

Orchestrating a brighter world

NEC

NEC MultiSync® PA311D

Wide gamut color critical display designed for
photography and video production



Color Accuracy
and Quick
Stability

www.tuv.com
ID 1419058943



NEC Display Solutions
MultiProfiler



SpectraView™
engine

High resolution and incredible, predictable color accuracy.

The 31" MultiSync PA311D is the ultimate desktop display for applications where precise color is essential. The innovative wide-gamut LED backlight provides 100% coverage of Adobe RGB color space and 98% coverage of DCI-P3, enabling more accurate colors to be displayed on screen. Utilizing a high performance IPS LCD panel and backed by a 4 year warranty with Advanced Exchange, the MultiSync PA311D delivers high quality, accurate images simply and beautifully.

Impeccable Image Performance

The wide-gamut LED LCD backlight combined with NEC's exclusive SpectraView Engine deliver precise color in every environment.

- True 4K resolution (4096 x 2160) offers a high pixel density
- Up to 100% coverage of Adobe RGB color space and 98% coverage of DCI-P3
- 10-bit HDMI and DisplayPort inputs display up to 1.07 billion colors out of a palette of 4.3 trillion colors

Ultimate Color Management

The sophisticated SpectraView 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 SpectraView_{II} 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.

- 2 DisplayPort 1.2 and 2 HDMI (2.0), as well as USB Type-C inputs connect to most PC and Mac computers
- Ergonomic stand includes 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.

- 12 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 3.1 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 PA311D utilizes the SpectraView Engine to accurately emulate several color spaces, including Adobe RGB, sRGB, Rec-709, Rec 2100 and DCI P3.

The Extras

Using MultiProfiler, the presets in the PA311D 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 dual DisplayPort, USB Type-C, and dual HDMI connections, the MultiSync PA311D can connect most modern computer systems.

The Extras

Each PA311D features a USB 3.1 hub with two upstream connections and three downstream connections. This allows you to connect three 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.



Designed for Video

The Essential

The MultiSync PA311D includes support for signals from 24 to 75Hz in order to directly connect to video sources.

The Extras

The PA311D's also supports standalone calibration with the MDSSENSOR3 calibrator. Safe zones can also be configured directly through the on-screen menu, which is especially useful for directly connected camera sources.



Color Accurate Professional Desktop

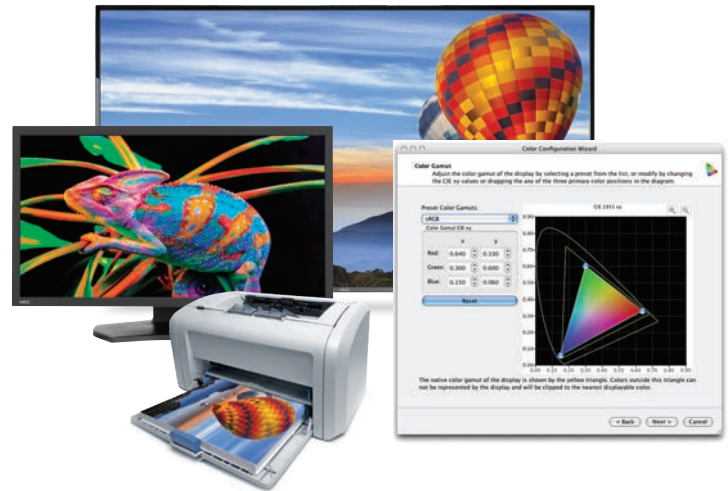
Color Space Emulation

The Essential

Built-in presets for standard color spaces, including sRGB, AdobeRGB, DCI P3, Rec 709 Rec 2100 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 PA311D has four-way Picture by Picture mode.

The Extras

The PA311D 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 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 PA311D offers 10 bit color support over DisplayPort and HDMI inputs for increased color fidelity when matched with a 10 bit operating system and software applications.



10 bit color eliminates banding



8 bit color shows banding

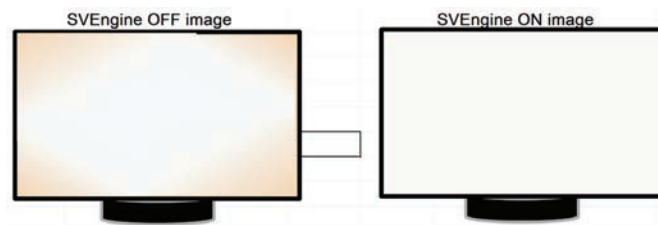
SpectraView Engine

The Essential

The NEC-exclusive SpectraView Engine controls all of the color settings for the MultiSync PA Series. It uses a system of sensors to ensure that color is accurate and stable while the display is in use.

The Extras

SpectraView Engine controls the white point, brightness, color space and gamma in real time. In addition, each MultiSync PA Series display is individually characterized at the factory for color and uniformity performance. The SpectraView Engine will automatically compensate for variations in color and uniformity to ensure consistent performance across monitors.



