



HIGH SPEED



Main Features

120 FPS

In response to feedback from end users and the rapid take-up of the ARRI ALEXA camera system on professional productions of all kinds, ARRI has created a High Speed mode that allows the ALEXA family of cameras to run from 60 to 120 fps with Apple ProRes codecs, using newly released Sony 64 GB SxS PRO cards that offer a write speed more than twice as fast as the current 32 GB cards.

The 120 fps feature will become available with the upcoming release of ALEXA Software Update Packet (SUP) 5.0 and the introduction of Sony's new 64 GB SxS PRO cards. Like the ALEXA anamorphic de-squeeze feature, 120 fps functionality can be activated with the purchase of a license. Each license is coded to a particular camera and can be enabled by copying the license to an SD card and loading it into the camera. Licenses can also be disabled, allowing rental facilities control over which cameras are sent out with the High Speed mode.

New High Speed license

- Shoot slow motion with ALEXA
- Eliminates the expense of a separate high speed camera
- 60 to 120 fps for Apple ProRes codecs up to 422 HQ
- Regular to High Speed switch in 40 seconds
- Requires Software Update Packet (SUP) 5.0

Same ALEXA exceptional image performance

- Unsurpassed exposure latitude
- High sensitivity
- Natural skin tones
- Organic, film-like image quality

Same sensor area as Regular Speed mode

- Same Super 35 cinematic depth of field
- Same Super 35 angle of view for all lenses

High Speed mode: 4:2:2 outputs

- REC OUT = MON OUT
- no ARRIRAW, no ProRes 4444

Requires new SONY SxS PRO 64 GB card

- Available from ARRI in October 2011
- Built to the same professional reliability and environmental standards as existing SxS PRO cards
 - Operating temperature: -25° to 65° C/-13° to 150° F
 - Shock: 1500G, Vibration: 15G, drop tested to 1.5 m
 - Entire memory capacity factory tested for each card
 - The same high end memory technology as SxS PRO 32 GB cards for a high number of read and write cycles (= long card life)
 - High read and write speed is maintained over the lifetime of the card
- Tough, small recording medium with data rates like SSDs
- High data rate allows ProRes 422 HQ at 120 fps when in High Speed mode
- High data rate allows ProRes 4444 at 60 fps even in Regular Speed mode without license
- Full card can be copied in under 7 minutes (from card slot on 17" MacBook Pro to a Thunderbolt RAID)

Once the license is installed, the camera can be switched from Regular Speed mode to High Speed mode in about 40 seconds without rebooting, thereby radically re-configuring the internal image processing chain for much higher data throughput. At the same time, High Speed mode maintains ALEXA's exceptional image performance of unsurpassed, artifact-free 14 stops exposure latitude, high sensitivity, natural skin tones and organic, film-like image quality.

In High Speed mode, shooting slow motion images from 60 to 120 fps is possible with Apple ProRes codecs all the way up to ProRes 422 HQ. The APPLE ProRes codec is an essential element of ALEXA's new 120 fps recording capability. The combination of ALEXA image and build quality with APPLE's codec and editing technology has succeeded in delivering a trustworthy solution for a digital capture market in which quality, ease of use and reliability are critical parameters of choice for producers, directors and camera operators alike. ARRI's integration of the APPLE ProRes codec for ALEXA in-camera recording is still a unique solution within the industry.

Since the ALEXA High Speed mode uses the same number of pixels and the same Super 35 sensor area as Regular Speed mode, the images keep the same cinematic shallow depth of field and the same angle of view remains for all lenses; a 50 mm lens in Regular Speed mode results in exactly the same image as a 50 mm lens in High Speed mode. To achieve those high data rates, High Speed mode outputs all images in 4:2:2 so the REC OUT becomes another MON OUT and neither ARRIRAW nor ProRes 4444 are available.

Recording such high data rates requires the use of SONY's new SxS PRO 64 GB cards (SBP-64A) that will be available from ARRI in October 2011. These cards are built to the same tough reliability and environmental standards as the SxS PRO 32 GB cards while offering twice the recording capacity and extremely high data rates. The blazingly fast write speeds allow recording of ProRes 422 HQ at 120 fps in High Speed mode on the set, while the fast read speeds allow copying a full 64 GB card from the card slot of a 17" MacBook Pro to a Thunderbolt RAID in less than 7 minutes. The use of Single Level Cell (SLC) memory technology assures that the cards maintain their high data rate during their entire life. This is essential for dependable on-set use and offers a significant advantage over lower cost and less reliable SSD recording solutions. Even without the High Speed license the SxS PRO 64 GB cards allow recording of ProRes 4444 at 60 fps. The environmental robustness, high data rates, high reliability and small size of the SxS PRO 64 GB cards make them the perfect recording medium for the ALEXA family of cameras.

Having full quality 120 fps functionality available on ALEXA cameras will be of tremendous benefit to a range of different production types. It gives directors and cinematographers the opportunity to create slow motion images without the cost, time and effort of having to get a specialized high speed camera to the set. In simple terms this means greater creative freedom, which is the guiding principle of the ALEXA system.

