

# TVB595C USB DTV Modulator



## Overview

The USB digital streaming DTV modulator can play MPEG stream from hard disk and DVB-ASI/SMPTE-310M input into on-air signal. The output can be industry standard 55~956MHz and 956~2150MHz selectable RF signal. On board synthesizer can generate stable and accurate symbol clock and tuning frequency. The transport stream can be supplied through USB interface and DVB-ASI/SMPTE-310M input.

## Features

- Transport stream from hard drive thru USB interface and DVB-ASI/SMPTE-310M input
- DVB-ASI, SMPTE-310M output for monitoring
- On board VHF/UHF/L-BAND RF output up-converter
- Programmable RF output level (0.1dB step)
- Superposition white noise over modulated signal and control the output C/N ratio
- SDK for Windows 2000/XP/VISTA 32bit and Linux
- DVB-T/DVB-H, ATSC 8VSB, QAM, DVB-S/DVB-S2, T-DMB, ISDB-T, DTMB modulation option available
- Free 0dBm amplifier option

## Module Specifications

<p><b>Transport Stream Input</b> From hard disk thru USB</p> <p><b>Bit Rate</b> Up to 90Mbits/s</p> <p><b>ASI/ SMPTE-310M Input/Output</b> Connector: 75ohm BNC</p> <p><b>IF Output</b> Connector: 75ohm BNC Freq: 36 MHz/44 MHz selectable Level: -15dBm max(@ 36/44MHz)</p>	<p><b>RF Output</b> Connector: 75ohm BNC Freq: VHF/UHF 55~956MHz, L-BAND 956~2150MHz Level: VHF/UHF 0dBm max, L-BAND -20dBm max Freq accuracy: +/-5KHz max Attenuation step: 0.1dB Phase noise &lt;-90dBc/Hz @ 10KHz RF step size: 100KHz step(except for TDMB, TDMB: 8KHz step)</p>	<p><b>USB Interface</b> USB 2.0 high speed compliant</p> <p><b>Physical/Environmental</b> HxWxL: 32mm x 146mm x 223mm</p> <p><b>Driver</b> Windows XP, 2000,VISTA 32bit WDM and Linux</p> <p><b>Application Software</b> Teleview made GUI</p> <p><b>Operating Condition</b> Temperature: 0~45°C Humidity: 0~85%</p>
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## DVB-T/H Option Specifications

<b>Standard</b> ETSI EN300744 v1-4-1 compliant Non-hierarchical single program mode <b>Punctured Code Rate</b> 1/2, 2/3, 3/4, 5/6, 7/8 selectable <b>Constellation</b> QPSK, 16-QAM, 64-QAM	<b>Transmission Mode</b> 2K/4K/8K mode selectable 4K mode only for DVB-H <b>Guard Interval</b> 1/4, 1/8, 1/16, 1/32 selectable	<b>In-depth Interleaving</b> Only for DVB-H <b>Bandwidth</b> 5/6/7/8 MHz mode selectable 5 MHz only for DVB-H
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## 8VSB Option Specifications

<b>Standard</b> ATSC A.53, 8VSB compliant		
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## QAM Option Specifications

<b>Standard</b> ITU-T J.83 Annex A/C and B compliant	<b>Constellation</b> Annex A/C: 16-QAM, 32-QAM, 64-QAM, 128-QAM, 256-QAM	Annex B: 64-QAM, 256-QAM
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## QPSK Option Specifications

<b>Standard</b> ETSI EN 300421 (DVB-S) compliant	<b>Code Rate</b> 1/2, 2/3, 3/4, 5/6, 7/8	<b>Symbol Rate</b> 1~45 M symbols/s <b>DC Blocking Voltage</b> 50V max
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## DVB-S2 Option Specifications

<b>Standard</b> ETS 302 307 compliant <b>LDPC Code</b> 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, and 9/10 supports	<b>Modulation Mode</b> QPSK, 8PSK, 16APSK, 32APSK <b>Baseband Shaping Filter</b> Roll-off 0.20, 0.25, 0.35, none selectable	<b>Symbol Rate</b> 2~45MSPS w/o shaping filter 2~22MSPS w/ shaping filter <b>DC Blocking Voltage</b> 50V max
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## T-DMB Option Specifications

<b>Standard</b> ETS 300401, ETS300799 compliant <b>Transmission Mode</b> DAB transmission modes I, II, III, IV	- Transmission mode automatically selected from the ETI stream	Supports ETI(NI) and ETI(NA) file format *T-DMB modulation from TS input is not supported
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## ISDB-T Option Specifications

<b>Standard</b> ARIB STD-B31 v1.6 compliant <b>Mode</b> Mode I, Mode II, Mode III <b>Code Rate</b> 1/2, 2/3, 3/4, 5/6, 7/8 selectable <b>Mapping</b> DQPSK, QPSK, 16QAM, 64 QAM	<b>Guard Interval</b> 1/4, 1/8, 1/16, 1/32 <b>Time Interleaving Length</b> Mode I - 0, 4, 8, 16 Mode II - 0, 2, 4, 8 Mode III - 0, 1, 2, 4	<b>The Number of Segment</b> 1 / 13 Segment <b>Support TMCC Information and Generation (ISDB-T information and IIP)</b> *ISDB-T modulation from DVB-ASI input is not supported
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## DTMB Option Specifications

<b>Standard</b> GB20600-2006 compliant <b>Number of Carrier</b> 1 or 3780 sub-carriers selectable <b>Frame Length</b> 4200, 4335, 4725 symbols	<b>Constellation</b> 4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM <b>Code Rate</b> 0.4, 0.6, 0.8	<b>Time Interleaving Length</b> 240, 720 symbols <b>Bandwidth</b> 8MHz
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