

A SISO LTE and WIFI multi purpose antenna for 2G/3G/4G/5G, CBRS and WIFI 6E 2.4/4.9-7.2 GHz with optional GNSS

DESCRIPTION

- > Can be configured as 2in1 and 3in1
- > The ProConnect provides antennas for multiple technologies in fixed or mobile end-point device applications, using either Cellular or WiFi connectivity
- > Ideal for Industrial robotics and telemetry, smart metering, autonomous vehicles, smart cities and automated parking, backup and remote terminal data connections
- > In-built SISO antenna for use with LTE/4G (617 - 960 MHz and 1710 - 3800 MHz) or WiFi 6E 2.4/4.9-7.2 GHz
- > Optional single or dual GNSS antenna for GPS L1, Glonass, Beidou and Galileo.
- > The ProConnect covers 4G, GNSS inc. 5G cellular bands, WIFI 2.4/5.8 and 7.2 GHz.
- > Full hemispherical coverage for the GNSS antennas.
- > Built-in high gain, low noise amplifier.
- > Right-Hand Circular Polarization.
- > 3 - 15 VDC for GNSS supply.
- > DC supply via GNSS RF-connector.
- > ECE R118.02 approved cable.
- > IP69 Ingress protection.
- > IK10 rated enclosure



SPECIFICATIONS

Electrical				
Model	ProConnect			
Frequency	617 - 960 MHz	1.7 - 2.7 GHz	3.4 - 3.8 GHz	4.9 - 7.2 GHz
Antenna Type	Mobile Disk Style Antenna			
Max. Input Power	25 W			
Polarisation	Vertical			
Impedance	50 Ω			
VSWR	< 2.5:1	< 2.0:1	< 2.0:1	< 2.0:1
EMC	Full protection (EN 301 489-1)			

Mechanical	
Compliance	ECE R118.02 approved cables
Connection(s)	RG316 / RG179, SMA(m) (all antennas)
Materials	ASA, Zamak 5
Installation Torque	4 ±0.5 Nm
Colour	Black (RAL 9005) / Traffic White (RAL 9016)
Dimensions	ø120 mm / 4.72 In.
Height	60 mm / 2.36 In.
Weight	Approx. 550 g. / 1.2 lb.
Mounting	18.5 mm / 0.8 in. dia. hole

GNSS Antenna	
Cross Polar Discrimination (GNSS)	> 10 dB (typ.)
Frequency (GNSS)	1559 - 1609 MHz (GPS L1, Glonass, Beidou and Galileo)
Polarisation (GNSS)	RH Circular
Impedance (GNSS)	50 Ω

GNSS LNA	
Gain (GNSS LNA)	25 dB ±3dB
Noise Figure (GNSS LNA)	< 3.5 dB : 1559 - 1610 MHz Typ. 2.0 dB @ 1575 MHz
Attenuation Out Of Band (GNSS LNA)	> 25 dB, 0 - 1525 MHz > 25 dB, 1640 - 3000 MHz
P1dB (GNSS LNA)	> 6 dBm
VSWR (output) (GNSS LNA)	< 2.0:1
Supply Voltage (GNSS LNA)	3-15 VDC
Current Consumption (GNSS LNA)	20 mA

Environmental	
Operating temperature range	-50 °C to +75 °C
Ingress Protection	IP69 (IP65 for Side Mount)

ORDERING

Model	Product No.	Description
ProConnect W -TH	132000293	4G/5G/WiFi, Through Hole, White Cover
ProConnect W -TH -G1	132000294	4G/5G/WiFi, 1 x GNSS, Through Hole, White Cover
ProConnect W-TH-G2	132000295	4G/5G/WiFi, 2 x GNSS, Through Hole, White Cover
ProConnect B-TH	132000296	4G/5G/WiFi, Through Hole, Black Cover
ProConnect B-TH-G1	132000297	4G/5G/WiFi, 1 x GNSS, Through Hole, Black Cover
ProConnect B-TH-G2	132000298	4G/5G/WiFi, 2 x GNSS, Through Hole, Black Cover
ProConnect W-SM	Contact for availability	4G/5G/WiFi, Side Mount, White Cover
ProConnect W-SM-G1	Contact for availability	4G/5G/WiFi, 1 x GNSS, Side Mount, White Cover
ProConnect W-SM-G2	Contact for availability	4G/5G/WiFi, 2 x GNSS, Side Mount, White Cover
ProConnect B-SM	Contact for availability	4G/5G/WiFi, Side Mount, Black Cover
ProConnect B-SM-G1	Contact for availability	4G/5G/WiFi, 1 x GNSS, Side Mount, Black Cover
ProConnect B-SM-G2	Contact for availability	4G/5G/WiFi, 2 x GNSS, Side Mount, Black Cover

