

DM-SC80-01 2 - 6GHz 80W GaN Power Amplifier (SSPA)

These ultra-compact high power solid state power amplifiers are ideal for use in demanding defence, aerospace and communications applications. The designs are flexible in layout and architecture, and can be tailored to meet individual specifications.

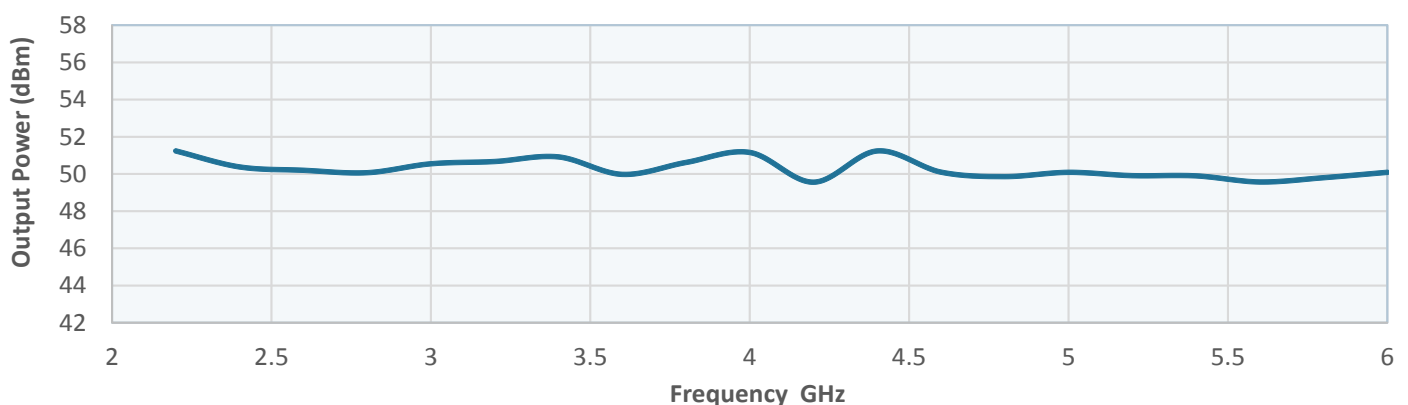
Using gallium nitride (GaN) devices and manufactured using chip-and-wire technology, they offer state-of-the-art power performance coupled with a power-to-volume ratio we believe to be among the highest in the industry for such products.

- Ultra Compact S/C-band GaN SSPA
- Pulsed and CW operation
- Peak pulsed power typically >100W at ambient temperature
- CW power >60W
- Solid-state reliability
- Alternative to TWT



Typical measured performance

Power output characteristic



Typical performance¹ (at 25°C unless otherwise specified)

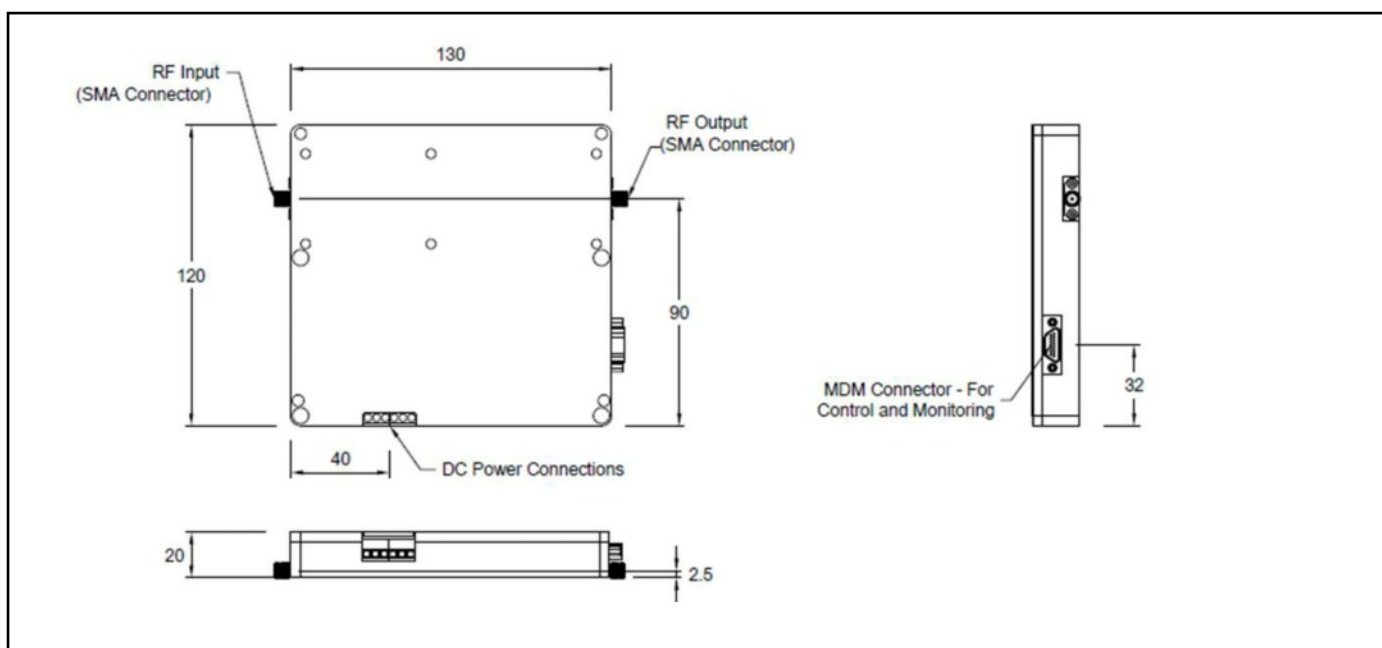
Parameter	Value	Unit	Comment
Frequency range	2 - 6	GHz	
Peak output power (P_{sat}) ²	49	dBm	Typically >100W
Peak CW power (P_{sat}) ²	47.8	dBm	Typically >80W at 2 - 5GHz
Nominal RF input power	35	dBm	Without optional pre-driver
Small-signal gain	30	dB	Higher gain options available
Small-signal gain variation	5	dB	
Duty cycle (max) ⁴	80	%	Pulsed operation
Pulse width (max) ⁴	100	µs	Pulsed operation
Power supply	40 - 50	V	Quiescent current 2A nom. Max current 7A
Size ³	130 x 120 x 20	mm	Excluding heat-sink and connectors
Weight (approx)	650	g	Excluding heat-sink
Interface DC power	Screw terminal		
Interface RF input/output	SMA (M/F)		
Amplifier/pulse control	LVCMOS		
Operating temperature range	-40 to +85	°C	Amplifier on/off, duty cycle select, PRF select

¹ Parameters and performance can be tailored to meet customer specific requirements

² Heat sinking is required

³ Other form factors available

⁴ Dependent on PSU and heat-sinking



Note: Specification subject to change without notice



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