



# keonn

Modular RFID  
Components

## Advantenna-SP22 <sup>TM</sup>

RFID UHF high gain  
pencil beam antenna





### Benefits:

- High gain
- Very thin form factor (compared to other high gain antennas available in the market)
- Very light weight
- Cost effective

### Applications:

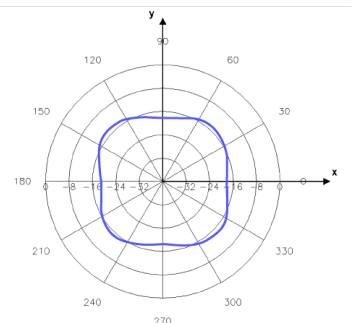
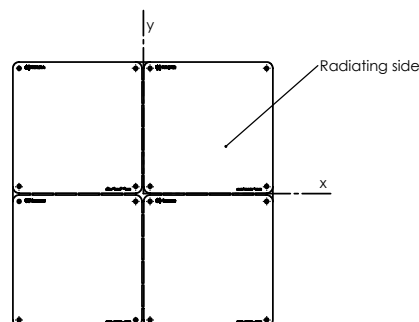
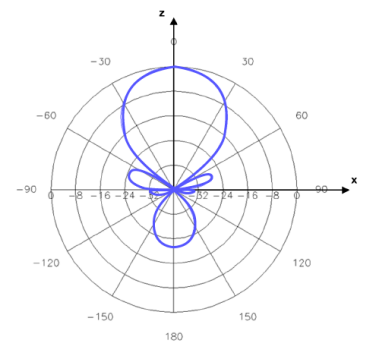
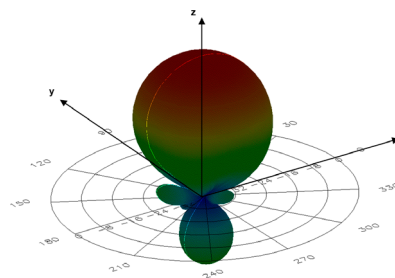
- Fitting rooms
- Vehicle tracking
- People tracking

### Product overview

Advantenna-SP22 is an ultra-light RFID UHF Antenna with a very high gain, circular polarization and a radiation pattern characterized by a 40° beam width in one plane and a 40° beam in the other plane.

The combination of a high gain, thin form factor and ultra-light design make this antenna ideal for many RFID applications such as fitting rooms, vehicle tracking, people tracking, etc.

### Radiation pattern





### Technical specifications

Operating Frequency ETSI Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency FCC Version	902 - 928 MHz (FCC part 15)
Antenna Technology	Patch
Radiation pattern	Pencil beam
Gain	<b>EU version</b> 11.1 dBiC (Max), 10.9 dBiC (Typical) 8.2 dBiL*  <b>US version</b> 11.5 dBiC (Max), 11.4 dBiC (Typical) 8.5 dBiL*
VSWR	< 1.5:1 (Typical)
Beam width (AZ / EL)	40° / 40°
Front-to-Back Ratio	< -15 dB
Sidelobe level	< -20 dB
Polarization	Circular
Axial Ratio	<b>EU version*</b> At Boresight 0.2 dB At 3dB Beamwidth 0.1 (Typical), 0.3 (Max)  <b>US version*</b> At Boresight 0.1 dB At 3dB Beamwidth 0.1 (Typical), 0.4 (Max)
Input Impedance	50 Ω
Connector	SMA Exterior straight
Regulation	ROHS - EU Directive 2015/863 WEEE - EU Directive 2012/19/EU REACH - EC No 1907/2006 ETSI EN 302 208
IP rating	IP60
Temperature range	-20°C to +60°C

