NEON 24

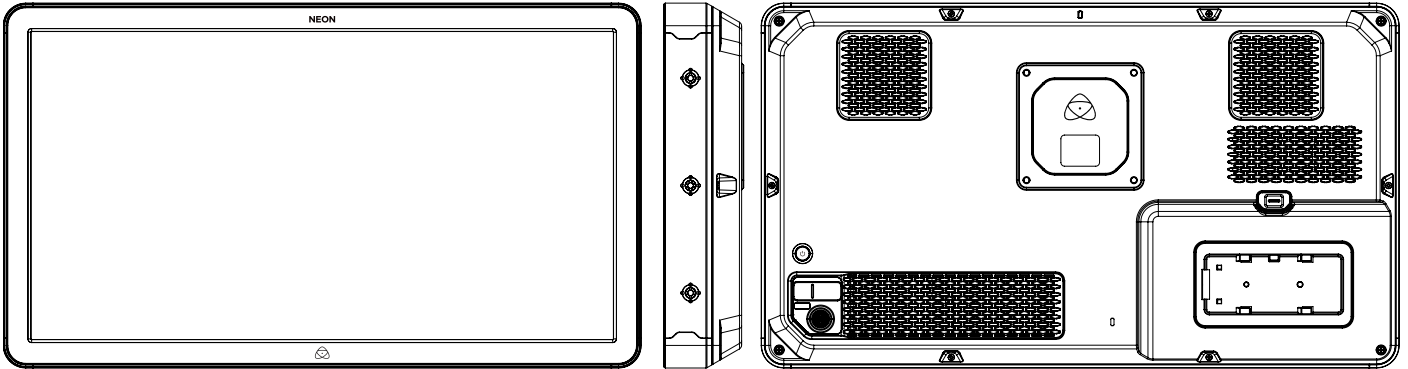## Atomos NEON 24" 4K HDR Production Monitor

Key Features

- **24" 17:9 4k DCI Display with DCI P3 wide gamut coverage and 1,000,000:1 Dynamic contrast ratio**
- **1000nits HDR with Dynamic Full Array Local Dimming to achieve full panel uniformity and deep blacks**
- **AtomHDR Display color pipeline management for LOG to PQ (HDR10), HLG with 3DLut for SDR workflows**
- **Support up to 4k60p via HDMI 2.0 or 12G SDI with 10-bit signal Loop outs**
- **Anti-glare screen coating, with a wide viewing angle**
- **HD and 4k image processing allow for HD images to be upscaled to 4k and images out put with DCI Crop or Down convert to HD**
- **AtomRemote OS provides control of all NEON function from iOS or via Bluetooth (iOS Device REQUIRED for operation of NEON)**
- **Factory calibrated with option for simple Automated Calibration with support for Xrite i1Display Pro Plus**

Providing certainty of image
NEON 24 is a precision on-set and in-studio 4K HDR production monitor-recorder featuring 1000nits fullscreen HDR peak brightness, deep black and wide color gamut accuracy.

Record
Connect cameras or any video source via SDI supporting up to 4K DCI 60p via 12G or Dual 6G or lower resolutions and frame rates via 1.5/3G SDI with up to 12 channels of embedded audio. HDMI 2.0 provides support for 4K up to 60p and HD up to 120p. Recordings are captured to industry standard Apple ProRes of Avid DNx Codec with rich metadata in the file header to be utilized by your NLE or MAM system to asset orchestration.

Flexible and Upgradeable I/O
The NEON series adopts a modular approach that ensures the I/O of the monitor is easy to maintain, replace and ultimately upgrade without having to decommission the panel.
The Master Control Unit (MCU) is the brain of the NEON, with built in HDMI 2.0 and audio mini jack I/O. The MCU's AtomX Expansion Port allows for upgrade to the connections, including the AtomX SDI Module which provides 2 x 12G SDI that can be used for dual link or separate inputs or outputs.

AtomOS enhanced playback
NEON includes essential monitoring tools from slow motion playback, frame-by-frame analysis and preview tools including full scopes, zebra, false color, focus peaking, exposure and LUTs.

Monitor
Selectable monitor modes allow you work in either SDR or HDR with settings that match both camera acquisition settings or defined delivery standards including Rec.709, Rec.2100 HLG or ST.2084 PQ. NEON provides reliable color reproduction with DCI-P3 coverage, wide color gamuts such as BT.2020 can be processed accurately.

Frame Guides, Safe Areas & more
A variety of broadcast frame guides are available with the option for Graphic and Action safe areas. Cinematic guides are also available, with additional anamorphic de-squeeze mode with support for 2x, 1.5x and 1.33x to allow you to match a wide variety of lenses.

App control for simple operation
Connect your NEON over Bluetooth to the Atomos remote app. Note: Apple iOS Device **REQUIRED** for operation of NEON.

