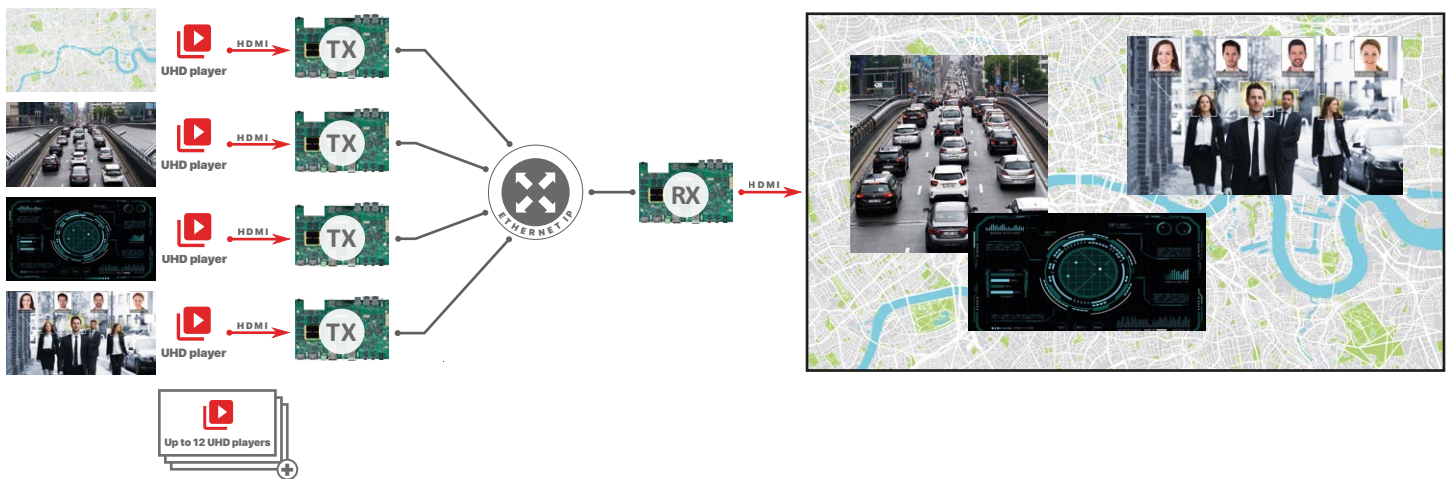# TRUE 4K MULTIVIEW - AV OVER IP

In a world of collaboration, more and more applications require to display different video sources at the same time. Our True 4K Multiview solution can combine up to 12 video streams into one video stream for display on a single monitor, just by using an AV over IP transmitter for each source and an AV over IP receiver at the display side. Multiple monitors can be combined into large video walls on a standard IP Network creating endless combinations without using complex video processors.

Most of the solutions on the market only support limited numbers of sources or require big computing power and memory. This is not the case for this solution as we are offering a unique lightweight solution based on the VC-2 HQ codec.

Taking advantage of the possibility to combine the streams in the compressed domain, together with the Viper (AV over IP board), it supports 4K 4:4:4 resolution, up to 12 streams, ultra-low latency, with the computing power and memory of standard AV decoder products.

100% Flexible Layouts

With the True 4K Multiview you can decide what to be shown on the monitor. Easily change the stream and add, delete, or resize in order to highlight what is important. Logo, text and background can be directly inserted.
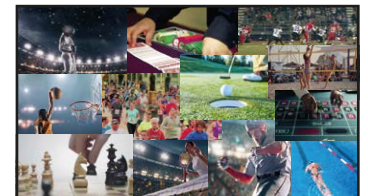

| *Picture-in-picture* | *Flexible Layouts* | *Logo, text & background insertion* | *Up to 12 streams* |

Features

- 12 simultaneous streams
- 4K
- Zero Latency
- Easy API integration
- Low power with PoE or PoE+ support
- Ultra-fast switching
- Logo/text insertion
- Supports 1, 2.5 & 10GbE
- Secure & reliable transmission
- Field upgradable
- Any resolution

Applications

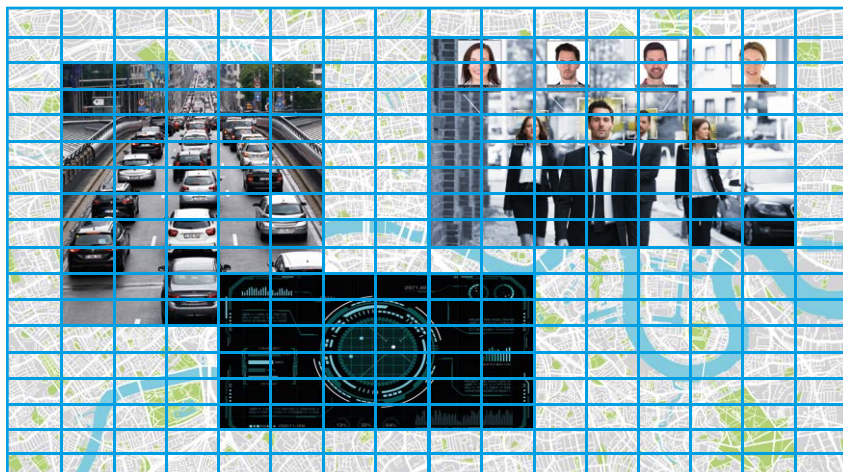- Intelligent traffic systems
- Power & utilities
- Surveillance & security
- Conferences
- Public & emergency services
- Health care
- Energy
- Data monitoring
- Defense

