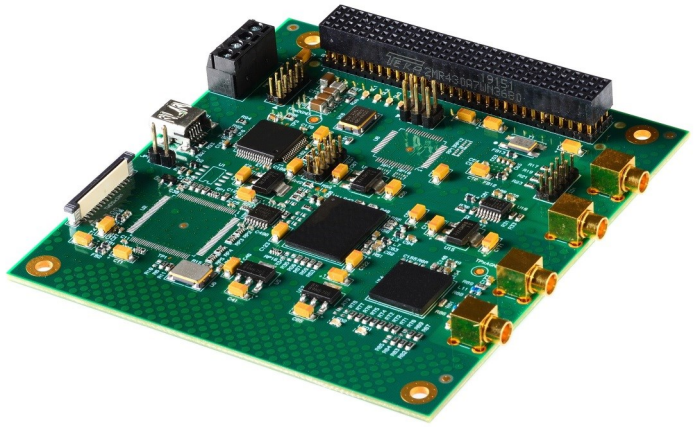
VMIX-HDMI2SDI-IS

HDMI to HD-SDI stand-alone video converter and mixer

Advanced Micro Peripherals
THE EMBEDDED VIDEO EXPERTS

The VMIX-HDMI2SDI-IS is an intelligent stand-alone scan converter with video mixing capabilities. The VMIX-HDMI2SDI-IS accepts High definition HDMI/DVI input signal and converts it to HD-SDI.



The VMIX-HDMI2SDI-IS accepts HDMI/DVI signalling over a single flat flex connector. The HDMI/DVI is captured, scaled, converted and output as HD-SDI on a 75 Ohm MCX connector. A secondary HD-SDI output is available as an option. The VMIX-HDMI2SDI-IS features high speed digital signal capture, video scaling, frame rate conversion and timing generation for conversion between display modes. There is also optional KLV meta-injection on the HD-SDI output.

The VMIX-HDMI2SDI-IS also features a PAL/NTSC/RS-170 video input that can be mixed with the HDMI input and displayed on the HD-SDI output e.g. in a picture-in-picture mode.

The VMIX-HDMI2SDI-IS is an intelligent stand-alone device that does not require a host CPU or other driver software. For mechanical convenience the module can be mounted on a PCI104 stack without consuming host CPU resources.

PRELIMINARY INFORMATION (Rev A.01)
Subject to change without notification

HDMI-to-SDI

Conversion

HDMI input up to

1080p30

HD-SDI output

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PC/104
Embedded PC Modules

VMIX-HDMI2SDI-IS

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Features

Accepts DVI/HDMI and PAL/NTSC and converts to HD-SDI

HDMI input up to 1080p30

SDI output at HD resolutions (SMPTE 292)

PAL/NTSC live video overlay on the HD-SDI output

Primary HD-SDI output - 75 Ohm MCX connector

Secondary HD-SDI output - 75 Ohm MCX connector (option)

Video mixing / Picture-in-picture

Single +5V operation

Compact and Rugged PCI-104 mechanical form factor

Option for KLV meta-data injection into HD-SDI Output

Intelligent stand-alone operation (PC104 host not required)

Low power

Applications

Aerospace instrumentation

Instrument panels

Multi function display (MFD)

Situational awareness

Naval/Marine instrumentation

Border security

Video acquisition

On-board MPU for intelligent, stand-alone Operation

Combine HDMI and composite video (Picture-in-Picture)

KLV meta-injection on HD-SDI output

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PC/104
Embedded PC Modules

VMIX-HDMI2SDI-IS

Rev A.01

HDMI to HD-SDI stand-alone video converter and mixer

Technical Specification

Digital Video Input

HDMI/DVI at up to 1080p30

Analog Video input

PAL/NTSC/RS-170 composite video input
Digital line-lock technology for reliable locking
8-bit analog to digital converter

Video Output

Primary HD-SDI output
Secondary HD-SDI output (option)
75 Ohm MCX connector used for HD-SDI signalling.
HD-SDI resolutions including:
1280x720 @ 25, 29.97, 30, 50, 59.94 or 60Hz progressive
1920x1080 @ 50, 59.94 or 60Hz interlaced
1920x1080 @ 25, 29.97, 30Hz progressive
KLV metadata injection on HD-SDI output (option)

Video Mixing

PAL/NTSC/RS-170 live video overlay on the HD-SDI output (Picture-in-Picture)
256 colour bitmap graphics overlay
Truetype text overlay
Alpha blending of graphics and text

Power

Single +5V power operation

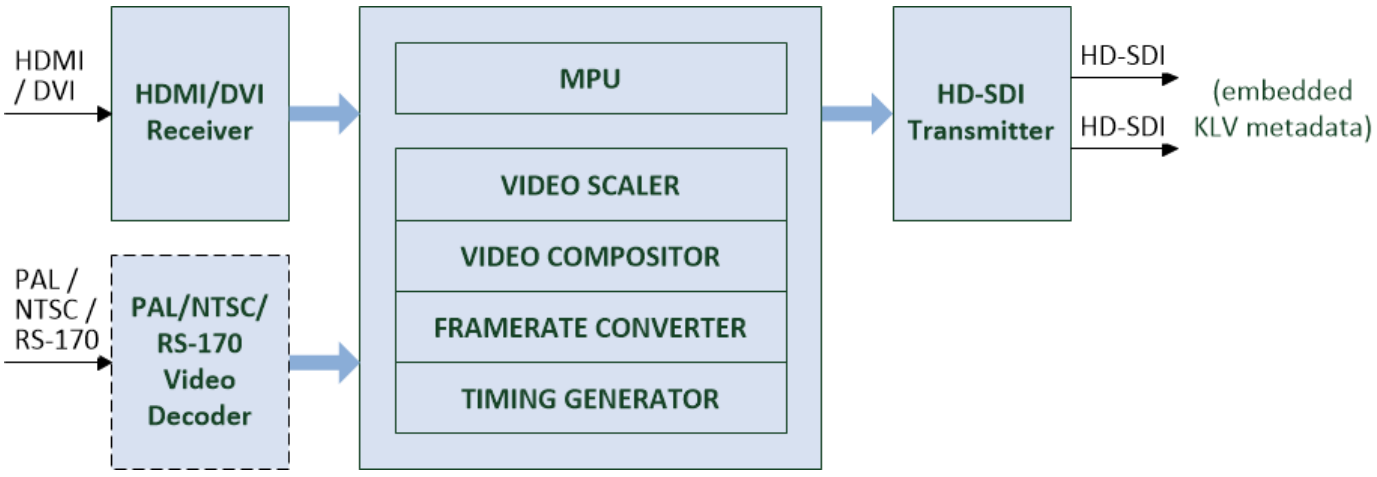
Miscellaneous

Intelligent stand-alone module, does not require host computer
Standard 3.6"x3.8" PCI-104 form factor
Mechanical mounting for PCI-104 stack
Operating temp –40˚C to +85˚C

Ordering Information

VMIX-HDMI2SDI-IS-Ext
HDMI to HD-SDI converter (-40˚C to +85˚C)

Mixer and scaler with OSD example



VMIX-HDMI2SDI-IS Functional Diagram

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