



## General Description

The MxL544 is a low-power single-chip satellite receiver IC, featuring four L-band Full-Spectrum Capture<sup>®</sup> (FSC<sup>®</sup>) tuners and four demodulators that are compliant with DVB-S and DVB-S2.

The MxL544 receives signals from the four independent L-band RF inputs, each from 950 MHz to 2150 MHz, and demodulates four satellite channels to produce four independent serial TS outputs. All four TS outputs support two-wire or three-wire modes.

The MxL544 communicates with satellite LNAs through on-chip DiSEqC and FSK modems.

All major functions are incorporated onto the device, including LNAs, channel filters, AGC, adaptive equalizers, PLLs, crystal load capacitors, and demodulators. The MxL544 enables simple, compact board designs with low-power consumption and reduced BOM costs.

The MxL544 is controlled via an I<sup>2</sup>C interface, and operates using 1.8V and 1.1V core supplies and an I/O supply of 3.3V. The MxL544 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

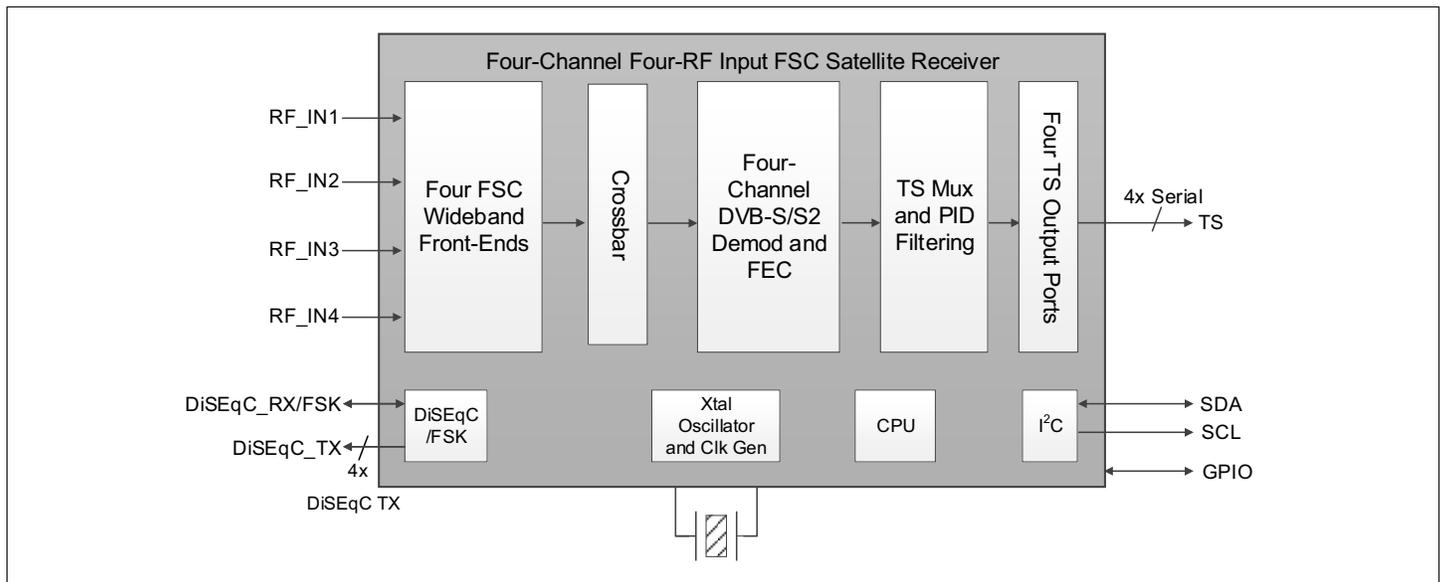
## Features

- 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
- Channel spectrum analysis data available through I<sup>2</sup>C
- On-chip programmable crystal load capacitors to reduce external components
- Coexistence with MoCA, LTE, and WiFi when using an external low-cost filter
- Automatic channel acquisition
- Auto-detection and auto-correction of spectral inversion
- Four serial TS output ports, configurable in two-wire or three-wire modes
- PID filtering and output TS multiplexing with two or four TS output ports
- Four DiSEqC LNB control interfaces and an FSK modem
- EN50494:2007 and EN50607:2013 standards, and SWM single-cable LNB distribution
- I<sup>2</sup>C compatible interface

## Supported Standards

- DVB-S
- DVB-S2

## Block Diagram



## Ordering Information

Marketing Part Number	Ordering Part Number	Package	Dimensions	Shipping
MxL544	MxL544-AK-T	SAWN QFN72	10 mm x 10 mm x 0.85 mm	Tray
MxL544	MxL544-AK-R	SAWN QFN72	10 mm x 10 mm x 0.85 mm	Tape and Reel



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