

# ASUS Adopts 3M™ Color Enhancing Technology for ASUS ZENBOOK NX500 Notebook PC

New ASUS ZENBOOK NX500 System Boasts 50% More Color than Current LCDs

3M today announced that ASUS, a worldwide top-three consumer notebook vendor, will leverage the 3M™ Quantum Dot Enhancement Film (QDEF) for its new Asus NX500 Notebook PC. Specifically, ASUS' latest mobile PC computing solution with 3M QDEF, using Nanosys™ Quantum Dots, boasts 50 percent more color than current levels found in liquid crystal display (LCD)-based electronic devices, such as notebooks, while at the same time making these devices brighter and even more energy efficient than any other high color gamut solution.

"Asus chose to incorporate 3M's QDEF technology into our NX500 model because QDEF is one of the most energy efficient ways to bring high color gamut to mobile devices. Together with 3M's technology, we have created a device with powerful computing capacity, a high quality display and energy efficiency to rival any device on the market," said Asus Vice President & General Manager of NB BU, S.Y. Hsu.

Asus combines 3M's QDEF technology with the latest ASUS hardware and software to produce the superior quality display of the NX500. The NX500 model from ASUS is designed to produce crisp, vivid and color-accurate images for both general and professional users, in a wide range of applications.

"Both consumers and device manufacturers are constantly seeking the latest features and technology enhancements for the next-wave of electronic gadgets and devices. 3M QDEF not only delivers more true to life colors, but also makes devices such as smart phones, tablets and televisions, lighter, brighter and more energy efficient," noted Erik Jostes, business director, 3M Display Materials & Systems.

Color performance of LCDs industry-wide has gone largely unchanged until now. 3M research data shows that devices with 3M QDEF-enabled wide color gamut will be noticeably different from other standard LCD devices and highly preferred by consumers worldwide. Industry experts agree that color is the next great opportunity for advancement and display quality.

"The quantum display market is expected to grow to \$200 million by 2020, up from \$10 million in 2013, according to the "[Quantum Dot Display Technology & Market Report - 2014](#)" report from [IHS Technology](#) (NYSE: IHS). "By shipment volume, the market is forecast to expand to 87 million units by 2020 compared to 1.5 million units in 2013, which would equate to annual growth of 79% on average."

3M QDEF utilizes the light emitting properties of quantum dots to create an ideal backlight for LCDs, which is one of the most critical factors in the color and efficiency performance of LCDs. A quantum dot, which is 10,000 times narrower than a human hair, can be tuned to emit light at very precise wavelengths. This means display makers can create a highly-optimized backlight that only produces the exact wavelengths of red, green and blue light needed by an LCD for optimal color and energy performance. Trillions of these quantum dots protected by barrier film fit inside an LCD backlight unit. The new film replaces one already found inside LCD backlights, which means the manufacturing process requires no new equipment or process changes for the LCD manufacturer.

To learn more about 3M QDEF, visit: [http://solutions.3m.com/wps/portal/3M/en\\_US/NA\\_Optical/Systems/QDEF/](http://solutions.3m.com/wps/portal/3M/en_US/NA_Optical/Systems/QDEF/)

## About Asus

ASUS is a worldwide top-three consumer notebook vendor and maker of the world's best-selling, most award-

winning, motherboards. A leading enterprise in the new digital era, ASUS designs and manufactures products that perfectly meet the needs of today's digital home and office, with a broad portfolio that includes motherboards, graphics cards, optical drives, displays, desktop and all-in-one PCs, notebooks, netbooks, servers, multimedia devices, wireless solutions, networking devices, tablets and smartphones. Driven by innovation and committed to quality, ASUS won 4,256 awards in 2013 and is widely credited with revolutionizing the PC industry with its Eee PC™. ASUS has more than 12,500 employees around the globe with a world-class R&D team of 3,800 engineers. Company revenue for 2013 was approximately US\$14 billion.

#### About 3M

3M captures the spark of new ideas and transforms them into thousands of ingenious products. Our culture of creative collaboration inspires a never-ending stream of powerful technologies that make life better. 3M is the innovation company that never stops inventing. With \$31 billion in sales, 3M employs 89,000 people worldwide and has operations in more than 70 countries. For more information, visit [www.3M.com](http://www.3M.com) or follow [@3MNews](https://twitter.com/3MNews) on Twitter.

3M Media Contact: Jacqueline O'Brien, 925-336-9592 SAVVY Public Relations E-mail:

Jacqueline@savvypublicrelations.net or Asus Media Contact: Christine Yin Public Relations Specialist E-mail:

Christine\_yin@asus.com

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