1550–1620 MHz RF Power Amplifier, 100 W Typical

The amplifier covers 1550–1620 MHz and delivers 100 W typical saturated output. It has 50 dB typical gain at the stated test conditions and provides a 28 V DC supply interface with RS-485 control.



RF performance

+28 V DC · 25 °C · 50 Ω

Parameter	Specification
RF operating frequency	1550–1620 MHz
Saturated output power	100 W · typical
Power gain	50 dB · typical
Gain flatness	±1 dB · typical
Harmonics	−25 dBc · typical · Pout = 100 W
Spurious output	−60 dBc · typical
Input and output impedance	50 Ω · typical
Power-added efficiency	55% · typical
Supply current at 100 W output	7.5 A · typical

Power and protection

Parameter	Specification
Supply voltage range	+24 … +32 V DC
Protection monitoring	DC voltage, current, forward and reflected output power, temperature
Output VSWR shutdown	3:1–3.5:1
Overtemperature shutdown	>85 °C
Overcurrent shutdown	>10.5 A
Voltage protection	Reverse polarity or operation outside the specified voltage range

Absolute maximum ratings

Parameter	Specification
Maximum RF drive without damage	+10 dBm
Continuous load VSWR at 100 W output	3:1 · All load phases

Environmental design limits

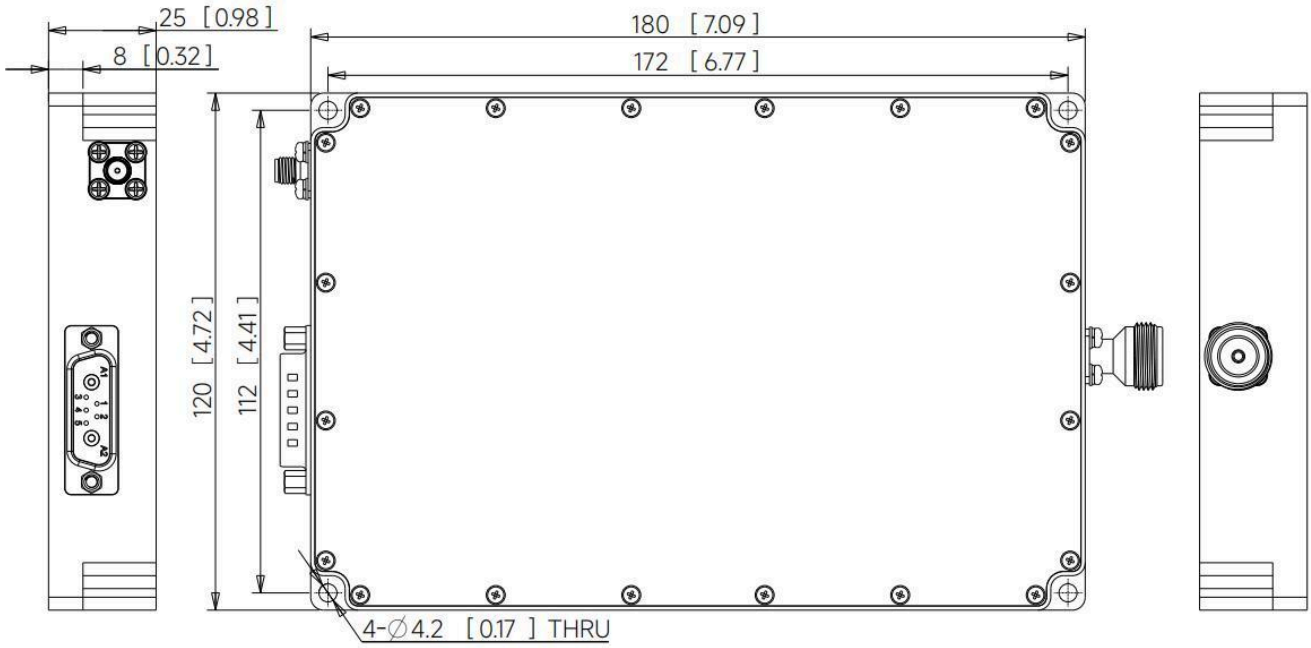
Parameter	Specification
Operating temperature	−20 … +50 °C
Storage temperature	−25 … +65 °C
Relative humidity, non-condensing	≤95% RH

Hybrid D-Sub pin assignment

Parameter	Specification
A1	GND
A2	VDD · +28 V DC
1	ENABLE · TTL HIGH (3.3 V) · internally pulled low
2	GND
3	485A · RS-485
4	485B · RS-485
5	NC

Mechanical dimensions

Parameter	Specification
Enclosure dimensions	≤180 × 120 × 25 mm
Mass	≤2 kg
RF input connector	SMA · female
RF output connector	N · female
Power and control connector	Hybrid D-Sub · 7 · male



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.