

NEC MultiSync® PA Series with SpectraView_{II}™

Color calibration solution ideal for color-critical applications
(23" - 30" widescreen professional LCD displays)

Designed with key features for the graphics and photography professional, NEC MultiSync PA Series displays are smart investments for your desktop. These models include the SpectraView_{II} Color Calibration Solution, which combines award-winning NEC LCD display technology with a color measurement sensor and sophisticated software. The result is a highly accurate, reliable, repeatable and feature-rich display calibration and profiling solution.

Color and brightness uniformity were paramount in the design of these high-performance displays, making them ideal for graphic arts, desktop publishing, photography and other color-critical environments. In addition to accurate color, the displays also feature Picture-in-Picture and Picture-by-Picture modes for a real-time preview of work in a second color space.

- Best-in-class 10-bit active matrix IPS LCD technology with wide viewing angle and wide color gamut* provides optimum performance for displaying color images
- XtraView+™ technology provides for the widest viewing angles available (up to 178°) with minimal off-angle color shift
- Internal 14-bit programmable 3D lookup tables (LUTs) allow the display of 1.07 billion colors out of a palette of 4.3 trillion** for lossless color and smooth images and hardware calibration
- Free MultiProfiler software provides complete control over the five picture modes. This includes loading any ICC profile directly into the monitor for optimal color space matching.
- Built-in USB hub with DisplaySync Pro™ controls two computers with only one keyboard and mouse
- AmbiBright™ ambient light sensor automatically adjusts the display's brightness based on lighting conditions
- Four-way ergonomic stand boasts pivot, swivel, tilt and height-adjustment up to 150mm to maximize your viewing comfort
- Color Vision Emulation allows a real-time preview of Type P/D/T color vision deficiencies in support of Color Universal Design

* PA231W features an 8-bit IPS LCD and standard color gamut

** with 10-bit DisplayPort input. 16.7 million colors out of 65 billion with DVI-D input.

Model	Size	Panel Technology	AdobeRGB Coverage
PA231W	23"	e-IPS	75.4%
PA241W	24"	p-IPS	98.1%
PA271W	27"	p-IPS	97.1%
PA301W	30"	p-IPS	98.2%



