



COAXIAL

Medium High Power Amplifier **ZHL-4240W+** **ZHL-4240WX+**

50Ω 10 to 4200 MHz

FEATURES

- Wideband, 10 to 4200 MHz
- High Gain, 39 dB Min.
- High IP3, +38 dBm typ.



Generic photo used for illustration purposes only

| | | |
|------------|------------|--------------------------|
| Model No. | ZHL-4240W+ | ZHL-4240WX+ [▲] |
| Case Style | U36 | |
| Connectors | SMA | |

APPLICATIONS

- Communication Systems
- Cellular
- Instrumentation
- Laboratory

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter | ZHL-4240W+ ZHL-4240WX+ [▲] | | | Units |
|--|--|------|------|-------|
| | Min. | Typ. | Max. | |
| Frequency Range | 10 | — | 4200 | MHz |
| Gain | 39 | 42 | 47 | dB |
| Gain Flatness | — | ±1.3 | ±1.8 | dB |
| Output Power at 1dB compression ¹ | +28 | +30 | — | dBm |
| Output Power at 3dB compression ² | +29 | +31 | — | dBm |
| Noise Figure | — | 6.0 | — | dB |
| Output third order intercept point | — | +38 | — | dBm |
| Input VSWR | — | — | 2.5 | :1 |
| Output VSWR | — | — | 2.5 | :1 |
| DC Supply Voltage | — | +15 | — | V |
| Supply Current | — | — | 1.0 | A |

Open load is not recommended, potentially can cause damage.
With no load derate max. input power by 20 dB.
1. +27 dBm at 3700-4200 MHz
2. +28 dBm at 3700-4200 MHz

[▲] Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 65°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 1.3°C/W max.

ABSOLUTE MAXIMUM RATINGS

| Parameter | Ratings |
|----------------------------|-----------------|
| Operating Temperature | -20°C to +65°C |
| Storage Temperature | -55°C to +100°C |
| DC Voltage | +20V |
| Input RF Power (no damage) | -5 dBm |

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

REV. A
ECO-017731
ZHL-4240W+
MCL NY
230504



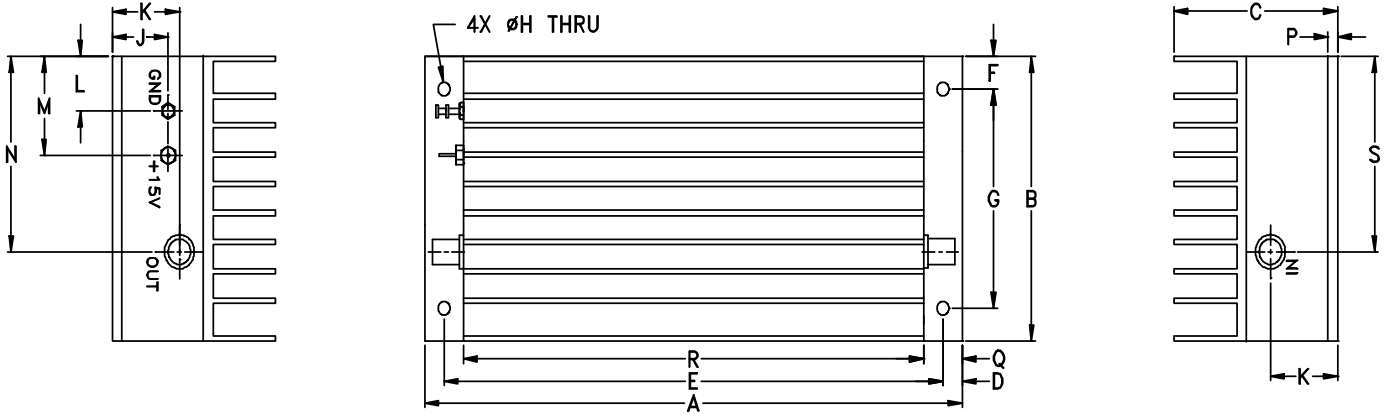


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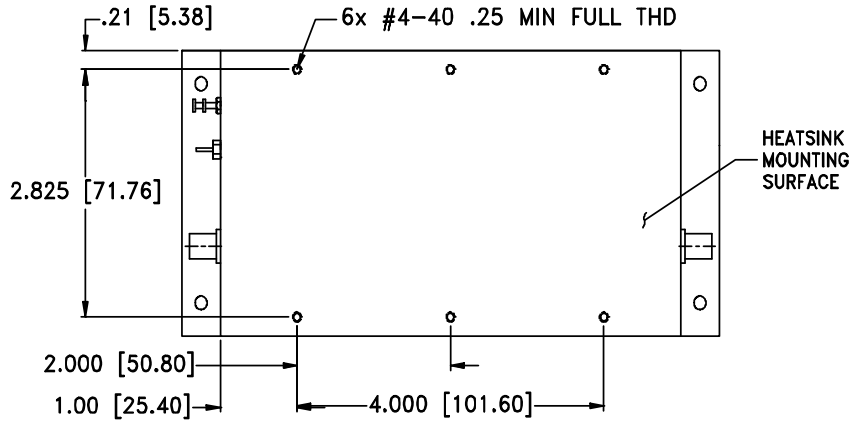
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OUTLINE DRAWING FOR MODELS WITH HEATSINK



