



**OVERVIEW** 

### **Convergent Design**

Abel Code: CD-ODYSSEY7Q+ Mfr. Code: 100-10003-100

### **Description**

Record, monitor, and playback your footage with the compact Odyssey7Q+ 7.7" OLED monitor/recorder. Features true blacks and the infinite contrast of an OLED display, plus it records Apple ProRes.

### **Key Highlights**

- OLED touchscreen display
- Records 4K HDMI
- Feature-rich recorder & monitor

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Record 4K via HDMI with the Convergent Design Odyssey7Q+ 7.7" OLED Monitor/Recorder. The Odyssey7Q+ features (4) SDI inputs, (2) SDI outputs, HDMI I/O for recording 4K, plus LTC and analog audio. Power with 6.4 to 34VDC or add a single or dual battery plate to expand your capture capabilities. It features two slots for SSD drives, that are available for separate purchase.

The generous 1280x800 resolution 7.7" OLED touchscreen display delivers easy access to user controls along the bottom of the screen to limit your menu scrolling, and conveys more detail during playback. Plus, as the display is an OLED and not an LCD, this recorder/monitor provides true blacks and infinite

contrast. Use the pre-programmed LUTs or load your own programmable LUTs into the Odyssey7Q+. Included in the menu design of the interface is the ability to prevent accidental change of your recording frame rate.

Monitor up to 4 cameras simultaneously with this high-end professional monitor/recorder. View the camera footage in a quad-split mode or switch between sources for a full screen experience.

Use the USB connection for software updates. The power connector, which accepts 6.4 to 34VDC with built-in reverse polarity protection, locks in place to prevent unplugging. Your AC can change media from the top without cable or other obstructions hindering the process.

With this recorder you can confirm your shots, apply and route LUTs, set markers, or let your clients or producer preview the footage you captured. The Odyssey7Q+ includes a number of image tools as well.



#### Image Tools in the Odyssey7Q+:

- Focus Assist Indicate elements within the frame to enhance an image with sharper edges. Three
  display modes are available to assist in defining focus: Peaking (highlights edges in image based on
  contrast), Reveal (more complex system to highlight sharper objects. Combine with Peaking.), &
  Enhance (artificially augment sharpness on the OLED display).
- Pixel Zoom Judge focus using an enhanced section of the image. 1:1 zoom and 2:1 zoom enlarge a select section of the image to a pixel-for-pixel crop. 1:1 shows a 1280x720 crop from a 2K/HD signal, 2:1 shows a 1280x720 crop from a 4K/UHD signal.
- Zebras Exposure tool to specify a particular brightness with the use of colored stripes where the
  underlying image remains visible in between the stripe lines. Zebra patterns can be: black, white, red,
  green, blue, yellow, cyan, or magenta. Select individual brightness with a high and low setting at a
  specific range or assign a Zebra pattern to turn off in that range. Overlap the ranges. Any unselected
  item will appear as is in the underlying image.
- Spot Meter Another exposure tool. This one targets a select portion of the image to present brightness or Luma as well as three separate color channels (red, green, and blue). You can display a single-measurement target, two-measurement targets, or eight-measurement targets. Use a graphic display to compare two target values side-by-side or the differential between them.
- *Histogram* A line graph exposure tool to identify brightness by volume of image across a horizontal plane with the graph progressing from low to high brightness. Helps analyze how bright an image is overall. Can review three color channels separated (RGB Parade), overall brightness (Luma), or individual color channels (red, green, and blue).
- Waveform Measures brightness throughout the frame. Choose overall brightness (Luma), RGB
  Parade, or individual color channels (red, green, and blue). The Waveform aligns left-to-right with the
  image. You can compare signals side-by-side using Multi-Stream Mode.
- False Color Uses alternate colors (red, yellow, pink, green, blue, and purple) to indicate various brightness in an image.
- Vectorscope Measures color spectrum in the video signal and analyzes imbalance between opposing hues of orange to blue and green to magenta.
- 3D LUTs Numerous 3D Look Up Table (LUTs) preset options are available to preview the LOG video outputs in standard REC709 contrast and color. You can also load LUTs. Odyssey7Q+ LUTs offer both the ability to indicate how an image would appear on a different type of display and also preview color grading decisions. (NOTE: See list of built-in preset 3D LUTs below)
- *Monochrome* Uses a grayscale to represent either the individual color channels (red, green, and blue) or overall brightness (Luma).
- Frame Guides Name and save up to four custom frame guides on the Odyssey7Q+. Presets include: 1.33:1, 1.85:1, and 2.39:1. You can set frame sides (left/right control) or frame lids (top/bottom control), plus link them together. Use of a rectangle eliminates lines outside the inner box. Color selection includes: white, black, red, green, blue, or yellow. Display up to four custom frame guides plus one preset frame guide at the same time.
- Anamorphic De-Squeeze Stretches the image horizontally to correct for use of optical anamorphic lenses. The image will appear as altered on both the OLED screen display and the SDI/HDMI outputs, but will not affect recording. Your options will be labeled in squeeze multiplier and displayed aspect ratio. The Full Frame option matches full width/height of recorded signal. You can also make use of extracted frames with Center Extraction options.



