



Clifton Cameras Product Specification

Atomos Ninja Full Spec

Product Information	
Product name	Ninja
Main Category	Monitor-recorder
Secondary Category	On-camera
Product Title	Ninja: 5-inch, 1000nit HDR monitor-recorder for DSLR and mirrorless cameras
Part Code	ATOMNJA004
MSRP	
USD	\$599
EUR	€ 599
Key Features	
1	Lightweight, tough and reliable device with a new clean and modern interface and compatible with a huge range of HDMI-output cameras
2	Record up to 4Kp60 in Apple ProRes, Avid DNxHD, and now H.265 (HEVC) included and up to 6Kp30 in Apple ProRes RAW
3	New AtomOS 11 improves memory management, boosts responsiveness, and unleashes new features
4	Share what's on your Atomos screen with other Atomos Connect users, as well as with Shogun Connect, iPads, Macs and Apple TVs wirelessly in the same premises or anywhere in the world with Atomos RemoteView*.
5	New tools to arrange in advance recording and playback with RecordAssist and PlayBackAssist.
6	Additional advanced industry leading suite of monitoring tools with one-touch operation: SegmentPro**, EL Zone, ARRI False color added in combination with other monitoring tools like Vectorscopes, Zebra, Atomos False Color, Onion Skin, etc.
7	Built-in AtomX expansion port offering an ecosystem of SDI connectivity and NDI workflows with Atomos Connect and AtomX Cast
8	Add Atomos Connect for a gateway into the cloud and all the benefits of Atomos Cloud Studio
9	Same form factor as NinjaV, all Accessories are compatible with the new Ninja Series (Ninja & Ninja Ultra)
	<i>*requires Atomos Connect **Coming September 2023</i>
Description	
Use case line	Small form factor, industry-leading monitor-recorder for DSLR and mirrorless cameras
Creative line	The best just got better. Enhance your camera and capture your vision with Atomos
Description	



Short Ninja	This lightweight, compact camera-mounted monitor-recorder has become an essential tool for filmmakers and video content creators, thanks to its groundbreaking advantages, which include HDR and advanced monitoring tools and RAW recording. Atomos' close partnerships with major camera manufacturers ensure that Ninja works flawlessly with an increasing range of DSLR and mirrorless cameras.
Long Ninja	<p>Ninja is a 5-inch lightweight, compact camera-mounted 10-bit HDR monitor recorder up to 4Kp60 in ProRes, ProRes RAW, Avid DNx, H.265 codec amplifying on monitoring features and connected capabilities.</p> <p>Built with the AtomlC chipset and a new user interface AtomOS 11 that optimizes its memory management, Ninja sets a new standard in creativity for any kind of creator. AtomOS 11 brings to creators a host of great new and advanced monitoring and recording features like RecordAssist, PlayBackAssist, SegmentPro, ELZone, Arri False color.</p> <p>Add the Atomos Connect module to Ninja to share what's on your Atomos screen with other connect related devices, iPads, Macs and Apple TV wirelessly in the same premises or anywhere in the world in Atomos RemoteView. Make Ninja even more versatile in combination with Atomos Connect to access to cloud workflows like C2C, Atomos Edit and Atomos RemoteView via Atomos Cloud Studio. Connect also features 12G-SDI, AirGlu wireless timecode and control, Wi-Fi 6, and NDI. Atomos' close partnerships with major camera manufacturers ensure that Ninja works flawlessly with an increasing range of DSLR and mirrorless cameras.</p>
Additional Marketing Content	
	Capture your vision with the Ninja
	Ninja brings your creativity to life in every project, from cinematic to social media, HDR and SDR. It pairs flawlessly with a huge range of HDMI-equipped cameras, from professional cinema to mirrorless.
	Record like a Ninja
	Ninja is the ultimate field monitor for on-the-go film and video creators who value high quality industry standard codecs like ProRes and ProRes RAW. The Ninja's state-of-the-art screen maintains clarity and color in the brightest of conditions and displays bright, clear HDR images for on-set or on-location monitoring
	Compact monitor-recorder made perfect
	The Atomos Ninja features a stunningly bright 5.2-inch 10-bit HDR monitor with 1000nits brightness. Sleek and durable, the aluminium body weighs just 360g and is only 25mm deep for easy mounting on any rig.
	New AtomOS, New Look, New Possibilities
	Introducing a new version of our operating system, AtomOS 11. Built uniquely for the new Ninja, it not only looks amazing, but introduces a host of great new features.

