**Power Amplifers**

## DESCRIPTION

This class AB LDMOS module is designed for both military and commercial applications. It is capable of supporting any signal type and modulation format, including but not limited to 3-4G telecom, WLAN, OFDM, DVB, and CW/AM/FM. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.

## FEATURES

Optional Heatsink

High Speed On/Off Control

Temperature Output

Forward Power Measurement

Thermal Shutdown

Specifications subject to change without notice. Typical performance at +24VDC, +25$^{o}$C, and in a 50Ω system.

| RF / ELECTRICAL | | | | |
|---|---|---|---|---|
| PARAMETER | MIN | TYP. | MAX | UNIT |
| Operating Frequency | 290 | | 320 | MHz |
| PSat Power Output | | +50.0 | | dBm |
| Gain | 50.0 | 51.0 | | dB |
| Gain Flatness | | 0.5 | 0.7 | dB [1] |
| Linear Power Output | | 41.0 | | dBm |
| Input Return Loss | -12 | -14 | | dB |
| Operating Voltage | +16 | +24 | +32 | VDC |
| Current Draw | | 8.0 | 9.5 | A |
| Quiescent Current Draw | | 1.0 | | A |
| Switching Time | | 1.0 | 2.0 | uS |

1 – Gain flatness recorded represents a peak-peak measurement across the **entire operating band**. Gain flatness is typically much lower across significant portions of this band. Consult the gain response plots for details.

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| MECHANICAL | | |
|---|---|---|
| **PARAMETER** | **VALUE** | **UNIT** |
| Dimensions (L x W x H) | 7 x 4.75 x 0.963 | in |
| RF Connectors (Input / Output) | N-F / N-F | -- |
| DC / Control Connector | 7W2 Male | -- |
| Cooling | Baseplate Conduction - Optional Heatsink Available | -- |
| Mounting | 6-32 Threaded Holes | -- |
| Weight | 0 | oz. |
| Weight with Heatsink | 0 | oz. |

| ENVIRONMENTAL / PROTECTIONS | | | |
|---|---|---|---|
| **PARAMETER** | **MIN** | **MAX** | **UNIT** |
| Operating Temp. (Housing Temp.) | -40 | +85 | °C |
| Storage Temp Range | -60 | +100 | °C |
| Humidity Range | 0-100 | | % |
| Altitude | 0-30,000 | | ft. |
| Shock / Vibration | MIL-STD-810 and equivalents | | -- |
| Max RF Input | +2 | | dBm |
| Load VSWR @ P1dB | Open / Short Output Protection | | -- |
| PA Baseplate Shutoff Temperature | + 90 | | °C |

| DC / CONTROL PINS | | |
|---|---|---|
| **PIN LABEL** | **NAME** | **DESCRIPTION** |
| A1 | GND | Ground |
| 1 | TEMP | Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10 |
| 2 | Amp Enable | TTL On/Off Low=Enable, High=Disable |
| 3 | Current SNS | Voltage Output representing current draw |
| 4 | GND | Ground |
| 5 | FWD | Forward Power Detection |
| A2 | +VDC | Supply Voltage - Range Specified in Datasheet |

Triad RF Systems Inc. | 180 Tices Lane, Building A, Suite 107, East Brunswick, NJ  08816
Tel: 1-(855) 558-1001 x1 | sales@triadrf.com

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