

MP23BC**700MHz - 6GHz, 25W
WIDEBAND AMPLIFIER****ANTARES**
DEFENCE SYSTEMS

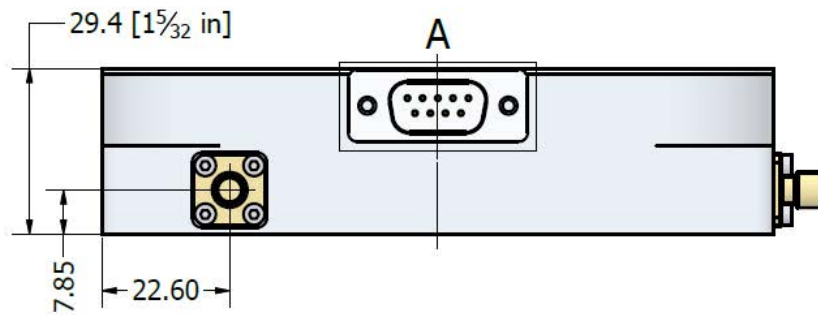
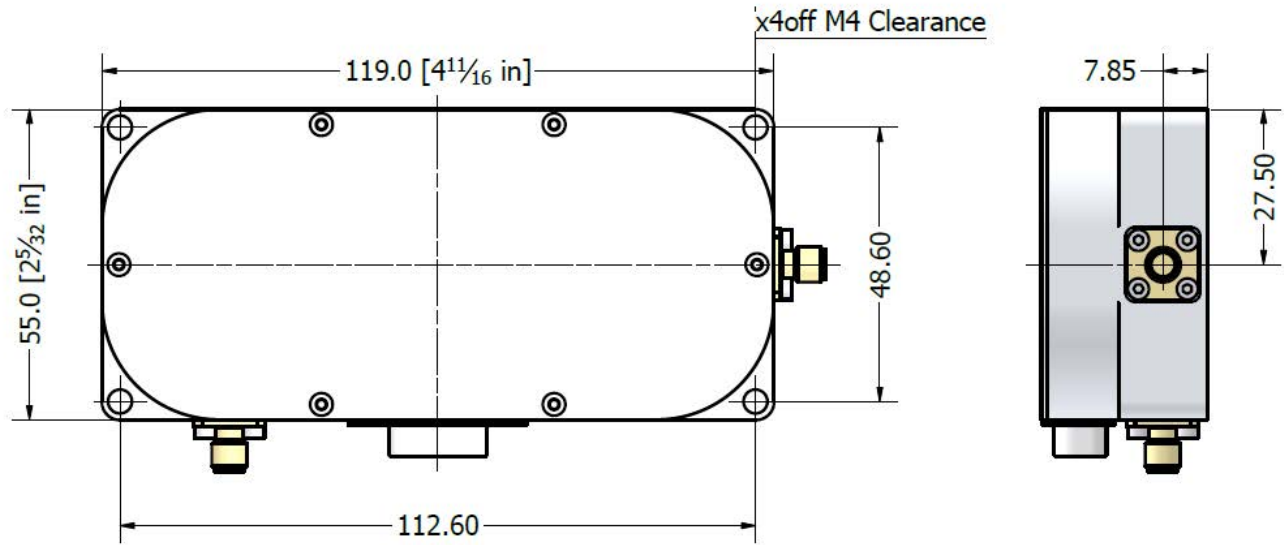
MP23BC is a wideband, compact GaN Power Amplifier producing 25W from 700MHz to 5GHz, sloping to 14W at 6GHz. It is ideal for space-conscious applications, where the ability to cover two traditional band-splits within a single module is a significant advantage.

**PRODUCT FEATURES**

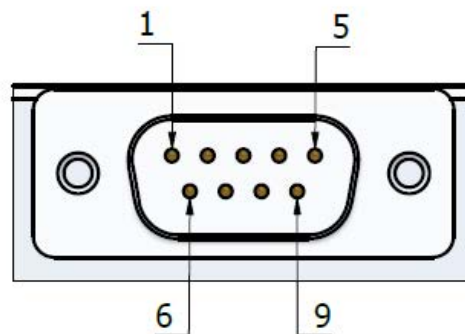
- Broadband Frequency Range: 700MHz to 6GHz
- Psat Power: 25W Typical
- Small Footprint: 119mm x 55mm x 29.4mm
- Weight: 260g
- Robust: GaN Architecture

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

PARAMETER	MINIMUM	MAXIMUM	TYPICAL	COMMENTS
Frequency	700 MHz	6 GHz		
Psat Power 700MHz - 3GHz	24W	30W	28W	
Psat Power 3GHz - 5GHz	21W	28W	25W	
Psat Power 5GHz - 6GHz	13W	25W	16W	
Large Signal Gain			55 dB	
Small Signal Gain			58 dB	
Input Drive	-16dBm	-9dBm	-13dBm	For Psat (Absolute Max +4dBm)
Input Return Loss			-10dB	
2nd Harmonics		-10dBc	-15dBc	
Current at Psat			2.5A	@ 28V
Efficiency at Psat	20%	38%	30%	@ 28V
Noise Figure		10dB		
Input Voltage	22V	30V	28V	Predictable power variation with voltage
Intermodulation			-20 dBc	Two 1W tones, 1MHz Spacing
Sargas2 Mute Rise Time			950ns	<5% to >95% of settled power
Sargas2 Mute Fall Time			500ns	>95% to <5% of settled power
Sargas2 Isolation			-30dBc	Pin 5
Shutdown Fall Time			500us	Pin 4 (Shutdown current 50mA)
Footprint Dimensions WxLxH	119 mm x 55 mm x 29.4 mm			Excluding Connectors
Weight	260 g			
Connectors	Straight SMA & 9 Pin D-Type			Options: Right-Angled 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			
Temperature Monitor	8mV/°C, 1365mV = 25°C			
Open/short Survivability	10:1 VSWR at all phase angles (for 1 minute)			

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mm [Inch]

A (2 : 1)**D-Type Pinout:**

- 1: N/C
- 2: Thermometer
- 3: N/C
- 4: RF Enable
- 5: RF Mute
- 6: +28V In
- 7: +28V In
- 8: GND
- 9: GND