keonn Modular RFID Components

Advantenna-SP11 ™

RFID UHF high gain
wide beam antenna

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RFID UHF high gain wide beam antenna

Benefits:

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

Applications:

- RFID portals
- RFID tunnels
- RFID-enabled drones
- Ceiling inventory systems
- Smart shelves
- Smart panels
- Smart tables
- Smart surfaces in general

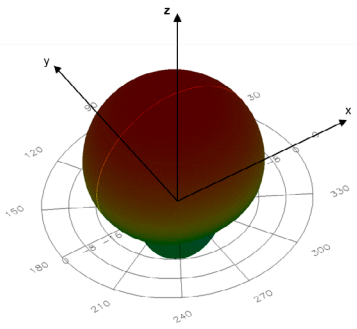
Product overview

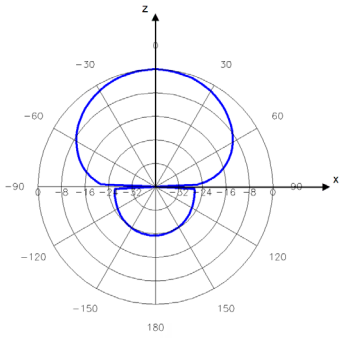
Advantenna-SP11 is a compact RFID UHF Antenna with a very high gain, circular polarization and a radiation pattern characterized by a wide beam in all directions in one hemisphere.

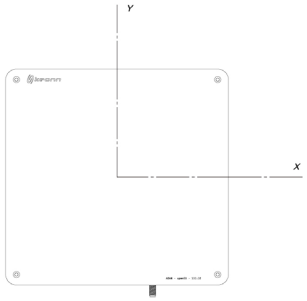
The combination of a high gain, light weight, thin form factor and compact size (compared to other high gain antennas available on the market) make this antenna ideal for many RFID applications such as RFID portals, RFID tunnels, RFID-enabled drones, ceiling inventory systems, smart shelves, smart displays, smart panels and smart tables or other surfaces.

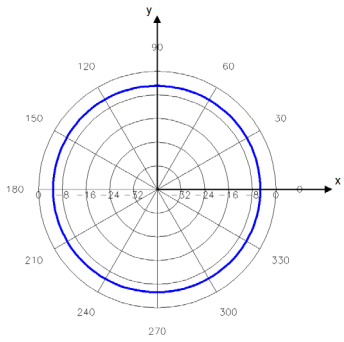
Holder available specially designed for this model of antenna: **AdvanHolder-SP11**

Radiation pattern









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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	Wide beam in both directions in one hemisphere
Gain	**EU version** 8.0 dBiC (Max), 7.7 dBiC (Typical) 5.1 dBiL* **US version** 7.8 dBiC (Max), 7.4 dBiC (Typical) 4.8 dBiL*
VSWR	< 1.4:1
Beam width (AZ / EL)	70° / 70°
Front-to-Back Ratio	< -15 dB
Polarization	Circular
Axial Ratio	**EU version*** At Boresight 0.1 dB At 3dB Beamwidth 0.6 dB (Typical), 1.2 dB (Max) **US version*** At Boresight 0.02 dB At 3dB Beamwidth 0.6 dB (Typical), 1.3 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 (with enclosure)	IP67
Temperature range	-20°C to +60°C
Size excluding connector	207 mm x 207 mm x 11.7 mm 8.1 inches x 8.1 inches x 0.5 inches
Size with interior right angle connector	207 mm x 220 mm x 11.7 mm 8.1 inches x 8.7 inches x 0.5 inches
Size with exterior right angle connector	207 mm x 220 mm x 21.8 mm 8.1 inches x 8.7 inches x 0.9 inches
Size with enclosure	270 mm x 270 mm x 79 mm 10.6 inches x 10.6 inches x 3.1 inches
Antenna weight	200 g
Weight with enclosure	1260 g 2265 g (with packaging and ceiling ball joint)

