



# Neuron

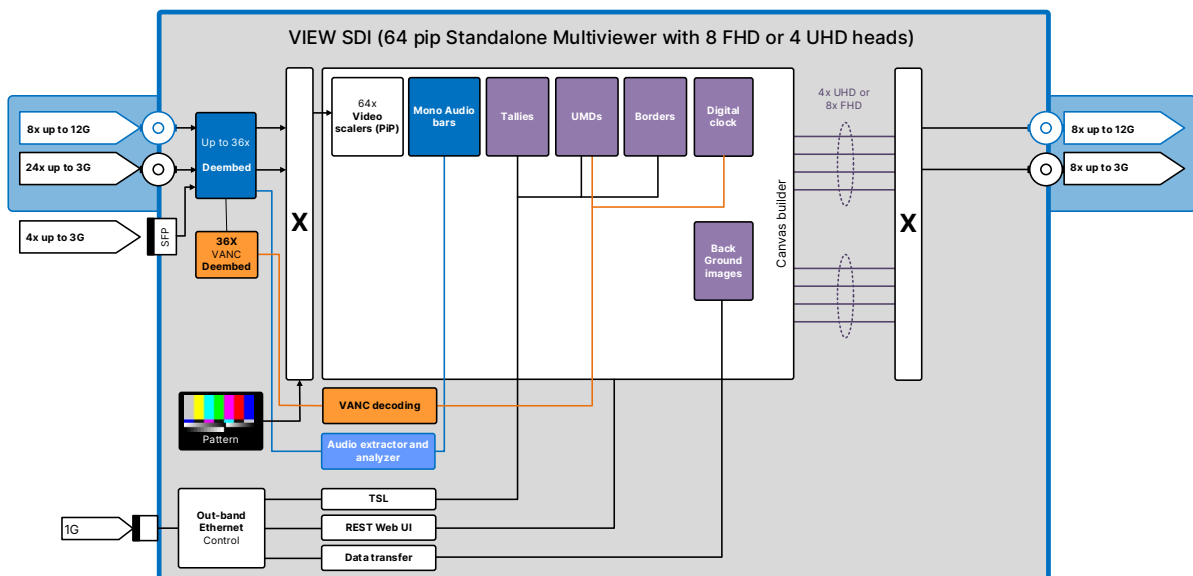
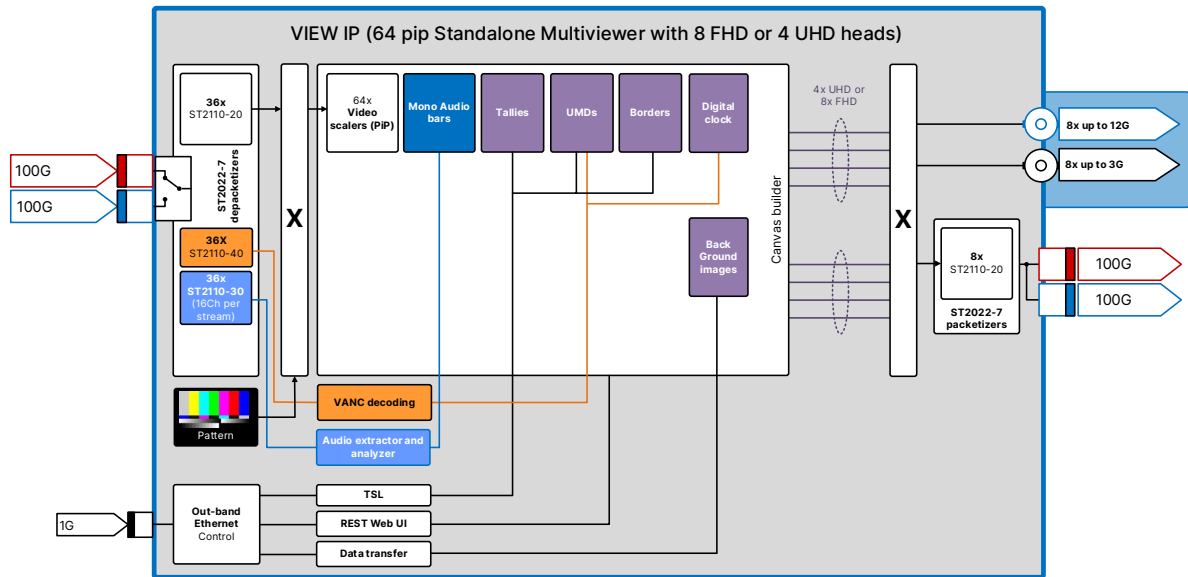
## View

