



keonn

Modular RFID
Components

Advantenna-p12 TM

Far field antenna





Benefits:

- Slightly narrow beam in the long edge
- Wide beam in the short edge
- Very thin form factor
- Cost effective

Applications:

- Electronic Article Surveillance pedestals, that combine acousto-magnetic and RFID technologies
- Point of Sales systems

Product overview

Advantenna-p12 is a compact RFID UHF 2 elements patch antenna with circular polarization and a radiation pattern characterized by a 60° beam width in the direction of the antenna long edge and 90° in the direction of the antenna short edge.

Advantenna-p12 has a very thin form factor. This allows to integrate the antenna inside thin objects.

Advantenna-p12 is ideal for loss-prevention systems at retail stores. Advantenna-p12 can be embedded inside pedestals of electronic article surveillance (EAS) based on acousto-magnetic technology, transforming such pedestals into hybrid systems that include two technologies simultaneously: acousto-magnetic and RFID.

Connector options



Flange straight

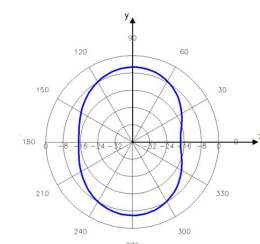
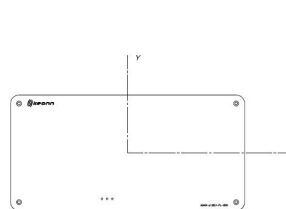
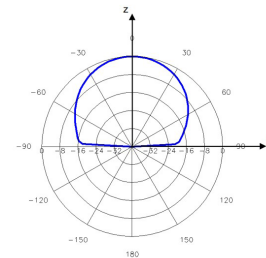
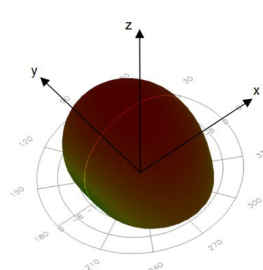


Flange right angle



Edge mount

Flange straight



*Front-to-back ratio not drawn



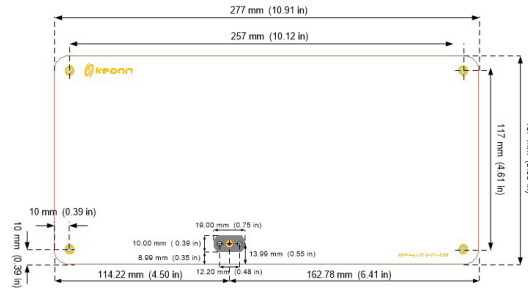
Technical specifications

| | |
|--------------------------------|---|
| Operating Frequency EU Version | 865 - 868 MHz (ETSI EN 302 208) |
| Operating Frequency US Version | 902 - 928 MHz (FCC part 15) |
| Operating Detection distance | Up to 3.5 m |
| Antenna Technology | Patch |
| Radiation pattern | Wide beam in both directions in one hemisphere |
| Gain | EU version 5.4 dBiC (Typical), 5.5 dBiC (Max), 3.2 dBIL* US version 5.6 dBiC (Typical), 5.8 dBiC (Max) 3.5 dBIL* |
| VSWR | < 1.4:1 |
| Beam width (AZ / EL) | 60° / 90° |
| Front-to-Back Ratio | < -20 dB |
| Polarization | Circular - RHCP (Right Hand Circular Polarization) |
| Axial Ratio | EU version* At Boresight 0.9 dB At 3dB Beamwidth 0.6 dB (Typical), 4.7 (Max) US version* At Boresight 1.3 dB At 3dB Beamwidth 1.6 (Typical), 3.4 (Max) |
| Input Impedance | 50 Ω |
| Connector | SMA or MCX Flange, flange right angle, or edge mount (on the long side of the antenna) |
| Regulation | ROHS - EU Directive 2015/863 WEEE - EU Directive 2012/19/EU REACH - EC No 1907/2006 ETSI EN 302 208 |
| IP rating | Indoor antenna IP68 Dust resistant, even in high concentration Immersion resistant (up to 1 m for up to 30 minutes) |
| Temperature range | -20°C to +80°C |
| Size excluding connector | 277 mm x 137 mm x 3.3 mm 10.8 inches x 5.4 inches x 0.13 inches |
| Size with edge mount connector | 277 mm x 137 mm x 8 mm 10.8 inches x 5.4 inches x 0.3 inches |
| Size with flange connector | 277 mm x 137 mm x 15 mm 10.8 inches x 5.4 inches x 0.6 inches |
| Antenna weight | 230 g |

*Measured at the center of the band

Mechanical specifications

With flange straight or flange right angle connector



View from the side that does not radiate

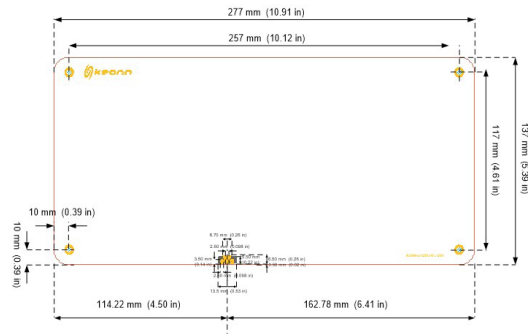


View from the side that does not radiate

Antenna Board Thickness = 3.3 mm (0.13 in)
 Holes \varnothing = 3.3 mm (0.13 in)

View from the side that radiates

With edge mount connector



Antenna Board Thickness = 3.3 mm (0.13 in)



View from the side that does not radiate

View from the side that radiates

Product codes for ordering

| ADAN-p12 | FF | - | CS | COR | CT | - | mmm | |
|----------|----|---|----|-----|-----|---|-----|---|
| | | | | | | | | FF = frequency band |
| | EU | | | | | | | 865,6 MHz - 867,6 MHz |
| | US | | | | | | | 902,0 MHz - 928,0 MHz |
| | | | | | | | | Connector shape |
| | | | EL | | | | | Edge mount at the long side of the antenna |
| | | | FL | | | | | Flange straight |
| | | | FR | | | | | Flange right angle |
| | | | | | | | | Connector orientation (only for right angle SMA connector) |
| | | | | | | | | Default orientation |
| | | | | 90 | | | | Rotated 90° counterclockwise |
| | | | | 180 | | | | Rotated 180° counterclockwise |
| | | | | 270 | | | | Rotated 270° counterclockwise |
| | | | | | | | | Connector type |
| | | | | | SMA | | | SMA connector |
| | | | | | MCX | | | MCX connector (only available in edge mount and flange straight) |
| | | | | | | | | Model |
| | | | | | | | 200 | Model number |

Examples:

ADAN-p12EU-ELSMA-200:

- Advantenna-p12
- Frequency band : 865,6 MHz - 867,6 MHz
- **Edge mount** connector, placed at the long side of the antenna
- **SMA** connector
- Model **200**

ADAN-p12EU-FR270SMA-200:

- Advantenna-p12
- Frequency band : 865,6 MHz - 867,6 MHz
- **Flange right angle** connector
- Connector rotated 270° counterclockwise
- **SMA** connector
- Model **200**

ADAN-p12US-FRSMA-200:

- Advantenna-p12
- Frequency band : 902,0 MHz - 928,0 MHz
- **Flange right angle** connector
- Default connector orientation
- **SMA** connector
- Model **200**

Disposal of the product

Do not dispose the product in municipal or household waste. Please check your local regulations for disposal/recycle of electronic products.





Copyright © Keonn Technologies S.L.
All rights reserved.

Information in this publication
supersedes all earlier versions.
Specifications subject to change
without notice.

