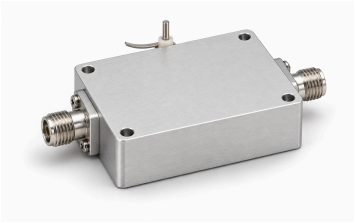
10–6000 MHz 20 dB Low-Noise Amplifier

This 10–6000 MHz amplifier provides 20 dB typical gain from a 5 V typical supply, drawing 65 mA typical. Saturated output is 20 dBm typical; a linear output rating is not supplied.

The 36.2 × 24 × 10 mm module uses SMA-K female ports and a feed-through DC capacitor with a grounding metal sheet. Absolute limits are 7 V supply and 12 dBm input.



Electrical specifications

Parameter	Value	Unit
Operating frequency	10–6000	MHz
Gain	20 (Typical)	dB
Noise figure	1.8 (Typical)	dB
Saturated output power (Psat) [1]	20 (Typical)	dBm
Input S11 (signed source value) [2]	−10 (Typical)	dB
Supply voltage	5 (Typical)	VDC
Dynamic current	65 (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

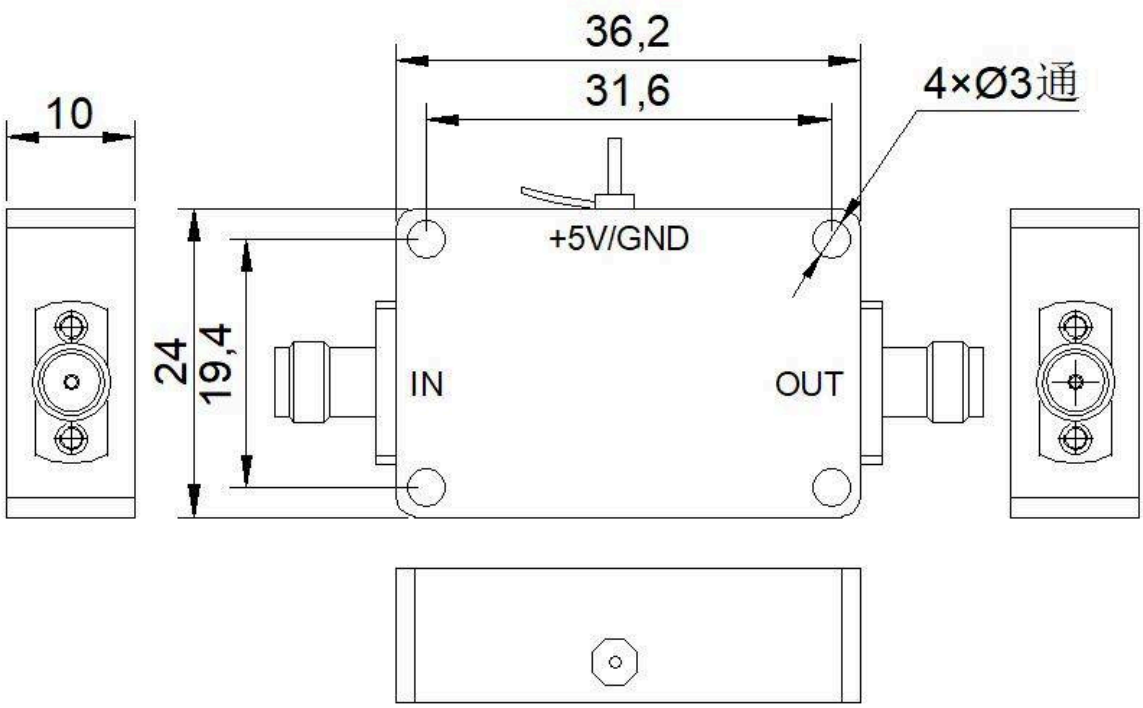
Parameter	Value	Unit
Absolute maximum supply voltage	≤7 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 7 VDC.)	VDC
Absolute maximum input power	≤12 (Absolute maximum rating; continuous operation or performance at this limit is not established. 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
DC supply interface	Feed-through capacitor
Ground interface	Grounding metal sheet

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.