- Image Flip Disable or enable an automatic flip to match the orientation of the OLED screen so you can mount the Odyssey7Q+ in various ways.
- Hide Screen Should you require the OLED screen to be black instead of viewing the image or using the touch screen controls you can use the Hide Screen function. Simply tap the screen to reactivate it.

#### The Odyssey7Q+ includes Preset 3D LUTs (with industry standard .cube format):

ARRI\_EE\_LOG\_R709 — Standard Alexa LogC to Video LUT (camera default)

Blackmagic Design

BMD\_CC\_EE\_FILM\_V — Blackmagic Cinema Camera LUT from DaVinci Resolve (Version 2)

BMD\_PC\_EE\_FILM\_V2 — Version 2 Blackmagic Production Camera 4K LUT from DaVinci Resolve

Canon\_EE\_709\_LOG\_WDR — Canon Log/Rec.709 to Wide Dynamic Range Rec.709

Canon\_EE\_Cin\_LOG\_WDR — Canon Log/CinemaGamut to Wide Dynamic Range Rec.709

PANASONIC\_EE\_LOG\_709 — Duplicate of the ALEXA Rec.709 LUT

RED\_EE\_RLF\_RG3 — REDlogFilm to REDgamma3 with color space as input, e.g. REDcolor3

SONY\_EE\_Slog1\_R800 — S-Log1 to Rec.709 (800%) with no color space change, matching the incamera MLUT

SONY\_EE\_Slog2\_LC709A — Alexa style Low Contrast Rec.709, converted from the Sony original to Extended range in and out, to match the in-camera MLUT

SONY\_EE\_Slog3C\_L709A — Alexa-style Low Contrast Rec.709, converted from the Sony original to Extended range in and out, to match the in-camera MLUT

SONY\_EE\_Slog2\_R800 — S-Log1 to Rec.709 (800%) with no color space change, matching the incamera MLUT

SONY\_EE\_SL2\_L709A-1 — S-Log2 to Rec.709 when rating the FS700 at 1000ISO (1 stop over)

SONY EE SL2 L709A-2— — S-Log2 to Rec.709 when rating the FS700 at 500ISO (2 stops over)

SONY\_EE\_SL3C\_L709A-1 — S-Log2 to Rec.709 when rating the FS7 at 1000ISO (1 stop over)

SONY\_EE\_SL3C\_L709A-2 — S-Log2 to Rec.709 when rating the FS7 at 500ISO (2 stops over)



Recording on the Odyssey7Q+ includes the formats Compressed, Uncompressed, and Supersampling:

#### **Compressed Recording:**

Record 4K (4096x2160), UHD (3840x2160), 2K (2048x1080) and HD (1920x1080, 1280x720) Video in Apple ProRes 422 (HQ) over SDI. The Odyssey7Q+ can record 4K/UHD 10-bit or 1080p60 10-bit over HDMI.

4K/UHD 10-bit YCC 4:2:2 up to 30fps in Apple ProRes 422 HQ, 422, 422 LT

2K/1080p 12-bit RGB 4:4:4: up to 30fps in Apple ProRes 4444 Regular and XQ

2K/1080p 12-bit RGB 4:4:4: up to 60fps with Canon C500 in Apple ProRes 4444 Regular and XQ

2K/1080p 10-bit YCC 4:2:2 up to 60fps in Apple ProRes 422 HQ, 422, 422 LT

1080i 10-bit YCC 4:2:2 up to 60i in Apple ProRes 422 HQ, 422, 422 LT

720p 10-bit YCC 4:2:2 up to 60fps in Apple ProRes 422 HQ, 422, 422 LT

#### <u>Uncompressed Recording:</u>

Record 2K (2048x1080) and HD (1920x1080) Video in 12-bit or 10-bit uncompressed DPX files.

2K/1080p RGB 10/12-bit 4:4:4 up to 30fps in DPX file format

1080p RGB 10-bit 4:4:4 up to 60fps in DPX file format

#### **Supersampling:**

An HDMI-based 4K (4096x2160) or UHD (3840x2160) video signal can be supersampled in real time in the Odyssey7Q+ to a 2K (2048x1080) or HD (1920x1080) video signal and recorded in Apple ProRes (HQ, 422, or LT). The resulting images out-resolve the 2K/HD image that many smaller cameras can produce internally. Another advantage is if the camera is limited to 8-bit output, the Odyssey7Q+ supersampling will result in a pseudo-10-bit color sampling for improved color reproduction.

