NEC

PROFESSIONAL

MULTISYNC® LCD 80 SERIES

Ultra-thin-frame, pro-level LCD monitors ideal for high-end users

Ultra-thin frame design, pro-level screen performance and advanced technologies for high-end users. The NEC MultiSync LCD 80 Series, comprised of the 19" NEC MultiSync LCD1980SX and MultiSync LCD1980SXi, 20" NEC MultiSync 2080UX+ and 21" NEC MultiSync LCD2180UX, has not only revolutionized the way flat-panel monitors are engineered and designed, but how they can be used. With their multitude of leading-edge capabilities, combined with groundbreaking minimalist design, these monitors could easily be considered the most intelligent visual display solutions to date. These models are ideal for a variety of environments and applications, most notably financial trading floors, call centers, graphic arts/desktop publishing and computer-aided design, as well as medical office information systems and soft-copy clinical viewing, including PACS. Not only are these monitors smart investments for you and your company, their advanced functionality and productivity-enhancing technologies illustrate their unique brilliance.

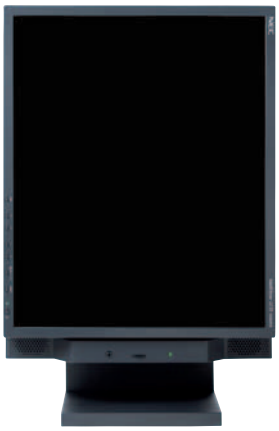
A bold statement in design. The MultiSync LCD 80 Series' cabinet design was developed to maximize adaptability and user-friendliness. What resulted was one of the thinnest frames available. Aside from freeing up more horizontal and vertical desktop space for multi-monitor applications, the virtually imperceptible bezel lets you focus more on your ideas instead of a distracting border surrounding the screen. Also, in addition to a black cabinet model, a brushed aluminum bezel (featured with white cabinet models) enables the monitors to fit in with the new generation of modern office environments.

Gain greater control. Our exclusive NaViSet™ software (available by download) offers an intuitive graphical user interface that allows the user to adjust On Screen Manager (OSM®) display settings via mouse and keyboard instead of using the monitor's up-front buttons. This software provides animated graphics and test patterns to help guide the user through adjustments.

For an unprecedented level of control, NaViSet Administrator software for IT professionals (available upon request) contains Windows Management Instrumentation™ (WMI) for remote control and diagnostics maintenance for all installed MultiSync LCD 80 Series units. This software provides IT personnel remote access to the monitor and its settings without disrupting the user.

NEC/MITSUBISHI
NEC-MITSUBISHI ELECTRONICS DISPLAY

Intelligent technology and design unite in this REVOLUTIONARY flat-panel monitor series.



NEC's MultiSync SoundBar80 creates a multimedia-enhanced monitor solution when attached to MultiSync LCD 80 Series monitors in either portrait (pictured) or landscape orientation.

All of these control capabilities are made possible using the advanced remote diagnostics and remote control capabilities of the Display Data Channel/Command Interface (DDC/CI). This allows control commands to be sent directly to the monitor by the local system or remotely over an existing network (LAN) by a system administrator. In order to take full advantage of these benefits, users must use a DDC/CI-compatible graphics card and be running Windows 2000/XP.

