PART NUMBER RA-UC-SFF-1204801

RFID Slim CP12048



FREQUENCY RANGE

0.902 to 0.928 GHz

MAX GAIN

17 dBic

DIMENSIONS

1218 × 488 × 12.5 mm

RFID Slim CP12048 is a wide-format, low-profile UHF RFID panel antenna covering 0.902 to 0.928 GHz in a 1218 × 488 × 12.5 mm ABS enclosure. It delivers 17 dBic maximum gain with LHCP/RHCP circular polarization and a typical 1.5 dB axial ratio, helping it read tags in varied orientations. VSWR of ≤ 1.5, 10 W power handling and an SMA Female connector suit warehouse, retail inventory, asset tracking, library and access control installations.

APPLICATIONS

- Warehouse Management
- Retail Inventory
- Asset Tracking
- Library Management
- Access Control

FEATURES

01 17 dBic maximum gain across the 0.902 to 0.928 GHz UHF band

02 LHCP/RHCP circular polarization with 1.5 dB typical axial ratio for varied tag orientation

03 12.5 mm thin 1218 × 488 mm ABS enclosure for low-profile mounting

04 VSWR ≤ 1.5 and 10 W maximum power handling

05 SMA Female connector for standard RFID reader cabling

Technical specifications

RA-UC-SFF-1204801

ELECTRICAL SPECIFICATION

Operating frequency	902 to 928 MHz
Patch Type	Aluminum
Ground Type	Aluminum
Max Gain	17 dBic
Polarization	RHCP (or LHCP)
Axial Ratio (typical)	1.5 dB
VSWR	≤ 1.5
Front to Back Ratio (typical)	20 dB
Impedance	50 Ω
3-dB Beamwidth (XZ plane)	14 deg
3-dB Beamwidth (YZ plane)	36 deg

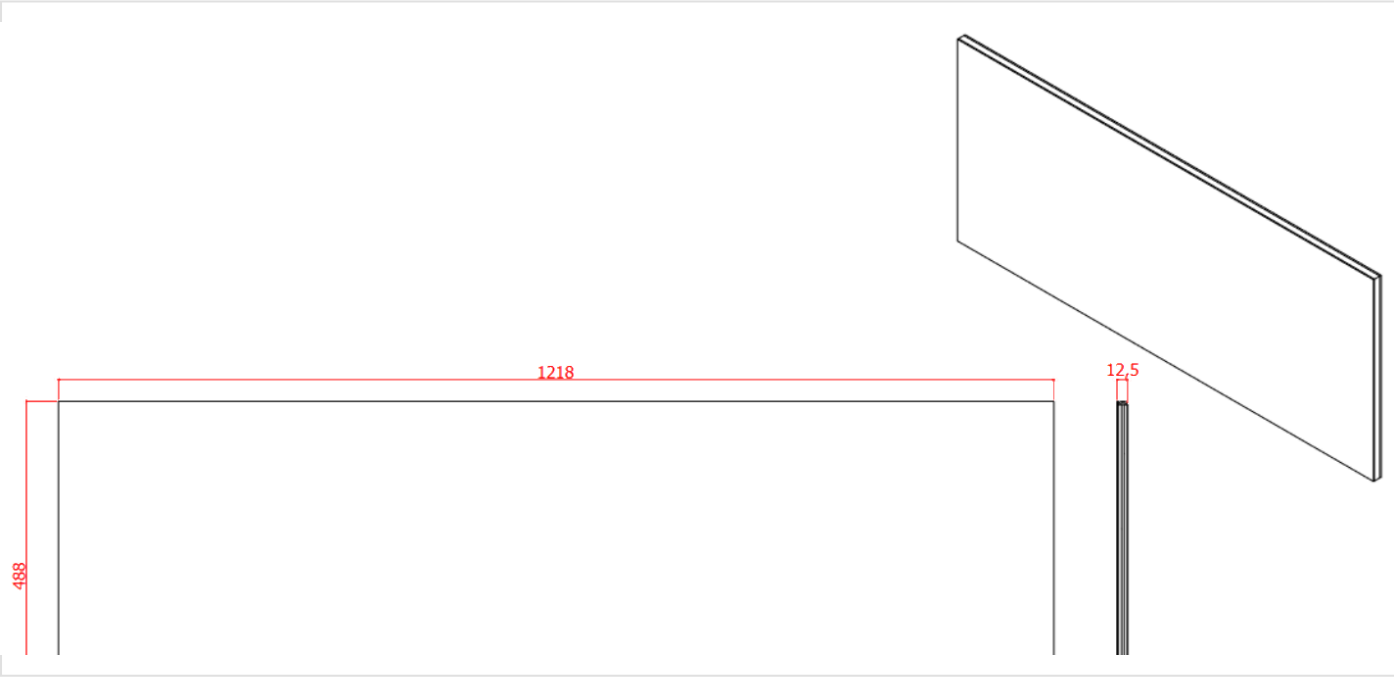
INTERFACE

Output Type	Coaxial
Connector	SMA
Connector Gender	Female

MECHANICAL SPECIFICATION

Cover	ABS
Size (L × W × H)	488 × 1218 × 12.5 mm
Power max	10 W

OUTLINE DRAWING (MM)

