

SDI Video Input	2 x 12G-SDI Supports single link and dual link 4:2:2/4:4:4 and is 2D/3D switchable
SDI Video Output	2 x 12G-SDI Supports single link and dual link 4:2:2/4:4:4 and is 2D/3D switchable
Analog Video Input	1 x Component YUV on 3 BNCs switchable to S-Video or Composite Component supports HD and SD
Analog Video Output	1 x Component YUV on 3 BNCs switchable to S-Video and Composite Component supports HD and SD
HDMI Video Input	1 x HDMI type A connector (supports Ultra HD 4K 60p in 4:2:0)
HDMI Video Output	1 x HDMI type A connector (supports Ultra HD 4K 60p in 4:2:0)
Analog Audio Input	2 channels of professional balanced analog audio via XLR connectors
Analog Audio Output	2 channels of professional balanced analog audio via XLR connectors
AES/EBU Audio Input	2 channels unbalanced with sample rate converter
AES/EBU Audio Output	2 channels unbalanced
SDI Audio Input	16 channels embedded in HD/2K/4K 8 channels embedded in SD

SDI Audio Output	16 channels embedded in HD/2K/4K 8 channels embedded in SD
HDMI Audio Input	8 channels embedded in SD, HD, and Ultra HD
HDMI Audio Output	8 channels embedded in SD, HD, Ultra HD
Sync Input	Blackburst in SD, 720p50, 720p59.94, 1080i50 and 1080i59.94 formats or Tri-Sync in any HD format
Device Control	Sony compatible RS-422 deck control ports Serial ports TxRx direction reversible under software control
Computer Interface	PCI Express 8-lane generation 2, compatible with 8- and 16-lane PCIe with HDMI mezzanine card
Supported Codecs	AVC-Intra AVCHD Canon XF MPEG2 Digital SLR DV-NTSC DV-PAL DVCPRO50 DVCPROHD DPX HDV XDCAM EX XDCAM HD XDCAM HD422 Apple ProRes 4444 Apple ProRes 422 (HQ, 422, LT, & Proxy) Uncompressed 8-bit 4:2:2 Uncompressed 10-bit 4:2:2 Uncompressed 10 bit 4:4:4 Uncompressed 12-bit 4:4:4

Supported Applications	Apple Final Cut Pro X, Adobe Premiere Pro, Avid Media Composer, Adobe After Effects, Nuke - The Foundry, DaVinci Resolve, Avid Pro Tools, Steinberg Cubase, Autodesk Smoke, Adobe Photoshop, Steinberg Nuendo, Avid Symphony, Avid News Cutter, Tools On Air just:in & live:cut & just:play & just:live, Softron OnTheAir, MovieRecorder and OnTheAir CG, Flash Media Encoder, Wirecast, Livestream Procaster, Resolume Avenue 4, Sony Vegas Pro, Corel VideoStudio Pro X4, CyberLink Power Director, MAGIX Video Pro X4, Vidblaster Pro & Studio & Broadcast, Uniplay, Playbox AirBox, CasparCG, Magicsoft CG, Xsplit Broadcaster, Imagine Communications Velocity & InfoCaster
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SD Format Support	625/25i PAL, 525/59.94i NTSC
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HD Format Support	720p 50/59.94/60 1080i 50/59.94/60 1080PsF 23.98/24/25/29.97/30 1080p 23.98/24/25/29.97/30/50/59.94/60
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2K Format Support	2048 x 1080PsF 23.98/24/25 2048 x 1080p 23.98/24/25/47.95/48/50/59.94/60
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4K Format Support	3840 x 2160p 23.98/24/25/29.97/30/50/59.94/60 4096 x 2160p 23.98/24/25/29.97/30/50/59.94/60
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SDI Compliance	SMPTE 259M, SMPTE 292M, SMPTE 372M, SMPTE 435, ITU-R BT.656 and ITU-R BT.601
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SDI Metadata Support	VANC capture and playback using up to 3 lines of video in file HD RP188 Closed captioning
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Sampling	Video: 4:2:2, 4:4:4, and 4:4:4:4 Audio: Television standard sample rate of 48 kHz at 24 bit
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Color Precision	8/10-bit YUV 4:2:2 and 8/10/12-bit RGB 4:4:4 in HD, 2K, and 4K
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Color Space	REC 601, REC 709
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HDMI Configuration	HDMI automatically configures to connected display
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Deep Color Support	Yes
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Multiple Rate Support	HDMI and SDI video connections are switchable between SD/HD/2K and 4K Component analog video connections are switchable between SD and HD
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HDCP Compatible	No
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Colorspace Conversion	Hardware based real time on output
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3D Processing	Dual stream and frame packed capture & playback
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HD Down Conversion	Built-in hardware down converter
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outputs Ultra HD to HD or HD to SD downconverted signal on SDI B and SD on Composite and S-Video. Switch analog video to Component and choose HD or SD output. Selectable between letterbox, anamorphic 16:9, and center cut 4:3 styles.

HD Up Conversion

Built in hardware up conversion from SD to 720p or 1080p on playback. Selectable between 4:3 pillarbox, 14:9 zoom, and 16:9 zoom. HD outputs via HD-SDI, HDMI, and component analog.

Cross Conversion

Built-in hardware cross conversion from 720p to 1080p, 1080p to 720p on playback.

Real Time Effects

Apple Final Cut Pro internal effects
Adobe Premiere Pro CC Mercury Playback Engine effects
Avid Media Composer internal effects
DaVinci Resolve

Operating Systems Supported

Mac OS X 10.8 Mountain Lion, Mac OS X 10.9 Mavericks or later
Windows 7 64-bit or Windows 8 64-bit
Linux

Software Update

Firmware built into software driver; loaded at system start or via updater software

Physical Installation

PCI Express 8 lane generation 2, compatible with 8 and 16 lane PCI Express slots on Mac OS X, Windows, and Linux

Mac OS X systems require a Mac Pro computer with PCI Express slots

Operating Temperature 32 to 104°F (5 to 40°C)

Storage Temperature -4 to 113°F (-20 to 45°C)

Relative Humidity 0 to 90% non-condensing

Dimensions Depth: 6.69" (17 cm)

Weight 10.56 oz (299.37 g)

Packaging Info

Package Weight 1.9 lb

Box Dimensions (LxWxH) 8.85 x 6.1 x 3.15"
