

TW127



25 dB Upper GNSS Band In-Line Amplifier

Frequency Coverage: GPS L1 | Galileo E1 | Beiidou B1 | GLONASS G1

The TW127 is a low cost, rugged, waterproof, low noise, 1559 MHz to 1606 MHz band, 25 dB gain in-line amplifier, specially designed to amplify all GNSS upper band frequencies.

The TW127 features a two stage LNA with a mid-section SAW filter. It allows longer cable runs for applications such as mast-mount, large vehicle and timing systems, without degradation of system sensitivity.

The standard model offers low current consumption and DC pass through which allows both the antenna and the TW127 inline amplifier to be powered by the GNSS receiver without additional hardware such as bias-T, power cable and power supply.

The TW127 is optionally available without DC Pass-through. A High Current version is also available.

Amplifiers are directional and must be installed in the orientation indicated on the product label (arrow points away from antenna).



Applications

- GNSS and Telematics Systems
- Wireless Telecom & Cellular Base Station Timing Applications
- Commercial and Industrial Timing and Synchronization Applications

Features

- Very low noise figure
- High-Rejection Mid-Section SAW filter
- Wide input voltage 3 to 10 Volts
- Nickel-plated brass, IP67 compliant housing
- Powered via antenna coax from receiver
- 50 Ohm port impedance
- Available SMA, TNC or N-type jack connectors
- CE RED, REACH, and RoHS compliant

Benefits

- Improves signal reception
- Enables extended cable runs
- Avoid installation of costly low-loss cable
- Fits in line with antenna cable
- No external DC power supply required
- Easy to install - mounting clamp included

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

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Electrical Specifications

Parameter	Value
Operational Frequency	1559 to 1606 MHz
I/O VSWR (50 Ω)	1.5 typ., 2 max.
Gain and Flatness	27 dB typ., 25 dB min., ±2 dB ripple
Noise Figure	2 dB typ.
Supply Current	10 mA typ., 15 mA max.
Out-of-band Rejection	> 35 dB @ < 1530 MHz and > 35 dB @ > 1650 MHz
Reverse Isolation	35 dB min.
Supply Voltage Range	3 to 10 VDC nominal
Output P1dB (Compression Level)	-10 dBm
Output IP3	+5 dBm
Maximum Input RF Power	-
Group Delay Variation	-

Mechanicals

Size	59 mm (l.) x 20 mm (dia.)
Weight	85 g
Enclosure	Nickel-plated brass
Mount	-
Connectors	SMA, TNC, or type-N (female)

Environmental

Operating Temperature	-40 °C to 85 °C
Storage Temperature	-55 °C to 95 °C
Vibration	-
Shock	-
Salt Fog	-
IP Rating	IP67
Compliance	CE RED, RoHS, and REACH compliant

Warranty

Parts and Labour	-
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Ordering Information

Part Number **32-0127-xx**

Where xx = 00 for SMA (female), 01 for TNC (female) or 14 for type-N (female)

Please refer to our **Ordering Guide** to review available radomes and connectors at:

<https://www.tallysman.com/resource/tallysman-ordering-guide/>

Mechanical Diagram - Units in 'mm'

