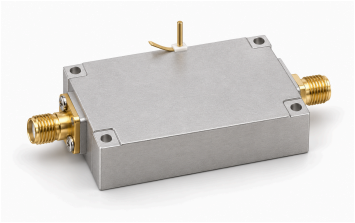
70–6000 MHz Low-Noise Amplifier with Input Limiter



LCLAN-70-6000-30 integrates an input limiter for broadband receive amplification. The table specifies 30 dB minimum and 33 dB maximum gain, 3 dB maximum noise figure and 8 dBm maximum saturated output.

Supply is 10–36 V with 28 V typical and 0.06 A typical current. The 40 × 25 × 12 mm body uses SMA female ports. Input 35 dBm is an absolute maximum, without continuous limiter-protection qualification.

Electrical specifications

Parameter	Value	Unit
Operating frequency	70–6000	MHz
Gain	30–33	dB
Saturated output power (Psat) [1]	≤8	dBm
Input S11 (signed source value) [2]	≤−10	dB
Input/output impedance	50 (Typical)	Ω
Supply voltage [3]	10 / 28 / 36	VDC
Dynamic current	0.06 (Typical)	A
Noise figure	≤3	dB
Input limiter	Integrated	-

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

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

[3] Typical: 28 VDC.

Absolute maximum ratings

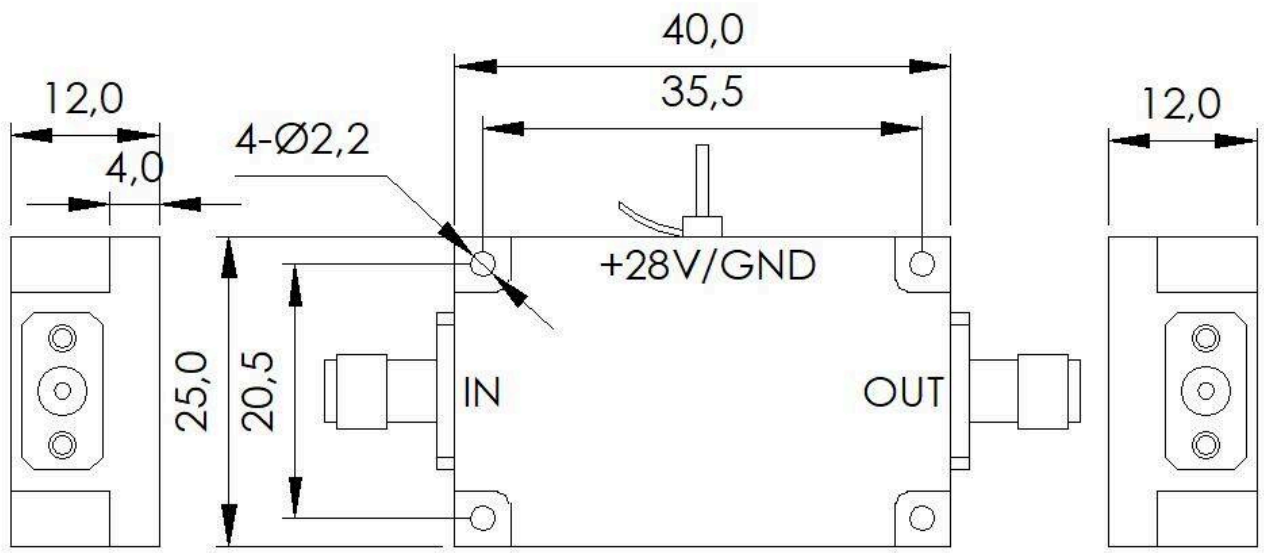
Parameter	Value	Unit
Absolute maximum supply voltage	≤36 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 36 VDC.)	VDC
Absolute maximum input power	≤35 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 35 dBm.)	dBm
Operating temperature	−45–+70	°C
Storage temperature	−55–+125	°C

Interfaces and contacts

Interface	Specification	Unit
RF input connector	SMA female	-
RF output connector	SMA female	-
DC supply interface	Φ0.8 (Pin diameter.)	mm
Ground interface	Gold-plated copper post	-

Mechanical specifications

Parameter	Value	Unit
Body dimensions	40 × 25 × 12	mm
Mounting-hole center spacing	35.5 × 20.5	mm
Mounting holes	4 × Φ2.2	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.