

# GNSS INLINE AMPLIFIERS

## SIGNAL LOSS SOLUTIONS

STARLINK® INLINE AMPLIFIERS PROVIDE A SIMPLE AND COST EFFECTIVE MEANS TO MAXIMISE THE PERFORMANCE OF YOUR GNSS SYSTEM



**Amplified signal loss solutions**



**Connectivity options**



**Small form factor**



**Multi-frequency and constellation**

**GPS L1/L2/L5**

**GLONASS G1/G2**

**Galileo E1/E5a/E5b/E6**

**BeiDou B1/B2**

**Upper Band Correction Signals**

### SIGNAL LOSS ISSUES

GNSS signals become attenuated as they travel through long cable runs, this reduced signal gain can limit the ability of the receiver to provide a position solution to the point where the signal is completely undetectable by the receiver. Receivers specify an ideal gain strength to ensure the most robust positioning; a long cable run can result in a signal reaching the receiver that is below the ideal strength required.

### AMPLIFIED SOLUTIONS

The level of signal loss depends on the quality and length of cable used. When looking at the common RG-58 cable type a cable length exceeding 30 metres can result in a signal loss issue. StarLink inline amplifiers address this problem by amplifying the GNSS signal to provide increased gain, reducing the effects of attenuation. With the correct amplification, it is possible to extend antenna cable runs significantly. Higher specification cables can enable greater distances to be achieved.

### INTERFERENCE MITIGATION

Weak GNSS signals are vulnerable to interference, an issue addressed as StarLink inline amplifiers filter and reject unwanted interference, reducing the effect of internally generated electrical noise, whilst enabling GNSS signals to pass through.

### RUGGED, ADAPTABLE AND EASY TO INSTALL

StarLink inline amplifiers are made with gold plated brass and rugged and watertight packaging. They are available with SMA, TNC, BNC, or N connectors.

Installation is a simple process just attach the amplifier in line with your antenna cable. The amplifier uses the same power as the antenna so no extra power source is required. All StarLink products come with a full, one year parts and labour warranty.





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# INLINE AMPLIFIER SPECIFICATIONS

## GENERAL INFORMATION

Inline Amplifiers with TNC connectors are 3.770" in length.  
Length will vary slightly with "N" and "SMA" connectors installed.

- Typical Noise figure for 1575 Inline Amplifiers is <3dB.
- Typical Noise figure for L1L2 Inline Amplifiers is <4dB.
- Input voltage for all models is from 3.3 to 28 Vd.c.

- Current consumption is <36mA (typ. 25mA).
- Operating temperature is - 40°C (-40°F) to +70°C (158°F)
- Storage temperature is -55°C (-67°F) to +85°C (185°F)
- Relative humidity 0 - 100% condensing.
- IP Rating: IP67
- Certified to Safety Standards UL 62368-1/CSA No. 62368-1 (currently 1575 models only)

### MODEL L1L2

### CONNECTORS

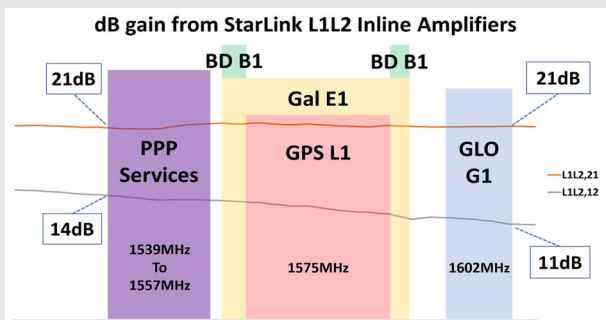
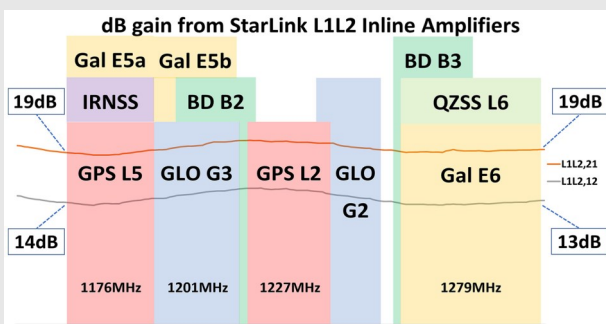
(GPS L1/L2/L5, GLONASS G1/G2/G3, GALILEO E1/E5/E6, BEIDOU B1/B2/B3, IRNSS, QZSS L6, SBAS, L-BAND)

#### 13dB Gain +/- 2dB

|                |                             |
|----------------|-----------------------------|
| LA-12-L1L2-N   | N type, female              |
| LA-12-L1L2-S   | SMA type, female            |
| LA-12-L1L2-B   | BNC type, female            |
| LA-12-L1L2-T   | TNC type, female            |
| LA-12-L1L2-TMF | TNC type, male to female    |
| LA-12-L1L2-BT  | BNC type to TNC type female |
| LA-12-L1L2-TS  | TNC type to SMA type female |

#### 20dB Gain +/- 1dB

|                |                             |
|----------------|-----------------------------|
| LA-21-L1L2-N   | N type, female              |
| LA-21-L1L2-S   | SMA type, female            |
| LA-21-L1L2-B   | BNC type, female            |
| LA-21-L1L2-T   | TNC type, female            |
| LA-21-L1L2-TMF | TNC type, male to female    |
| LA-21-L1L2-BT  | BNC type to TNC type female |
| LA-21-L1L2-TS  | TNC type to SMA type female |



### MODEL 1575

### CONNECTORS

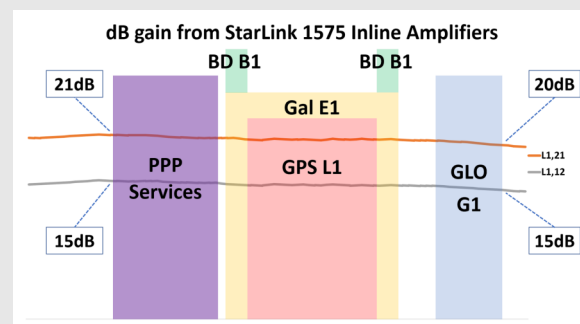
(GPS L1, GLONASS G1, GALILEO E1, BEIDOU B1, SBAS, L-BAND)

#### 15dB Gain +/- 1dB

|                    |                             |
|--------------------|-----------------------------|
| LA-12-1575-100-N   | N type female both ends     |
| LA-12-1575-100-S   | SMA type female both ends   |
| LA-12-1575-100-T   | TNC type female both ends   |
| LA-12-1575-100-B   | BNC type, female            |
| LA-12-1575-100-TMF | TNC type, male to female    |
| LA-12-1575-100-BT  | BNC type to TNC type female |
| LA-12-1575-100-TS  | TNC type to SMA type female |

#### 20dB Gain +/- 1dB

|                    |                             |
|--------------------|-----------------------------|
| LA-21-1575-100-N   | N type female both ends     |
| LA-21-1575-100-S   | SMA type female both ends   |
| LA-21-1575-100-T   | TNC type female both ends   |
| LA-21-1575-100-B   | BNC type, female            |
| LA-21-1575-100-TMF | TNC type, male to female    |
| LA-21-1575-100-BT  | BNC type to TNC type female |
| LA-21-1575-100-TS  | TNC type to SMA type female |



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