



# Clifton Cameras Product Specification

## Atomos AtomX Cast

### Specifications

Dimensions (W x H x D mm)	129 mm x 70 mm x 160 mm
Weight	845g / 1.86lbs
Mount points	Anti rotational 1/4" 20 / 3/8 on base of unit
Ambient operating temperature	Up to 40° C

### Construction and Control

Body	AtomX CAST: ABS plastic with locking arm. Ninja V: Aluminium alloy chassis with ABS Polycarbonate back plate.
Cooling	Active
Tally light	Record tally via Ninja V. Program and Preview illumination on CAST buttons
Control Buttons	4 x Switching, 4 x Function
Multi-function button	Power / lock Screen
AtomXpansion slot	Yes, on AtomX CAST to connect to Ninja V (no module stacking or pass through)
Master control unit (MCU)	No

### Power

Input voltage	6.2V to 16.8V
Compatible batteries	D-tap batteries via optional Atomos DC to D-Tap cable
Continuous power	Via DC connector
DC in connector	Locking DC connector from Ninja V DC power supply
Dtap	Via optional Atomos DC to D-Tap cable

### Display

Touchscreen	NINJA V - SuperAtom IPS panel (capacitive touch)
Size	5.2"
Resolution	1920 x 1080



PPI	427
Bit depth	10-bit (8+2 FRC)
Backlight Type	Edge lit
Brightness (cdm2 / nits)	1000
Aspect ratio	16:9
De-interlace mode	Interlaced to Progressive
Color Gamut	Rec.709
Calibration support	Atomos Calibrator with Calibrite ColorChecker Display Pro / ColorChecker Display Plus

## Color Pipeline

Gamma	NINJA V - 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, FujiFilmFlog, PQ (HDR10), HLG, Nikon N-Log, Olympus OM Log, Lecia L Log
Gamut	NINJA V - BT2020, DCI P3, DCI 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 LUT Display	NINJA V - .Cube Format. CAST - Not currently available during CAST operation
3D LUT Output	NINJA V - Loop Out. CAST - Not currently available during CAST operation
3DLUT 50/50	NINJA V - Yes. CAST - Not currently available during CAST operation
Monitoring Modes	NINJA V - Native / HLG / PQ / 3D LUT
HDR output Conversion	NINJA V - Log / HDR to HLG / PQ / Dolby Vision

## Video Input

HDMI	1 x HDMI 2.0 up to 4kp60 (Ninja V Stand alone use)
HDMI RAW	Apples ProRes RAW up to 6K (Ninja V Stand alone use)
SDI	Optional via AtomX SDI module (Ninja V Stand alone use)
SDI RAW	Optional with AtomX SDI + SDI RAW activation (Ninja V Stand alone use)
Bit Depth	10-bit
Video Chroma Subsampling	4 2 2



## Metadata

HDMI	RAW - white balance, Exposure index, Shutter speed/angle, Iris F stop, ISO, Gamma, gamut (Ninja V Stand alone use)
SDI	File name from Arri, RED (Ninja V Stand alone use)

## Video Output

HDMI	CAST - HDMI 1.4b up to 1080p60 - Program ONLY. NINJA V - Multi function out - Program, Preview or Multiview
SDI loop out	Optional Via AtomX SDI module (Ninja V Standalone use only)
SDI Play out	Optional Via AtomX SDI module (Ninja V Standalone use only)
Multiview	Yes, via Ninja V
Video Chroma Subsampling	4 2 2
Bit Depth	10-bit

## Web Streaming

USB UVC	USB-C up to 1080p30
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## Video Signal Conversion

HDMI to SDI	Optional Via AtomX SDI module (Ninja V Stand alone use)
SDI to HDMI	Optional Via AtomX SDI module (Ninja V Stand alone use)

## Audio In/Out

Audio Quality	24/48kHz
Audio Codec	PCM
HDMI	2ch 24-bit, input dependent per input
SDI	12ch 24Bit, input dependent (Ninja V Standalone use only)
Analogue Audio in	3.5mm via Ninja V
Headphone out	3.5mm via Ninja V

## Timecode / Sync

Embedded	HDMI
LTC	Via 3.5mm audio Jack input - requires post processing (Ninja V Standalone use only)
Wireless SYNC	Via Optional AtomX SYNC Module (Ninja V Standalone use only)



## Resolution and Frame Rates (Record, Monitor & Playback)

4k DCI	23.98/24/25/29.9/30/50/59.94/60p (Ninja V Standalone use only)
4k UHD	23.98/24/25/29.9/30/50/59.94/60p (Ninja V Standalone use only)
2K DCI 2046 x 1080	Optional via AtomX SDI module (Ninja V Standalone use only)
Anamorphic	3.5k: RAW up to 60p from supported cameras (Ninja V Standalone use only)
FHD 1920 x 1080 Progressive	23.98/24/25/29.9/30/50/59.94/60
FHD 1920 x 1080 PsF	No
FHD 1920 x 1080 Interlaced	50/59.94/60
1280 x 720p	No
SD PAL / NTSC	No

## Recording CODEC

Apple ProRes	LT, 422, 422HQ
Avid DNxHD	DNxHD 220x,220,145,36

## Playback

Apple ProRes	Yes, with Linear PCM audio
Avid DNx	Yes, with Linear PCM audio

## Recording functions

Pre-roll record	Yes (HD 8s, 4K 2s) - Not available in RAW (Ninja V Standalone use only)
Switched Program Record	Clean or CAST program record to Ninja V
Timelapse	Yes (Ninja V Standalone use only)

## Multi Input / Switching

SDI A/B toggle	via optional AtomX SDI module (Ninja V Standalone use only)
Multiple HDMI input	Up to 4 x HDMI up to 1080p60 (CAST)
Multiview Display	Quad input display on Ninja V Display
Multiview Ouput	Via Ninja V HDMI out - Set to Program, Preview or Multiview
Picture in Picture (PIP)	Any input over Any input, 4 positions in small or large size PIP
Graphic overlays	Select layout for Stored Graphics in Ninja V and save configured scene presets



Media pool storage	Upload and Store Graphics in Ninja V
Input transitions	Fade in / out and Dip to - White / Black

## Supported media

SSDmini	Yes. The included AtomX SSD mini handle adaptor is recommended
File System	ExFat

## On screen tools

Waveform	Yes, 3 size / position
RGB parade	Yes, 3 size / position
Vector scope	Yes, 2 size / position
2 x Zoom	Yes
Focus peaking	Color selected / threshold setting / color / mono / edges only
False colour	Yes, with scale
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, 1.91:1, 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

## Onboard Signal Processing

Pulldown Removal	Interlaced to Progressive
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## Remote control

HDMI	Auto HDMI Trigger, Supported Protocols - Canon, Sony, Atomos Open Standard (Ninja V Standalone use only)
SDI	SDI trigger camera selectable (Ninja V Standalone use only)
USB	Via cast software over USB



## External Device Control

Serial 2.5mm Jack                      Not supported

## Supported Applications

Video Codecs                              Zoom, Microsoft Teams, Skype, YouTube, Facebook Live, OBS, Twitch

## What's in the box

Accessories included                      Ninja V, AtomX CAST, International Power supply, USB-C cable, SSDmini Handle Adaptor, MasterCaddy II, Travel case & sleeve

Optional extras                              ATOMDTPCB2 - D-Tap to DC cable, ATOMDCK004 - USB-C 3.1 Docking Station, ATOMDCK003 USB-A 3.0 Docking Station

## Warranty

Standard 1 year. Extended to 3 years on product registration