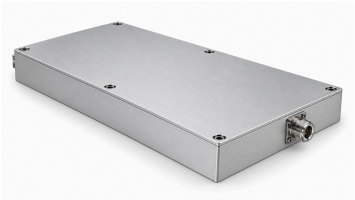
1150–1250 MHz RF Power Amplifier, 57 dBm Minimum Saturated Output

The 1150–1250 MHz source specifies a minimum saturated output of 57 dBm, approximately 500 W, for single-frequency operation. Output adjustment covers 37–57 dBm with a maximum step of 0.5 dB. A separate coupled output has a 49–51 dB coupling factor. The mechanical drawing gives a 380×250×30 mm body. Typical power consumption is 1250 W. Operating current is 45 A; pin 5 is NC (not connected).



Electrical specifications

+28.0 V DC; 25°C; 50Ω

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	BW	1150	-	1250	MHz
Saturated RF output power[1]	Psat	57	-	-	dBm
Output-power adjustment range	Pout	37	-	57	dBm
Output-power adjustment step	-	-	-	0.5	dB
Power gain	Gp	55	-	-	dB
Output-power accuracy[2]	ΔP	−0.5	-	+0.5	dB
In-band flatness	-	-	-	3	dB
Input VSWR	-	-	-	2.0:1	-
Output VSWR	-	-	-	2.0:1	-
Harmonic suppression	H	20	-	-	dBc
Spurious suppression	Spur	50	-	-	dBc
Output coupling factor[3]	C	49	-	51	dB
Power consumption	PDC	-	1250	-	W

Operating current

Parameter	Value	Unit
Operating current	45	A

Monitoring and protection requirements

Parameter	Value
Gain-control operating mode	Specified requirement
Operating-status reporting	Specified requirement
Abnormal-condition alarm	Specified requirement
Power-status indication	Specified requirement
Output VSWR protection	Specified requirement

Monitoring and protection requirements

Parameter	Value
Overtemperature protection	Specified requirement
Overvoltage protection	Specified requirement
Overcurrent protection	Specified requirement
Normal operation with small-signal input	Specified requirement

Absolute maximum ratings

Parameter	Value	Unit
RF input drive without damage [1]	+10	dBm
Load VSWR tolerance @Pout = 500 W [2]	5:1	-
Thermal-overload shutdown [3]	85	°C

[1] Max

[2] All load phases; the source specifies continuous amplitude.

[3] Amplifier shutdown.

Environmental specifications — design to meet

Parameter	Minimum	Typical	Maximum	Unit
Operating temperature	-20	-	50	°C
Storage temperature	-25	-	65	°C

RF and power/control connectors

Interface	Specification
RF input connector	SMA, female
RF output connector	N, female
Coupled RF output connector	SMA, female
Power connector	D-SUB 9W4 (Exact connector part number is not specified.)

DC interface pinout

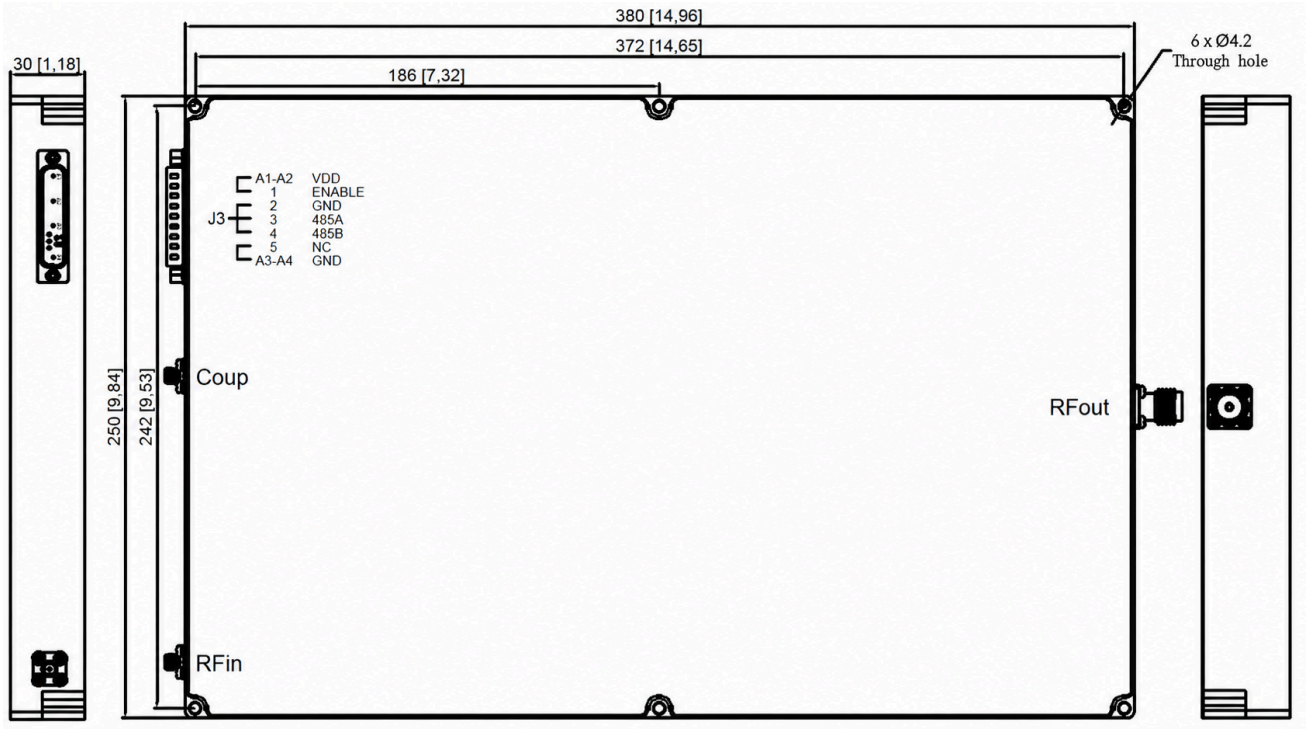
Pin #	Description	Specification
A1	VDD	+28 V
A2	VDD	+28 V
A3	GND	Ground

DC interface pinout

Pin #	Description	Specification
A4	GND	Ground
1	ENABLE	Amplifier enable: TTL high (3.3 V), internally pulled low.
2	GND	Ground
3	485A	RS-485 serial communication
4	485B	RS-485 serial communication
5	NC	Not connected

Mechanical specifications

Parameter	Value	Unit
Body dimensions	380 × 250 × 30 (Body dimensions from the mechanical drawing, excluding connector projections.)	mm
Mounting-hole centre spacing	372 × 242; 186	mm
Mounting holes	6 × Ø4.2	mm



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.