keonn Modular RFID Components

Advantenna-p14 ™

RFID UHF fan beam antenna

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RFID UHF fan beam antenna

Benefits:

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

Applications:

- Loss prevention systems
- Portals
- Doors and corridors
- Tunnels

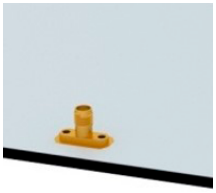
Product overview

Advantenna-p14 is a compact RFID UHF 4 elements patch antenna with circular polarization and a radiation pattern characterized by a 30° beam width in the direction of the antenna long edge and 90° in the direction of the antenna short edge. This radiation pattern makes this antenna ideal for many RFID applications such as:

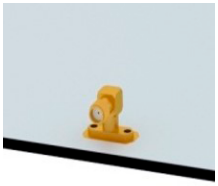
- Loss prevention systems
- Portals, tunnels
- Corridors
- Doors

Holder available specially designed for this model of antenna: **AdvanHolder-p14**

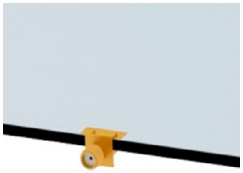
Connector options



Flange straight



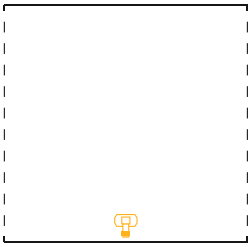
Flange right angle



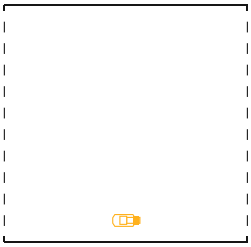
Edge mount

Flange right angle connector with rotation

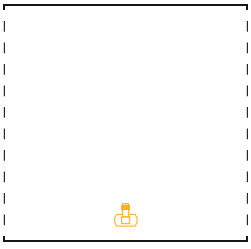
Default



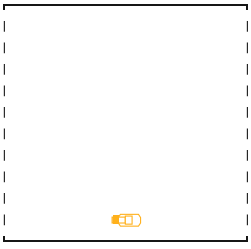
90 degrees



180 degrees



270 degrees



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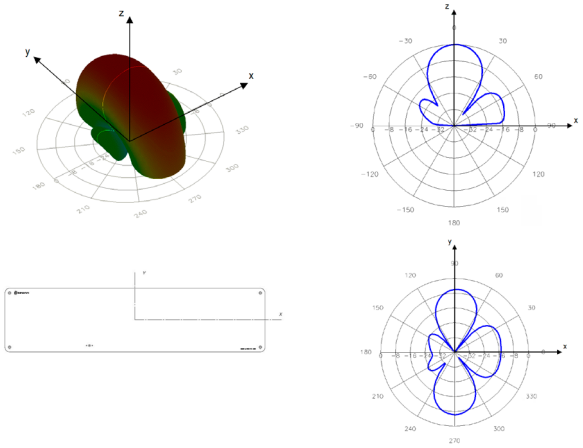
Antenna radiation pattern



*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	Fan beam
Gain	**EU version** 8.0 dBiC (Typical), 8.1 dBiC (Max) 5.5 dBiL* **US version** 8.1 dBiC (Typical), 8.4 dBiC (Max) 5.5 dBiL*
VSWR	< 1.5:1 (Typical)
Beam width (AZ / EL)	30° / 90°
Sidelobe level	< -15 dB
Front-to-Back Ratio	< -18 dB
Polarization	Circular - LHCP (Left Hand Circular Polarization)
Axial Ratio	**EU version*** At Boresight 0.6 dB At 3dB Beamwidth 0.5 dB (Typical), 3.6 (Max) **US version*** At Boresight 0.2 dB At 3dB Beamwidth 0.6 dB (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**
Temperature range	-20°C to +80°C
Size excluding connector	557 mm x 137 mm x 3.3 mm 21.9 inches x 5.4 inches x 0.13 inches
Size with edge mount connector	557 mm x 137 mm x 8.7 mm 21.9 inches x 5.4 inches x 0.3 inches
Size with flange mount connector	557 mm x 137 mm x 16 mm 21.9 inches x 5.4 inches x 0.6 inches
Antenna weight	460 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.