PA301W



PA271W



PA241W



PA231W



Model	MultiSync PA231W	MultiSync PA241W	MultiSync PA271W	MultiSync PA301W	
Display					
Viewable Size Image	23"	24.1"	27"	29.8"	
Pixel Pitch	0.265mm	0.27mm	0.23mm	0.251mm	
Pixels Per Inch	96 @ native resolution	93 @ native resolution	109 @ native resolution	101 @ native resolution	
Brightness (typical)	270 cd/m ²	360 cd/m ²	300 cd/m ²	350 cd/m ² (270 cd/m ² portrait)	
Contrast Ratio (typical)	1000:1	1000:1	1000:1	1000:1	
Viewing Angle (typical)	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 5	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 5	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 5	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 5	
Response Time (typical)	8ms Rapid Response™ (Gray-to-Gray)	8ms Rapid Response™ (Gray-to-Gray)	7ms Rapid Response™ (Gray-to-Gray)	7ms Rapid Response™ (Gray-to-Gray)	
Panel Bit Depth	14-bit internal 3D LUTs, displays 1.07 billion colors out of 4.3 trillion (10-bit DisplayPort input), 16.7 million colors out of 1.05 billion color palette (DVI-D input)	14-bit internal 3D LUTs, displays 1.07 billion colors out of 4.3 trillion (10-bit DisplayPort input), 16.7 million colors out of 1.05 billion color palette (DVI-D input)	14-bit internal 3D LUTs, displays 1.07 billion colors out of 4.3 trillion (10-bit DisplayPort input), 16.7 million colors out of 1.05 billion color palette (DVI-D input)	14-bit internal 3D LUTs, displays 1.07 billion colors out of 4.3 trillion (10-bit DisplayPort input), 16.7 million colors out of 1.05 billion color palette (DVI-D input)	
Color Gamut*					
Adobe RGB** Coverage/Size	75.4% / 75.8%	98.1% / 107%	97.1% / 107.2%	98.2% / 106.7%	
NTSC Coverage/Size	71.6% / 72.4%	93.2% / 102.2%	92.6% / 102.5%	93.3% / 102%	
sRGB Coverage/Size	96.6% / 102.2%	100% / 144.3%	100% / 144.7%	100% / 144%	
Synchronization Range					
Horizontal	31.5 - 83/118.4 kHz (Analog/ Digital)	31.5 - 93.8/118.4 kHz (Analog) / 31.5 - 91.9/118.4 kHz (Digital)	31.5 - 93.9 KHz (Digital)	31.5 - 98.7 KHz (Digital)	
Vertical	50 - 85 Hz	50 - 85 Hz	50 - 87 Hz	30 - 87 Hz	
Analog Input Signal					
Video Sync	Analog RGB 0.7 Vp-p/75 Ohms Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	Analog RGB 0.7 Vp-p/75 Ohms Separate sync: TTL Level (Positive/Negative) Composite sync: TTL Level (Positive/Negative) Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive)	NA	NA	
Inputs	DisplayPort, DVI-D (2) & VGA 15-pin D-sub	DisplayPort, DVI-D (2) & VGA 15-pin D-sub	DisplayPort & DVI-D Dual Link (2)	DisplayPort (2) & DVI-D Dual Link (2)	
Resolutions Supported (Analog/Digital)	720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 56-85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-85 Hz 1152 x 864 @ 70-85 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60 Hz 1280 x 1024 @ 60-85 Hz 1400 x 1050 @ 60-75 Hz 1440 x 900 @ 60-85 Hz 1600 x 900 @ 60 Hz 1024 x 1280 @ 60 Hz 720 x 480p @ 60 Hz 720 x 576p @ 50 Hz 1280 x 720p @ 50-60 Hz 1920 x 1080p @ 50-60 Hz	640 x 400 @ 70-85 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 56-85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-85 Hz 1152 x 864 @ 70-85 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60 Hz 1280 x 1024 @ 60-85 Hz 1400 x 1050 @ 60-75 Hz 1440 x 900 @ 60-85 Hz 1600 x 1200 @ 60-75 Hz 1920 x 1200 @ 60 Hz 1024 x 1280 @ 60 Hz 1200 x 1920 @ 60 Hz 720 x 480p @ 60 Hz 720 x 576p @ 50 Hz 1280 x 720p @ 50-60 Hz 1920 x 1080p @ 50-60 Hz	640 x 400 @ 70-85 Hz 720 x 400 @ 70-85 Hz 800 x 600 @ 56-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 56-85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-85 Hz 1152 x 864 @ 70-85 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60 Hz 1280 x 1024 @ 60-85 Hz 1400 x 1050 @ 60-75 Hz 1440 x 900 @ 60-85 Hz 1600 x 1200 @ 60-75 Hz 1920 x 1200 @ 60 Hz 1024 x 1280 @ 60 Hz 720 x 480p @ 60 Hz 720 x 576p @ 50 Hz 1280 x 720p @ 50-60 Hz 1920 x 1080p @ 50-60 Hz	DIGITAL ONLY 640 x 400 @ 70-85 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 56-85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-85 Hz 1152 x 864 @ 70-85 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60 Hz 1280 x 1024 @ 60-85 Hz 1400 x 1050 @ 60-75 Hz 1440 x 900 @ 60-85 Hz 1600 x 1200 @ 60 Hz 1600 x 900 @ 60 Hz 1600 x 1200 @ 60 Hz 2048 x 1536 @ 30-60 Hz 1024 x 1280 @ 60 Hz 720 x 480p @ 60 Hz 720 x 576p @ 50 Hz 1280 x 720p @ 50-60 Hz 1920 x 1080p @ 50-60 Hz	DIGITAL ONLY 720 x 350 @ 70-85 Hz 720 x 400 @ 70-85 Hz 640 x 480 @ 60-85 Hz 800 x 600 @ 56-85 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-85 Hz 1152 x 864 @ 70-85 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60 Hz 1280 x 1024 @ 60-85 Hz 1400 x 1050 @ 60-75 Hz 1440 x 900 @ 60-85 Hz 1600 x 1200 @ 60 Hz 1920 x 1200 @ 60 Hz 2560 x 1440 @ 60 Hz 720 x 480p @ 60 Hz 720 x 576p @ 50 Hz 1280 x 720p @ 50-60 Hz 2560 x 1600 @ 60 Hz (DP/DVI Dual Link) 2560 x 1600 @ 30-60 Hz
