



keonn

Modular RFID
Components

Advantenna-p12™

RFID UHF fan beam 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.

Holder available specially designed for this model of antenna: [AdvanHolder-p12](#)

Connector options



Flange straight



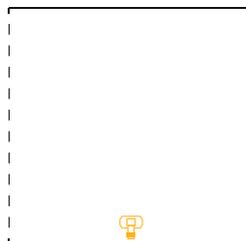
Flange right angle



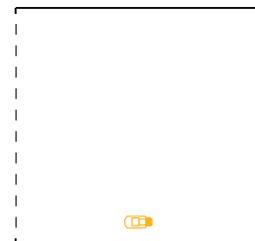
Edge mount

Flange right angle connector with rotation

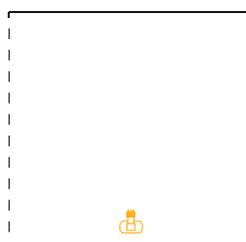
Default



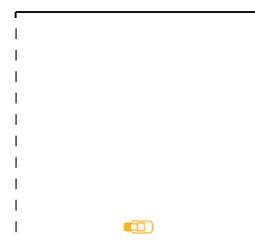
90 degrees



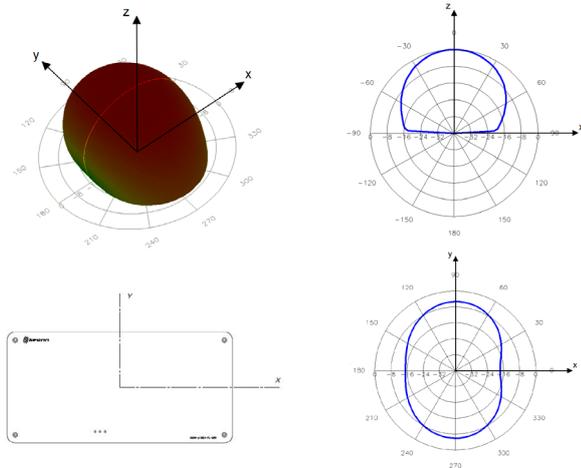
180 degrees



270 degrees



Antenna radiation pattern



*Front-to-back ratio not drawn

Technical specifications

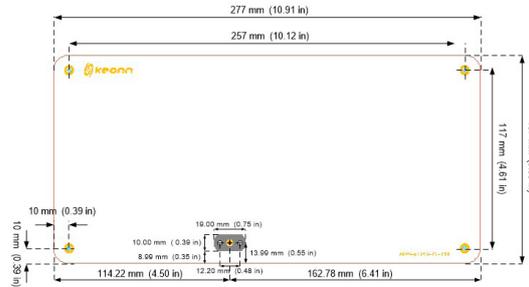
Operating Frequency EU Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency US Version	902 - 928 MHz (FCC part 15)
Antenna Technology	Patch
Radiation pattern	Wide beam in both directions in one hemisphere
Gain	EU version 5.4 dBiC (Typical), 5.5 dBiC (Max), 3.2 dBiL* US version 5.6 dBiC (Typical), 5.8 dBiC (Max) 3.5 dBiL*
VSWR	< 1.5:1 (Typical)
Beam width (AZ / EL)	60° / 90°
Front-to-Back Ratio	< -20 dB
Polarization	Circular - LHCP (Left 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 IP62**
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

** IP rating in this case indicates the conditions that the antenna can withstand at specific times and, afterwards, continue working normally, they are not conditions under which it can work permanently.

Mechanical specifications

With flange straight or flange right angle connector



View from the side that does not radiate

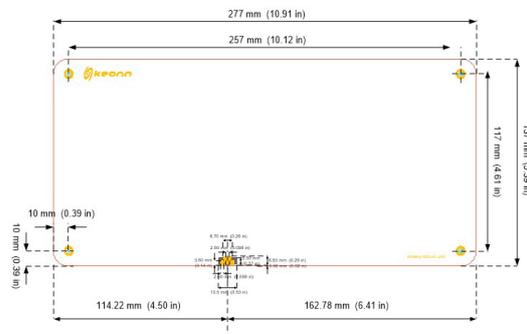


View from the side that does not radiate

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.





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