

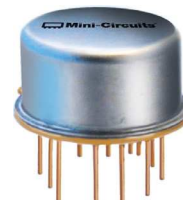
Plug-In

# Low Noise Amplifier

## TO-0812LN+

50Ω

800 to 1200 MHz



CASE STYLE: QQ96  
PRICE: \$203.50 ea. Qty. (1-9)

### Features

- very low noise, 1.2 dB max.
- ideal for printed circuit design
- excellent gain flatness
- hermetic, TO-8 can

### Applications

- military, hi-rel applications
- communication systems
- UHF
- cellular

### +RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Low Noise Amplifier Electrical Specifications

| MODEL NO.  | FREQUENCY (MHz) |       | NOISE FIGURE (dB) | GAIN (dB) |      | MAXIMUM POWER (dBm) |                           | INTERCEPT POINT (dBm) | VSWR (:1) Max.    |          | DC POWER |     |
|------------|-----------------|-------|-------------------|-----------|------|---------------------|---------------------------|-----------------------|-------------------|----------|----------|-----|
|            | $f_L$           | $f_U$ |                   | Max.      | Min. | Flatness Max.       | Output (1 dB Compr.) Typ. |                       | Input (no damage) | IP3 Typ. | In       | Out |
| TO-0812LN+ | 800             | 1200  | 1.2               | 20        | ±1.0 | +8                  | +10                       | +22.5                 | 2.5               | 2.5      | 15       | 70  |

Noise Figure specified at room temperature, increases to 1.6dB typical at +85°C

Open load is not recommended, potentially can cause damage.

With no load derate max power input power by 20 dB.

### Pin Connections

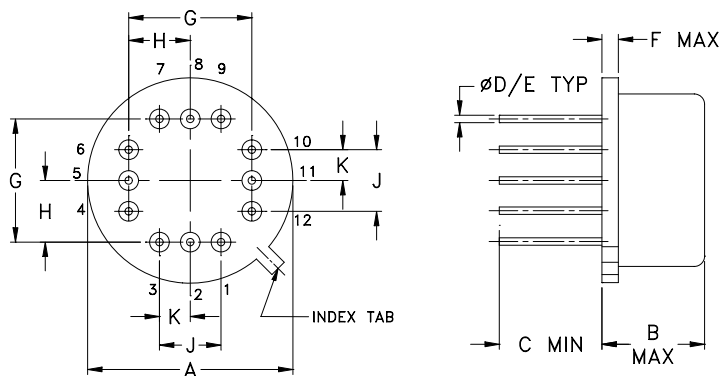
|             |                     |
|-------------|---------------------|
| RF IN       | 5                   |
| RF OUT      | 11                  |
| DC          | 2                   |
| GROUND      | 1,3,4,6,7,8,9,10,12 |
| CASE GROUND | 1,3,4,6,7,8,9,10,12 |

### Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -54°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| DC Voltage            | +17V Max.      |

Permanent damage may occur if any of these limits are exceeded.

### Outline Drawing



### Outline Dimensions (inch/mm)

| A     | B    | C    | D    | E    | F    | G     | H    | J    | K    | wt    |
|-------|------|------|------|------|------|-------|------|------|------|-------|
| .600  | .250 | .25  | .016 | .020 | .04  | .400  | .200 | .200 | .100 | grams |
| 15.24 | 6.35 | 6.35 | 0.41 | 0.51 | 1.02 | 10.16 | 5.08 | 5.08 | 2.54 | 4.0   |