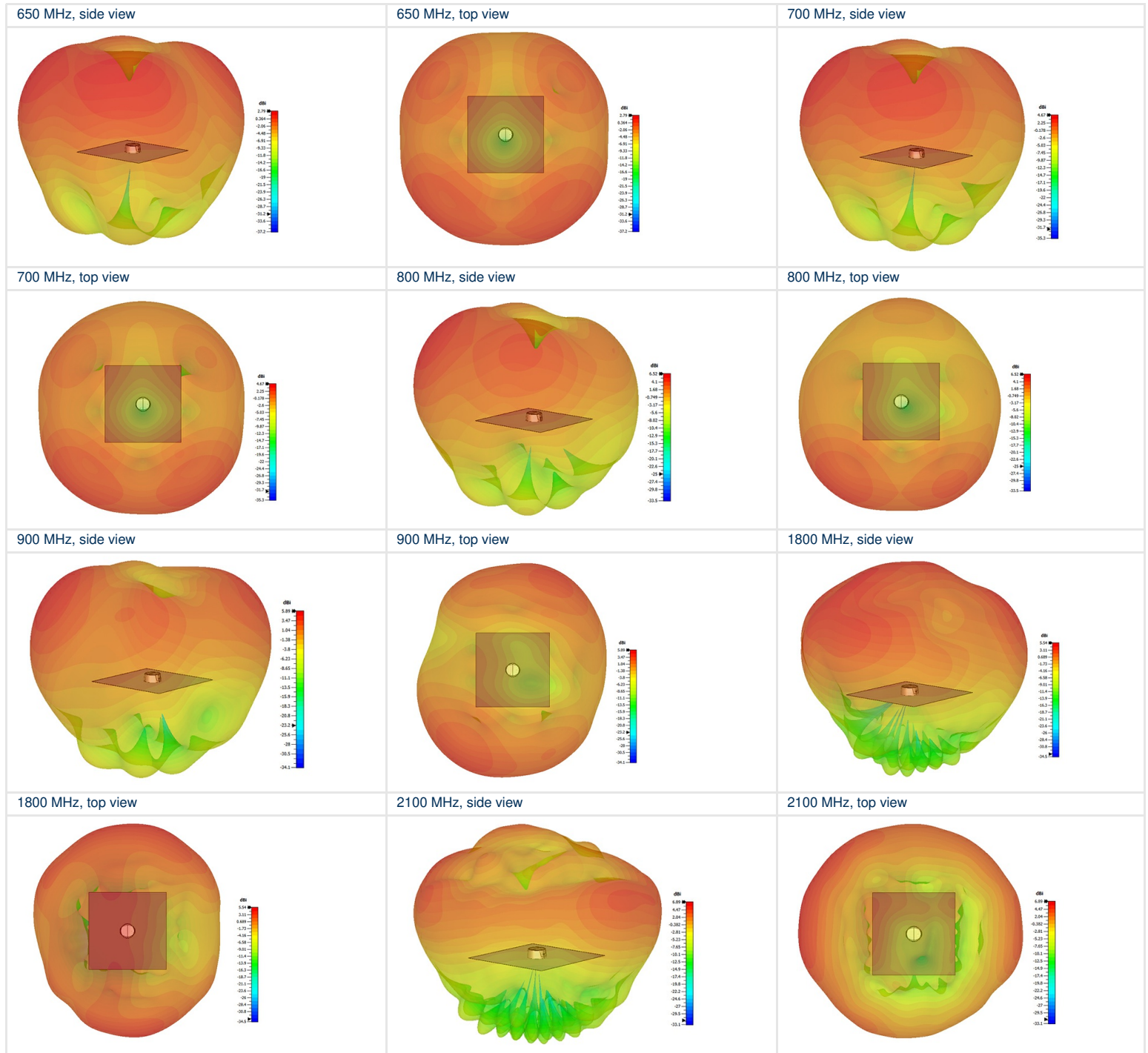
PRODUCT MATRIX

TYPE	PRODUCT No.	DESCRIPTION	4G/5G/WiFi 617 - 960 MHz 1710 - 3800 MHz 2.4/4.9 - 7.2 GHz		
			GNSS 1	GNSS 2	
ProConnect W-TH	132000293	1 x 4G/5G/WiFi, Through Hole, White Cover	◆		
ProConnect W-TH-G1	132000294	1 x 4G/5G/WiFi, 1 x GNSS, Through Hole, White Cover	◆	◆	
ProConnect W-TH-G2	132000295	1 x 4G/5G/WiFi, 2 x GNSS, Through Hole, White Cover	◆	◆	◆
ProConnect B-TH	132000296	1 x 4G/5G/WiFi, Through Hole, Black Cover	◆		
ProConnect B-TH-G1	132000297	1 x 4G/5G/WiFi, 1 x GNSS, Through Hole, Black Cover	◆	◆	
ProConnect B-TH-G2	132000298	1 x 4G/5G/WiFi, 2 x GNSS, Through Hole, Black Cover	◆	◆	◆
ProConnect W-SM	Check for availability	1 x 4G/5G/WiFi, Side Mount, White Cover	◆		
ProConnect W-SM-G1	Check for availability	1 x 4G/5G/WiFi, 1 x GNSS, Through Hole, White Cover	◆	◆	
ProConnect W-SM-G2	Check for availability	1 x 4G/5G/WiFi, 2 x GNSS, Through Hole, White Cover	◆	◆	◆
ProConnect B-SM	Check for availability	1 x 4G/5G/WiFi, Side Mount, Black Cover	◆		
ProConnect B-SM-G1	Check for availability	1 x 4G/5G/WiFi, 1 x GNSS, Side Mount, Black Cover	◆	◆	
ProConnect B-SM-G2	Check for availability	1 x 4G/5G/WiFi, 2 x GNSS, Side Mount, Black Cover	◆	◆	◆