*Measured at the center of the band

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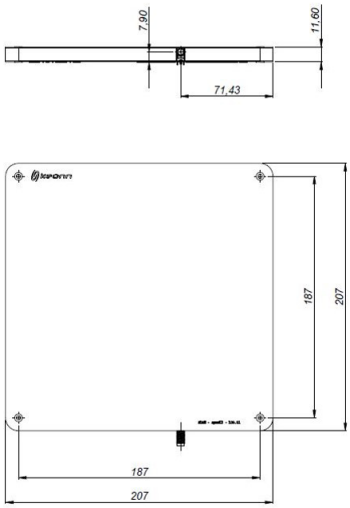
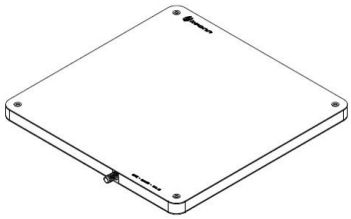
Mechanical specifications:

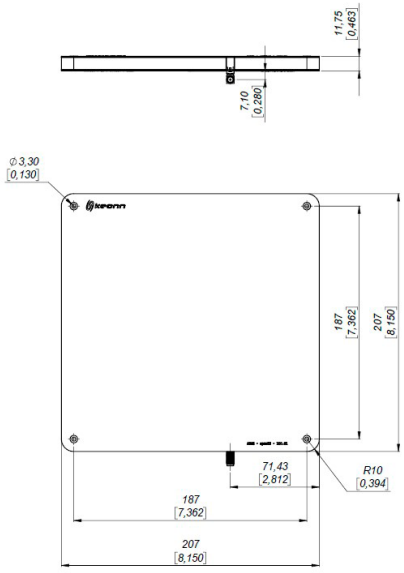
Connector between the layers of the antenna

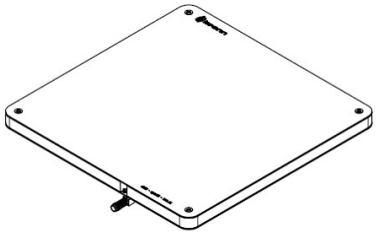




Mechanical specifications:

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





Units in millimeters
[Units in inches]

