



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

Technical Data Sheet

RA-UC-SFF-1204801

Product Information

SKU	RA-UC-SFF-1204801
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Description

The RA-US-SFF-1204801 is a Radio Frequency Identification Antenna operating in the US-band from 900 MHz to 928 MHz, featuring a maximum gain of 17 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 12.5 mm**, which makes the well suited for flush-mounted application. The antenna features a **very high gain of 17 dBi** with a low VSWR of less than 1.5. The high gain comes **very small beamwidth of 14°** in XZ plane. 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
Max Gain (dBic)	17
Polarization	RHCP (or LHCP)
Axial Ratio (typ.)	1.5 dB
VSWR	≤ 1.5
Front to Back Ratio (typ.)	20 dB
Power, Max	10 watts
Impedance, (Ohm)	50
3-dB Beamwidth (XZ plane)	14 deg
3-dB Beamwidth (YZ plane)	36 deg

Interface	
Output Type	Coaxial
Connector	SMA
Connector Gender	Female

Mechanical Specification	
Cover	ABS
Size, H (mm)	12.5
Size, W (mm)	1218
Size, L (mm)	488



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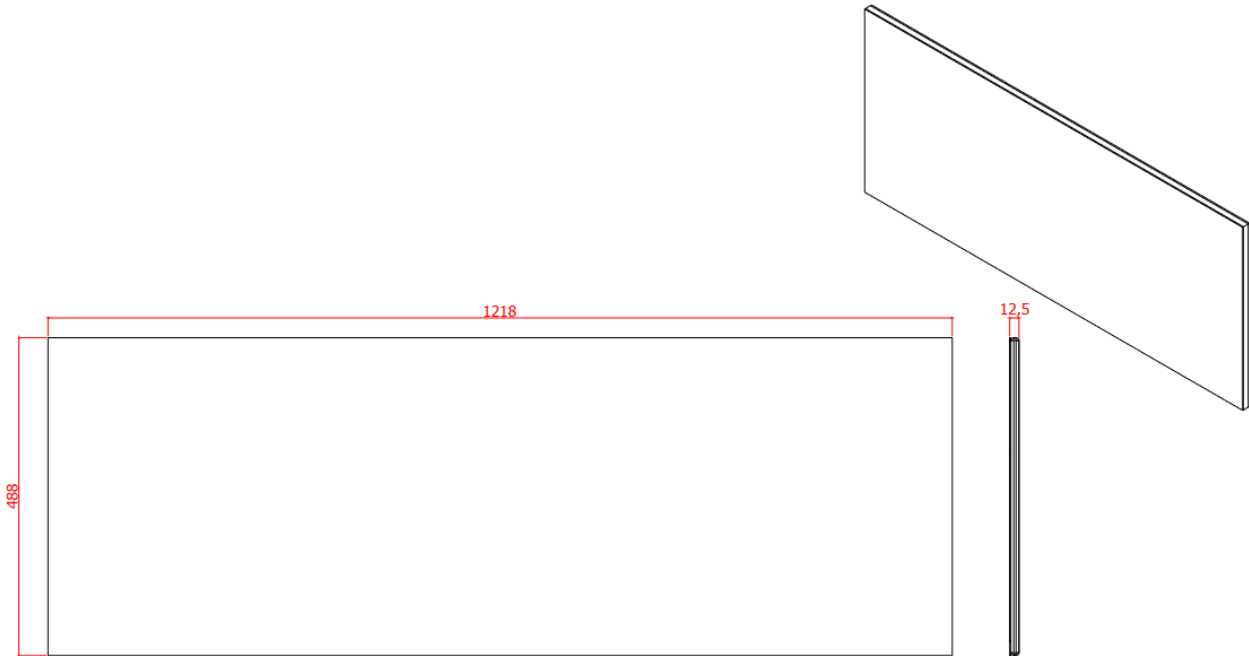
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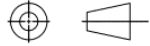
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Additional Information

