

# NEC MultiSync® 90 Series

19" - 30" pro-level LCD displays ideal for medical applications

The NEC MultiSync 90 Series boasts our most advanced features to meet the demanding needs of the most discerning users. The ultimate in form and function make them ideal for many medical environments, including:

- Soft-copy clinical viewing, including Picture Archiving and Communication System (PACS)
- Computer tomography
- Magnetic resonance imaging (MRI)
- 3-D rendering

The MultiSync 90 Series' active matrix (IPS, PVA) LCD modules boast the best possible color and grayscale accuracy and minimal (gamma) brightness tone shift at off angles. These features make these LCD displays more suitable for demanding, medical environment and multiple monitor applications.

**ColorComp™**, an image uniformity compensation and correction system, aims to reduce any screen uniformity errors to almost unnoticeable levels. It works by applying a digital correction to each pixel on the screen to compensate for differences in color and luminance.

**Automatic black level adjustment** allows for better control of grayscale images. Video bandwidth can be adjusted to compensate for bad 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.

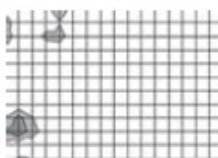
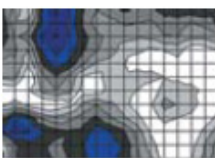
When enabled on the widescreen 24" LCD2490WUXi<sup>2</sup>, 26" LCD2690WUXi<sup>2</sup> and 30" LCD3090WQXi, **X-Light Pro™**, a built-in internal luminance and color sensor system, maintains calibration and consistent light output for the useful life of the display as well as corrects for short-term fluctuations. This allows the display to be used for image-critical applications within minutes of powering on.



Without ColorComp



With ColorComp



**Achieve complete color and brightness uniformity.** By nature, LCD panels contain uniformity errors, which are visible as slightly brighter or darker areas on the screen. To combat this inherent trait, each of these displays is individually characterized during production using a fully automated system that measures multiple 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 non-uniformity to virtually unnoticeable levels and applies a digital correction to each pixel on the screen to compensate for differences in color and luminance.



## MultiSync 90 Series Highlights

(available on select models)

- Best in class with wide viewing angle, active matrix LCD technology
- ColorComp image uniformity correction
- Calibration-capable to DICOM
- Selectable DICOM GSDF gamma
- High contrast ratio
- 12-bit lookup table (LUT)
- Automatic black level adjustment
- Complete OSD® lockout
- Pivot capability
- Backlight sensor

