



- **U** Advanced DisplayPort™ Splitter for up to 4X Full HD Monitor setup with Audio
- U Compliant to DisplayPort™ 1.2a Specification, total HBR2 bandwidth 21.6Gbps
- U Supports up to 4x FHD 1080p, 2x WQXGA 1600p or 1x UHD 2160p Monitors
- U Supports Dual Mode DisplayPort™ (DP++) for use of HDMI™/ DVI Monitors
- **U** Supports AMD Eyefinity™ (SLS) and Duplicate/ Extend Desktop mode
- U Supports input pixel 6/8/10/12 bit color and output pixel format RGB444
- Including Mini DP to DP Adapter for maximum compatibility
- U Supports AMD, Nvidia and Intel Graphics solutions















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#### Introduction

Display devices have always been a key part of the PC experience. PC Gamers want a more immersive experience and Professionals seek more desktop space to run apps side by side and increase their productivity. The easiest solution is to add multiple Monitors to an existing Laptop or Desktop PC. The SenseVision MST Hub utilizes Multi Stream Transport, a unique DisplayPort™ 1.2 feature, to split a single DP 1.2 signal into multiple DisplayPort™ outputs. This enables up to four Full HD Displays to be driven independently from one DisplayPort™ 1.2 output on the source device. The MST Hubs support Dual Mode DisplayPort™ (DP++) which allows the use of DVI or HDMI® Monitors via passive Adapters. With multiple Monitors, games become more immersive, workstations become more useful and you become more productive.











#### Package contents

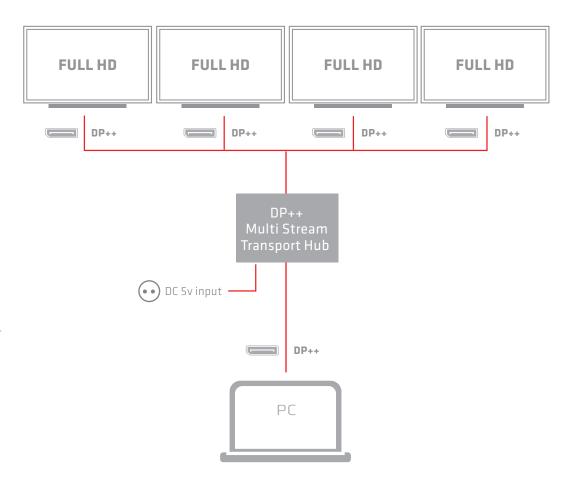
Before installation, check the items in the package. The package should contain the following items:

- Multi Stream Transport (MST) Hub DisplayPort™ 1.2 Quad Monitor
- CAC-1110 Mini DisplayPort™ to DisplayPort™ adapter
- Power Supply 2.5 Watt (5V 0.5 Amp)
- Quick install guide

#### Features

- Compliant with: DisplayPort™ v1.2a, DisplayPort™ v1.1a, VESA DDM Standard, HDCP V2.0,DisplayId,and EDID V1.4
- Supports main link rates of 5.4Gbps (HBR2), 2.7Gbps (HBR) and 1.62Gbps (RBR) from source
- Supports Four DP++ output ports, or Two Dual-link DVI ports, or a combination of ports
- Supported output resolutions: up to 3840x2160p @ 60Hz for Single Monitor, up to 2560X1600p @ 60Hz for Dual Monitors and up to 1920x1080p @ 60 for Three or Four Monitors.
- Input pixel data depth 6/8/10/12 bits and supports output pixel format RGB444
- Supports Advanced Wide Eye™ SerDes technology enables high litter performance
- Supports Adaptive Sync technology and AMD Eyefinity™
- Compatible with Microsoft Surface Pro and Intel NUC platforms
- Including Mini DP to DP adapter for maxmum compatibility
- Works with AMD, Nvidia and Intel Graphics solutions

