# NEC MultiSync® LCD2490WUXi
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24" and 26" (25.5" VIS) widescreen LCD displays ideal for graphics applications

**Watch productivity soar when you go wide with NEC.** The 24" NEC MultiSync LCD2490WUXi and 26" LCD2690WUXi deliver an entirely new perspective to your desktop. With their wide-format design (16:10 aspect ratio), which provides roughly the same work area as two smaller-sized displays, you can simultaneously view/work in multiple application windows. With their multitude of leading-edge capabilities, combined with ground-breaking 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 Windows Vista™ Premium-certified monitors smart investments for you and your company, their advanced functionality and productivity-enhancing technologies illustrate their unique brilliance.

**A design that combines the best in form and function.** With the development of the MultiSync 90 Series, NEC engineers have taken the concept of display design to unchartered territories, prompting a "They thought of everything" reaction from users. Not only does the cabinet add an aesthetically pleasing presence to your desktop, it boasts many advanced features that increase your ease of use and daily productivity.

One of the thinnest display frames in the industry highlights the MultiSync 90 Series' dynamic design. Aside from providing a wide screen area to let you focus more on your ideas, the virtually imperceptible bezel frees up more horizontal and vertical desktop space for multi-monitor applications. These include both standard side-by-side and tiled configurations, which are also assisted by the cabinet's rear clip slots. Using the clips (available separately), these allow for easier alignment of the displays for a more seamless overall appearance.

Newly designed control buttons on the bottom corner of the bezel provide you with a more intuitive means to reach your preferred image settings. By having a key guide for each button appear on-screen alongside it when activated, an even thinner and more non-distracting bezel is achieved. Plus, when switching from landscape to portrait orientation or vice versa, an internal gravitational sensor automatically changes the on-screen guides accordingly.

In addition to their ability to easily switch orientations, MultiSync 90 Series displays provide other means of reaching your preferred viewing comfort. The newly designed base allows for a height adjustment range of an astounding 150mm, while the tilt and swivel functions provide flexibility in meeting ergonomic standards or personal preferences. Despite its wide range of motion, the display's cable management feature is able to safely conceal video cables and power cords, helping you avoid unattractive desktop clutters.

For environments in which easy adaptability with the displays is required, the quick release stand and recessed handle are essential. With the simple pull of a lever on the base, the display quickly disengages from the stand, allowing you to move the display from a desktop to a wall or arm mount. Tools and easy-to-lose screws also can be avoided with the use of this quick and simple function. The handle on the back of the display further eases the display's portability.

### A smarter display. Only from NEC.

In order to provide the MultiSync 90 Series with its multitude of advanced technologies, NEC engineers literally started its development from scratch. While competing displays normally employ "off-the-shelf" video chipsets, NEC designed an Application-Specific Integrated Circuit (ASIC), a chip designed for specific applications. As a result, these displays are able to deliver all of their cutting-edge features directly to your desktop.

**Achieve complete color and brightness uniformity.** By nature, LCD panels and CCFL backlights contain uniformity errors, or mura, which are visible as slightly brighter or darker areas on the screen. To combat this inherent trait, each MultiSync 90 Series display is individually characterized during production using a fully automated system that measures hundreds of points across the screen at different gray levels. These measurements are used to build a 3-D correction matrix stored inside the display. This data is used to compensate for the uniformity not only as a function of position on the screen but of gray level as well. In turn, this technology, called ColorComp™, reduces the uniformity to virtually unnoticeable levels and applies a digital correction to each pixel on the screen to compensate for differences in color and luminance. X-Light™ Pro maintains a consistent light output for the useful life of the display as well as correcting for short term fluctuations, thus allowing the display to be used for color-critical applications within minutes of powering on.

