



## NINJA HDR HDMI Monitor Recorder User Manual

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# NINJA V+

5" 8Kp30 4Kp120 1000nit HDR HDMI Monitor-Recorder



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### Key Features

- Capture without limitation in RAW at up to 8Kp30
- Reveal the beauty of the unseen with continuous HFR up to 120p in 4K RAW

- 1000nit 5" HDR display with AtomHDR support for Log inputs and 3D Luts
- HDMI 2.0 offers support for video inputs from a huge range of devices up to 4Kp60 and HD 120p
- Hardware that grows with your needs via the AtomX expansion for additional connectivity and wireless SYNC
- The flexibility of codec choice from ProRes RAW, ProRes, DNx, and H.265
- Record to either 2.5" SSD in Master caddy, SSDmini, and CFast II via AtomX CF adaptor
- Kitted out with EVA travel case and 5" slip sleeve to store and clean your Ninja screen

The Ninja V+ is the next stage in the evolution of the multi-award-winning Atomos Ninja, delivering up to 8Kp30 and 4Kp120 continuous recording in Apple ProRes RAW while inheriting HDR, 4Kp60 RAW and video as well as HDp120 slow motion from its little brother, Ninja V.

With the ability to capture in 8Kp30 and 4Kp120, the Ninja V+ allows you to stay ahead of the game and ensure that you have the flexibility to grow your system as projects demand. Future-proofed quality and formats allow you to stay compatible with newly released and existing cameras, in a world where new cameras are released frequently, and technology is advancing at an incredible pace.

The Ninja V+ takes advantage of new Atomos Silicon Atom3C, AtomOS 10, and the incredible efficiency of ProRes RAW to deliver these increased resolutions and frame rates. The new formats also integrate seamlessly into the timeline of your existing ProRes RAW or ProRes projects, without huge storage or processing overheads.

## Ready For The Future

The Ninja V+ and Canon R5 deliver a compact and configurable 8K RAW and HDR camera system that is very affordable when compared with other 8K setups. The possibilities you have when shooting in 8K are a true game-changer, as Canon and Atomos have just democratized 8K for the masses with no compromise in quality.

### **More Power. Less Weight.**

Pairing the Ninja V+ with the Canon R5 gives you a powerful yet compact 8K camera package that fits in your hands and can be flexibly built out to suit your needs. It can become the basis of a compact cinema rig or be flown on gimbals and stabilizers.

It's also easy to create an incredibly lightweight setup, as the Canon R5 with a 24mm Cine lens, Ninja V+, NPF battery, and media comes in under 3KG/7lb, which can be easily carried by a wide range of aerial drones, as well as vehicles and robot arms.

Extra Resolution Gives You Creative Flexibility With the broad canvas of 8K resolution, your options for creative crops into a region of interest allow you to extract multiple 4K shots from a single camera angle. This allows you to create additional shots for cutaways to break up the edit, which is much higher resolution than if the shots were extracted from a single 4K source.

### **Stabilize Without Compromise**

The incredible resolution of 8K video means that even after cropping into the image as part of the stabilization process, the final shot will likely still have a resolution of 4K or even 6K. This means that it can integrate with your other 8K footage on the timeline, and still look great.

### **Razor Sharp Screenshots**

High-resolution screenshots from 8K full-frame cameras also offer the ability to create scene plates for small-scale virtual production stages or use in other content platforms.

## See The Unseen

The Ninja V+ allows you to capture content at up to 4Kp120 in pristine ProRes RAW for high frame rate video that has exceptional image quality. This is a great alternative to using the internal compressed codecs on your camera for high frame rate recording, as they can apply higher levels of color compression and subsampling, leading to potential artifacts or limitations in the edit/grade.

### **Z CAM E2 / E2-M4 Series Cameras**

Capture and visualize the unseen with 4Kp120 recording at up to ProRes RAW from the Ninja V+ Z CAM E2 /E2-M4 models, with more models to follow. Fully harness the dynamic range of the sensor, capture every aspect of motion and movement directly via RAW over HDMI. Add to this the benefit of being able to playback the high frame rate video captured on the Ninja V+ at various playback speeds to preview the adjustments you can make on your NLE timeline.

### **An Incredible Codec Arsenal**

With the flexibility of providing options for RAW, visually lossless edit-ready files, and proxy/sharable files, you

have the ability to scale your needs for quality, and file size.