Low latency, high quality, live production multiviewer with SDI or IP I/O

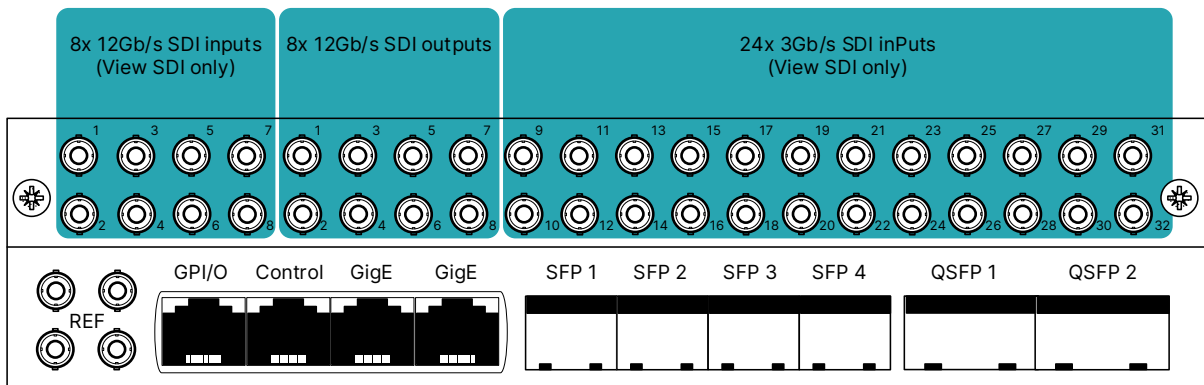


Due to constant product research and development, all specifications are subject to change without notice. EVS does not warrant or assume any legal liability or responsibility for the accuracy, completeness, availability and/or delivery of the products and/or services listed in this data sheet. Copyright © 2025 EVS

## Block schematics of configurations



## I/O Panel



Neuron View IP offers 36x ST2110 (-20, -30 and -40) IP inputs and up to 8x ST2110-20 and/or SDI outputs (SDI outputs require the SDI expansion board and license). Neuron View SDI offers 36x (F)HD or 8 UHD (or a mix) SDI inputs and up to SDI outputs (SDI I/O requires the SDI expansion board and license). In the interface you can choose which multiviewer head goes to which 12Gb/s or 3Gb/s SDI output and to which IP output stream.

## I/O of configurations

|                           | SDI Inputs <sup>1</sup> | IP Inputs <sup>1</sup> | SDI Outputs <sup>1</sup> | IP outputs <sup>1</sup> |
|---------------------------|-------------------------|------------------------|--------------------------|-------------------------|
| <b>VIEW IP (VMI3208)</b>  | 0                       | 36                     | Up to 8 <sup>2</sup>     | Up to 8                 |
| <b>VIEW SDI (VMS3208)</b> | 36 <sup>2</sup>         | 0                      | Up to 8 <sup>2</sup>     | 0                       |

<sup>1</sup>) Amount of FHD (1080p50/59.94) channels

<sup>2</sup>) Requires the SDI expansion board and license to be installed

## Features

When it comes to low-latency, flexibility and ease of use, there is nothing that compares to Neuron View.

View's unequalled low latency, start-up times, and low power consumption 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.

With the intuitive, on-board, web-based graphical user interface you can change the layout of all multiviewer screens on-the-fly and in real-time. You do not need a separate application to design your canvasses. With this GUI you can also save and load snapshots, change the scale, layout and composition of each PiP, configure your IP I/O streams, and configure which PiP displays which group of IP (-20, -30, and -40) streams or which SDI input.

Neuron View's outputs can be configured in many ways between 8 FHD outputs and 4 UHD outputs, all as ST2110-20 IP output streams (**View IP**), as both IP as well as SDI outputs (**View IP with SDI expansion**) or as SDI-only outputs (**View SDI**). The possible output head configurations are: 1x UHD + 7x FHD, 2x UHD + 6x FHD, 3x UHD + 4x FHD, 4x UHD or 8x FHD. It accepts up to 36 FHD, up to 8 UHD, or a mix of FHD and UHD SDI or IP inputs per board, which can all be displayed in as many different sizes as required in 64 PiPs divided over all output heads.

With Neuron View you also enjoy ultimate flexibility, since it is built on the same processing board as all other Neuron identities: Bridge, Convert, Compress, Protect and Shuffle. In other words, you only need one platform to cover all infrastructural challenges.

