6–9 GHz Downconverter with 5 GHz IF, A Variant



LCMIXD-6000-9000A is a distinct downconverter for 6–9 GHz RF and 5±0.75 GHz IF. It specifies 30 dB typical conversion gain and 12 dBm typical saturated output. The A source has no noise-figure rating; do not apply the unsuffixed model's value. Pin 5 selects the lower RF band at 0 V and upper band at +3.3 or +5 V.

The module uses +5 V nominal supply, 6 V maximum and 400 mA typical current, with −40 to +70 °C operation. Its body dimensions are 110±0.05 × 63±0.05 × 16±0.05 mm. Physical RF/IF port mapping requires confirmation because the source descriptions and outline labels disagree.

Electrical specifications

Parameter	Value	Unit
RF input frequency	6–9	GHz
IF output frequency	5±0.75	GHz
Downconversion gain	30 (Typical)	dB
Saturated output power (Psat)	12 (Typical)	dBm
Leakage level / source rejection value [1]	−40 (Typical)	dBc
Supply voltage [2]	+5	VDC
Supply current	400 (Typical)	mA
Internal LO frequency	11.75 / 13.25	GHz
Input power without damage [3]	33 (Typical)	dBm

[1] Retain the negative source value; its rejection convention is unconfirmed.

[2] Stated +5 V supply; 6 V maximum. No typical qualifier is inferred. Maximum: 6 VDC.

[3] Typical source value; not a guaranteed no-damage limit.

Environmental limits

Parameter	Value	Unit
Operating temperature	−40–+70	°C
Storage temperature	−40–+85	°C

Interfaces and contacts

Interface	Specification
Signal connectors	SMA (Source labels disagree; confirm physical RF/IF mapping before connection.)
Power and control connector	PHD-2×5AWD
Supply contacts	1, 2: +5 V
Ground contacts	3, 4: GND

Control and filter selection

Parameter	Value
Filter selection, pin 5 low	0 V → 6–7.5 GHz
Filter selection, pin 5 high	+3.3 / +5 V → 7.5–9 GHz

Mechanical specifications

Parameter	Value	Unit
Body dimensions	110±0.05 × 63±0.05 × 16±0.05	mm
Mounting-hole center spacing	105.6±0.1 × 58.6±0.1	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.