



SP12 UHF RFID ANTENNA

The Vulcan RFID™ SP12 UHF RFID Antenna is an ultra-light antenna with a very high gain, circular polarization, and a radiation pattern characterized by a 70° beamwidth in one plane and a 40° beam in the other plane.

The Vulcan RFID UHF RFID Antenna's 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 but not limited to:

- RFID Portals
- RFID Tunnels
- RFID-enabled Drones
- Various Tracking Systems





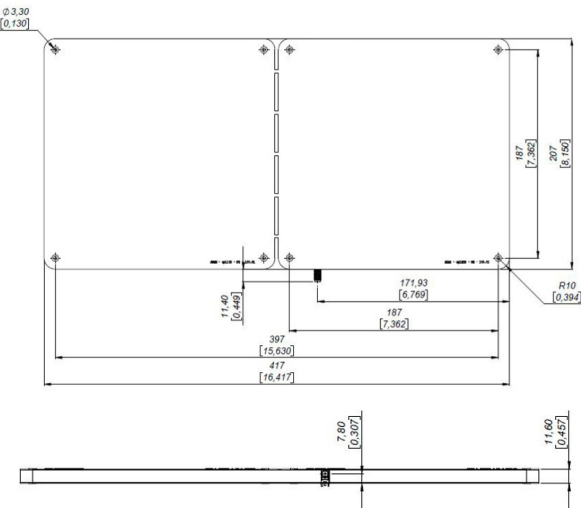
Specifications

ELECTRICAL	Operating Frequency:	FCC (902-928 MHz), ETSI (865-868 MHz)
	Polarization:	Circular
	Gain:	9.5 dBi (US), 6.6 dBi (EU)
	Max Read Distance:	Up to 10 m (32.8 ft)
	Elevation Beamwidth:	40°
	Azimuth Beamwidth:	70°
	Input Impedance:	50 Ω
	VSWR:	< 1.4:1
	Front-to-Back Ratio:	< -15 dB
	Axial Ratio:	US: At boresight 0.04 dB, at 3 dB beamwidth 0.5 dB (typical), 1.2 dB (max)
		EU: At boresight 0.2 dB, at 3 dB beamwidth 0.4 dB (typical), 1.0 dB (max)
	Radiation Pattern:	Curtain Beam
Antenna Technology:	Patch	
Sidelobe:	< -20 dB	
MECHANICAL	Connector Type:	SMA Female (connects to SMA Male)
	Mounting:	Integrated Mounting Holes
	Cable:	Not Included
	Dimensions - Edge Mount:	417 x 207 x 11.6 mm (16 x 8.15 x 0.45 in)
	Dimensions - Flange Right Angle:	417 x 207 x 21.7 mm (16 x 8.15 x 0.854 in)
	Weight Without Enclosure:	0.2 kg (0.44 lbs)
	Weight With Enclosure:	2.52 kg (5.56 lbs)
ENVIRONMENT	Operating Temperature:	-20 °C to +60 °C (-4 °F to +140 °F)
	IP Rating:	IP 62

