NEC MultiSync® EA Series

Desktop LCDs ideal for corporate environments

ECO MODE

Take your productivity to new heights. With its MultiSync EA Series, NEC has developed desktop displays that combine cutting-edge technologies with dynamic design accents, giving you the ability to increase your productivity while adding a modern flair to your desktop. The 19" NEC MultiSync EA190M and EA191M, 22" EA221WM and EA222WMe, 23" EA231WMi, 24" EA241WM and 26" EA261WM, which tout flexibility for any number of applications and environments, meet the diverse needs of businesses of all kinds.

It's easy to be green. The MultiSync EA Series is loaded with features that promote environmental consciousness, including: two-step ECO Mode™, three-step auto brightness, Intelligent Power Manager (IPM) and an off timer for further energy savings, a resettable carbon footprint meter for tracking the conservation of green gas emissions, and a significant reduction in packaging materials. The flagship EA222WMe's LED-backlit panel sets the bar for "green" technology by providing the same brightness as other panel types while using 20% less power. Compared to previous generation NEC LCDs, this model consumes up to 52% less power overall, radiates up to 61% less heat, uses up to 15% less packaging, weighs up to 25% less, utilizes recycled plastics in its production and is free of hazardous materials such as mercury, halogen and arsenic.

Wide compatibility for today and tomorrow. With Ambix® dual-input technology– which utilizes both DVI-D and traditional 15-pin VGA connectors–you can bridge the gap between analog and digital systems by allowing the same monitor to work seamlessly in either environment. Ambix provides compatibility with today's computer systems and is on the forefront of tomorrow's digital output. The EA222WMe and EA231WMi feature DisplayPort for even more enhanced compatibility.

Features & Benefits

LED backlight technology provides for industry-leading brightness efficiency and low power consumption (EA222WMe)

Height-adjust, pivot, tilt and swivel capabilities add flexibility and comfort to your viewing preferences

Ambient light sensor automatically adjusts the backlight and power management depending on the ambient lighting brightness (EA222WMe & EA231WMi)

Built-in multimedia speakers with headphone jack save significant desktop space

Integrated USB 2.0 hub gives you convenient connections to peripherals (except EA190M & EA191M)

DisplayPort input provides maximum display performance with improved resolution, color depths and refresh rates (EA222WMe & EA231WM)

ECO Mode™ helps save power, reduce heat and extend the life of the display by allowing the user to dim the backlight

5-setting Dynamic Video Mode enhances video and images with real-time optimization of brightness, color and contrast

Resettable carbon footprint meter helps track and calculate the reduction of green gas emissions

Resettable cost meter (via On Screen Display) indicates electricity cost savings based on currency settings (EA222WMe)

Intelligent Power Manager (IPM) system and off timer provide innovative power-saving methods and reduce CO_2 emissions by shifting to a lower power consumption level or automatically powering down when the monitor is on but not in use

NaViSet™ software offers an expanded and intuitive interface, allowing you to more easily adjust display settings via mouse and keyboard

Energy Star 5.0 and TCO 5.0 compliance reduce electrical costs and lowers total cost of ownership

EPEAT Gold and Silver compliance ensures the displays reduce hazardous waste and electricity usage, resulting in lower energy costs and increased protection for the environment

NEC Display Solutions' quality and reliability provide peace of mind with a 3-year limited parts and labor warranty (including backlight) and unrivaled customer service and technical support

