

SDI Video Input	2 x 12 Gbps and 2 x 6 Gbps SD/HD/2K/4K Supports single/dual/quad link 4:2:2/4:4:4 2D/3D switchable
SDI Video Loop	4 x reclocked SD/HD/2K/4K linked to corresponding inputs
SDI Video Output	2 x 12 Gbps and 2 x 6 Gbps SD/HD/2K/4K Supports single/dual/quad link 4:2:2/4:4:4 2D/3D switchable
SDI Video Repeated Output	2 x 12 Gbps and 2 x 6 Gbps SD/HD/2K/4K Supports single/dual/quad link 4:2:2/4:4:4 2D/3D switchable
Optical Fiber Input/Output	Upgradeable to optional 2 x 12 Gbps Optical Fiber
HDMI Video Input	HDMI 2.0 type A connector with support for 2160p60
HDMI Video Output	HDMI 2.0 type A connector with support for 2160p60
Analog Video Input	1 x Component YUV on 3 BNCs, 1 x Composite NTSC/PAL on 1 BNC
Analog Video Output	1 x Component YUV on 3 BNCs, 1 x Composite NTSC/PAL on 1 BNC
SDI Audio Input	16 channels embedded in SD/HD/2K/4K

SDI Audio Output	16 channels embedded in SD/HD/2K/4K
HDMI Audio Input	8 channels embedded in SD/HD/4K
HDMI Audio Output	8 channels embedded in SD/HD/4K
Analog Audio Input	4 channels of professional balanced analog audio via XLR connectors and 2 channels of consumer unbalanced via RCA connectors
Analog Audio Output	4 channels of professional balanced analog audio via XLR connectors
AES/EBU Audio Input	2 channels unbalanced with sample rate converter on BNC connector
AES/EBU Audio Output	2 channels unbalanced on BNC connector
Mic Input	1 x 48 V microphone input via XLR connector Phantom power switchable via software control
Timecode Input	1 x XLR input
Timecode Output	1 x XLR output
Sync Input	1 x Reference input Blackburst in SD or Tri-Sync in HD
Sync Output	1 x Reference loop output Blackburst in SD or Tri-Sync in HD

Device Control	2 x Sony compatible RS-422 deck control ports Serial ports TxRx direction reversible under software control
Computer Interface	Thunderbolt 3, PCI Express
Power	2 x built-in international AC power supply with IEC C14 inlet 120-240 VAC, 50-60 Hz
Codecs	Supports: AVC-Intra, AVCHD, Canon XF MPEG2, Digital SLR, DV-NTSC, DV-PAL, DVCPRO50, DVCPROHD, DPX, HDV, HEVC, XDCAM EX, XDCAM HD, XDCAM HD422, Apple ProRes 4444, Apple ProRes 422 HQ, Apple ProRes 422, Apple ProRes LT, Apple ProRes 422 Proxy, Uncompressed 8-bit 4:2:2, Uncompressed 10-bit 4:2:2, Uncompressed 10-bit 4:4:4
Internal Software Upgrade	Firmware built into software driver Software driver loads upgrades at system start or via updater software
SD Format Support	SDI: 525/29.97 NTSC, 625/25 PAL HDMI: 525/29.97 NTSC, 625/25 PAL
HD Format Support	SDI: 1280 x 720p50, 1280 x 720p59.94, 1280 x 720p60, 1920 x 1080i50, 1920 x 1080i59.94, 1920 x 1080i60, 1920 x 1080PsF23.98, 1920 x 1080PsF24, 1920 x 1080PsF25, 1920 x 1080PsF29.97, 1920 x 1080PsF30, 1920 x 1080p23.98, 1920 x 1080p24, 1920 x 1080p25, 1920 x 1080p29.97,

1920 x 1080p30, 1920 x 1080p50,
1920 x 1080p59.94, 1920 x 1080p60

HDMI:

1280 x 720p50, 1280 x 720p59.94,
1280 x 720p60, 1920 x 1080i50, 1920
x 1080i59.94, 1920 x 1080i60, 1920 x
1080p23.98, 1920 x 1080p24, 1920 x
1080p25, 1920 x 1080p29.97, 1920 x
1080p30, 1920 x 1080p50, 1920 x
1080p59.94, 1920 x 1080p60

