



# keonn

Modular RFID  
Components

## Advantenna-p33 <sup>TM</sup>

RFID UHF pencil beam antenna





### Benefits:

- Narrow beam in two directions
- High gain
- Very thin form factor

### Applications:

- Overhead real-time inventory systems
- Fitting rooms
- Magic mirrors
- Doors and corridors

### Product overview

Advantenna-p33 is a compact RFID UHF 3x3 elements patch antenna with circular polarization and a radiation pattern characterized by a pencil beam shape (40°/40°).

This radiation pattern makes this antenna ideal for many RFID applications such as overhead real-time inventory systems, magic mirrors and fitting rooms.

A set of Advantenna-p33 can be installed hanging from the ceiling in order to identify and locate tagged items in a given space in real-time.

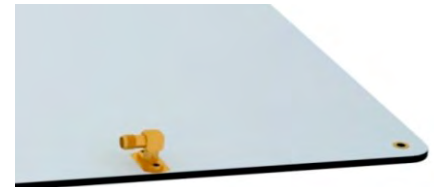
In retail stores, Advantenna-p33 can be installed at the ceiling, over each fitting room. In this position, and thanks to its high directivity, the RFID system detects the RFID tags located in the corresponding fitting room, while minimizing the detection of items located in neighboring fitting rooms or in areas nearby.

Holder available specially designed for this model of antenna: [AdvanHolder-p33](#)