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-1204801	



Empowering Connectivity

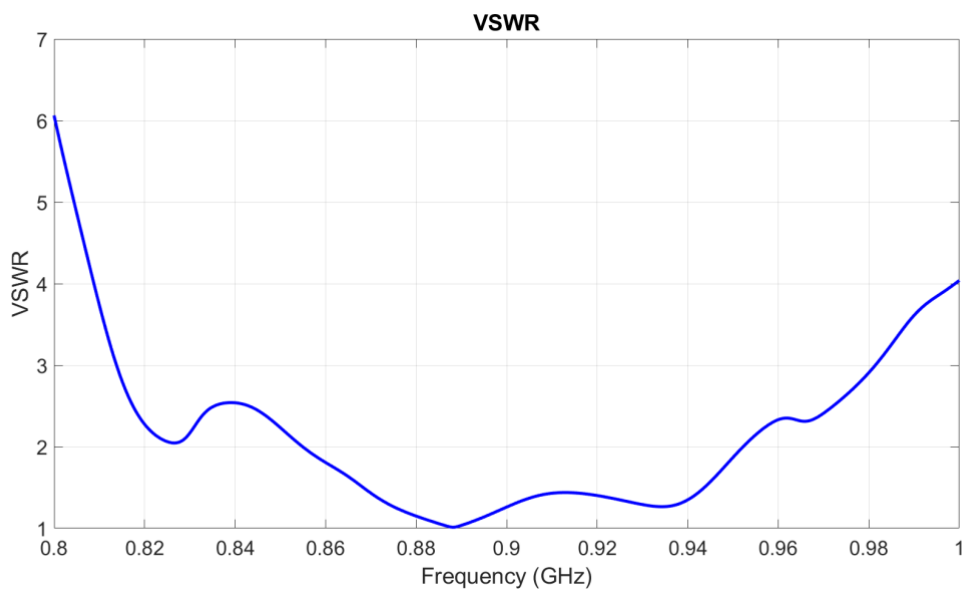
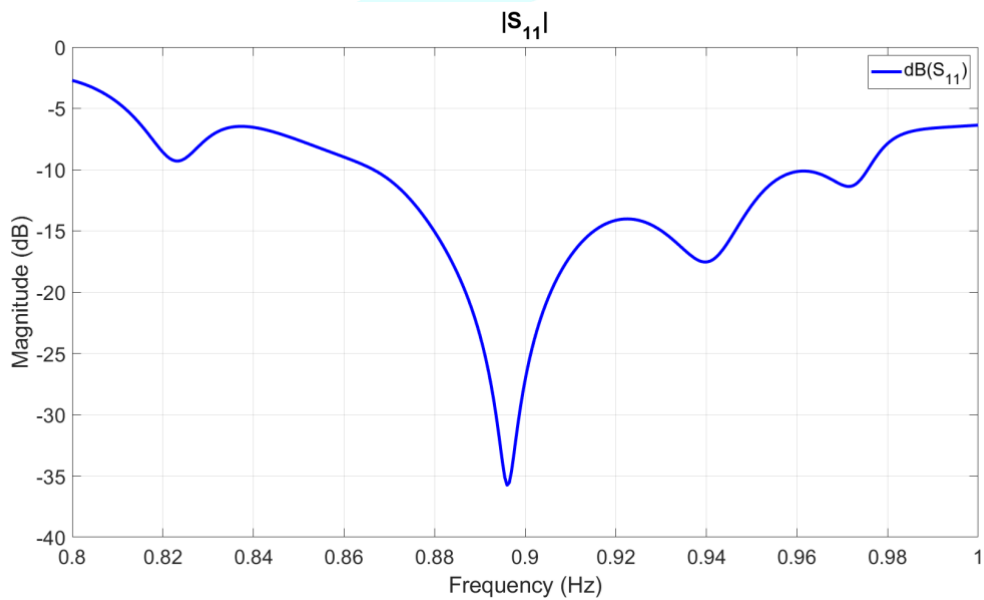
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Typical Test Results – Reflection Coefficient and VSWR