These two widescreen models also are available bundled with NEC's SpectraView$_{II}$™ Color Calibration Solution to ensure accurate, reliable and repeatable color performance. The sophisticated software and co-branded NEC/GretagMacbeth colorimeter help these displays meet the demands of those in even the most color-critical environments, including medical modalities that demand DICOM GSDF calibration. For further information on NEC MultiSync 90 Series models featuring SpectraView$_{II}$, visit www.necdisplay.com/spectraview.

**LCD panels ideal for even the most discerning applications.** The MultiSync 90 Series utilizes the highest-quality active matrix LCD modules used in professional flat-panel, wide-angle monitors. Each has slightly different characteristics that make them suitable for different types of applications. The in-plane switching (IPS) type module (indicated with an "i" in 90 Series model names) boasts the best possible color and grayscale accuracy and minimal gamma (brightness tone) shift at off angles. These features make IPS LCDs more suitable for demanding, color-critical applications, while dark black colors and excellent grayscale reproductions make the IPS panel ideal for medical applications. In addition, the MultiSync LCD2690WUXi achieves 93.4% coverage of the Adobe RGB color space.

**Improve your view with high-performance color control.** A 12-bit gamma lookup table (LUT), which allows MultiSync 90 Series monitors to display 16.7 million colors out of a palette of 68.5 billion, provides for more finely detailed, high-definition rendering of color images and crisper display of even the most delicate shadings and color differences. GammaComp™ internal circuitry converts 8-bit data from the computer to 12-bit, producing smooth, accurate color tones. Gamma can be set by using preset values (including S-Curve and DICOM GSDF) or creating a custom setting from 0.5 to 4.0 in increments of 0.1, providing an ideal setting for video or other applications.

**Advanced image control.** The completely redesigned Advanced OSD™ delivers a host of additional features that give you complete control of your monitor and its settings. This helps make these monitors extremely flexible in working with most any computer video system. The screen saver and real-time clock functions help reduce the risk of image persistence, extending the life of the display. Also, when switching between landscape and portrait orientations, you can have your on-screen images automatically rotated and resized. Automatic black level adjustment allows for better control of grayscale images. Video bandwidth can be adjusted to compensate for poor signals and gives 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. Additionally, the zoom mode enables you to customize the screen size in three directions.

Also controlled through the Advanced OSD is TileMatrix™, which allows you to build video walls of various configurations. With the use of a 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 (in horizontal or vertical configurations from 1x2 through 5x5) that display a shared image, you can build an impressive video wall for various applications, including advertising and tradeshows. TileComp™ works in tandem with TileMatrix to compensate for the width of tiled bezels and optimally display still images.

Another user-controlled feature offered by the Advanced OSD is AmbiBright™, which automatically adjusts the screen brightness depending on the ambient lighting conditions. For example, if the sensor detects the ambient lighting becoming darker, it reduces the backlight appropriately, which helps provide optimal readability and reduce eyestrain. Further, if desired, you can set the display to automatically enter a power-saving mode when the ambient lighting falls below a predetermined value (i.e. when office lights are shut off at the end of the day), which can significantly reduce energy expenses. When you consider the number of monitors used on trading floors and other display-heavy environments, this brightness function can contribute significantly to a lower total cost of ownership.

The displays' ECO Mode™ further helps conserve energy by allowing you to define a setting for the backlight at a 50 or 75% brightness level. This feature's benefits are best utilized in larger corporate environments where many displays are deployed.

**Achieve consistent, long-distance signals.** The MultiSync 90 Series' CableComp™ lets you realize the advantages of long analog or digital monitor cable lengths without the difficulties and costs normally associated with this type of configuration. This technology uses 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. 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 [analog]; 90 feet/30 meters [digital]), allowing monitor upgrades, service and repairs to be accomplished without interrupting the work environment.

**Wide compatibility for today and tomorrow.** Ambix$^{3}$™ technology provides the widest range of computer video compatibilities between analog and digital systems by allowing the same monitor to work seamlessly in any technical 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. Ambix$^{3}$ provides the ability to toggle between all three inputs, reducing the expense of external monitor switches. This triple-interface architecture provides a number of single-, dual- or triple-input configurations.

