NEC MultiSync®
PA322UHD with SpectraView_{II}

Wide Gamut UHD resolution, LED-backlit color accurate desktop display

NEC Display Solutions
MultiProfiler

Color Accurate Professional Desktop

Crisp ultra high definition (UHD) resolution and incredible, predictable color accuracy. The 32" MultiSync PA322UHD with SpectraView$_{II}$ is the ultimate desktop display for applications where precise color is essential. The innovative wide-gamut W-LED backlight provides 99.2% coverage of the Adobe RGB color space, enabling more accurate colors to be displayed on screen. Utilizing a high performance IPS type LCD panel and with IGZO technology backed by a 4 year warranty with Advanced Exchange, the MultiSync PA322UHD delivers high quality, accurate images simply and beautifully.

Impeccable Image Performance

The wide-gamut W-LED backlight combined with the SpectraView Color Engine deliver precise color in every environment.

- UHD resolution (3840 x 2160) is equivalent to 4 full HD displays
- Up to 99.2% coverage of the Adobe RGB color space and accurate 100% coverage of sRGB
- 10-bit HDMI and DisplayPort inputs display up to 1.07 billion colors out of a palette of 4.3 trillion colors
- IPS type LCD provides wide viewing angles of 176°
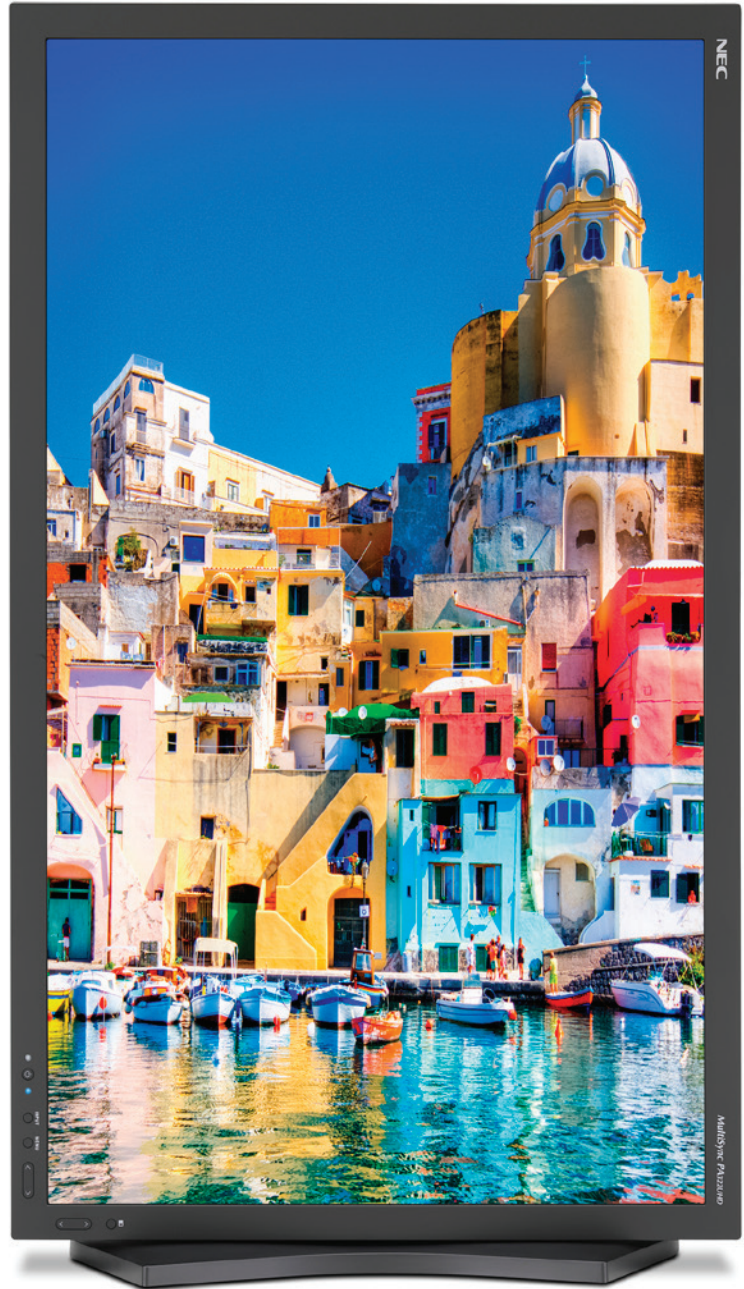
Ultimate Color Management

The sophisticated color engine provides extensive, intuitive control over color settings.

