



TW4600 Wideband Dual Feed Iridium™ Antenna

The TW4600 by Tallysman Wireless is a low cost dual feed, magnetic mount, passive Right Hand Circularly Polarised (RHCP) antenna for the 1616MHz to 1626MHz frequency band, specifically designed to maximise the performance of Iridium™ Satellite communication modems.

The wideband dual feed patch element in the TW4600 has an excellent axial ratio across the entire Iridium™ bandwidth. Unlike single feed antennas, the TW4600 provides excellent multipath rejection and a truly circular transmission response across the Iridium™ band.

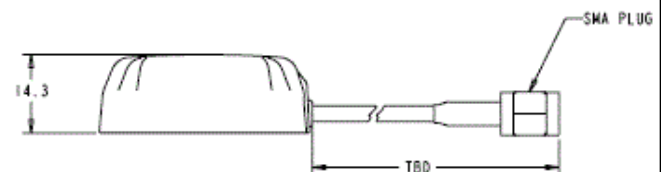
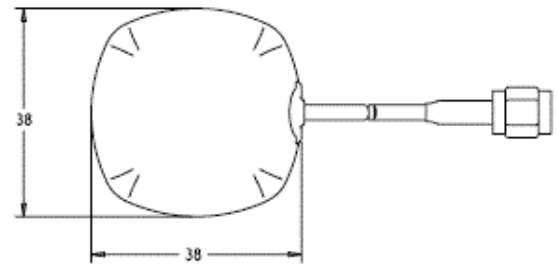
The TW4600 is the smallest dual feed, high performance Iridium™ antenna available. It is housed in a compact IP67 magnetic mount enclosure. It is available with a 50cm coaxial cable that allows for an Iridium™ modem to be mounted away from the weather, yet still provide excellent communications coverage.

Applications

- Iridium™ Satellite Communications Applications
- Sea & Land Container Tracking
- Military & Security
- Fleet Management & Asset Tracking
- Marine & Avionics Systems
- Law Enforcement & Public Safety

Features

- Novel 25mm wide-band dual feed patch
- 4.25 dBic Gain on 100mm Ground plane.
- Great axial ratio, <3 dB over full bandwidth
- Weather proof, low cost IP67 housing
- Magnetic mount
- Wide range of connector options



Benefits

- Truly circular polarized signal transmission
- Industrial temperature range
- Rugged Design
- No-compromise performance for cost sensitive applications
- RoHS compliant
- Remote Iridium™ modem antenna



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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	1605MHz to 1635MHz

Electrical

Architecture	Dual Feed Patch -> Hybrid 90° Combiner
Polarization	RHCP
Gain flatness	≤1dB, from 1611MHz to 1631MHz
VSWR (at antenna)	<1.5:1
Return Loss (-10 dB bandwidth)	<-20MHz
ESD Circuit protection	15KV air discharge

Mechanicals & Environmental

Mechanical Size	38mm x 38mm dia. x 14.3mm High
Connectors	SMA male standard, others available
Cable	RG174 / 3metres, other lengths optional
Operating Temp. Range	-40°C to +85°C
Enclosure	Radome and base: ASA plastic
Weight	Enclosure + SMA connector 34gm, cable 0.31gm/cm)
Attachment Method	Magnetic
Environmental	IP67 and 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

TW4600 – Iridium™ Antenna, 50cm cable, SMA Male 32-4600-xx-yyyy
xx = Connector type, (SMA male standard), yyyy= Coaxial cable length (50cm standard)

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Document 60-0089-0

Rev 1.0