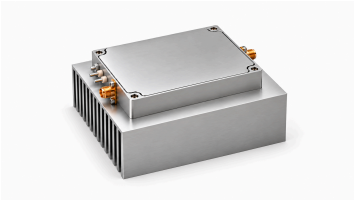
2000–6000 MHz GaN RF Power Amplifier, 25 W Typical Saturated Output



This model's sheet specifies 25 W typical saturated output across 2000–6000 MHz and 44 dB typical gain. Typical current of 2.5 A and power-added efficiency of 30% are both specified at 20 W output.

Dimensions are 100 × 100 × 52 mm, with SMA input/output, a feed-through supply pin and separate ground. Typical supply is 28 VDC; TTL enable is 3.3 V with an internal pull-down, and operating temperature is −20–50 °C. The stated operating temperature is an environmental design target; this source does not establish qualification of that range.

Electrical Specifications

+28.0VDC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	2000	-	6000	MHz
RF output power @ PSAT	PSAT	-	25	-	W
Power gain @ PSAT	Gp	-	44	-	dB
Power gain flatness @ PSAT	ΔGp	-	±1	-	dB
Input return loss	S11	-	-15	-	dB
Harmonics at 20 W	H	-	-12	-	dBc
Spurious signals @ PSAT	Spur	-	-60	-	dBc
Input/output impedance	Impedance	-	50	-	Ω
Operating voltage	VDC	-	28	-	VDC
Quiescent current	IQ	-	0.8	-	A
DC current @ 20W	IDD	-	2.5	-	A
Power-added efficiency @ 20W	Eff	-	30	-	%

Absolute Maximum Ratings

Parameter	Rating
RF input drive without damage	+10 dBm maximum
Load VSWR at Pout = 1 W	∞; All load phases and amplitudes; continuous
Thermal overload	85 °C → Shutdown (maximum)

Environmental Specifications

The environmental figures are design targets. Confirm the applicable values for your project.

Parameter	Minimum	Typical	Maximum	Unit
Operating temperature	-20	-	50	°C
Storage temperature [1]	-25	-	65	°C
Relative humidity (non-condensing)	-	-	95	%

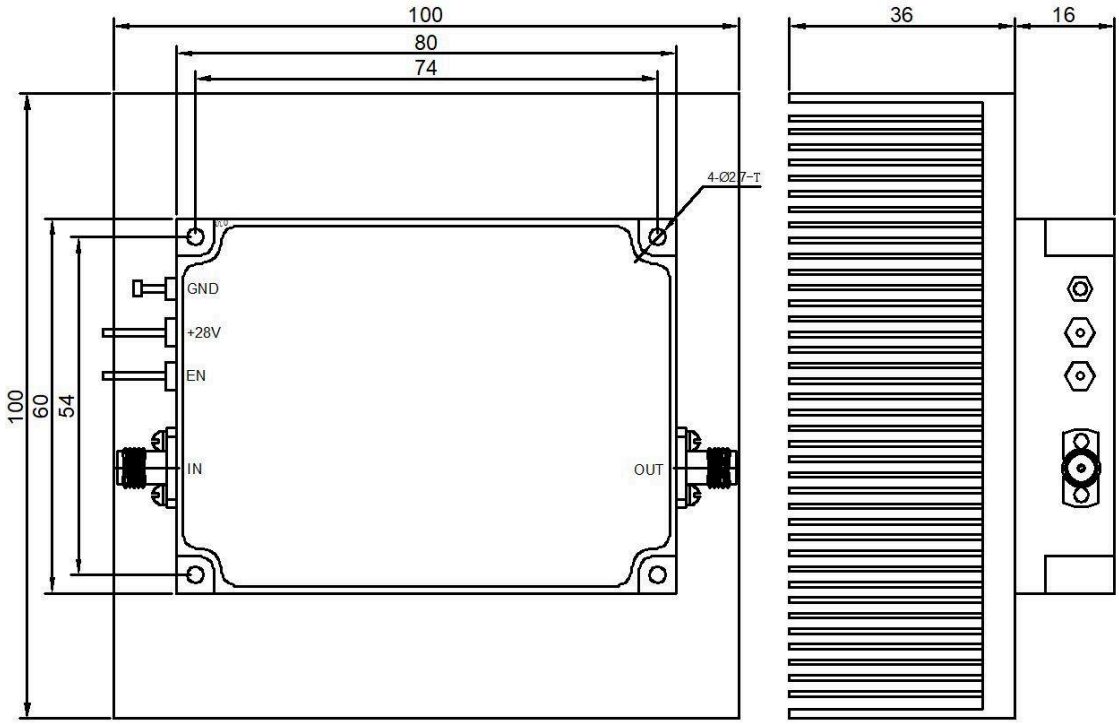
[1] Storage temperature

DC and Control Interface

Pin #	Description	Specification
+28V	+28V — Positive supply	+28 VDC
GND	GND — Ground	Ground
EN	EN — Enable	TTL logic high (3.3 V); internally pulled low

Mechanical Specifications

Parameter	Value	Unit
Dimensions	100 × 100 × 52[3.94 × 3.94 × 2.05] mm [in]	mm [in]
Weight	2.5 kg (typical)	kg
RF input connector	SMA, female	-
RF output connector	SMA, female	-
DC/control interface	Feed-through pin	-
Ground connector	Ground pole pin	-



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Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.