

PlexusAV

P-AVN-SCG Stream Conversion Gateway



OVERVIEW

PlexusAV's P-AVN-SCG Stream Conversion Gateway (SCG) allows users to break free from the traditional AV-over-IP signal constraints. Serving as a bridge between all AV over IP technologies, the stream conversion gateway converts between protocols that use the same AV codecs in the payload. This means NDI®HX, IPTV, and RTSP feeds can be passed through the Stream Conversion Gateway and converted into IPMX channels for playback on the PlexusAV IPMX system.

It gets even better, with the ability to transmit and receive from public or WAN connections via SRT. Quickly and easily configure site-to-site IPMX channel transmissions without any special ISP services or complicated routing.

WHY CHOOSE THE STREAM CONVERSION GATEWAY?

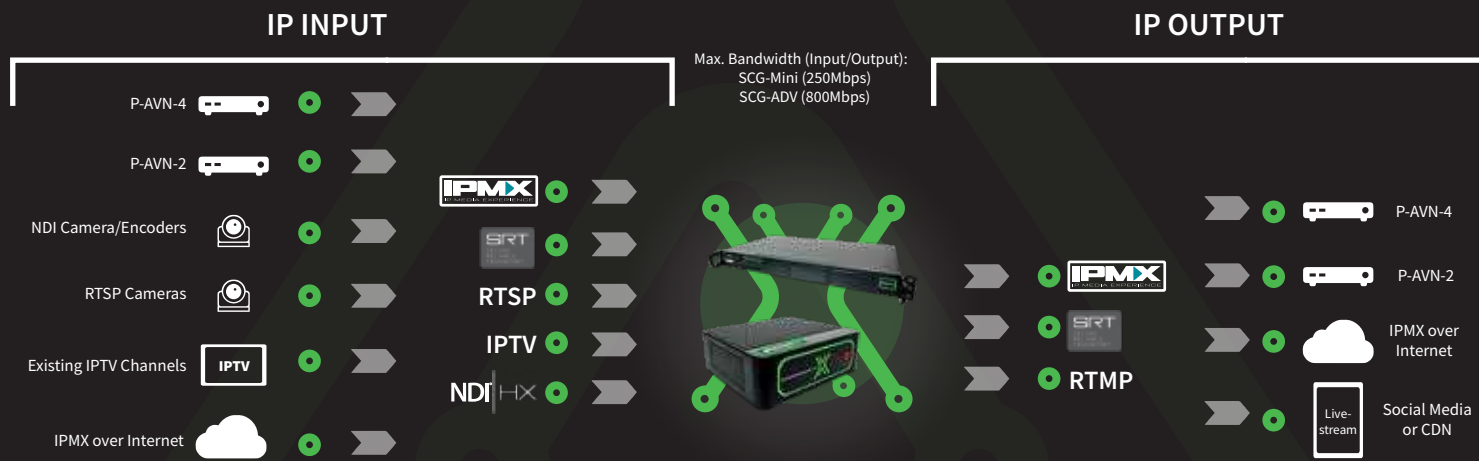
- **Universal AV Signal Compatibility:** With multiprotocol support for IPMX, SRT, RTSP, NDI®HX, and MPEG/IP, this gateway is engineered to be compatible across various platforms. The device integrates smoothly with existing AV infrastructures, streamlining signal translation and reducing complexity.
- **Versatile Network Bridge:** Whether transmitting from public or WAN connections, or receiving and translating public streams into PlexusAV's ecosystem, the Stream Conversion Gateway allows AV signals to flow effortlessly between different networks. It allows for flexible distribution for scenarios like digital signage, e-sports, educational content networks, and large-venue entertainment.
- **User-Friendly, Workflow-Based Interface:** Built with an intuitive web interface, the Stream Conversion Gateway makes deployment fast and easy, regardless of experience level. This workflow-based design helps operators configure and manage the gateway with minimal training and maximum efficiency.
- **Seamless Third-Party Integration:** Equipped with NMOS and a HTTP/HTTPS API, the Stream Conversion Gateway ensures compatibility with third-party IPMX devices and solutions, giving users the freedom to design AV systems that meet unique needs without restrictive limitations.

APPLICATIONS

- Network scanning for compatible NDI®HX devices (single NDI license included, purchase required for additional channels).
- Monitor third-party cameras, existing IPTV channels, and encoder feeds on the PlexusAV IPMX system.
- Send IPMX channels from site-to-site over the public internet.
- Livestream dedicated encoder channels to social media or CDN.