- MultiProfiler software and on-screen controls provide access to thousands of color gamut, gamma, white point, brightness and contrast combinations
- Internal 14-bit 3D lookup tables (LUTs) work with optional SpectraViewII color calibration solution for unparalleled color accuracy

A Perfect Fit for Your Workspace

Future-proof connectivity, great ergonomics, and VESA mount cabinets to fit every desk and office environment.

- 10-bit DisplayPort and HDMI as well as DVI-D inputs connect to most PC and Mac computers
- Four-way ergonomic stand boasts pivot, swivel, tilt and height-adjustment up to 150mm
- VESA-standard mounting holes for multi-display setups

A Better Workflow

Exclusive, innovative features can eliminate steps in a color editing workflow, saving time and hassle.

- 5 completely customizable picture modes provide shortcuts to commonly used graphics settings
- MultiProfiler can load ICC color profiles into any of the presets and also provides keyboard shortcuts for common functions
- 2 up / 3 down USB 3.0 hub with DisplaySync Pro controls two computers with one keyboard and mouse

Color Accurate Editing

The Essential

Designed for color accuracy while editing images and video, the MultiSync PA322UHD can accurately emulate several color spaces, including Adobe RGB, sRGB, REC-709 and DCI.

The Extras

Using MultiProfiler, the presets in a the PA322UHD can be set to emulate most other color spaces simply by loading an ICC profile from a printer, display or projector, allowing you to quickly switch between multiple color spaces while editing. In addition, you can display the same image in two or four different picture modes simultaneously on screen, allowing for a quick preview of a second color space and saving time switching between color spaces in editing software.

Multiple Computer Environments

The Essential

With plenty of connectivity options, including DisplayPort, DVI-D, and HDMI connections, the MultiSync PA322UHD can connect most modern computer systems.

The Extras

Each PA322UHD features a USB 3.0 hub with two upstream connections and three downstream connections. This allows you to connect two different computers using the USB port and share a keyboard, mouse and a third device between the two computers with the push of a button. Since the internal LUTs store the calibration data in the display, every input is a calibrated input.

Adaptable to Every Workspace

The Essential

With a fully-featured ergonomically designed stand, the MultiSync PA322UHD can rotate, tilt, pivot to portrait and extend up to 150mm. The removable stand features an integrated cable management system with cover and also includes a locking feature for easy transport.

The Extras

The PA322UHD's on screen display (OSD) is fully featured and contains exclusive controls for color and inputs and will rotate to match the orientation of your display. There is also a dedicated button for turning the Picture in Picture mode on and off and another for switching inputs.
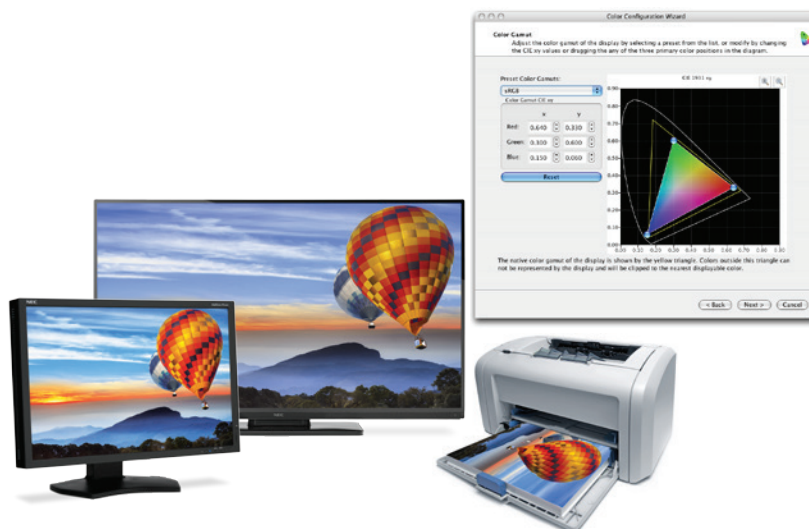
Color Space Emulation

The Essential

Built-in presets for standard color spaces, including sRGB, AdobeRGB, DCI REC 709 and even the DICOM medical imaging standard provide quick access to previewing your work in a specific color space.

