

# TW2643P



## Multi-Constellation and Iridium® Passive Antenna

Frequency Coverage: GPS L1 | GALILEO E1 | BEIDOU B1 | GLONASS G1 | Iridium

The TW2643P employs Calian's unique Accutenna technology in a magnet mount, passive right hand circularly polarised 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 certified and specially designed to maximize the performance of Iridium™ Voice and Data Modems plus the upper GNSS band (1559 – 1606MHz).

The TW2643P features a high performance dual-feed patch element that provides great axial ratio (4.5dB max, <1.5dB @ 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 TW2643P is housed in a compact, industrial-grade weather-proof, magnet mount enclosure, with threaded base holes for screw down attachment.



### Applications

- Iridium® PNT applications+ GNSS
- Timing (indoor and outdoor)
- Fleet management and asset tracking
- Marine & Avionics Systems
- Law enforcement and public safety

### Features

- Custom high-gain, 5 dBic dual-feed patch
- Great axial ratio, < 2 dB 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 and REACH compliant

**About Calian:** With global headquarters and manufacturing in Ottawa, Canada, Calian is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Calian'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.calian.com](http://www.calian.com)

Revision: 202407

Contact us:  
[info@tallysman.com](mailto:info@tallysman.com)  
T: +1 613 591-3131

# Multi-Constellation and Iridium® Passive Antenna

Frequency Coverage: GPS L1 | GALILEO E1 | BEIDOU B1 | GLONASS G1 | Iridium

Antenna - Measured with a 100 mm ground plane

Technology Dual-feed RHCP ceramic patch

		Gain dBic typ. at Zenith	Axial Ratio dB at Zenith
GNSS			
GPS / QZSS	L1	4.5	≤ 2
	L2	-	-
	L5	-	-
GLONASS	G1	5.0	≤ 2
	G2	-	-
	G3	-	-
Galileo	E1	3.5	≤ 2
	E5A	-	-
	E5B	-	-
	E6	-	-
BeiDou	B1	3.5	≤ 2
	B2b	-	-
	B2a	-	-
	B3	-	-
IRNSS / NavIC	L5	-	-
QZSS	L6	-	-
L-Band Services (1525 MHz - 1559 MHz)		-	-
Satellite Communications			
Iridium		4.5	≤ 2
Globalstar		-	-
Other			
Axial Ratio at 10°	-	Efficiency	-
PC Variation	-		

## Mechanicals

Size	57 mm (dia.) x 16 mm (h.)
Weight	160 g
Radome	LEXAN™ EXL9330, Base: Zamac Metal
Mount	Magnetic, adhesive, or permanent
Available Connectors	Please refer to ordering guide

## Environmental

Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to 95 °C
Vibration	MIL-STD-810-E - Test Method 514.5
Shock	MIL-STD-810-G - Test Method 516.6
Salt Fog	MIL-STD-810-F - Test Method 509.5
IP Rating	IP67
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

## Warranty:

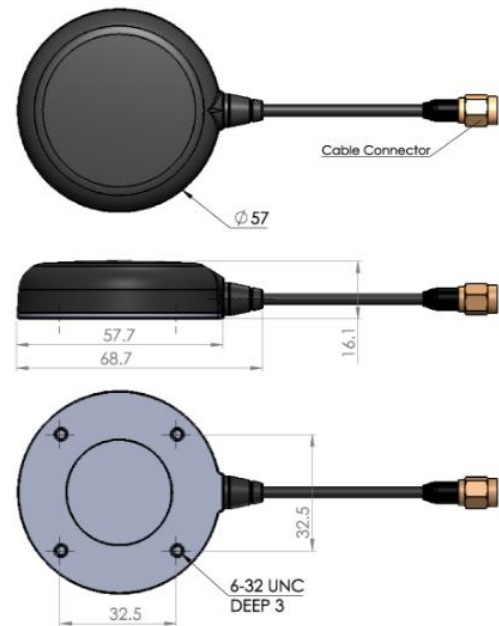
Parts and Labour	3-year standard warranty
------------------	--------------------------

Low Noise Amplifier (LNA) - Measured at 3V and 25°C

Upper Band	Lower Band
Frequency Bandwidth	
1559 - 1626 MHz	-
Out-of-band Rejection	
-	-

Architecture	Passive
Gain	-
Noise Figure	-
VSWR	< 1.5:1 typ., 1.8:1 max
Supply Voltage Range	-
Supply Current	-
ESD Circuit Protection	-
P 1dB Output	-
Group Delay	-
PCO	-

## Mechanical Diagram - Units in 'mm'



## Ordering Information

Part Number 33-2643A-xx-yyyy

Where xx = connector type and 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/>