	<p>We've made the tools more visible and improved the look of the icons so you know exactly what you're selecting. It's easier to use, more logical and feels more professional.</p>
	<p>Endless features with OS11</p>
	<p>The Ninja offers a huge range of features that can enhance your workflow, including AtomOS Monitor Assist features like Focus Peaking, Zoom, Vectorscopes & Atomos and ARRI False Color, EL Zone colorized exposure through to Safe Areas, Cine Guides and our AtomHDR processing engine that allows realtime Log>PQ/HLG previewing and more.</p>
	<p>Unlock the full potential of your camera with Ninja</p>
	<p>Ninja's wide range of codecs makes it compatible with all major editing software packages. Virtually any HDMI or SDI source is supported, including cameras from Nikon, FujiFilm, Canon, Panasonic, Sony, Z-Cam, Sigma, Olympus, RED and ARRI.</p>
	<p>Ninja & ProRes RAW</p>
	<p>Over 55 cameras which now support RAW recording over HDMI on the Ninja and this list is still growing. Apple ProRes RAW combines the visual and workflow benefits of RAW video with the incredible real-time performance of ProRes. It gives filmmakers enormous latitude to adjust look of their images, making it ideal for HDR workflows. The new Apple ProRes RAW plug-in adds camera-specific characteristics to the mix.</p>
	<p>Ninja owners can now record RAW over SDI with compatible cameras using the Atomos Connect module.</p>
	<p>These new features make the Ninja even more versatile, providing professional I/O options for a multitude of cameras – from entry level mirrorless cameras through to the latest compact cinema and high-end professional cameras.</p>
	<p>Ninja & Atomos Connect module</p>
	<p>Add an Atomos Connect module to the Ninja to access to cloud workflows like C2C, Atomos Edit and Atomos RemoteView via Atomos Cloud Studio. Connect also features 12G-SDI, AirGlu wireless timecode and control, Wi-Fi 6 and GigE Ethernet</p>
	<p>Access to Atomos RemoteView with a subscription to Atomos Cloud Services, using Atomos Credits for a simple 'pay as you go service'. Atomos RemoteView is a unique new service that lets you share what's on your Atomos screen with other Atomos users, as well as with iPads, Macs and Apple TVs wirelessly. You can monitor what's happening on-set and look through the camera taking the shot. What's more, you can do this remotely from anywhere in the world. It's a new degree of creative freedom for filmmakers.</p>
	<p>NDI with Atomos Connect</p>
	<p>NDI is a way to send video over ordinary networks (including Wi-Fi and Mobile) in high quality but with remarkably low bandwidth requirements. It's increasingly used in live production, and now your Ninja can take part in an NDI network. The NDI TX option turns your Connect-enabled Ninja into an NDI source, visible to all other NDI compatible devices on the local network.</p>

	Record 4K HDR gaming
	Ninja is a stand-alone system for 4k UHD, HDR and high frame rate capture that eliminates expensive, complicated and unreliable PC setups. Ninja enables simple recording, monitoring and instant review. Capture every detail in HDR and automatically include all the correct HDR flags ready for upload to YouTube. Ideal for games development testing, pre-release capture sessions or just to show off your skills!
Physical Specifications	
Dimensions (W x H x D mm)	151 x 91.5 x 31mm
Weight	360g / 12.7oz
Rack height	
Mount points	1 x anti-rotation 1/4-inch / 3/8-inch top and bottom
VESA mount	
Rack mount	
Dual display	
Dual recorder	
Environmental	
Ambient operating temperature	Up to 40 degrees Celsius
Storage temperature	
Relative humidity	
Construction & Control	
Body	Aluminium with ABS plastic
Cooling	Actively controlled fan and heat sink
Tally light	Rear and front
Control buttons	
Multi-function button	Power / lock screen
AtomXpansion slot	Yes
Master control unit (MCU)	
Power	
Input voltage	6.2V to 16.8V
Operating power	5.8-7.2v (Battery) or min 30W via USB C PD cable
Compatible batteries	NPF L series
Built in battery	No
Battery voltage	
Battery run time Record	5200mAh - up to 2hrs (monitor & record 4K 60p) 7800mAh - up to 3hrs (monitor & record 4K 60p)
Battery run time Monitor Only	
Continuous power	
DC in connector	Via DC jack on battery eliminator
DTAP	Via battery eliminator and optional DTap to DC cable

