

# STARLINK

GNSS SOLUTIONS FOR  
EXTENDED CABLE RUNS

STARLINK™ GNSS SOLUTIONS PROVIDE A  
SIMPLE AND COST-EFFECTIVE MEANS TO  
MAXIMISE THE PERFORMANCE OF YOUR  
GNSS SYSTEM.



Antenna

↓  
**30m**  
(RG-58)



**Amplified signal loss solutions**



**Multi-frequency and constellation**

## INLINE GPS AMPLIFIER IMPROVES PERFORMANCE UP TO 15m

Our StarLink™ inline amplifiers, available as 20dB, 15dB or 13dB gain, are capable of amplifying all GNSS frequencies and will improve performance on receivers with cable lengths of over 30 metres.

The Inline amplifiers are made with gold plated brass and rugged, 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 and its small form factor allows it to fit snugly in conduit.

↓  
**450m**  
(RG-58)



**GPS Frequency L1**



**Long cable run signal loss solution**

## DUC: DOWN/UP CONVERTER IMPROVES PERFORMANCE UP TO 450m

The StarLink™ DUC converters are the perfect add-on for L1 GPS installations where long antenna cables are needed and a simple inline amplifier will not suffice. A DUC consists of a DOWN converter and GPS antenna and an UP converter at the RF input of the GPS receiver. The technology phase locks the converter pair to provide high fidelity signal transport. This technique uses the same reference for up and down conversion, eliminating frequency error. The DUC product is optimized for generic RG-58 cable and can be used for lengths of up to 450 metres. Higher specification cables can enable greater distances to be achieved.

↓  
**1500m**  
(Fiber Optic)



**Multi-frequency and constellation**



**Long cable run signal loss solution**

## RVL-1 FIBER OPTIC LINK SYSTEM IMPROVES PERFORMANCE UP TO 1.5km

The RVL-1 FIBER is an affordable Multi-Constellation fiber optic solution for remote GPS antenna installations. RVL-1 covers frequency ranges from 800 MHz up to 1800 MHz and passes all GNSS frequencies (GPS, GLONASS, GALILEO, BEIDOU, SBAS, L-BAND) up to 1500m. This unit has been designed to operate on 12V to 36V AC or DC, allowing the use of low voltage NEC electrical wiring standards to be used at installation. The RVL-1 is designed to operate with any TNC GNSS antenna with at least 34dB gain.

All StarLink™ products come with a full, one year parts and labour warranty.



Receiver



## GNSS SOLUTIONS

### INLINE AMPLIFIER SPECIFICATIONS

#### GENERAL INFORMATION

Inline Amplifiers with TNC connectors are 94mm (3.77") in length.  
Length will vary slightly with 'N' and 'SMA' connectors installed.  
Power consumption 8mA.

- 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 to 28 VDC. Current draw is <10ma .
- Operating temperature is -55°C (-67°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



#### MODEL L1L2

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

13dB Gain +/- 2dB or 20dB Gain +/- 1dB

#### CONNECTORS

SMA, TNC, BNC or N

#### MODEL 1575

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

15dB Gain +/- 1dB or 20dB Gain +/- 1dB

#### CONNECTORS

SMA, TNC, BNC or N

[FULL SPECIFICATIONS AVAILABLE ON INLINE AMPLIFIER DATASHEET](#)

### DUC-1 SPECIFICATIONS

#### DOWN CONVERTER



Height:	89 mm (3.5")
Diameter:	114 mm (4.5")
Weight:	<0.45 kg (1.0 lbs)
Connection:	TNC, Female
Frequency:	GPS L1
Gain Combined:	35 (min)
Axial Rate:	3 dB (max)
Noise Figure:	2.5 dB (max)
Termination:	50 Ω

#### UP CONVERTER



Dimensions:	44 x 130 x 170 mm (1.75 x 5.12 x 6.68")
Weight:	0.6 kg (1.3 lbs)
Connection:	BNC connector to down converter, TNC to GPS receiver.
Power Requirements:	9-12 VDC via antenna bias or 12 ±10% VDC external
Power Consumption:	<250 mA @ 12 VDC (both units)
Relative Humidity:	0-95% non-condensing
Storage Temperature:	-50°C to +85°C
Operating Temperature:	0°C to +50°C
Altitude:	6,096 m (20,000 ft)

[FULL SPECIFICATIONS AVAILABLE ON DUC-1 DATASHEET](#)

### RVL-1 SPECIFICATIONS

#### RVL-1 TRANSMITTER

#### ANTENNA REQUIREMENTS:

Connection:	TNC
Gain:	34dB +6/-3 dB
Impedance:	50Ω
Dimensions:	90 x 125 x 128 mm (3.9 x 4.15 x 5.1")
Power:	5 VDC (minimum 8mA)
Frequency:	800MHz to 1800 MHz
Power Connection:	2 Pin 12-24V AC or DC
Input Voltage:	AC/DC 12-24V 50/60 Hz @ 100-600mA



#### RVL-1 RECEIVER

Input Connection:	ST Type Fibre Optic Connector for Simplex Multimode 50/125 Micron Cable
Input Power:	5 to 12 VDC @ 85mA (powered from DC bias of GPS Receiver)
Output Connection:	BNC 50 OHM Female
Frequency:	800MHz to 1800 MHz
Enclosure:	Extruded Aluminium
Dimensions:	63mm x 38mm x 29.5mm (2.8 x 1.8 x 1.5")



[FULL SPECIFICATIONS AVAILABLE ON RVL-1 DATASHEET](#)