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 | wt |
|--------|-------|-------|------|--------|------|-------|------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|
| 7.00 | 3.25 | 2.13 | .25 | 6.500 | .38 | 2.500 | .156 | .73 | .88 | .63 | 1.13 | 2.23 | .125 | .50 | 6.00 | 2.23 | grams |
| 177.80 | 82.55 | 54.10 | 6.35 | 165.10 | 9.65 | 63.50 | 3.96 | 18.54 | 22.35 | 16.00 | 28.70 | 56.64 | 3.18 | 12.70 | 152.40 | 56.64 | 900 |

*600 grams without heatsink



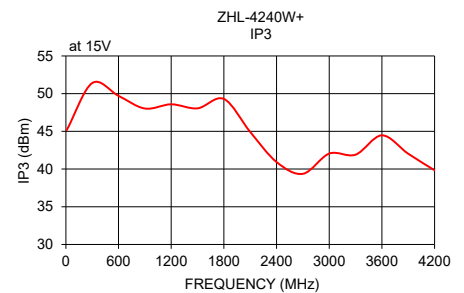
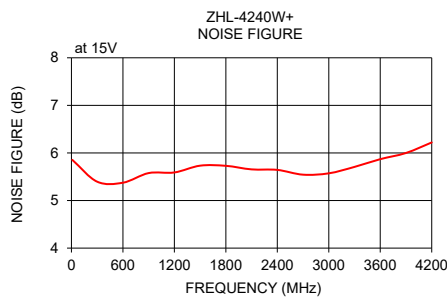
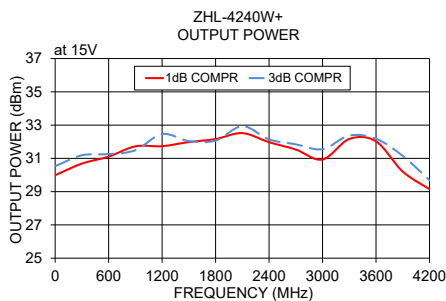
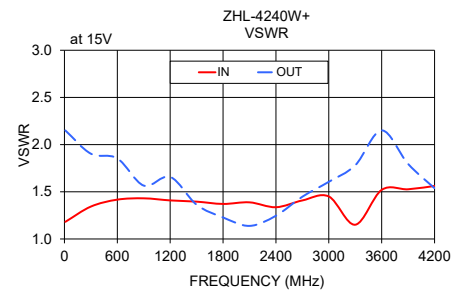
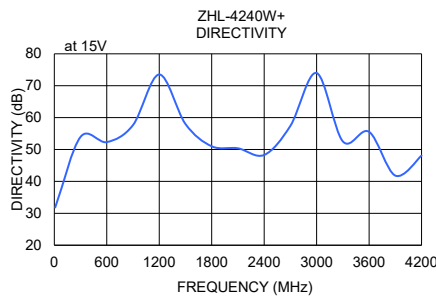
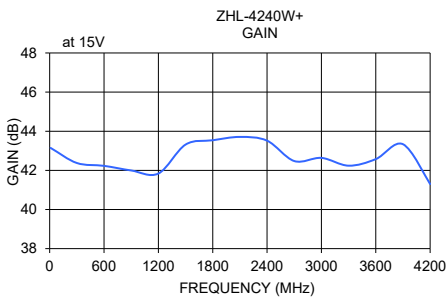
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TYPICAL PERFORMANCE DATA / GRAPHS

| FREQUENCY (MHz) | GAIN (dB) | DIRECTIVITY (dB) | VSWR (:1) | | POUT at 1 dB COMPR. (dBm) | NOISE FIGURE (dB) | IP3 (dBm) |
|-----------------|-----------|------------------|-----------|------|---------------------------|-------------------|-----------|
| | 15V | 15V | IN | OUT | 15V | 15V | 15V |
| 10 | 43.15 | 31.85 | 1.18 | 2.15 | 30.01 | 5.85 | 45.17 |
| 300 | 42.38 | 53.96 | 1.34 | 1.90 | 30.69 | 5.40 | 51.40 |
| 600 | 42.23 | 52.31 | 1.42 | 1.85 | 31.11 | 5.37 | 49.71 |
| 900 | 41.99 | 57.66 | 1.43 | 1.57 | 31.72 | 5.58 | 48.03 |
| 1200 | 41.84 | 73.51 | 1.41 | 1.66 | 31.73 | 5.59 | 48.59 |
| 1500 | 43.32 | 57.99 | 1.40 | 1.36 | 31.98 | 5.73 | 48.05 |
| 1800 | 43.54 | 51.00 | 1.37 | 1.23 | 32.16 | 5.73 | 49.30 |
| 2100 | 43.71 | 50.38 | 1.39 | 1.14 | 32.52 | 5.65 | 44.92 |
| 2400 | 43.52 | 48.29 | 1.34 | 1.25 | 31.97 | 5.64 | 40.93 |
| 2700 | 42.48 | 57.42 | 1.41 | 1.45 | 31.53 | 5.54 | 39.37 |
| 3000 | 42.64 | 73.99 | 1.45 | 1.61 | 30.93 | 5.57 | 42.05 |
| 3300 | 42.24 | 52.54 | 1.15 | 1.78 | 32.17 | 5.71 | 41.91 |
| 3600 | 42.57 | 55.54 | 1.52 | 2.15 | 32.02 | 5.87 | 44.47 |
| 3900 | 43.34 | 41.82 | 1.53 | 1.80 | 30.21 | 6.00 | 42.03 |
| 4200 | 41.30 | 48.10 | 1.56 | 1.54 | 29.15 | 6.22 | 39.84 |



- NOTES**
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