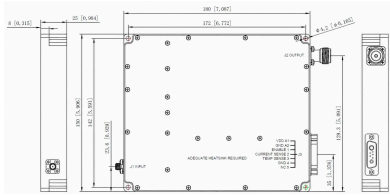


6–18 GHz Solid-State RF Power Amplifier, 50 W Typical

The solid-state amplifier covers 6–18 GHz with 45 W minimum and 50 W typical saturated output at 0 dBm input. Typical gain is 47 dB; gain flatness is ± 1.5 dB typical and ± 2.5 dB maximum under the same input condition. The source table and original CAD swap temperature/current assignments on pins 2/3 and disagree on pins 4/5: forward/reflected RF sensing versus GND/NC. These assignments are withheld; confirmed wiring is required.



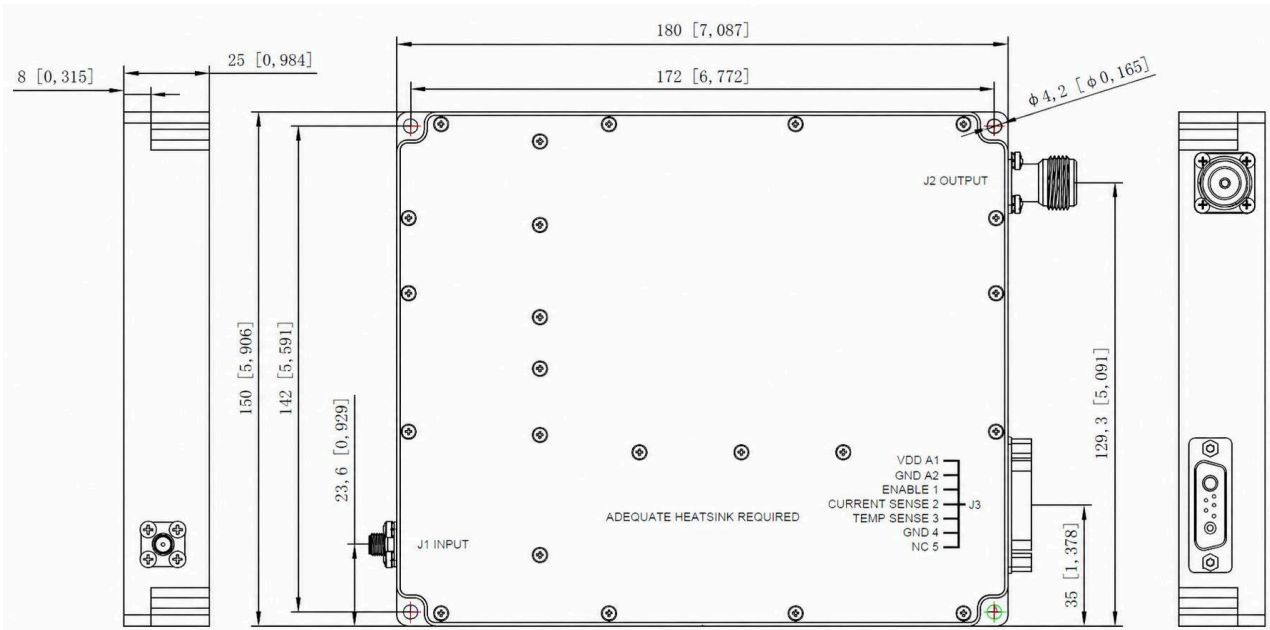
Electrical Specifications

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	6	-	18	GHz
RF output power @ Pin = 0 dBm	Psat	45	50	-	W
Power gain @ Pin = 0 dBm	Gp	-	47	-	dB
Power gain flatness @ Pin = 0 dBm	ΔGp	-	± 1.5	± 2.5	dB
Input return loss	S11	-	-	-10	dB
Harmonic level at 25 W	H	-	-	-20	dBc
Spurious signals	Spur	-	-	-60	dBc
Input/output impedance	Z_0	-	50	-	Ω
Operating voltage	VDC	26	28	30	V
DC current @ 50 W	IDD	-	10	13	A

Mechanical Specifications · The source table specifies 180 × 100 × 22 mm maximum, while the original CAD labels 180 × 150 × 25 mm. The mechanical envelope is unresolved and requires confirmation.

Parameter	Value	Unit
Weight	≤ 1.0 kg	-
RF input connector	SMA female	-
RF output connector	N female	-
DC/control interface	Hybrid 7 D-Sub male	-
Cooling	External heatsink required; not supplied	-
Dimensional tolerance	± 0.2 mm	-

Mechanical Outline



All dimensions are in mm [in].

Environmental Specifications

Parameter	Minimum	Typical	Maximum	Unit	Notes
Operating ambient temperature	-40	-	+60	°C	Case temperature ≤85 °C
Storage temperature	-45	-	+85	°C	Non-operating
Relative humidity (non-condensing)	-	-	95	%	Non-condensing

Absolute Maximum Ratings

Parameter	Rating
RF input drive without damage	+5 dBm
Load VSWR at 25 W	∞; All load phases and amplitudes; for one minute
Load VSWR at 25 W	3.0:1; All load phases and amplitudes; continuous
Over-temperature protection	85 °C → Shutdown; Heatsink
Overtemperature recovery temperature	60 °C

DC and Control Interface

Pin #	Description	Specification
A1	A1 — Positive supply	+28 VDC
A2	A2 — Ground	Ground
1	1 — Enable	TTL logic high (3.3–5 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.