# **M**ulti Stream **T**ransport **H**ub - **User Guide**

CSV-5200 - CSV-5300A - CSV-5300H - CSV-5400 -CSV-1545 - CSV-1546 CSV-6200 - CSV-6200H - CSV-6400

The Club3D SenseVision MST Hubs utilize Multi Stream Transport, a unique DisplayPort™ 1.2 feature that creates the ability to transport multiple independent uncompressed display (and audio) streams over a single cable, supporting protected content and high performance applications such as 3D gaming. This enables the use of multiple monitors connected by MST hub configuration. The Club3D MST Hubs is able to distribute those video streams to the connected screens. Such functionality can also be used on source systems with Thunderbolt 3 or USB C outputs, although the USB C output needs to have support for DisplayPort Alternate Mode.
The Club3D MST Hubs do not increase the bandwidth of DisplayPort 1.2 outputs, but it enbales the optimal use of it.

| ITEM CODE | INPUT | OUTPUT | OUTPUT QTY | POWERED BY |
|---|---|---|---|---|
| CSV-1545 | USB 3.1 Type C | DisplayPort ++ | 2 | USB |
| CSV-1546 | USB 3.1 Type C | HDMI | 2 | USB |
| CSV-5200 | DisplayPort 1.2 | DisplayPort ++ | 2 | USB |
| CSV-5300A | DisplayPort 1.2 | DisplayPort ++ | 3 | AC Adapter |
| CSV-5300H | DisplayPort 1.2 | HDMI | 3 | AC Adapter |
| CSV-5400 | DisplayPort 1.2 | DisplayPort ++ | 4 | AC Adapter |
| CSV-6200 | DisplayPort 1.2 | DisplayPort ++ | 2 | USB |
| CSV-6200H | DisplayPort 1.2 | HDMI | 2 | USB |
| CSV-6400 | DisplayPort 1.2 | DisplayPort ++ | 4 | USB |

Note: When using a DisplayPort 1.1 video card the MST hub will act as a splitter, automatically mirroring your video source across all displays.

Supports Advanced WideEye SerDes technology, capable of receiving data over long and low quality cables Support for Clone Streaming, meaning the MST Hub can "mirror" or "clone" the single video signal to multiple outputs at the same time.

- Input pixel data depth 6/8/10/12 bits and supports output pixel format RGB444
- No additional software to install, just Plug-and-Play.
- Scan button refreshes all connections made to the hub (when available).
- Supports per lane data rates of 5.4 Gbps (HBR2), 2.7 Gbps (HBR) and 1.62 Gbps (RBR)

**For: CSV-1545 / CSV-5200 / CSV-5300A / CSV-5400 / CSV-6200 / CSV-6400**

- Outputs compliant to DisplayPort™ ++ (Dual Mode) specifications
- When using screens with HDMI™ and/or DVI inputs, you must use passive adapters for conversion
- Standards compliance: DisplayPort v1.2/1.1a, VESA DDM, HDCP V2.0 and EDID V1.4

**For MST Hubs with USB Type C uplink, the source System needs to support DisplayPort™ Alternate (ALT) Mode.**

**For CSV-1546 / CSV-5300H / CSV-6200H**

- Outputs compliant to HDMI™ 1.4 specifications
- Standards compliance: DisplayPort™ v1.2/1.1a, VESA DDM, HDCP V1.3 and EDID V1.4

A Displayport™ 1.2 output has a limited amount of bandwidth, being effective 17.28 Gbps. Hereunder an estimation of how much bandwidth some common resolutions will use.

| ITEM CODE | MAX SUPPORTED RESOLUTIONS * | | |
|---|---|---|---|
| | WITH 2 SCREENS | WITH 3 SCREENS | WITH 4 SCREENS |
| CSV-1545, CSV-1546, CSV-5200, CSV-6200, CSV-6200H | 2 * 2560x1440 60Hz or 2 * 1920x1080 60Hz | x | x |
| CSV-5300A, CSV-5300H | 2 * 2560x1440 60Hz or 2 * 3840x2160 30Hz | 2 * 1920x1080 60Hz or 2 * 2560x1440 60Hz + 1 * 1920x1080 60Hz | x |
| CSV-5400, CSV-6400 | 2 * 2560x1440 60Hz or 2 * 1920x1080 60Hz | 3 * 1920x1080 60Hz or 2 * 2560x1440 60Hz + 1 * 1920x1080 60Hz | 4 * 1920x1080 60Hz |

* The maximum supported resolutions are also dependent on the capacity of the Cross-link inside the source system.