

# 670IPG-X19-25G-100G

Ultra High-Density IP Media Gateway



The 670IPG-X19-25G-100G is Evertz' third generation low latency, ultra high-density gateway for IP encapsulation/de-encapsulation of SDI over 25GbE, as well as protocol conversion including SMPTE ST 2022-6 and SMPTE ST 2110.

With direct conversion of up to 16x input and 16x output SD/HD/3G signals to/from IP using SMPTE ST 2022-6 or SMPTE ST 2110 formats, 670IPG-X19-25G-100G series delivers unparalleled processing density. The 670IPG-X19-25G-100G series also provides high-density format conversion as the industry transitions to SMPTE ST 2110.

670IPG-X19-25G-100G also provides per-input AVM monitoring, time-stamped Ethernet outputs and audio/video synchronization.

The 670IPG-X19-25G-100G series modules incorporates patent pending multipath, multi-flow packet merge for bit error resilience in networks, to achieve 100% QoS.

The 670IPG-X19-25G-100G can be managed via integrated HTTP web interface, in-band via its 25GbE interface as well as SNMP management via frame controller.

## Broad Support of Standards

1080p/59.94, 1080p/50,  
1080p/29.97, 1080p/25,  
1080p/23.98, 1080p/24,  
1080i/59.94, 1080i/50, 720p/59.94,  
720p/50, 525i/59.94, 625i/50.  
*For 12G standards, contact factory.*

## Standard Compliances

- SMPTE ST 2022-6: video, audio and VANC
- SMPTE ST 2110: video (ST 2110-20), audio (ST 2110-30), VANC (ST 2110-40)

## Features & Benefits

- 16x input and 16x output SD/HD/3G SDI coaxial ports
- Up to 4x QSFP28 ports in hot main/hot backup configuration with flexible channel mapping for bandwidth optimization
- Loopback of any signal to IP/SDI output, to allow central NOC monitoring and destination monitoring
- AES67 audio packet time: 125µs or 1ms
- Pop suppression on output audio
- Video at native resolution
- 4x groups of audio (4x mono channels per multicast address)
- Full VANC carriage
- Frame buffer synchronized to Genlock, Master PCR or SMPTE ST 2059-2 PTP for output phase alignment
- Accepts SMPTE ST 2059-2 or Master PCR timing references over 25GbE to allow time-stamping of all content over Ethernet
- Modules have on-board AVM on all baseband signals
- Modules support control in-band from 25GbE interface or via frame controller using SNMP with VistaLINK® PRO or MAGNUM Unified Control