### Notes

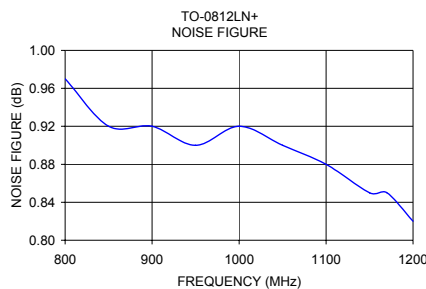
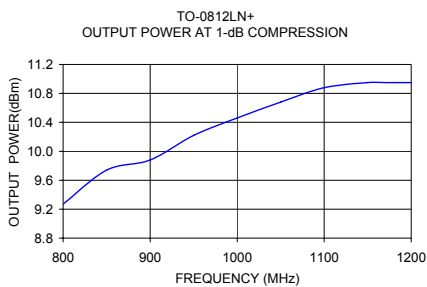
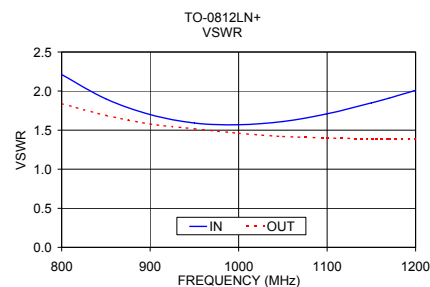
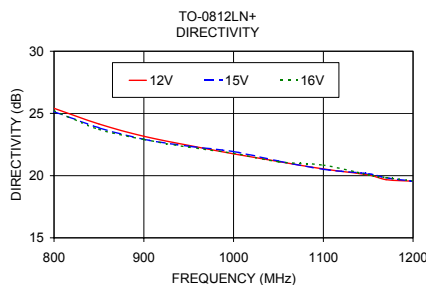
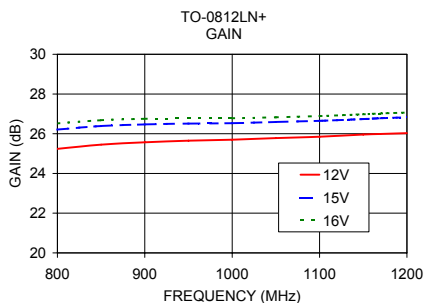
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# Typical Performance Data/Curves

# TO-0812LN+

| FREQUENCY (MHz) | GAIN (dB) |       |       | DIRECTIVITY (dB) |       |       | VSWR (:1) |      | NOISE FIGURE (dB) | POUT at 1 dB COMPR. (dBm) |
|-----------------|-----------|-------|-------|------------------|-------|-------|-----------|------|-------------------|---------------------------|
|                 | 12V       | 15V   | 16V   | 12V              | 15V   | 16V   | IN        | OUT  |                   |                           |
| 800.00          | 25.24     | 26.21 | 26.52 | 25.41            | 25.15 | 25.23 | 2.21      | 1.84 | 0.97              | 9.27                      |
| 850.00          | 25.45     | 26.39 | 26.68 | 24.15            | 23.86 | 23.73 | 1.90      | 1.69 | 0.92              | 9.74                      |
| 900.00          | 25.57     | 26.47 | 26.75 | 23.16            | 22.93 | 22.92 | 1.70      | 1.58 | 0.92              | 9.88                      |
| 950.00          | 25.65     | 26.51 | 26.77 | 22.43            | 22.37 | 22.30 | 1.59      | 1.52 | 0.90              | 10.22                     |
| 1000.00         | 25.70     | 26.53 | 26.78 | 21.75            | 21.94 | 21.80 | 1.57      | 1.46 | 0.92              | 10.46                     |
| 1050.00         | 25.78     | 26.59 | 26.83 | 21.13            | 21.18 | 21.12 | 1.61      | 1.42 | 0.90              | 10.68                     |
| 1100.00         | 25.85     | 26.65 | 26.89 | 20.54            | 20.51 | 20.85 | 1.71      | 1.40 | 0.88              | 10.88                     |
| 1150.00         | 25.96     | 26.74 | 26.98 | 20.06            | 20.16 | 20.07 | 1.85      | 1.39 | 0.85              | 10.95                     |
| 1170.00         | 25.99     | 26.78 | 27.02 | 19.68            | 19.83 | 19.85 | 1.91      | 1.39 | 0.85              | 10.95                     |
| 1200.00         | 26.03     | 26.83 | 27.07 | 19.55            | 19.55 | 19.59 | 2.01      | 1.39 | 0.82              | 10.95                     |



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