

# SHOGUN STUDIO

WORLD'S FIRST ALL-IN-ONE 4K/HD, 2CH, DUAL 7" 3RU RACK  
RECORDER, MONITOR AND PLAYBACK DECK.



PRODUCT INFO SHEET - SEPTEMBER 2015



# REINVENT THE RACK



Harnessing the latest recorder, monitor and playback technology with class leading Atomos usability and affordability, the Shogun Studio has everything needed for Live Event, Studio, On-set and Broadcast professionals.

- 1 4K, 1080p60 recording to popular professional codecs.
- 2 Utilize the 2 channels for dual codec, dual resolution recording
- 3 Scheduled playback and record via Ethernet, Serial & on-screen.
- 4 Class leading monitors & test measurement for perfect 4K viewing & set up on built-in HD monitors.
- 5 Powerful & intuitive AtomOS offers one touch simplicity for any operator
- 6 Utilize the Atomos Master Caddy for reliable, affordable open standard media
- 7 Continuous built-in HDMI and SDI convertor with down scaling for 4K to 2K/HD to match your infrastructure.
- 8 Dual IEC c14 PSUs to integrate with your rack power distribution system.

## PRO AV

With play list functionality & control via RS422, Ethernet or on screen, the Shogun Studio is an affordable 4K & HD play out engine for video walls, signage and projection.

Additionally, with dual channel play out capability over HDMI or 1.5/3/6/12G SDI, Genlock and 4K to HD down scaling the Shogun Studio can be used to provide scheduled, synchronized 4K, 2K and HD simultaneous play out to high resolution projector, jumbotron or signage systems.

## MOBILE PRODUCTION

With rack space at a premium and resolution on the rise, Mobile Production professionals will welcome the ability to record, monitor, test, measure, convert and play out from a single 3RU device.

Dual codec, dual resolution recording maximises the flexibility in mobile situations. Combine the ability to record 4K resolution ISO feeds with a hardware down converted HD proxy version, record ProRes on one channel and DNxHR on the other or even playback and convert from one codec/resolution combination to another. Connecting to infrastructure is simple as well with built-in HDMI and SDI conversion that is bi-directional. Shogun Studio is ready for the 4K future, but 4K acquisition doesn't have to mean 4K delivery – when 4K can be achieved on a HD budget and you have the capability to downscale or record codec to suit you have the perfect product now and for the future in the tight space of Mobile production.

## EVENT

Shogun Studio solves many of the problems faced by multi camera events with long run times. Our Master Caddy delivers affordable & reliable media while features like time lapse, pre-roll cache & 4K/HD simultaneous recording make this the perfect choice for Event professionals.

Our open approach with media means you record up to 2.5 hours of 4K 30p or 5 hours of 1080p60 onto a single 1TB SSD, keeping media costs less than \$150 per hour you can also link the two channels to utilize continuous recording. The Shogun Studio has the ability to then monitor the input, view waveforms/scopes, setup complex time lapses and simultaneously record a proxy - under pinned with the safe guard of pre-roll cache recording (8 sec for HD / 2 sec for 4K) to ensure you never miss the action. You can even record presentations from PC, MAC and Mobile devices.

## SECURITY

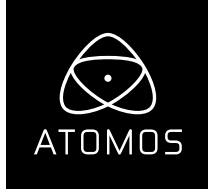
In security applications a wide angle lens on a 4K camera can mean a single camera replaces the equivalent of 4 x HD cameras. The Studio Shogun, with its long record time, time lapse, record scheduling and monitor zoom capability makes it the perfect weapon for 4K security applications.

In ProRes LT at 25 FPS the Shogun Studio can record 6 hours of Ultra High Definition 4K per channel, this not only provides superior resolution but also an increase in the number of frames captured per second providing a more finite approach to high resolution security recording. In applications where the additional frames aren't important, the timelapse functionality can be set up to record specific frames at specific points over a specified duration. All of this can be reviewed on the dual 7.1" Full HD monitors and easily zoomed in for closer inspection of areas of interest.

## ON SET / DIT

Shogun Studio in the rack of a DIT cart arms the set with the fastest path from acquisition to editing by recording direct to 10-bit 422 ProRes or DNxHR. The 3RU chassis provides dual record channels and class leading monitoring with test measurement for the highest quality 4K/2K/HD viewing and setup.

For color analysis, the RGB and Vector scopes provide real time feedback and can be overlaid in several positions on the color accurate 7.1" 323ppi Full HD monitor. You can double check focus pulls with 2:1 zoom, focus peaking with edges only view and 8 LUT slots on board, plus an infinite number on disk. These decisions can be made with the confidence you are using a 100% sRGB factory calibrated monitor that can be calibrated in the rack using the optional Spyder unit. Outside of monitoring, DIT's can start the editing process on set with favourite and reject tagging to start the formation of a play lists and edit decisions for XML export.



