

Plug-In Low Noise Amplifier

50Ω

5 to 500 MHz

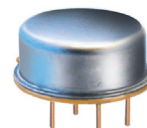
AMP-77+
AMP-77

Features

- low noise, 3.3 dB typ.
- high IP3, +32 dBm typ.
- hermetic, TO-8 can

Applications

- military, hi-rel applications
- small signal amplifier
- VHF/UHF



CASE STYLE: PP120
PRICE: \$60.45 ea. Qty. (1-9)

**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

*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) Typ. | | DC POWER | | |
|-----------|-----------------|----------------|-------------------|---------------|------|-------------|----------------------|-------------------|-----------------------|----------------|-----|----------|---------------|-------------------|
| | f _L | f _U | | Flatness Max. | | | Output (1 dB Compr.) | Input (no damage) | | IP3 Typ. | In | Out | Volt (V) Nom. | Current (mA) Max. |
| | | | | Min. | m | Total Range | | | | | | | | |
| AMP-77(+) | 5 | 500 | 3.3 | 15 | ±0.4 | ±1.0 | +16 | +13 | +32 | 2.0 | 2.0 | 15 | 56 | |

m = mid range [2 f_L to f_U/2]

Open load is not recommended, potentially can cause damage.

With no load derate max input power by 20 dB

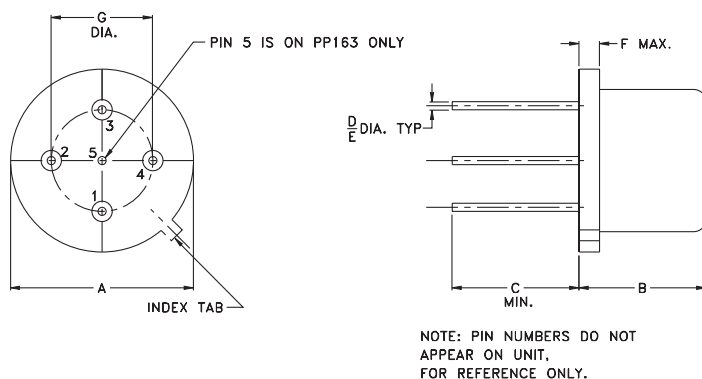
Pin Connections

| | |
|-------------|---|
| RF IN | 2 |
| RF OUT | 4 |
| DC | 1 |
| GROUND | 3 |
| CASE GROUND | 3 |

Maximum Ratings

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

Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D |
|-------|------|------|-------|
| .50 | .21 | .15 | .016 |
| 12.70 | 5.33 | 3.81 | 0.41 |
| E | F | G | wt |
| .020 | .04 | .300 | grams |
| 0.51 | 1.02 | 7.62 | 1.5 |

Mini-Circuits®

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REV. A
M106610
AMP-77
060810
Page 1 of 2

Typical Performance Data/Curves

AMP-77+ AMP-77

| 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 | | |
| 5.00 | 16.26 | 16.25 | 16.23 | 5.00 | 5.00 | 5.10 | 1.49 | 1.57 | | 18.30 |
| 11.30 | 16.55 | 16.58 | 16.55 | 4.30 | 4.30 | 4.30 | 1.25 | 1.25 | 3.30 | 18.96 |
| 33.40 | 16.75 | 16.79 | 16.76 | 3.80 | 3.80 | 3.80 | 1.13 | 1.09 | 3.27 | 19.66 |
| 98.80 | 16.74 | 16.77 | 16.76 | 3.50 | 3.50 | 3.50 | 1.11 | 1.16 | 3.30 | 19.68 |
| 195.40 | 16.55 | 16.59 | 16.57 | 2.90 | 3.00 | 3.00 | 1.13 | 1.35 | 3.24 | 19.62 |
| 246.20 | 16.43 | 16.47 | 16.46 | 2.50 | 2.70 | 2.70 | 1.15 | 1.41 | 3.24 | 19.49 |
| 309.60 | 16.27 | 16.32 | 16.28 | 2.20 | 2.30 | 2.40 | 1.18 | 1.47 | 3.27 | 19.24 |
| 373.10 | 16.13 | 16.19 | 16.14 | 1.80 | 1.90 | 2.00 | 1.21 | 1.45 | 3.25 | 19.08 |
| 436.50 | 16.04 | 16.08 | 16.04 | 1.40 | 1.60 | 1.70 | 1.23 | 1.44 | 3.26 | 19.11 |
| 500.00 | 15.92 | 15.98 | 15.93 | 1.10 | 1.30 | 1.40 | 1.24 | 1.36 | 3.28 | 19.25 |

