



TW125 Low Current / Low Voltage 1.2 to 1.8 GHz 28 dB gain In-line Amplifier

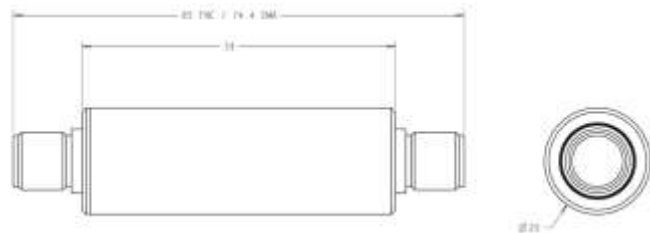
The TW125 is a low cost, rugged, waterproof, low noise, low current/low voltage, 1.2 to 1.8 GHz band, 28dB gain in-line amplifier, specially designed to amplify all GNSS frequency signals, from GPS L2 to GLONASS L1. The TW125 provides for much longer cable runs from antenna to receiver, for applications such as mast-mount, large vehicle and timing systems, without degradation of system sensitivity.

Its low loading allows for both the antenna and the TW125 in-line amplifier to be powered by the GNSS receiver. The TW125 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 & 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



TW125 Low Current / Low Voltage 1.2 to 1.8 GHz 28 dB gain In-line Amplifier

Specifications

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

Electrical

• Nominal Gain	28 dB +.1/-2 dB typ.
• Pass Band Ripple	+/-0.5 dB
• Impedance	50 Ohms
• Noise Figure	2 dB typ.
• Bandwidth	1.2 to 1.8 GHz
• Input VSWR	1.3 typ..
• Output VSWR	1.3 typ.
• Reverse Isolation	>35 dB
• Output P1dB	+12.8 dB min
• Group Delay	0.89ns (@1.4GHz), 0.82ns (@1.6GHz)
• Output IP3	+5 dBm
• Supply Range voltage	3 to 16 VDC Nominal, 12 VDC recommended operating max
• Supply Current	25 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

• TW125 - 25dB gain In-Line Amp with SMA Jack	33-0125-0
• TW125 - 25dB gain In-Line Amp with TNC Jack	33-0125-1
• TW125 - 25dB gain In-Line Amp with N-Type female	33-0125-14 (premium applies)

Tallysman Wireless Inc

36 Steacie Driv
Ottawa ON K2K 2A9 Canada
Tel 613 591 3131 Fax 613 591 3121
sales@tallysman.com

The information provided herein is intended as a guide only and is subject to change without notice. This document is not to be regarded as a guarantee of performance. Tallysman Wireless Inc. hereby disclaims any or all warranties and liabilities of any kind. © 2010 Tallysman Wireless Inc. All rights reserved.

Rev 2.5