

General Description

The MxL582C is a low-power single-chip satellite receiver IC, featuring two XL-band Full-Spectrum Capture[®] (FSC[®]) tuners and eight demodulators that are compliant with DVB-S and DVB-S2.

The MxL582C receives signals from the two independent XL-band differential RF inputs, each from 250 MHz to 2350 MHz with a capture bandwidth of 2.1 GHz, and demodulates eight satellite channels to produce eight independent serial TS outputs. All eight TS outputs support two-wire or three-wire modes.

The MxL582C communicates with satellite LNBS through on-chip DiSEqC and FSK modems.

All major functions are incorporated onto the device, including LNAs, RF splitter, channel filters, AGC, adaptive equalizers, PLLs, crystal load capacitors, and demodulators. The MxL582C enables simple, compact board designs with low-power consumption and reduced BOM costs.

The MxL582C integrates an RF splitter that can be used in conjunction with another MxL582 device to enable a cost-effective implementation of a 16-channel solution. The MxL582C is controlled via an I²C interface, and operates using 1.8V and 1.1V core supplies and an I/O supply of 3.3V. The MxL582C is available in a small 10 mm x 10 mm footprint 72-pin QFN package.

Applications

- STBs
- Residential gateways
- SAT>IP multi-switch
- IP-LNB

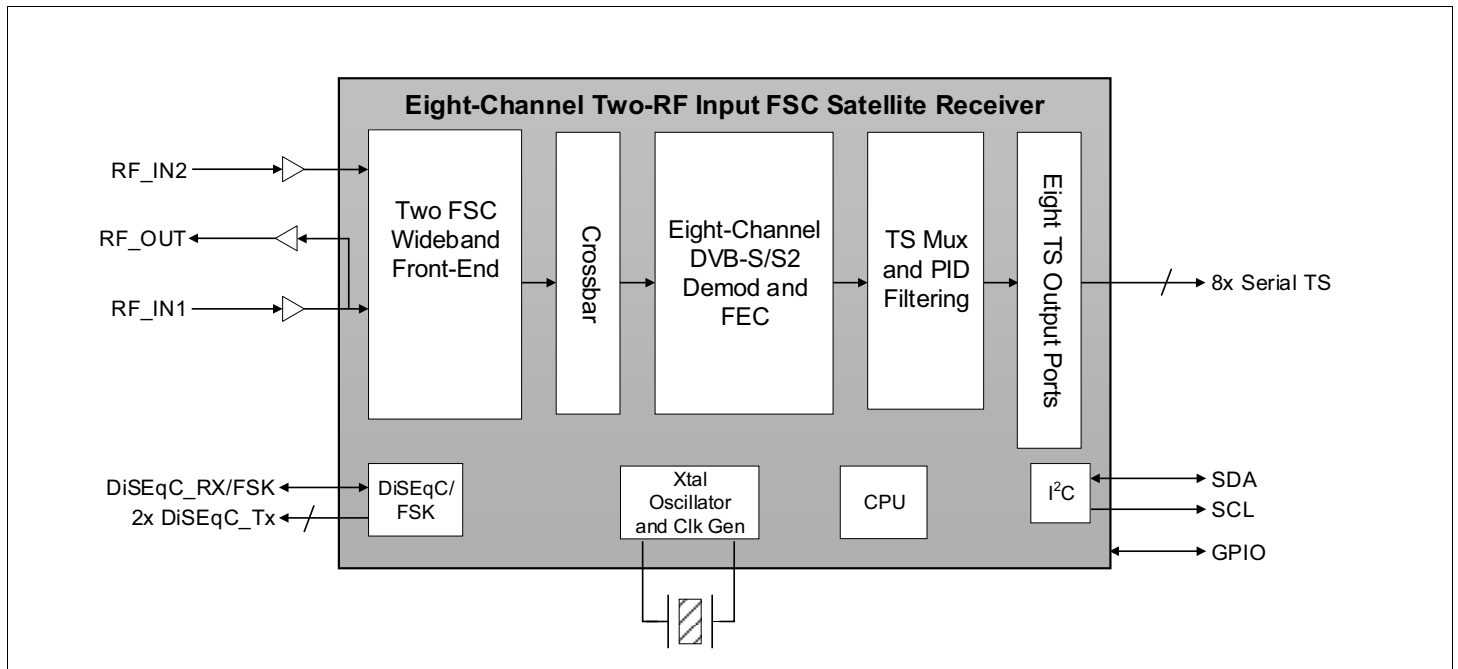
Features

- Ultra low power
- Symbol rates of 1 MSps to 45 MSps in DVB-S and DVB-S2 modes
- Broadcast wake-up
- Single-channel mode
- Integrated LNAs
- Differential RF inputs and RF splitter outputs
- Channel spectrum analysis data available through I²C
- On-chip programmable crystal load capacitors to reduce external components
- Coexistence with WiFi and LTE
- Automatic channel acquisition
- Auto-detection and auto-correction of spectral inversion
- Eight serial TS output ports, configurable in two-wire or three-wire modes and a parallel TS output port
- PID filtering and output TS multiplexing with two, four, or up to eight TS output ports
- Two DiSEqC LNB control interfaces and an FSK modem
- EN50494:2007 and EN50607:2013 standards, and SWM single-cable LNB distribution
- I²C compatible interface

Supported Standards

- DVB-S
- DVB-S2

Block Diagram



Ordering Information

Ordering Part Number	Ordering Part Number	Package	Dimensions	Shipping
MxL582C	MxL582C-AK-T	SAWN QFN72	10 mm x 10 mm x 0.85 mm	Trays
MxL582C	MxL582C-AK-R	SAWN QFN72	10 mm x 10 mm x 0.85 mm	Tape and Reel



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