

**RF and Microwave
Power
Technology**

MWM2400-2500-25-HG

2.4-2.5GHz 25W Class A/AB High Performance Amplifier *Preliminary*

- ❖ **Class A/AB 25W ISM amplifier**
- ❖ **2.4-2.5GHz bandwidth**
- ❖ **47dB typical gain**
- ❖ **+/- 0.5dB typical gain flatness**
- ❖ **Temperature-compensated bias**
- ❖ **50 ohms input/output**
- ❖ **Available with heatsink and fan or as a Mini-System**

Amplifier picture coming soon.

The MWM2400-2500-25-HG is a compact Class A/AB ISM amplifier module, excellent as a driver in high power RF energy systems. It utilizes a latest generation LDMOS output transistor, offering high gain, ruggedness, and greater than 50% output stage efficiency.

Specifications

$V_{sup} = +28VDC$, $I_{DQ} = 0.80A$, $P_{out} = 25W$, $T_{base} = 25^{\circ}C$, $Z_{load} = 50\Omega$

Parameter	Min	Typ	Max	Units
Freq. Range	2400		2500	MHz
P_{1dB}	25	29		W
Input Power		-3	0	dBm
Gain	44	47		dB
Gain Flatness		+/-0.5	+/-0.75	dB
Drain Current		2.3	2.5	A
Efficiency	36	39		%
IRL		-20	-14	dB
f_2		-28	-21	dBc
f_3		-50	-41	dBc
Dimensions	1.98 X 5.70 X 1.00 (50.29 X 144.78 X 25.40)			inch (mm)

Maximum Ratings

Operation beyond these ratings will void warranty.

Parameter	Value
V_{supply}	24-28VDC
Bias Current	1.0
Supply Current	2.7A
Load Mismatch*	3:1
Housing Base Temperature	70°C
Storage Temp.	-40°C to 85°C

*All phase angles, 25W forward power, current limited to 2.7A.

Option Ordering Info

Heatsink and fan	MWM2400-2500-25-HG-HSF
Mini-System	MWMS2400-2500-25-HG

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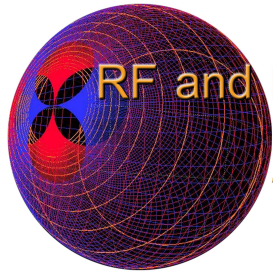
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Specifications contained herein are subject to change without notice.

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Instructions for Amplifier Use

- 1) If not supplied with a heatsink, apply a layer of high quality thermal grease (Wakefield Type 120 or equivalent) to the underside of the amplifier housing. Thinner is better, but ensure that when mounted to your heatsink, contact across the *entire* module base is made. Gaps and air bubbles will significantly reduce cooling, leading to possible amplifier damage. Use four #6-32 screws to mount the amplifier to your heatsink.
- 2) Guarantee sufficient airflow through the heatsink fins to keep the maximum housing base temperature at or less than that specified in the Maximum Ratings section. Contact RFMPT for details on how to qualify your heatsink's performance, if needed.
- 3) Connect a proper signal source to the RF IN connector, and desired load to the RF OUT connector. Torque connectors to industry standards for the type supplied with the amplifier.
- 4) Connect DC V_{supply} and Ground wires to the terminals provided. Ensure that the connections are of proper polarity, and within the voltage range in the Maximum Ratings section.
- 5) Apply DC power and sufficient RF drive to achieve desired output level. Do not exceed 30W output power.
- 6) To disconnect the amplifier, first remove the RF drive, then DC power, then the RF connections.

Important Note:

Because of the high gain of this amplifier and the abundance of 2.4GHz signals in the environment, it's important to always terminate the input and output of this amplifier whenever DC power is applied, to avoid unwanted EMI entering the amplifier.

Contact the factory at support@rfmpt.com with any questions, or for special options, testing requirements, and/or operating conditions not specified in this document.

Document Control

Revision	Date	Notes
Pre	5-30-2016	Preliminary release based on pallet amplifier data.