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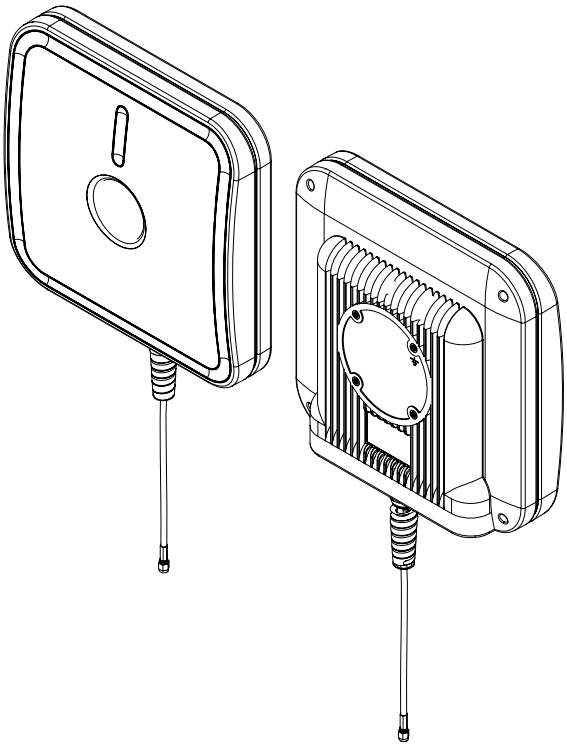
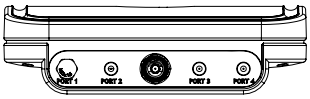
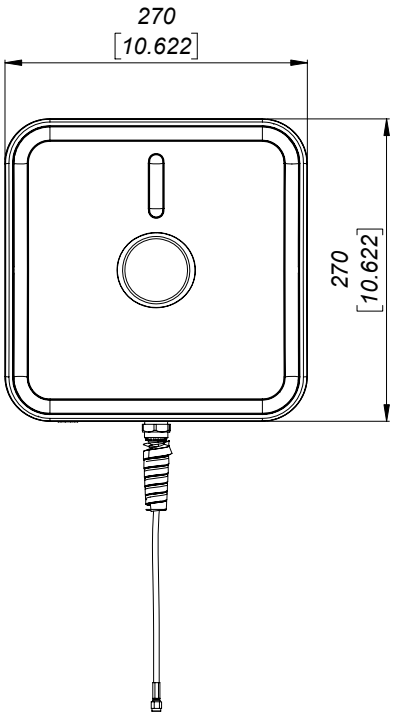
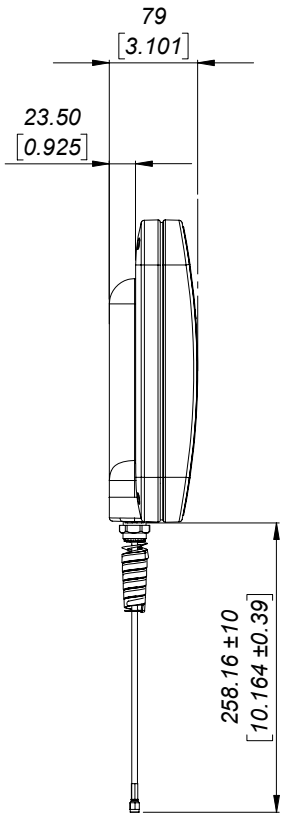
Mechanical specifications:

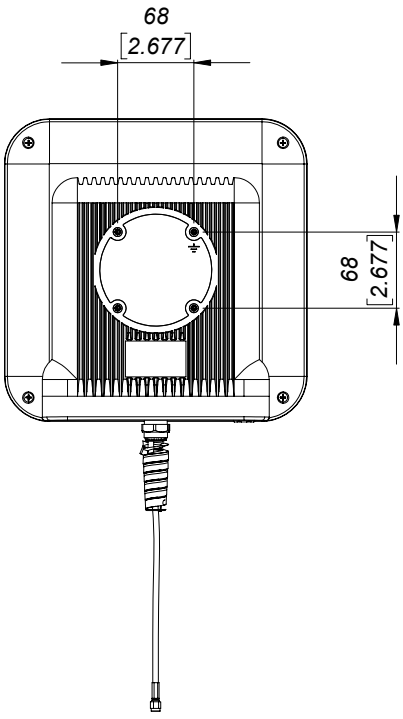
With enclosure (articulated bracket included)











Units in millimeters
[Units in inches]

Product codes for ordering

ADAN-SP11	FF	-	E	-	CS	CT	-	N	-	mmm	
											FF = frequency band
	EU										865,6 MHz - 867,6 MHz
	US										902,0 MHz - 928,0 MHz
											Enclosure
			-								No enclosure
			E67								With enclosure
											Connector shape
					PRM						Edge mount connector between the layers of the antenna
					PRO						Right angle connector over the non-radiating side of the antenna
					-						Version with enclosure
											Connector type
						SMA					SMA connector
											Number of radiating elements in one board
								1			Number of radiating elements
								-			Version with enclosure
											Model
										100	Model number

Examples:

ADAN-SP11EU-PRMSMA-1-100:

- Advantenna-**SP11**
- European frequency band, 865,6 MHz - 867,6 MHz
- **Edge mount connector** (inside the layers of the antenna)
- **One** single antenna
- Model **100**

ADAN-SP11US-E67-SMA-100

- Advantenna-**SP11**
- FCC frequency band, 902,0 MHz - 928,0 Mhz
- With enclosure
- Flange straight SMA connector
- Model **100**

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

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