2K Format Support

SDI:

2048 x 1080PsF23.98, 2048 x
1080PsF24, 2048 x 1080PsF25, 2048 x
1080p23.98, 2048 x 1080p24, 2048 x
1080p25

Ultra HD Format Support

SDI:

3840 x 2160p23.98, 3840 x 2160p24,
3840 x 2160p25, 3840 x 2160p29.97,
3840 x 2160p30, 3840 x 2160p50,
3840 x 2160p59.94, 3840 x 2160p60

HDMI:

3840 x 2160p23.98, 3840 x 2160p24,
3840 x 2160p25, 3840 x 2160p29.97,
3840 x 2160p30, 3840 x 2160p50,
3840 x 2160p59.94, 3840 x 2160p60

4K Format Support

SDI:

4096 x 2160p23.98, 4096 x 2160p24,
4096 x 2160p25

HDMI:

4096 x 2160p23.98, 4096 x 2160p24

SDI Compliance

SMPTE 292M, SMPTE 259M, SMPTE
296M, SMPTE 372M, SMPTE 425M
level A, SMPTE 425M level B, ITU-R
BT.656, and ITU-R BT.601

SDI Audio Sampling

Television standard sample rate of 48

kHz and 24-bit

SDI Video Sampling 4:2:2, 4:4:4, and 4:4:4:4

SDI Color Precision 8, 10-bit YUV 4:2:2 and 8, 10, 12-bit RGB 4:4:4.

SDI Color Space REC 601, REC 709

SDI Configuration SDI output is configurable for Quad Link 3 Gbps via Blackmagic Desktop Video Utility. When using single link 12 Gbps on SDI A or dual link 6 Gbps on SDI A and B, SDI C and D will output down-converted HD.

SDI Metadata Support HD RP188
Closed captioning

HDMI Audio Sampling Television standard sample rate of 48 kHz and 24-bit

HDMI Video Sampling 4:2:2 and 4:4:4

HDMI Color Precision 10-bit RGB in HD, 10-bit YUV in 4K

HDMI Configuration HDMI 2.0 supports Deep Color and automatically configures to connected display

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.

Copy Protection HDMI input is unable to capture from copy protected HDMI sources.

Always confirm copyright ownership before capture or distribution of content.

Encoding

Hardware based real time H.265 encoder

Colorspace Conversion

Hardware based real time

3D Processing

Dual stream and frame packed capture and playback

Ultra HD Down Conversion

Built-in, high quality hardware down converter outputs Ultra HD to HD with down-converted signal on SDI outputs C and D

HD to SD Down Conversion

Built-in, high quality hardware down converter outputs HD to SD with down-converted signal on SDI output B, Component, and Composite NTSC/PAL. SD output selectable between letterbox, anamorphic 16:9, and center cut 4:3.

HD Up Conversion

Built-in, high quality hardware up conversion from SD to 720HD or 1080HD on playback. Selectable between 4:3 pillarbox, 14:9 zoom, and 16:9 zoom.

HD Cross Conversion

Built-in, high quality hardware cross conversion from 720p to 1080i and 1080i to 720p on playback.

Real Time Effects

DaVinci Resolve, Final Cut Pro X internal effects. Premiere Pro CC Mercury Playback Engine effects. Avid Media Composer internal effects.

Physical Installation	Requires computer with either a Thunderbolt port or available PCIe slot. PCIe cable and interface card available separately. Please check support pages to see the full system requirement.
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Operating Systems	Mac OS X 10.9 Mavericks, 10.10 Yosemite, 10.11 El Capitan or later Windows 8.1 or Windows 10
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Power Requirements	2 x built-in international AC power supply with IEC C14 inlet 120-240 V, 50-60 Hz
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Operating Temperature	41 to 104°F (5 to 40°C)
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Storage Temperature	-4 to 113°F (-20 to 45°C)
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Relative Humidity	0 to 90% non-condensing
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Dimensions	19 x 9.5 x 3.5" (48.3 x 24.1 x 8.9 cm)
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Weight	8.6 lb (3.9 kg)
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Packaging Info

Package Weight	10.25 lb
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Box Dimensions (LxWxH)	19.4 x 10.9 x 5.2"
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