



keonn

Modular RFID
Components

Advantenna-SP12™ RFID UHF high gain fan 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:

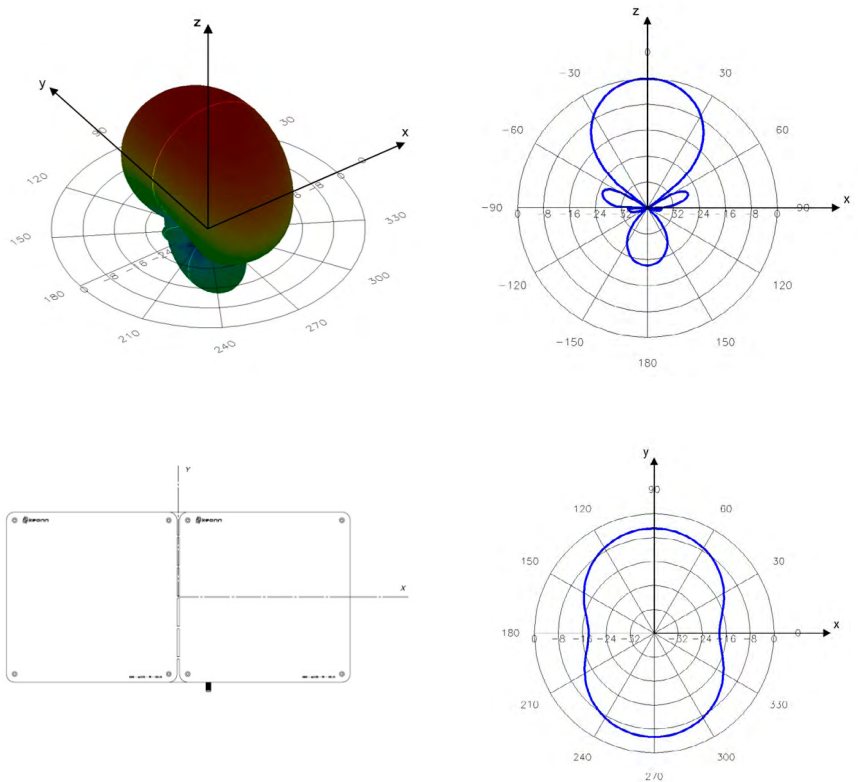
- RFID portals
- RFID tunnels
- Tracking systems

Product overview

Advantenna-SP12 is an ultra-light RFID UHF Antenna with a very high gain, circular polarization and a radiation pattern characterized by a 70° 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 RFID portals, RFID tunnels, tracking systems, etc.

Radiation pattern



Technical specifications



Operating Frequency ETSI Version	865 - 868 MHz (ETSI EN 302 208)
Operating Frequency FCC Version	902,0 MHz - 928,0 Mhz
Operating Detection distance	Up to 10 m
Antenna Technology	Patch
Radiation pattern	Curtain beam
Gain	EU version 9.5 dBiC (Max.), 9.3 dBiC (Typical) 6.6 dBiL* US version 9.6 dBiC (Max.), 9.2 dBiC (Typical) 6.8 dBiL*
VSWR	< 1.4:1
Beam width (AZ / EL)	40° / 70°
Front-to-Back Ratio	< -15 dB
Sidelobe level	< -20 dB
Polarization	Circular
Axial Ratio	EU version* At Boresight 0.2 dB At 3dB Beamwidth 0.4 dB (Typical), 1.0 dB (Max) US version* At Boresight 0.04 dB At 3dB Beamwidth 0.5 dB (Typical), 1.2 dB (Max)
Input Impedance	50 Ω
Connector	SMA Interior right angle, exterior 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 IP60 Dust resistant, even in high concentration
Temperature range	-20°C to +60°C