These models also feature high-bandwidth digital content protection (HDCP), which is supported through the DVI-D connector and allows for use with HDCP-equipped devices and encrypted content.

**Enhanced pro-level screen performance.** With XtraView+™ wide-angle viewing technology you can enjoy flexible horizontal and vertical viewing angles up to 178°(89° up, down, left and right) with minimal 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 with overdrive provides for uninterrupted display of full-motion video with response times as quick as 16ms. The overdrive function improves the critical gray-to-gray response time, reducing pixel lag and enhancing the video experience. This feature has been developed specifically for 50 Hz broadcast video sources as it guarantees smooth representation of moving images. Rapid Motion™, 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. Overall, this remarkably quick motion makes these models better than ever for animation, game development and video applications such as presentations and streaming web video.

**Environmental friendliness and intelligent power management ensure a smart investment.** MultiSync 90 Series displays were developed using materials that not only meet strict environmental standards but make it easier for you to recycle the product at the end of its lifecycle. The displays' RoHS compliancy ensures that they are free of hazardous chemicals such as lead, hex-chrome, cadmium, PBDE and PBB, with reduced mercury. They also meet Waste Electrical and Electronic Equipment (WEEE) regulations, a directive that controls the disposal of equipment and the percentage going to landfills.

The MultiSync 90 Series meets or exceeds the EPA's Energy Star® 4.0 Tier 2 standard for energy consumption, allowing you to conserve power and lower your total cost of ownership. Many technologies contribute to these savings, including the real-time clock with power management scheduler, which can be set from 1-24 hours x 7 days 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.

**Gain greater control.** Our exclusive NaViSet™ software (available by download) offers an intuitive graphical user interface that allows you to adjust On Screen Display (OSD®) 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 you 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 90 Series units. This software provides IT personnel remote access to the monitor and its settings without disrupting the user.

All of these control capabilities are made possible using the improved 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.

DDC/CI also enables self-diagnostics for MultiSync 90 Series displays, helping keep administrators aware of possible abnormalities such as lamp and circuit block failures, input signal status and temperatures inside the cabinet. When the display detects a problem, the LED on the front of the bezel flashes in a pattern of long and short blinks, depending on the type of abnormality. The diagnosis information also can be accessed via NaViSet.

