








LIVE | Real-Time High Dynamic Range Video



With **amp's** patented HDR cameras you get images that are always perfectly exposed, capturing the entire light range in every frame. By expanding the contrast ratio and color palette compared to standard video cameras, **amp** allows for a more realistic and natural video experience, enhancing all the details of a given scene. This remarkable technology provides live, real-time HDR capabilities for a wide variety of digital video applications.

-  **Defense** - Capture images under challenging light conditions and track key assets with unparalleled detail.
-  **Process Control** - High-confidence object-detection against challenging backgrounds, day or night.
-  **Industrial** - Real-time capture and display of all light levels provides exceptional detail to improve process and safety.
-  **Remote sensing** - Capture critical science or industry images in challenging environments with true color.
-  **Medical** - Enhance crucial details for surgeons, even when illumination levels are quickly changing.

Founded in 2016, **amp Cameras LLC**, brings real-time HDR Video systems into the mainstream. Our team has pioneered unique optical designs and analysis, camera systems, real-time image processing, embedded engineering, programming and manufacturing solutions. The **amp** technology is covered by 4 issued US patents, 1 issued foreign patent, and 5 US patents pending for HDR imaging technology.



JOULE SPECS

Resolution	720p60, 720p240*, 1080p120*, 4K2K*
Dynamic Range	13 stops
Output	HD-SDI, HDMI 2.0*
Power Input	12V @ 1A
Mechanical	3.6 x 2.8 x 2.1 inches (does not include lens)
Weight	0.75 lbs
HDR TV/Monitor	Streaming, Live Output*

Interface	Custom amp GUI via Bluetooth*
Tone Mapping	On-the-fly access to up to 5 TMOs
White Balance	Manual and Auto
Other Interfaces	Bluetooth®, WiFi, Image Flip
Lens	C-mount
Focal Lengths	2.8mm, 4mm, 8mm, 15mm and 25mm

*Coming Q1, 2017.

ADDITIONAL, REAL-TIME ADJUSTABLE HDR IMAGE PARAMETERS

Individual Sensor or HDR Blend	Contrast
Tone Map Selection	Sharpness
Gamma	Saturation
Auto TMO and Setting Save	Key Value (knee)
Sensor Gain	TMO Adaptation Time (flicker control)
Brightness	Snapshot and Burst Mode HDR Capture