Product Brief

Intel® CE 5037
DVB-S PayTV* Tuner

Consumer Electronics

Integrated L Band Zero Intermediate Frequency PayTV* Tuner

Product Overview

The Intel® CE 5037 DVB-S PayTV* tuner is a fully integrated L band zero intermediate frequency (ZIF) tuner that meets the performance requirements of the European Broadcast Union ETS 300 421. The Intel CE 5037 DVB-S PayTV tuner features a programmable RF loop-through, independent RF and IF automatic gain control (AGC), and fully integrated "power and forget" voltage controlled oscillators (VCOs) and baseband filters that require no calibration, alignment or temperature/aging compensation.

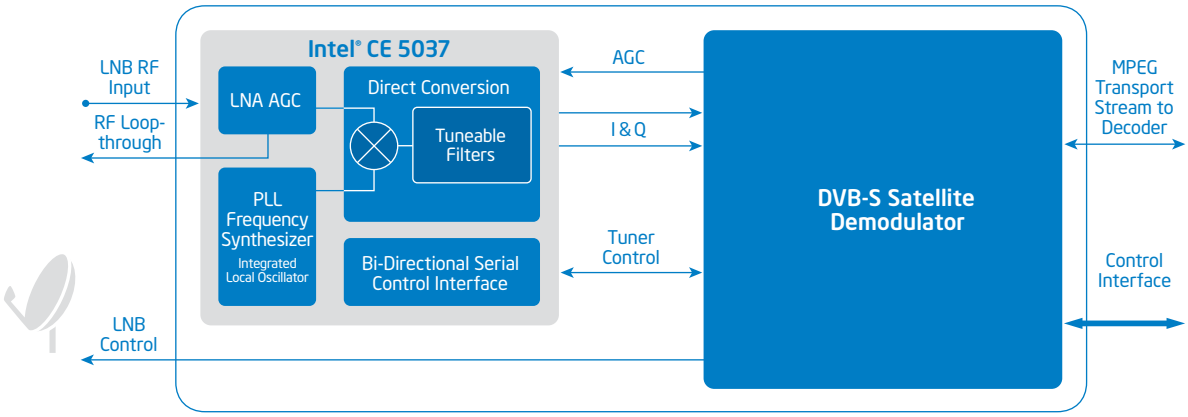
The baseband channel filters have continuously programmable bandwidth for 1 to 45 Msps operation. The Intel CE 5037 DVB-S PayTV tuner is optimized for high-intermodulation performance at low power consumption and includes software/hardware power-down modes for Energy Star* requirements.

Satellite Receiver Application

Intel supports the Intel CE 5037 DVB-S PayTV tuner with a reference design for the PayTV market segment. This reference design uses the Intel® CE 6313 QPSK DVB-S demodulator and enables you to quickly evaluate and implement the DVB-S standard for your application.

The solution includes complete documentation and test results, with software supported directly by Intel. It offers excellent signal-handling performance at very low power consumption and is optimized for the specific field requirements of the PayTV market segment.

Application Diagram



Product Features

Intel® CE 5037 DVB-S PayTV Tuner

- Performance compliance standards
  - ETSI ETS 300 421 DVB-S
  - 8-PSK compliant
- Programmable RF loop-through
- High sensitivity <–83 dBm at 27.5 Msps
- Independent RF and IF AGC control
- Fifth-order baseband filters with bandwidth adjustable from 6 to 43 MHz
- Fully integrated—alignment free—"power and forget" baseband filters and VCOs
- Low power consumption from 3v3 supply
  - Less than 510 mW (typical) normal operation—RF loop-through enabled
  - Eco-friendly standby 10 mW and sleep modes 0.7 mW
- Eutelsat DiSEqC* 2v2 receive/transmit for full control of LNB and dish
- Operational temperature range –10 to +85˚C
- Compact 28-pin QFN 5x5 mm package

Simplified Design

- Full RF and IF "on-chip" integrated feature set
  - VCOs and PLL frequency synthesizer
  - Baseband filters
  - RF loop-through
  - RF and IF AGC control
- Simple programmability using 2-wire bus interface
- Full front-end receiver designs for PayTV applications using the Intel CE 6313 demodulator

Customer Support

- Offered with a production-ready reference design optimized for the PayTV market segment

For more information, visit the Intel Consumer Electronics home page at: **www.intel.com/go/consumerelectronics**

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