

MODEL MM2040P50A
2000~4000MHz
100 WATTS
WIDE BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :2000~4000MHz
- Power Gain:50dB Typical
- Psat:100W Typical
- Supply Voltage:+32V
- 50 Ohms Input and Output Matched

ELECTRICAL SPECIFICATIONS @ +32VDC, 25°C, 50Ω

| Parameter | Symbol | Min | Typ | Max | Units |
|---------------------------------|---------------------|------|------|------|-------|
| Operating Frequency | BW | 2000 | | 4000 | MHz |
| RF Output Power @Pin=0dBm | P _{SAT} | | 100 | | Watt |
| Power Gain | G _p | | 50 | | dB |
| Power Gain Flatness | Δ G _p | | ±2.5 | | dB |
| Input Return Loss | S ₁₁ | | | -10 | dB |
| Harmonics @70W | H | | -15 | | dBc |
| Spurious Signals | Spur | | -55 | | dBc |
| In/Output Impedance | Impedance | | 50 | | Ω |
| Operating Voltage | V _{DC} | 28 | 32 | 36 | Volt |
| DC Current @100W | I _{DD} | | 15 | | Amp |
| Switch On/Off @10-90% Time,1kHz | T _{ON/OFF} | | 2 | 5 | us |

MECHANICAL SPECIFICATIONS

| Parameter | Value | Units | Notes |
|------------------------|--|-----------|---------|
| Dimensions | 200x150x25 [7.87x5.9x0.98] | mm [inch] | Maximum |
| Weight | 3 [6.6] | kg [lbs] | Maximum |
| RF Connectors Input | SMA, Female | | |
| RF Connectors Output | N, Female | | |
| DC Interface Connector | Hybrid, D-Sub 7-Pin, Male | | |
| Cooling | External Heat sink Required (Not Supplied) | | |

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

| Parameter | Minimum | Typical | Maximum | Units | Notes |
|------------------------------------|---------|---------|---------|-------|---------|
| Operating Temperature | -40 | | 60 | °C | |
| Non-operating Temperature | -45 | | 85 | °C | Storage |
| Relative Humidity (non-condensing) | | | 95 | % | |

ABSOLUTE MAXIMUM RATING

| | |
|-------------------------------------|--|
| Input RF drive level without damage | +10 dBm (Max) |
| Load VSWR @ POUT =70W | ∞ @ all load phase & amplitude for duration of 1 minute; 3:1 @ all load phase & amplitude continuous. |
| Over Temperature | 85°C @ heatsink [restored @ 60°C] |

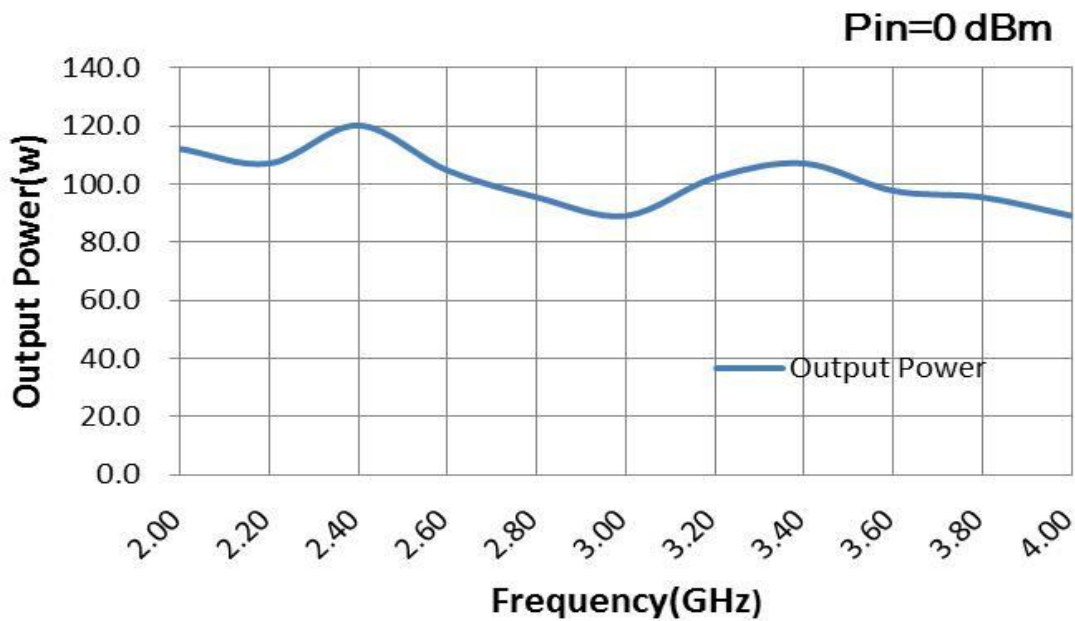
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

| Pin # | Description | Specifications |
|-------|---------------|---|
| A1 | VDD | 32VDC |
| A2 | GND | Ground |
| 1 | ENABLE | Amplifier Enable:: TTL Logic High (3.3V~5V) (Internally Pulled-Low) |
| 2 | CURRENT SENSE | Analog voltage relative to IDD @ 100mV per Ampere |
| 3 | TEMP SENSE | Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C |
| 4 | NC | No electrical connection |
| 5 | GND | Ground |

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.