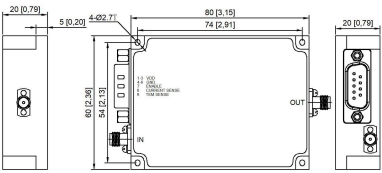


1000–3000 MHz GaN RF Power Amplifier, 30 W Typical

The GaN amplifier provides 30 W typical saturated output across 1000–3000 MHz and 45 dB typical gain. Typical flatness is ±1 dB and supply is 28 VDC, with 32 VDC maximum.



Electrical Specifications · Pin=0dBm; +28.0VDC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	1000	-	3000	MHz
RF output power @ PSAT	PSAT	-	30	-	W
Power gain @ PSAT	Gp	-	45	-	dB
Power gain flatness @ PSAT	ΔGp	-	±1	-	dB
Input return loss	S11	-	-	-10	dB
Harmonics at 30 W	H	-	-12	-	dBc
Spurious signals @ PSAT	Spur	-	-50	-	dBc
Input/output impedance	Impedance	-	50	-	Ω
Operating voltage	VDC	-	28	32	VDC
Power-added efficiency	Eff	-	30	-	%

Absolute Maximum Ratings · The output port must not be left open-circuited.

Parameter	Rating
RF input drive without damage	+10 dBm maximum
Load VSWR	6:1; All load phases and amplitudes; continuous
Thermal overload	85 °C ±5 °C → Shutdown (maximum)

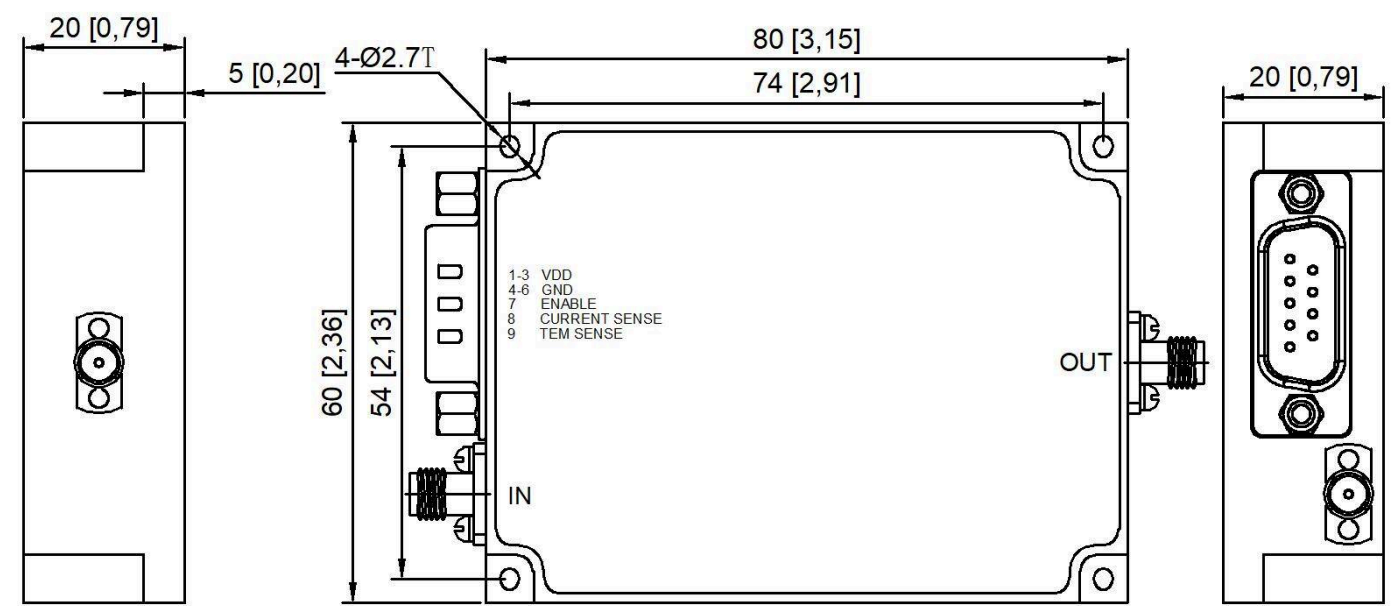
Environmental Specifications · Design targets; project confirmation required During operation, the power module must be mounted on a heat sink with forced-air cooling. Fill the interface between the module and heat sink with thermally conductive material, such as thermal grease.

Parameter	Minimum	Typical	Maximum	Unit	Notes
Operating temperature	-20	-	55	°C	-
Storage temperature	-40	-	85	°C	Storage temperature
Relative humidity (non-condensing)	-	-	95	%	-

Mechanical Specifications · The source table assigns temperature sensing to pin 8 and current sensing to pin 9; the original drawing reverses those assignments. Confirm pins 8/9 before wiring.

Parameter	Value	Unit
Dimensions	80 × 60 × 20 [3.15 × 2.36 × 0.78] mm [in]	mm [in]
Weight	0.5 [1.1] kg [lb]	kg [lb]
RF input connector	J1:SMA, female	-
RF output connector	J2:SMA, female	-
DC/control interface	J3:DB9, male	-

Mechanical Outline



All dimensions are in mm [in].

DC and Control Interface

Pin #	Description	Specification
1-3	1-3 — Positive supply	28VDC~32VDC
4-6	4-6 — Ground	Ground
7	7 — Enable	TTL logic high (3.3 V); internally pulled low

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.