KEY FEATURES

- Receive NDI®HX, RTSP, and MPEG-TS streams and easily convert to IPMX [H.264/H.625].
- Intuitive workflow-based web interface.
- Easily configure primary and backup source feeds.
- Seamlessly convert a single input to multiple output types.
- Signals converted to IPMX are automatically detected by Visual Array and P-AVN-4 transceivers.
- Robust API for 3rd party integration*



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Stream Conversion Gateway Specifications

IPMX RECEIVE AND TRANSMIT

Receive:

Input Type: IPMX H.264/265
 Bitrate range: 5-50Mbps per channel
 IGMP Compatibility: Version 2 and 3

Transmit:

Output Format: UDP, RTP (with extension headers), Multicast and Unicast, CBR and VBR Streams.
 Bitrate Range: 5-50Mbps per channel

SRT RECEIVE AND TRANSMIT

Receive/Transmit:

Protocol and IP range: UDP, Unicast
 Negotiation Modes: Caller, Listener, Rendezvous
 Latency: 20-8000Ms, user configurable
 Bitrate Range: 5-50Mbps per stream
 Encryption: AES-128/256

NDI-HX RECEIVE

Input Type: NDI®HX [H.264/265]
 Bitrate range: 5-50Mbps per channel
 IGMP Compatibility: Version 2 and 3
 Discovery: Find NDI®HX devices on the network when selected as input type.

RTSP RECEIVE

Input Type: RTSP [H.264/265]
 Bitrate range: 5-50Mbps per channel
 IGMP Compatibility: Version 2 and 3
 Discovery: Find devices when selected as input type.

MPEG/IP RECEIVE

Input Type: UDP, RTP (with extension headers), Multicast and Unicast, CBR and VBR Streams Multicast Filtering.
 Forward Error Correction: SMPTE ST 2022-1 FEC
 Bitrate range: 5-50Mbps per channel
 IGMP Compatibility: Version 2 and 3

P-AVN-SCG-MINI COMPACT APPLIANCE

Management Interfaces:

WebUI: On-board web interface for easy configuration and control.
 HTTPS API: Supports GraphQL for advanced integration.
 NMOS Support: Full support for IS-04 and IS-05 standards.

Network Interfaces:

Ethernet 1: RJ-45 10/100/1000 Auto-Negotiating
 Ethernet 2: RJ-45 10/100/1000 Auto-Negotiating

Dimensions & Power:

Dimensions: 42mm x 126mm x 113mm
 (1.65" x 4.96" x 4.44)

Weight: 1 lbs (0.45 kg)

External Power Supply:

Input: 100-240V AC, 50-60Hz, 1.5A
 Output: 19V @ 3.42A

Environmental Specifications:

Operating Temperature: -14°F to 113°F (-10°C to 45°C)
 Storage Temperature: -4°F to 140°F (-20°C to 60°C)
 Operating Humidity: <85% (non-condensing)

P-AVN-SCG-ADV-1RU RACKMOUNT APPLIANCE

Network Interfaces:

Ethernet 1: RJ-45 10/100/1000 Auto-Negotiating
 Ethernet 2: RJ-45 10/100/1000 Auto-Negotiating

Peripheral Interfaces (Terminal Access Only):

Display: VGA (1)
 Mouse/Keyboard: 2x USB-A ports

Managed Interface:

WebUI: On-board web interface for easy configuration and control.
 Supports GraphQL for advanced integration.
 Full support for IS-04 and IS-05 standards.

Dimensions & Power:

Dimensions: 1RU Rack Mount - 43mm x 437mm x 249mm
 (1.7" x 17.2" x 9.8")

Weight: 10 lbs (4.54 kg)

Internal Power Supply: Total Output Power and Input - 200W with Input 100/250AC.
 AC Input Frequency: 50/60Hz.

Max Throughput: 1Gbps Maximum (combined input/output).

Environmental Specifications:

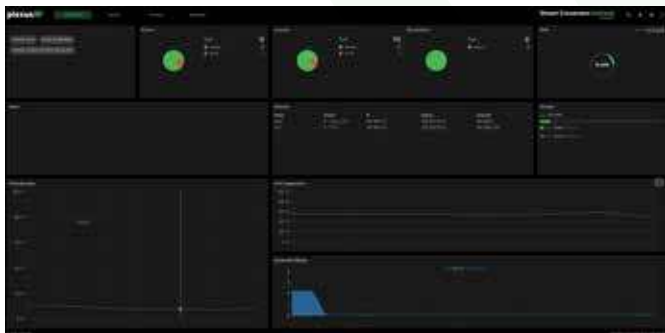
Operating Temperature: 41°F to 95°F (5°C to 35°C)
 Storage Temperature: -40°F to 140°F (-40°C to 60°C)
 Operating Humidity: <90% (non-condensing)

Included Accessories:

Rackmount ears and hardware
 Power Cord

OPTIONAL LICENSES

P-AVN-SCG-NDI-LIC: Adds 1x NDI input our output
 P-AVN-SCG-ADV-LIC-ADD-250: Adds 250 Mbps throughput up to max of 1Gbps
 P-AVN-SCG-ADV-IP-ADD-ON: Optional network card with additional 2x RJ45 ports



Dashboard



Routing (NDI®HX to IPMX)