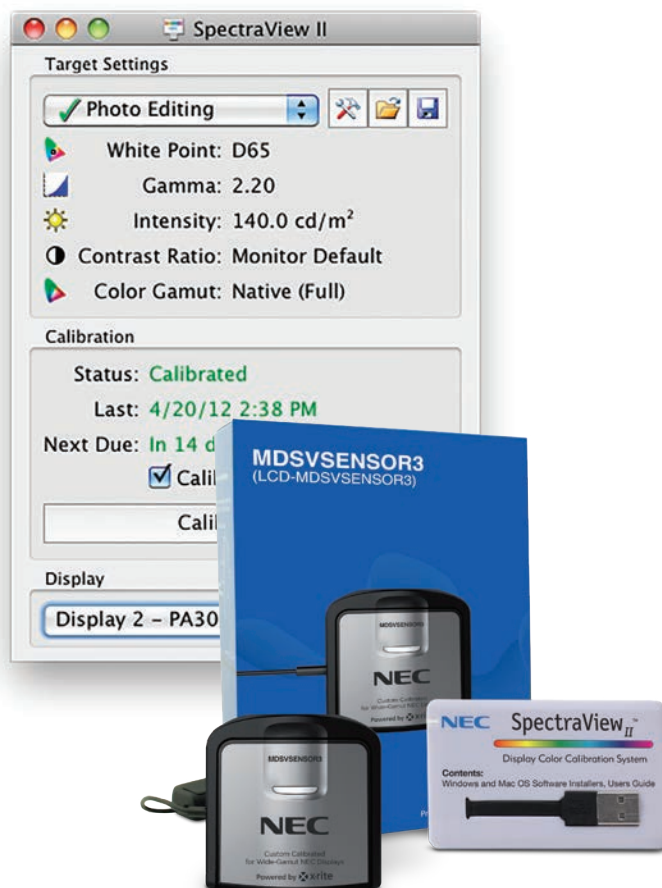
SpectraView™ Color Calibration Option

The Essential

Available as an option for the PA311D, the SpectraViewII color calibration solution uses an 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

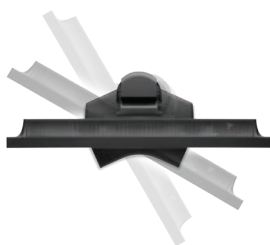
The SpectraViewII color calibration solution is simple, quick and reliable. Custom calibration targets allow you to calibrate to thousands of calibration combinations and the calibration validation functionality provides you with everything you need to trust the calibration results. In addition, SpectraViewII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



SpectraView™ II

Display Color Calibration System

MultiSync® Model			PA311D
DISPLAY	Panel Technology		IPS
	Backlight Type		Wide Gamut W-LED
	Viewable Image Size		31.1"
	Aspect Ratio		17:9
	Native Resolution		4096 x 2160
	Pixel Pitch		0.1704mm
	"Pixels Per Inch (at native resolution)"		149
	Brightness (typical)		350cd/m²
	Contrast Ratio (typical)		1400:1
	Color Gamut*	Adobe RGB Coverage/Size**	100% / 152.2%
		NTSC Coverage/Size	97.4% / 107.8%
		sRGB Coverage/Size	99.9% / 112.8%
	Viewing Angle (typical)		178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR>10
	Response Time (typical)		8.0ms
	Displayable Colors		1.07 billion
Horizontal (Analog/Digital)		15-135 KHz	
Vertical		24-75 Hz	
Input Connectors		DisplayPort (2), HDMI (2), USB Type-C, USB hub (3 up / 3 down) with DisplaySync Pro	
Output Connectors		Headphone out (Stereo Mini Jack)	
USB	Hub	USB 3.1, 2 up / 3 down	
	Power Delivery	USB-C 65W	
POWER CONSUMPTION	On (typical)	84W (max)	
	Power Savings Mode (typical)	0.5W	
PHYSICAL SPECIFICATIONS	Dimension (WxHxD)	With stand	29.1 x 17.1 - 23.0 x 11.9 in. / 737.9 x 433.2 - 583.2 x 301.6 mm
		Without stand	29.1 x 16.3 x 3.1 in. / 737.9 x 413.6 x 79.7 mm
	Net Weight	With stand	32.8 lbs. / 14.9 kg
		Without stand	19 lbs. / 8.6 kg
	VESA Hole Configuration		100 x 100mm, 200 x 100mm
ENVIRONMENTAL CONDITIONS	Operating Temperature		41-95°F / 5-35°C
	Operating Humidity		20-80%
	Operating Altitude		16404 ft. / 5000m
	Storage Temperature		-4-140°F / -20-60°C
	Storage Humidity		10-85%
	Storage Altitude		40,000 ft. / 12,192m
RoHS		Yes	
ADDITIONAL FEATURES			SpectraView Engine color management; MultiProfiler software;USB hub (2 up / 3 down) with DisplaySync Pro; 14-bit 3D LUT;Digital Uniformity Correction; Wide Color Gamut; Adobe RGB; sRGB; Rec 709; Rec 2100; Human Sensor; ECO Mode; Carbon footprint meter; Thin frame; Tilt; Swivel; Height-adjustable stand with locking base; Quick release stand; Carrying handle;Rapid Response;Ambix4;XtraView+;Touch OSD user controls; Cable management;VESA mount; HDCP; DDC/CI;Black Level adjustment; AmbiBright; TileMatrix; SpectraView_ software ready
SHIPS WITH			Power cord; DisplayPort cable; Mini DisplayPort to DisplayPort cable; USB 3.1 A to B cable; Mounting screws
LIMITED WARRANTY			4 years with 48 hour advanced exchange



* 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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