TW7900P

TALLYSMAN®

When **precision** matters.®

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

Frequency Coverage: **GPS/QZSS-L1/L2/L5, GLONASS-G1/G2/G3, Galileo-E1/E5a/E5b, BeiDou-B1/B2 + L-band**

Overview

The TW7972P is a precision-tuned triple-band, Accutenna® technology antenna for reception of GPS/QZSS-L1/L2/L5, GLONASS-G1/G2/G3, BeiDou-B1/B2, Galileo-E1/E5a/E5b plus L-band corrections signals. The TW7972 provides superior multipath rejection and axial ratio, a linear phase response, and tight phase centre variation (PCV).

This antenna is ideal for precision agriculture, autonomous vehicle tracking and guidance, and other applications where precision matters.

The TW7972P is housed in a magnetic mount, weather-proof enclosure. Architecturally,it features a dual-feed circular stacked patch element. The signals from the two orthogonal feeds are summed in quadrature.

Applications

- Precision GNSS position
- Triple-frequency RTK systems (base and rovers)
- Positive Train Control (PTC) systems
- Safety & security
- Precision agriculture

Features

- Axial ratio: < 2.0 dB typ.
- Tight phase center variation
- ESD circuit protection: 15 kV
- IP67, REACH, and RoHS compliant

Benefits

- Ideal for triple-band RTK systems
- Great multipath rejection
- Increased system accuracy
- Great signal-to-noise ratio

About Tallysman: With global headquarters and manufacturing in Ottawa, Canada, Tallysman is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Tallysman's mission is to support the needs of a new generation of positioning systems by delivering unprecedented antenna precision at competitive prices. Learn more at **www.tallysman.com**

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Revision: 1.1

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Antenna

Technology Dual-feed stacked RHCP ceramic patch

		Gain dBic typ. at zenith	Axial Ratio dB at zenith
GNSS			
GPS / QZSS	L1	4.0	< 1.0
	L2	4.0	< 1.5
	L5	-1.5	< 2.0
GLONASS	G1	3.0	< 1.5
	G2	2.5	< 2.0
	G3	2.5	-
Galileo	E1	4.0	< 1.0
	E5A	-1.5	< 2.0
	E5B	2.5	< 2.0
	E6	-	-
BeiDou	B1	4.0	-
	B2	2.5	< 1.5
	B2a	-1.5	-
	B3	-	-
IRNSS / NavIC	L5	-1.5	< 2.0
QZSS	L6	-	-
L-Band Services (1525 MHz - 1559 MHZ)		3.5	< 1.0
Satellite Communications			
Iridium		-	-
Globalstar		-	-
Other			
Axial Ratio at 10°	-	Efficiency	-
PC Variation	-		

Mechanicals

Size	69 mm (dia.) x 22 mm (h.)
Weight	180 g
Radome	Radome: EXL9330, Base: Zamak White Metal
Mount	Magnetic

Environmental

Operating Temperature	-40 °C to +85 °C
Storage Temperature	-50 °C to +95 °C
Vibration	MIL-STD-810-D
Shock	Vertical axis: 50 G, other axes: 30 G
Salt Fog	-
IP Rating	IP67 (housing)
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

Warranty:

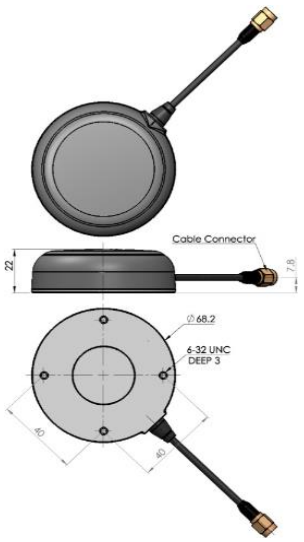
Parts and Labour Three years standard warranty

Low Noise Amplifier (LNA) - Measured at 3V and 25°C

Frequency Bandwith		Out of Band Rejection	
		Upper Band	Lower Band
1525 - 1606 MHz	1165 - 1254 MHz	-	-

Architecture	Non pre-filtered
Gain	-
Noise Figure	-
VSWR	< 1.5:1 typ. 1.8:1 max
Supply Voltage Range	-
Supply Current	-
Maximum Input Power	3.0 W
ESD Circuit Protection	15 kV air discharge
P 1dB Output	-
Group Delay	-

Mechanical Diagram



Ordering Information

Part Number **33-7900P-xx-yyyy**

Where xx = connector type and yyyy = cable length in mm (where applicable)

Please refer to our **Ordering Guide** to review available radomes and connectors at:
https://www.tallysman.com/resource/tallysman-ordering-guide/