# SHOGUN STUDIO - PRODUCT INFO SHEET

PRODUCT INFO SHEET - UPDATED SEPTEMBER 2015



SPECIFICATIONS		SHOGUN STUDIO	
<b>Weight &amp; dimensions</b>			
Weight	5.0kg / 11lb		
Rack height	3Ru		
Rack mounting	Removable rack ears		
Dimensions (W x H x D mm)	447 x 152 x 251mm, 17.6 x 6.0 x 9.9" (without rack ears) 490 x 152 x 251mm, 19.3 x 6.0 x 9.9" (with rack ears)		
Construction	Steel construction for durability		
Cooling	Actively controlled fan with heat sinks		
<b>Power</b>			
Operating power	20 - 60W		
Redundant PSU	Yes		
Compatible batteries	No		
Input voltage (battery)	-		
DC Out	No		
Continuous power * Patent pending	-		
<b>Touchscreen</b>			
Size	7.1"		
Resolution	1920 x 1200		
PPI	320		
Aspect ratio	16:9 native		
Color standard	Rec.709 HDTV		
Look up table (LUT) support	3D LUT (.cube file format)		
Technology	SuperAtom IPS panel (capacitive touch), calibration to Rec.709 with optional Atomos Spyder		
Video analysis tools	Luma waveform, RGB parade, Vectorscope, Vectorscope zoom		
Calibration	Calibration in factory to Rec.709, in field calibration with optional Spyder		
<b>Video input/loop out</b>			
HDMI	1 x HDMI (1.4b) per channel		
SDI	1 x 4K-SDI 12G/6G or HD-SDI 3G/1.5G (SMPTE) per channel		
Signal	Uncompressed true 10-bit or 8-bit 422 (camera dependent)		
<b>Video output (play out)</b>			
HDMI	1 x HDMI (1.4b) per channel		
SDI	1x 4K-SDI 12G/6G or HD-SDI 3G/1.5G (SMPTE) per channel		
Signal	Uncompressed true 10-bit or 8-bit 422 (playback file dependent)		
<b>Supported formats (Record &amp; Playback)</b>			
4K - DCI RAW 4096x2160 to Supported cameras; Sony FS700, FS7 Canon C300MKII, C500	Apple ProRes HQ, 422, LT	DNxHR HQX, HQ, SQ, LB	
4K-UHD 3840x2160 8/10-bit 4:2:2 to	Apple ProRes HQ, 422, LT	DNxHR HQX, HQ, SQ, LB	
1920x1080 8/10-bit 4:2:2 to	Apple ProRes HQ, 422, LT	DNxHD 220x, 220, 145, 36	
1280x720 8/10-bit 4:2:2 to	Apple ProRes HQ, 422, LT	DNxHD 220x, 220, 145, 36	
<b>Onboard processing</b>			
Pulldown removal	24/25/30pSF > 24/25/30p (2:2 pulldown) 60i > 24p (3:2 pulldown)		
HDMI <-> SDI conversion	Yes - Always on		
4K - UHD to HD downscale	On HDMI/SDI loop out (Rec & Playback)		

SPECIFICATIONS		SHOGUN STUDIO	
<b>Audio in/out (48kHz PCM audio)</b>			
HDMI	2 or 8ch 24-bit, camera dependent		
SDI	12ch 48kHz 24-bit		
Analogue audio	2 x XLR in & 2 x XLR out on rear per record channel. Mic or line level with phantom 48V		
Processing	Gain control on line in & headphone output		
Maximum audio quality	24-bit, 48kHz		
Audio delay	Delay setting +1 to 99 frames		
<b>Remote control</b>			
HDMI	Auto HDMI Trigger Supported Protocols - Canon, Sony, Atomos Open Standard		
SDI	SDI trigger camera selectable		
RS422	Sony RS422 machine control		
AMP	via Ethernet RJ45 10/100		
Serial	Calibration (front)		
<b>Timecode</b>			
HDMI	Embedded timecode from camera or video device		
SDI	Embedded timecode from camera or video device		
LTC In	Yes (LTC loop back)		
GenLock In	Yes (GenLock loop back)		
<b>Playback</b>			
Playlist	Yes (run down or reverse order) for selected, favorite or all clips		
Playback options	Loop in & out markets		
<b>Recording</b>			
Dual channel	Record 4K master with HD proxies. Record both ProRes & DNxHR versions, independent dual channel record.		
Continuous record	Single channel 4K / HD recording automatically switches between drive when at capacity		
Pre-roll record	Yes (HD 8s, 4K 2s)		
Custom timelapse	Yes (Key frameable up to 10 video and single frame Intervals, can be triggered from internal clock).		
Meta data tagging	Yes (10 tags available)		
<b>Recording media</b>			
Drive slots	2 (1 per record channel)		
Drive connection types	SATA		
Supported media (Approved List Only)	4K / HD (50/60/120p*) CFast 2.0, SSD 2.5", HDD (HD 50/60 only - 7,200 up to 1080p60) HD CFast 1.0, SSD 2.5", HDD (5,400 up to 1080p30)		
Master caddy case	Master Caddy II (included) 75mm x 105mm x 12mm		
Master caddy dock	2.5" SATA to USB 2.0/3.0		
Supported applications	Supported Applications FCPX/FCP7+ / Media Composer 5.0+ / Premiere 5.5+ EDIUS 6.0+ / Vegas Pro 10+ / Lightworks / Autodesk Smoke 2015		
XML support	FCPX XML native, FCP7 supported with conversion (Adobe compatible)		
Accessories included	Shogun Studio, Removable Rack ears, 6G SDI loop cable, HDMI full to full Loop cable, 2 x IEC C, 2 x Master Caddy II, Docking station & leads		
Optional extras	Master Caddy II x 5, Spyder calibration		
Warranty	1 year. Extended to 3 years on product registration		

Specifications correct at time of printing E&OE

\* Available in a future firmware update.