NEC

Model	MultiSync EA190M	MultiSync EA191M	MultiSync EA221WM	MultiSync EA222WMe	MultiSync EA231WMi	MultiSync EA241WM	MultiSync EA261WM
Display							
Viewable Image Size	19"	19"	22"	22"	23"	24"	26"
Pixel Pitch	0.294mm	0.294mm	0.282mm	0.282mm	0.265mm	0.270mm	0.292mm
Pixels Per Inch	86 @ native resolution	86 @ native resolution	90 @ native resolution	90 @ native resolution	96 @ native resolution	94 @ native resolution	87 @ native resolution
Brightness (typical)	250 cd/m²	250 cd/m²	250 cd/m²	250 cd/m²	270 cd/m²	400 cd/m²	400 cd/m²
Contrast Ratio (typical)	900:1	1500:1	1000:1	1000:1	1000:1 (3000:1 dynamic)	1000:1	1000:1
Viewing Angle (typical)	176° Vert., 176° Hor. (88U/88D/88L/88R) (CR > 5)	170° Vert., 176° Hor. (88U/88D/88L/88R) (CR > 10)	170° Vert., 176° Hor. (85U/85D/88L/88R) (CR > 5)	160° Vert., 170° Hor. (75U/75D/88L/88R) (CR > 10)	178° Vert., 178° Hor. (89U/89D/89L/89R) (CR > 10)	160° Vert., 160° Hor. (80U/80D/80L/80R) (CR > 10)	160° Vert., 160° Hor. (80U/80D/80L/80R) (CR > 10)
Response Time (typical)	Rapid Response (5ms)	Rapid Response (25ms)	Rapid Response (5ms)	Rapid Response (5ms)	Rapid Response (14ms)	Rapid Response (5ms)	Rapid Response (5ms)
Display Colors	More than 16.7million	More than 16.7million	More than 16.7million	More than 16.7million	More than 16.7million	More than 16.7million	More than 16.7million
Synchronization Range							
Horizontal	31.5-81.1KHz (Analog/Digital)	31.5-81.1KHz (Analog/Digital)	31.5-81.1KHz (Analog/Digital)	31.5-82.3KHz (Analog/Digital)	31.5-83.1KHz (Analog/Digital)	31.5-81.1KHz (Analog/Digital)	31.5-81.1KHz (Analog/Digital)
Vertical	56-75Hz (Analog/Digital)	56-75Hz (Analog/Digital)	56-75Hz (Analog/Digital)	56-75Hz (Analog/Digital)	56-75Hz (Analog/Digital)	56-76Hz (Analog/Digital)	56-76Hz (Analog/Digital)
Input Signal							
Video	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms	Analog 0.7 Vp-p / 75 Ohms
Sync	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)	Separate Sync: TTL Level (positive/negative)
Inputs	DVI-D and VGA 15-pin D-Sub	DVI-D and VGA 15-pin D-Sub	DVI-D and VGA 15-pin D-Sub	DVI-D, VGA 15-pin D-Sub and DisplayPort	DVI-D, VGA 15-pin D-Sub and DisplayPort	DVI-D and VGA 15-pin D-Sub	DVI-D and VGA 15-pin D-Sub
Resolutions Supported	Analog/Digital 720 x 400 @ 70 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 75 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60-75 Hz 1280 x 1024 @ 60-75 Hz	Analog/Digital 720 x 400 @ 70 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 70-75 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60-75 Hz 1280 x 1024 @ 60-75 Hz	Analog/Digital 720 x 400 @ 70 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 70-75 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60-75 Hz 1280 x 1024 @ 60-75 Hz 1360 x 768 @ 60 Hz 1440 x 900 @ 60-75 Hz 1440 x 1050 @ 60-70 Hz 1680 x 1050 @ 60 Hz	Analog/Digital 720 x 400 @ 70 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 70-75 Hz 1152 x 870 @ 75 Hz 1280 x 960 @ 60-75 Hz 1280 x 1024 @ 60-75 Hz 1360 x 768 @ 60 Hz 1440 x 900 @ 60-75 Hz 1440 x 1050 @ 60-70 Hz 1680 x 1050 @ 60 Hz	Analog/Digital 720 x 400 @ 70 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 870 @ 75 Hz 1280 x 1024 @ 60-75 Hz 1400 x 1050 @ 60 Hz 1440 x 900 @ 60 Hz 1920 x 1080 @ 60 Hz	Analog/Digital 720 x 350 @ 70-85 Hz 720 x 400 @ 70/85 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 75 Hz 1152 x 870 @ 75 Hz 1280 x 720 @ 60 Hz 1280 x 768 @ 60-75 Hz 1280 x 960 @ 60/75/85 Hz 1280 x 1024 @ 60-75 Hz 1360 x 768 @ 60 Hz 1440 x 900 @ 60 Hz 1440 x 1050 @ 60 Hz 1680 x 1050 @ 60 Hz 1600 x 1200 @ 60 Hz 1920 x 1200 @ 60 Hz	Analog/Digital 720 x 350 @ 70/85 Hz 720 x 400 @ 70/85 Hz 640 x 480 @ 60-75 Hz 800 x 600 @ 56-75 Hz 832 x 624 @ 75 Hz 1024 x 768 @ 60-75 Hz 1152 x 864 @ 75 Hz 1152 x 870 @ 75 Hz 1280 x 720 @ 60 Hz 1280 x 768 @ 60-75 Hz 1280 x 960 @ 60/75/85 Hz 1280 x 1024 @ 60-75 Hz 1360 x 768 @ 60 Hz 1440 x 900 @ 60 Hz 1440 x 1050 @ 60 Hz 1680 x 1050 @ 60 Hz 1600 x 1200 @ 60 Hz 1920 x 1200 @ 60 Hz
Native Resolution	1280 x 1024 @ 60 Hz	1280 x 1024 @ 60 Hz	1680 x 1050 @ 60 Hz	1680 x 1050 @ 60 Hz	1920 x 1080 @ 60 Hz	1920 x 1200 @ 60 Hz	1920 x 1200 @ 60 Hz
