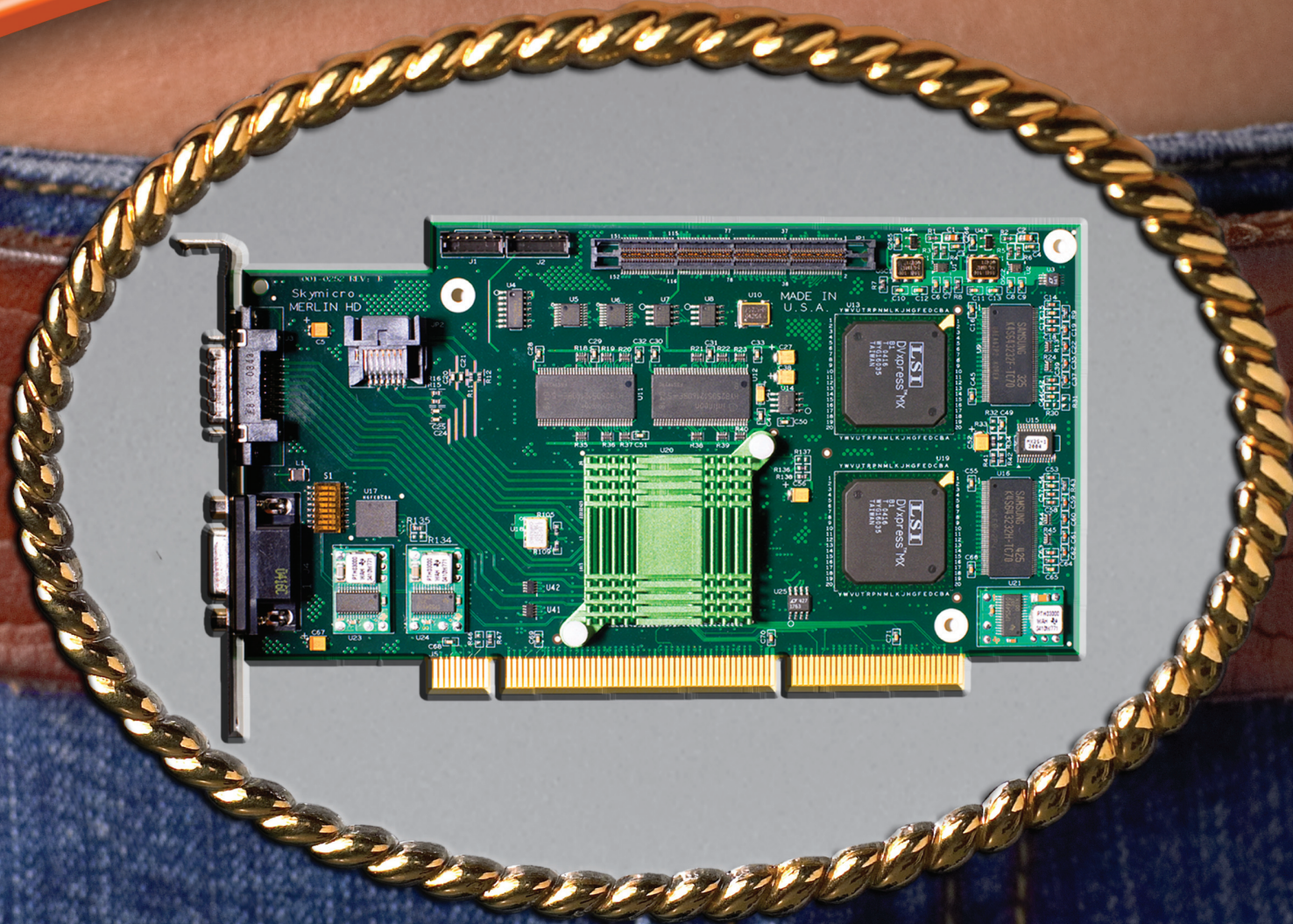


The Merlin HD Producer: A Perfect Fit.



◆ 2/In 4/Out SD/HD Video Capture Encoder & Playback Card ◆

Skymicro MerlinHD/Producer Video Capture/Codec PCI Board

Designing the MerlinHD/Producer PCI board was simple:

We took the best features of Skymicro's Merlin05 SD Capture/Codec board and doubled them. Features like VBI Support, IMX, on-board programmability and the best looking DV/MPEG-2 encoding around. Then we added High Definition and a codec upgrade architecture that ensures the MerlinHD/Producer will continue to deliver outstanding reliability for years to come.

The MerlinHD/Producer: Engineered to be a Perfect Fit.