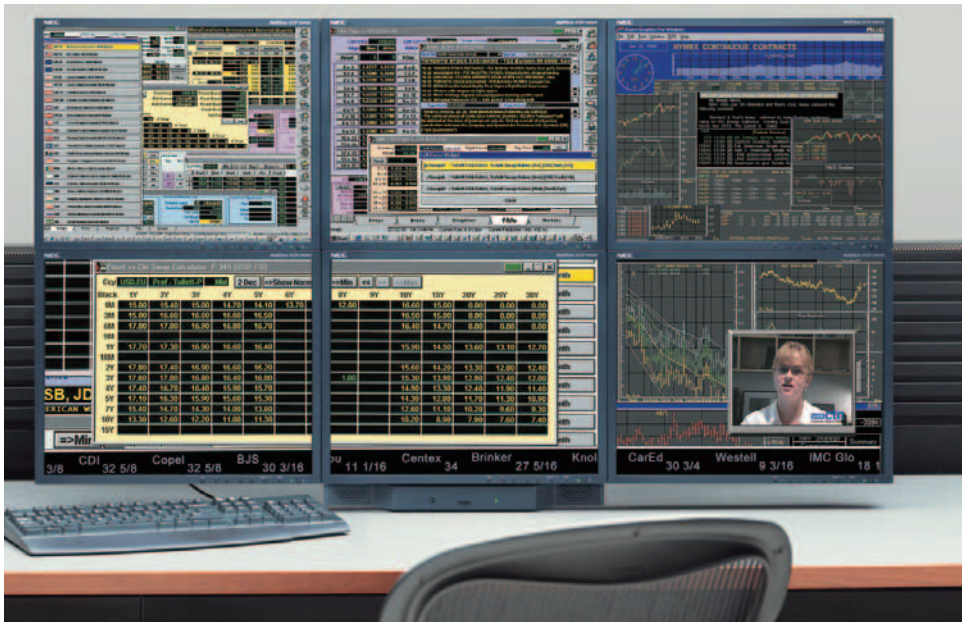
The Advanced OSM™ delivers a host of additional features that give you complete control of your monitor and its settings. Automatic black level adjustment allows for easy control of grayscale images for optimum picture in most applications, and when switched to manual mode, it is ideal for special user conditions in the medical industry, such as X-ray photo viewers. Video bandwidth can be adjusted to compensate for a bad signal and give you more flexibility in the number of signals you can view, while the auto adjust level can be customized to various settings for personal preferences when powering up a new system.

Also controlled through the Advanced OSM is TileMatrix™, which allows you to build video walls of various configurations. With the use of a simple video amplifier and a standard video card, this feature saves you time and money compared to other connection solutions. With the ability to utilize up to 25 monitors (5 x 5 configuration) that display a shared image, you can build an impressive video wall for various applications, including advertising and tradeshows. TileComp™ (featured on the MultiSync LCD1980SXi) works in tandem with TileMatrix to compensate for the width of tiled bezels and optimally display still images.

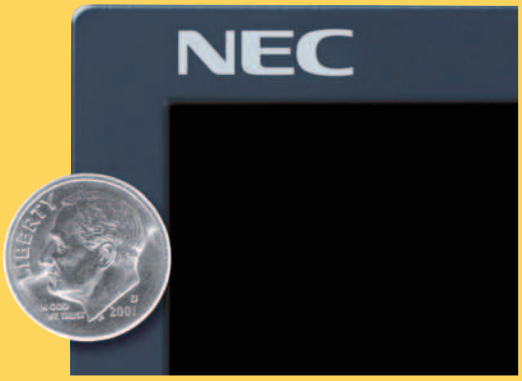
GammaComp™ internal circuitry (featured on the MultiSync LCD1980SX, LCD1980SXi and LCD2180UX) automatically converts 8-bit data from the PC to 10-bit and back to 8-bit, producing smooth, accurate color tones. Gamma can be set by using preset values or creating a custom setting from 0.5 to 4.0 in increments of 0.1, creating an ideal setting for video or other applications. Also, when using GammaComp software (available by download), user-programmable curves can be loaded into the display's internal 10-bit gamma lookup table, thereby allowing various custom display gamma or tone-response curves to be achieved. GammaComp uses a two-way communications link (DDC/CI) with the display via the video graphics adapter and normal video cable, eliminating the need for extra cables.

Another user-controlled feature offered by the Advanced OSM is AutoBright™, which adjusts the brightness level based on the image content on the screen. This function delivers optimal readability and reduced user eyestrain, as well as conserves energy, contributing to a lower total cost of ownership.

Asset management keeps managers up-to-speed. The MultiSync LCD 80 Series supports asset management capability by adhering to VESA DDC and EDID standards. Based on these standards, information from the monitors such as serial number, model name and date of manufacture can be communicated to a central system using asset management software such as Microsoft's System Management Server.



An ultra-thin frame and overall dynamic design free up valuable desktop space for multiple-monitor applications such as stacking on financial trading desks. Optional installation handles are available (upon request) for installation assistance on third-party mounts/arms.



The MultiSync LCD 80 Series' ultra-thin frame design, which at less than 13mm, is thinner than the width of a dime, saves almost 70% more horizontal space than its predecessors, providing a more uniform and virtual viewing experience.

Achieve consistent, long-distance signals. You can now realize the advantages of long monitor cable lengths without the difficulties and costs normally associated with this type of configuration. In environments such as trading floors and call centers, longer cables enable systems to be centrally located in control rooms far away from users (up to 326 feet/100 meters), allowing monitor upgrades, service and repairs to be accomplished without interrupting the work environment.

