

## A11XL-F1 Low Noise Amplifier

### Description:

Ideal for GPS distribution networks where a high gain is required, the A11XL-F1 is a Low Noise Amplifier with a powerful 40 dB gain.

Designed specifically for GPS applications, the A11XL-F1 has provisions for supplying the DC Voltage for the active antenna when using the external AC Input Option.

The included L1 or optional L1 / L2 Filtering protects your GPS network against unwanted interferences. The product may be powered externally with an AC input voltage option, or it may be powered by a GPS receiver's antenna output voltage.

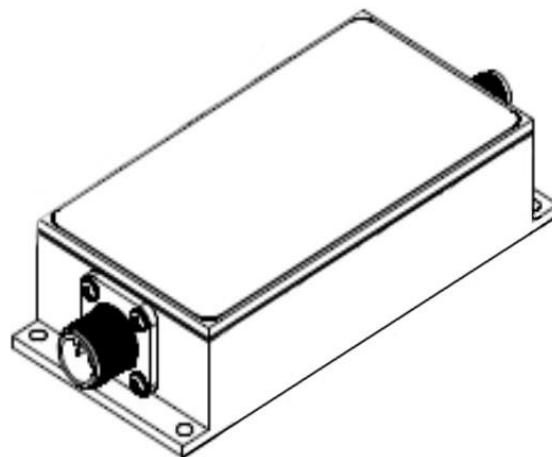
The A11XL-F1 comes with many available options to meet your specific needs. Please call, fax or mail us ([vertrieb@aucon.de](mailto:vertrieb@aucon.de)) for further information on product options and specifications.

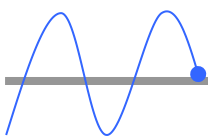


**A11XL-F1**

### Features:

- High Gain = 40 dB
- Low Noise Figure =  $F < 2.2$  dB
- L1 Filtering for interference rejection
- Responses to GPS L1 or L1 / L2
- Optional L1 / L2 Filtering available
- Power Supply Options available
- Can Supply antenna Source Voltage





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## RF PORTS

- > Input 1
- > Output 1

## ELECTRICAL SPECIFICATION

- > Input/Output Impedance 50 Ω
- > Bandwith
  - L1 Filtering 1.565 -1.585 GHz
  - L1 / L2 Filtering 1.565 -1.585 GHz
  - 1.217 -1.237 GHz
- > Gain
  - Standard 40 dB
  - Custom 0 – 37 dB
- > SWR Input / Output 2.0 : 1
- > Rejection
  - @ 1575 MHz 0 dB
  - + / - 20 MHz 3 dB typ.
  - + / - 25 MHz 4 dB typ.
  - + / - 50 MHz 13 dB typ.
  - + / - 100 MHz 27 dB typ.
  - + / - 150 MHz 41 dB typ.
- > Noise Figure
  - @ -40°C 1.6 dB min.
  - @ +25°C 2.1 dB typ.
  - @ +85°C 2.2 dB max.
- > OP3 6.5 dB
- > IIP3 -35.5 dB
- > DC Input Level
  - External Supply 5 – 28 V DC
  - Optional DC Input on IN Port 3 – 16 V DC
- >Current
  - Amplifier Device Current 26 mA max.
  - Thru Current (nonpowered) 250 mA max.
  - Thru Current (external powered) =  
 $(V_{DCIN} - V_{DCOUT} - 1.2) * (I_{OUT} + I_{Internal}) 1W \leq @25 C$   
 For powered option with a wall transformer,  
 $V_{DC IN}$  is 9V.

## PHYSICAL SPECIFICATION

- > RF connectors
  - N (m, f)
  - SMA (m, f)
  - TNC (m, f)
  - BNC (m, f)
- > Operating Temperature -40 to 85°C
- > Size (W x H x D) 140 x 32 x 64mm

## AVAILABE OPTIONS

- > Power Supply
  - Source Voltage
    - P110 – Transformator
    - P220 – Transformator
    - P240 – UK Transformator
    - PD C – DC w/leads
    - Tinned Leads (5 – 28 V max.)
    - PM, MS – Military Connector (5 - 28 V max.)
  - Output Voltage
    - 3.3, 5, 7.5, 9, 12, variable (3-12 V),
    - XX (custom output voltage)
- > Standard or Custom Gain (0-37 dB, in 1dB steps)
- > RF Connectors
- > Housing
  - EMI Shielding
  - EMI Shielding with Hermetically Sealed
  - Hermetically Sealed
  - Waterproof
- > Power Switch (On / Off Switch)
- > 1275B Specification Rated Available  
(Spike and Surge Protection, Specification defines the condition of 28VDC power in military vehicles)

