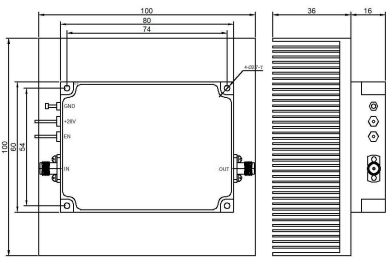


30–1500 MHz GaN RF Power Amplifier, 1 W Minimum

This module specifies 1 W minimum saturated output and 30 dB minimum gain across 30–1500 MHz. Typical current is 0.15 A at 1 W, with ±1 dB typical gain flatness.



Electrical Specifications · +28.0VDC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	30	-	1500	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 · Design targets; project confirmation required

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

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	-

Technical drawing of the 4-027-T module. The top view shows a rectangular module with overall dimensions of 100 mm (width) by 100 mm (height). The internal dimensions are 80 mm (width) and 74 mm (height). The side view shows a module with a width of 36 mm and a height of 16 mm. The top view also shows the following details:

- Pin headers on the left side: GND, +28V, EN, and IN.
- Pin headers on the right side: OUT.
- Mounting holes: 4-Ø2.7-T.
- Dimensions: 100, 80, 74, 100, 60, 54, 36, 16.

DC and Control Interface

Document notice

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