

DVB-Tx/C/Sx/ISDB-T/J83.B Demodulator

OVERVIEW

- Conforms to the following standards:
 - ETSI EN 302-755 V1.3.1 (DVB-T2/T2-Lite)
 - ETSI EN 300-744 V1.6.1 (DVB-T)
 - ETSI EN 300-429 V1.2.1 (DVB-C)
 - ETSI EN 307-421 V1.2.1 (DVB-S2)
 - ETSI EN 300-421 V1.1.2 (DVB-S)
 - ARIB STD-B31 V1.6-E2 (ISDB-T)
 - ITU-T J.83 Annex B 12/2007 (J.83/B)
- DVB-T2/T Compliant with:
 - DTG D-Book 7 part A C3.0
 - Nordig Unified Test specification V2.2.2
- Flexible architecture allows for easy upgrade via firmware
- Fast switching between standards
- Automatic acquisition modes

FEATURES

DVB-T2

- Compliant with DTG D-book 7 part A version 3.0 and Nordig 2.2.2.
- Supports all DVB-T2 modes including
 - Single and multiple-PLPs
 - SISO and MISO transmissions
 - Future Extension Frames (FEFs)
 - DVB-T2 Base and Lite profiles
 - L1 post descrambling and long FEF
- Automatic T/T2 standard detection
- Null packet insertion
- QAM modes: 4, 16, 64, 256 (with or without rotation)
- Bandwidths: 1.7, 5.0, 6.0, 7.0, 8.0 MHz
- FFT Sizes: 1K, 2K, 4K, 8K, 16K, 32K
- Automatic merging of common and data PLPs
- Improved performance and acquisition time versus previous generation

DVB-T

- Compliant with DTG D-book 7 part A version 3.0 and Nordig 2.2.2.
- Improved AWGN performance versus previous generation

DVB-C

- Fully compliant with the Broadcast Service profile of the European Standard ETSI EN 300 429 v1.2.1 (DVB-C).
- Supports all five QAM modes: 16QAM, 32QAM, 64QAM, 128QAM and 256 QAM
- Automatic modulation detection

- ± 500 KHz frequency acquisition range.
- ± 1000 ppm symbol timing acquisition range.
- 0.87 to 9 Msps symbol rate

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, 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: ± 5 MHz for symbol rates above 3 Msps and ± 3 MHz for all other symbol rates
- Multi-purpose modulator for DiSEqC™ applications
- Improved co-channel interference performance

ISDB-T

- Supports all three modes, Mode 1, 2 and 3

FEATURES

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

- 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
AVL6862: DVB-C/T/T2 + DVB-S/S2
AVL6221: DVB-S/S2
AVL6261: DVB-S/S2/S2X
AVL6381: DTMB + DVB-C

J83.B

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

© 2020 Availink Inc. All rights reserved.

Information furnished by Availink is believed to be accurate and reliable. However, no responsibility is assumed by Availink for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Availink. Trademarks and registered trademarks are the property of their respective owners.

General

Availink (US) Inc.
20251 Century Blvd. Suite 315
Germantown, MD 20874 USA
www.availink.com

AVL6882 Block Diagram

