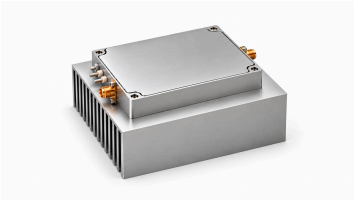
30–2000 MHz GaN RF Power Amplifier, 1 W Minimum

This model covers 30–2000 MHz as specified in the electrical table, with 1 W minimum saturated output and 30 dB minimum gain. Typical harmonics are −12 dBc at 1 W, with −60 dBc typical spurious signals at saturation.

Typical current is 0.15 A at 1 W with 28 VDC typical supply. Dimensions are 100 × 100 × 52 mm, with two SMA ports and a feed-through supply pin; the source specifies continuous infinite load VSWR at 1 W for all phases and amplitudes.



Electrical Specifications

+28.0VDC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	30	-	2000	MHz
RF output power @ PSAT	PSAT	1	-	-	W
Power gain @ PSAT	Gp	30	-	-	dB
Power gain flatness @ PSAT	ΔGp	-	±1	-	dB
Input return loss	S11	-	-15	-	dB
Harmonics at 1 W	H	-	-12	-	dBc
Spurious signals @ PSAT	Spur	-	-60	-	dBc
Input/output impedance	Impedance	-	50	-	Ω
Operating voltage	VDC	-	28	-	VDC
DC current @ 1W	IDD	-	0.15	-	A

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	%

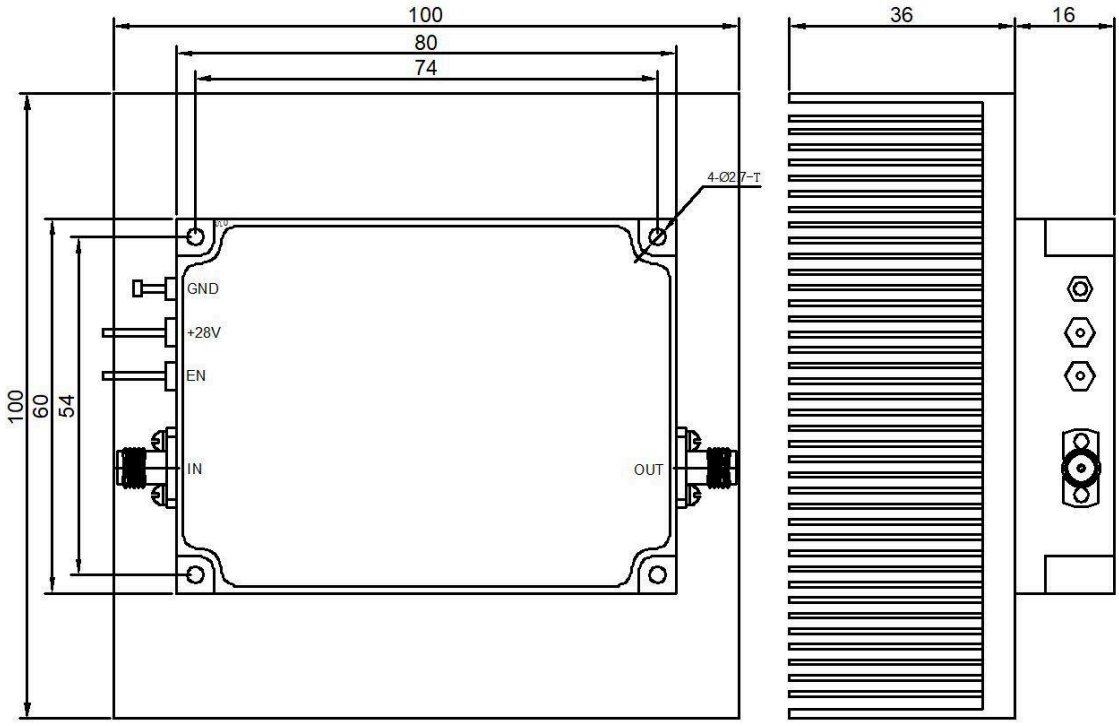
[1] Storage temperature

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.