Overview

RF modulators convert video to RF (radio frequency) so the video can be transmitted to a television via its RF input. 8VSB is the modulation standard for American over the air broadcast. It is the RF modulation format used to deliver MPEG-2 encoded content to television sets in North America.

Our TVB598 8VSB modulator PCIe card transmits real time video or stored video from the server hard drive and sends it to multiple HD monitors simultaneously, using RF as a carrier. The TVB598 8VSB can connect via an antenna or coaxial cable, and features RF output.

It is suitable for set top box testing, 8VSB receiver testing, laboratory applications, digital signage, and video feeds in public areas such as hotels and trade shows.

This card is field upgradeable – you can purchase licenses for a wide variety of additional modulator profiles and upgrade the card immediately. Modulator profiles typically used in North America include QAM, 8VSB, and ATSC 3.0. Modulator profiles typically used in Europe are DVB-T, DVB-T2, DVB-H, DVB-C2, DVB-S, and DVB-S2. Modulator profiles typically used in Asia are ISDB-T, ISDB-S, DTMB, CMMB, and T-DMB.

Features

- Transmits real time video or stored video from the server hard drive and sends it to multiple HD monitors simultaneously
- Input: IP, DVB-ASI or SMPTE 310M transport streams via PCIe bus or BNC bracket connector
- Output: 8VSB (ATSC)
- When ASI is input the TS can be any rate up to 19.3 Mbps since it is upconverted and remuxed to ATSC rate
- When DVB is input the bit rate can be anything above 2 Mbps or below 19 Mbps
- Includes ASI port for simultaneous ASI and RF output if TS is pulled from hard drive
- Frequency agile
- RF Output Frequency: 55-867 MHz
- Payload = Up to 19.3 Mbps
- On board channel 2-69 selectable RF output up-converter
- Programmable RF output level (0.1 dB step)
- Can superposition white noise over modulated signal and control the output C/N ratio
- Feeds either an antenna or coax cable
- Field upgradeable – can be reprogrammed to add other profiles or new firmware
- Supplied with Windows® based Transport Stream Player application with Scheduler
- Playout Scheduler – schedule tasks (5 maximum) to run daily, weekly or monthly at a certain time
- Freq Config GUI supported via Windows® and Linux®
- Customer oriented API is also available
- Sample transport streams available
- 0dBm amplifier included

Applications

- Engineering labs
- In Store Demos of 8VSB receivers
- Digital Signage
- Test Equipment for RF demodulators
- Hotel and Lodging video systems
### Board Specifications

<table>
<thead>
<tr>
<th></th>
<th>From Hard Disk through PCIe, or via BNC DVB-ASI connector</th>
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<tbody>
<tr>
<td><strong>Transport Stream Input</strong> Bit Rate</td>
<td>Up to 19.3 Mbps</td>
</tr>
<tr>
<td><strong>ASI/ SMPTE 310M Input/Output</strong> Connector</td>
<td>75 ohm BNC</td>
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<tr>
<td><strong>RF output</strong> Connector: 75 ohm BNC</td>
<td>VHF/UHF 55–867 MHz</td>
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<tr>
<td></td>
<td>VHF/UHF -31.5 to 0 dBm</td>
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<tr>
<td></td>
<td>Freq accuracy: Within 3ppm accuracy</td>
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<td>Attenuation step: 0.1dB</td>
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<tr>
<td></td>
<td>Phase noise &lt;-90dBc/Hz @ 10 KHz</td>
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<tr>
<td><strong>PCIe Bus</strong> PCI express x1 compliant</td>
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<tr>
<td><strong>Dimensions</strong> HxWxL: 20 x 110 x 220 mm (.79 x 4.33 x 8.66 inches)</td>
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<tr>
<td><strong>Drivers</strong> Windows® 7/8/10 32 bit/64 bit, 2000, XP (32/64 bit), Vista (32/64 bit), 7 (32/64 bit), WDM Linux® 32 bit/64 bit</td>
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<tr>
<td><strong>Operating Conditions</strong> Temperature: 0–50°C (32 to 122°F) Humidity: 10% ~ 90%, Noncondensing</td>
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<td><strong>Conformities</strong> FCC, UL, RoHS, CE Mark</td>
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### 8VSB Specifications

| Standard | ATSC A.53 Part 2: 8VSB compatible |

### Ordering Info

**TVB598 8VSB**