

DM-X100-01 X-Band GaN Pulsed 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.

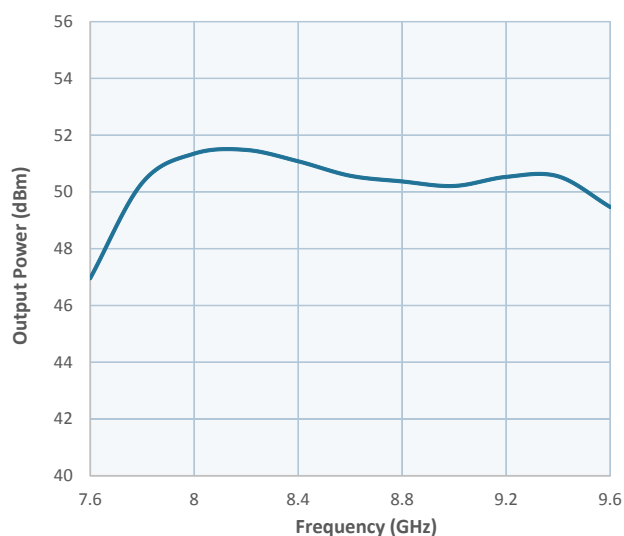
Using gallium nitride (GaN) devices and manufactured using chip-and-wire technology, they offer state-of-the-art power performance coupled with a power-to-volume ratio we believe to be among the highest in the industry for such products.



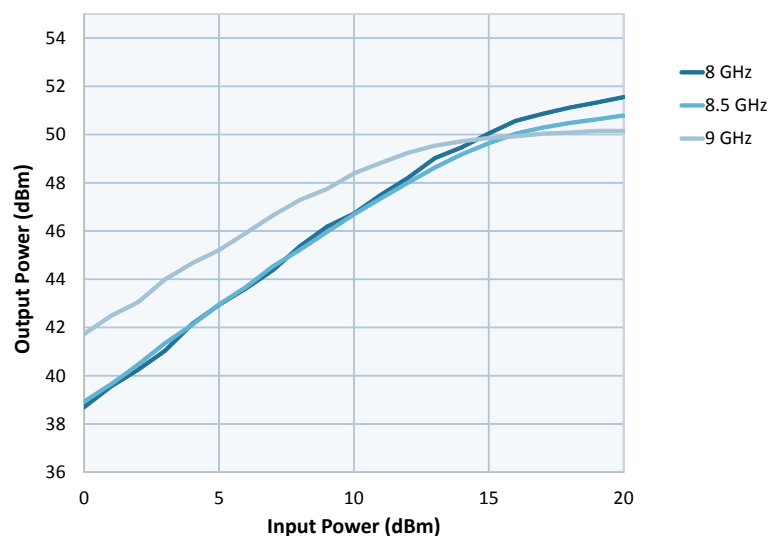
- Ultra-compact X-band GaN SSPA
- Pulsed and CW operation
- 100W (+50dBm) peak pulsed power
- Solid state reliability
- Alternative to TWT

Typical measured performance

Power output characteristic



Compression characteristic



Typical performance¹ (at 25°C unless otherwise specified)

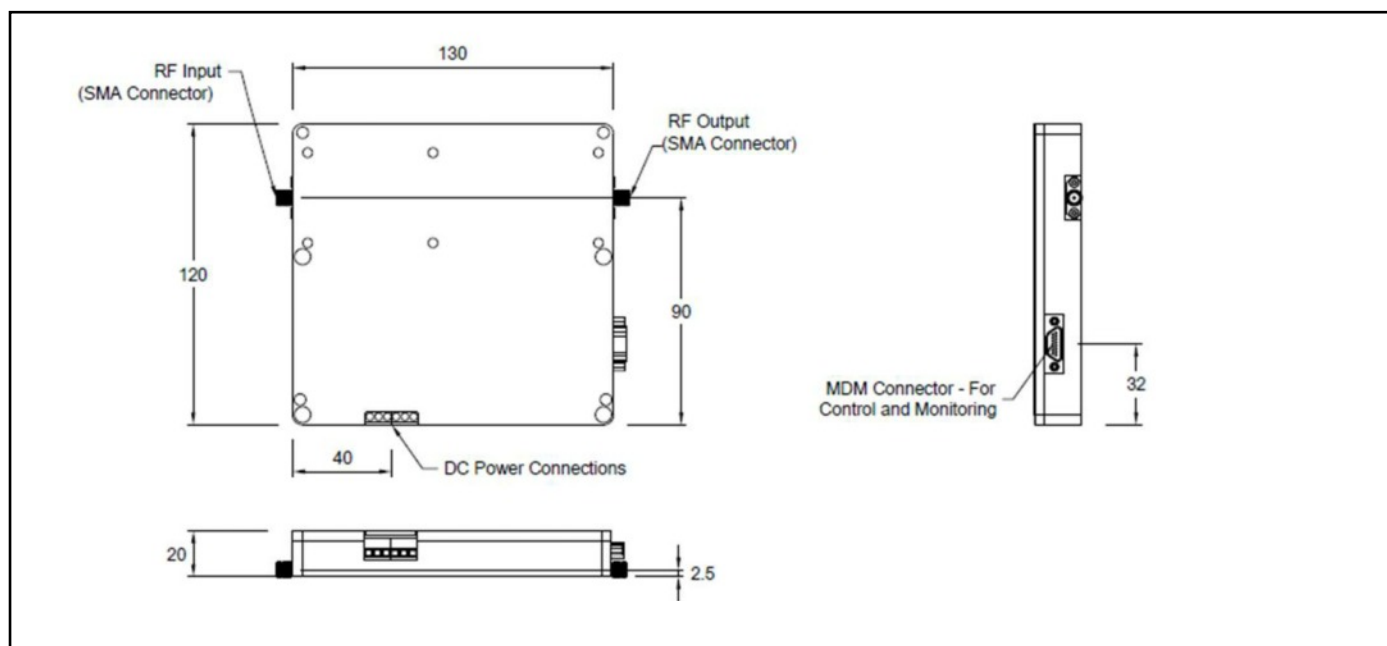
Parameter	Value	Unit	Comment
Centre frequency	8.5	GHz	Nominal
50dBm bandwidth	1700	MHz	
Peak output power (P_{sat}) ²	120	W	At top of pulse - 10% duty cycle, 5µs pulse width
Maximum duty cycle ²	30	%	
Pulse width	100	µs	
PRF	500	kHz	
Pulse rise/fall time	50	ns	
Power added efficiency (PAE)	25	%	Minimum
Input RF power	18.5	dBm	
Power supply voltage ³ (nominal)	40	V	
Size ⁴	130 x 120 x 20	mm	Excluding heat-sink and connectors
Weight (maximum)	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 The module can be operated from a 28V DC supply (users may observe some degradation of performance)

⁴ Other form factors available



Note: Specification subject to change without notice



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