

ATOMOS Ninja

Physical Specifications

Dimensions: (W x H x D mm) 151 x 91.5 x 31mm

Weight: 360g / 12.7oz

Mount points: 1 x anti-rotation 1/4-inch / 3/8-inch top and bottom

Environmental

Ambient operating temperature Up to 40 degrees Celsius

Construction & Control

Body: Aluminium with ABS plastic

Cooling: Actively controlled fan and heat sink

Tally light: Rear and front

Multi-function button Power / lock screen

AtomXpansion slot

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 run time Record 5200mAh - up to 2hrs (monitor & record 4K 60p)

7800mAh - up to 3hrs (monitor & record 4K 60p)

DC in connector Via DC jack on battery eliminator

DTAP Via battery eliminator and optional DTap to DC cable

Display

Touchscreen: SuperAtom IPS panel (capacitive touch)

Size: 5.2-inch

Resolution: 1920 x 1080

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

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
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
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

Video Output

HDMI 1 x HDMI (2.0) 4Kp60
RJ45 / GigE Optional Via Atomos Connect module
Wi-Fi 6 Optional Via Atomos Connect module
Video Chroma Subsampling 4:2:2
Bit Depth 10-bit video

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

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

6K RAW Only up to 30p via HDMI
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

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

Playback

Playlist, Create customer play lists from full or sub clips
Loop, with user customisable in / out markers
Apple ProRes Raw, recorded clips
Apple ProRes, with Linear PCM audio
Avid DNx, with Linear PCM audio
H.265

Recording functions

Pre-roll record (HD 8s, 4K 2s) - Not available in RAW
Timelapse
Simultaneous proxy record

Multi Input / Switching

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
Graphic overlays Optional via AtomX Cast

Input transitions Optional via AtomX Cast

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

File Naming Unit Name - Scene/Shot/Take

File System ExFAT

On screen tools

Waveform Yes, 3 size / Position

RGB parade Yes, 3 size / Position

Vector scope Yes, 2 size / Position

1 x Zoom. 1:1 Pixel mapping for 4K

2 x Zoom

Focus peaking Colour selected / threshold setting / colour

/ Mono / edges only

Atomos False color Yes, with Scale

ARRI False color

EL Zone

Zebra, 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

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

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

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