Additional Features	Thin-frame (bezel), integrated speakers, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, 2-step ECO Mode, carbon footprint meter, EPEAT Silver, Energy Star 5.0, TCO 5.0	Thin-frame (bezel), integrated speakers, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, ECO Mode, carbon footprint meter, EPEAT Silver	Thin-frame (bezel), wide-screen format, integrated speakers, USB 2.0 hub, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, ECO Mode, carbon footprint meter, HDMI-capable with adapter, EPEAT Gold	3-step auto brightness (ambient sensor), thin-frame (bezel), widescreen format, integrated speakers, USB 2.0 hub, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, ECMA-370, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, 2-step ECO Mode, resettable carbon meter, resettable cost meter, HDMI-capable via DVI adapter, EPEAT Gold, Energy Star 5.0, lead-free, RoHS-compliant, TCO 5.0, carrying handle, vacation switch	3-step auto brightness (ambient sensor), thin-frame (bezel), widescreen format, integrated speakers, USB 2.0 hub, height-adjustable stand (110mm), pivot, tilt, swivel, off-timer, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 9241-307, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, 720p and 1080p from DVI-D, ECO Mode, carbon footprint meter, EPEAT Gold, Energy Star 5.0, lead-free, RoHS-compliant, TCO 5.0, carrying handle	Thin-frame (bezel), wide-screen format, integrated speakers, USB 2.0 hub, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, 720p and 1080p from DVI-D, ECO Mode, carbon footprint meter, HDMI-capable with adapter, EPEAT Gold	Thin-frame (bezel), wide-screen format, integrated speakers, USB 2.0 hub, height-adjustable stand (110mm), pivot, tilt, swivel, No Touch Auto Adjust, cable management, AccuColor color control, digital smoothing, digital controls, DDC/CI, NaViSet software, Plug and Play (VESA DDC 1/2B), VESA DPMS power management, OSD user controls, ISO 13406-2 Class II, Windows Vista Premium-certified, Dynamic Video Mode, HDCP, 92% color gamut, 720p and 1080p from DVI-D, ECO Mode, carbon footprint meter, HDMI-capable with adapter, EPEAT Gold
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	AC 100-120V / AC 220-240V	AC 100-120V / AC 220-240V	AC 100-120V / AC 220-240V
Power Consumption (typical)							
On (w/ USB + audio)	21W	39W	59W	23W	43W	71W	99W
Power Savings Mode	< 1W	2W	2W	< 1W	< 1W	< 2W	< 2W
ECO Mode ON (with USB & Audio)	18W	31W	47W	17W	28W	57W	67W
ECO Mode ON (without USB & Audio)	15W	27W	27W	13W	22W	38W	50W
Dimensions (W x H x D)							
Net (with stand)	16.1 x 15.2 - 19.5 x 8.4 in. / 408 x 386.4-496.4 x 213.9mm	16.1 x 15.1 - 19.4 x 8.7 in. / 408 x 383.5-493.5 x 220mm	20 x 15 - 19.4 x 8.7 in. / 507.8 x 382 - 492 x 220mm	20 x 15 - 19.4 x 8.7 in. / 507.8 x 382 - 492 x 220mm	21.7 x 14.9 - 19.3 x 8.7 in. / 550.1 x 379.1 - 489.1 x 220mm	22 x 17.3-21.7 x 10.7 in. / 558.6 x 440.5-550.5 x 272.4mm	23.4 x 17.8-22.1 x 10.7 in. / 594.4 x 451-561 x 272.4mm
Net (without stand)	16.1 x 13.3 x 2.6 in. / 408 x 338 x 65mm	16.1 x 13.3 x 2.6 in. / 408 x 338 x 65mm	20 x 13.1 x 2.8 in. / 507.8 x 332.1 x 71.8mm	20 x 13.1 x 2.8 in. / 507.8 x 332.1 x 71.8mm	21.7 x 13 x 2.8 in. / 550.1 x 329 x 71mm	22 x 14.4 x 3.1 in. / 558.6 x 366.2 x 89mm	23.4 x 15.3 x 3.8 in. / 594.2 x 389.8 x 95.6mm
Weight							
Net (with stand)	14.6 lbs. / 6.6 kg	15.4 lbs. / 7 kg	17.4 lbs. / 7.9 kg	15.4 lbs. / 7 kg	18.7 lbs. / 8.5 kg	23.1 lbs. / 10.5 kg	27.1 lbs. / 12.3 kg
Net (without stand)	10.1 lbs. / 4.6 kg	9.7 lbs. / 4.4 kg	11.7 lbs. / 5.3 kg	9.9 lbs. / 4.5 kg	12.8 lbs. / 5.8 kg	14.3 lbs. / 6.5 kg	18.7 lbs. / 8.5 kg
VESA Hole Configuration Specifications	100 x 100mm	100 x 100mm	100 x 100mm	100 x 100mm	100 x 100mm	100 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	5-35°C / 41-95°F	5-35°C / 41-95°F	5-35°C / 41-95°F
Operating Humidity	20-80%	20-80%	20-80%	20-80%	20-80%	20-80%	20-80%
Operating Altitude	2000m / 6562 ft.	4572m / 15,000 ft.	2000m / 6562 ft.	2000m / 6562 ft.	2000m / 6562 ft.	2000m / 6562 ft.	2000m / 6562 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	-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%	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.	12,192m / 40,000 ft.	12,192m / 40,000 ft.	12,192m / 40,000 ft.
Limited Warranty	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 years parts and labor, including backlight	3 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)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)	M - F (7am - 7pm CST)

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