\*Measured at the center of the band

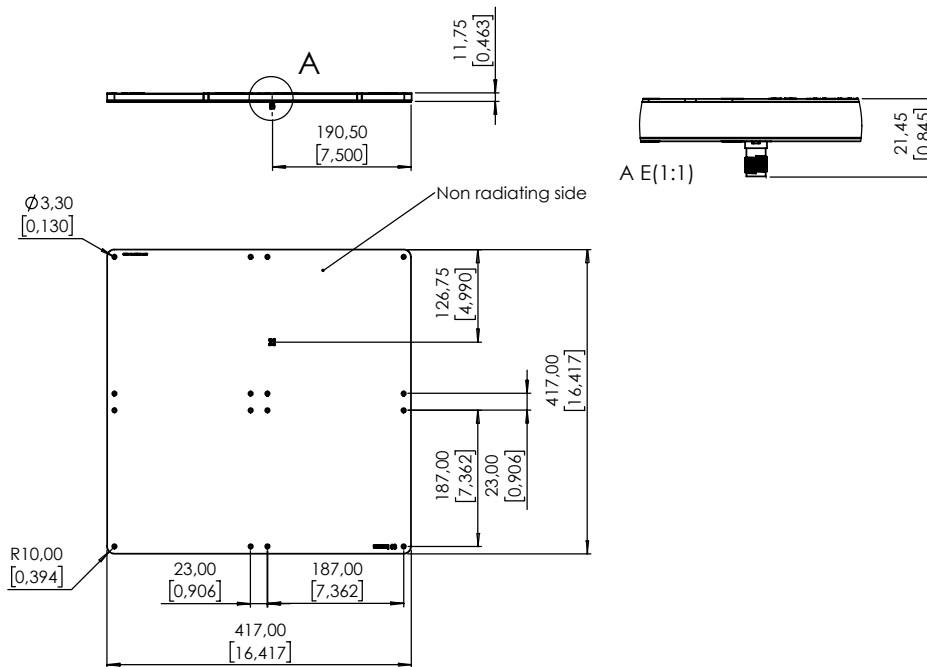
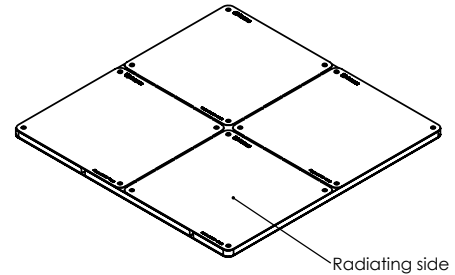
### Mechanical specifications

#### Without enclosure

Size excluding connector	417 mm x 417 mm x 11.7 mm 16.4 inches x 16.4 inches x 0.5 inches
Antenna weight	780 gr 27.51 oz

### Mechanical specifications:

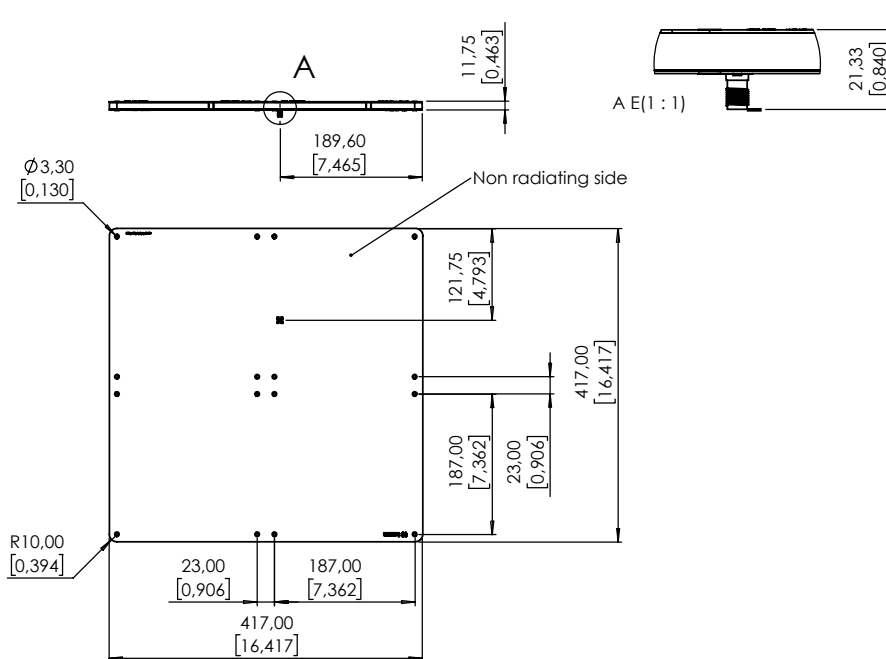
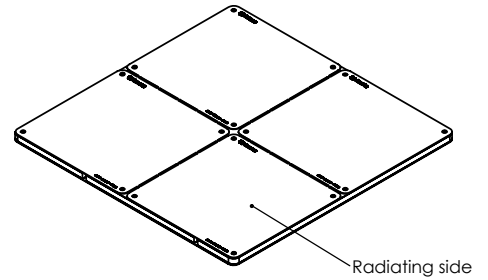
**Straight connector over the non-radiating side of the antenna  
(EU version)**



Units in millimeters  
[Units in inches]

### Mechanical specifications:

**Straight connector over the non-radiating side of the antenna  
(US version)**



Units in millimeters  
[Units in inches]

### Product codes for ordering

ADAN-SP22	FF	-	CP	CT	-	mmm	
							<b>FF = frequency band</b>
	EU						865,6 MHz - 867,6 MHz
	US						902,0 MHz - 928,0 MHz
							<b>Connector position</b>
			PSO				Straight connector
							<b>Connector type</b>
				SMA			SMA connector
							<b>Model</b>
						100	Model number

Examples:

#### ADAN-SP22EU-PSOSMA-100:

- Advantenna-**SP22**
- ETSI frequency band, 865,6 MHz - 867,6 MHz
- **Straight connector**
- Model **100**

#### ADAN-SP22US-PSOSMA-100:

- Advantenna-**SP22**
- FCC frequency band, 902,0 MHz - 928,0 MHz
- **Straight connector**
- Model **100**



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