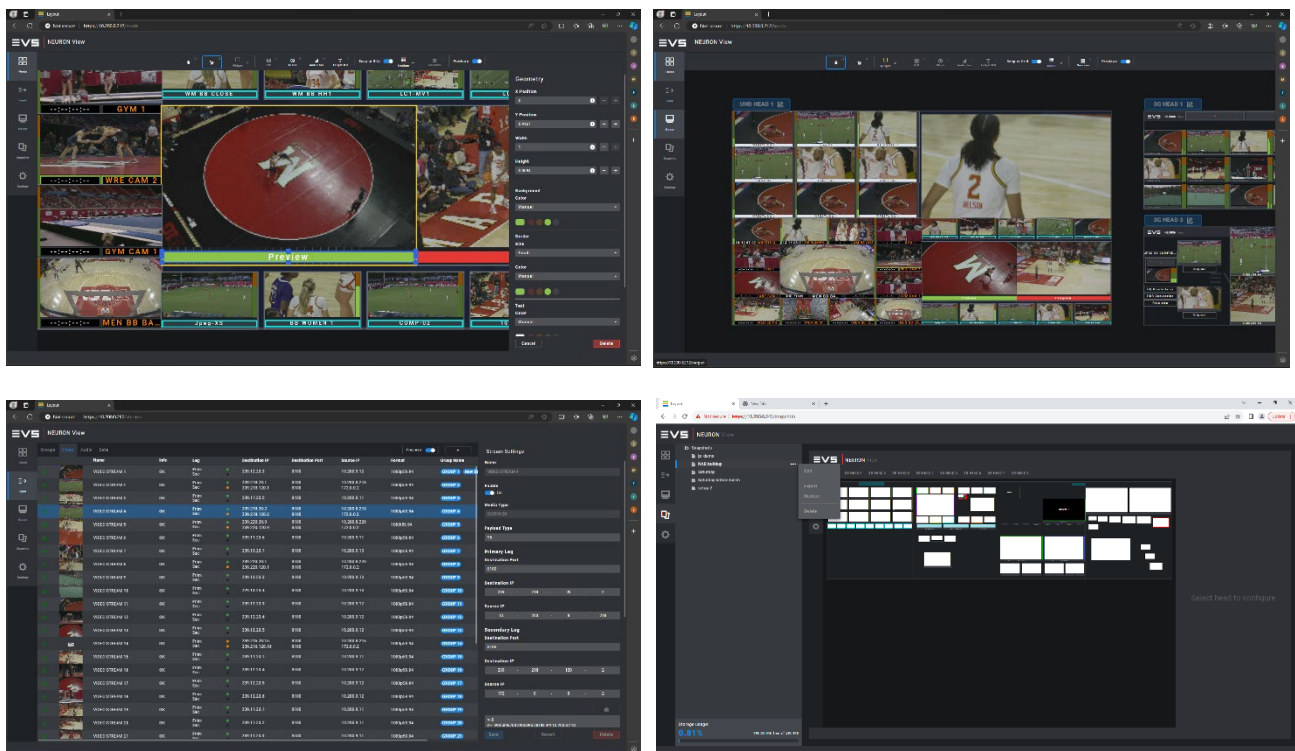
- Standards supported: UHD (4 wire SQD/2Si or single wire 2Si), FHD Level-A and HD ST2110-20 on 50Hz and 59.94Hz. (2160p, 1080p, 1080i and 720p)
- **View IP** only: Ability to receive 36 IP video (ST2110-20), audio (ST2110-30) and timecode (ST2110-40) inputs via 2x QSFP28 true 100Gb/s single MAC
- **View IP** only: PTP Network timing with slave functionality on the Ethernet ports, compliant with SMPTE ST2059-2 (BMCA)
- **View SDI** only: Ability to receive 36 FHD/HD SDI input (of which 4 via MSA-compliant video SFP modules) or 8 UHD SDI inputs (single wire 12G) or a mix.
- **View SDI** only: SDI ancillary data de-embedding (ST12M ATC\_VITC/ATC\_LTC)
- External black burst input
- Displays up to 64 picture-in-pictures of video with multiple tallies, UMDs and audio meters per PiP, divided over all outputs
- 1x UHD + 7x FHD, 2x UHD + 6x FHD, 3x UHD + 5x FHD, 4x UHD or 8x FHD heads on IP (ST2110-20) and/or SDI (depending on the chosen View identity)
- Display a mix of asynchronous HD, FHD and UHD sources on FHD/UHD displays simultaneously
- High quality image processing and scaling
- Ultra-low latency between input and output (20ms@50Hz and 16.7ms@59.94Hz)
- Extremely low power consumption compared to CPU based multiviewers
- Up to 256 channels of audio metering, freely assignable to PiPs or separate widgets
- Audio Metering via VU scales
- Any number of UMDs and Tallies per PiP, controllable through TSL, ImageVideo and REST API
- Up to 32 Digital clocks and up/down counters
- NTP clock synchronization
- Colored borders
- User definable backgrounds using a color picker for solid color, or image upload (.png)
- Redundant IP input signals (ST2022-7 class D)
- Redundant IP output signals (ST2022-7 compliant port replication)
- Each SDI or IP input can be used as a back-up signal for an SDI or IP output
- Inband control
- Static routing
- Compatible protocols: ACPv2, DNS, IGMPv2, IGMPv3, LLDP, DHCP, SDP, NMOS IS-04, NMOS IS-05, 802.1as, ST2059, ST2110-20/30/40, TSL v5

## Applications

- Monitor walls in Live production facilities
- Monitor walls in OB-Vans and fly-packs
- Multi-output setups for shaders, operators and directors on one Multiview platform

## Web-UI screenshots

The View web UI is easily accessible by typing in the board's IP address in a web-browser. It allows you to set up and configure the layout of all heads on-the-fly and in real-time in an easy-to-use, intuitive GUI.



