

MP23B 400MHz to 6GHz is a very wideband, GaN Power amplifier suitable for use in a manpack/portable ECM application. MP23B covers two of the traditional bands (500MHz to 2.5GHz and 2GHz to 6GHz) in one small compact module, therefore reducing the modules required, saving weight and increasing system efficiency.

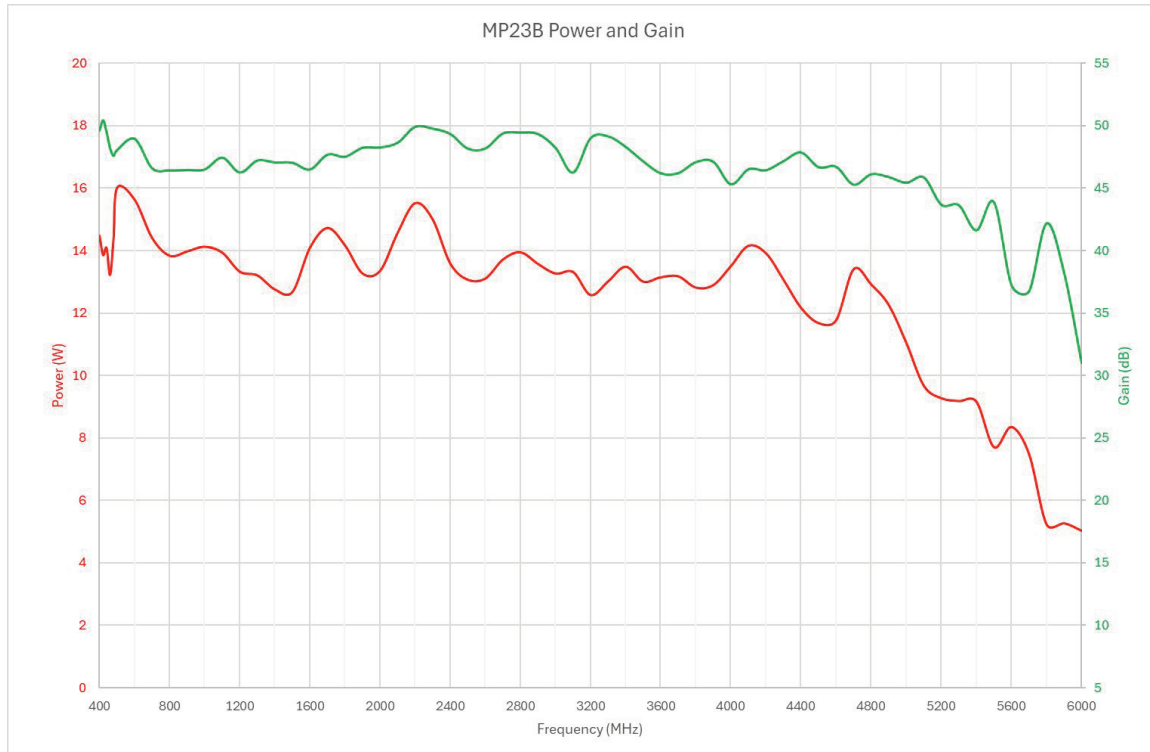


PRODUCT FEATURES

- Broadband Power
- Power >15W
- 200ns Sargas switching
- Temperature monitor
- Compact, lightweight, robust

ELECTRICAL CHARACTERISTICS TC = +25 °C, 28 VDC, 50 Ω System (unless otherwise noted)

PARAMETER	MINIMUM	MAXIMUM	TYPICAL	COMMENTS
Frequency	400 MHz	6 GHz		
Psat Power 400MHz to 5GHz	10W	18W	14W	@32V min power 14W, max power 20W
Psat Power 5GHz to 6GHz	5W	12W	10W	@32V min power 7W, max power 15W
Large Signal Gain 400MHz to 5GHz	44dB		46dB	
Large Signal Gain 5GHz to 6GHz	34dB		39dB	Gain/power role off above 5GHz to 6GHz
Input Drive	-3dBm	+3dBm		For Psat (Absolute max +14dBm)
Input Return Loss			-10dB	
2nd Harmonics		-10dBc	-15dBc	
Current at Psat		2.5A	2A	@ 28V
Efficiency at Psat			20%	@ 28V
Noise figure	6dB	10dB		
Input voltage	22V	32V	28V	Predictable power variation with voltage
Sargas2 Mute rise time		950ns	400ns	<5% to >95% of settled power
Sargas2 Mute fall time		300ns	200ns	>95% to <5% of settled power
Sargas2 Mute isolation		-22dBc	-30dBc	Pin 5
Shutdown fall time		600us	500us	Pin 4 (Shutdown current 50mA)
Intermodulation @28V		-15dBc	-25dBc	Two 2W tones, 1MHz Spacing
Dimensions WxLxH				120mm x 55mm x 30mm
Weight			260g	Integrated without housing @ approx 50g
Connectors		Straight SMA & 9 Pin D-type		Options: Right angle SMA or QMA
Operating Temperature	-20°C	+80°C		Cold start -40°C
Storage Temperature	-40°C	+85°C		
Thermal Protection				Cut out operates at 85°C ±5°C
Open/short Survivability				10:1 VSWR at all phase angles (for 1 minute)
Temperature monitor	8mV/°C	(1365mv = 25°C)		Pin 2



MP23B 9 Pin D-Type Connector

PIN	DESCRIPTION	SPECIFICATION
2	Temperature monitor	-40C (1885mV) to 85C (865mV)
4	Standard Shutdown	Enable "low" (GND) Disable "High" (2.5 to 3.3V) or Disconnected (floating) Absolute max voltage 5.5V, Absolute maximum switching frequency 50kHz.
5	Enhanced Mute (Sargas 2)	Disable "low" (GND <1V) Enable "High" (2.5 to 3.3V) or Disconnected (floating) Absolute max voltage 5.5V, Absolute maximum switching frequency 50kHz.
6,7	VDD	+28V DC. Absolute maximum voltage 32V
8,9	GND	Ground



RoHS COMPLIANCE

RoHS compliant parts and processes are used in the manufacture of this product.



QUALITY

This product is designed and manufactured in the United Kingdom in accordance with the ISO 9001:2015 Quality Management System.