

# TVB593 QAM

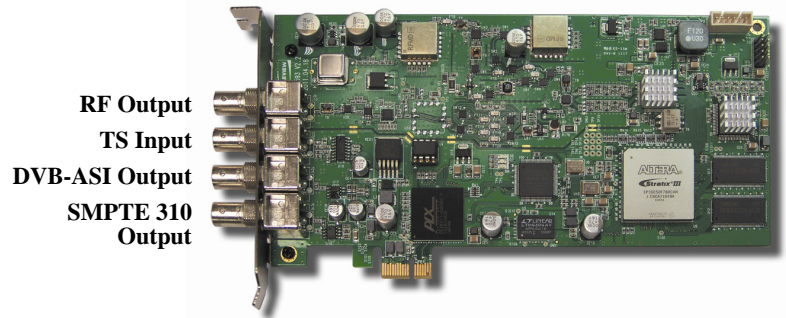
**QAM 16/32/128/256 Compliant Transport Stream Modulator with DVB-ASI or PCIe Bus Input. Frequency Agile (55-810 MHz), Field Upgradeable with Other Modes. (With Sophisticated User Interface with Scheduling). RF Output. For Digital Signage, STB Testing, and Laboratory Applications. This Device Feeds Either an Antenna or Coax Cable.**

## 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: QAM (Annex A, B, or C)
- Includes ASI port for simultaneous ASI and RF output if TS is pulled from hard drive
- Frequency agile
- RF Output Frequency: 55-860 MHz, 956-1750 MHz
- Payload = Up to 38 Mbps
- ITU-T J.83 Annex A/C and B compatible
- On board channel 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
- 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
- Includes transport stream analyzer
- Freq Config GUI supported via Windows® 2000, Windows XP, Windows 7, Vista 32 bit, and Linux®
- Customer oriented API is also available
- Sample transport streams available
- 0dBm amplifier included

## Applications

- Engineering labs
- In Store Demos of QAM receivers
- Digital Signage
- Test Equipment for RF demodulators
- Hotel and Lodging video systems



PCIe Version

## Overview

RF modulators convert video to RF (radio frequency) so the video can be transmitted to a television via its RF input. QAM is the RF modulation format used for cable in the U.S. This modulation format is designated by the ITU organization.

Our **TVB593 QAM** 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 TVB593 QAM can connect via an antenna or coaxial cable, and features RF output.

It is suitable for set top box testing, QAM 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, ATSC M/H, and 8VSB. 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.



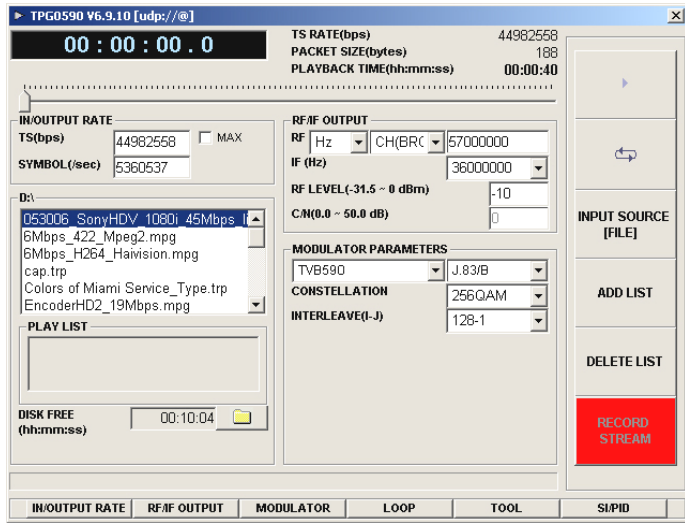
Computer Modules, Inc.

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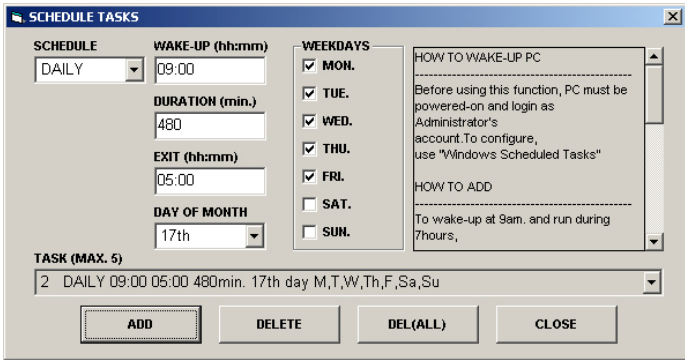
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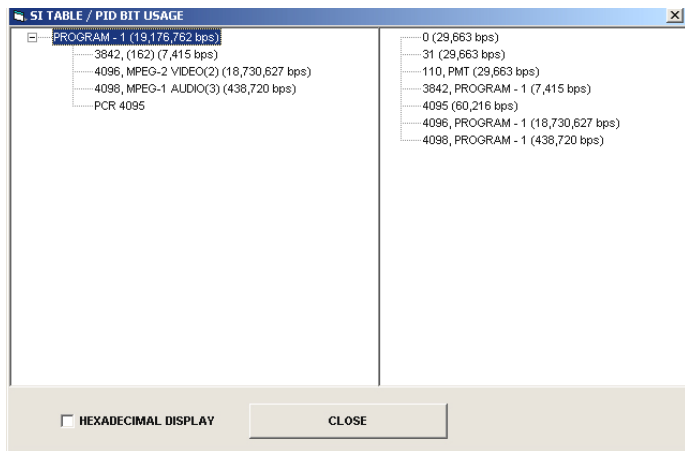
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Main GUI



Playout Scheduler



SI Table

Ordering Info

TVB593 QAM

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Transport Stream Input	From Hard Disk through PCIe, or via BNC DVB-ASI connector
Bit Rate	Up to 90 Mbps
ASI/SMPTE 310M Input/Output	Connector: 75 ohm BNC
RF output	Connector: 75 ohm BNC Freq: VHF/UHF 55~867 MHz L-BAND 956~2036 MHz Level: VHF/UHF -31.5 to 0 dBm L-BAND -25dBm max Freq accuracy: +/-5 KHz max Attenuation step: 0.1dB Phase noise <-90dBc/Hz @ 10 KHz RF step size: 50 KHz step (except for TDMB: 8 KHz step)
PCIe Bus	PCI express x1 compliant
Dimensions	HxWxL: 25 mm x 107 mm x 210 mm (.98 x 4.21 x 8.27 inches)
Drivers	Windows® 7 (32/64 bit), XP (32/64 bit), 2000, Vista (32/64 bit), WDM, and Linux®
Operating Conditions	Temperature: 0~45° C (32 to 113° F) Humidity: 0~85%
Conformities	FCC, UL, RoHS, CE Mark

Note: TVB593 QAM is not compatible with SA or Motorola QAM set top boxes since they have proprietary signaling.

QAM Specifications

Specifications

Standard	ITU-T J.83 Annex A/C and B compatible
Constellations	Annex A/C: 16-QAM, 32-QAM, 64-QAM, 128-QAM, and 256-QAM Annex B: 64-QAM and 256-QAM

Maximum Information Bit Rates

Annex A	64-QAM: 38.440471 Mbps 256-QAM: 51.253961 Mbps
Annex B	64-QAM: 26.97035 Mbps 256-QAM: 38.81070 Mbps
Annex C	64-QAM: 26.97035 Mbps 256-QAM: 38.810701 Mbps



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