Product catalog

Down Converter Modules

Down converter modules translate RF or microwave receive signals to IF or baseband ranges for processing, digitization or monitoring. They are used in receivers, spectrum monitoring equipment, radar channels, satellite ground systems and RF test platforms.



Products: 11

Revision: 8 · Revision date: 2026-11-28



LCMIXD-10700-12750

10.7–12.75 GHz Dual-Channel RF Downconverter Module

Dual-channel RF downconverter with 10.7–12.75 GHz inputs, 1.7–3.75 GHz IF outputs, 50 dB minimum conversion gain and 1.8 dB maximum noise figure. Operates from a +12 VDC supply.

RF input frequency: Specification: 10.7–12.75; Unit: GHz

IF output frequency: Specification: 1.7–3.75; Unit: GHz

Downconversion gain: Specification: 50 (minimum); Unit: dB

Noise figure: Specification: 1.8 (maximum); Unit: dB

Product details Product datasheet



LCMIXD-20-3600

20–3600 MHz Dual-Conversion RF Downconverter Module

Convert 20–3600 MHz RF to a 153.6 MHz wideband IF or a 140 MHz narrowband IF. Three SPI-selectable modes provide 45, 30 or 10 dB conversion gain, each specified at ±2 dB.

RF input frequency: Specification: 20–3600 MHz; Unit: MHz

Tuning resolution: Specification: 10 kHz; Unit: kHz

Frequency switching time: Specification: ≤100 µs; Unit: µs

Frequency accuracy: Specification: ≤0.1 ppm · over full operating temperature range; Unit: ppm

Product details Product datasheet



LCMIXD-2000-18000

2–18 GHz SPI-Controlled Broadband RF Downconverter Module

Broadband RF downconverter covering 2–18 GHz with a fixed 1.8 GHz IF output and 28 dB minimum conversion gain. SPI selects RF filters and programmable attenuation; two external LO inputs serve the conversion chain.

RF input frequency: Specification: 2–18; Unit: GHz; Notes: Broadband

IF output centre frequency: Specification: 1.8; Unit: GHz; Notes: Fixed

Conversion gain: Specification: ≥28; Unit: dB; Notes: Minimum

Noise figure: Specification: ≤12; Unit: dB

Product details Product datasheet



LCMIXUD-380-18000-2G

0.38–18 GHz RF Up/Downconverter Module with Internal LO

Separate upconversion and downconversion paths cover 0.38–18 GHz RF and 3.6 ±1 GHz IF, with up to 2 GHz instantaneous bandwidth. Both paths support direct operation over 0.38–4.6 GHz; internal LO sources and SPI control are integrated.

RF input frequency: Specification: 0.38–18; Unit: GHz; Notes: Broadband RF input

Converted IF output band: Specification: 3.6 ±1; Unit: GHz; Notes: Nominal centre 3.6 GHz

Direct RF output band: Specification: 0.38–4.6; Unit: GHz; Notes: Separate output path without frequency conversion

Instantaneous bandwidth: Specification: Up to 2; Unit: GHz; Notes: Source description; converted IF operation

Product details Product datasheet



LCMIXUD-6000-8500

6–8.5 GHz Integrated RF Up/Downconverter Module

Integrated conversion between 6–8.5 GHz RF and 3–5.5 GHz IF. The downconversion path provides 25 dB typical gain and 2 dB maximum noise figure; TTL control selects the active conversion direction.

RF operating frequency: Specification: 6–8.5; Unit: GHz

IF operating frequency: Specification: 3–5.5; Unit: GHz

Downconversion gain: Specification: 25; Typical; Unit: dB

Downconversion noise figure: Specification: 2; Maximum; Unit: dB

Product details Product datasheet



LCLNB106-LO2S

Ku-Band 10.70–12.75 GHz LNB with WR-75 Input

Satellite downconverter to 950–2150 MHz IF, ≥60 dB conversion gain, ≤0.8 dB noise figure and N female IF/DC interface.

RF input frequency: Value: 10.70–12.75; Unit: GHz

IF output frequency: Value: 950–2150; Unit: MHz

Internal LO frequency: Value: 9.75 / 10.60; Unit: GHz

LO selection voltage: Value: 13 / 18; Unit: V

Product details Product datasheet



LCMIXD-2000-18000-4C

2–18 GHz Four-Channel Downconverter with SPI Control

Four-channel conversion to fixed 1.8 GHz IF, ≥28 dB gain, ≤12 dB noise figure and independent RF/ calibration attenuation.

RF input frequency: Value: 2–18; Unit: GHz

Channel count: Value: 4

IF output frequency: Value: 1.8; Unit: GHz

IF output bandwidth: Value: 1; Unit: GHz

Product details Product datasheet



LCMIXD-6000-9000

6–9 GHz Downconverter with 5 GHz IF

Selectable-band RF downconverter with 30 dB typical conversion gain and 2.5 dB maximum noise figure. Typical source value; not a guaranteed no-damage limit. Typical: 33 dBm.

RF input frequency: Value: 6–9; Unit: GHz

IF output frequency: Value: 5±0.75; Unit: GHz

Downconversion gain: Value: 30; Unit: dB; Notes: Typical: 30 dB.

Downconversion noise figure: Value: 2.5; Unit: dB; Notes: Maximum: 2.5 dB.

Product details Product datasheet



LCMIXD-6000-9000A

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

Separate A variant with selectable RF bands, 30 dB typical conversion gain and 12 dBm typical Psat; noise figure is not specified. Typical source value; not a guaranteed no-damage limit. Typical: 33 dBm.

RF input frequency: Value: 6–9; Unit: GHz

IF output frequency: Value: 5±0.75; Unit: GHz

Downconversion gain: Value: 30; Unit: dB; Notes: Typical: 30 dB.

Saturated output power (Psat): Value: 12; Unit: dBm; Notes: Typical: 12 dBm.

Product details Product datasheet



LCMIXD-8500-10500

8500–10500 MHz X-Band RF Downconverter with Internal LO and AGC

X-band downconversion to a 1200 MHz typical IF, with an internal 7300–9300 MHz LO and 3 dB maximum noise figure.

RF input frequency: Symbol: BW; Minimum: 8500; Maximum: 10500; Unit: MHz

RF input power range: Symbol: Pin; Minimum: -85; Maximum: -35; Unit: dBm

IF output frequency: Symbol: BW; Typical: 1200; Unit: MHz

IF output power range: Symbol: Pout; Minimum: -3; Maximum: 0; Unit: dBm

Product details Product datasheet



LCMIXUD-2000-18000-2G

2–18 GHz Downconverter with 2 GHz IF Bandwidth

Documented RF-to-IF conversion to 3.75±1 GHz, with 60 dB typical LNA-path gain, ≥12 dBm output P1dB and RF/IF attenuation.

RF input frequency: Value: 2–18; Unit: GHz

IF output frequency: Value: 3.75±1; Unit: GHz

IF output bandwidth: Value: 2; Unit: GHz

LNA-path gain: Value: 60; Unit: dB; Notes: Typical: 60 dB.

Product details Product datasheet

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.