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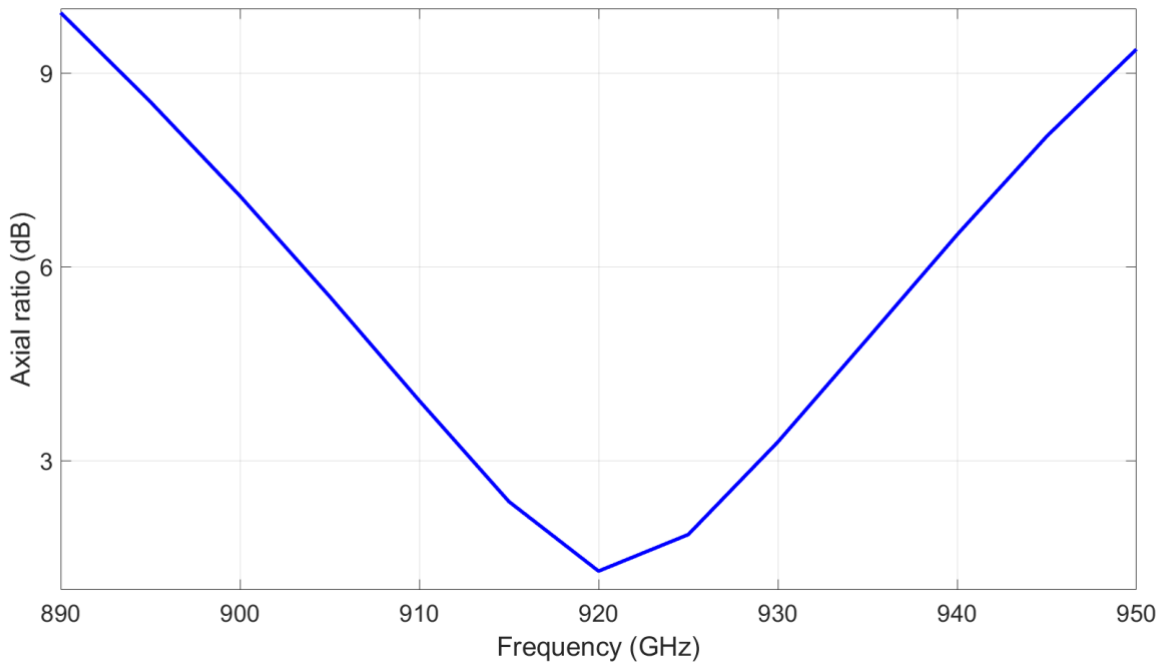
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Typical Test Results – Axial Ratio





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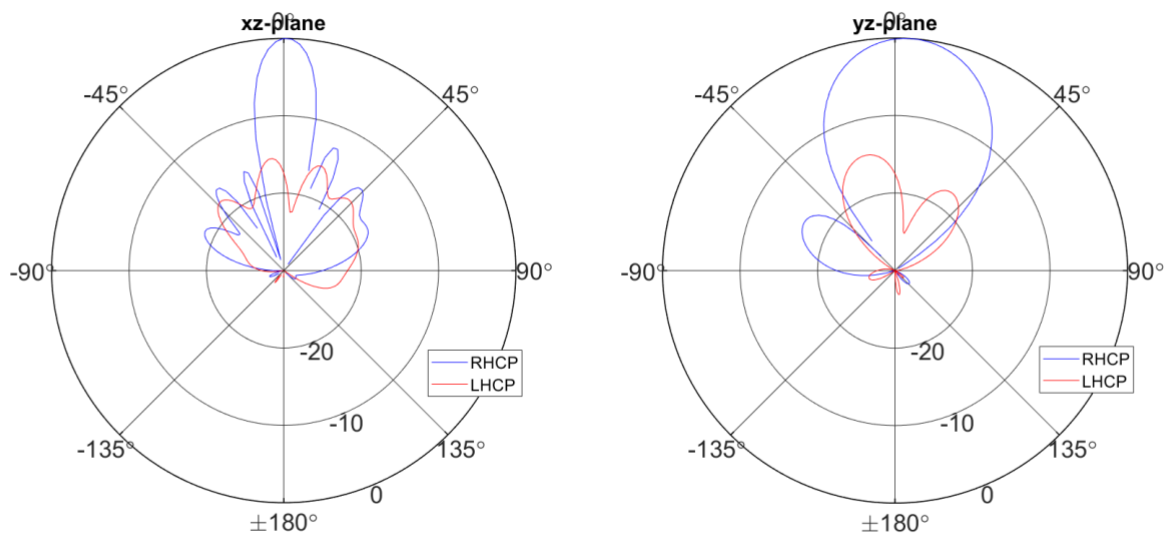


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Typical Test Results

Measured normalized radiation pattern at 915 MHz





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Typical Test Results