- ProRes RAW – supporting 16bit RAW outputs from the camera via HDMI and optionally via SDI
- ProRes – An industry-standard edit-ready codec from Apple with scalable levels of compression.
- Avid DNx – An industry-standard edit-ready codec for Avid editors with scalable levels of compression.
- H.265 (HEVC) – The highly efficient compressed codec allows you to create high-quality files with a low bit rate and small file size for sharing. You can also create 4K HDR 10-bit deliverables and have the option to ‘bake in’ LUTs to achieve the final pixel LOOK without the need to grade the footage.

## AtomX Modules

### AtomX SDI

Upgrade your Connection options

The AtomX SDI Expansion Module locks into place via the modular expansion slot and adds the quality and convenience of SDI connectivity to your Ninja V+, which allows you to monitor and record SDI video up to 4Kp60 from a range of professional cameras and video sources.

### HDMI / SDI

Cross Conversion

When an AtomX SDI Expansion module is attached to your Ninja V+, you can cross convert HDMI and SDI signals. This means that where you have an HDMI source connected to your Ninja V+, you can output an SDI signal from your AtomX SDI Expansion module.

### AtomX SYNC

Making multi-camera mainstream

The AtomX Sync module brings wireless timecode, sync and control technology to the Ninja V+, and you can connect multiple AtomX SYNC enabled Ninja V+ units to create a Timecode Systems powered multi-camera sync network.

Remotely trigger frame-accurate record start/ stop recording, monitor, battery and disk capacity information from the SYNC server configured Ninja V+.

The SYNC module provides continuous power to keep your Ninja V running while you change the main battery or DC input.

### Price

US\$1,499 ex. tax | €1,499 ex. tax

SKU: ATOMNJVPL1

UPC: 814164022569

## NINJA V+ – Technical specifications

Physical Specifications	
Weight (Monitor Only)	360g / 12.7oz
Dimensions (Monitor Only)	151 x 91.5 x 31mm
Mount Points	1 x Anti-rotation 1/4" / 3/8 top and bottom
Construction	
Body	Aluminum with ABS plastic
Cooling	Active
Tally Light	Record Tally on rear
AtomXpansion Slot	Yes

<b>Power</b>		
Input voltage (battery)		6.2V to 16.8V
Operating Power		5.8-7.2v
Compatible Batteries		NPF L series
Battery Run Time		5200mAh – up to 2hrs (monitor 8 record 4K 60p) 7800mAh – up to 3hrs (monitor 8 record 4K 60p)
DC In		via Battery eliminator
<b>Display</b>		
Touchscreen		SuperAtom IPS panel (capacitive touch)
Size		5-
Resolution		1920 x 1080
PPI		427
Bit Depth		10-bit (8+2 FRC)
Backlight		Edge lit
Aspect Ratio		16:09
Color Gamut		Rec.709
<b>Technology</b>		
AtomHDR Technology		Log to Native / Rec709/ 3D Lut / HLG / PO
3D LUT Support		Display / Preview / Loop out
HDR Monitoring Technology		HLG and PO
HDR Output Conversion		Log / HDR to HLG / PO / Dolby Vision
Gamma	Sony Slog /SLog2 /SLog3. Canon CLog /CLog2 /Clog3. Arri Log CEI160 / LogCEI200 /LogCEI250 /LogCEI320 /LogCEI400 /LogCEI500 /LogCEI640 / LogCEI800 /LogCEI1000 /LogCEI1280 / LogCEI1600. Panasonic \nog. JVC JLogl. Red LogFilm /Log3G10 /Log3612. FujiFilm Flog. PO ( HDRIO). HLG. Nikon N•Log	
Gamut	BT2020, DCI P3, PDCI p3 65, Sony SGamut /SGamut3 /SGamut3.cine /Canon Cinema /DCI P3 /DCI P3+ /BT2020, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709, JVC LS300, Red DragonColor / DragonColor2 /RedColor2 / RedColor3/ RedColor4 /RedWideGamut	

