

High IP3

Low Noise Amplifier

ZHL-3010+

50Ω Medium High Power 50 to 1000 MHz

Features

- wideband, 50 to 1000 MHz
- low noise, 5.5 dB typ.
- high IP3, +46 dBm typ.
- very high IP2, 68-83 dBm typ.
- protected by US Patent 6,943,629

Applications

- VHF/UHF
- cellular
- test equipment
- instrumentation
- laboratory



CASE STYLE: S32

| | |
|------------|-----------|
| Connectors | Model |
| SMA | ZHL-3010+ |

+RoHS Compliant

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

Electrical Specifications

| MODEL NO. | FREQ. (MHz) | | GAIN (dB) | | MAXIMUM POWER OUTPUT (dBm) | | DYNAMIC RANGE | | VSWR (:1) Max. | | DC POWER | |
|-----------|-------------|-------|-----------|---------------|----------------------------|-------------------|---------------|----------------|----------------|-----|---------------|------------------|
| | f_L | f_U | Min. | Flatness Max. | (1 dB Compr.) Min. | Input (no damage) | NF (dB) Typ. | IP3 (dBm) Typ. | In | Out | Volt (V) Nom. | Current (A) Max. |
| ZHL-3010+ | 50 | 1000 | 30 | ±1.0 | +26 | -3 | 5.5 | +46 | 2.5 | 2.0 | 12 | 1.0 |

Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB

Maximum Ratings

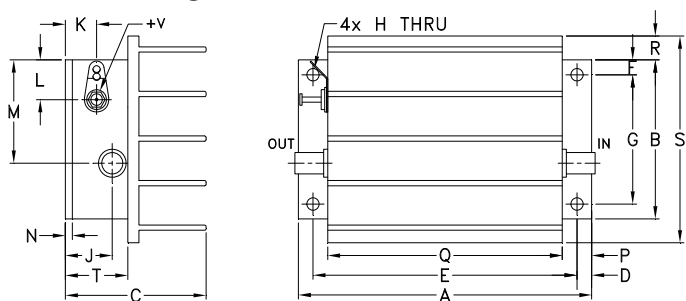
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

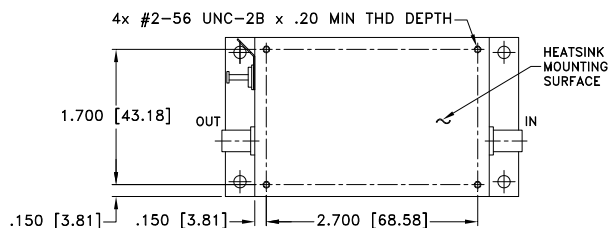
DC Voltage +13V Max.

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

Outline Drawing



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | T | wt | |
|-------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|------|------|-------|------|-------|-------|-------------------|-----|
| 3.75 | 2.00 | 1.80 | .19 | 3.375 | .19 | 1.625 | .144 | .50 | .40 | .50 | 1.30 | .10 | .38 | 3.00 | .30 | 2.60 | .80 | grams | |
| 95.25 | 50.80 | 45.72 | 4.83 | 85.73 | 4.83 | 41.28 | 3.66 | 12.70 | 10.16 | 12.70 | 33.02 | 2.54 | 9.65 | 76.20 | 7.62 | 66.04 | 20.32 | 220.0 | |
| | | | | | | | | | | | | | | | | | | wt. w/o heat sink | 150 |

Notes

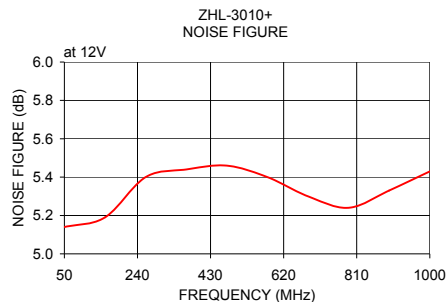
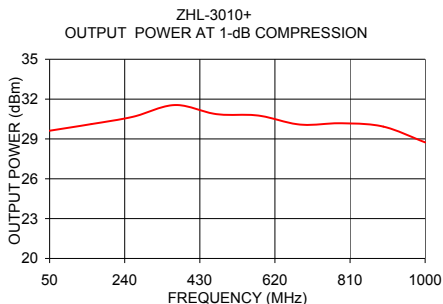
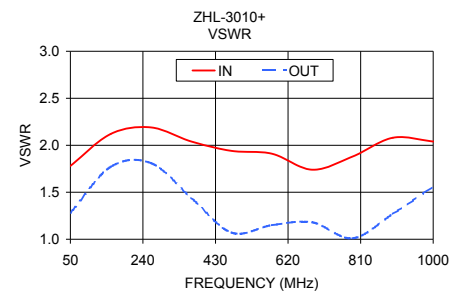
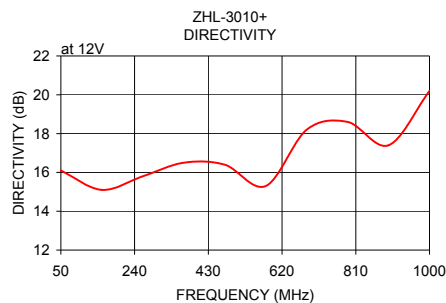
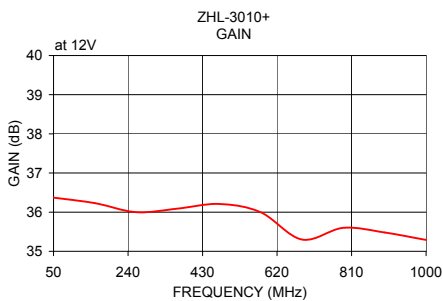
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| FREQUENCY (MHz) | GAIN (dB) | DIRECTIVITY (dB) | VSWR (:1) | | NOISE FIGURE (dB) | POUT at 1 dB COMPR. (dBm) |
|--------------------|--------------|---------------------|--------------|------|-------------------------|------------------------------------|
| | 12V | 12V | IN | OUT | 12V | 12V |
| 50.00 | 36.37 | 16.10 | 1.78 | 1.28 | 5.14 | 29.62 |
| 155.60 | 36.23 | 15.10 | 2.12 | 1.77 | 5.19 | 30.12 |
| 261.10 | 36.00 | 15.80 | 2.19 | 1.81 | 5.40 | 30.67 |
| 366.70 | 36.09 | 16.50 | 2.04 | 1.44 | 5.44 | 31.55 |
| 472.20 | 36.21 | 16.40 | 1.94 | 1.07 | 5.46 | 30.87 |
| 577.80 | 36.00 | 15.30 | 1.91 | 1.15 | 5.40 | 30.76 |
| 683.30 | 35.30 | 18.20 | 1.74 | 1.18 | 5.30 | 30.08 |
| 788.90 | 35.60 | 18.60 | 1.88 | 1.01 | 5.24 | 30.18 |
| 894.40 | 35.48 | 17.40 | 2.08 | 1.27 | 5.33 | 29.93 |
| 1000.00 | 35.29 | 20.20 | 2.04 | 1.56 | 5.43 | 28.74 |



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