Historically, these longer monitor cable configurations tended to have limitations, including weakened signals, which resulted in blurred images. Inconsistent red, green and blue cable lengths were also common. This produced uneven signals, thereby drastically reducing display quality.

The MultiSync LCD 80 Series' CableComp™, compatible with all analog connections, solves these dilemmas by using a digitized signal delay circuit to automatically compensate for each red, green and blue cable's length and video signal delay, ensuring sharp image reproduction. CableComp also boosts the video signal to prevent blurred images without the need for costly repeaters.

Wide compatibility for today and tomorrow. Ambix+™ technology provides the widest range of computer video compatibilities between analog and digital systems by allowing the same monitor to work seamlessly in either environment. The DVI-I connector provides digital or analog input, the DVI-D connector provides digital-only input, and a third input is provided with a traditional 15-pin VGA connector, which allows for legacy analog-only connection. This triple-interface architecture provides a number of single and dual-input configurations.

Hassle-free display setup. With Advanced No Touch Auto Adjust™, MultiSync LCD 80 Series monitors not only provide for an optimal image upon initial power-on but can also detect closed signal changes even if they run under the same resolution and refresh rate, as is the case with external signal switch boxes. This results in a more stable image after switching. These models also feature auto DVI cable detection, which, upon power-up of your computer system, allows it to identify which signal cable (analog or digital) is attached to the monitor's DVI-I connector. This technology eliminates many manual setup steps and assures that your system and monitor configuration are achieving optimal performance.

Enhanced pro-level screen performance. With XtraView+™ wide-angle viewing technology (featured on the MultiSync LCD1980SXi, LCD2080UX+ and LCD2180UX), you can enjoy flexible horizontal and vertical viewing angles up to 176° (88° up, down, left and right) with reduced color shift and less glare, reflection and distortion. Less off-angle color shift results in less image degradation and, in environments where data may be viewed by multiple users, this enhanced feature proves to be a winning solution. NEC's Rapid Response™ technology provides for uninterrupted display of full-motion video with response times of 25ms or less. Rapid Response delivers streaming video without noticeable ghosting or blurring, while achieving as many as 62 frames per second (fps). This remarkably quick motion makes these models better than ever for animation, game development and video applications such as presentations and streaming web video. Rapid Motion™ (featured on the MultiSync LCD1980SXi), a technology strictly for viewing moving video, DVD movies or MPEG files, bypasses frame memory altogether for smooth-flowing video reproduction without ghosting or digital artifacts.

Intelligent power management ensures a smart investment. Using approximately 50% less power and emitting less heat than comparable CRT monitors, the MultiSync LCD 80 Series allows you to conserve energy and lower your total cost of ownership. Many technologies contribute to these savings, including the automatic power-off timer, which can be set from 1-24 hours via the on-screen display. If users forget to turn off their monitors, this function will turn them off automatically after a user-determined period of time, thereby reducing electrical power costs. The high-efficiency backlight, which provides the longest lifetimes of any NEC LCD monitor family, reduces not only the power consumption but also the heat generation at the front of the screen.

Features and Benefits

Ultra-thin-frame design allows you to view more of your ideas and less of the monitor bezel, while freeing up more horizontal and vertical desktop space for multiple-monitor applications

XtraView® technology allows for wide viewing angles of 170° (MultiSync LCD1980SX)

XtraView+ technology allows for the widest viewing angles available (up to 176°) without off-angle color shift (MultiSync LCD1980SXi, LCD2080UX+ and LCD2180UX)

Rapid Response technology delivers virtually uninterrupted, undistorted viewing of high-speed, full-motion video

NaViSet software offers an expanded and intuitive graphical interface, allowing you to more easily adjust display settings via mouse and keyboard. The Administrator version utilizes the monitor's advanced control and diagnostics capabilities to provide IT professionals with remote access to monitor settings over their existing network

GammaComp internal circuitry automatically converts 8-bit data from the PC to 10-bit and back to 8-bit, producing smooth, accurate color tones (MultiSync LCD1980SX, LCD1980SXi and LCD2180UX)

TileMatrix allows you to build video walls of various configurations (up to 5 x 5) through the Advanced OSM (MultiSync LCD1980SXi and LCD2180UX)

