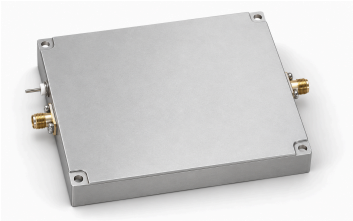
6–8.3 GHz Upconverter with 3.5–5.8 GHz IF



LCMIXU-6000-8300 translates a 3.5–5.8 GHz IF input to 6–8.3 GHz RF output. The source specifies gain ≥30 dB, IF leakage rejection ≥40 dBc and output spurious ≤−40 dBc at 0 dBm RF output. The Psat value is ≤5 dBm, an upper bound rather than a minimum output capability.

The module integrates a 50 MHz reference and 11.8 GHz PLL source. It uses SMA signal interfaces, +28 V nominal supply, 36 V maximum and 160 mA typical current. The body measures 100 × 80 × 15 mm, with −40 to +70 °C operation; check the source drawing for mounting positions.

Electrical specifications

Parameter	Value	Unit
RF output frequency	6–8.3	GHz
IF input frequency	3.5–5.8	GHz
Upconversion gain	≥30	dB
Saturated output power (Psat) [1]	≤5	dBm
Output spurious [2]	≤−40	dBc
IF leakage rejection	≥40	dBc
Supply voltage [3]	+28	VDC
Supply current	160 (Typical)	mA
Internal LO frequency	11.8	GHz
Internal reference frequency	50	MHz

[1] Upper bound stated in the source; not minimum output capability.

[2] At RF output power 0 dBm.

[3] Stated +28 V supply; 36 V maximum. No typical qualifier is inferred. Maximum: 36 VDC.

Environmental limits

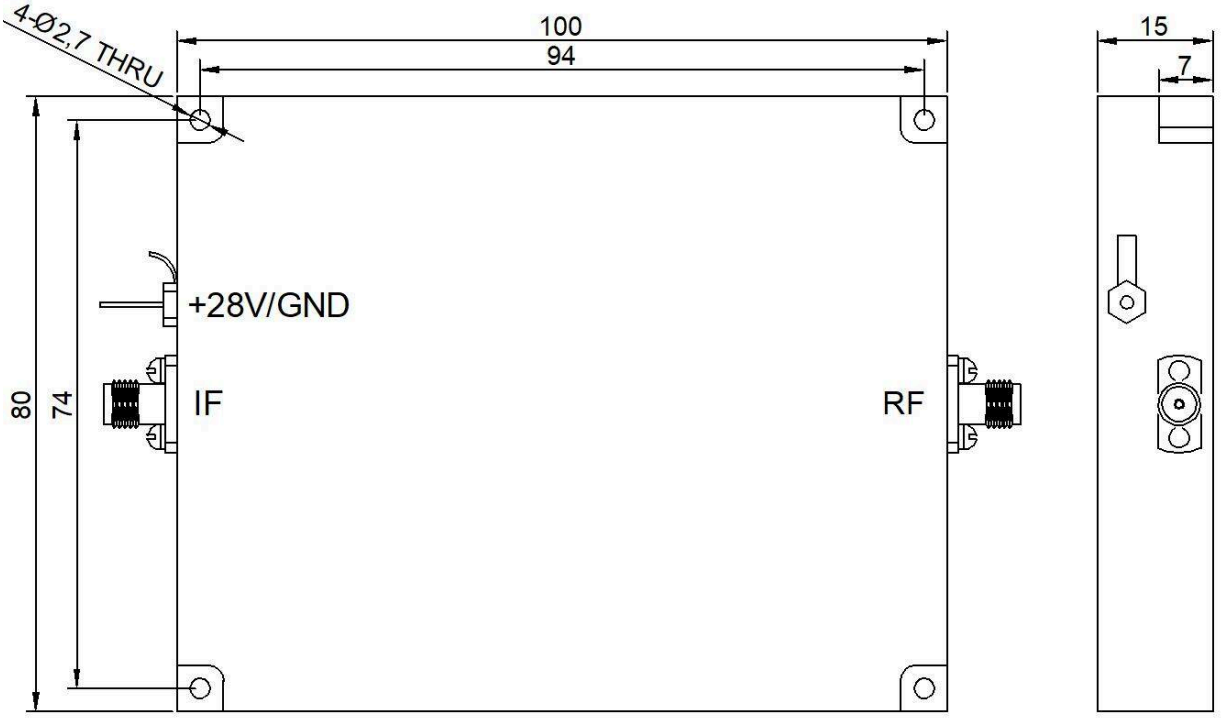
Parameter	Value	Unit
Operating temperature	−40–+70	°C
Storage temperature	−40–+85	°C

Interfaces and contacts

Interface	Specification
IF input connector	SMA
RF output connector	SMA
Power interface	+28 V / GND (Supply uses a feed-through capacitor; ground uses a metal grounding tab.)

Mechanical specifications

Parameter	Value	Unit
Body dimensions	100 × 80 × 15	mm
Mounting-hole center spacing	94 × 74	mm
Mounting holes	4 × Φ2.7 (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.