DC out	
Display	
Touchscreen	SuperAtom IPS panel (capacitive touch)
Size	5.2-inch
Resolution	1920 x 1080
Viewing angle	
Screen coating	
PPI	427
Bit depth	10-bit (8+2 FRC)
Backlight Type	Edge lit
Brightness (cdm2 / Nits)	1000
Black Level (cdm2 / Nits)	
Aspect ratio	16:09
De-interlace mode	
Color Gamut	Rec.709
Calibration support	Atomos Calibrator with Calibrite ColorChecker Display Pro & ColorChecker Display Plus
Color Pipeline	
Gamma	Sony SLog / SLog2 / SLog3, Canon CLog / CLog2 / Clog3,
	Arri Log CEI160 / LogCEI200 / LogCEI250 / LogCEI320
	/ LogCEI400 / LogCEI500 / LogCEI640 / LogCEI800 /
	LogCEI1000 / LogCEI1280 / LogCEI1600, Panasonic Vlog,
	JVC JLog1, Red LogFilm / Log3G10 / Log3G12, FujiFilm
	Flog, PQ (HDR10), 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
3D LU+A76T Display	.Cube Format
3D LUT Down Stream	Loop out
3DLUT 50/50	Yes
Monitoring Modes	Native / HLG / PQ / 3D LUT
HDR output Conversion	Log / HDR to HLG / PQ / Dolby Vision
Video Input	
HDMI	1 x HDMI (2.0) 4Kp60

HDMI RAW	Apples ProRes RAW up to 6K with compatible cameras
SDI	Optional Via Atomos Connect module
SDI RAW	Optional Via Atomos Connect module
RJ45 / Network	
Wi-Fi	
USB	
Bit Depth	8/10-bit video / RAW up to 16-bit
Video Chroma Subsampling	4:2:2
HDCP copy protection	Not supported
Metadata	
HDMI	RAW - white balance, exposure index, shutter speed/angle, Iris F stop, ISO, gamma, gamut
SDI	
External input	
Closed captioning	
Video Output	
HDMI	1 x HDMI (2.0) 4Kp60
SDI loop out	
SDI Play out	
RJ45 / GigE	Optional Via Atomos Connect module
Wi-Fi 6	Optional Via Atomos Connect module
Multiview	
OS overlays	
Video Chroma Subsampling	4:2:2
Bit Depth	10-bit video
Pattern Generator	
Web Streaming	
USB UVC	Optional Via Atomos Nexus 4K or AtomX Cast
RJ45 / GigE	Optional Via Atomos Connect module
RTMP / S	Optional Via Atomos Connect module
RTSP	
SRT	
Video Signal Conversion	
HDMI to SDI	Optional Via Atomos Connect module
SDI to HDMI	Optional Via Atomos Connect module
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.
Analogue Audio Out	
Speakers	
Headphone out	3.5mm 2ch.
Audio input delay	User definable from menu
Timecode / Sync / Control	
Embedded	HDMI and SDI
Time of day	Yes, Time and Date
Reference input	
LTC	Optional Via Atomos Connect module
Genlock	Optional Via Atomos Connect module
Wireless AirGlu RF Server and Client	Optional Via Atomos Connect module
Wireless AirGlu BT Server	Optional Via Atomos Connect module
Resolution & Frame Rates (Record, Monitor & Playback)	
Supported base resolution & FPS	
8K	
6K	RAW Only up to 30p via HDMI
5K	
4K DCI	23.98/24/25/29.9/30/50/59.94/60p
4K UHD	23.98/24/25/29.9/30/50/59.94/60p
2K DCI 2046 x 1080	Optional via AtomX SDI module
Anamorphic	3.5k: RAW up to 60p (from supported cameras only)
FHD 1920 x 1080 Progressive	23.98/24/25/29.9/30/50/59.94/60/100/120p
FHD 1920 x 1080 PsF	converted to P and looped out PsF
FHD 1920 x 1080 Interlaced	23.98/24/25/29.9/30/50/59.94/60i
1280 x 720p	50/59.94/60p
SD PAL / NTSC	
Recording CODEC	
CDNG	
Apple ProRes Raw	ProRes RAW, HQ
Apple ProRes	LT, 422, 422HQ
Avid DNxHD	DNxHD 220x,220,145,36
Avid DNxHR	LB, SQ, HQ, HQX.
H.265	LQ,MQ,HQ,XQ in 8/10Bit, 4 2 2 and 4 2 0
H.264	
Playback	
Playlist	Yes, Create customer play lists from full or sub clips
Loop	Yes, with user customisable in / out markers

