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

Robust and rugged enclosure

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.

FORSBERG

POSITIONING | NAVIGATION | TIMING

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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.

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.
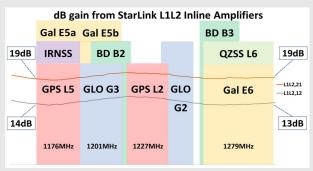- IP Rating: IP67

MODEL L1L2   CONNECTORS

(GPS L1/L2, GLONASS G1/G2/G3, GALILEO E1/E5/E6, BEIDOU B1/B2/B3, IRNSS, QZSS L6, SBAS, L-BAND)
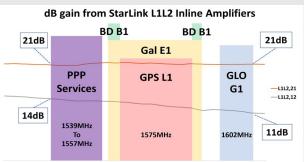
13dbB Gain +/- 2dB

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

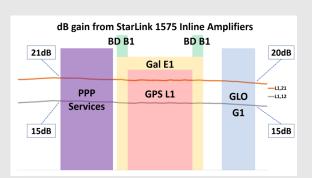|	
LA-21-L1L2-N	N type, female
LA-21-L1L2-S	SMA type, female
LA-21-L1L2-B	BNC type, female
LA-21-L1L2-T	TNC type, female
LA-21-L1L2-TMF	TNC type, male to female
LA-21-L1L2-BT	BNC type to TNC type female
LA-21-L1L2-TS	TNC type to SMA type female

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

dB gain from StarLink L1L2 Inline Amplifiers

	Gal E5a	Gal E5b			BD B3
19dB	IRNSS	BD B2		QZSS L6	19dB
	GPS L5	GLO G3	GPS L2	GLO G2	Gal E6
14dB					13dB
	1176MHz	1201MHz	1227MHz	1279MHz	

L1L2,21
L1L2,12

dB gain from StarLink 1575 Inline Amplifiers

21dB		BD B1	BD B1		20dB
	PPP Services		Gal E1		
			GPS L1	GLO G1	
15dB					15dB

L1,21
L1,12

dB gain from StarLink L1L2 Inline Amplifiers

21dB		BD B1	BD B1	21dB
	PPP Services	Gal E1		
		GPS L1	GLO G1	
14dB				
	1539MHz To 1557MHz	1575MHz	1602MHz	11dB

L1L2,21
L1L2,12