



P13

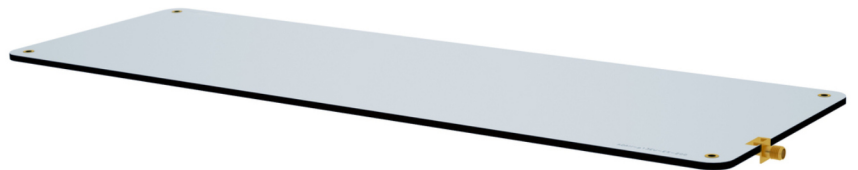
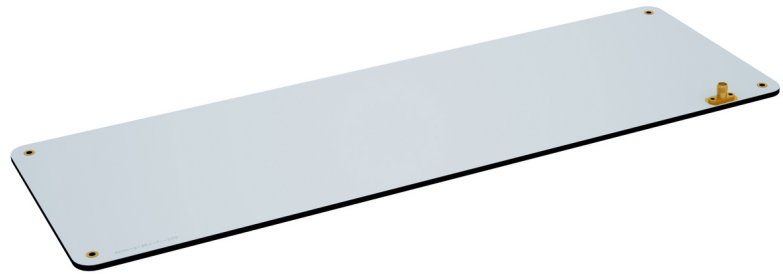
UHF RFID ANTENNA

The Vulcan RFID™ p13 UHF RFID Antenna is a compact, high gain RFID UHF antenna with circular polarization. This antenna has a **very thin form factor**, which allows for the integration of the antenna inside objects.

This antenna is **IP 68 rated**, meaning it is dust resistant even in high concentrations, making it perfect for indoor and outdoor use. Additionally, this antenna can withstand water immersion up to 1 m (3 ft) up to 30 minutes.

This antenna's radiation pattern is characterized by a 40° beamwidth in the endfire direction and a 90° beamwidth in the broadside direction. This radiation pattern makes this antenna ideal for many RFID applications such as but not limited to:

- Loss Prevention Systems
- Portals
- Tunnels
- Tight Corridors
- Doors





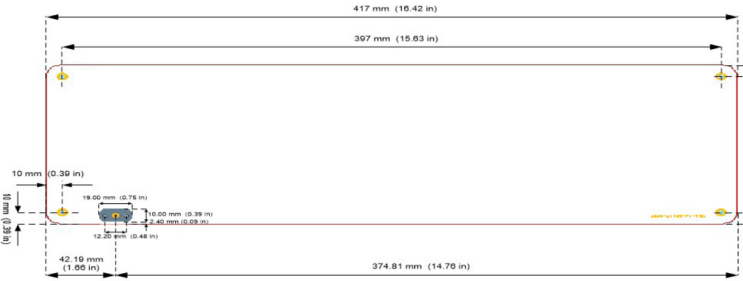
Specifications

ELECTRICAL	Operating Frequency:	FCC (902-928 MHz), ETSI (865-868 MHz)
	Polarization:	Circular
	Gain:	6.9 dBi (US), 6.8 dBi (EU)
	Max Read Distance:	Up to 4 m (13.1 ft)
	Elevation Beamwidth:	40°
	Azimuth Beamwidth:	90°
	Input Impedance:	50 Ω
	VSWR:	< 1.4:1
	Front-to-Back Ratio:	< -20 dB
	Axial Ratio:	US: At boresight 0.6 dB, at 3 dB beamwidth 0.5 dB (typical), 3.6 dB (max)
		EU: At boresight 0.2 dB, at 3 dB beamwidth 1.1 dB (typical), 3.2 dB (max)
	Radiation Pattern:	Wide beam in both directions, one hemisphere
Antenna Technology:	Patch	
Sidelobe:	< -15 dB	
MECHANICAL	Connector Type:	SMA Female (connects to SMA Male)
	Mounting:	Integrated Mounting Holes
	Cable:	Not Included
	Dimensions - Excludes Connector:	417 x 137 x 3.3 mm (16.3 x 5.4 x 0.13 in)
	Dimensions - Edge Mount Connector:	417 x 137 x 8 mm (16.3 x 5.4 x 0.3 in)
	Dimensions - Flange Connector:	477 x 137 x 15 mm (16.3 x 5.4 x 0.6 in)
	Weight:	0.35 kg (0.77 lbs)
ENVIRONMENT	Operating Temperature:	-20 °C to +80 °C (-4 °F to +176 °F)
	IP Rating:	IP 68