TileComp compensates for tiled bezel width to optimally display still images (MultiSync LCD1980SXi)

CableComp automatic long cable compensation prevents image quality degradation caused by long cable lengths

Automatic black level adjustment regulates grayscale images for optimal picture quality

Power-off timer automatically turns your monitor's power off after a user-determined amount of time

AutoBright function aligns the monitor's brightness level with the application in use for optimal viewing

Auto DVI cable detection eliminates manual setup steps and ensures optimal performance between your system and monitor

Cable management helps prevent unattractive, space-consuming wire clutters

Advanced No Touch Auto Adjust provides optimal image settings upon initial power-on and closed signal changes (includes a user-selectable mode in the advanced OSM)

Pivot capability and height-adjustable stand add flexibility to your viewing preferences

Touch or protective glass integration-enabling design increases application options

SEE MORE.™

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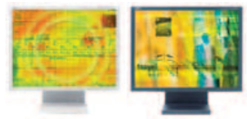

Model	*MultiSync LCD1980SX*	*MultiSync LCD1980SXi*	*MultiSync LCD2080UX+*	*MultiSync LCD2180UX*
Display				
Viewable Size Image	19"/48 cm	19"/48 cm	20.1"/51 cm	21.3"/54 cm
Pixel Pitch	0.294mm	0.294mm	0.255mm	0.27mm
Pixels Per Inch	86 @ native resolution	86 @ native resolution	100 @ native resolution	94 @ native resolution
Brightness (typical)*	250 cd/m²	270 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio (typical)*	600:1	500:1	400:1	500:1
Viewing Angle (typical)	170° Vert., 170° Hor. (85U/85D/85L/85R)	176° Vert., 176° Hor. (88U/88D/88L/88R)	176° Vert., 176° Hor. (88U/88D/88L/88R)	176° Vert., 176° Hor. (88U/88D/88L/88R)
Response Time (typical)	Rapid Response (25ms)	Rapid Response (25ms)	Rapid Response (16ms)	Rapid Response (20ms)
Display Colors	More than 16 million	More than 16 million	More than 16 million	More than 16 million
Synchronization Range				
Horizontal	31-82 kHz	31.5-81.1 kHz	31.5-91.1 kHz	31.5-91.1 kHz
Vertical	50-85 Hz	50-85 Hz	50-85 Hz	50-85 Hz
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
Sync	Separate Sync: TTL Level (positive/negative) Composite Sync: TTL Level (positive/negative) Composite Sync on Green (0.3 Vp-p negative 0.7 Vp-p positive)	Separate Sync: TTL Level (positive/negative) Composite Sync: TTL Level (positive/negative) Composite Sync on Green (0.3 Vp-p negative 0.7 Vp-p positive)	Separate Sync: TTL Level (positive/negative) Composite Sync: TTL Level (positive/negative) Composite Sync on Green (0.3 Vp-p negative 0.7 Vp-p positive)	Separate Sync: TTL Level (positive/negative) Composite Sync: TTL Level (positive/negative) Composite Sync on Green (0.3 Vp-p negative 0.7 Vp-p positive)
Input	Ambix+ technology (DVI-I, DVI-D, VGA 15-pin D-sub)	Ambix+ technology (DVI-I, DVI-D, VGA 15-pin D-sub)	Ambix+ technology (DVI-I, DVI-D, VGA 15-pin D-sub)	Ambix+ technology (DVI-I, DVI-D, VGA 15-pin D-sub)
Resolutions Supported	ANALOG/DIGITAL 640 x 400 @ 70-85 Hz (digital only) 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 870 @ 75 Hz 1280 x 1024 @ 60-75 Hz	ANALOG/DIGITAL 640 x 400 @ 70-85 Hz (digital only) 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 870 @ 75 Hz 1280 x 1024 @ 60-75 Hz	ANALOG/DIGITAL 640 x 400 @ 70-85 Hz (digital only) 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 870 @ 75 Hz 1280 x 1024 @ 60-85 Hz 1600 x 1200 @60 Hz	ANALOG/DIGITAL 640 x 400 @ 70-85 Hz (digital only) 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 870 @ 75 Hz 1280 x 1024 @ 60-85 Hz 1600 x 1200 @60 Hz