VC-2 HQ - Superior lightweight slice-based video codec

Thanks to its slice-based processing, the VC-2 HQ codec makes it relatively easy to build a Multiview application with many video channels (up to 12 simultaneously streams) without requiring a lot of extra memory.

The Multiview compositing pipeline is executed in the compressed domain. This means that the compressed slices are read from the stream buffers and are combined to create a compressed stream for the chosen output resolution.

A single VC-2 HQ decoder instance is therefore enough, keeping the resource usage in the FPGA at an extremely low level.
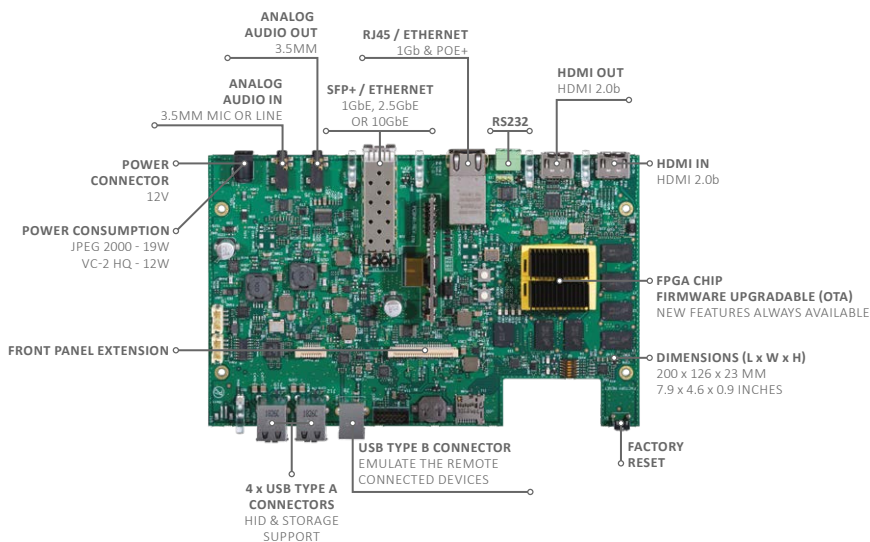

Note: The slices in the above image are larger than in reality for the purpose of visualizing the slice boundaries.

True 4K Multiview + Video Wall

The True 4K Multiview solution can be used together with the video wall feature already available in the Viper AV over IP board. Each displays can combine up to 12 video streams, so the number of total streams are endless. All streams can be placed and cropped to build the desired layout while being perfectly synchronized using PTP.

Custom OEM board for 4K HDMI AV over IP

ANALOG AUDIO OUT 3.5MM

RJ45 / ETHERNET 1Gb & POE+

ANALOG AUDIO IN 3.5MM MIC OR LINE

SFP+ / ETHERNET 1GbE, 2.5GbE OR 10GbE

RS232

HDMI OUT HDMI 2.0b

HDMI IN HDMI 2.0b

POWER CONNECTOR 12V

POWER CONSUMPTION JPEG 2000 - 19W VC-2 HQ - 12W

FPGA CHIP FIRMWARE UPGRADABLE (OTA) NEW FEATURES ALWAYS AVAILABLE

FRONT PANEL EXTENSION

DIMENSIONS (L x W x H) 200 x 126 x 23 MM 7.9 x 4.6 x 0.9 INCHES

USB TYPE B CONNECTOR EMULATE THE REMOTE CONNECTED DEVICES

FACTORY RESET

4 x USB TYPE A CONNECTORS HID & STORAGE SUPPORT

VIPER
THE ULTIMATE
AV OVER IP BOARD

Silex Insight has designed and developed a fully integrated board that is perfectly suited for Multiview and ultra-low latency audio/video over IP. The transmit and receive boards are production-ready and reduce the development cost of the system. Viper features high resolutions up to 4K/UHD over 1Gb, 2.5Gb or 10Gb Ethernet cable. The HDMI video is transported over Ethernet after compression with the VC-2 HQ (or JPEG 2000 or another codec). For more detailed information about VIPER, see dedicated product sheet.

V1.1

Silex Insight
Rue Emile Francqui 11,
1435 Mont-Saint-Guibert, Belgium

SILEX
INSIGHT

Tel: +32 10 45 49 04
E-mail: contact@silexinsight.com
Web: www.silexinsight.com