



# keonn

Modular RFID  
Components

## Advantenna-p22 <sup>TM</sup>

RFID UHF pencil beamantenna





### Benefits:

- 60° beamwidth in two directions
- High gain
- Very thin form factor

### Applications:

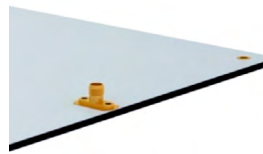
- POS systems
- Real-time inventory systems
- Magic mirrors
- Doors and corridors

### Product overview

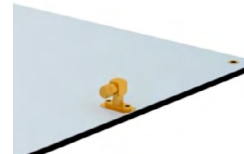
Advantenna-p22 is a compact RFID UHF 2x2 elements patch antenna with circular polarization and a radiation pattern characterized by a 60°/60° beamwidth.

This radiation pattern makes this antenna ideal for many RFID applications such as real-time inventory systems, magic mirrors and tracking through doors and corridors.

### Connector options



Flange straight

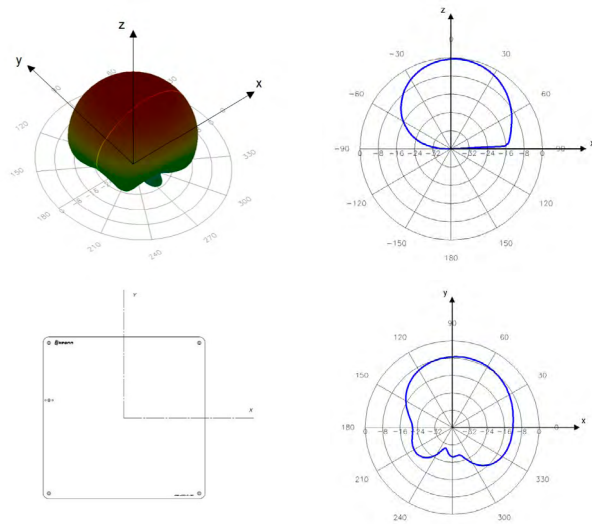


Flange right angle



Edge mount

### Antenna radiation pattern



\*Front-to-back ratio not drawn

### Technical specifications



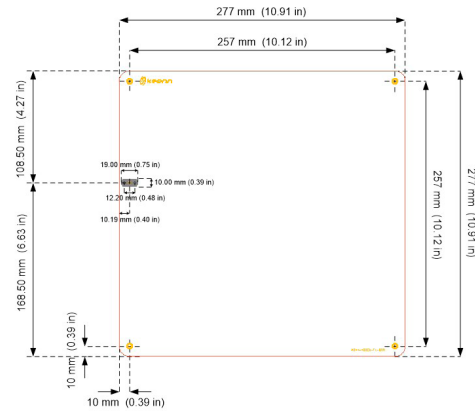
Operating Frequency EU Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency US Version	902 - 928 MHz (FCC part 15)
Operating Detection distance	Up to 4.3 metres
Antenna Technology	Patch
Radiation pattern	Pencil beam
Gain	<b>EU version</b> 7.6 dBiC (Typical), 7.7 dBiC (Max) 5.3 dBiL* <b>US version</b> 7.7 dBiC (Typical), 8.0 dBiC (Max), 5.8 dBiL*
VSWR	< 1.4:1
Beam width (AZ / EL)	60° / 60°
Sidelobe level	< -15 dB
Front-to-Back Ratio	< -20 dB
Polarization	Circular - RHCP (Right Hand Circular Polarization)
Axial Ratio	<b>EU version*</b> At Boresight 0.6 dB At 3dB Beamwidth 0.5 dB (Typical), 2.5 dB (Max) <b>US version*</b> At Boresight 1.7 dB At 3dB Beamwidth 1.7 dB (Typical), 3.6 dB (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 277 mm x 3.3 mm 10.9 inches x 10.9 inches x 0.13 inches
Size with edge mount connector	277 mm x 277 mm x 15 mm 10.9 inches x 10.9 inches x 0.6 inches
Size with flange mount connector	277 mm x 277 mm x 8 mm 10.9 inches x 10.9 inches x 0.3 inches
Antenna weight	470 g

\*Measured at the center of the band

### Mechanical specifications



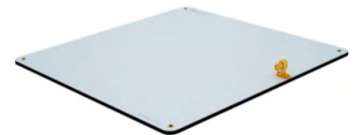
With flange straight or flange right angle connector



Holes  $\varnothing$  = 3.3 mm (0.13 in)

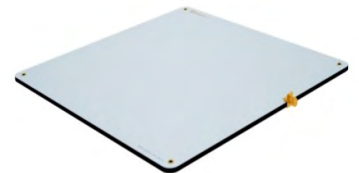
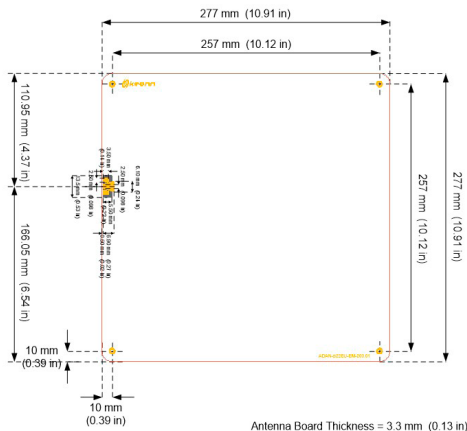


View from the side that does not radiate



View from the side that radiates

With edge mount connector\*



View from the side that does not radiate

View from the side that radiates

\* EU version available only

### Product codes for ordering

ADAN-p22	FF	-	CS	COR	CT	-	mmm	
								<b>FF = frequency band</b>
	EU							865,6 MHz - 867,6 MHz
	US							902,0 MHz - 928,0 MHz
								<b>Connector shape</b>
			FL					Flange straight
			FR					Flange right angle
			EM					Edge mount (EU version only)
								<b>Connector orientation (only for right angle SMA connector)</b>
								Default orientation
				90				Rotated 90° counterclockwise
				180				Rotated 180° counterclockwise
				270				Rotated 270° counterclockwise
								<b>Connector type</b>
					SMA			SMA connector
					MCX			MCX connector (only available in edge mount and flange straight)
								<b>Model</b>
							200	Model number

Examples:

#### ADAN-p22EU-FLSMA-200:

- Advantenna-**p22**
- Frequency band : 865,6 MHz - 867,6 MHz
- **Flange straight** connector
- Default connector orientation
- **SMA** connector
- Model **200**

#### ADAN-p22EU-EMSMA-200:

- Advantenna-**p22**
- Frequency band : 865,6 MHz - 867,6 MHz
- **Edge mount** connector
- Default connector orientation
- **SMA** connector
- Model **200**

#### ADAN-p22US-FR270SMA-200:

- Advantenna-**p22**
- Frequency band : 902,0 MHz - 928,0 MHz
- **Flange right angle** connector
- Connector rotated 270° 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.





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

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

