AVL6211

DVB-S2/DVB-S Channel Receiver Data Brief

Description

The AVL6211 is a highly integrated DVB-S2 and DVB-S channel receiver device. It conforms to the following standards:

- ETSI EN 302-307 V1.2.1 (DVB-S2)
- ETSI EN 300-421 V1.1.2 (DVB-S)

This demodulator provides a high performance, cost effective, solution for receiving systems.

DVB-S2/DVB-S/DSS

The AVL6211 supports QPSK/8PSK DVB-S2/DVB-S/DSS channel receiving. It can achieve fast acquisition at frequency offsets up to 5 MHz and maintains synchronization under the most severe front-end phase noise.

Common

The integrated ADC and AGC allow simple tuner interface design.

The configuration of the AVL6211 is performed through a set of registers via a standard 2-wire bus. The flexible architecture allows the design to be easily upgraded via firmware download. To simplify the interface to the host system, this same two-wire bus is used to communicate with the separate tuner two-wire bus and the DiSEqC™ interface to the LNB.

Applications

- Set Top Boxes
- iDTV
- DTV NIM module

Features

DVB-S2

- High performance QPSK/8PSK satellite TV receiver
- Symbol Rates:
  QPSK 1- 55 Msps
  8PSK 1- 55 Msps
  - QPSK Code Rates: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9 and 9/10
  - 8PSK Code Rates: 3/5, 2/3, 3/4, 5/6, 8/9 and 9/10
  - Roll-off factors for pulse shaping: 0.2, 0.25 and 0.35