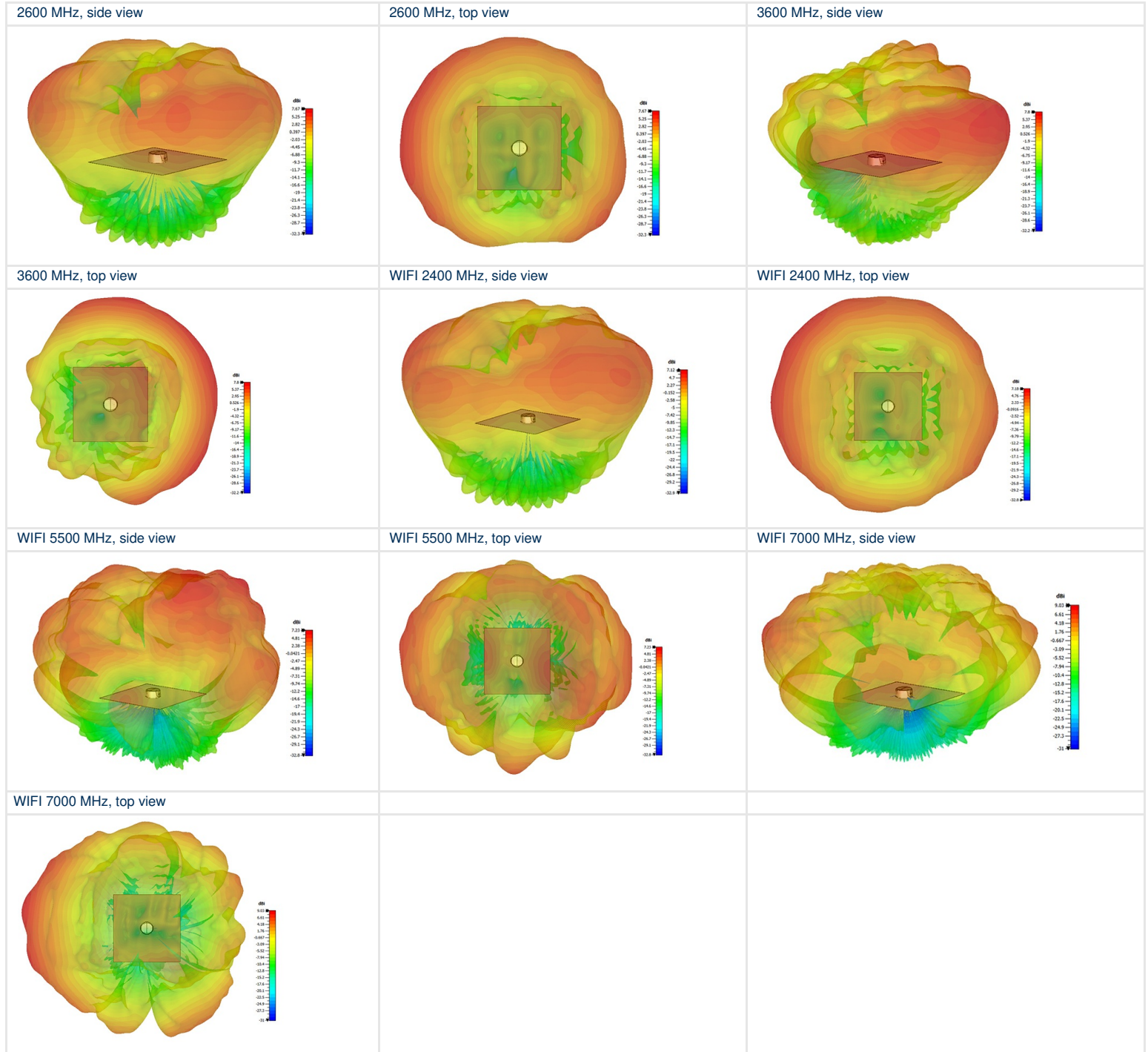
GAIN TABLE

Element	Frequency (MHz)	Peak Gain (dBi)	Average Gain H-Plane (dBi)	Average Gain H-Plane (dBq)
4G/5G/WIFI	650	1.0	3.5	-2.5
	750	3.9	-1.5	-0.7
	900	4.1	-2.0	-1.0
