Neuron

View

Low latency, high quality live production multiview system
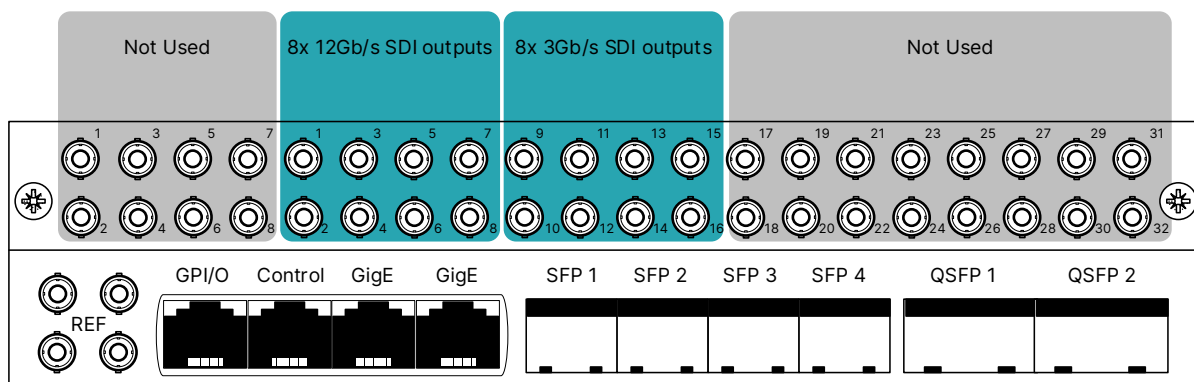
Block schematics of configurations
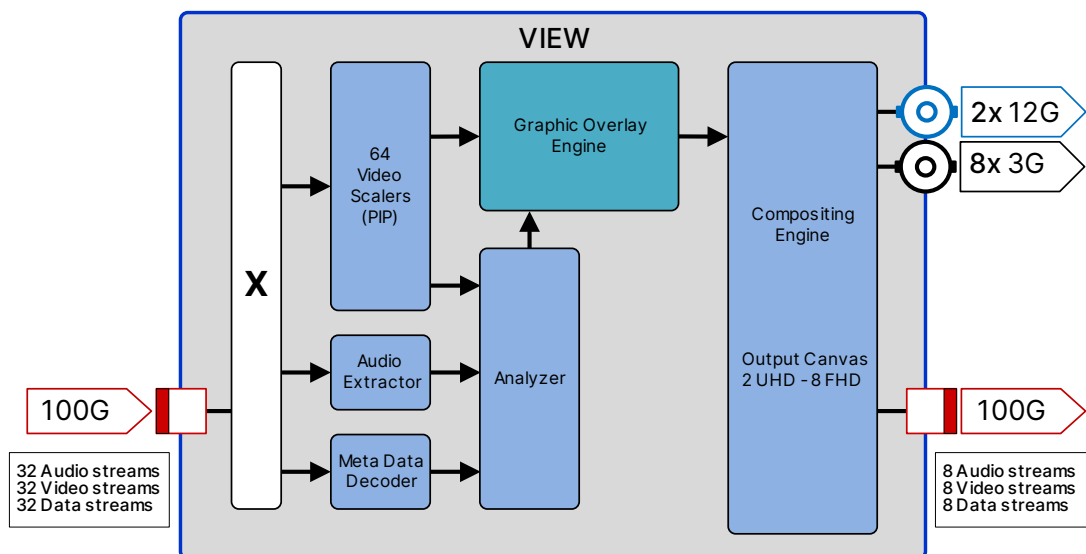
I/O Panel

The Neuron IP Multiviewer from EVS offers the highest density on video, audio and meta data decoders with the lowest power consumption in the industry, based on the ST2110 standards in ½ RU formfactor.

In the interface you can choose which multiviewer head goes to which 12Gb/s or 3Gb/s SDI output. The current version supports up to 2x 12Gb/s UHD outputs and/or up to 8x 3Gb/s Full HD outputs.

I/O of configurations

	SDI Inputs[1]	IP Inputs[1]	SDI Outputs[1]	IP outputs[1]
VMI3208	0	32	Up to 8	Up to 8

[1]) Amount of FHD (1080p50/59.94) channels

Features

When it comes to speed and flexibility, there is nothing that compares to Neuron VIEW, a powerful IP multiviewer that can handle any format in ST2110.

VIEW is the industry's only single frame latency (20ms@50Hz and 16.7ms@59.94Hz) multiview system to offer external looping for an unlimited amount of input channels. Thanks to its software defined architecture Neuron can either be used as a video processor, audio processor, Firewall, encoder and gateway to provide a system that truly stands out from the competition.

VIEW's unequalled low latency and start-up time makes it ideal for a wide range of Multiview applications, from preview monitoring and shading in small OB-vans, to high resolution, high source count monitor walls for the largest live-production facilities.

