

TW3900P



TW3900P Passive Triple-Band GNSS Antenna + L-Band

Frequency Coverage: GPS/QZSS-L1/L2/L5, GLONASS-G1/G2/G3, Galileo-E1/E5a/E5b, BeiDou-B1/B2a/B2b, NavIC-L5 + L-band correction services

Overview

The TW3900P is a precision-tuned triple-band Accutenna® technology antenna providing GPS/QZSS-L1/L2/L5, GLONASS-G1/G2/G3, Galileo-E1/E5a/E5b, BeiDou-B1/B2a/B2b, NavIC-L5, and is especially designed for precision triple-frequency positioning.

The TW3900P features a precision-tuned, twin circular dual-feed, stacked patch element. The signals from the two orthogonal feeds are combined in a hybrid combiner. The TW3900P offers excellent axial ratio and a tightly grouped phase centre variation.

The TW3900P is housed in a weatherproof enclosure, through-hole mount, for permanent installations. L-bracket (PN 23-0040-0) or pipe mounts (23-0065-0) are available. A 100 mm ground plane is provided with the antenna, which ensures optimal performance.



Applications

- Precision GNSS positioning
- Triple-frequency RTK and PPP receivers

Features

- Low axial ratio (< 2.0 dB typ.)
- Tight phase centre variation
- ESD circuit protection (15 kV)
- IP69K, REACH, RoHS, and S-9401.V1.0 compliant
- EN45545-2, EN50121, EN50155, and EN61373 compliant

Benefits

- Excellent multipath rejection
- Increased system accuracy
- Excellent 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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Antenna			
Technology	Dual-feed Stacked RHCP ceramic patch		
		Gain dBic typ. at Zenith	Axial Ratio dB at Zenith
GNSS			
GPS / QZSS	L1	4	< 1.0
	L2	4	< 1.0
	L5	-1.5	< 1.5
GLONASS	G1	3	< 1.5
	G2	2.5	< 1.5
	G3	2.5	< 1.5
Galileo	E1	4	< 1.0
	E5A	-1.5	< 1.5
	E5B	2.5	< 1.5
	E6	-	-
BeiDou	B1	4	< 1.0
	B2	2.5	< 1.5
	B2a	-1.5	< 1.5
	B3	-	-
IRNSS / NavIC	L5	-1.5	< 1.5
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	± 10 mm	PCO	-

Mechanicals	
Size	66 mm (dia.) x 21 mm (h.) 100 mm ground plane provided
Weight	185 g
Radome	Radome: EXL9330, Base: Zamak White Metal
Mount	19 mm through hole
Available Connectors	Please refer to ordering guide

Environmental	
Operating Temperature	-70 °C to 85 °C
Storage Temperature	-70 °C to 95 °C
Vibration	MIL-STD-810D Method 514.4 and 514.5
Shock	MIL-STD-810G Method 516.6
Salt Fog	MIL-STD-810F Method 509.4
IP Rating	IP69K
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH, S-9401.V1.0, EN:45545-2, 50121, 50155, 61373

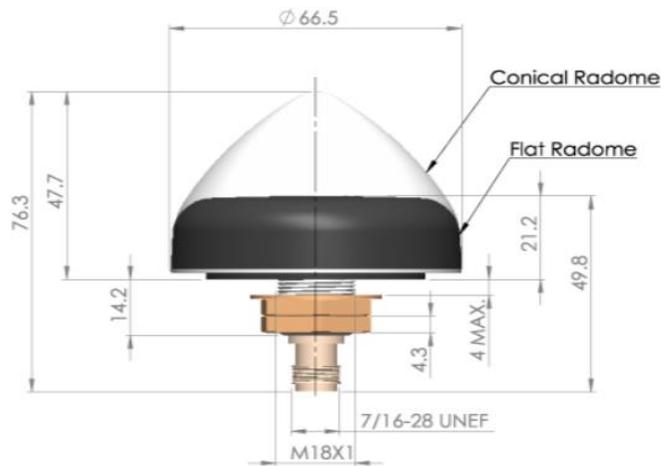
Warranty:	
Parts and Labour	3-year standard warranty

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

	Frequency Bandwidth	Out of Band Rejection
Lower Band	1160 - 1255 MHz	0
L-Band - Correction Services	See Below	-
Upper Band	1525 - 1606 MHz	0

Architecture	Dual Pin
Gain	-
Noise Figure	-
VSWR	< 1.5:1 typ. 1.8:1 max.
Supply Voltage Range	0
Max. Input Power	3.0W
ESD Circuit Protection	15 kV air discharge
P 1dB Output	-
Group Delay	-

Mechanical Diagram



Ordering Information

Part Number **33-3900P-xx-yy-zzzz**

where xx = connector type, yy = shape and colour of radome, and zzzz = cable length in mm

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