	1800	5.4	-3	-2.0
	2400	6.9	-1.5	-0.5
	2600	7.7	-2.0	-0.5
	3600	7.5	-1.0	0.0
	5500	7.1	-3.0	-1.7
	7100	8.9	-2.0	-0.5

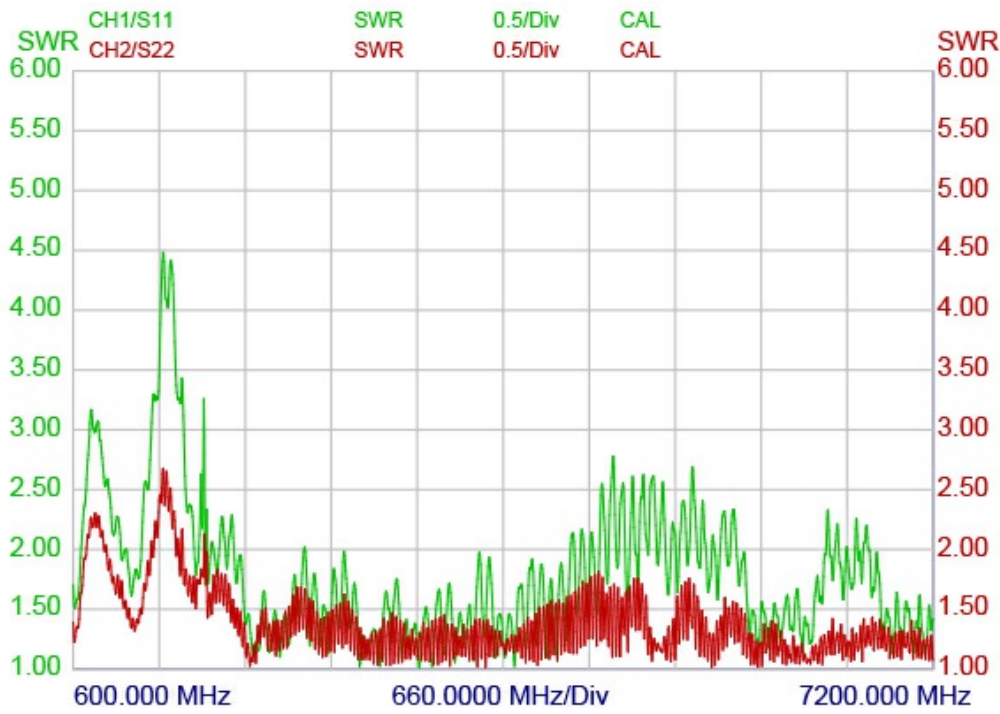
RADIATION PATTERNS (CELLULAR ANTENNAS), 650 MHz - 2100 MHz:



