

## MIL Grade High Power Amplifier

This is a high power, broadband, silicon carbide (SiC) RF amplifier that operates from 0.8 to 2.5 GHz. This PA is ideal for broadband military platforms as well as commercial applications. It is packaged in a modular housing that is approximately 8.0" by 8.0" by 1.5". This amplifier has a typical P3dB of 70 watts at room temperature. Noise figure at room temperature is 12.0 dB typical. Class AB current is ~6.3 amps typical employing a +50 Vdc supply.



- Solid-state Class AB linear design
- Compact, lightweight, rugged and reliable
- Extremely wide instantaneous bandwidth
- Suitable for CW, AM, and FM  
(Contact factory for other modulation types)
- 50 ohm input/output impedance
- Built-in control, monitoring and protection circuits

Electrical Specifications					
PARAMETER	SYMBOL	MIN.	TYP.	MAX	UNITS
Operating Frequency	BW	800		2500	MHz
Output Power CW	P <sub>SAT</sub>	50			Watt
Small Signal Gain	G <sub>SS</sub>	46	48		dB
Input Power for Rated P <sub>SAT</sub>	P <sub>IN</sub>		0		dBm
Switching Speed (10% to 90%)	T <sub>ON/OFF</sub>		2.0		us
Small Signal Gain Flatness	ΔG <sub>SS</sub>			±2.0	dB
Third Order Intercept Point 2-Tones, 34dBm/Tone., 1.0MHz Spacing	IP3	+50			dBm
Input Return Loss	S <sub>11</sub>			-10	dB
Noise Figure @ Max Gain	NF			10	dB
Harmonics @ P <sub>OUT</sub> = 20W	2 <sup>ND</sup> / 3 <sup>RD</sup>			-17/20	dBc
Spurious Signals	Spur			60	dBc
Operating Voltage	Vdc	26	28	30	Volt
Quiescent Current	I <sub>DQ</sub>		2.0		Amp
Output Power @ 1dB Gain Compression	P <sub>1dB</sub>		20		Watt
Current consumption @ P <sub>OUT</sub> = 50W	I <sub>DD</sub>			6.0	Amp



**ZHM800-2500/50**

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Mechanical Specifications			
PARAMETER	VALUE	UNITS	LIMITS
Dimensions	3.5" X 7.5" X 1.0"	Inch	Max
Weight	1.0	lb	Max
RF Connectors In/Out	SMA Female		
DC Connectors			
Cooling	External Heatsink (Not Supplied)		