

# AJA HDR Image Analyzer 1RU Device for Real Time HDR Analysis with Waveform/Histogram and Vectorscope Monitoring

HDR Image Analyzer delivers a comprehensive array of tools for the effective analysis of the latest HDR standards - including HLG, PQ and Rec.2020 - from 4K/UltraHD/2K/HD content in a convenient real time 1RU device.

Developed in partnership with Colorfront, AJA HDR Image Analyzer supports a wealth of inputs from camera LOG formats to SDR (REC 709), PQ (ST 2084) and HLG and offers color gamut support for BT.2020 alongside traditional BT.709. AJA hardware prowess ensures high reliability and performance, with 4x 3G-SDI input and output, and DisplayPort connections.

Specifically designed to be used wherever needed, the 1RU form factor fits into a range of environments, providing the confidence you need for consistent and predictable HDR production and mastering.

## HDR Monitoring with HDR Analyzer

HDR production demands a reliable and predictable tool for monitoring and analyzing all the steps in the process, to ensure that your artistic vision is followed from camera to the end user's final display.

AJA's HDR Image Analyzer ensures that you are fully in control of your technical choices as you capture, pass on and deliver your HDR/SDR materials.

HDR Image Analyzer offers powerful monitoring and analysis for:

- Live Production
- DIT Pipelines
- Broadcast Monitoring
- Postproduction
- QC (Quality Control)
- Final HDR Mastering

## Input Support: From Cameras to HDR/SDR

Modern cameras are inherently HDR capable with their wide dynamic ranges, and for live events, recording and broadcasts, it's crucial to monitor their dynamic range and gamut outputs being employed for HDR delivery.

With input support for both leading camera LOG formats as well as SDR, HLG and PQ monitoring from a range of sources, HDR Image Analyzer takes the pain out of HDR monitoring. With a wide range of analysis tools and automatic error logging with timecode stamping, HDR Image Analyzer ensures your production achieves the desired final results.

## Camera Support

- ARRI®
- Canon®
- Panasonic®
- RED®
- Sony®

## Color Gamuts

- BT.2020
- BT.709

## Dynamic Range Inputs

- SDR (REC 709)
- PQ (ST 2084)
- HLG

## Video I/O

- 4x 3G-SDI I/O up to 4K/UltraHD 60P
- SDI Auto Signal Detection
- DisplayPort for UI, up to UltraHD 60p

## HDR Analysis Tools

Included in AJA's HDR Image Analyzer's toolsets are waveform, histogram and vectorscope monitoring, plus a host of essential image analysis features such as, nit light level meter, out of gamut false color mode, error logging, pixel picker, framestore with split screen, line mode, and audio phase metering. HDR Image Analyzer also includes built-in support for the most prevalent camera color spaces including ARRI®, Canon®, Panasonic®, RED® and Sony®.

- Waveform
- Histogram
- Vectorscope
- Color Gamut
- Nit Light Level

- File Based Error Logging with Timecode
- Data Analyzer with Advanced Pixel Picker
- Advanced, Out of Gamut and Out of Brightness Detection with Error Tolerance

## **Camera Log Inputs**

HDR Image Analyzer provides direct input for a range of Camera LOG inputs, allowing direct connections from the world's leading camera manufacturers for immediate analysis of production feeds.

## **Video Resolution**

Address your video resolution setup with quick access from the Video - Resolution menu, with easy access for RGB, YCbCR and Quad split vs 2SI configurations.

## **Choose Setups**

Setups can be saved and recalled quickly when moving between projects and tool configurations.

## **Scene Capture**

Scenes can be captured for quick recall and saving to be shared with others for a visual representation of any issues that need to be addressed.

## **Color Space**

Several different color spaces can be utilized for analysis including 709, P3, XYZ and 2020 as well as camera native colorspace.

HDR Image Analyzer also offers an Auto HDR mode change for automatic HDR color space triggering when possible.

## **Waveform Lumi Color**

HDR Image Analyzer offers a range of views for waveform representations including Waveform Lumi Color. Waveform Lumi Color offers a gorgeous combination of both luminance and colors in the project's color space.

## **Vectorscope**

Vectorscope displays the color saturation of each pixel in the video frame, with the middle of the circle indicating a lower saturation level, and the edge of the circle indicating a higher saturation level.

## **Vectorscope Targeting**

The vectorscope additionally offers a zoom feature and a skin tone line, whose value can be manually set as desired, especially useful for ensuring consistent skin tone results for sequence work and camera matching.

## **Whitepoint**

HDR Image Analyzer allows you to set a white point relevant for the project at hand. Choose between DCI, D65 or simply turn off.

## **CIE XY Gamut View**

In HDR mode the CIE XY Gamut View can be used to check the encoded colors, and whether they are within the valid limit of color range. This is relevant when working in the Rec.2020 color space where the actual pixels are supposed to be limited to the P3 color gamut.

## **False Color - Gamut Warning**

Out of Gamut False Color mode provides a clear visual representation of areas of your image that may present a problem. The results can be saved automatically within your logged files for QC needs.

## **Pixel Picker**

Precision is key and HDR Image Analyzer make it simple. Glide your mouse across your footage and use the Pixel Picker to give you a read out of the exact pixels Nit level, Hex or Decimal code values.

## **Logs**

HDR Image Analyzer can detect P3 Gamut violations and brightness violations in HDR events and logs them with time stamps in a log file and on screen. Log files can then be collected for sharing with your team as necessary.

## **Timecode**

Timecode may be overlaid on screen to assist with quickly identifying any areas of concern at particular moments in a sequence or shot.

## **Audio Metering**

An audio level meter is included for up to 16 channels of metered monitoring and display of peak DB levels. An audio

phase meter can also be configured to display either 2-Ch (stereo) or 8-Ch (surround) audio. Audio Level Warnings may be set to generate notes into your logs.

### **Analyzer Gain**

Analyzer Gain allows you to increase or decrease the gain put out to your display simplifying your ability to monitor critical items with dark footage in particular.

### **Workflow**

Working with the HDR Image Analyzer is simple.

Connect your sources across the 4x 3G-SDI inputs and loop through to monitors or further in your pipeline with the 4x 3G-SDI outputs.

Connect an UltraHD display (up to 60p) from a DisplayPort connection for best viewing of both the footage and the HDR Image Analyzer interface - if necessary the DisplayPort can drive an HDMI HDR monitor with a DisplayPort to HDMI adapter.

### **Extended Features**

High raster imagery deserves a high raster interface for keeping a critical eye on your aesthetic elements as you analyze your materials for HDR. HDR Image Analyzer, provides pristine imagery and the ability to hone in on the smallest details for an accurate analysis of your materials:

- High quality, ultra precise UltraHD user interface for native resolution picture display
- Line Mode: Focus Region of Interest onto a single Horizontal or Vertical line
- Still Store
- Out of Gamut, Brightness, False Color Mode, Audio Levels, and Phase Metering