IP SOLUTIONS

LIVE MEDIA PRODUCTION

MEDIA ASSET & PLAYOUT

MULTIVIEWERS

RF SOLUTIONS

ROUTERS

WAN TRANSPORT

AV SOLUTIONS

CONTRIBUTION & DISTRIBUTION

CONTROL MONITORING

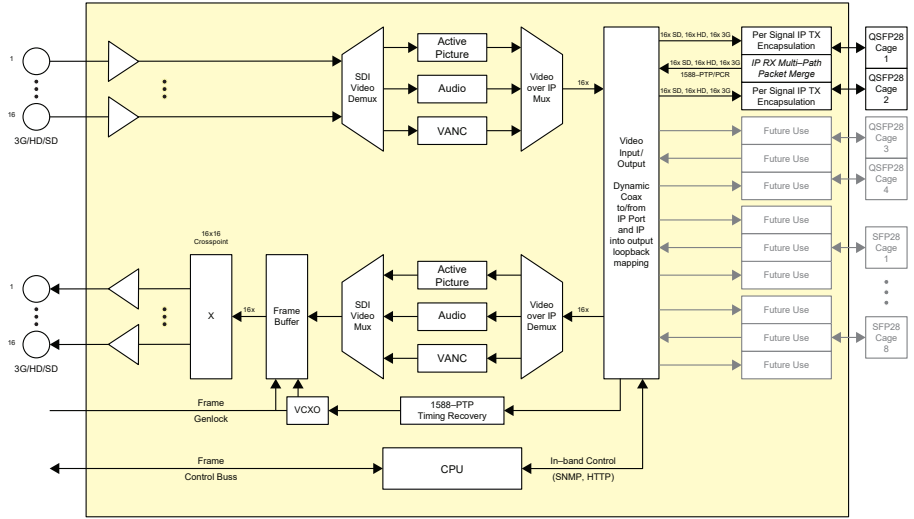
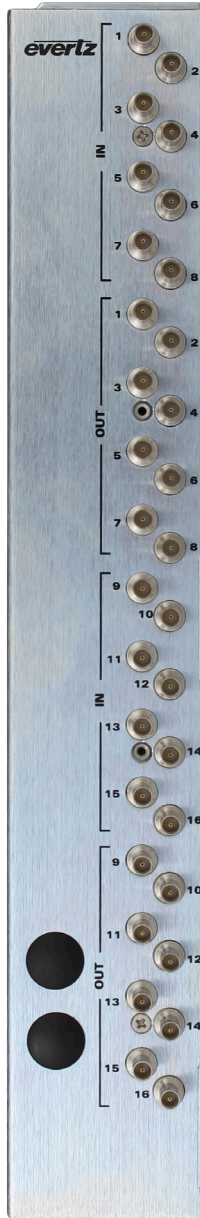
ENCODING, TRANSMISSION & MULTIPLEXING

FACILITY/LINK FIBER TRANSPORT

INFRASTRUCTURE & CONVERSION

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From left: view of 670IPG-X19-25G-100G from front; rear plate view; functional diagram.

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## Specifications

### Serial Digital Video:

Standards: SMPTE ST 424M (3GB/s),  
ST 292M (1.5GB/s),  
ST 259M (270MB/s)

### Serial Video Input:

Number of Inputs: 16  
Connector: DIN 1.0/2.3  
Input Equalization: Automatic to  
100m @ 3GB/s,  
150m @ 1.5GB/s, and  
350m @ 270MB/s  
Return Loss: > 12dB up to 0.5GHz,  
> 10dB up to 3GHz

### Serial Video Output:

Number of Inputs: 16  
Rise and Fall Time: Per SMPTE spec

### Ethernet Interface:

- 4x QSFP28, 8x SFP28

### Audio Encapsulation:

- SMPTE ST 2022-6
- SMPTE ST 2110-30

### Metadata Encapsulation:

- SMPTE ST 2022-6
- SMPTE ST 2110-40

### Video Encapsulation:

- SMPTE ST 2022-6
- SMPTE ST 2110-20

### Data Format:

- Ethernet/IP/UDP

### Electrical:

Power: 120W  
Voltage: 12V DC

### Physical:

Number of Slots: 2

### Enclosures:

ev6-FR: 15-slot 6RU chassis

### Switching Reference:

Reference Inputs: 2x BNC on ev6-FR,  
analog 525/625,  
PTP via 25GbE interface

### Compliance:

Supported Media Standards:  
AMWA NMOS IS-04 v1.3,  
IS-05 v1.1 and  
BCP-002-01 v1.0  
Complies with  
EN 55035:2017/A11:2020

EMI/RFI:

## Ordering Information

### 670IPG-X19-25G-100G

3rd generation enhanced logic capacity Evertz EV6-FR hardware module acting as an IP media gateway. 16 x 16 3G/HD/SD-SDI I/O and up to 4 x 25GE interfaces using 1 QSFP28 interfaces (optics sold separately).

### License Options:

#### 670IPG-FK-SDI-2110

Support for 16x16 3G SDI (3G SDI -> SMPTE 2110, SMPTE 2110 -> 3G SDI Translations)

### SFP Interface Options:

#### QSFP25G-A

100G QSFP, 4 channel 1310nm over MTP8 interconnect

#### QSFP-10G-TR13-G

25G Optical Transceiver, 1310nm, SM, 10km, LC Connectors

#### SFP25G-TR13

25G Optical Transceiver, 1310nm, SM, 10km, LC Connectors

Contact factory for more options.