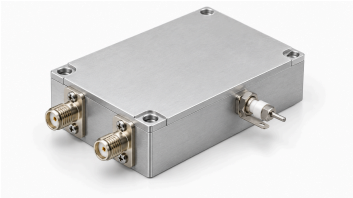
2–6 GHz Two-Input Combining LNA



The original block diagram shows two amplifier paths feeding one combiner. Across 2000–6000 MHz, gain is 30 dB typical and noise figure 2 dB typical. The 5 dBm Psat value is a maximum.

SMA-K female ports and the 50 × 40 × 13 mm outline define installation. Operating supply is 5 V typical; the separate absolute supply limit is 6 V. No port-isolation rating is provided.

Electrical specifications

Parameter	Value	Unit
Operating frequency	2000–6000	MHz
Gain	30 (Typical)	dB
Noise figure	2 (Typical)	dB
Saturated output power (Psat) [1]	≤5	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	≤6 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 6 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.