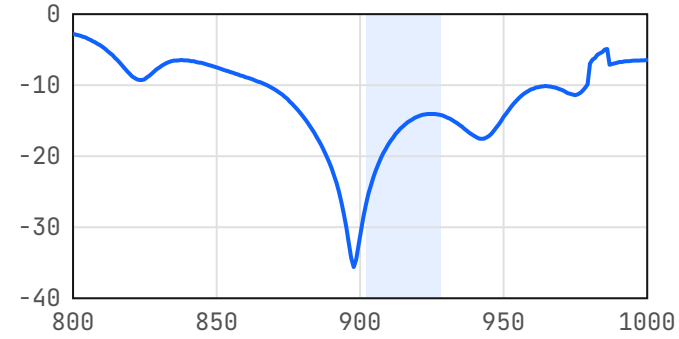


Specifications and drawing from the technical data sheet RA-UC-SFF-1204801 v2.

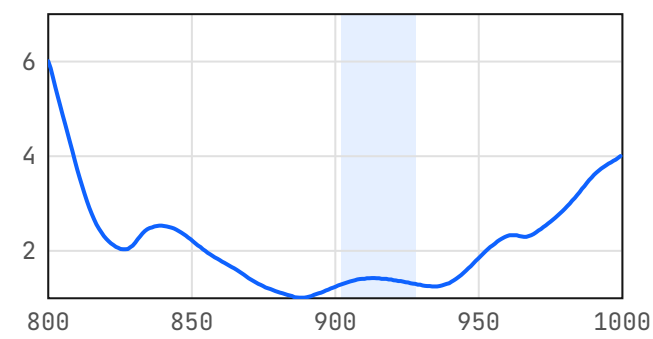
Typical test results

RA-UC-SFF-1204801

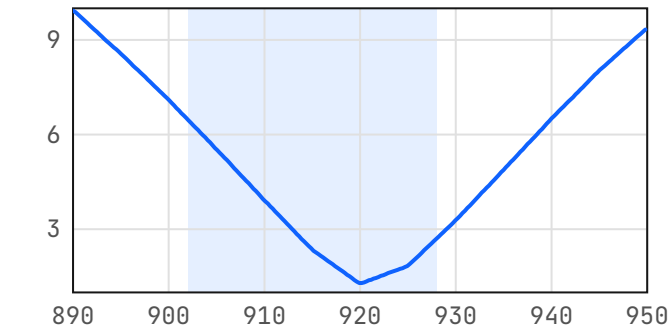
S11 (dB) MHz



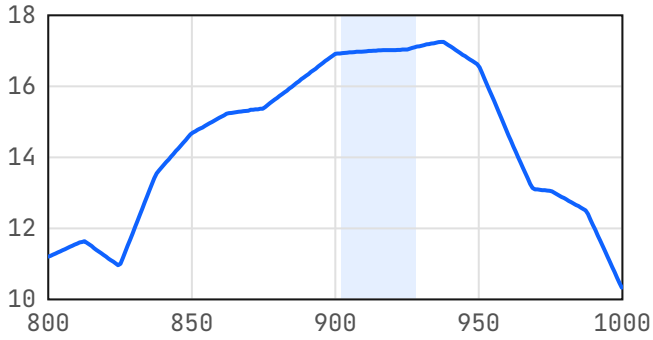
VSWR MHz



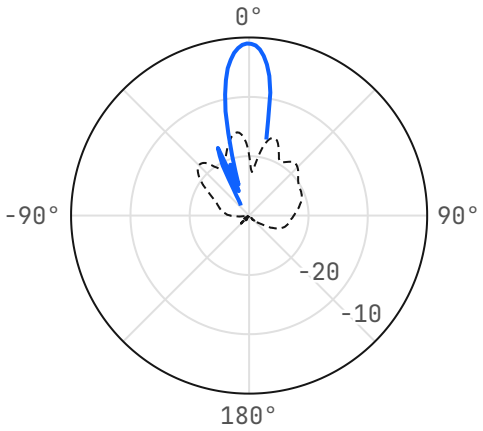
Axial ratio (dB) MHz



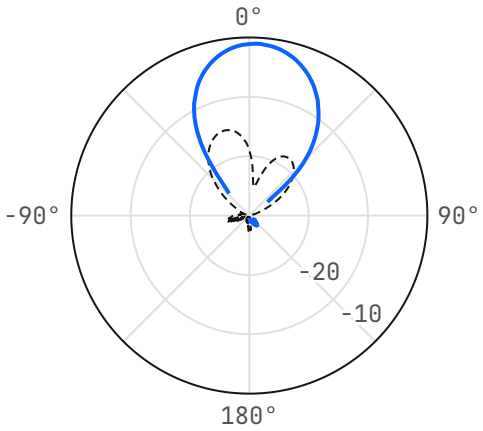
Realized gain (dBic) MHz



Pattern, xz plane (dB)



Pattern, yz plane (dB)



RHCP ---- LHCP

Measured data, redrawn from the technical data sheet RA-UC-SFF-1204801 v2. Shaded band: 902 to 928 MHz. Radiation patterns are normalized and measured at 915 MHz.