



## A Tallysman Accutenna® TW2643A Active Magnet Mount Iridium® / GNSS Antenna

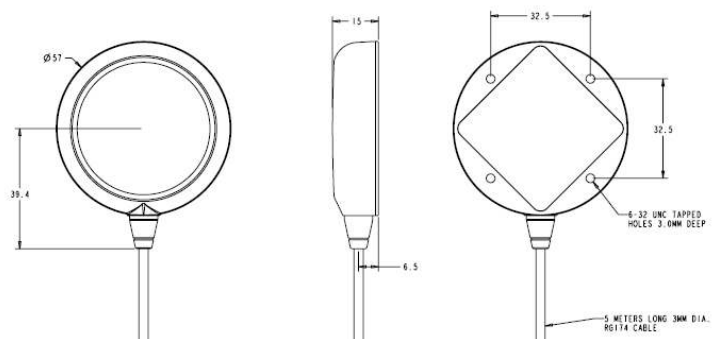
The TW2643A employs Tallysman's unique *Accutenna* technology in a magnet mount, active right hand circularly polarized antenna for the **reception** of all of the GNSS constellations (GPS L1/GLONASS G1/ Galileo E1/ BeiDou B1) plus Iridium: 1559 to 1626.5 MHz frequency band. It is designed to ONLY receive the GNSS and Iridium signals (not transmit). This antenna is uniquely designed for indoor timing applications relying upon both GNSS and Iridium's PNT signal.

The TW2643 features a high performance dual-feed patch element that provides great axial ratio (4dB max, <2dB @ zenith) over the entire Iridium™ + upper GNSS frequency band, thus signals at the band edges remain truly circular, unlike the response of single feed antennas.

The TW2643 is housed in a compact, industrial-grade weather-proof, magnet mount enclosure, with threaded base holes for screw down attachment.



TW2643 Dimensions (mm)



### Applications

- Iridium™ PNT applications+ GNSS
- Timing (indoor and outdoor)
- Fleet Management & Asset Tracking
- Marine & Avionics Systems
- Law Enforcement & Public Safety

### Features

- Custom high gain, 5 dBic dual-feed patch
- Great axial ratio, <2dB over full bandwidth
- 15 KV ESD circuit protection
- IP67 weather proof housing
- Robust Industrial grade enclosure
- Magnet or screw mount

### Benefits

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



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## Specifications Vcc = 3V, over full bandwidth, T=25°C

### Antenna

Architecture	Dual, quadrature feeds			
Antenna Gain (dBic, 100mm ground plane)	<b>B1/E1</b>	<b>L1</b>	<b>G1</b>	<b>Iridium</b>
	3.5	4.5	5	4.5
Axial Ratio (over full bandwidth)	≤2 dB			

### Electrical

Frequency Bandwidth	1559 to 1626.5 MHz
Polarization	RHCP
LNA Gain	26dB (min)
Input voltage	2.5-12VDC
Current	18mA
Cross Polarization Rejection	typically 20dB
VSWR (at antenna)	<1.5:1 typ
ESD Circuit protection	15 KV air discharge
Noise Figure	1.5dB typ.

### Mechanicals & Environmental

Mechanical Size	57 mm dia. x 15 mm H
Cable	RG174 / 50 cm, custom lengths optional
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: ASA plastic, Base: Zamak white metal
Weight	160 g
Attachment Method	Magnet or permanent (pre-tapped 4 x 6-32UNC)
Environmental	IP67, REACH, RED, 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

### Ordering Information

TW2643A – Active Iridium™ + GNSS antenna, 33-2643A-xx-yyyy  
 Where xx = connector type and yyyy = cable length in mm

Please refer to the Ordering Guide (<http://www.tallysman.com/wp-content/uploads/Current-Ordering-Guide.pdf>) for the current and complete list of available connectors.



An ISO 9001:2015  
 Certified Company

36 Steacie Drive, Ottawa ON K2K 2A9 Canada

Tel +1 613 591 3131

Fax 613 591 3121

[sales@tallysman.com](mailto:sales@tallysman.com)

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