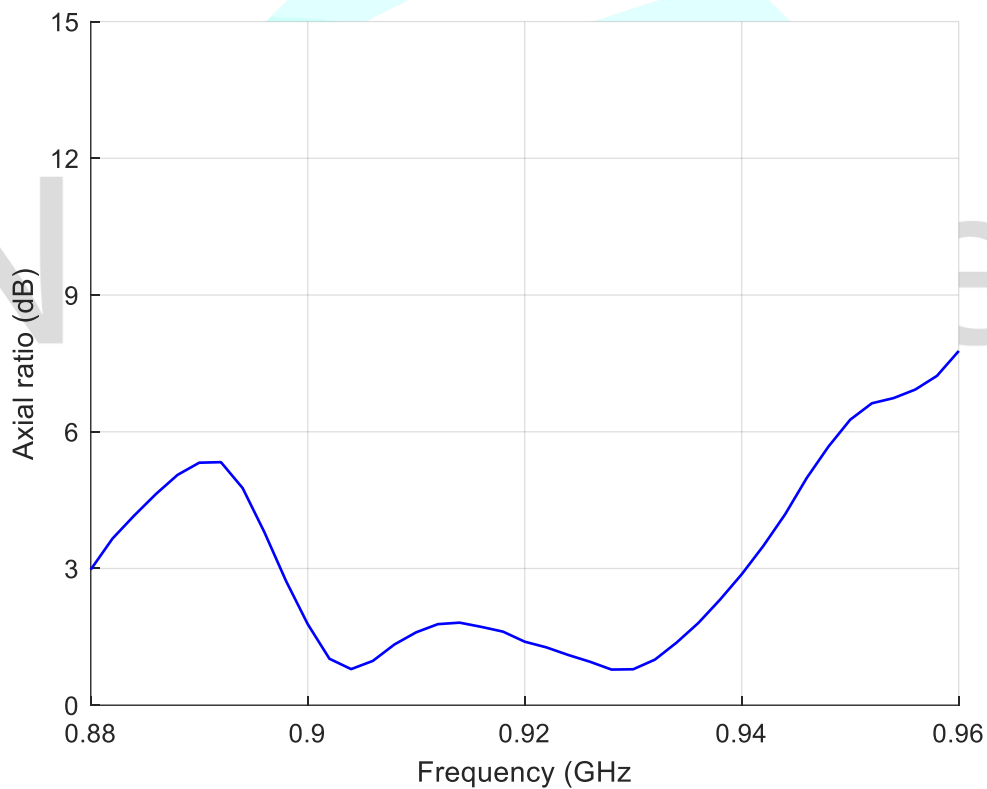
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Typical Test Results – Axial Ratio





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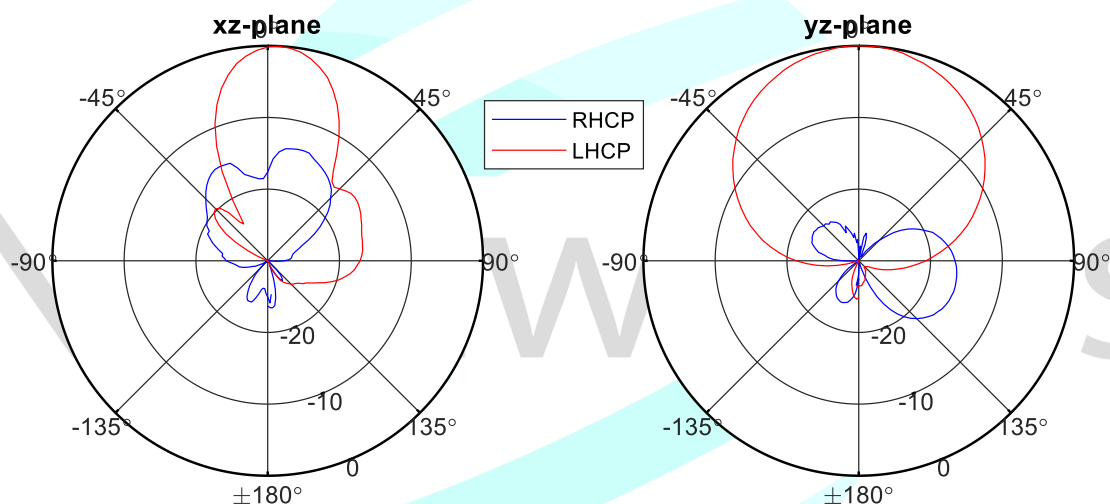


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Typical Test Results

Measured normalized radiation pattern at 920 MHz



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Typical Test Results