Specifications:

- Half-size PCI-X Form Factor
- 64-bit PCI/PCI-X interface running up to 133Mhz
- Operating temperature 0-70 C
- Infiniband™ Connector for high-speed I/O with low space requirement
- 2-SATA connectors onboard allow multiple boards to be interconnected
- JTAG PowerPC upgrade and debug port
- Two DVXpress™ chips and programmable Xilinx™ Virtex-II™ (V2P40) chip onboard (Board available without DVXpress chips as the MerlinHD/Director)
- Mictor connectors and mounting for daughterboard support
- Total board I/O capacity 24Gbps
- Total I/O capacity to host computer 1Gbyte/s

Video I/O Specifications

- Dual Link SDI Supports HD 10-bit 4:2:2:4, 4:4:4:4; 720p,1080i, 1080p (24, 25 & 30fps)
- 2 Dual Link SD Channels 10-bit 4:2:2
- NTSC & PAL, CIF, SIF, Half-D1, 2/3 D1 & D1 Resolutions
- VBI & Closed Caption
- Genlock Support

Audio I/O Specifications

- AES/EBU Digital Audio In/Out
- PCM
- S/PDIF
- SDI Embedded In/Out up to 8 tracks per input and output
- World Clock Input Supported

Expansion Panel Lite

- Connects via Infiniband™ and D-9 Power Cable
- 1/4 RU; install up to 4 in 1RU space
- Combined 1 RU panel supports up to 8 HD/SDI in and 16 HD/SDI out
- Programmable internal Genlock terminator and downstream detector
- SDI video input / output compliant
- Digital audio input / output compliant with AES3id
- LTC analog input and output

External Connectors via Panel Lite

- Genlock In/Thru
- SDI In (2) 10-bit HD/SD
- SDI Out (4) 10-bit HD/SD
- AES/EBU In/Out (2) (Programmable)
- RS422 via RJ45 Jack

Additional Expansion Panel Support Available:

- Analog Audio/Video,
- 1394 (Firewire),
- DVI

The MerlinHD is also available without hardware decoders - Ask for the MerlinHD/Director



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Features – High Definition Video

- 2x HD/SDI Input and 4x HD/SDI output - Capture 2 HD streams at one time and play up to 4 HD video streams at once.
- Dual Link SDI Supports HD 10-bit 4:2:2:4, 4:4:4:4; 720p,1080i, 1080p (24, 25 & 30fps)
- Perform uncompressed HD capture simultaneous with SD Codec Operation.
- Programmable control over card operation and all video/audio data
- 2 SATA™ (Serial ATA) connectors allow multiple boards to cooperatively process a single image.
- Flexible HD encoding options via daughterboard design
- Real-Time custom control capability via user-programmable Xilinx™Virtex-II™ chip.
- Simultaneous Playback and Record

Features – Standard Definition Video

- 2x SDI Input and 4x SDI output - Encode 2 streams at one time and play up to 4 video streams at once
- Real Time DV25, MPEG-1, MPEG-2 (up to 50Mbps) and 10 bit Uncompressed Play and Record.
- MPEG-2 (4:2:0) and (4:2:2) Chroma sampling supported. DV (4:2:0), (4:1:1) and (4:2:2) Chroma sampling supported.
- MPEG-2 IMX™ and DVCPRO® 50 options available.
- I - Frame only, IP, IBBP and IB GOP structures supported.
- Variable resolutions supported up to 720x512(NTSC) or 720x608(PAL) including the ability to capture lines in the blanking interval.
- Bi-directional Video Play Speed at variable resolutions as low as 1% normal speed.
- SDI Serial Digital video selectable as video input or genlock source.
- SDI Serial Digital video input has jitter reduction allowing MerlinHD/Producer to be used as a SDI video Jitter Reducer in pass through mode. .
- Decodes four DV or MPEG-2 video streams with the ability to alpha blend 2 video streams in Real Time for doing elaborate scene transitions such as fades, wipes, dissolves, etc.
- Logo Inserter, Video Scalar and Video Color Space Converter built in.
- VITC and LTC reader/generator on input & output – usable on pass-through video.
- Transcode from MPEG-2 to DV and Uncompressed at real-time speeds.
- Fill / Key playback applications supported.
- Closed-Caption capture and insertion supported.

Standard Features – Audio:

- 2 programmable/bidirectional AES3 digital audio connections supporting PCM, S/P-DIF.
- Up to 8 channels of embedded audio per SDI video connection.

Standard Features – Software:

- Drivers available for Windows™ XP, OS/X™, Linux, and Solaris™. 64-bit Linux Driver Available.
- Windows™ SD batch encoding utility with VTR control, Confidence Monitor, Proxy Generation & Other Features. MPEG-2 Program & Transport Streams, Audio Remapping.
- Record/playback software available on all platforms.
- Software Development Kit with OpenML™ Support and Sample Code included.
- Support for Xilinx™ Virtex II Pro™ programming environment
- Multiple board installations supported across all platforms.