## Ordering information

|                 |   |
|-----------------|---|
| NEU-1U-FR2000-B | <b>1RU Neuron Frame</b> with redundant 90-265VAC power supply, <b>Broadcast version</b> (rear side I/O). Can hold up to 2x NEU-BASE-BOARD           |
| NEU-1U-FR2000-D | <b>1RU Neuron Frame</b> with redundant 90-265VAC power supply, <b>Data center version</b> (front side I/O). Can hold up to 2x NEU-BASE-BOARD        |
| NEU-1U-RSK      | <b>Rear Suspension Kit</b> for 1RU Neuron frame. Supports rack depth between 48cm (18.9") and 80cm (31.5")  |
| NEU-BASE-BOARD  | <b>Neuron base processing board.</b> Customer to supply QSFP/SFP. <b>Requires at least one of the base licenses listed below (no mix per board)</b> |
| NEU-SDI40-BOARD | <b>Neuron 40 SDI I/O expansion board</b> with 8 x 12G in, 8 x 12G out and 24 x FHD bidirectional I/O on HD BNC. <b>Requires NEU-BASE-BOARD</b>      |

### VIEW Base license (IP I/O)

VMI3208-GO

**Base License for View IP.** ST2110 multiviewer with 36 HD or 8 UHD (or a mix) inputs, up to 64 pips, 256 audio bars, 4x UHD or 8x FHD Heads on IP I/O. **Max. 1 of these base licenses per processing board**

VMS3208-GO

**Base License for View SDI.** SDI multiviewer with 36 HD or 8 UHD (or a mix) inputs, up to 64 pips, 256 audio bars, 4x UHD or 8x FHD Heads on SDI I/O. **Max. 1 of these base licenses per processing board**

## Specifications

### Analog reference I/O

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

### PTP reference

|                  |  |
|------------------|--|
| Standard         | ST2059/ST2110-10<br>(profile PTP-L3-E2E) |
| Number of inputs | 2  |

### Gigabit Ethernet

|                  |                                  |
|------------------|----------------------------------|
| Connector Type   | RJ45                             |
| Standards        | 10/100/1000 Base-T               |
| Protocol control | ACPV2, REST API, tally protocols |
| Cable            | Shielded twisted pair            |

### QSFP Cages

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

### SFP Cages

|                 |                       |
|-----------------|-----------------------|
| Number of cages | 4 (not used for View) |
|-----------------|-----------------------|

### Video inputs

|                  |   |
|------------------|---|
| Format           | 2160p59.94/50 (single wire 12G), 1080p59.94/50, 1080i59.94/50, 720p59.94/50 |
| Standard         | ST2110-20 (uncompressed video)  |
| Number of inputs | 8 UHD or 32 FHD unscaled pictures, or a mix                                 |

### Picture in Picture (PIP)

|        |  |
|--------|--|
| Number | 64<br>(freely assignable to any input) |
|--------|--|

### Video outputs (Heads)

|                 |   |
|-----------------|---|
| Format          | 2160p59.94/50<br>(single wire 12G or 4-wire SQD), 1080p59.94/50 |
| Standard        | ST2110-20, SDI  |
| Number of heads | 2 UHD or 8 FHD or mix<br>(upgradable with 2 outputs)            |

### Graphical objects

|              |   |
|--------------|---|
| Background   | Color picker, user defined (PNG), HTTP to onboard storage |
| Clocks       | Digital   |
| Time sources | PTP, input timecode, up/down counter                      |

### UMD/Tally

|               |  |
|---------------|--|
| Protocol      | TSL 5.0 (UDP), Image Video, ACPv2, REST API      |
| Tally Show as | Element color (border, background or text color) |

### Audio input

|                      |                                    |
|----------------------|------------------------------------|
| Standard             | ST2110-30 (PCM Audio, Level A/B/C) |
| Number of streams    | 32                                 |
| Number of audio bars | 256 (freely assignable)            |
| Audiometer style     | AES-EBU                            |

### Metadata input

|                   |                           |
|-------------------|---------------------------|
| Standard          | ST2110-40 (Timecode only) |
| Number of streams | 32                        |

### Miscellaneous

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

Electrical

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