Native Resolution	1920 x 1080	1920 x 1200	2560 x 1440	2560 x 1600	
Additional Features	USB hub (2 up/3 down) with DisplaySync Pro, Picture-in-Picture, Picture-by-Picture, ICC Profile Emulation, Color Vision Emulation, 14-bit 3D LUTs, Adobe RGB, DICOM, ColorComp, override, ECO Mode, cable management, touch-enabled, tilt, swivel, pivot, 150mm height-adjustable stand with locking base, No Touch Auto Adjust, quick release stand, VESA Mount, TCO 5.0, ENERGY STAR 5.0	USB hub (2 up/3 down) with DisplaySync Pro, Picture-in-Picture, Picture-by-Picture, ICC Profile Emulation, Color Vision Emulation, 14-bit 3D LUTs, Adobe RGB, DICOM, ColorComp, override, ECO Mode, cable management, touch-enabled, tilt, swivel, pivot, 150mm height-adjustable stand with locking base, No Touch Auto Adjust, quick release stand, VESA Mount, TCO 5.0	USB hub (2 up/3 down) with DisplaySync Pro, Picture-in-Picture, Picture-by-Picture, ICC Profile Emulation, Color Vision Emulation, 14-bit 3D LUTs, Adobe RGB, DICOM, ColorComp, override, ECO Mode, cable management, tilt, swivel, pivot, 150mm height-adjustable stand with locking base, quick release stand, VESA Mount, TCO '03, ISO9241-307 (Class 1) certification	USB hub (2 up/3 down) with DisplaySync Pro, Picture-in-Picture, Picture-by-Picture, ICC Profile Emulation, Color Vision Emulation, 14-bit 3D LUTs, Adobe RGB, DICOM, ColorComp, override, ECO Mode, cable management, tilt, swivel, pivot, 150mm height-adjustable stand with locking base, quick release stand, VESA Mount, TCO '03, ISO9241-307 (Class 1) certification, standalone hardware calibration	
Touch-Capable	Designed for integration	Designed for integration	No	No	
Voltage Rating	AC 100-120V / AC 220-240V	AC 100-120V / AC 220-240V	AC 100-120V / AC 220-240V	AC 100-120V / AC 220-240V	
Power Consumption (typical)					
On	46W (without USB active) / 57W (with USB active)	95W (without USB active) / 114W (with USB active)	117W (without USB active) / 131W (with USB active)	155W (without USB active) / 161W (with USB active)	
Power Savings Mode	0.2W (without USB active) / 15W (with USB active)	1W (without USB active) / 15W (with USB active)	1.4W (without USB active) / 11W (with USB active)	1.7W (without USB active) / 12W (with USB active)	
Dimensions (WxHxD)					
Net (with stand)	21.4 x 13.3-19.2 x 9 in. / 543.6 x 337.8-487.7 x 228.6mm	21.9 x 14.9-20.8 x 9 in. / 556.8 x 378-528 x 227.6mm	25.2 x 15.6-21.5 x 9.3 in. / 640.4 x 396.2-546.2 x 235.5mm	27.1 x 18.4-24.3 x 11.9 in. / 688.3 x 467.4-617.2 x 302.3mm	
Net (without stand)	21.4 x 12.7 x 2.9 in. / 543.6 x 322.6 x 73.7mm	21.9 x 14.3 x 3.3 in. / 556.8 x 362.4 x 85mm	25.2 x 14.9 x 3.3 in. / 640.4 x 378.6 x 85mm	27.1 x 17.6 x 4.9 in. / 688.3 x 447 x 124.5mm	
Net Weight (with stand) (without stand)	22.5 lbs. / 10.2 kg 15.4 lbs. / 7 kg	23.4 lbs. / 10.6 kg 16.3 lbs. / 7.4 kg	30 lbs. / 13.6 kg 21.2 lbs. / 9.6 kg	41.5 lbs. / 18.8 kg 27.6 lbs. / 12.5 kg	
VESA Hole Configuration Specifications	100 x 100mm	100 x 100mm	100 x 100mm, 200 x 100mm	100 x 100mm, 200 x 100mm	
Environmental Conditions					
Operating Temperature	5-35°C / 41-95°F	5-35°C / 41-95°F	5-35°C / 41-95°F	5-35°C / 41-95°F	
Operating Humidity	30-80%	30-80%	30-80%	30-80%	
Operating Altitude	2000m / 6562 ft.	2000m / 6562 ft.	3048m / 10,000 ft.	3048m / 10,000 ft.	
Storage Temperature	-10-60°C / 14-140°F	-10-60°C / 14-140°F	-10-60°C / 14-140°F	-10-60°C / 14-140°F	
Storage Humidity	10-85%	10-85%	10-85%	10-85%	
Storage Altitude	12,192m / 40,000 ft.	12,192m / 40,000 ft.	12,192m / 40,000 ft.	12,192m / 40,000 ft.	
Safety Standards	UL / C-UL, CE, Gost/PCT, PSB, CCC, NOM, TUV GS, FCC Class B/Canadian DOC, C-tick, MPR III, VCCI (class 2)	UL / C-UL, CE, Gost/PCT, PSB, CCC, NOM, TUV GS, FCC Class B/Canadian DOC, C-tick, MPR III, VCCI (class 2)	UL / C-UL, CE, Gost/PCT, PSB, CCC, NOM, TUV GS, FCC Class B/Canadian DOC, C-tick, MPR III, VCCI (class 2)	UL / C-UL, CE, Gost/PCT, PSB, CCC, NOM, TUV GS, FCC Class B/Canadian DOC, C-tick, MPR III, VCCI (class 2)	
Limited Warranty	4 years parts and labor, including backlight	4 years parts and labor, including backlight	4 years parts and labor, including backlight	4 years parts and labor, including backlight	
Technical Support	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	