RADIATION PATTERNS (CELLULAR ANTENNAS), 2600 MHZ - 7000 MHZ:



VSWR 4G/5G/WIFI *



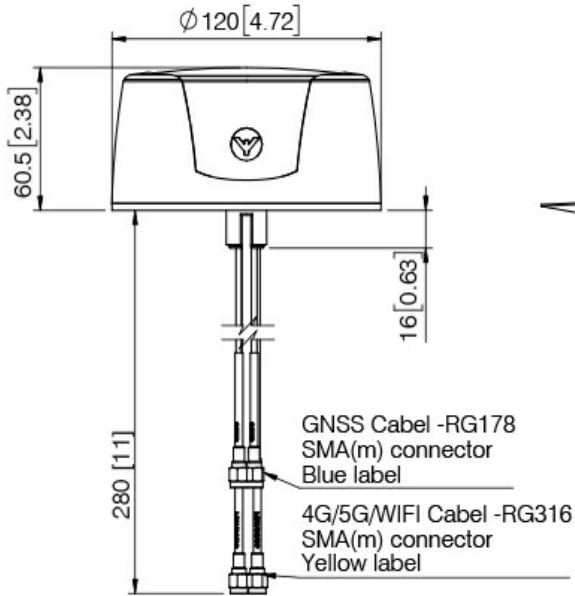
Green trace measured with 1m (39.4In) of RG58 cable.

Red trace measured with 3m (118In) of RG58 cable

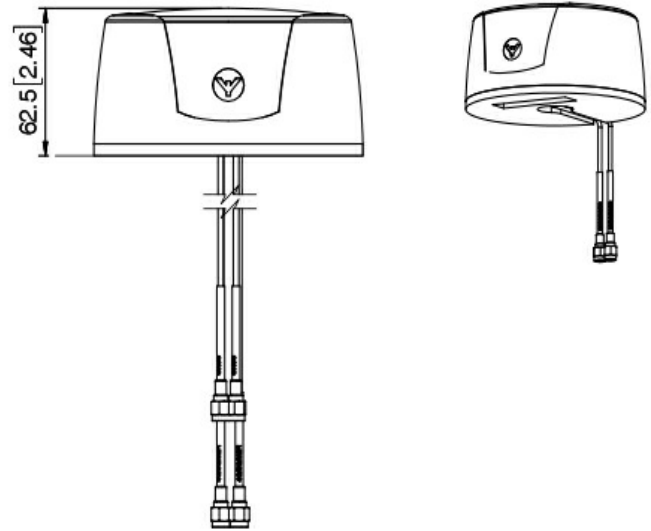
on a 600x600mm (23.6 x 23.6In) groundplane.

MECHANICAL OUTLINE

Stud version



Side mounted version

Mounting instructions - stud version:

- Drill a 18.5-19 mm hole in the car roof
- Remove the cover foil for the gasket beneath the antenna.
- Pull the cables through the hole
- Place the antenna in the desired position.
(note: The antenna can not be moved when the glue beneath the gasket touches the car roof.
- Tighten the combi nut with 24 mm spanner wrench.
Recommended torque: 5 Nm.

Mounting instructions - side mounted version:

- Remove the cover foil for the gasket beneath the antenna.
- Place the antenna in the desired position

The antenna can be mounted on a pole or on a wall with a bracket and straps (optional)