

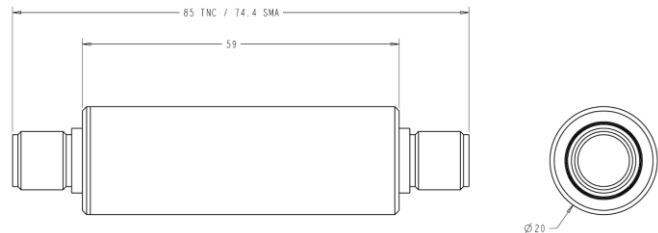


TW141 1200 to 1800 MHz 40 dB Inline Amplifier

The TW141 is a rugged, waterproof wideband 40dB gain in-line amplifier, specially designed to boost weak frequency signals from 1200 to 1800 MHz, including L-Band and all GNSS (GPS, GLONASS and Galileo) signals. The TW141 provides for much longer cable runs from antenna to receiver without degradation of system sensitivity, for applications such as mast-mount, large vehicle and timing systems.

The TW141 passes DC directly from input to output to support centre conductor DC supply to the antenna, and so avoids the need for an additional bias source or bias “T”. It is enclosed in a robust weatherproof cylindrical nickel-plated brass housing (IP67 compliant) and is available with SMA and TNC female connectors.

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



Applications

- Commercial and Military L-Band Satellite Systems
- Wireless Telecom & Cellular Base Station Timing Applications
- GNSS (GPS, GLONASS, Galileo), SBAS and Telematics Systems
- Commercial and Industrial Timing and Synchronization Applications

Features

- Very low noise: <2dB
- <25 mA max. current consumption
- Wide input voltage 3.3 to 10 Volts
- Cylindrical nickel-plated brass housing: IP67
- 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

Electrical

• Nominal Gain @ 1500 MHz, T=21°C	42 dB +/- 3 dB typ.
• Gain Flatness	±2 dB
• Impedance	50 Ohms
• Noise Figure	<2 dB
• Operational Bandwidth	1200 to 1800 MHz
• VSWR 1150 to 1750 MHz	≤2 max.
• Input Return Loss Zo=50	> -10 dB
• Output Return Loss Zo=50	> -10 dB
• Reverse Isolation	>50 dB
• Output 1dB Compression Level	+7 dBm
• Output IP3	+20 dBm
• Supply Range voltage	3.3 to 10 VDC nominal
• Supply Current	<25 mA max.

Mechanicals & Environmental

Mechanical Size (body dimensions only)	59 mm L x 20 mm Dia. (2.32" L x 0.787" Dia.)						
Weight	<85g						
Connectors	SMA jack or TNC Jack						
Torque Limitations (in.lbs)	<table><thead><tr><th>N-type</th><th>TNC</th><th>SMA</th></tr></thead><tbody><tr><td>6.1 - 8.4</td><td>8 - 12</td><td>3 - 5</td></tr></tbody></table>	N-type	TNC	SMA	6.1 - 8.4	8 - 12	3 - 5
N-type	TNC	SMA					
6.1 - 8.4	8 - 12	3 - 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

• TW141 40dB gain In-Line Amp with SMA Jack	32-0141-00
• TW141 40dB gain In-Line Amp with TNC Jack	32-0141-01
• TW141 40dB gain In-Line Amp with N-Type	32-0141-14 (premium applies)

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