



### General Description

The MxL801, MxL802, and MxL803 is a family of low-power, highly-integrated dual Ku-band down converter IC for use in satellite LNB converters.

The device features dual RF inputs (10.7 GHz-12.75 GHz) and dual wide-band IF outputs (290 MHz-2350 MHz). The device integrates many functions that are traditionally implemented by discrete components, and this high level of integration significantly reduces the overall system complexity and BOM cost.

The device is offered in a small 5 mm x 5 mm, 40-pin QFN package.

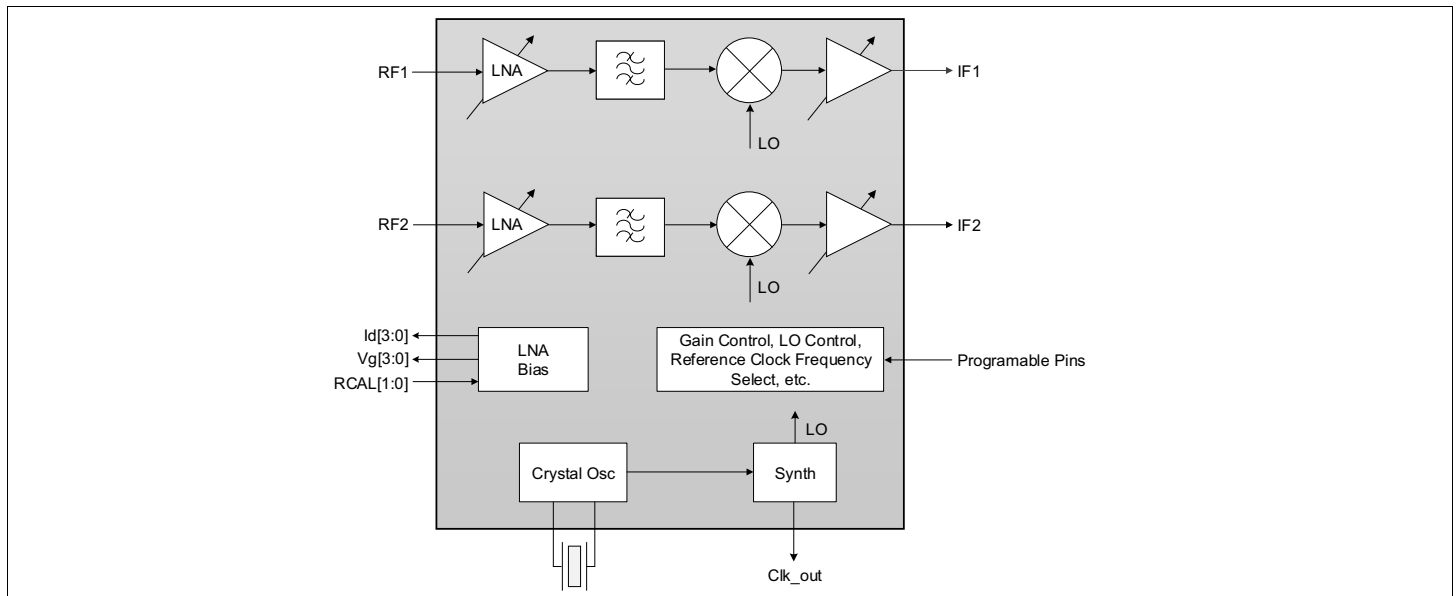
### Applications

- Channel stacking and band translation LNBs
- Wide-band LNBs
- Universal Quad and Quattro LNBs

### Features

- Dual Ku-band down-conversion to IF
  - 10.7 GHz-12.75 GHz RF range
  - 290 MHz-2350 MHz IF range
  - 9.75 GHz-11.95 GHz LO frequency range
  - Single-ended RF
  - Differential IF (MxL801), or single-ended IF (MxL802/MxL803)
- Highly-integrated solution
  - Image rejection filter
  - Crystal oscillator and PLL
  - Down-conversion mixers
  - IF amplifiers
  - LNA bias with an integrated negative voltage generator
  - POR
- Configurable parameters through programmable pins
  - IF gain
  - Reference clock frequency selection
  - LO frequency
  - LNA bias
- Single 1.8V supply voltage with an option for a 3.3V supply for an external LNA bias.

## Block Diagram



## Ordering Information

Marketing Part Number	Ordering Part Number	Package	Dimension	Shipping
MxL801	MxL801-AM-T	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tray
MxL802	MxL802-AM-T	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tray
MxL803	MxL803-AM-T	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tray
MxL801	MxL801-AM-R	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tape and Reel
MxL802	MxL802-AM-R	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tape and Reel
MxL803	MxL803-AM-R	SAWN QFN40	5 x 5 x 0.85 mm <sup>3</sup>	Tape and Reel



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