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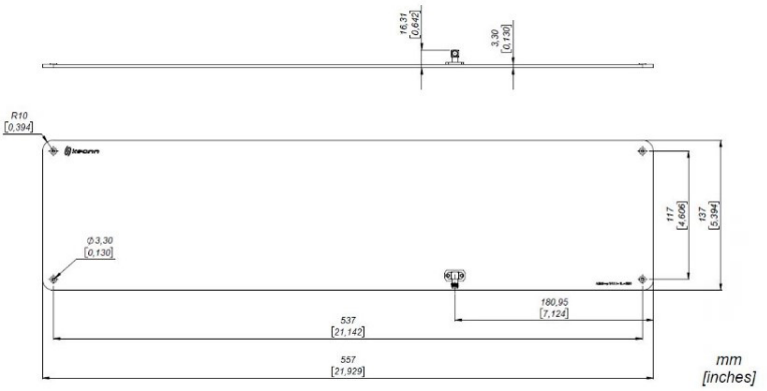
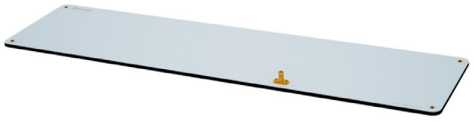
Mechanical specifications

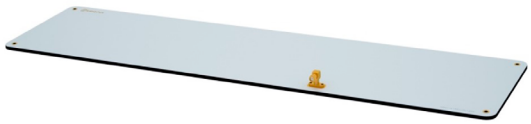
With flange straight or flange right angle connector



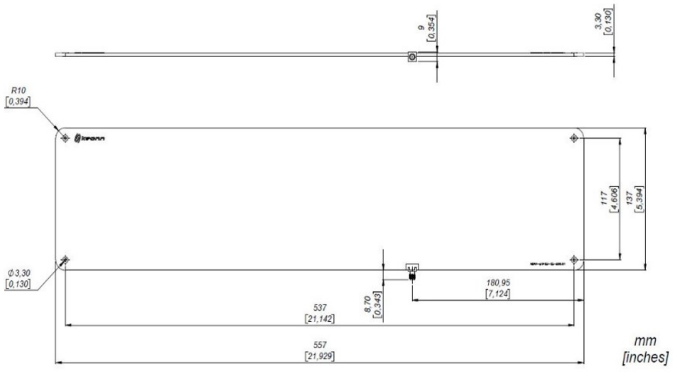
View from the non-radiating side



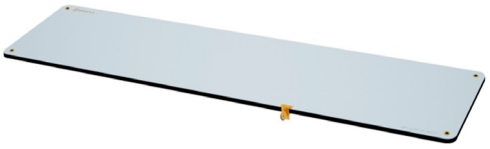
View from the non-radiating side



With edge mount connector



View from the non-radiating side



View from the non-radiating side

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Product codes for ordering

ADAN-p14	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 90º counterclockwise
				180				Rotated 180º counterclockwise
				270				Rotated 270º counterclockwise
								Connector type
					SMA			SMA connector
					MCX			MCX connector (only available in edge mount and flange straight)
								Model
							200	Model number

Examples:

ADAN-p14EU-ELSMA-200:
- Advantenna-**p14**
- Frequency band : 865,6 MHz - 867,6 MHz
- **Edge mount** connector, placed at the long side of the antenna
- **SMA** connector
- Model **200**

ADAN-p14US-FRSMA-200:
- Advantenna-**p14**
- Frequency band : 902,0 MHz - 928,0 Mhz
- **Flange right angle** connector
- Default connector orientation
- **SMA** connector
- Model **200**

ADAN-p14EU-FR270SMA-200:
- Advantenna-**p14**
- Frequency band : 865,6 MHz - 867,6 MHz
- **Flange right angle** connector
- Connector rotated 270o counterclockwise
- **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.

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

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