# Amplifiers

## Low Noise Amplifier Module
## 66-88 / 88-132 / 132-174 / 225-380 / 380-520 / 746 - 960MHz
## RXxxxx-2002-11 Series

RFI's 30+ years of experience in small signal amplification LNA's used in receivers and products across the full frequency spectrum of LMR systems is a distinct advantage in determining what is required from an amplifier to optimise operational performance. Keeping abreast of control technology and using best of breed components ensure our amplifiers maintain their operational edge. High amplifier linearity, a low noise figure, manually adjusted and optimised gain control with a simple alarm monitoring interface are just a few of the useful features.

### Features:

- Max Gain 40dB
- 31dB Adjustable gain in 1dB steps
- Low Noise Figure ≤2dB
- OIP3 45dBm
- Amplifier Low or High current alarm relay interface
- Micro Processor controlled

### Specifications

| Model Number (RXxxxx-2002-11) | 0608 | 0813 | 1317 | 2238 | 3852 | 7496 |
|---|---|---|---|---|---|---|
| Frequency Band - MHz | 66-88 | 88-132 | 132-174 | 225-380 | 380-520 | 746-960 |
| Maximum Gain | 40dB | | | | | |
| Gain Attenuator Range | 31dB / 1dB Steps | | | | | |
| Maximum Output Power - Single Carrier | 22dBm | | | | | |
| Noise Figure | ≤2dB | | | | | |
| OIP3 | >45dBm | | | | | |
| Harmonics | ≤ -30dBm | | | | | |
| Impedance | 50Ω | | | | | |
| Input Return Loss | ≥14dB | | | | | |
| Termination Connectors | SMA (F) | | | | | |
| DC Input Voltage Range | 11 - 28V | | | | | |
| DC Current @ 28VDC - max output power | 140mA (~4W) | | | | | |
| DC Protection | Reverse Polarity Protected | | | | | |
| DC Connector | 2 Pin 5mm Pheonix with fastening screw (note 1) | | | | | |
| Alarm Connector | 3 Pin 5mm Pheonix with fastening screw (note 1) | | | | | |
| Available Alarm Relay Contacts | NC/NO & COMM (note 2) | | | | | |
| Alarmed Condition | Amplifier Low or High Current Detection | | | | | |
| LED Indicators | Power (Green) / Alarm (Red) | | | | | |
| Finish - Heat Sink | Black | | | | | |
| Finish - Module Body | Aluminum | | | | | |
| Dimensions mm (inchs)- Including Heat Sink | H 37 (1.46") x W 57 (2.2") x L 82 (3.2") | | | | | |
| Weight - approx | 252grams / 8.88ozs | | | | | |
| Operational Temperature Range | -30° to +60° C / -22° to +140° F | | | | | |

Note 1. DC and Alarm screw fastened mating connectors are not provided with amplifier module, please order separately if required.
Note 2. Alarm relay energised when powered on, NO/NC states in energised condition.

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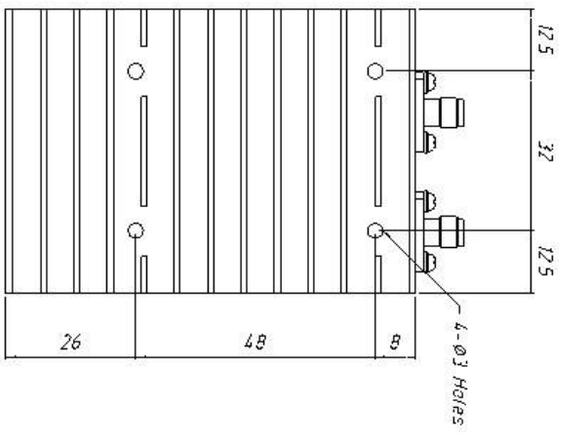
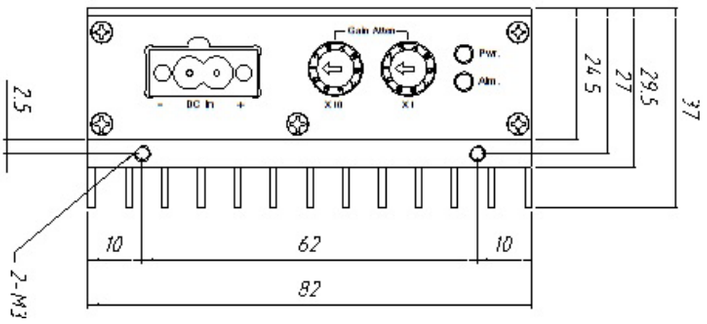
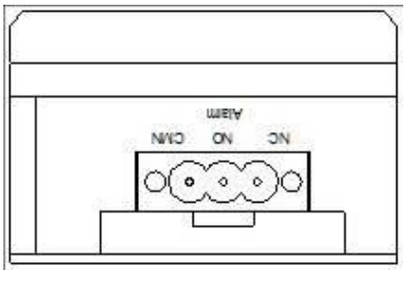
Top View



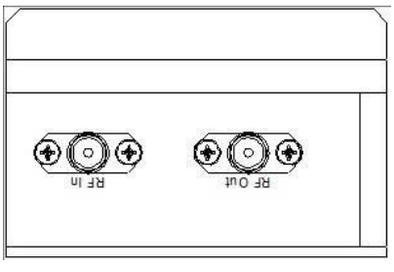

Side View Long End




Side View Alarm Connector End



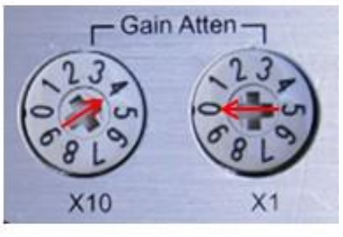

Side View RF Connector End




Adjustable X10 & X1 Dial Arrow positions

Adjustable Gain Range

| X10 | X1 | Gain |
|---|---|---|
| 0 | 0-8 | 9 |
| 0 | 9 | 9 |
| 1 | 0-9 | 10-19 |
| 2 | 0-9 | 20-29 |
| 3 | 0-9 | 30-39 |
| 4 | 0-9 | 40 |
| 5 | 0-9 | 40 |
| 6 | 0-9 | 40 |
| 7 | 0-9 | 40 |
| 8 | 0-9 | 40 |
| 9 | 0-9 | 40 |




| Ordering information | Description |
|---|---|
| RX0608-2002-11 | LNA 66-88MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| RX0813-2002-11 | LNA 88-132MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| RX1317-2002-11 | LNA 132-174MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| RX2238-2002-11 | LNA 225-380MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| RX3852-2002-11 | LNA 380-520MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| RX7496-2002-11 | LNA 746-960MHz, 40dB Max Adjustable Gain, <2dB NF, OIP3 45dBm, SMA(F) 11-28VDC. |
| A2671 | Pheonix 2 Pin DC Power screw fastened mating plug connector |
| A2881 | Pheonix 3 Pin Alarm interface screw fastened mating plug connector |

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