### Connector options

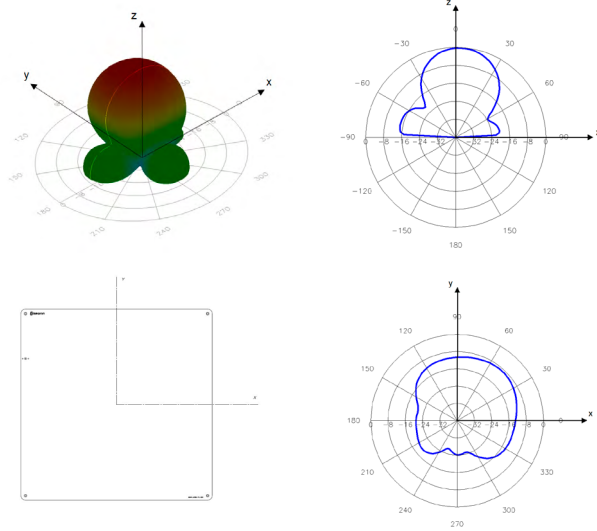


Flange straight



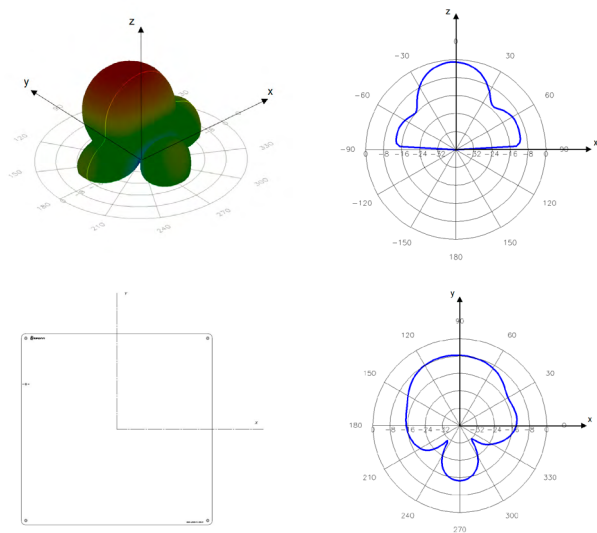
Flange right angle

### Antenna radiation pattern for 865,6 MHz - 867,6 MHz frequency band:



\*Front-to-back ratio not drawn

### Antenna radiation pattern for 902 - 928 MHz frequency band:



\*Front-to-back ratio not drawn

### Technical specifications



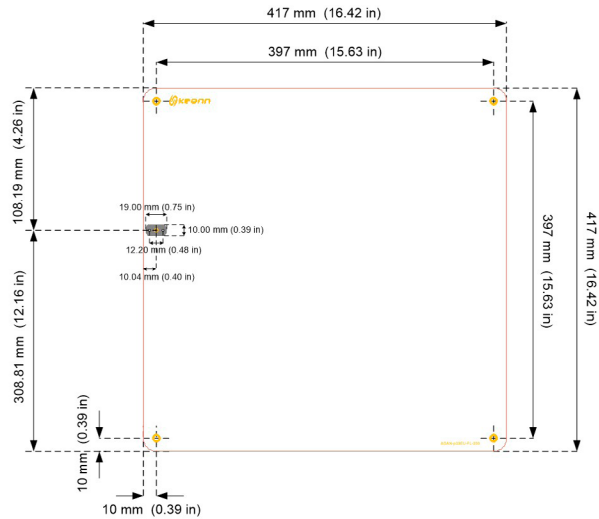
Operating Frequency EU Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency US Version	902 - 928 MHz (FCC part 15)
Antenna Technology	Patch
Radiation pattern	Pencil beam
Gain	<b>EU version</b> 10.7 dBiC (Typical), 10.8 dBiC (Max) 8.0 dBiL* <b>US version</b> 10.6 dBiC (Typical), 10.6 dBiC (Max) 7.8 dBiL*
VSWR	< 1.4:1
Beam width (AZ / EL)	40° / 40°
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 0.3 dB At 3dB Beamwidth 0.5 dB (Typical), 1.9 dB (Max)  <b>US version*</b> At Boresight 0.4 dB At 3dB Beamwidth 0.7 dB (Typical), 1.9 dB (Max)
Input Impedance	50 Ω
Connector	SMA or MCX Flange or flange right angle
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	417 mm x 417 mm x 3.3 mm 16.4 inches x 16.4 inches x 0.13 inches
Size with flange connector	417 mm x 417 mm x 15 mm 16.4 inches x 16.4 inches x 0.6 inches
Antenna weight	1050 g

\*Measured at the center of the band

### Mechanical specifications

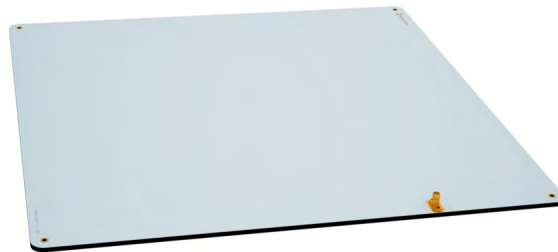


With flange straight or flange right angle connector

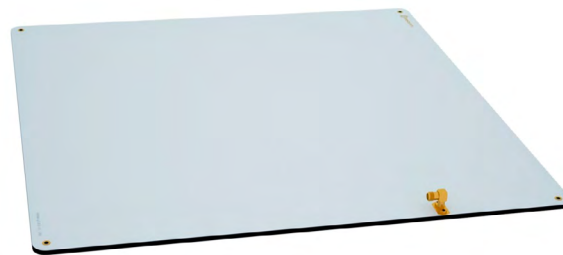


Holes  $\varnothing$  = 3.3 mm (0.13 in)

View from the side that radiates



View from the side that does not radiate



### Product codes for ordering

ADAN-p33	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
								<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-p33EU-FLSMA-200:

- Advantenna-p33
- Frequency band : 865,6 MHz - 867,6 MHz
- **Flange straight** connector
- **SMA** connector
- Model **200**

##### ADAN-p33US-FRSMA-200:

- Advantenna-p33
- Frequency band : 902,0 MHz - 928,0 MHz
- **Flange right angle** connector
- Default connector orientation
- **SMA** connector
- Model **200**

##### ADAN-p33EU-FR270SMA-200:

- Advantenna-p33
- Frequency band : 865,6 MHz - 867,6 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.





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