

TW125B



27 dB GNSS In-Line Amplifier (Low Current)

Frequency Coverage: Full GNSS Spectrum

The TW125B is a low cost, rugged, waterproof, low noise, low current/low voltage, 1.1 to 1.7 GHz band, 27 dB gain inline amplifier, specially designed to amplify all GNSS frequency signals, from GPS L5 to GLONASS G1.

The TW125B provides for much longer cable runs from antenna to receiver, for applications such as mastmount, large vehicle and timing systems, without degradation of system sensitivity.

Its low loading allows for both the antenna and the TW125B in-line amplifier to be powered by the GNSS receiver.

The TW125B passes DC supply to the antenna, therefore not requiring additional hardware such as bias-T, power cable and power supply.

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



Applications

- All GNSS Signals – GPS, GLONASS, Galileo, BeiDou & SBAS
- Commercial, Industrial and Military Telematics Systems
- Wireless and Telecom Timing and Synchronization Applications

Features

- Low Current / low voltage
- Very low noise figure
- Wide input voltage 3 to 16 Volts
- Nickel-plated brass, IP67 compliant housing
- Powered via antenna coax from receiver
- 50 Ohm port impedance
- Available SMA, TNC, and 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	1.1 to 1.7 GHz
I/O VSWR (50 Ω)	1.5 typ., 2 max.
Gain and Flatness	27 dB typ., 26 dB min., ± 0.5 dB ripple
Noise Figure	2 dB typ.
Supply Current	11 mA typ.
Out-of-band Rejection	-
Reverse Isolation	35 dB min.
Supply Voltage Range	3 to 12 VDC nominal
Output P1dB (Compression Level)	+9 dBm
Output IP3	+14 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 32-0125B-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'

