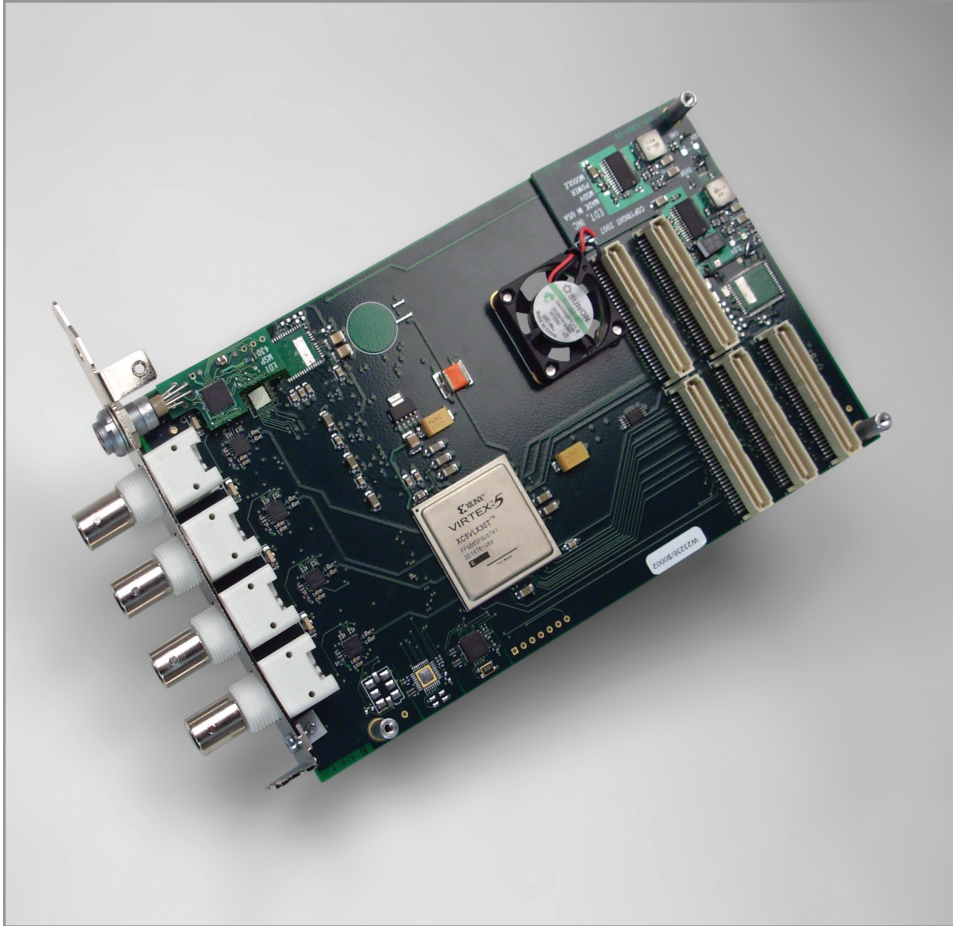# MSDV

Multirate serial digital video interface for DVB-ASI / SMPTE

Description

The MSDV is a mezzanine board that pairs with a PCI / PCIe main board to provide high-speed data transfer. It has four ports with BNC connectors to support up to four serial digital video signals in DVB-ASI/SMPTE format.

The MSDV includes a programmable Xilinx Virtex 5 LXT FPGA. It also has a 1 pps or IRIG-B time code input for precise timestamp data.

EDT provides FPGA configuration files that perform multi-rate decoding and framing, making it possible to acquire raw, decoded, or framed transport stream data. Custom configuration files can be requested.

The main board supplies DMA, plus additional memory and programmable FPGA resources.

Features

Mezzanine board – pairs with an EDT main board (PCI or PCIe), which adds DMA, programmable FPGA resources, and memory

I/O ports for DVB-ASI/SMPTE: Four, each with a bidirectional BNC

Encoding: Raw, 8b / 10b, or framed data collect

FPGA: One programmable Xilinx Virtex 5 LXT XC5VLX30T

Time code input: 1 pps or IRIG-B, with user-configurable output

Applications

Acquisition of multiple DVB-ASI/ SMPTE signals

Interface between computer and television satellite receivers

Serial digital video signal testing

Specifications

Product Type	Multirate serial digital video interface for DVB-ASI / SMPTE; it requires an EDT PCI / PCIe main board.	
FPGAs and Memory	One programmable FPGA (Xilinx Virtex 5 LXT XC5VLX30T); additional FPGA and memory resources are provided by the main board	
Clocks	One, with jitter attenuation, set for DVB-ASI/SMPTE (also programmable to other frequencies)	
Data Rates	Dependent on such factors as data format, main board, and system variables.	
Data Format (I/O)	Four BNCs One time code input (from external receiver)	DVB-ASI/SMPTE 1 pps, IRIG-B, or other input, with user-configurable output
Connectors	For DVB-ASI/SMPTE For time code input	Four 75-ohm BNCs One 7-pin Lemo
Cabling	Consult EDT for purchase options: To 7-pin Lemo on board, from time code source	Via one DB9 (for 1 pps or IRIG-B) or BNC (for IRIG-B only)
Physical	Weight Dimensions	5.0 oz. typical 6.6 x 4.2 x 0.75 in. (with a main board)
Environmental	Temperature (operating / non-operating) Humidity (operating / non-operating)	0° to 40° C / -40° to 70° C 1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C
System and Software	For details on system requirements and EDT-provided software driver packages, see specifications for your EDT main board.	

Ordering Options

- Main board: PCI SS / GS or PCIe8 LX / FX / SX
- Cabling (for time code input): DB9 / BNC

For more options, see main board detail.
Ask about custom options.

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