The Extras

MultiProfiler software gives you direct control over your display's built-in preset so that you can have multiple custom color space emulations simultaneously on the display. Color gamut, white point, gamma and brightness are controllable for each preset and ICC color profiles for printers or displays can also be loaded into the presets for a more perfect color match.

Picture in Picture / Picture by Picture

The Essential

Picture in Picture and Picture by Picture configurations allow multiple inputs to be shown on screen simultaneously in order to improve productivity. The MultiSync PA322UHD has two-way and four-way Picture by Picture modes.

The Extras

The PA322UHD allows for two different inputs to be shown simultaneously, which is useful for multiple computer configurations or even replacing multiple display setups. The same input can also be displayed in a second color space, which is most often used for a quick preview of an output color space (for example, sRGB) while working in a different color space (for example, Adobe RGB). This saves the time used to switch back and forth between color spaces as final editing tweaks are made.

Picture by Picture
shown with 4 separate inputs

Picture by Picture
*shown with the same input,
multiple color spaces*

Picture in Picture
shown with 2 separate inputs

10 bit Color

The Essential

10 bit color or "deep color" provides an extra 2 bits of color data accessible through the display, extending the typical display's 16.7 million colors to over 1 trillion colors. This improves gradients and reduces image banding.

The Extras

The MultiSync PA322UHD offers 10 bit color support over DisplayPort and HDMI inputs for increased color fidelity. When matched with 10 bit operating system, software applications.

10 bit color eliminates banding
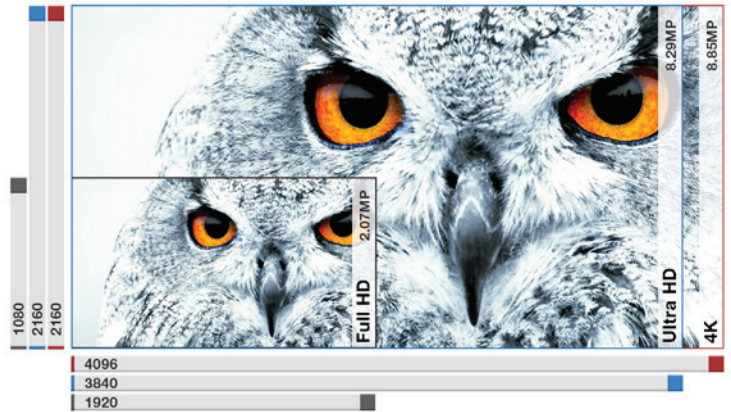
8 bit color shows banding

UHD Resolution

The Essential

Ultra high definition (UHD) resolution delivers four times the typical Full HD resolution. This allows for more information on screen and clearer, pixel-free viewing.

The Extras

The UHD resolution on the MultiSync PA322UHD delivers 140 pixels per inch (PPI) at native resolution, which nears the accuracy of printed content. More content can be put on screen, reducing scrolling and increasing productivity. The high PPI means images will appear sharper and with more detail. Combined with the Picture by Picture modes, content can be viewed in stunning detail in multiple color spaces easily and clearly.
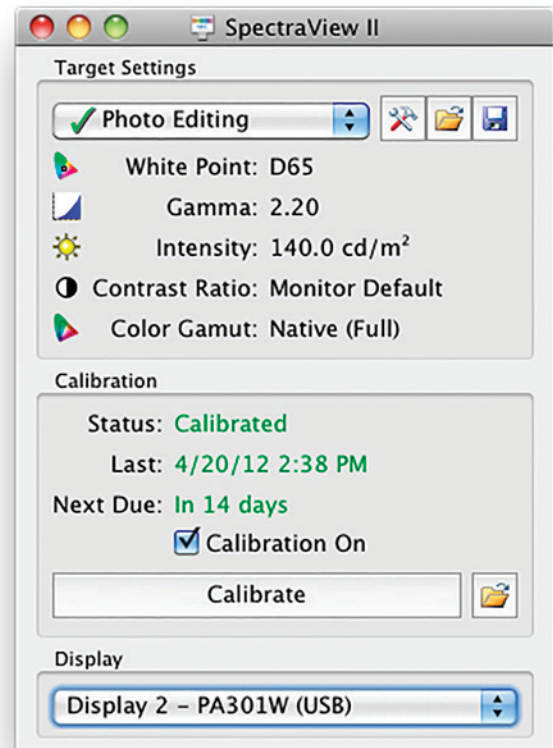

