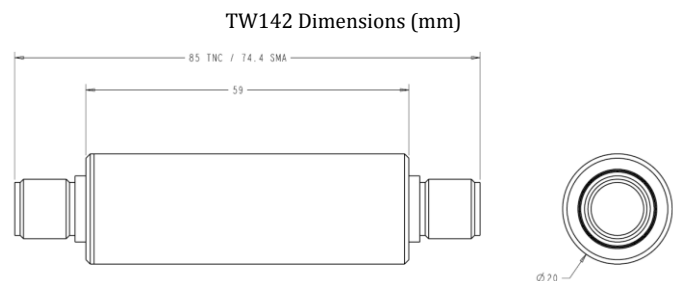




## TW142 1450 to 1750 MHz 40 dB Inline Amplifier

The TW142 by Tallysman Wireless is a rugged, waterproof, low noise, wideband 40dB gain in-line amplifier, specially designed to boost weak frequency signals from 1450 to 1750 MHz, including L-Band, GPS L1 and GLONASS L1 signals. The TW142 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 TW142 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 cylindrical nickel-plated brass weatherproof housing (IP67 compliant) and is available with SMA and TNC female connectors.



### Applications

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

### Features

- Very low noise
- 75 mA max. current consumption
- Wide input voltage 5 to 10 Volts
- Cylindrical nickel-plated brass, IP67 compliant housing
- Powered via antenna coax from receiver
- 50 Ohm port impedance
- Available SMA & TNC jack connectors
- RoHS 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



# TW142 1450 to 1750 MHz 40 dB Inline Amplifier

## Specifications

### Electrical

• Nominal Gain @ 1500 MHz, T=21°C	40 dB +/- 1 dB typ.
• Gain Flatness	±2 dB
• Impedance	50 Ohms
• Noise Figure	<1.2 dB
• Operational Bandwidth	1450 to 1750 MHz
• VSWR	1.5 max.
• Input Return Loss Zo=50	> -15 dB
• Output Return Loss Zo=50	> -15 dB
• Reverse Isolation	>35 dB
• Output 1dB Compression Level	+10 dB
• Output IP3	+20 dBm
• Supply Range voltage	5 to 10 VDC nominal
• Supply Current	75 mA max.

### Mechanicals & Environmental

• Mechanical Size (body dimensions only)	59 mm L x 20 mm Dia. (2.32" L x 0.787" Dia.)
• Connectors	SMA Jack or TNC Jack
• Operating Temp. Range	-40 to +85 °C
• Enclosure	Nickel-plated brass
• Environmental	RoHS and IP67 compliant
• Warranty	One year – parts and labour

### Ordering Information

• TW142 - 40dB gain In-Line Amp with SMA Jack	32-0142-0
• TW142 - 40dB gain In-Line Amp with TNC Jack	32-0142-1

Please contact Tallysman Wireless for additional information

### Tallysman Wireless Inc

308 Legget Drive, Suite 202  
Ottawa, ON K2K 1Y6 Canada  
Tel 613 591 3131  
Fax 613 591 3121  
[sales@tallysman.com](mailto: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.