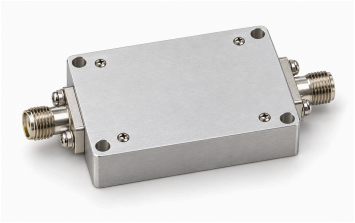
6–9 GHz LNA with RF-Input DC Feed

Operating from 6000 to 9000 MHz, this amplifier provides 30 dB typical gain, 2 dB typical noise figure and 15 dBm typical saturated output. The frequency table establishes the 6 GHz lower edge.

The SMA-K female RF input also receives +5 V DC, confirmed by IN/+5V in the drawing. Typical current is 100 mA. The 36.2 × 24 × 10 mm module has a separate SMA-K female RF output.



Electrical specifications

Parameter	Value	Unit
Operating frequency	6000–9000	MHz
Gain	30 (Typical)	dB
Noise figure	2 (Typical)	dB
Saturated output power (Psat) [1]	15 (Typical)	dBm
Input S11 (signed source value) [2]	−10 (Typical)	dB
Supply voltage	5 (Typical)	VDC
Dynamic current	100 (Typical)	mA

[1] Saturated output (Psat), not P1dB or guaranteed linear output.

[2] Negative S11 convention retained from source; not recast as positive return loss.

Absolute maximum ratings

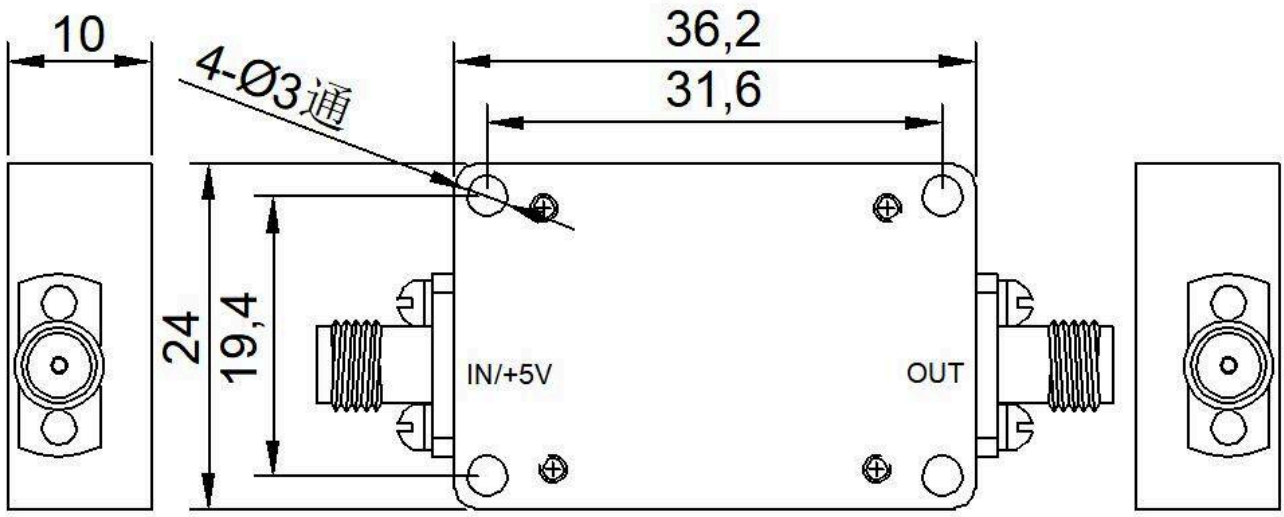
Parameter	Value	Unit
Absolute maximum supply voltage	≤7 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 7 VDC.)	VDC
Absolute maximum input power	≤12 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 12 dBm.)	dBm
Operating temperature	−40–+70	°C
Storage temperature	−40–+85	°C

Interfaces and contacts

Interface	Specification
RF input connector	SMA-K female
RF output connector	SMA-K female
RF port carrying DC supply	IN / +5 V (DC +5 V supplied through the RF input; source drawing labels IN/+5V.)

Mechanical specifications

Parameter	Value	Unit
Body dimensions	36.2 × 24 × 10	mm
Mounting-hole center spacing	31.6 × 19.4	mm
Mounting holes	4 × Φ3 (Four through holes.)	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.