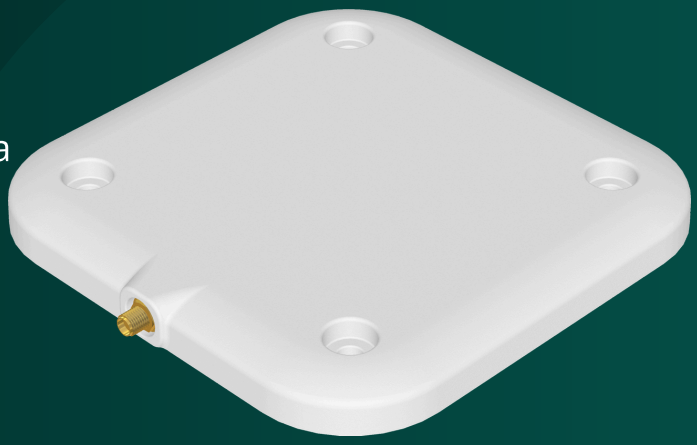
IDCRAFT
RFID & NFC EXPERTS

UHF RFID | RAIN - Far-Field Panel Antenna

Times-7 - A5020CP



- 5 dBiC typ. gain, 105° beam in both planes
- Right-hand circular polarisation, AR 2 dB
- Typical read range of 4 m
- IP68 all-plastic housing, 14.5 mm deep
- Flush or 100 x 100 mm VESA mounting

UHF RFID | RAIN - Far-Field Panel Antenna
Compact 5 dBiC typ. circular antenna, 105° beam, IP68, 14.5 mm

The Times-7 A5020CP is the circularly polarised member of the A5020 family, a range of compact, ultra-low-profile RAIN RFID antennas. A right-hand circularly polarised element delivers 5 dBiC typical gain with a wide 105° 3 dB beamwidth in both planes, in a 150.7 x 149.4 mm housing that is only 14.5 mm deep. Typical read range is 4 m.

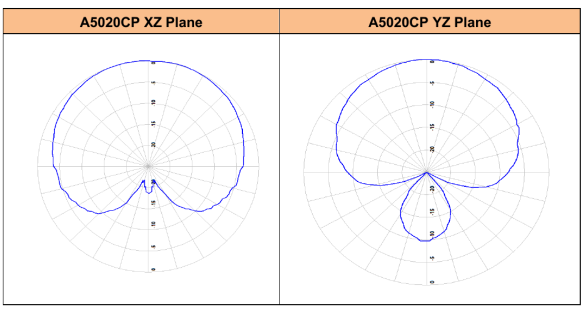
Typical VSWR is 1.4, the axial ratio 2 dB and the front-to-back ratio 10 dB, which suits multi-purpose reading and tag encoding. The antenna covers 865–868 MHz (ETSI) or 902-928 MHz (FCC) and works with any UHF RFID reader with a 50 Ω antenna port; a 10 kΩ detection resistance lets readers identify a connected antenna.

The flame-retardant, UV-resistant white ABS radome is rated IP68 for permanent outdoor installation, resists corrosion and can be cleaned with standard cleaning agents. Recessed corner holes allow flush mounting with 30 mm wood screws or fitting to 100 x 100 mm VESA brackets. The SMA jack exits on the side; the optional A5020 Connector Protection Backplate shields the connector when the antenna sits on a bracket in free space.

Common Applications

- Asset Tracking
- Tag Encoding
- Warehouse Shelving
- Retail Sales Floor
- Waste Collection Vehicles
- Wheelie Bin Detection

Radiating Patterns



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UHF RFID | RAIN - Far-Field Panel Antenna

TECHNICAL SPECIFICATIONS

Electrical

Frequency Range	865–868 MHz (ETSI) 902–928 MHz (FCC)
Polarisation	Right-hand circular
Far-Field Gain	5 dBiC typical
3 dB Beamwidth	105° in both planes, typical
VSWR	1.4 typical
Axial Ratio	2 dB typical
Front-to-Back Ratio	10 dB typical
Impedance	50 Ω
ESD Protection	Yes, DC grounded
Antenna Detection	10 kΩ resistance
Max. Input Power	3 W

Ordering Information

A5020CP, ETSI	60011
A5020CP, FCC	60010
Connector Protection Backplate	72394

Mechanical

Dimensions	150.7 x 149.4 x 14.5 mm
Weight	0.23 kg net, 0.28 kg gross
Boxed Dimensions	180 x 155 x 25 mm
Radome	Flame-retardant, UV-resistant ABS
Colour	White
Connector	SMA jack, side exit
Mounting	Flush or 100 x 100 mm VESA
Flush Screws	30 mm 8g Phillips wood screws

Environmental

Protection Class	IP68
Operating Temperature	-30 to +65 °C
Storage Temperature	-30 to +65 °C
Compliance	RoHS, REACH, CE data on request