# Application diagram







# Resolutions / Refresh Rate

| Display Mode | DP 1.2 output port 1     | DP 1.2 output port 2     | DP 1.2 output port 3     | DP 1.2 output<br>port 4  |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Single       | 3840x2160@60Hz,<br>24bpp | Not Connected            | Not Connected            | Not Connected            |
| Single       | Not Connected            | 3840x2160@60Hz,<br>24bpp | Not Connected            | Not Connected            |
| Single       | Not Connected            | Not Connected            | 3840x2160@60Hz,<br>24bpp | Not Connected            |
| Single       | Not Connected            | Not Connected            | Not Connected            | 3840x2160@60Hz,<br>24bpp |
| Dual         | 2560x1600@60Hz,<br>24bpp | 2560x1600@60Hz,<br>24bpp | Not Connected            | Not Connected            |
| Dual         | Not Connected            | 2560x1600@60Hz,<br>24bpp | 2560x1600@60Hz,<br>24bpp | Not Connected            |
| Dual         | Not Connected            | Not Connected            | 2560x1600@60Hz,<br>24bpp | 2560x1600@60Hz,<br>24bpp |
| Dual         | 2560x1600@60Hz,<br>24bpp | Not Connected            | 2560x1600@60Hz,<br>24bpp | Not Connected            |
| Dual         | 2560x1600@60Hz,<br>24bpp | Not Connected            | Not Connected            | 2560x1600@60Hz,<br>24bpp |
| Dual         | Not Connected            | 2560x1600@60Hz,<br>24bpp | Not Connected            | 2560x1600@60Hz,<br>24bpp |
| Triple       | 1920x1080@60Hz,<br>24bpp | 2560x1600@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp | Not Connected            |
| Triple       | Not Connected            | 1920x1080@60Hz,<br>24bpp | 2560x1600@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp |
| Triple       | 2560x1600@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp | Not Connected            | 1920x1080@60Hz,<br>24bpp |
| Quad         | 1920x1080@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp | 1920x1080@60Hz,<br>24bpp |

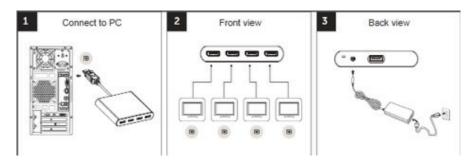
## Recommended system requirements

The DP Multi-Stream Hub requires the following: Computer that supports DisplayPort 1.2 with multi-stream support\*

#### Microsoft Windows 10 / 8.1 / 7

\*Use of the DP Multi-Stream Hub with a computer that does not meet this specification is not supported.

# Quick start guide



<sup>\*</sup>Use the scan button only when the PC does not recognize the MST Hub

# Troubleshooting

Suggested steps to solve possible problems with the MST Hub. Scenario: No video on any downstream (DP) monitor connected:

- 1. Check the LED to make sure the hub has power. Use only the power adapter that was provided with the hub.
- 2. Check that each downstream monitor is powered on.
- 3. Check the DisplayPort™ cable to be sure it is connected to the computer and hub.

  Use only the DisplayPort™ cable that was provided with the hub for the connection to the computer.
- 4. Check the computer or graphics card user manual to confirm that DisplayPort™ 1.2 and a multi-stream DisplayPort™ signal are supported.
- 5. Check the Windows Display Control Panel to confirm that the downstream monitors attached to the hub are detected and enabled.





#### Scenario: No video on some downstream monitors connected:

- 1. The hub can support up to four monitors at 1920 x 1080 resolution or two monitors at 2560 x 1600 resolution. NOTE: Playing audio over the DisplayPort™ connection will reduce the number of monitors the hub can support.
- 2. Check the DisplayPort™ cable to be sure it is connected to the hub and monitor.
  Use only the DisplayPort™ cable that was provided with the monitor for the hub connection.
- 3. If the monitor is a DVI or VGA monitor, check the DisplayPort™ cable to make sure it is connected to the hub. Check the other end of the cable to make sure the DisplayPort-to-DVI or Display Port-to-VGA adapter is working and properly connected to the DisplayPort cable and to the monitor.
- 4. If the monitor is a DVI or VGA monitor and the cable and adapter are properly attached, test the monitor, cable, and adapter with another computer.
- 5. Check the computer or graphics card user manual to confirm the number of multi-stream video signals that are supported and the maximum resolution.
- 6. Check the Windows Display Control Panel to confirm that the downstream monitors attached to the hub have all been detected and enabled.
- 7. Check the monitor with no video to confirm the DisplayPort™ input has been selected.

### Scenario: Same image appears on all downstream ports:

- Check the computer or graphics card user manual to confirm that DisplayPort™ 1.2 and a multi-stream video signal are supported.
- 2. Check the Windows Display Control Panel to confirm that all downstream monitors are set for extended mode.
- 3. Update the video driver to the latest version available to enable the multi-stream functionality.

### Regulatory information

DisplayPort™ Multi-Stream 1-4 Hub complies with the FCC/CE rules



