



TW2500 Magnet Mount Globalstar™ STU Antenna

The TW2500 by Tallysman Wireless is a professional grade, magnet mount, passive left hand circularly polarised antenna for the 1610 to 1620 MHz frequency band, specifically designed to maximise the performance of the Globalstar™ STU (Simplex Transmit Unit) Modem.

The TW2500 features a high performance dual-feed patch element that provides great axial ratio (3 dB max) over the entire Globalstar™ frequency band, thus signals at the band edges remain truly circular, unlike the response of single feed antennas.

The TW2500 is housed in a compact, industrial-grade weather-proof, magnet mount enclosure, with threaded base holes for screw down attach. It is available with a 75 cm cable, allowing for the STU modem to be mounted out of the elements and reach, and still providing excellent Globalstar™ signal coverage.

Applications

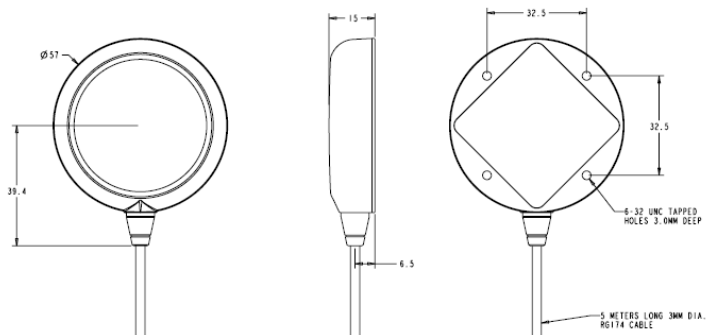
- Simplex Transmit Unit (STU) Applications
- Sea & Land Container Tracking
- Military & Security
- Fleet Management & Asset Tracking
- Marine & Avionics Systems
- Law Enforcement & Public Safety

Features

- Custom high gain 4 dBic dual-feed patch
- Great axial ratio, 3 dB over full bandwidth
- ESD 15 KV circuit protection
- Weather proof, IP67 housing
- Robust Industrial grade enclosure
- Magnet or screw mount
- Wide range of connector options



TW2500 Dimensions (mm)



Benefits

- Excellent circular polarized signal transmission
- Industrial temperature range
- Rugged Design
- Ideal for harsh environments
- RoHS compliant
- Remote STU antenna



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Specifications

Vcc = 3V, over full bandwidth, T=25°C

Antenna

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|-----------------------------------|------------------------|
| Architecture | Dual, quadrature feeds |
| Antenna Gain (100mm ground plane) | 4 dBic |
| Axial Ratio (over full bandwidth) | ≤3 dB |

Electrical

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|-------------------------------|------------------------------|
| Architecture | Hybrid 90° phase splitter |
| Frequency Bandwidth | 1615 MHz ±10 MHz |
| Polarization | LHCP |
| Gain flatness | ≤1 dB, from 1610 to 1620 MHz |
| VSWR (at antenna) | <1.5:1 |
| Return Loss (10 dB bandwidth) | <-20MHz |
| ESD Circuit protection | 15 KV air discharge |

Mechanicals & Environmental

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|-----------------------|--|
| Mechanical Size | 57 mm dia. x 15 mm H |
| Connectors | SMA, TNC, MCX Male (Plug). Other connectors optional |
| Cable | RG174 / 75 cm, custom lengths optional |
| Operating Temp. Range | -40 to +85 °C |
| Enclosure | Radome: ASA Plastic, Base: Aluminum |
| Weight | 150 g |
| Attachment Method | Magnet or permanent (pre-tapped 4 x 6-32UNC) |
| Environmental | IP67 and RoHS compliant |
| Shock | Vertical axis: 50 G, other axes: 30 G |
| Vibration | 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G |
| Warranty | One year – parts and labour |

Ordering Information

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| TW2500 – Globalstar™ STU antenna, 75cm cable, SMA Male | 32-2500-0 |
| TW2500 – Globalstar™ STU antenna, 75cm cable, TNC Male | 32-2500-1 |
| TW2500 – Globalstar™ STU antenna, 75cm cable, MCX Male | 32-2500-2 |

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