Video-Input	
HDMI	1 x HDMI (2.0) 4Kp60
HDMI RAW	Yes
SDI	2 x 12G SDI Backward compatible via included AtomX SDI module
SDI RAW	Yes (NOTE: Sony F5700, F55, FS7 NOT supported)
Signal (Camera Dependent)	Uncompressed true 10-bit or 8-bit 422
LTC (Record Mode Only)	Optional Wireless RF via SYNC module
Video Output	
HDMI	1 x HDMI (2.0) 4Kp60
SDI (Play Out)	2 x 12G SDI via included AtomX SDI module-level A and B selectable
Signal	Uncompressed true 10-bit or 8-bit 422 (playback file dependent)
Audio In/Out	
Audio Quality	24/48KHz
Audio Codec	PCM
HDMI	8ch 24-bit, input dependent
SDI	12ch 24-bit, input dependent
Analogue Audio in	3.5mm 2ch.
Headphone out	3.5mm 2ch.
Supported Codecs & Frame Rates	Record & Playback)
Supported Resolution & FPS	8K RAW Only up to 30p via HDMI 6K: RAW Only up to 30p via HDMI and SDI (Camera dependent 5.9k HDMI and 5.7k SDI) 4K DCI: 23.98/24/25/29.97/30/50/59.94/60p – HFR 100/120 via RAW over HDMI 4K UHD: 23.98/24/25/29.97/30/50/59.94/60p 2K DCI: 23.98/24/25/29.97/30/50/59.94/60p / FX9 RAW up to 2K 240p 1080p: 23.98/24/25/29.9/30/50/59.94/60/100/120p 1080i: – 23.98/24/25/29.9/30/50/59.94/60i 720p: 50/59.94/60p PsF – converted to P and looped out PsF

Anamorphic	3.5K: RAW up to 60p (from supported cameras only)
Apple ProRes Raw	ProRes RAW HQ. ProRes Raw
Apple ProRes	ProRes LT. 422. HQ

Avid DNx (Requires Free codec activation)	AVID DNxHR HQX. HQ, SO, LB
H.265	Yes, recorded clips
<b>Playback</b>	
Playlist / Genlock / LTC	Yes / No / No
Loop	Yes with in and out markers
Playlist	Yes
Apple ProRes Raw	Yes
Apple ProRes	Yes, with Linear PCM audio
Avid DNx (Requires Free codec activation)	Yes, with Linear PCM audio
H.265	Yes, recorded clips
<b>Recording functions &amp; Media</b>	
Pre-roll Record	Yes (HD 8s. 4K 2s) – Not available in RAW
Timelapse	Yes
Media Type	Master Caddy II / SSDmini
File Naming	The scene, Shot, Take / File name via SDI for Arri and RED
Supported Editing applications	All NLE applications that support Apple ProRes, ProRes RAW, and Avid DNxHD/HD in. MOV


<b>On-Screen Tools</b>	
Scopes	Luna Waveform RGB Parade Vector Scope
Magnification	1x Zoom 2 x Zoom
Focus Peaking	Colour selected / threshold setting / colour / Mono / edges only
False Color	Yes, with scale
Zebra	Yes. adjustable
Isolate Color Channel	Blue Only
Cut Tag Edit markers	Yes, Playback mode
Cine Frame Guides	2.4:1, 2.35:1, 1.9:1, 1.85:1. 4:3
Social Frame guides	9:16, 1:1.191:1. 4:5
Safe Areas	Action and Graphic
Grid Markers	9 Grid
Anamorphic Desqueeze	1.25x 1.33x . 1.5x ,1.8x ,2x
Display Flip	Vertical Only
3DLUT 50/50	Yes, on-screen preview
<b>Timecode</b>	
HDMI	Yes
Time Of Day	Yes
Wireless RF	Optional Via Sync Module
Bluetooth LE	Optional Via Sync Module
<b>Onboard Processing</b>	
Pulldown Removal	24/25/30pSF > 24/25/30p (2:2 pulldown) 60i > 24p (3:2 pulldown)
4K UHD Downscale for HD	Yes – On Loop-out
DCI Crop	Yes – On Loop out

<b>Remote control</b>	
HDMI	Auto HDMI Trigger, Supported Protocols – Canon, Sony, Atomos Open Standard
SDI	SDI trigger camera selectable
LANC 2.5mm Jack	LANC control and calibration via optional USB to serial cable
<b>What's in the box</b>	
Accessories Included	Ninja V +, EVA Carry case, 5" Protective Monitor sleeve, Battery Eliminator, International DC power supply, 1 x MasterCard II and QuickStart Guide
Optional Extras	Power kit, HDMI cables, USB to serial cable, AtomX SYNC module
<b>Warranty</b>	
Standard	year. Extended to 3 years on product registration

\*The FX9 requires the XDCA-FX9 Extension unit and both the FX6 and FX9 require the AtomX SDI module with RAW activation (or the Pro Kit).

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## Documents / Resources

 <p><b>NINJA V+</b></p> <p>5 8Kp30 4Kp120 1000nit HDR HDMI Monitor-Recorder, HDR HDMI Monitor Recorder, ATOMNJ VPL1, 814164022569</p>	<p><b>NINJA HDR HDMI Monitor Recorder</b> [pdf] User Manual</p> <p>5 8Kp30 4Kp120 1000nit HDR HDMI Monitor-Recorder, HDR HDMI Monitor Recorder, ATOMNJ VPL1, 814164022569</p>
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