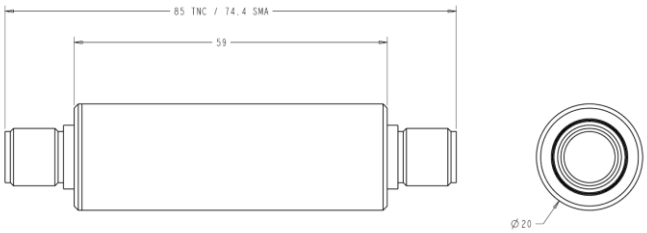
TW127 1559 MHz to 1610 MHz 25 dB gain In-line Amplifier

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 in-line 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.



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

Applications

- 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

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

Electrical

• Nominal Gain	25 dB +4/-0 dB typ.
• Pass Band Ripple	+/-2 dB
• Impedance	50 Ohms
• Noise Figure	2 dB typ.
• Bandwidth	1559 – 1610 MHz
• Input VSWR	1.5 typ. / 2 max.
• Output VSWR	1.5 typ. / 2 max.
• Reverse Isolation	>35 dB
• Output 1dB	-10 dB
• Output IP3	+5 dBm
• Supply Range voltage	3 to 10 VDC Nominal
• 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	32-0127-00
• TW127 - 25dB gain In-Line Amp with TNC Jack	32-0127-01
• TW127 - 25dB gain In-Line Amp with N-type	32-0127-14 (premium applies)
• TW127 -25dB gain In-Line Amp, with DC pass-through block	32-127-X-DCB
• TW127 – 25dB gain In-Line Amp with high current (25mA typ.)	32-127-X-HC

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