

M0216BP50 200 – 1600 MHz / 50 Watts

The M0216BP50 is suitable for multi-octave bandwidth high power CW, modulated, and pulse applications. This amplifier utilizes high power GaN devices that provide wide frequency response and dynamic range, high gain, high efficiency, and good linearity. Exceptional performance, long-term reliability, and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, built in high quality power supply, EMI/RFI filters, machined housing, and qualified components. Sungsan's ISO9001 Quality Assurance Program assures consistent performance and the highest reliability.

- Solid-state Class AB design
- Instantaneous ultra broadband
- Suitable for CW, AM, and FM
- 50 ohm input/output impedance
- High reliability and ruggedness

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	200		1600	MHz
Power Output CW	P _{SAT}	50			Watt
Small Signal Gain	G _{SAT}	10	12		dB
Input Power for Rated P _{SAT}	P _{IN}			39	dBm
Gain Flatness @ Rated P _{SAT}	ΔG		±1.0	±1.5	dB
Input Return Loss	S ₁₁			-10	dB
Noise Figure @ Full gain	NF			10	dB
Third Order Intercept Point 2-Tone @ 40dBm/Tone, 100KHz Spacing	IP3		+52		dBm
Harmonics @ P _{OUT} = 50W	2nd/3rd		-20		dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	V _{DC}		32		Volt
Quiescent Current	I _{DQ}		1.0		Amp
Current Consumption @ Shutdown	I _{DS}		0.2		Amp
Current Consumption @ P _{OUT} = 50W	I _{DD}			6.5	Amp

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Limits
Operating Case Temperature	T _c	-25		+80	°C	
Storage Temperature	T _{stg}	-40		+85	°C	
Relative humidity (non-condensing)	RH			95	%	

LIMITS

Parameter	Value	Limits
Input RF drive level without damage	+10dBm	Max
Load VSWR @ P _{out}	3.5:1 All Phase and Amplitude continuous	
Thermal Overload	85°C Graceful degradation	Max

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.7 x 3.25 x 1.1	Inch	Max
Weight	1.5	lb	Typ
RF Connectors In/Out	Input : SMA (Female) / Output : SMA (Female)		
DC / Shutdown	D-Sub, 9Pin		
Cooling	External Heatsink		

DC CONNECTOR- D-Sub, 9Pin, Male

Pin #	Description	Specifications
1	N.C	
2	Current Monitor	Analog voltage relative to IDD @ 50mV/100mA
3	Temp Monitor	Analog voltage relative to Module's Temperature @ 10mV/°C + 500mV
4	N.C	
5	Mute (Enable/ Disable)	Enable: TTL "Low" (Logic 0) or Open Disable: TTL "High" (Logic 1)
6,7	VDD	+28V _{DC} ±1VDC
8,9	GND	Ground