



1780-1820MHz 10W 45dB SOLID STATE POWER AMPLIFIER
MtronPTI P/N: PA7003

FEATURES

- Class AB linear GaN design
- Instantaneous wide bandwidth
- Suitable for all modulations standards
- Built-in protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|---------------------------------|-----------------|----------------------|
| Operating Frequency Range | 1780 - 1820 MHz | |
| Output Power @ P1dB | 10 Watt Min | |
| Power Gain | 45 dB Min | |
| Power Gain Flatness | 1.0 dB p-p Max | Constant input power |
| Input Return Loss | 10 dB Min | Relative to 50 Ohm |
| Noise Figure | 5 dB Max | |
| 2-Tone Intermodulation (IMD) | >30 dBc | 32dBm/Tone, Δ = 1MHz |
| Harmonics 2 nd / 3rd | >20 dBc | At Rated Pout |
| Non Harmonics Spurious | >60 dBc | |
| Operating Voltage | 28 VDC Nom | |
| Current Consumption | 4.0 Amp Max | At rated Pout |
| Load VSWR Protection | ∞ : 1 | |

ENVIRONMENTAL CHARACTERISTICS

| Parameter | Specification | Notes |
|----------------------------|---------------|------------------|
| Operating Case Temperature | -20 to +75 °C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non Condensation |

MECHANICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|--------------------------------|-------------------|----------------------|
| Dimensions | 147 X 69 X 27 mm | Excluding Connectors |
| Weight | 490 gr. | Max Weight |
| RF Connectors In/Out | SMA female | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function | Description |
|------|----------------|-------------------------------------|
| 1 | FWD | N/C |
| 2 | REV | N/C |
| 3 | CURRENT SENSOR | I _p @100mV/100mA Typ |
| 4 | TEMP SENSOR | V _T @10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL |
| 6, 7 | VDD | 28VDC |
| 8, 9 | GND | Ground |



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OUTLINE DRAWING