Model	LCD1990SX	LCD2090UXi	LCD2190UXp	LCD2490WUXi <sup>2</sup>	LCD2690WUWi <sup>2</sup>	LCD3090WQXi
<b>Display</b>						
Viewable Size Image	19"	20.1"	21.3"	24"	25.5"	29.8"
Pixel Pitch	0.294mm	0.255mm	0.27mm	0.27mm	0.287mm	0.251mm
Pixels Per Inch	86 @ native resolution	100 @ native resolution	94 @ native resolution	94 @ native resolution	89 @ native resolution	101 @ native resolution
Brightness (typical)	250 cd/m <sup>2</sup>	280 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>	320 cd/m <sup>2</sup>	320 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>
Contrast Ratio (typical)	1500:1	700:1	1000:1	1000:1	1000:1	1000:1
Viewing Angle (typical)	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R)@ CR > 10	178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR > 10	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)	Rapid Response (8ms Gray-to-Gray)	Rapid Response (8ms Gray-to-Gray)	Rapid Response (8ms Gray-to-Gray; 16ms Black-to-Black)	Rapid Response (8ms Gray-to-Gray; 16ms Black-to-Black)	Rapid Response (6ms Gray-to-Gray; 12ms Black-to-Black)
<b>Display Colors</b>	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette	12-bit internal LUTs, displays 16.7 million colors out of 68.5 bil- lion color palette
<b>Input</b>	DVI-D, DVI-I & VGA 15 pin D-sub	DVI-D, DVI-I & VGA 15 pin D-sub	DVI-D, DVI-I & VGA 15 pin D-sub	DVI-D, DVI-I & VGA 15-pin D-sub	DVI-D, DVI-I & VGA 15-pin D-sub	DVI-D (HDCP), DVI-I
<b>Native Resolution</b>	1280 x 1024 @ 60 Hz	1600 x 1200 @ 60 Hz	1600 x 1200 @ 60 Hz	1920 x 1200 @ 60 Hz landscape / 1200 x 1920 @ 60 Hz portrait	1920 x 1200 @ 60 Hz landscape / 1200 x 1920 @ 60 Hz portrait	2560 x 1600 @ 60 Hz landscape / 1600 x 2560 @ 60 Hz portrait
<b>Additional Features</b>	ColorComp, Ambi- Bright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjust- able stand (150mm), pivot, quick-release stand, black level ad- justment, ECO Mode	ColorComp, Ambi- Bright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjust- able stand (150mm), pivot, quick-release stand, black level ad- justment, ECO Mode	ColorComp, Ambi- Bright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjust- able stand (150mm), pivot, quick-release stand, black level ad- justment, ECO Mode	ColorComp, X-Light Pro backlight stabi- lization, AmbiBright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjustable stand (150mm), pivot, quick-release stand, black level adjust- ment, ECO Mode	ColorComp, X-Light Pro backlight stabi- lization, AmbiBright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjustable stand (150mm), pivot, quick-release stand, black level adjust- ment, ECO Mode	ColorComp, X-Light Pro backlight stabi- lization, AmbiBright ambient light sensor, No Touch Auto Adjust, tilt, swivel, height-adjustable stand (190mm), pivot, quick-release stand, black level adjust- ment, ECO Mode, standalone calibration
<b>Touch-Capable</b>	Designed for integration	Designed for integration	Designed for integration	Designed for integration	Designed for integration	Designed for integration
<b>Voltage Rating</b>	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
<b>Power Consumption (typ)</b>						
On	39W	50W	60W	75W	111W	143W
Power Savings Mode	1W	< 1W	1W	1W	1W	1.3W
<b>Dimensions (WxHxD)</b>						
Net (with stand)	15.8 x 14.4-19.5 x 9.7 in./ 402.3 x 410.7-560.7 x 247.3mm	17.3 x 16.4-22.3 x 9.7 in./ 439.2 x 415.5-565.5 x 247.3mm	18.3 x 16.7-22.6 x 9.7 in./ 464.8 x 424.8-574.8 x 247.3mm	21.8 x 17 x 12 in. / 554.2 x 432.4 x 306mm	23.2 x 17.5 x 12 in. / 589.8 x 444.2 x 306mm	27.1 x 18.8-26.3 x 13.5 in./ 687.3 x 478.6-668.6 x 342.8mm
Net (without stand)	15.8 x 13 x 3.1 in./ 402.3 x 330.3 x 80mm	17.3 x 13.4 x 3.3 in./ 439.2 x 340 x 85mm	18.3 x 14.1 x 3.3 in./ 464.8 x 358.6 x 85mm	21.8 x 14.2 x 4.1 in. / 554.2 x 359.8 x 104mm	23.2 x 15.1 x 4.1 in. / 589.8 x 383.4 x 104mm	27.1 x 17.6 x 5 in./ 687.3 x 446.8 x 126mm
<b>Net Weight (with stand) (without stand)</b>	19.8 lbs. / 9 kg 13.8 lbs. / 6.3 kg	19.3 lbs. / 8.8 kg 18.5 lbs. / 8.4 kg	23.6 lbs. / 10.7 kg 17.6 lbs. / 8 kg	26 lbs. / 11.8 kg 19.2 lbs. / 8.7 kg	27.7 lbs./12.6 kg 20.2 lbs./9.2 kg	40.7 lbs. / 18.5 kg 31.9 lbs. / 14.5 kg
<b>VESA Hole Configuration Specifications</b>	100 x 100mm	100 x 100mm	100 x 100mm	100 x 100mm / 200 x 100mm	100 x 100mm	100 x 100mm / 200 x 100mm
<b>Limited Warranty</b>	3 years parts and labor, including backlight / 2-day Advanced Exchange service	4 years parts and labor, including backlight / 2-day Advanced Exchange service	3 years parts and labor, including backlight / 2-day Advanced Exchange service	4 years parts and labor, including backlight / 2-day Advanced Exchange service	4 years parts and labor, including backlight / 2-day Advanced Exchange service	4 years parts and labor, including backlight / 2-day Advanced Exchange service
<b>Technical Support</b>	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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