* Color gamut size and coverage calculated as 2-D gamut area in CIE 1931 xy color space. 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.

SpectraView_{II} Software Requirements

Apple Mac OS X v10.3.9 or higher. Microsoft Windows 2000, Windows XP (Home and Professional editions), Windows XP x64, Windows Vista 32 bit and x64 versions, and Windows 7 32 bit and x64 versions. Suse Enterprise Desktop 10 and higher. At least one available USB port for MDSVSENSOR2 color sensor. Visit www.necdisplay.com for the latest requirements.



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- Legacy Technology Services is a leading nationwide provider of mobile computing, barcode, printers and point of sale equipment and services.
- For over a decade, thousands of clients across North America have trusted us to provide equipment from leading manufacturers backed by the services to support them.

Latest Hardware from top manufacturers

- Legacy handles virtually every major manufacturer of mobile computing, barcoding and point of sale equipment.

Expert Repair and Maintenance services

- Legacy is one of the best repair facilities in North America

Discontinued product sourcing

- They don't make it anymore? Our inventory also includes manufacturer close-outs and discontinued equipment to support our clients legacy infrastructure.

Trade-in and Disposal services

- That old equipment laying around your facility may still have some value. Legacy routinely purchases equipment from our clients around the globe.
 - Data destruction
 - Hardware disposal
 - Auditing services

Dedicated client account team

- Dedicated, highly trained account managers are here to answer all your questions and provide top notch service.

Equipment rental services

- Sometimes renting is a better solution, Legacy's huge rental inventory provides the equipment you need for temporary needs and projects.



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