Product catalog

# RF Front-End Modules and Subsystems

RF front-end modules and subsystems integrate receive, transmit, filtering, switching, conversion, monitoring and control between the antenna and IF or digital system.



Products: 6

Revision: 6 · Revision date: 2026-11-28



## LCRFSOC-47DR-8T8R

### 8 RX / 8 TX RFSoC Transceiver Board up to 6 GHz

The XCZU47DR board provides eight 14-bit ADC channels at up to 5 GSPS and eight 14-bit DAC channels at up to 9.85 GSPS. It uses SMP RF connections and dual QSFP28 interfaces for system integration.

**Receive channels:** Specification: 8

**Transmit channels:** Specification: 8

**ADC resolution:** Specification: 14 bit; Unit: bit

**DAC resolution:** Specification: 14 bit; Unit: bit

Product details  Product datasheet

## Frequency Conversion Subsystems



## 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

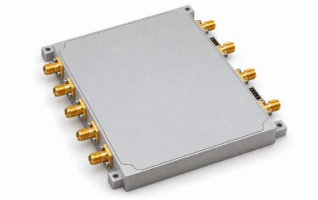
**IF operating frequency:** Specification: 3–5.5; Unit: GHz

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

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

Product details Product datasheet

## Receiver Modules



### LCRFE-1500-3000-4

**1500–3000 MHz Four-Channel Receiver Front End**

Four-channel RF conditioning with two selectable filter bands, 30±1.5 dB gain, ≤7 dB noise figure and a shared BITE input.

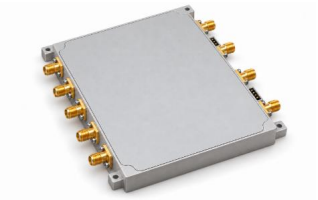
**RF input frequency:** Value: 1500–3000; Unit: MHz

**Channel count:** Value: 4

**Gain:** Value: 30±1.5; Unit: dB

**Noise figure:** Value: ≤7; Unit: dB; Notes: Maximum: 7 dB.

Product details Product datasheet



### LCRFE-3000-6000-4

**3–6 GHz Four-Channel Receiver Front End**

Four RF receive channels with three switched filter bands, 30±1.5 dB gain, ≤8 dB noise figure and per-channel DSA control.

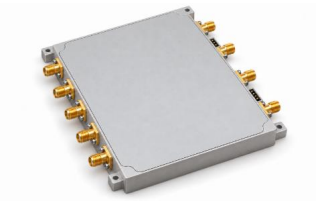
**RF input frequency:** Value: 3000–6000; Unit: MHz

**Channel count:** Value: 4

**Gain:** Value: 30±1.5; Unit: dB

**Noise figure:** Value: ≤8; Unit: dB; Notes: Maximum: 8 dB.

Product details Product datasheet



## LCRFE-600-1500-4

### 600–1500 MHz Four-Channel Receiver Front End

Four RF receive paths with selectable sub-band filters, 30±1.5 dB gain, noise figure ≤7 dB and independent digital attenuation.

**RF input frequency:** Value: 600–1500; Unit: MHz

**Channel count:** Value: 4

**Gain:** Value: 30±1.5; Unit: dB

**Noise figure:** Value: ≤7; Unit: dB; Notes: Maximum: 7 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.