# TW127 1559 MHz to 1610 MHz 25 dB gain In-line Amplifier

The TW127 is a low cost, rugged, waterproof, low noise, 1559 MHz to 1610 MHz band, 25dB gain in-line amplifier, specially designed to amplify all GNSS L1 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.

IMPORTANT: Amplifiers are directional and must be installed in the orientation indicated on the product label





#### **Applications**

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- All L1 GNSS Signals
- Commercial, Industrial and Military Telematics Systems
- Wireless and Telecom Timing and Synchronization Applications

#### Features

- Very low noise
- 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
- 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**

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

# Electrical

٠	Nominal Gain	25 dB +4/-0 dB typ.			
٠	Pass Band Ripple	+/-2 dB			
٠	Impedance	50 Ohms			
٠	Noise Figure	2 dB typ.			
٠	Bandwidth	1559 – 1610 MHz			
٠	Input VSWR	1.5 typ. / 2 max.			
٠	Output VSWR	1.5 typ. / 2 max.			
٠	Reverse Isolation	>35 dB			
٠	Output 1dB	-10 dB			
٠	Output IP3	+5 dBm			
٠	Supply Range voltage	3 to 10 VDC Nominal			
٠	Supply Current	10 mA typ, 15 mA max. (HC model 25 mA typical)			

## **Mechanicals & Environmental**

Mechanical Size (body dimensions only)		2.32" L x 0.787" Dia. (59 mm L x 20 mm dia.)		
Weight		<85g		
Connectors	SMA Jack or TNC Jack			
Torque Limitations (lbs)	N-type	TNC	SMA	
	6.1	8	3	
Operating Temp. Range	-40 to +85 °C			
Enclosure	Nickel-plated brass			
Environmental		RoHS and IP67 compliant		
Warranty	One year – parts and labour			

#### **Ordering Information**

- TW127 25dB gain In-Line Amp with SMA Jack
- TW127 25dB gain In-Line Amp with TNC Jack
- TW127 25dB gain In-Line Amp with N-type
- TW127 -25dB gain In-Line Amp, with DC pass-through block

Please contact Tallysman Wireless for additional information

#### **Tallysman Wireless Inc**

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