

Blackmagic Design BMD-HYPERD/ST/DG4P HyperDeck Studio 4K Pro

Connections

SDI Video Inputs

- 1

SDI Video Outputs

- 2

SDI Monitor Outputs

- 1

SDI Rates

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

HDMI 2.0 Video Inputs

- 1

HDMI 2.0 Video Outputs

- 1

Built in Speaker

- Mono

Audio Output

- 1 x 6.35 mm headphone jack.

Screen

- 2.2 inch LCD.

Timecode Connections

- 1 x XLR In, 1 x XLR Out.

Reference Connections

- 1 x BNC In, 1 x BNC Out.
- 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

Computer Interface

- 1 x USB Type-C 3.1 Gen 2 (up to 10Gb/s) for external drive recording, webcam out, software configuration and 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

- 2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI, 2Kp29.97 DCI, 2Kp30 DCI

Ultra HD Video Standards

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

4K DCI Video Standards

- 4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 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, SMPTE 2084 and SMPTE 2108-1.

SDI Metadata Support

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

Supported HDMI Formats

- 525i59.94 NTSC, 625i50 PAL,
- 720p50, 720p59.94, 720p60,
- 1080i50, 1080i59.94, 1080i60,
- 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60,
- 2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI, 2Kp29.97 DCI, 2Kp30 DCI,
- 2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60,
- 4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI

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 to SDI monitor out.

HDR Support

- Hybrid Log-Gamma, ST2084 300, ST2084 500, ST2084 800, ST2084 1000, ST2084 2000, ST2084 4000, ST2084.

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

- 2 x 2.5 inch disc slots 2 x SD card slots 1 x USB-C 3.1 Gen 2 expansion port for external recording of SD, HD, 2K DCI, Ultra HD and 4K DCI.

Media Type

- SATA-II or SATA-III 2.5 inch solid state media. UHS-I and UHS-II SD cards.

Media Format

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

Supported 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 SDI 4:2:2 10-bit, 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.

Control

Built in Control Panel

- 16 buttons for transport and device control with search dial featuring electronic clutch and 2.2 inch color display.

External Control

- RS-422 deck control, SDI start/stop, timecode run. Includes Blackmagic HyperDeck Ethernet Protocol. Supports remote FTP file upload.

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 10.15 Catalina,
- Mac 11.1 Big Sur or later.
- Windows 10, 64-bit.

Displays

- Built in 2.2 inch LCD for video, audio and timecode monitoring and menu settings.
- LED bezel indicator lights around SSD media slots and LED indicator lights above the SD media slots.

Power Requirements

Power Supply

- 2 x Internal 100 - 240V AC 50/60Hz.
- 1 x 4 pin XLR 12V DC In for external power supply or battery use.

Power Usage

- 100 W max.

Physical Installation

- 1 rack unit height.

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