Price
US$6499 ex. tax | €5999 ex. tax

NEON 24 - Technical specifications

Physical Specifications

Weight (monitor only)	8.6kg / 18.95lb
Dimensions (Control Unit)	594 x 339.7 x 72.5mm
Mount Points	Full ARRI compatible, 3 Left, 3 Right, 7 Top, 7 Bottom. Rear 100 x 100 VESA Mount.
Feet	2 x Feet with 1/4" 20 with anti rotation pins
Security leash point	Kensington lock on rear and lock down point on feet

Construction

Body	Aluminium alloy chassis with ABS Polycarbonate back plate
Cooling	Active
Tally light	Rear
Function Button	Power button to lock screen and pair remote control devices

Power

Operating Power	19v260Watts
DC in	Multi pin input on rear

Display

Touchscreen	No
Size	24"
Resolution	4k DCI 4096 x 2160 - 17:9
Viewing Angle	180 degrees Horizontal & Vertical (+/- 10%)
PPI	192
Bit Depth	True 10-bit
Backlight	Dynamic Full Array Local Dimming (FALD) 512 Zones
Brightness	1000nits Full Screen brightness * (+/- 10%)
Black Level	0nits
LED	Wide Color Calibrated D65
Contrast Ratio	Dynamic 1,000,000 : 1
Aspect Ratio	17:9
Color Gamut	DCI P3

Technology

AtomHDR Technology	Yes, Dynamic
3D LUT Support	Display only
HDR Monitoring Technology	HLG, PQ, Camera LOG
HDR Output Conversion	Log/HDR to HLG/ PQ
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, / Log3G12, RED Log3G10 / RED LogFilm, FujiFilm F-log, Nikon N-Log PQ (HDR10), HLG
Gamut	Sony SGamut / SGamut3 / SGamut3.cine, Canon Cinema / DCI P3 / DCI P3+, Panasonic V Gamut, Arri Alexa Wide Gamut, Rec709 Bt2020, DCI P3, DCI p3 65, JVC LS300, Red DragonColor / DragonColor2 / RedColor2 / RedColor3 / RedColor4 / RedWideGamut

Module System

Master Control Unit (MCU)	Yes
AtomXpansion Slot	Yes, Support for SDI and future modules

Video Input

HDMI	1 x HDMI (2.0) 4k p60
SDI	2 x 12G SDI via included AtomX SDI module
Signal (camera dependent)	Uncompressed true 10-bit or 8-bit 422
Video Preview Monitoring - HDR	For accurate full 10bit baseband video monitoring a 3rd party PCIe or Thunderbolt video I/O device with HDMI or SDI is required

Video Output

HDMI	1 x HDMI (2.0) 4k p60
SDI	1 x 12G SDI on Loop out from SDI, 2 x 12G SDI on playback via included AtomX SDI module
Signal	Uncompressed true 10-bit or 8-bit 422 (playback file dependent)

Audio In/Out

Audio Quality	24/48kHz
Audio Codec	Linear PCM
HDMI	8ch 24-bit, input dependent
SDI	12ch 24-bit, input dependent
Analogue Audio in	3.5mm 2ch.
Headphone out	3.5mm 2ch.
Audio Out	Selected embedded stereo pair via 3.5mm headphone jack

Supported Codecs & Frame Rates (Record & Playback)

Supported resolution & FPS	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: 23.98/24/25/29.9/30/50/59.94/60p via SDI only 1080p: 23.98/24/25/29.9/30/50/59.94/60/100/120p 1080i: - 50/59.94i 720p: 50/59.94/60p
CDNG	-
ProRes Raw	-
Apple ProRes	LT, 422, HQ
Avid DNx	DNxHR HQX. HQ, SQ, LB, DNxHD 220x, 220, 145, 36

Playback

Loop	Yes - full video file only
Apple ProRes	Yes - Recorded on Device or Exported from NLE (in .MOV with inear PCM audio)
Avid DNx	Yes - Recorded on Device or Exported from NLE (in .MOV with inear PCM audio)

Recording functions & Media

Pre-roll record	Yes (HD 8s, 4K 2s)
Supported media	2.5" SSD/HDD compatibility depends on recording format, resolution and frame rate. Visit atomos.com/drives for list of tested and approved drives
Media support	Master Caddy II / SSDmini
File Naming	Scene / Shot / Take , RED / Arri Via SDI
Supported Editing applications	All application supporting Apple ProRes / Avid DNx

On Screen Tools

Waveform	Yes
RGB Parade	Yes
Vector Scope	Yes
1 x Zoom	-
2 x Zoom	Yes
Focus Peaking	Color selected / color / Mono / edges only
False Color	Yes
Zebra	Yes
Isolate Color Channel	Blue Only
Cine Frame Guides	2.4:1, 2.35:1, 1.9:1, 1.85:1, 4:3
Safe areas	Yes
Anamorphic Desqueeze	1.33x , 1.5x ,2x

Timecode

HDMI	Yes
SDI	Yes
Time Of Day	Yes
Wireless RF	Future FW Release

Onboard Processing

Pulldown removal	24/25/30pSF > 24/25/30p (2:2 pulldown) 60i > 24p (3:2 pulldown)
Deinterlace mode	Yes
HD to 4k input to display	Yes
4K UHD downscale for HD on output	Yes
DCI crop on output	Yes

Remote control

HDMI	Auto HDMI Trigger, Supported Protocols - Canon, Sony, Atomos Open Standard
SDI	SDI trigger camera selectable
LANC 2.5mm jack	LANC control - Calibration on MCU
LE Bluetooth	REQUIRES Apple iOS device running version 12 and above

What's in the box

Accessories included	NEON 24 Monitor, NEON Master Control Unit, 2 x Feet (inc. mount screws x 2), NEON Quick Start Guide, 1 x Master Caddy II (inc. screws), 19V AC Power Adapter with mount cage, AtomX SDI Expansion Module, Monitor Protective Sheath, MCU Protective Sheath, Hex Wrench.
Optional extras	Atomos NEON 24" Case, Xrite i1Display, Atomos USB A to Serial Calibration cable, AtomX USB-C Caddy

Warranty

Standard	1 year. Extended to 3 yrs on product registration

Please note: Specifications are subject to change without notice.
All information correct at time of publishing.

*In ambient temperatures of < 25° C