2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

MtronPTI
...when timing matters

# Specification for a 0.7-6.0GHz 50W Power Amplifier
# MtronPTI P/N: PA2099

**FEATURES**

Rack mount system
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 | 0.7 - 6.0 GHz | |
| Power Output @ Psat | 50 Watt Typ | CW |
| Power Gain | 47 dB Min | |
| Power Gain Flatness | 3.0 dB p-p | |
| Input Return Loss | 10 dB Min | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | -30 dBc Typ | 37dBm/Tone, Δ = 1MHz |
| Harmonics | -20 dBc Typ | At rated output power |
| Non Harmonics Spurious | -60dBc Max | |
| Operating Voltage | 100 - 240 VAC | Single phase |
| Power Consumption | 400 Watt Max | At Rated Pout |
| Max Input Power | +8 dBm | Without damage |
| Load VSWR Protection | ∞ : 1 | |
| Sample Port Coupling Factor | 40 dB Nom | |

**ENVIRONMENTAL CHARACTERISTICS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Ambient Temperature | 0 to +50 °C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non Condensing |

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions W x H x D | 430 x 88 x 562 mm | 2U, excluding handles |
| Weight | 10 kg. | |
| RF Connectors In/Out | Type-N Female | |
| Sample Port Connector | SMA-Female | |
| Interface Connector | 9-Pin D-Sub | See table pin assignment |
| AC Power Connector | IEC 60320-C14 | |
| Cooling | Built in Fan Cooling | |
| **OPTIONAL**: Digital Monitor & Control<br>FWD, REV, VSWR, GAIN, ALC, V & I, TEMP | Ethernet RJ-45 TCP/IP, RS422/485,<br>Optional GPIB Interface | Remote Bluetooth application |

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**D-SUB CONNECTOR PIN ASSIGNMENT**

| Pin | Function | Description |
|---|---|---|
| 1 | Reserved | N/C |
| 2 | Reserved | N/C |
| 3 | CURRENT SENSOR | $I_D$@50mV/100mA Typ |
| 4 | TEMP SENSOR | $V_T$@10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL - Standby Mode |
| 6 | VDD | Internal Power Supply Voltage |
| 7 | Reserved | N/C |
| 8, 9 | GND | Ground |

**OUTLINE DRAWING**

