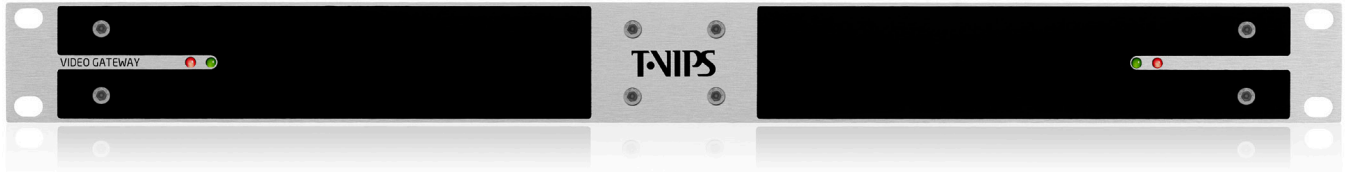


TVG480 Digital Cinema Gateway



The TVG480 represents the latest innovation for real-time transport of HD, Stereoscopic 3D and Digital Cinema Video over IP networks.

The TVG480 takes advantage of the unmatched quality of JPEG2000 compression for high-quality low-delay video transmission over IP. Supported video signals include HD television, Stereoscopic 3D Left and Right video, or 2K video signals used in digital cinema production. For HD, both lossless and visually lossless operation is supported.

The TVG480 is a new member of the T-VIPS Video Gateway line of compact, powerful and cost-effective products designed for real-time contribution and distribution of broadcast quality video over IP networks.

With the launch of the TVG480, the digital cinema industry, service providers and broadcasters are offered an efficient, affordable and scalable solution for best-in-class video transport over Metro Ethernet, IP-MPLS or SDH/SONET networks. The TVG480 has built-in features for Quality of Service (QoS), Forward Error Correction and error concealment that ensures flawless end-to-end operation, mitigating the effects of IP network impairments such as packet loss and jitter.

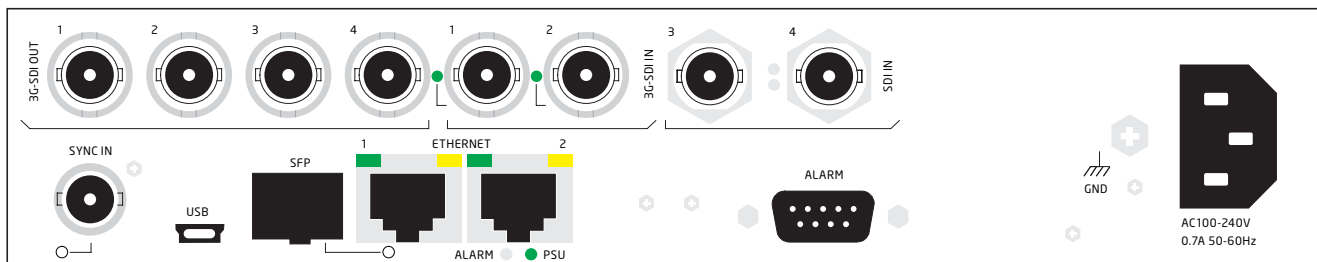
Applications

- Real-time transport of Digital Cinema video formats over IP networks
- Remote screening in post-production workflows
- Studio-to-studio media exchange
- Live event 3D-TV contribution
- 2K live contribution to digital cinemas

Key Features

- **Multiple JPEG2000 compressed video channels**
 - 1 3G HD channel (any direction)
 - 3D Left and Right Eye channels
 - 2 HD-SDI channels
- **High Quality Video**
 - JPEG2000 compression
 - 10 or 12 bit video resolution
 - Frame-by-frame encoding
 - YCbCr 4:2:2 or RGB 4:4:4 colour format
- **Robust transmission of HDTV signals**
 - Flexible Forward Error Correction
 - Error concealment
- **Very Low Delay**
 - Encoding and decoding delay < 60 ms (mode dependent)
- **MXF encapsulation**
 - Ensures perfect synchronization
 - Suitable for file-based workflows
- **Ancillary data support**
 - Transparent transfer of embedded audio and vertical ancillary data
- **Compact, flexible cost-effective solutions**
 - half width 1 RU 19" or full width 1 RU 19" with dual power versions
 - Configurable as transmitter or receiver
- **User-friendly configuration and control**
 - WEB/XML based remote control
 - SNMP agent for easy integration with NMS systems
 - Integrated with T-VIPS Connect





TVG480 - Digital Cinema Gateway

Video Interfaces

- Inputs (2 ports): 3G / HD-SDI
- Output (4 ports): 3G / HD-SDI
- Connector: Female BNC
- Reference Input: Tri level and BB sync

Network Interfaces

- Ethernet: 2x RJ45 100/1000Base-T and SFP (Option)
- Protocols: IEEE802.3 Ethernet, RTP, ARP, IPv4, IGMPv2/3, TCP/UDP, VLAN
- Connector: RJ45, SFP Module (Option)

Video Encoding

- Video Encoding: JPEG2000
- IP Encapsulation: MXF over RTP
- IP Bitrate: 80 to 450 Mbit/s
- Forward Error Correction: Forward Error Correction based on SMPTE 2022 FEC

Video Formats

- 1280x720: 50p / 59p / 60p
- 1920x1080: 23psf / 23p / 24psf / 24p / 25p / 25i / 29i / 30i
- 2048x1080: 23psf / 23p / 24psf / 24p / 25p
- 1920x1080: 50p / 59p / 60p

Stereoscopic 3D

- 2x HD-SDI signals: All 1.5 Gbps HDTV formats supported
- 1x 3G-SDI signal: 1920x1080: 47p / 48p
- 2048x1080: 47p / 48p

Audio and Ancillary data

- Audio: AES3 Embedded audio
- Uncompressed and AES3 compatible compressed formats, 16 channels, 24-bit
- HD VANC Data: Transparent VBI lines, Timecode, Closed Captioning, AFD SMPTE 2016.
- Audio/video synchronization: +/- 1 line

Control and Management

- Type: 10/100/1000 Base-T Ethernet
- Features: Element control through HTTP/WEB. SNMP traps and SNMP control
- In band management
- Protocol: HTTP, XML, SNMP v2c/v1, VLAN
- Connector: RJ45
- Alarm Relay: 9 pin D-SUB
- Maintenance Port: USB

Physical and Power

- Input Voltage: 100-240V AC +/- 10%
- Input Voltage Option: -48V DC
- Compact version: 1 RU, 1/2-width 19" 210 x 300 x 44.5mm (WxDxH)
- Two units in 19" 1 RU rack
- Dual power version: 1 RU, full-width 19" 420 x 300 x 44.5mm (WxDxH)
- Power consumption: ~30W

Environmental Conditions

- Operating Temperature: 0°C - +50°C
- Storage Temperature: -20°C - +70°C
- Relative Humidity: 5% to 95% (non condensing)

Compliance

- CE: 73/23/EEC (Low voltage equipment)
- 89/336/EEC (Electromagnetic compatibility)
- CSA: Designed for CSA approval
- Safety: IEC60950 and EN60950
- EMC: EN55022, EN55024, EN6100-3-2