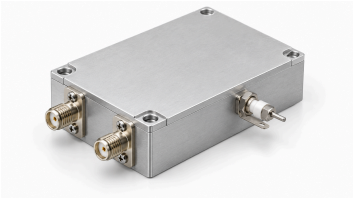
30–6000 MHz Two-Input Combining LNA



Two separately amplified input paths converge at a single output combiner. The operating band is 30–6000 MHz, with 30 dB typical gain and 1.2 dB typical noise figure. Psat is 10 dBm maximum.

Typical supply and module current are 5 V and 170 mA. The body measures 50 × 40 × 13 mm with SMA-K female ports. Absolute input power is 12 dBm; operation continuously at that limit is not established.

Electrical specifications

Parameter	Value	Unit
Operating frequency	30–6000	MHz
Gain	30 (Typical)	dB
Noise figure	1.2 (Typical)	dB
Saturated output power (Psat) [1]	≤10	dBm
Input S11 (signed source value) [2]	−10 (Typical)	dB
Supply voltage	5 (Typical)	VDC
Dynamic current	170 (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

Interfaces and contacts

Interface	Specification
Ground interface	Grounding metal sheet
RF input port count	2
RF output port count	1
Signal routing	Two amplified inputs combined to one output

Mechanical specifications

Parameter	Value	Unit
Body dimensions	50 × 40 × 13	mm
Mounting-hole center spacing	45.6 × 35.6	mm
Mounting holes	4 × Φ2.7 (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.