

Blackmagic Design BMD-HYPERD/RSTEX4KHDR 4K HDR HyperDeck Extreme

Connections

SDI Video Inputs

- 1

SDI Video Outputs

- 3 (12G-SDI A and B plus 3G-SDI Monitor Out)

SDI Rates

- 270Mb, 1.5G, 3G, 6G, 12G.

HDMI 2.0 Video Inputs

- 1

HDMI 2.0 Video Outputs

- 1

Analog Video Inputs

- 1 x Component YUV on 3 BNCs,
- 1 x Composite NTSC/PAL on 1 BNC.

Analog Video Outputs

- None

Analog Audio Inputs

- 4 Channels of professional balanced analog audio via XLR connectors and 2 channels of consumer unbalanced via RCA connectors.

Built in Speaker

- Mono

Screen

- 7 inch 1920 x 1200. 2000 nit DCI-P3 100% HDR LCD

Timecode Connections

- 1 x XLR in and 1 x XLR out.

Reference Input

- Tri-Sync or Black Burst.

SDI Audio Inputs

- 16 channels embedded audio.

SDI Audio Outputs

- 16 channels embedded audio.

HDMI Audio Inputs

- 8 channels embedded audio.

HDMI Audio Outputs

- 8 channels embedded audio.

Remote Control

- 1 x RS-422 In, 1 x RS-422 Out.

Recorder Configuration

- Via user interface or Blackmagic HyperDeck Ethernet Protocol.

Ethernet

- 10Gb/s

External Recording

- 1 x USB-C 3.1 Gen 2 (up to 10Gb/s) for external disk recording.

Computer Interface

- 1 x USB-C for software updates.

Standards

SD Video Standards

- 525i59.94 NTSC, 625i50 PAL

HD Video Standards

- 720p50, 720p59.94, 720p60
- 1080i50, 1080i59.94, 1080i60
- 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60
- 1080PsF23.98, 1080PsF24, 1080PsF25, 1080PsF29.97, 1080PsF30

2K DCI Video Standards

- 1080p23.98 DCI, 1080p24 DCI, 1080p25 DCI
1080PsF23.98 DCI, 1080PsF24 DCI, 1080PsF25 DCI

Ultra HD Video Standards

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

4K DCI Video Standards

- 2160p23.98 DCI, 2160p24 DCI, 2160p25 DCI

SDI Compliance

- SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 424M, SMPTE 425M Level A and B, SMPTE 2081-1, SMPTE 2081-10, SMPTE 2082-1, SMPTE 2082-10 and SMPTE 2084.

SDI Metadata Support

- HD RP188 and closed captioning CEA-708. HDR Metadata supported on SDI.

Audio Sampling

- Television standard 24-bit, 48 kHz sample rate.

Video Sampling

- 4:2:2 YUV

Color Precision

- 10-bit

Color Space

- REC 601, REC 709, REC 2020. 33 point 3D LUTS can be applied via the LUTS menu tab.

Multi Rate Support

- Auto detection of SD, HD, 6G-SDI, and 12G-SDI.

Copy Protection

- HDMI input is unable to capture from copy protected HDMI sources. Always confirm copyright ownership before capture or distribution of content.

Media

Cache Recording

- Slot for optional M.2 PCIe NVMe card for cache recording up to 16Gb/s. 60mm 80mm and 110mm supported.

Media

- 2 x CFast 2.0 card slots and 1 x USB-C 3.1 Gen 2 expansion port for external recording of SD, HD, and Ultra HD.

Media Type

- CFast card and external USB-C flash drives.

Media Format

- Can format media to ExFAT (Windows/Mac) or HFS+ (Mac) file systems.

Supported Codecs

Video Codecs

ProRes HQ QuickTime, ProRes 422 QuickTime, ProRes LT QuickTime, ProRes Proxy QuickTime for all formats up to 2160p60. Playback only of ProRes 4444 QuickTime up to 2160p60 with auto routing of fill and key over SDI A and B outputs. DNxHD 220x, DNxHD 220x MXF, DNxHD 145, DNxHD 145 MXF, DNxHD 45, DNxHD 45 MXF for 720p and 1080p HD formats up to 60fps. DNxHR HQX, DNxHR HQX MXF, DNxHR SQ, DNxHR SQ MXF, DNxHR LB, DNxHR LB MXF for 2K DCI and 2160p formats up to 60fps. H.265 High 4:2:0 10-bit, H.265 Medium 4:2:0 10-bit, H.265 Low 4:2:0 10-bit for all 2160p formats up to 60 fps. H.264 SDI 4:2:2 10-bit, H.264 High 4:2:0 8-bit, H.264 Medium 4:2:0 8-bit, H.264 Low 4:2:0 8-bit for all formats up to 1080p60.

Audio Codecs

- AAC 2 Channels.
- PCM 2, 4, 8, 16, 32 or 64 Channels.

Scopes

- Waveform, RGB Parade, Vector and Histogram scopes in broadcast quality 10-bit.

Viewing Modes

- Picture in picture, picture overlay with opacity control. Waveform and RGB parade with standard and HDR graticules and Vector with zoom.

Computer Capture

- None

Control

Built in Control Panel

- Integrated capacitive touchscreen LCD with onscreen controls for settings and navigating menus.

External Control

- RS-422 deck control, SDI start/stop, timecode run. Includes Blackmagic HyperDeck Ethernet Protocol.

Software

Software Included

- Blackmagic OS
- Blackmagic HyperDeck Setup

Internal Software Upgrade

- Loaded at system start, or via Blackmagic HyperDeck Setup using USB port.

Operating Systems

- Mac 11.1 Big Sur,
- Mac 12.0 Monterey or later.
- Windows 10 and 11.

Displays

- Built in LCD for video, audio and timecode monitoring and menu settings.

Power Requirements

Power Supply

- 1 x Internal 100 - 240V AC.
- 1 x 4 pin XLR 12V DC IN for external power or battery use.

Power Usage

- 190W max.

Accessories

Optional Accessories

- HyperDeck Extreme Control
- HyperDeck Extreme Rack Kit

Physical Installation

- 3 rack units height, half rack width.

Environmental Specifications**Operating Temperature**

- 0° to 40° C (32° to 104° F)

Storage Temperature

- -20° to 60° C (-4° to 140° F)

Relative Humidity

- 0% to 90% non-condensing