



MODEL MM0810P47A
0.8~1.0GHz
50 WATTS
NARROW BAND POWER RF AMPLIFIER

Advantages:

- Operating Frequency :0.8~1.0GHz
- Power Gain:47dB Typical
- Psat:50W Min
- Supply Voltage:+28V
- 50 Ohms Input and Output Matched

ELECTRICAL SPECIFICATIONS @ +28VDC, 25°C, 50Ω

| Parameter | Symbol | Min | Typ | Max | Units |
|---------------------------|------------------|-----|-----|-----|-------|
| Operating Frequency | BW | 0.8 | | 1.0 | GHz |
| RF Output Power @Pin=0dBm | P _{SAT} | 50 | | | Watt |
| RF Output Power @P1dB | P _{1dB} | 30 | | | Watt |
| Power Gain | G _p | | 47 | | dB |
| Power Gain Flatness | Δ G _p | | ±1 | | dB |
| Input Return Loss | S ₁₁ | | | -10 | dB |
| Harmonics @25W | H | | -20 | | dBc |
| Spurious Signals | Spur | | -60 | | dBc |
| In/Output Impedance | Impedance | | 50 | | Ω |
| Operating Voltage | V _{DC} | 24 | 28 | 32 | Volt |
| DC Current @50W | I _{DD} | | 6 | | Amp |

MECHANICAL SPECIFICATIONS

| Parameter | Value | Units | Notes |
|------------------------|---|-----------|---------|
| Dimensions | 150x90x25 [5.91x3.54x0.98] | mm [inch] | Maximum |
| Weight | 1.2 [2.6] | kg [lbs] | Maximum |
| RF Connectors Input | SMA, Female | | |
| RF Connectors Output | SMA, Female | | |
| DC Interface Connector | D-Sub 9-Pin, Male | | |
| Cooling | External Heatsink 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 | +5 dBm (Max) |
| Load VSWR @ P _{OUT} =25W | ∞ @ all load phase & amplitude for duration of 30 minutes; 3:1 @ all load phase & amplitude continuous. |
| Over Temperature | 85°C shutdown |

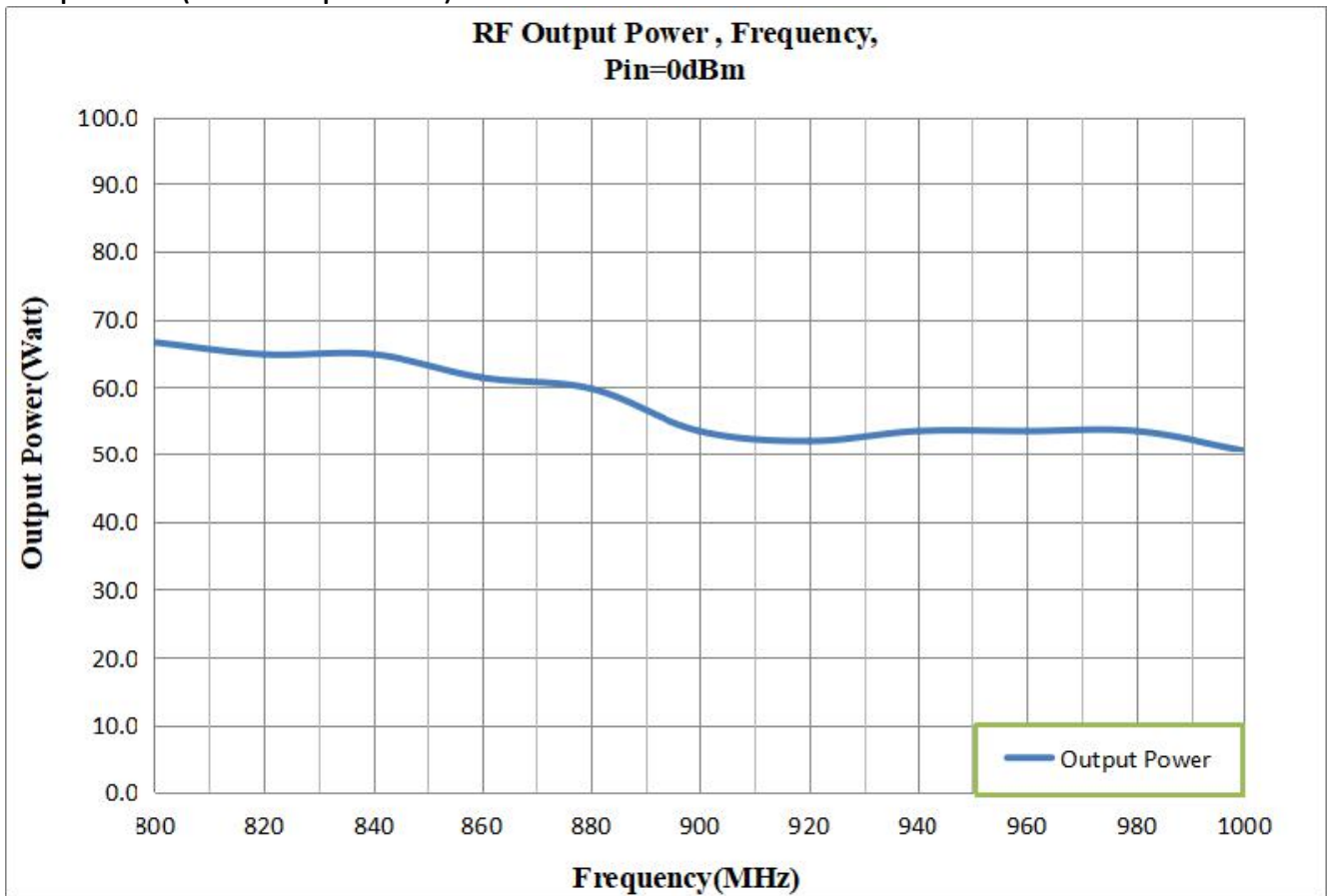
POWER INTERFACE CONNECTOR

Male D-Sub is on the housing

| Pin # | Description | Specifications |
|-------|---------------|---|
| 1 | SHUTDOWN | Amplifier Disable: TTL Logic High (3.3V~5V) (Internally Pulled-Low) |
| 2 | TEMP SENSE | Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C |
| 3 | CURRENT SENSE | Analog voltage relative to IDD @ 100mV per Ampere |
| 4 | VDD | 28VDC |
| 5 | VDD | 28VDC |
| 6 | GND | Ground |
| 7 | GND | Ground |
| 8 | GND | Ground |
| 9 | VDD | 28VDC |

TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)

Output Power (Normal temp. +25±3°C)



Note: Adequate heatsink required.