

# Video Processing System

The Video Processing System (VIPS) is a mixed signal platform, which provides a real time hardware and software solution in the aircraft avionics test rig for the Head Up Display. It handles the video processing of the analog input signals arriving from the Head-Up Guidance system or the Electronic Unit and generates a standard digital video stream, which is transmitted over a LAN. The real time video stream is then merged with the video output from the Visual Scenery Generator to perform a picture-over-picture task.

The VIPS supports the VGA standard for the video output in standard definition (SD) 1024x768 and the UDP/IP and Internet Protocol version 4 (IPV4) for the data transmission over the network. The streaming video format is uncompressed bitmap for low network traffic minimal delay for real time applications. It supports analog input signals of various voltage levels in both single-ended and differential configuration, thanks to the parametrized analog front end. It can handle monochrome video with a wide input of frame rates. The product comes with Demo/Configuration Software, supporting the Utility Toolkit GLUT v3.7 and was used successfully with FlightGear Simulator in a Linux box.  
{gallery}products/ISD\_product\_info\_web/VIPS/pics{/gallery}

## Video Processing System key features

- Fully parametrized analog front end supports HUD electronic units of different output impedance and signal magnitude, in either balanced or unbalanced configuration.

- VGA output connector with resolution 1024x768 and output default frame rates in 60 Hz.

- Bitmap processing video frames for low power, memory and network throughput demands.

- Support of the UDP/IP for the real time video streaming with 100 Mbps throughput.

Secure network control for the programming of the platform with the network parameters.

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1U, 19" rack mountable rugged enclosure for easy installation in the avionics rig.