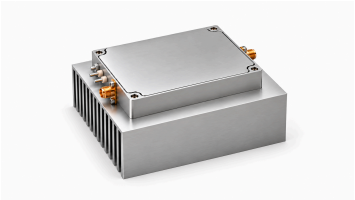
30–1000 MHz GaN RF Power Amplifier, 10 W Typical

The GaN amplifier covers 30–1000 MHz with 9 W minimum and 10 W typical saturated output. Typical gain is 40 dB with ±1 dB flatness; typical current is 0.6 A at 10 W output.

Dimensions are 100 × 100 × 52 mm, with two SMA ports and typical 28 VDC through a feed-through supply pin and separate ground. The source specifies continuous 5:1 load VSWR at 10 W for all load phases and amplitudes.



Electrical Specifications

+28.0VDC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	30	-	1000	MHz
RF output power @ PSAT	PSAT	9	10	-	W
Power gain @ PSAT	Gp	-	40	-	dB
Power gain flatness @ PSAT	ΔGp	-	±1	-	dB
Input return loss	S11	-	-15	-	dB
Harmonics at 10 W	H	-	-12	-	dBc
Spurious signals @ PSAT	Spur	-	-60	-	dBc
Input/output impedance	Impedance	-	50	-	Ω
Operating voltage	VDC	-	28	-	VDC
DC current @ 10W	IDD	-	0.6	-	A

Absolute Maximum Ratings

Parameter	Rating
RF input drive without damage	+5 dBm maximum
Load VSWR at Pout = 10 W	5:1; 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	%

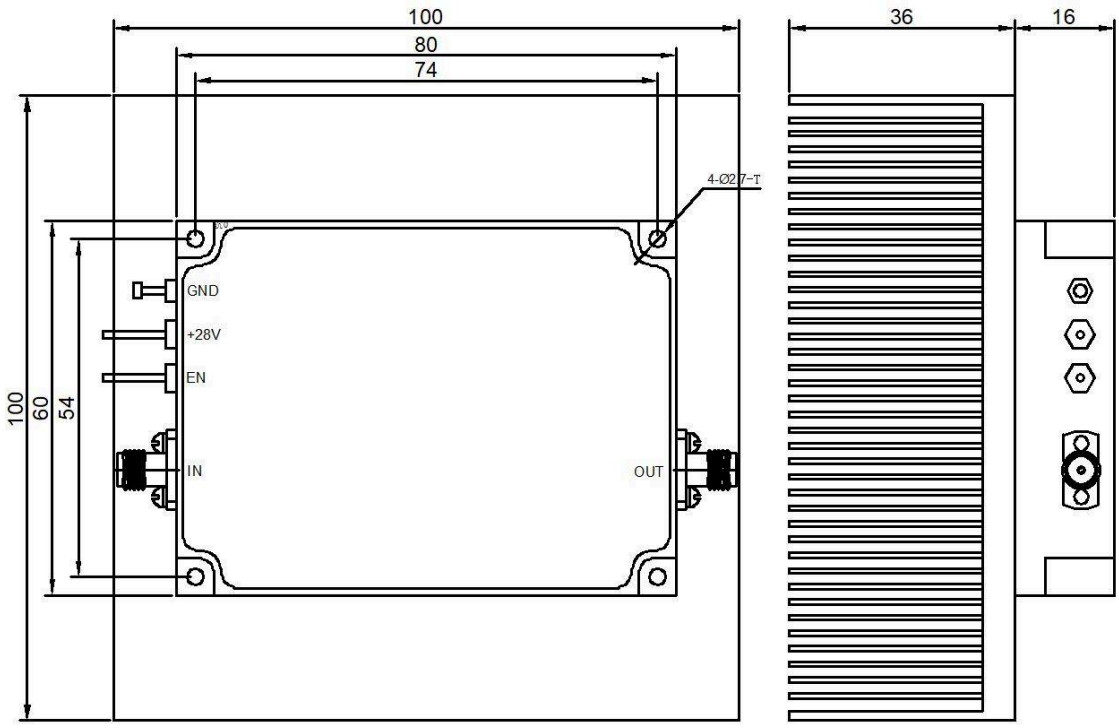
[1] Storage temperature

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.