*Measured at the center of the band

Mechanical specifications

Without enclosure

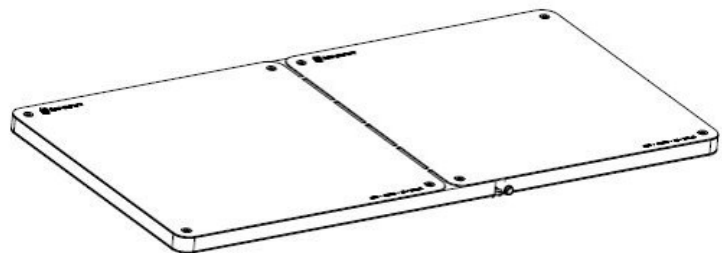
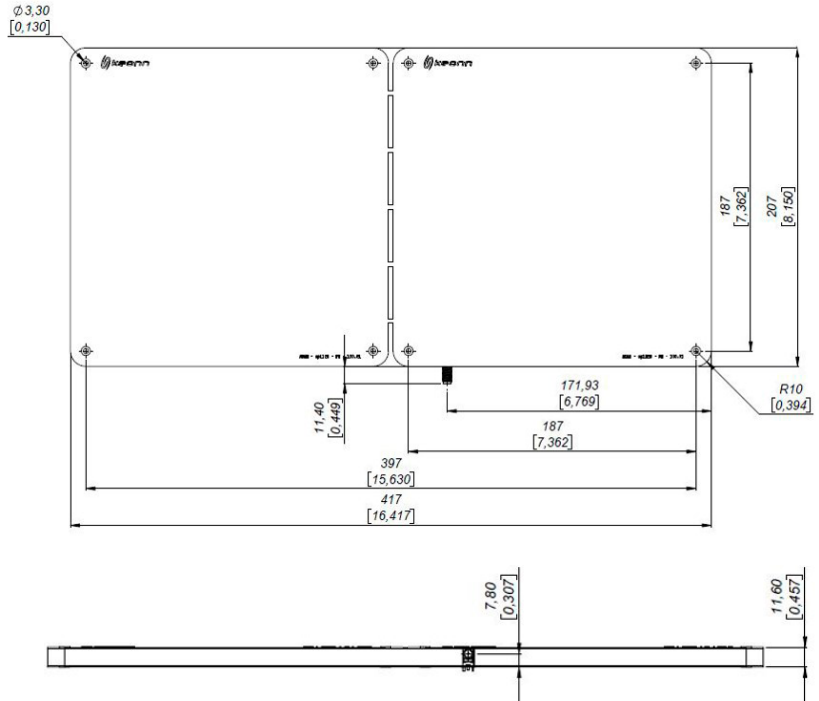
Size excluding connector	417 mm x 207 mm x 11.7 mm 16.4 inches x 8.1 inches x 0.5 inches
Antenna weight	385 g

With enclosure

Size excluding connector	480 mm x 240 mm x 60 mm 18.89 inches x 9.45 inches x 2.36 inches
Antenna weight	2520 g

Mechanical specifications:

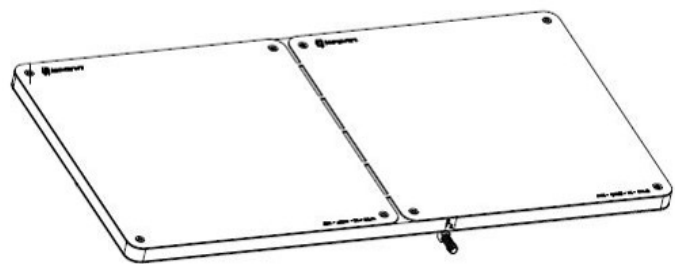
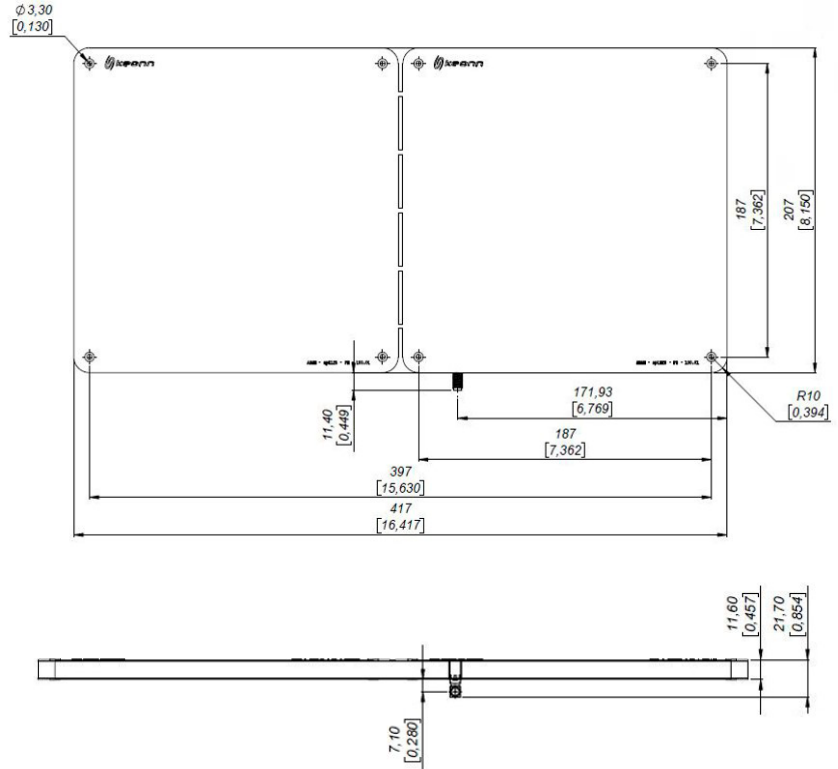
Connector between the layers of the antenna



