

MxL5007T

Low-Power Digital Terrestrial Silicon Tuner

MxL5007T is a highly integrated low power silicon tuner targeting global digital terrestrial broadcast standards. (DVB-T/H, ATSC, DTMB). Based on MaxLinear's breakthrough implementation of a silicon tuner in pure digital CMOS, MxL5007T delivers exceptional performance at the lowest power consumption, smallest size and lowest cost.

With its low power consumption and small footprint, MxL5007T is uniquely positioned for power sensitive applications, space constrained solutions and multi-tuner designs. The cost advantages of standard digital CMOS enable MxL5007T to be the most competitive solution in any market.

All broadband input filtering, as well as channel filtering, have been completely integrated which reduces the external bill of materials (BOM) to a small number of standard value discrete components. SAW filters or any other external filtering are not required for any application. The RF input is a single-ended 75 Ω interface and does not require external transformers. The IF output frequency of MxL5007T is SW configurable which ensures a seamless interface to all commonly available demodulators on the market today.

All RF gain control settings are fully integrated and are automatically controlled by the MxL5007T without any interaction from the demodulator. This ensures a highly simplified AGC implementation without complicated take-over point settings.

MxL5007T utilizes an API based SW architecture, reducing the programming of the device to a few simple commands without the need for complicated register calls. This also enables expedited implementation of the driver source code on any SW platform. MxL5007T does not require complicated spur avoidance algorithms commonly needed by competing products.

MxL5007T is available in a 5x5mm QFN 32 package.

Complete reference designs are available for a variety of applications and standards from MaxLinear as well as from MaxLinear's partners.

Supporting information is available upon request, including reference schematics, 2 and 4 layer PCB layout with 0603 and 0402 component size options, detailed bill of materials (BOM), HW and SW design guides, source code and standard specific performance test reports.



Applications

- Digital Televisions
- Set-Top Boxes
- PCTV Applications
- Mobile / Portable Applications
- Automotive Applications
- Tuner Modules

Features

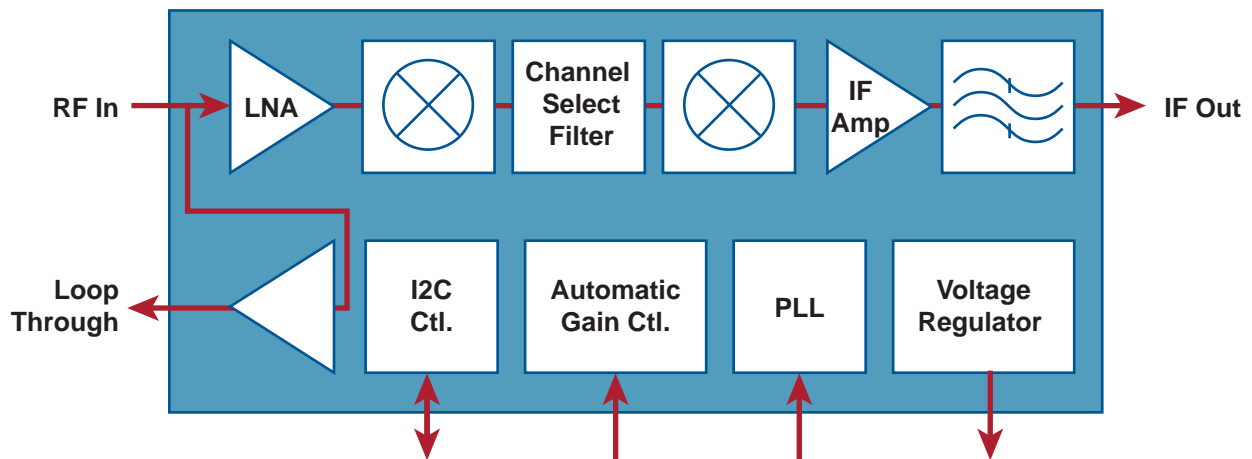
- 44MHz to 885MHz tuning range
- Programmable IF output
- Programmable channel filter BW of 6/7/8MHz
- Programmable IF spectrum inversion
- Reference clock output
- Integrated Loop-through
- I2C compatible interface
- QFN 32 Package, 5x5mm

Benefits

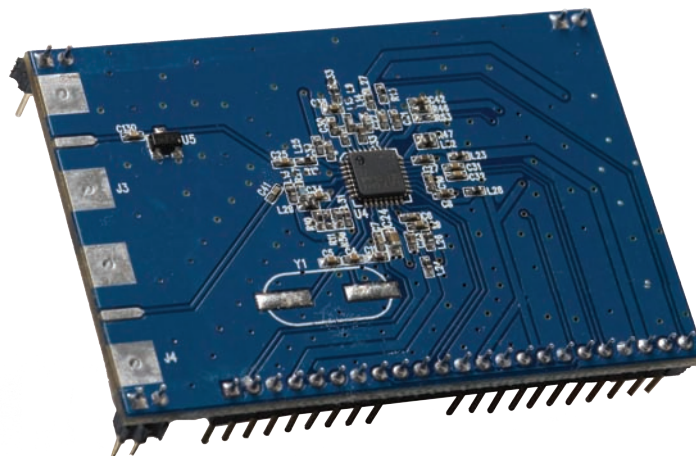
- Ultra low power
- No external SAW filters
- Low BOM cost
- Reference clock output
- API based SW interface

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Block Diagram



Evaluation Board



Ordering Information

Product	Part Number	Description
MxL5007T	MxL5007T	Low-Power Digital Terrestrial Silicon Tuner



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