Record Options for specific cameras, include:

#### **ARRI ALEXA ARRIRAW**

ARRIRAW (16:9) up to 60fps



4K/UHD RAW up to 60fps (30fps for C300 Mark II)

2K/HD 12-bit up to 30fps

QHD RAW up to 30fps (C300 Mark II only)

4K RAW to 4K Apple ProRes up to 30fps (C300 Mark II only)

QHD RAW to UHD Apple ProRes up to 30fps (C300 Mark II only)

#### Sony FS RAW (FS7/FS700)

4K RAW up to 60fps

2K RAW up to 240fps

4K RAW to 4K/UHD Apple ProRes up to 60fps

4K RAW to HD Apple ProRess up to 240fps

4K RAW Burst to 4K/UHD Apple ProRes at 100 and 120fps (FS700 only)

NOTE: ARRIRAW above 30fps, Canon RAW 50/60fps, and Sony FS 2K RAW 200fps and 240fps require two SSDs

While the Odyssey7Q+ and all other monitor/recorders by Convergent Design are drop tested, you might want to consider adding a case for protection.

Convergent Design designs and builds their monitor/recorders in the United States.

#### Firmware Update v2018.03

<u>Download the Firmware Update v2018.03 for your Convergent Design Odyssey</u> from the manufacturer site (you will need to log into their system).

With this firmware update, Convergent Design has expanded support for the new Samsung 860 EVO (1TB) and 860 Pro (512GB and 1TB) SSD media.

NOTE: Samsung 850 Pro (128, 256, 512GB and 1TB) and 850 EVO (1TB) are also supported.

In addition, v2018.03 provides you with the following fixes and improvements for your Odyssey:

- Fixed Rare CanonRAW -> Apple ProRes frame issue
- Fixed Rare CanonRAW -> Random Touches
- Fixed Rare ARRIRAW -> Random Touches
- Improved Sony 2K FS RAW -> 2K/HD Apple ProRes recordings



- Improved Playback Scrubbing artifacts of RAW recordings
- Fixed Apple ProRes Playback Quality with interlaced recordings
- Fixed Playback Scrubbing artifact in lower right corner
- Fixed issues associated with Computer Generated images
- Improved Voltage Display Accuracy
- Improved Playback Quality with all Apple ProRes Recordings
- Improved Detection of 4K 50/60p signals
- Also, Restore Defaults are now automatically performed on power-up immediately after a firmware update (a dialog box alerts you when this happens). Please note settings before updating, and adjust settings as needed after updating.

### WHAT'S IN THE BOX

Convergent Design Odyssey 7Q+ 7.7" OLED Monitor/Recorder

### **SPECIFICATIONS**

### KEY HIGHLIGHTS

- OLED touchscreen display
- Records 4K HDMI
- Feature-rich recorder & monitor
- Offers Image tools & preset 3D LUTs

### CABLE

Cable Features: 1 x Mono

## **INPUTS & OUTPUTS**

Audio I/O: 1 x Audio Input - 3.5mm (2-channel unbalanced or 1-channel balanced input up to

-10 dB, 48 kHz, 24-bit)

## **MONITORS**

Monitor Resolution: 1280x800 (High Def)

**Monitor Input:** 

1 x HDMI - Mini

2 x 3G/HD/SD-SDI - BNC

**Monitor Size:** 

7.01"-9.99"

**Monitor Power:** 

VDC - 6.5 to 34

Monitor Audio

Embedded Audio - 2-channel (48 kHz, 24-bit)

**Options:** 



Monitor Type: OLED

**Display Functions:** Timecode - LTC I/O BNC or embedded via SDI/HDMI

## RECORDING

**Recording** UHD 4K 16:9 - 10-bit YCC 4:2:2 up to 30fps in Apple ProRes 422 HQ, 422, 422

Resolution:

Recording Format: Apple ProRes 4444 Regular and XQ - 2K/1080p 12-bit RGB 4:4:4: up to 30fps

Apple ProRes 422 LT - 4K/UHD 10-bit YCC 4:2:2 up to 30fps; 2K/1080p 10-bit

YCC 4:2:2 up to 60 fps; 1080i 10-bit YCC 4:2:2 up to 60 fps

## **SHIPPING**

Width: 7.4 in

Height: 2.3 in

Length: 11.5 in

Weight: 2.5 lb