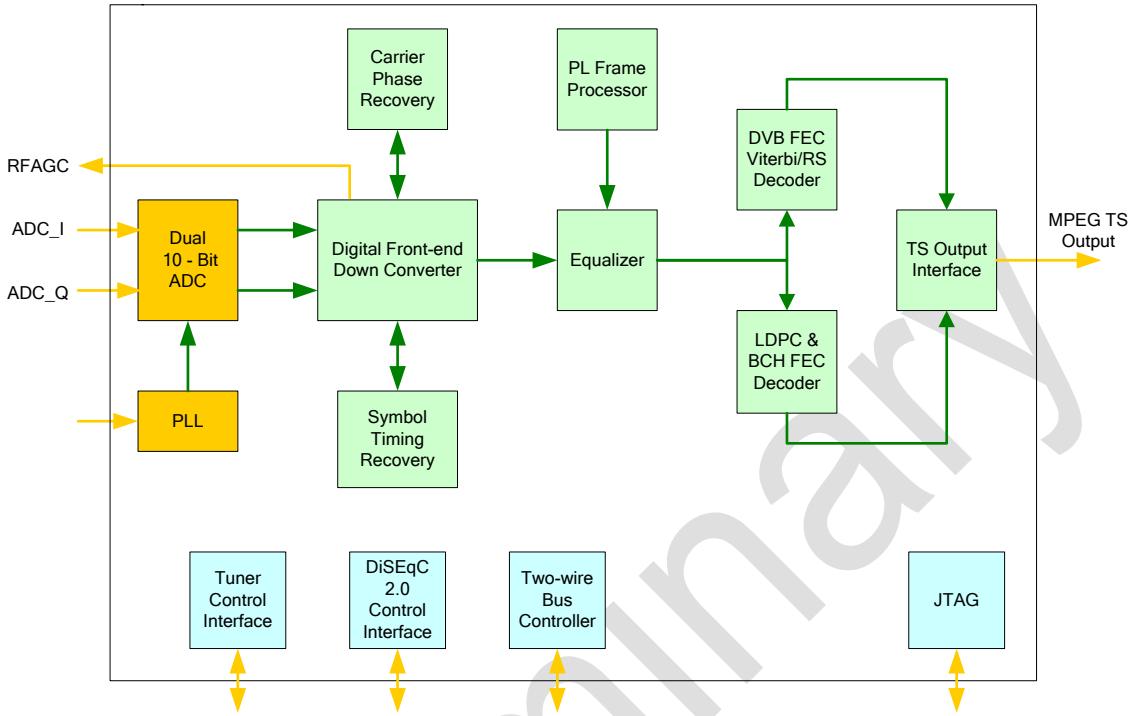
DVB-S

- Symbol Rates: 1-55 Msps
- Code Rates: 1/2, 2/3, 3/4, 5/6, 7/8

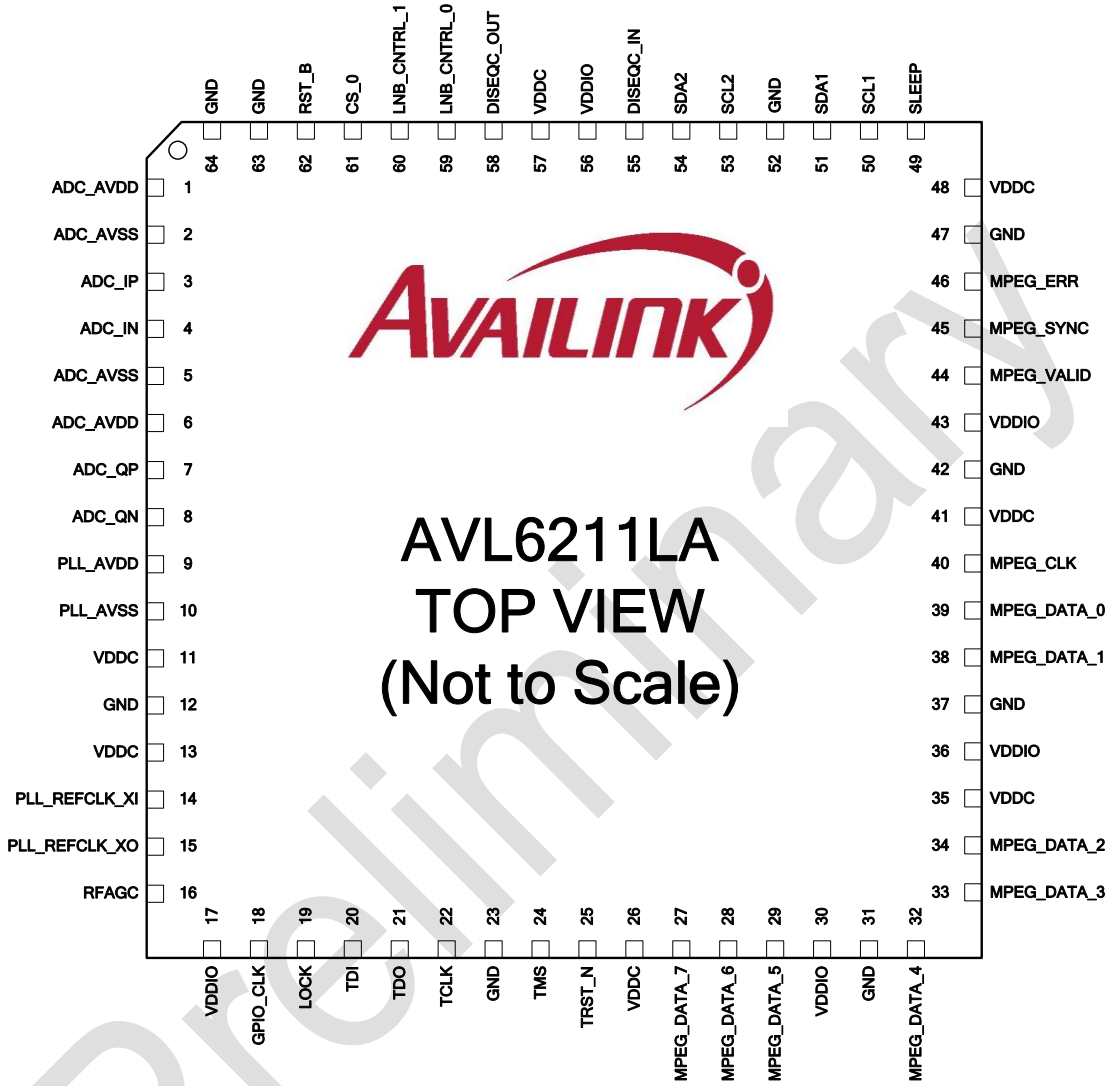
General

- Directly interfaces with tuner for easy implementation
- Integrated dual A/D converters
- Fast automatic blind scan of symbol rates and carrier frequencies
- Carrier frequency acquisition range: ±5MHz for symbol rates above 3 Msps and ±3MHz for the remaining symbol rates
- Signal quality and BER/PER monitors
- Equalizer compensates for channel impairment
- Standard two-wire serial bus with two selectable addresses for easy chip configuration
- Multi-purpose modulator for DiSEqC™ applications
- Standard MPEG-2 transport output parallel and serial interfaces
- Software controlled tri-state MPEG and RFAGC outputs
- Software controlled LNB interface (GPIOs)
- 64 pin LQFP in 7x7 mm package

1 BLOCK DIAGRAM



2 PIN CONFIGURATION



3 APPLICATION INFORMATION