

Coaxial

Low Noise Amplifier

ZHL-1217HLN

50Ω 1200 to 1700 MHz

Features

- very low noise, 1.5 dB max.
- wideband, 1200 to 1700 MHz
- high dynamic range

Applications

- GPS
- mar sat
- communication systems



ZHL-1217HLNX-S

ZHL-1217HLN-S

| CASE STYLE: NN92 | | | |
|------------------|----------------|--------------|-------|
| Connectors | Model | Price | Qty. |
| SMA | ZHL-1217HLN-S | \$399.50 ea. | (1-9) |
| SMA | ZHL-1217HLNX-S | \$389.50 ea. | (1-9) |

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 |
| ZHL-1217HLN | 1200 | 1700 | 1.5 | 30 | ±1.0 | +26 | +10 | +36 | 2.4 | 2.4 | 15 | 725 |
| ZHL-1217HLNX* | 1200 | 1700 | 1.5 | 30 | ±1.0 | +26 | +10 | +36 | 2.4 | 2.4 | 15 | 725 |

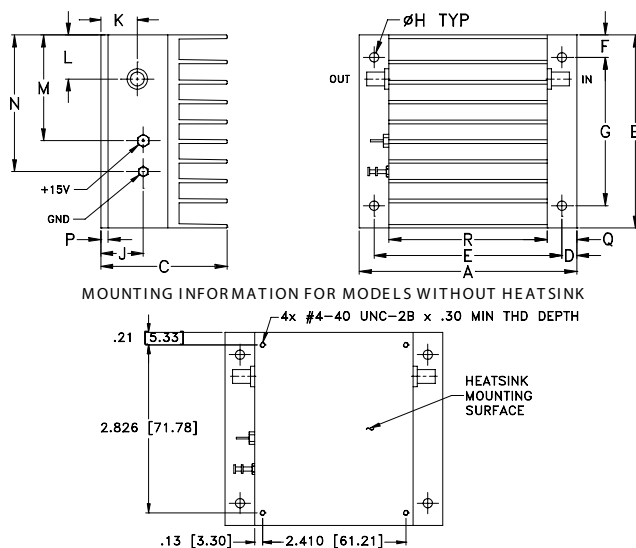
* Heat sink not included
 Noise Figure specified at room temperature, increases to 2.3 dB max. at +65°C
 Open load is not recommended, potentially can cause damage.
 With no load derate max input power by 20 dB

To order without heat sink, add suffix X to model number. Alternative heat sinking and heat removal must be provided by the user to limit maximum temperature to 65°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 1.8°C/W Max.

Maximum Ratings

Operating Temperature -20°C to 65°C
 Storage Temperature -55°C to 100°C
 DC Voltage +20V 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 | L | M | N | P | Q | R | wt |
|-------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|--------|
| 3.66 | 3.25 | 2.13 | .25 | 3.16 | .38 | 2.50 | .156 | .72 | .64 | .74 | 1.78 | 2.30 | .125 | .50 | 2.66 | grams* |
| 92.96 | 82.55 | 54.10 | 6.35 | 80.26 | 9.65 | 63.50 | 3.96 | 18.29 | 16.26 | 18.80 | 45.21 | 58.42 | 3.18 | 12.70 | 67.56 | 500.0 |

*362 grams without heatsink



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

| 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 | | |
| 1200.00 | 33.75 | 34.80 | 34.82 | 28.70 | 24.80 | 26.10 | 1.75 | 1.59 | 1.30 | 26.55 |
| 1236.60 | 33.66 | 34.66 | 34.66 | 26.90 | 28.10 | 34.40 | 1.66 | 1.53 | 1.26 | 26.55 |
| 1287.00 | 33.89 | 34.84 | 34.83 | 20.90 | 22.70 | 16.80 | 1.56 | 1.46 | 1.24 | 26.60 |
| 1339.60 | 34.30 | 35.21 | 35.21 | 26.00 | 16.90 | 26.30 | 1.50 | 1.40 | 1.20 | 26.69 |
| 1392.30 | 34.34 | 35.18 | 35.19 | 22.70 | 17.20 | 15.10 | 1.46 | 1.36 | 1.16 | 26.91 |
| 1443.60 | 34.60 | 35.37 | 35.36 | 20.20 | 20.20 | 29.20 | 1.48 | 1.30 | 1.14 | 27.11 |
| 1507.70 | 35.00 | 35.64 | 35.63 | 17.90 | 19.60 | 24.00 | 1.55 | 1.26 | 1.13 | 27.47 |
| 1571.80 | 35.26 | 35.78 | 35.79 | 23.10 | 19.80 | 23.00 | 1.69 | 1.21 | 1.15 | 28.20 |
| 1635.90 | 35.60 | 35.95 | 35.95 | 19.30 | 29.80 | 14.30 | 1.95 | 1.18 | 1.22 | 28.89 |
| 1700.00 | 35.67 | 35.94 | 35.93 | 12.60 | 18.60 | 13.40 | 2.32 | 1.14 | 1.35 | 28.72 |

