



When precision matters[®]

A Tallysman Accutenna[®]

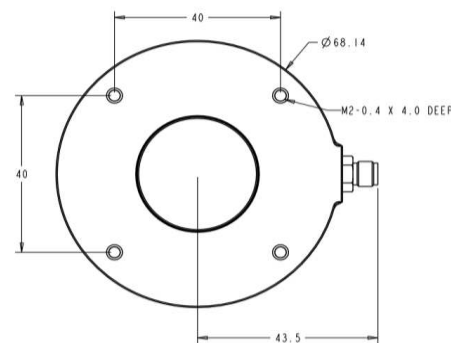
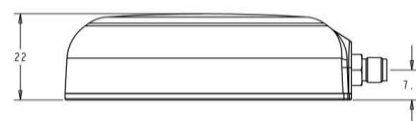
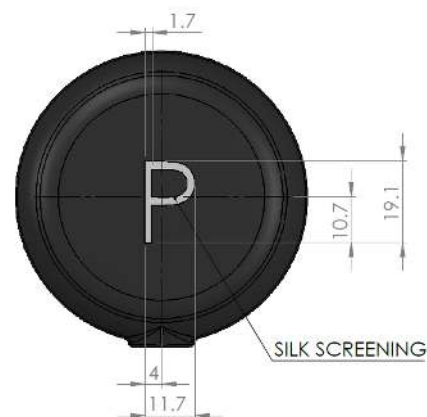
TW7900P Passive Triple Band GNSS Antenna + L-band Correction Services

The TW7900P is precision tuned triple band, *Accutenna*[®] technology antenna for re-radiating GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b plus L-band corrections signals. The TW7900P provides superior axial ratio, a linear phase response, and tight Phase Centre Variation (PCV). This antenna is ideal for re-radiating systems.

Architecturally, the TW7900P features a dual feed circular stacked patch element. The input signal is split into two orthogonal feeds used to excite the dual-pin patch antenna elements.

The TW7900P provides re-radiation for signals in the bands 1164MHz to 1254MHz and 1525MHz to 1606MHz. It is housed in a magnetic mount, weather-proof enclosure.

The "P" printed on the radome identifies this antenna as being a passive antenna allowing it to be differentiated from our line of active antennas that have the same radome shape.



Applications

- Indoor GNSS Re-radiator Systems for:
 - Product Design Labs
 - Production facilities
 - Tunnels
 - Vehicle Garages
 - Aircraft Hangars
- Triple Frequency systems

Features

- Axial ratio: <math><2\text{dB}</math> typ.
- Tight Phase Center Variation

Benefits

- Ideal for re-radiators
- Increased system accuracy
- IP67, REACH, and RoHS compliant



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Specifications (Temperature=25°C)

Antenna

Patch Architecture			Circular, Dual Feed, Dual Stacked Patch
E5a/L5 Gain (100mm ground plane)			-1.5dBic Min at Zenith
E5b/G3 Gain (100mm ground plane)			3.0 dBic Min at Zenith
L2 Gain (100mm ground plane)			4.0 dBic Min at Zenith
G2 Gain (100mm ground plane)			2.5 dBic Min at Zenith
E1 Gain (100mm ground plane)			4.0 dBic Min at Zenith
L1 Gain (100mm ground plane)			4.0 dBic Min at Zenith
G1 Gain (100mm ground plane)			3.0 dBic Min at Zenith
Typical Axial Ratio @ zenith			
L5/E5ab	<2dB	L2/B2	<1.5dB
G2	<2dB	L-Band	<1dB
L1/E1	<1dB	G1	<1.5dB

Electrical

Bandwidth	L2/L5: 1164MHz-1254MHz, L-band/L1: 1525 MHz-1606MHz
VSWR	<1.5:1
Supply Voltage Range	not applicable
EMI Immunity	50V/Meter, excepting L1+/-100MHz and L2 +/- 100MHz

Mechanicals & Environmental

Mechanical Size, Ground Plane	69mm (dia) x 22mm (H)
Operating Temperature Range	-40°C to +85°C
Enclosure	Radome: EXL9330, Base: Zamak White Metal
Weight	180 g
Attachment Method	Magnetic Mount. Four-threaded holes (#6x32, 4mm deep in the base allow for screw mounting.
Environmental	IP67, RoHS and REACH compliant
Shock	Vertical axis: 50 G, other axes: 30 G
Vibration	3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
Salt fog / spray	MIL STD 810D

Ordering Information

TW7900P – Triple Band GNSS antenna with L-Band Correction 33-7900P-xx-yyyy
Where xx = connector type and yyyy = cable length in mm (where applicable)

Please refer to the Ordering Guide (<http://www.tallysman.com/index.php/gnss/ordering-guide/>) for the current and complete list of available connectors.

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