| Model | LCD2490WUXi | LCD2690WUXi |
|---|---|---|
| **Display** | | |
| Viewable Size Image | 24.1" | 25.5" |
| Pixel Pitch | 0.27mm | 0.287mm |
| Pixels Per Inch | 94 @ native resolution | 89 @ native resolution |
| Brightness (typical) | 400 cd/m² | 400 cd/m² |
| Contrast Ratio (typical) | 800:1 | 800:1 |
| Viewing Angle (typical) | 178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10 | 178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10 |
| Response Time (typical) | Rapid Response (8ms Gray-to-Gray; 16ms Black-to-Black) | Rapid Response (8ms Gray-to-Gray; 16ms Black-to-Black) |
| Display Colors | More than 16 million | More than16 million |
| **Adobe RGB Coverage** | 76% | 93.4% |
| **Synchronization Range** | | |
| Horizontal | 31.5-93.8/119.2KHz (Analog/Digital) | 31.5-93.8/119.2 KHz (Analog/Digital) |
| Vertical | 50-85 Hz | 51-85 Hz |
| **Input Signal** | | |
| Video | ANALOG RGB 0.7 Vp-p / 75 Ohms | ANALOG RGB 0.7 Vp-p / 75 Ohms |
| Sync | Separate sync: TTL Level (Positive/Negative)<br>Composite sync: TTL Level (Positive/Negative)<br>Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive) | Separate sync: TTL Level (Positive/Negative)<br>Composite sync: TTL Level (Positive/Negative)<br>Composite sync on green: (0.3Vp-p negative 0.7Vp-p positive) |
| **Input** | DVI-D, DVI-I & VGA 15 pin D-sub | DVI-D, DVI-I & VGA 15 pin D-sub |
| **Resolutions Supported** | ANALOG/DIGITAL<br>720 x 400 @ 70-85 Hz<br>640 x 480 @ 60-85 Hz<br>800 x 600 @ 56-85 Hz<br>832 x 624 @ 75 Hz<br>1024 x 768 @ 60-85 Hz<br>1152 x 864 @ 70-85 Hz<br>1152 x 870 @ 75 Hz<br>1280 x 960 @ 60 Hz<br>1280 x 1024 @ 60-75 Hz<br>1600 x 1200 @ 60 Hz<br>1920 x 1200 @ 60Hz | ANALOG/DIGITAL<br>720 x 400 @ 70-85 Hz<br>640 x 480 @ 60-85 Hz<br>800 x 600 @ 56-85 Hz<br>832 x 624 @ 75 Hz<br>1024 x 768 @ 60-85 Hz<br>1152 x 864 @ 70-85 Hz<br>1152 x 870 @ 75 Hz<br>1280 x 960 @ 60 Hz<br>1280 x 1024 @ 60-75 Hz<br>1600 x 1200 @ 60 Hz<br>1920 x 1200 @ 60Hz |
| **Native Resolution** | 1920 x 1200 @ 60 Hz | 1920 x 1200 @ 60 Hz |
| **Additional Features** | Ultra-thin frame (bezel), No Touch Auto Adjust, NaViSet software, tilt, VESA Mount, sRGB, cable management, touch-enabled, swivel, vacation switch, height-adjustable stand, 12-bit gamma, AmbiBright, pivot, ColorComp, overdrive, ECO Mode, real-time clock, quick-release stand, Ambix³, X-Light Pro, Windows Vista Premium-certified | Ultra-thin frame (bezel), No Touch Auto Adjust, NaViSet software, tilt, VESA Mount, sRGB, cable management, touch-enabled, swivel, vacation switch, height-adjustable stand, 12-bit gamma, AmbiBright, pivot, ColorComp, overdrive, ECO Mode, real-time clock, quick-release stand, Ambix³, X-Light Pro, Windows Vista Premium-certified |
| **Touch-Capable** | Designed for integration | Designed for integration |
| **Voltage Rating** | AC 100-120V / AC 220-240V | AC 100-120V / AC 220-240V |
| **Power Consumption (typical)** | | |
| On | 83W | 111W |
| Power Savings Mode | 1W | 1W |
| **Dimensions (WxHxD)** | | |
| Net (with stand) | 21.8 x 17 x12 in./<br>554.2 x 432.4 x 306mm | 23.2 x 17.5 x 12 in./<br>589.8 x 444.2 x 306mm |
| Net (without stand) | 21.8 x 14.2 x 4.1in./<br>554.2 x 359.8 x 104mm | 23.2 x 15.1 x 4.1in./<br>589.8 x 383.4 x 104mm |
| **Net Weight** | | |
| (with stand) | 26 lbs./11.8 kg | 27.7 lbs./12.6 kg |
| (without stand) | 18.5 lbs./8.4 kg | 20.2 lbs./9.2 kg |
| **VESA Hole Configuration Specifications** | 100 x 100mm | 100 x 100mm |
| **Environmental Conditions** | | |
| Operating Temperature | 5-35° C/41-95° F | 5-35° C/41-95° F |
| Operating Humidity | 30-80% | 30-80% |
| Operating Altitude | 3048m/10,000 ft. | 3048m/10,000 ft. |
| Storage Temperature | -10-60° C/14-140° F | -10-60° C/14-140° F |
| Storage Humidity | 10-85% | 10-85% |
| Storage Altitude | 12,192m/40,000 ft. | 12,192m/40,000 ft. |
| **Limited Warranty** | 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) |



**NEC Display Solutions**
**500 Park Boulevard, Suite 1100**
**Itasca, IL 60143**
**866-NEC-MORE**