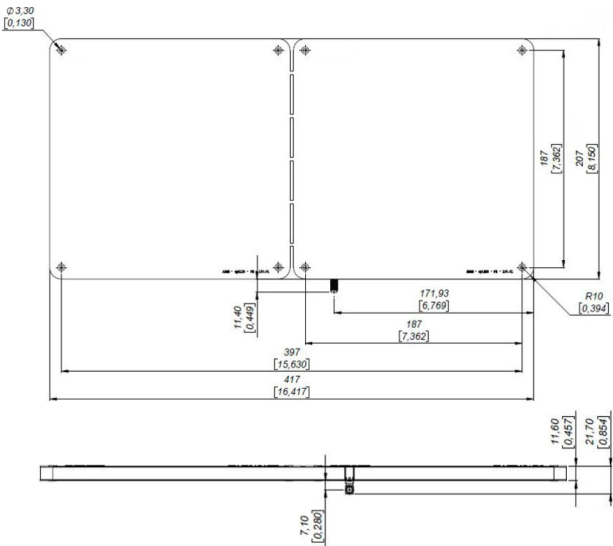


Diagrams

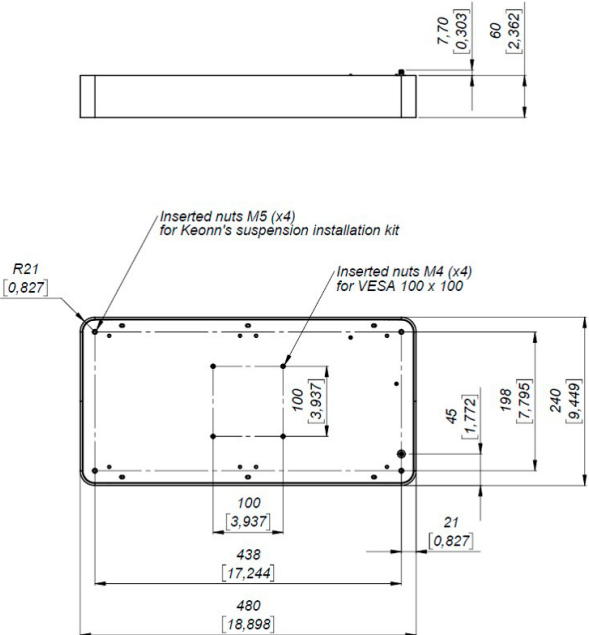
Connector between the layers of the antenna



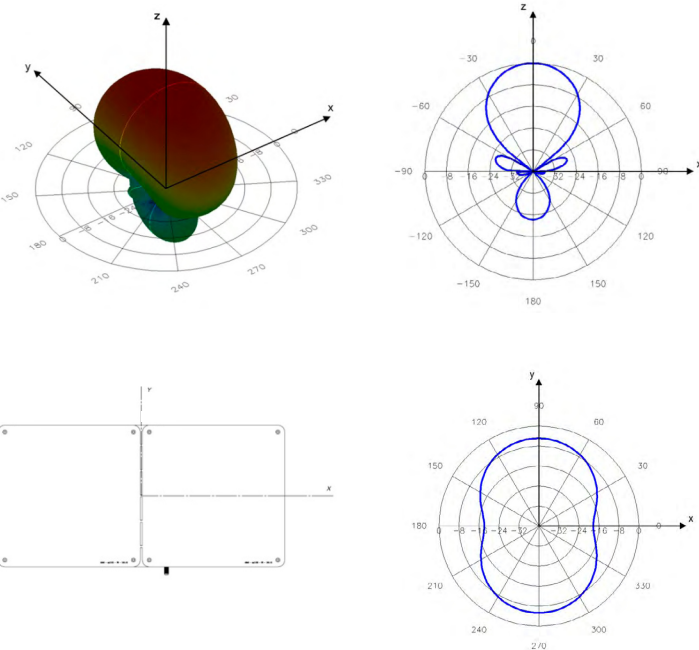
Right angle connector over the non-radiating side of the antenna



Antenna with enclosure



Radiation Pattern





Product Variations

Product Code	Connector Type	FCC (902-928 MHz)	ETSI (865-868 MHz)
	Edge Mount	VUL-ADAN-SP12US-PRMSMA-1-100	VUL-ADAN-SP12EU-PRMSMA-1-100
	Flange Right Angle	VUL-ADAN-SP12US-PROSMA-1-100	VUL-ADAN-SP12EU-PROSMA-1-100

Accessories & Compatible Products

Vulcan RFID™



VUL-MAPPER

Vulcan RFID™



- 195-RP-TNC-M-SMA-M-12
- 240-RP-TNC-M-SMA-M-25
- 400-RP-TNC-M-SMA-M-35

*For custom cable connectors or lengths please [contact us](#).

About Vulcan RFID™ Products

Vulcan RFID™ offers a broad range of innovative RFID antennas, RFID inlays, custom RFID tags, and accessories suited for a wide variety of industries and applications. With an extensive portfolio, Vulcan RFID™ products are manufactured to withstand environments ranging from mild to extreme. All Vulcan RFID™ products are thoroughly tested and built on a name you can trust. Vulcan RFID™ products enable you to reach and sustain high levels of performance with your UHF or NFC frequency application.



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