

# TW2410



## TW2410 Magnetic-Mount Single-Band GPS/GLONASS Antenna

Frequency Coverage: GPS-L1, GLONASS-G1

The TW2410 employs Tallysman's patented Accutenna® technology covering the GPS-L1 and GLONASS-G1 GNSS bands, including the satellite-based augmentation system (SBAS) available in the region of operation [WAAS (North America), EGNOS (Europe), MSAS (Japan), or GAGAN (India)]. It is especially designed for precision industrial, agricultural, safety and security OEM applications. It provides truly circular response over its entire bandwidth thereby producing superior multipath signal rejection.

The TW2410 features a dual-feed wideband patch element, with a two stage low-noise amplifier, comprised of one input LNA per feed, a mid section SAW to filter the combined output, and a final output gain stage. This configuration provides excellent axial ratio that is constant across the full frequency band.

The TW2410 is housed in a compact, industrial-grade weatherproof, magnet mount enclosure, and is available with a variety of connectors and cable lengths. The antenna can be ordered without the magnet. In such cases, the magnet is replaced with a plastic plug to provide a smooth under surface.



### Applications

- High-accuracy & mission-critical global positioning
- Precision agriculture, mining, and construction
- Law enforcement and public safety
- Fleet management and asset tracking
- Avionics

### Features

- Great axial ratio (< 1.0 dB) at zenith
- Low noise LNA (1.5 dB typ.)
- High-rejection SAW filter
- LNA gain (28 dB typ.)
- Low current (10 mA typ.)
- Wide voltage input range (2.5 to 16 VDC)
- IP67 weatherproof housing
- Reach and RoHS compliant

### Benefits

- Excellent multipath rejection
- Excellent signal-to-noise ratio
- Great out-of-band signal rejection
- Increased system accuracy
- Ideal for harsh environments

**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](http://www.tallysman.com)

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## Antenna

Technology Dual-feed RHCP ceramic patch

		Gain	Axial Ratio
		dBic typ. at Zenith	dB at Zenith
GNSS			
GPS / QZSS	L1	4.3	≤ 1
	L2	-	-
	L5	-	-
GLONASS	G1	4.3	≤ 1
	G2	-	-
	G3	-	-
Galileo	E1	-	-
	E5a	-	-
	E5b	-	-
	E6	-	-
BeiDou	B1	-	-
	B2	-	-
	B2a	-	-
	B3	-	-
IRNSS / NavIC	L5	-	-
QZSS	L6	-	-
L-band correction services		-	-
Satellite Communications			
Iridium		-	-
Globalstar		-	-
Other			
Axial Ratio at 10°	-	Efficiency	-
Phase Centre Variation	-		

## Mechanicals

Mechanical Size	57 mm (dia.) x 15 mm (h.)
Weight	110 g
Available Connectors	See Ordering Guide
Radome / Enclosure	Radome: EXL9330, Base: Zamak white metal
Mount	Magnetic, adhesive, or permanent

## Environmental

Operating Temperature	-45 °C to +85 °C
Storage Temperature	-45 °C to +85 °C
Mechanical Vibration	MIL-STD-810D
Shock and Drop	Vertical axis: 50 G, other axes: 30 G
Salt Fog	-
Low Pressure - Altitude	-
IP Rating (housing)	IP67
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

## Warranty:

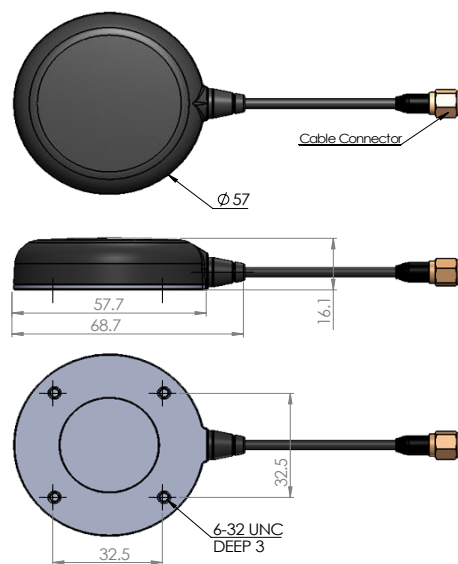
Parts and Labour	3-year standard warranty
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## Low Noise Amplifier (LNA) - Measured at 3.0 VDC and 25°C

Frequency Bandwidth	Out-of-Band Rejection
Lower Band	-
Upper Band	1574 - 1606 MHz > 32 dB @ < 1500 MHz > 25 dB @ < 1550 MHz > 35 dB @ < 1640 MHz

Architecture	LNA stage 1 → filter → LNA stage 2
Gain	28 dB min.
Noise Figure	1.5 dB typ.
VSWR	< 1.5:1 typ.   1.8:1 max.
Supply Voltage Range	2.5 to 16 VDC nominal (12 VDC rec. max..)
Supply Current	10 mA typ   12 mA max. (85 °C)
ESD Circuit Protection	15 kV air discharge
P 1dB Output	-
Group Delay Variation	-

## Mechanical Diagram



## Ordering Information

Part Number **33-2410-xx-yyyy**

where xx = connector type, yyyy = 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/>

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