SpectraView$_{II}$™ Color Calibration Solution

The Essential

Included with the PA322UHD-BK-SV, the SpectraView$_{II}$ color calibration solution uses a external color sensor to ensure the consistency and accuracy of the colors onscreen. SpectraViewII is the only software that calibrates the lookup tables (LUTs) in an NEC display, eliminating a loss of color caused by video card LUT calibration.
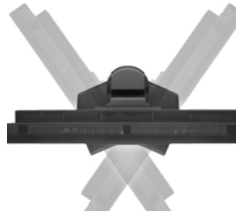
The Extras

The SpectraViewII solution is simple, quick and reliable. Custom calibration targets allow you to calibrate to thousands of calibration combinations and the calibration validation functionality provides you with everything you need to trust the calibration results. In addition, SpectraViewII includes lifetime upgrades and can be used for your future NEC displays.

Technical Specification

MODEL		PA322UHD-BK-SV
DISPLAY	Viewable Image Size	31.5"
	Aspect Ratio	16:9
	Native Resolution	3840 x 2160 (UHD)
	Pixel Pitch	0.18mm
	Pixels Per Inch	140 @ native resolution
	Brightness (typical)	350 cd/m²
	Response Time (typical)	10 ms (GtG)
	Color Gamut* Adobe RGB Coverage/Size** NTSC Coverage/Size sRGB Coverage/Size	99.2% / 101.0% 92.9% / 96.5% 99.9% / 136.3%
	Displayable Colors	1.07 billion out of 4.3 trillion (10-bit DisplayPort or HDMI input); 16.7 million colors out of 4.3 trillion color palette (8-bit DisplayPort, HDMI or DVI-D)
	Input Connectors	DisplayPort 1.2, OPS slot DisplayPort 1.1a, DVI-D Dual Link x2 / HDMI 1.4 x4
POWER CONSUMPTION	On (typical)	95W
	Power Savings Mode (ADVANCED)	5W
PHYSICAL SPECIFICATIONS	Dimensions (WxHxD)	
	Net (with stand)	29.3 x 18.4 x 11.9 in. / 744.8 x 468.4 x 301.6 mm
	Net (without stand)	29.3 x 17.4 x 3.9 in. / 744.8 x 440.8 x 100.0 mm
	Weight	
	Net (with stand)	45.2 lbs. / 20.5 kg
	Net (without stand)	31.3 lbs. / 14.2 kg
	VESA Hole Configuration	100 x 100mm, 200 x 100mm
ENVIRONMENTAL CONDITIONS	Operating Temperature	41-95°F / 5-35°C
	Operating Humidity	30 - 80%
	Operating Altitude	16,404 ft. / 5000m
	Storage Temperature	14-140°F / -10-60°C
	Storage Humidity	10-85%
	Storage Altitude	40,000 ft. / 12,192m
	Tropical Environments	Yes
ADDITIONAL FEATURES	USB 3.0 hub (2 up/3 down) with DisplaySync Pro, 5 Picture Modes, Picture in Picture, 2 way Picture by Picture, 4 way Picture by Picture, ICC Profile Emulation, Color Vision Emulation, 14-bit 3D gamma lookup table (LUT) with 16-bit processing, wide color gamut, Adobe RGB, DICOM, REC 709, Digital Uniformity Correction, black level adjustment, ambient light sensor, backlight stability sensor, 150mm height-adjustable and quick release stand with locking base and cable management as well as tilt, swivel and pivot, MultiProfiler software, touch-integratable, CableComp, TileMatrix and TileComp support, Standalone hardware calibration, integrated 2+2W speakers, Kensington security slot	
OPTIONAL ACCESSORIES	Hood (HDPA32) , HD-SDI input card (SB-01HC), 3G/HD/HD-SDI input card (SB-04HC)	
SHIPS WITH	Power cord; DisplayPort cable; Mini DisplayPort to DisplayPort cable; USB 3.0 A to B cable; Mounting screws; CD-ROM with manual and MultiProfiler, SpectraViewII software on USB drive, MDSVSENSOR3 custom color sensor	

* Color gamut size and coverage calculated as 2-D gamut area in CIE 1931 xy colorspace. Size is the total relative display gamut area and includes any colors outside the reference gamut. Coverage is the relative display gamut area contained inside the reference gamut. NTSC values provided for comparison purposes - modern broadcast video uses SMPTE-C, ITU-R BT, 709-5/sRGB or EBU primaries.

** AdobeRGB is a standard defined by Adobe Systems Incorporated.

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