Diagrams

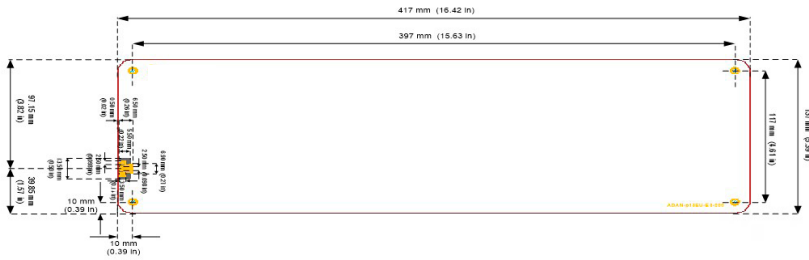
With flange straight or flange right angle connector



Antenna Board Thickness = 3.3 mm (0.13 in)

Holes \varnothing = 3.3 mm (0.13 in)

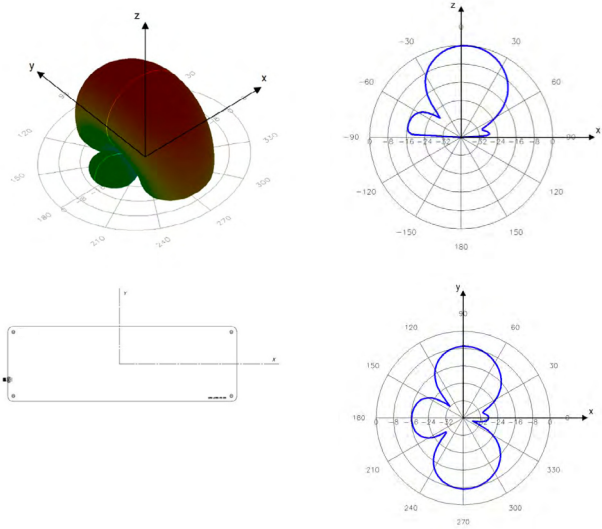
With edge mount connector



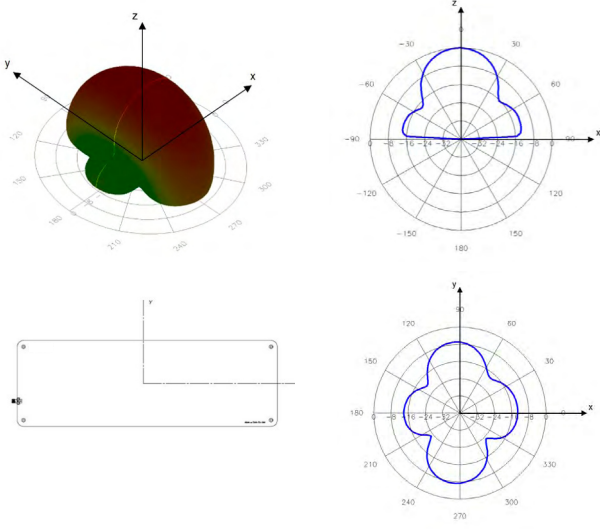
Antenna Board Thickness = 3.3 mm (0.13 in)

Holes \varnothing = 3.3 mm (0.13 in)

Radiation Pattern - ESTI (865-868 MHz)



Radiation Pattern - FCC (902-928 MHz)





Product Variations

Product Code	Connector Type	FCC (902-928 MHz)	ETSI (865-868 MHz)
	Flange Straight	VUL-ADAN-P13US-FLSMA-200	VUL-ADAN-P13EU-FLSMA-200
	Flange Right Angle	VUL-ADAN-P13US-FRSMA-200	VUL-ADAN-P13EU-FRSMA-200
	Edge Mount	VUL-ADAN-P13US-ESSMA-200	VUL-ADAN-P13EU-ESSMA-200

Accessories & Compatible Products

Vulcan RFID™



VUL-MAPPER

Vulcan RFID™



VUL-ADHD-ADANP13-100

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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