DVB-S/S2/ISDB-T/Cable Demodulator

OVERVIEW

- Conforms to the following standards:
  ARIB STD-B31 V1.6-E2 (ISDB-T)
  ITU-T J.83 Annex A, B and C 12/2007 (J.83 A/B/C)
  ETSI EN 307-421 V1.2.1 (DVB-S2)
  ETSI EN 300-421 V1.1.2 (DVB-S)

- Flexible architecture allows for easy upgrade via firmware
- Fast switching between standards

FEATURES

DVB-S/S2

- DVB-S2
  - Symbol Rates:
    QPSK 1- 55 Msps
    8PSK 1- 45 Msps
  - QPSK Code Rates:
    1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
  - 8PSK Code Rates:
    3/5, 2/3, 3/4, 5/6, 8/9, 9/10
  - Roll-off factors for pulse shaping:
    0.20, 0.25, 0.35
- DVB-S
  - Symbol Rates: 1-55 Msps
  - Code Rates: 1/2, 2/3, 3/4, 5/6, 7/8
- Fast automatic blind scan of symbol rates and carrier frequencies
- Carrier frequency acquisition range:
  ±5MHz for symbol rates above 3 Msps and ±3MHz for all other symbol rates
- Multi-purpose modulator for DiSEqC™ applications
- Improved co-channel interference performance

ISDB-T

- Supports all three modes: 1, 2, and 3
- DQPSK, QPSK, 16QAM, 64QAM
- Supports all code rates:
  1/2, 2/3, 3/4, 5/6, 7/8
- Supports 13-segments (full segment)
- Supports hierarchical processing of multi-layer
- Automatic mode detection
- Automatic detection of spectral inversion

J83 A/B/C

- Full standard support
- Sophisticated equalizer cancels co-channel tones and echoes

FEATURES

General

- Terrestrial and Cable support Low IF and high IF(36 MHz) input
- Satellite support zero IF input
- Performance upgrade via firmware
- MPEG output and AGC can be set to Tri-state
- 48 pin QFN 6 x 6 mm package

- Pin-to-Pin compliant with Availink chips
  AVL6762: DVB-C/T/T2
  AVL6862: DVB-C/T/T2 + DVB-S/S2
  AVL6882: DVB-C/T/T2 + ISDB-T +
                DVB-S/S2 + J83.B
  AVL6381: DTMB + DVB-C

AVL6812 Block Diagram