NEC MultiSync EA305WMi

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By John R. Delaney

Designed for business users who require a big-screen display that can be used in a multi-monitor configuration, the NEC MultiSync EA305WMi (\$1,399) uses an Advanced High-Performance In-Plane Switching (AH-IPS) panel to deliver very accurate colors and sharp gray-scale reproduction. This 30-inch business monitor doesn't come cheap, but it is packed with features, including multiple video ports, a USB hub, a fully adjustable stand, and NEC's ControlSync multi-display configuration technology. It's our top pick for big-screen business monitors.



Design and Features

The EA305WMi\$1,262.35 at Amazon maintains the classic MultiSync aesthetic seen on models such as the NEC MultiSync EA274WMi\$760.99 at Adorama, a top pick, and the NEC MultiSync EA244UHD\$899.99 at Amazon. It uses a 3-inch-thick, matte-black cabinet with thin (0.75-inch) black bezels and a matching stand that provides the full gamut of adjustments, including height, tilt, swivel, and pivot. There are five touch-sensitive buttons on the right side of the bottom bezel, and three more buttons on the right-hand bezel that are used to power on the monitor and navigate the settings menus. An ambient light sensor and a human sensor, both of which are designed to help conserve power usage, are located on the left side of the bottom bezel.



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The 30-inch panel has a non-reflective coating to reduce glare, a maximum resolution of 2,560 by 1,600, a 16:10 aspect ratio, and a peak brightness of 350 cd/m2. There are plenty of ports around back, including a DisplayPort input, a DisplayPort output that can be used to connect multiple monitors, one HDMI input, one DVI video input, one audio input, one USB 3.0 upstream port, and two USB 3.0 downstream ports. Here, you'll also find two ControlSync ports (one in, one out) that can be used to control and apply settings to up to five additional monitors when used in a multi-monitor configuration. The left side of the cabinet holds one USB 2.0 port and a headphone jack. The EA305WMi has a pair of 1-watt speakers that are woefully underpowered for listening to music or movie soundtracks, but will suffice for system sounds.

As with the NEC EA274WMi, the EA305WMi provides plenty of settings. There are six picture presets (Standard, Text, Movie, Gaming, Photo, and Dynamic), as well as Brightness, Contrast, and Black Level adjustments. There's a Uniformity setting that compensates for deviations in white levels, Human Sensing settings that determine the threshold of inactivity before the monitor enters a light or deep power-saving mode, and an Auto Brightness setting that uses the ambient-light sensor to automatically adjust brightness levels based on screen content, ambient light, or both.

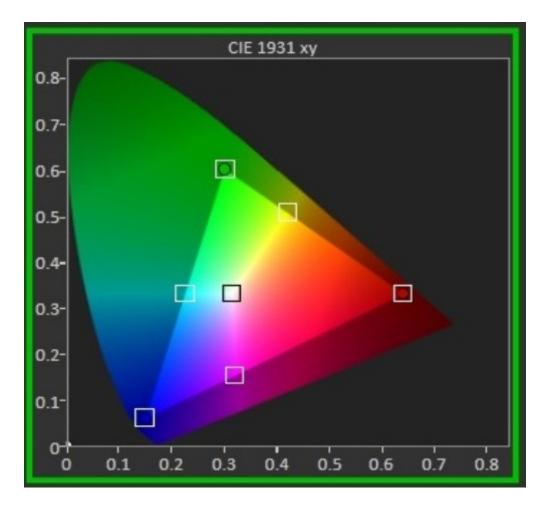
The Color Control System offers four presets that increase and decrease Red, Green, and Blue color values, as well as a Native setting, an sRGB setting, a Digital Imaging and Communications in Medicine (DICOM) setting, and a Programmable setting that you can use with third-party software to adjust white-point and gamma levels. There are two ECO Mode power-saving settings—one that can reduce power by up to 15 percent, and another that can reduce power by up to 40 percent.

The EA305WMi comes with a three-year warranty on parts, labor, and backlight. Included in the box are DVI,

DisplayPort, and ControlSync cables, a USB upstream cable, and a Setup Guide.

Performance

The EA305WMi is a stellar performer. As shown on the chromaticity chart below, out-of-the-box color accuracy is first rate. Red, green, and blue colors (represented by the colored dots) are perfectly aligned with their ideal CIE coordinates (represented by the boxes). The AH-IPS panel displayed rich, well-saturated colors in my test images and while displaying scenes from Marvel's *Captain America: The Winter Soldier* on Blu-ray.



The panel performed beautifully on the DisplayMate 64-Step Gray-Scale test, displaying every shade of gray evenly without any clipping (whitewashing) or crushed blacks. Highlight and shadow detail were also superb in my test images, as was the picture's overall contrast. Additionally, viewing angles were wide, with no discernable color shifting or loss of luminance when viewed from an extreme top, side, or bottom angle.



See How We Test Monitors

Although the EA305WMi isn't designed for gaming, you can enjoy a bit of after-hours fun without experiencing too much artifact interference. I observed some ghosting while playing Crysis 3, but that's to be expected from a panel with a 6-millisecond pixel response. Using a Leo Bodnar Video Signal Lag Tester, I measured input lag (the time it takes for the monitor to react to a controller command) at 29.1 milliseconds. That isn't terrible, but it's not nearly as fast as the BenQ XL2430T\$339.99 at Amazon and the SW2700PT\$629.99 at Amazon, both of which measured a lag time of just 9.5 milliseconds.

While not exactly a power hog, the EA305WMi is not the most energy-efficient big-screen monitor we've seen. It averaged 78 watts of power in testing while set to the Standard picture mode with ECO Mode disabled. Enabling ECO Mode 2 reduced power usage to 42 watts. The Acer Predator X34\$993.19 at Amazon, which has a larger 34-

inch panel, consumed 49 watts in Standard mode and 36 watts in ECO mode, and the 35-inch BenQ XR3501\$849.00 at Amazon used 50 watts in Standard mode (it does not offer an ECO-mode setting).

Conclusion

You'll pay big bucks for the NEC MultiSync EA305WMi, but if your business requires a big-screen monitor that offers superior performance and support for a multi-display configuration, it's worth the premium. The 30-inch AH-IPS panel delivered spot-on color accuracy and aced our gray-scale and viewing-angle performance tests, and it offers a solid assortment of features, including ControlSync technology that lets you manage up to six connected monitors, a fully adjustable stand, a USB hub, and a wealth of picture settings. Its speakers are underwhelming, but that's not usually a deal-breaker for business users and certainly doesn't prevent the EA305WMi from earning our Editors' Choice for big-screen business monitors.

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