Native Resolution	1280 x 1024 @ 60 Hz	1280 x 1024 @ 60 Hz	1600 x 1200 @ 60 Hz	1600 x 1200 @ 60 Hz
Additional Features	Ultra-thin frame (bezel), GammaComp, XtraView wide-angle viewing technology, Ambix+ technology, Advanced No Touch Auto Adjust, AutoBright, CableComp, power-off timer, black level adjustment, digital smoothing, digital controls, OmniColor 6-axis color control, sRGB, third party touchscreen and protective glass integration, Plug and Play (VESA DDC2B & 2Bi), VESA DPMS power management, optional MultiSync SoundBar80, ISO 13406-2, automatic DVI selection	Ultra-thin frame (bezel), GammaComp, TileMatrix, TileComp, XtraView+ wide-angle viewing technology, Ambix+ technology, Advanced No Touch Auto Adjust, AutoBright, CableComp, power-off timer, black level adjustment, Rapid Motion, digital smoothing, digital controls, OmniColor 6-axis color control sRGB, third party touchscreen and protective glass integration, Plug and Play (VESA DDC2B & 2 Bi), VESA DPMS power management, optional MultiSync SoundBar80, ISO 13406-2 automatic DVI selection	Ultra-thin frame (bezel), XtraView+ wide-angle viewing technology, Ambix+ technology, Advanced No Touch Auto Adjust, AutoBright, CableComp, power-off timer, black level adjustment, digital smoothing, digital controls, sRGB, OmniColor 6-axis color control sRGB, third party touchscreen and protective glass integration, Plug and Play (VESA DDC2B & 2Bi), VESA DPMS power management, optional MultiSync SoundBar80, automatic DVI selection, ISO 13406-2	Ultra-thin frame (bezel), GammaComp, TileMatrix, XtraView+ wide-angle viewing technology, Ambix+ technology, Advanced No Touch Auto Adjust, AutoBright, CableComp, power-off timer, black level adjustment, digital smoothing, digital controls, sRGB, OmniColor 6-axis color control sRGB, third party touchscreen and protective glass integration, Plug and Play (VESA DDC2B & 2Bi), VESA DPMS power management, optional MultiSync SoundBar80, automatic DVI selection, ISO 13406-2
Pivot-Enabled	Yes	Yes	Yes	Yes
Height-Adjustable Stand	Yes	Yes	Yes	Yes
Touch-Capable	Designed for integration	Designed for integration	Designed for integration	Designed for integration
Voltage Rating	100-120/220-240V @ 50-60 Hz	100-120/220-240V @ 50-60 Hz	Universal 100 (110-240V) 50-60 Hz internal	Universal 100 (110-240V) 50-60 Hz internal
Power Consumption (typical)				
On	36W	45W	54W	52W
Power Savings Mode	<1W	<1W	<1W	<1W
Dimensions (W x H x D)				
Net (with stand)	412.2 x 365 x 220mm/16.2 x 14.4 x. 7.9 in	412.2 x 365 x 200mm/16.2 x 14.4 x 7.9 in	442 x 366 x 200mm/17.4 x 14.4 x 7.9 in	467 x 391 x 200mm/18.4 x 15.4 x 7.9 in
Net (without stand)	412.2 x 337 x 80mm/16.2 x 13.3 x 3.1 in	412.2 x 337 x 80mm/16.2 x 13.3 x 3.1 in	442 x 340 x 88.8mm/17.4 x 13.4 x 3.5 in	467 x 358.7 x 85mm/18.4 x 14.1 x 3.3 in
Weight				
Net (with stand)	20.5 lbs/9.3 kg	21.4 lbs/9.7 kg	23.1 lbs/10.5 kg	24.3 lbs/11.5 kg
Net (without stand)	13.2 lbs/6 kg	13.9 lbs/6.3 kg	15.4 lbs/7 kg	17 lbs/7.7 kg
VESA Hole Configuration Specifications	100 x 100mm	100 x 100mm	100 x 100mm	100 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	3,658 m/12,000 ft	3048 m/10,000 ft	4,658 m/12,000 ft	4,850 m/15,900 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%@40°C/10-20%@60°C	10-85%	10-85%	10-85%
Storage Altitude	13,600 m/44,619 ft	12,192 m/40,000 ft	12,192 m/40,000 ft	13,600 m/44,600 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
Technical Support	24 hours/7 days	24 hours/7 days	24 hours/7 days	24 hours/7 days

*measured according to VESA FPDM

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