



# keonn

Modular RFID  
Components

## Advantenna-p16 <sup>TM</sup>

Far field antenna





### Benefits:

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

### Applications:

- Time keeping of sport events (marathons, etc.)
- Race timing
- Overhead loss prevention systems
- Portals
- Doors and corridors
- Toll systems
- Vehicle tracking

### Product overview

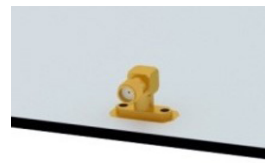
Advantenna-p16 is a compact RFID UHF 6 elements patch antenna with circular polarization and a radiation pattern characterized by a 20° beam width in the direction of the antenna long edge and 90° in the direction of the antenna short edge. This radiation pattern makes this antenna ideal for many RFID applications such as:

- Time keeping of sport events, marathons, race timing
- Overhead loss prevention systems
- Portals
- Corridors
- Doors
- Toll systems
- Vehicle tracking

### Connector options



Flange straight

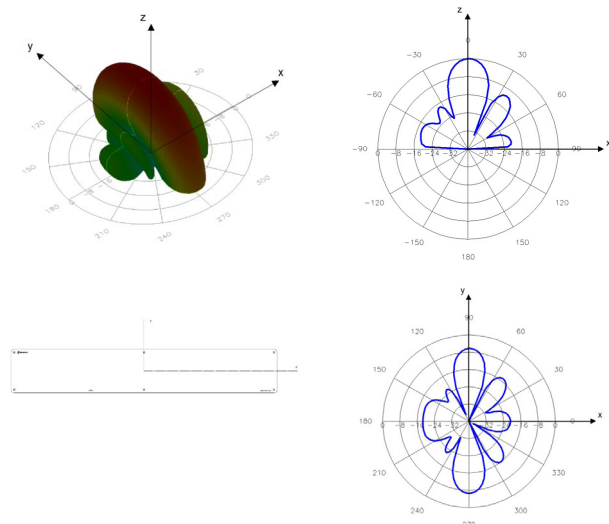


Flange right angle



Edge mount

### Antenna radiation pattern



\*Front-to-back ratio not drawn

### Technical specifications

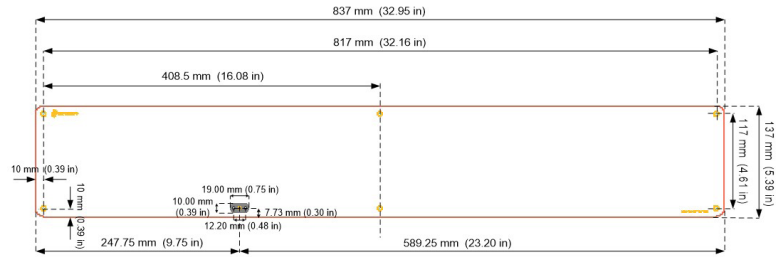


Operating Frequency EU Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency US Version	902 - 928 MHz (FCC part 15)
Operating Detection distance	Up to 9 m
Antenna Technology	Patch
Radiation pattern	Fan beam
Gain	<b>EU version</b> 9.4 dBiC (Typical), 9.5 dBiC (Max) 6.8 dBiL* <b>US version</b> 9.2 dBiC (Typical), 9.4 dBiC (Max) 6.8 dBiL*
VSWR	< 1.4:1
Beam width (AZ / EL)	20° / 90°
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 0.6 dB At 3dB Beamwidth 1.0 dB (Typical), 2.8 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	837 mm x 137 mm x 3.3 mm 32.9 inches x 5.4 inches x 0.13 inches
Size with edge mount connector	837 mm x 137 mm x 15 mm 32.9 inches x 5.4 inches x 0.6 inches
Size with flange mount connector	837 mm x 137 mm x 8 mm 32.9 inches x 5.4 inches x 0.3 inches
Antenna weight	725 g

\*Measured at the center of the band

### Mechanical specifications

#### With flange straight or flange right angle connector



Antenna Board Thickness = 3.3 mm (0.13 in)

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

2 Holes  $\varnothing$  = 2.5 mm (0.10 in)

1 Holes  $\varnothing$  = 1.4 mm (0.06 in)

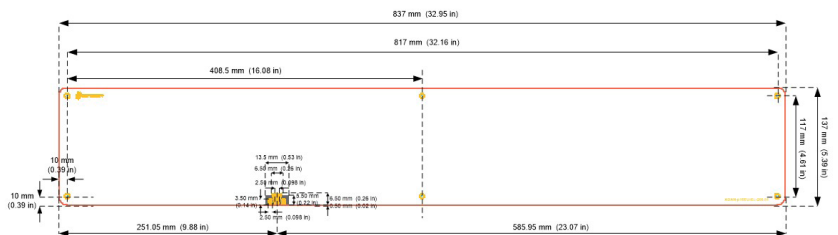
View from the side that radiates



View from the non-radiating side



#### With edge mount connector



Antenna Board Thickness = 3.3 mm (0.13 in)

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-p16	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>
			EL					Edge mount, at the long side of the antenna
			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-p16EU-ELSMA-200:

- Advantenna-p16
- Frequency band : 865,6 MHz - 867,6 MHz
- **Edge mount** connector, placed at the long side of the antenna
- **SMA** connector
- Model **200**

#### ADAN-p16US-FRSMA-200:

- Advantenna-p16
- Frequency band : 902,0 MHz - 928,0 MHz
- **Flange right angle** connector
- Default connector orientation
- **SMA** connector
- Model **200**

#### ADAN-p16EU-FR270SMA-200:

- Advantenna-p16
- 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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