



A Tallysman Accutenna® TW1500 Dual Feed Embedded Globalstar™ Antenna

The TW1500 employs Tallysman's unique *Accutenna* technology in a low cost OEM dual feed, passive Left Hand Circularly Polarised antenna (LHCP) for the 1610 to 1620 MHz frequency band, specifically designed to maximise the performance of the Globalstar™ STU (Simplex Transmit Unit) modems.

The wideband dual feed patch element in the TW1500 has an excellent axial ratio across the entire Globalstar™ bandwidth. Unlike single feed antennas, the TW1500 provides excellent multipath rejection and a truly circular transmission response across the Globalstar™ band.

The TW1500 includes a built-in 35mm circular ground plane but best performance is obtained with this augmented with a local system ground plane or reflecting surface (DC connection not required).

OEM antennas are easily detuned by the local environment. Tallysman offers custom tuning services for optimized integration into OEM end-user modules.

Applications

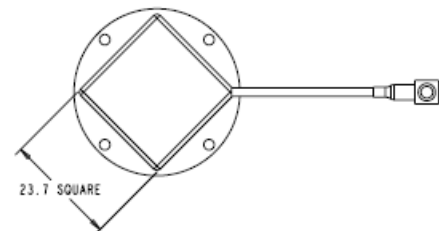
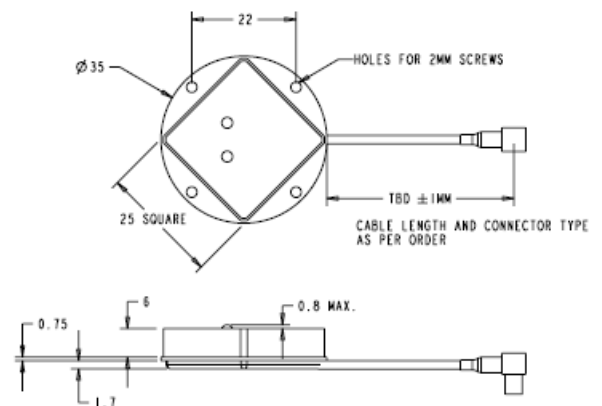
- Higher success rates for Globalstar™ STU transmission
- Sea & Land Container Tracking
- Military & Security
- Fleet Management & Asset Tracking
- Marine & Avionics Systems
- Law Enforcement & Public Safety

Features

- **dual-feed, wide band** patch
- Axial ratio, 3 dB over full bandwidth
- High gain 4.25 dBi
- 15 KV ESD circuit protection
- Robust design
- Small form factor
- -40°C to +85 °C Operation



TW1500 Dimensions (mm)



Benefits

- Better axial ratio at lower elevation angles
- Higher transmission success rates
- Compact form factor
- RoHS compliant



TW1500 Dual Feed Embedded Globalstar® Antenna

Specifications

Over full bandwidth, T=25°C

Antenna

Architecture	Dual, quadrature feeds
Antenna Gain (100mm ground plane)	4.25dBic
Axial Ratio (over full bandwidth)	≤3dB
1.0 dB Bandwidth	1600MHz to 1630MHz

Electrical

Architecture	Dual Feed Patch -> Hybrid 90° Combiner
Polarization	LHCP
VSWR (at antenna)	<1.5:1 typ. 1.8:1 max.
Return Loss (-10 dB bandwidth)	<-20MHz
ESD Circuit protection	15KV air discharge

Mechanicals & Environmental

Mechanical Size	35mm dia. x 7.25mm
Cable	1.38mm OD, 15cm. Custom lengths optional
Operating Temp. Range	-40°C to +85°C
Weight	30g
Attachment Method	Adhesive or M2 screw mount
Environmental	RoHS compliant
Shock	Vertical axis: 50G, other axes: 30G
Vibration	3 axis, sweep = 15 min, 10 to 200Hz sweep: 3G
Warranty	One year – parts and labour

Ordering Information

TW1500 – OEM Dual Feed Globalstar antenna, 33-1500-xx-yyyy
Where xx = connector type and yyyy = cable length in mm

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

Tallysman Wireless Inc

36 Steacie Drive
Ottawa ON K2K 2A9 Canada
Tel +1 613 591 3131 Fax 613 591 3121
sales@tallysman.com

The information provided herein is intended as a guide only and is subject to change without notice. This document is not to be regarded as a guarantee of performance. Tallysman Wireless Inc. hereby disclaims any or all warranties and liabilities of any kind. © 2011 Tallysman Wireless Inc. All rights reserved. Rev 3.1