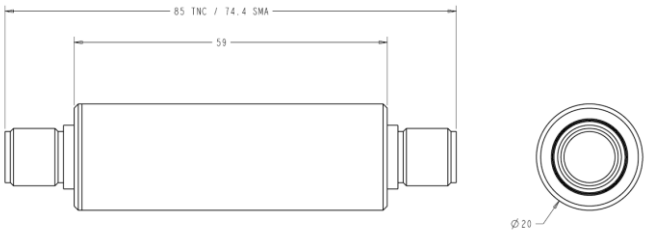
TW125B Low Current / Low Voltage 1.1 to 1.7 GHz 27 dB gain In-line Amplifier

The TW125B is a low cost, rugged, waterproof, low noise, low current/low voltage, 1.1 to 1.7 GHz band, 27dB gain in-line 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 mast-mount, 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.



IMPORTANT: 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
- 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
- RoHS and REACH 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

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Specifications

Vcc =3.3V, over full bandwidth, T=25 °C

Electrical

• Nominal Gain	27 dB +.1/-.2 dB typ.
• Pass Band Ripple	+/-0.5 dB
• Impedance	50 Ohms
• Noise Figure	2 dB typ.
• Bandwidth	1.1 to 1.7 GHz
• Input VSWR	1.3:1 typ..
• Output VSWR	1.3:1 typ.
• Reverse Isolation	>35 dB
• Output P1dB	+9dB min
• Group Delay (w/o cable)	<1ns
• Output IP3	+14dBm
• Supply Range voltage	3 to 16 VDC Nominal, 12 VDC recommended operating max
• Supply Current	11 mA typ.

Mechanicals & Environmental

Mechanical Size (body dimensions only)	2.32” L x 0.787” Dia. (59 mm L x 20 mm dia.)		
Connectors	SMA Jack, TNC Jack, or N-Type Jack		
Torque Limitations (in. lbs)	**N-type**	**TNC**	**SMA**
	6.5 – 8	**9 - 11**	**3.6 – 4.5**
Operating Temp. Range	-40 to +85 °C		
Enclosure	Nickel-plated brass		
Environmental	RoHS, REACH, and IP67 compliant		
Warranty	One year – parts and labour		

Ordering Information

• TW125B - 27dB gain In-Line Amp with SMA female on both ends	32-0125B-00
• TW125B - 27dB gain In-Line Amp with TNC female on both ends	32-0125B-01
• TW125B - 27dB gain In-Line Amp with SMA female on antenna side and TNC on output side	32-0125B-02
• TW125B - 27dB gain In-Line Amp with TNC female on antenna side / SMA female on output side	32-0125B-03
• TW125B - 27dB gain In-Line Amp with N-Type female on both ends	32-0125B-14 (premium applies)

Tallysman An ISO 9001:2015 Certified Company

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Rev 1.9

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