Units in millimeters
[Units in inches]

Mechanical specifications:

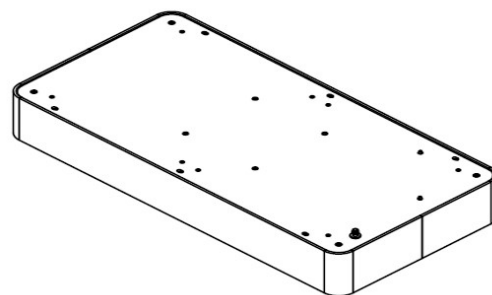
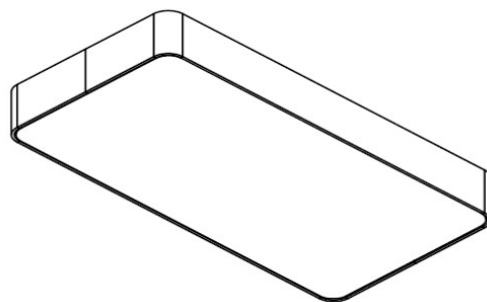
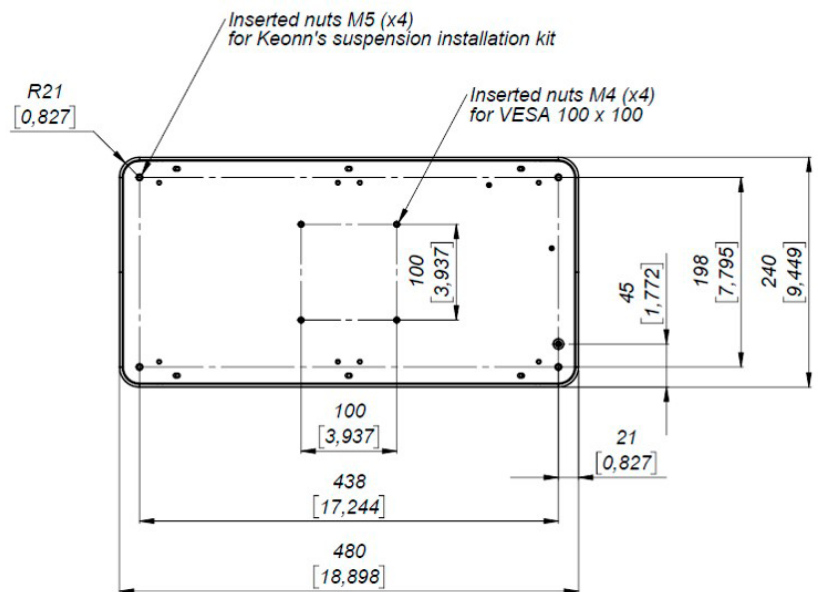
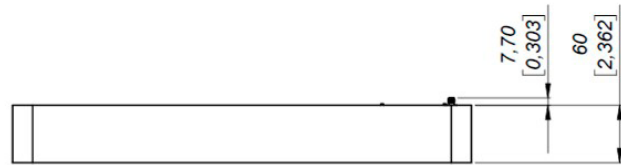
Right angle connector over the non-radiating side of the antenna



Units in millimeters
[Units in inches]

Mechanical specifications:

Antenna with enclosure



Units in millimeters
[Units in inches]

Product codes for ordering

ADAN-SP12	FF	-	e	-	CP	CT	-	N	-	mmm	
											FF = frequency band
	EU										865,6 MHz - 867,6 MHz
	US										902,0 MHz - 928,0 MHz
											Enclosure
			-								No enclosure
			e								With enclosure
											Connector position
					PRM						Edge mount connector between the layers of the antenna
					PRO						Right angle connector over the non-radiating side of the antenna
					FL						Version with enclosure: flange straight connector
											Connector type
						SMA					SMA connector
											Number of antennas in one board
								1			Number of antennas
								-			Version with enclosure
											Model
										100	Model number

Examples:

ADAN-SP12EU-PRMSMA-1-100:

- Advantenna-**SP12**
- ETSI frequency band, 865,6 MHz - 867,6 MHz
- **Edge mount connector** (inside the layers of the antenna)
- **One** single antenna
- Model **100**

ADAN-SP12US-e-FLSMA-100

- Advantenna-**SP12**
- FCC frequency band, 902,0 MHz - 928,0 MHz
- With enclosure
- Flange straight SMA connector
- Model **100**



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