CDNG	
Apple ProRes Raw	Yes, recorded clips
Apple ProRes	Yes, with Linear PCM audio
Avid DNx	Yes, with Linear PCM audio
H.265	Yes
H.264	
Recording functions	
Pre-roll record	Yes (HD 8s, 4K 2s) - Not available in RAW
ISO Record	
Switched Program Record	
Timelapse	Yes
RAW to Video Record	
Simultaneous proxy record	Yes
4K to HD	
Multi Input / Switching	
SDI A/B toggle	
Dual Input display	
Multiple SDI input	
Multiple HDMI input	Optional via AtomX Cast
Multiview Display	Optional via AtomX Cast
Multiview Output	Optional via AtomX Cast
Picture in Picture (PIP)	Optional via AtomX Cast
Picture and Picture (PAP)	
Graphic overlays	Optional via AtomX Cast
Media pool storage	
Input transitions	Optional via AtomX Cast
Input Resolution Processing	
Input Image processing	
Keyer	
Supported media	
Master Caddy I	Not compatible
Master Caddy II	For 2.5-inch hard drives in MasterCaddy II
Master Caddy III	For 2.5-inch hard drives in MasterCaddy III (needed for Atomos Connect)
SSDmini	Native size and fit
CFAST II	With supported cards via optional SSDmini CFAST II Adaptor
SD	
USB	
Network	
File Naming	Unit Name - Scene/Shot/Take
File System	ExFAT

On screen tools	
MultiScope Analysis View	
Waveform	Yes, 3 size / Position
Histogram	
RGB parade	Yes, 3 size / Position
Vector scope	Yes, 2 size / Position
1 x Zoom	Yes. 1:1 Pixel mapping for 4K
2 x Zoom	Yes
4 x Zoom	
Focus peaking	Colour selected / threshold setting / colour / Mono / edges only
Atomos False color	Yes, with Scale
ARRI False color	Yes
EL Zone	Yes
Zebra	Yes, Adjustable
Isolate color channel	Blue Only
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
Onion Skin	Yes
Safe areas	Action and Graphic
Grid markers	9 grid
Anamorphic desqueeze	1.25x, 1.33x, 1.5x, 1.6x, 1.65x, 1.79x, 1.8x, 2x
Display Flip	Vertical Only
Onboard Signal Processing	
Pulldown removal	24/25/30pSF > 24/25/30p (2:2 pulldown)
	60i > 24p (3:2 pulldown)
4K UHD downscale for HD	Loop out - 4K UHD to FHD
DCI Crop	Loop out - 17:9 to 16:9 Crop
Remote Control	
HDMI	Auto HDMI Trigger, Supported Protocols - Canon, Sony,
	Atomos Open Standard
SDI	SDI trigger camera selectable with Atomos Connect
Serial 2.5mm Jack	LANC control and calibration via
	optional USB to serial cable
AirGlu BT	Optional Via Atomos Connect module
AirGlu RF	Optional Via Atomos Connect module
USB	
RJ45	
RS422	

External Device Control	
Serial 2.5mm Jack	Camera control for supported cameras via Optional USB to Serial Cable
Bluetooth LE	Optional Via Atomos Connect module
Wireless RF	Optional Via Atomos Connect module
USB	
RJ45	
Supported Applications	
XML	Cut tag EDL in FCPX XML
Apple ProRes Raw	Apple FCPX, Adobe Premiere, After Effects, Avid Media Composer, GrassValley Edius, Assimilate Scratch, Baselight Film Light.
Video Codecs	All Applications with support for Apple ProRes and Avid DNx in .MOV wrapper
What's in the box	
Accessories included	Ninja, 1 x battery eliminator, 1 x USB C PD to 2.1mm DC power lead and QuickStart Guide
Software included	
Optional extras	Accessory Kit 5-inch Vers II, Sunhood, DC to DTap, Power kit, HDMI cables, USB to serial cable,
Compatible with	
List product	
Warranty	
Standard	1 year. Extended to 2 years on product registration. Atomos Care360 available as subscription
Target use / User	
Mirrorless cameras	Y
Compact Cinema	Y
Cinema	Y
Director monitor	Y
Games Capture	Y
Streaming	Y
Mixer / switcher / ProAV	Y
Rack / OB	
DIT / Video Village	
Pro Video	Y
Gimbal / Crane	Y
Editor / Colourist	
Hobbyist	Y
Wedding	Y