Neuron VIEW can be equipped with an SDI output module, adding 40 HD-BNC connectors.

VIEW can accept 32 FHD, 8 UHD or a mix of ST2110 signals per ½ rack unit and display those inputs on 2 UHD heads, or 8 FHD heads, or a mix (1 UHD head and 4 FHD heads).

- Standards supported: UHD (4 wire SQD/2Si or single wire 2SI), FHD Level-A, HD, SD ST2110-20 on 50Hz and 59.94Hz. (2160p, 1080p, 1080i and 720p)
- Ability to receive 32 IP video, audio and metadata inputs.
- Displays up to 64 picture-in-pictures of video and multiple tiles for clocks, counters, UMD and tallies on 2 UHD screens or divide them over 8 FHD screens.
- 2 UHD/8 FHD heads or a mix on SDI or IP (ST2110)
- Mix of a synchronous HD, FHD and UHD sources on FHD, UHD displays (heads) simultaneously.
- Highest quality image processing and scaling
- Ultra-low latency video processing
- Up to 256 channels of audio metering, freely assignable to PIPs
- Audio Metering via adjustable VU scales
- Flexible layouts: all objects can be any size, in any position.
- Graphics: UMD & Tally support through TSL, Digital clocks and up/down counters, colored borders, user definable backgrounds and user definable fonts
- 2x QSFP28 true 100Gb/s single MAC
- Transparency of VANC data to ST2110-40 in SDI and vice versa with possibility to shuffle streams.
- PTP Network timing with slave functionality on the Ethernet ports, compliant with SMPTE ST2059-2 (BMCA)
- External black burst inputs
- Possibility to output 2x Analog bi-level reference locked to PTP.
- Redundant IP signals in and out (double stream or ST2022-7)
- Multicast and unicast configurable per stream
- Automatic fan control
- Stream and Ethernet port redundancy
- Each SDI or IP input can be used as a back-up signal for an SDI or IP output
- Compatible protocols: ACPv2, DNS, IGMPv2, IGMPv3, LLDP, DHCP, SDP, NMOS IS04, NMOS IS04, 802.1as, ST2059-1/2, ST2110-20/30/31/40, TSL v5

Applications

- Monitor walls in Live production facilities
- Monitor walls in OB-Vans and flight packs
- Multi-outputs setups, shaders, operators and directors on one MV system

Specifications

Analog reference I/O

Connector Type	Micro BNC (HD BNC)
Number of inputs	1
Number of outputs	2, Loop input or analog reference out
Termination	75 Ohms when not looped
Bi-Level	PAL/NTSC Black Burst ITU624

PTP reference

Standard	ST2159/ST2110-10 dual step
Number of inputs	2

Gigabit Ethernet

Connector Type	RJ45
Number	3
Standards	10/100/100 Base-T
Protocols streaming	FUTURE USE
Protocol control	ACPv2
Cable	Shielded twisted pair

QSFP Cages

Number of cages	2
Standards	QSFP28, 100GbE
Protocols	ST2110, ST2059

SFP Cages

Number of cages	2
Standards	Not in use
Protocols	ST2022-6, ST2110, AES67, ST2059

Video inputs

Format	2160p59.94/50,1080p59.94/50, 1080i59.94/50, 720p59.94/50
Standard	Uncompressed video transport using ST2110-20
Number of inputs	8 UHD or 32 3G unscaled pictures or mix

Picture in Picture (PIP)

Number	16 UHD-64 FHD

Video outputs (Heads)

Format	2160p59.94/50,1080p59.94/50
Standard	Uncompressed video transport using ST2110-20
Number of heads	2 UHD or 8 FHD or mix (upgradable with 2 outputs)
Interface	SDI (Option), IP

Graphical objects

Background	Static, user defined (png), FTP to onboard storage
Clocks	Analog, Digital, Combined (ATC, NTP,PTP)
Counters	Up/down counters

UMD/Tally

Protocol	TSL5.0, ACPv2 over IP
Tally Show as	Border, UMD background, tally

Audio input

Standard	ST2110-30 (PCM Audio, Class A/B/C)
Number of audio bars	256 (Freely assignable)
Audiometer style	VU/Nordic/BBC

Metadata input

Metadata standard	ST2110-40 (Timecode only)
Number of meta str.	32

Miscellaneous

Weight	Approx. 2050gr
Operating temp.	0°C to +40°C
Dimensions	400 x 193 x 42mm (LxWxD)

Electrical

Voltage	+12V nominal (tolerance:-1V/+0.5V)
Power	~100Watts

Ordering information (Preliminary)

Configuration Compress (please select ONE of below line items)

VMI3208	ST2110 only multiviewer, 32 FHD or 8 UHD or mixed inputs, 64 pips, 256 audio bars, dual UHD or 8-fold FHD Head, SDI outputs

Option to add SDI Output

VMI-SDI0208	SDI 16 channel - 8x FHD - 2x 12G SDI out, requires NSDI40-BOARD