3M News Center

3M Announces Rec. 2020 Readiness at Display Week 2015

3M Display Materials and Systems Division announced the company has developed technology solutions addressing the Rec. 2020 standard for color enhanced UHD displays at SID Display Week. In San Jose, Calif., 3M is showcasing flat panel displays of all sizes with up to 93.7 percent Rec. 2020 color gamut, one of the largest known color gamuts in any display, in an otherwise commercially available 4K LCD monitor.

“Rec. 2020 color performance was thought to be in the distant future, but with the addition of Quantum Dot technology and the 3M Quantum Dot Enhancement Film, this performance is available today,” said James Thielen, 3M Product Development Specialist and SID Display Week symposium speaker.

“The International Telecommunications Union (ITU) published recommendations for ultra-high definition television aimed at ‘enhancing visual experience’ (ITU-R BT.2246-2 & BT.2020) in 2012. The recommendations include an expanded color reproduction capability with the intent to best encompass natural colors. Current mass-produced technology is unable to achieve this target, but of existing technologies only lasers and Quantum Dots have demonstrated potential to come ‘close’ to the standard,” wrote 3M’s James Hillis, 3M Vision Science Specialist, in another SID Display Week presentation paper *Closing in on Rec. 2020 – how close is close enough?*

“The Rec. 2020 color gamut brings an incredible new viewing experience to consumers. It has been our pleasure to partner with 3M to demonstrate this capability to the market and to finally be able to see all of the colors found in the natural world on our displays,” said Jason Hartlove, CEO of Nanosys.

3M will showcase a 31-inch LCD desktop monitor panel that features one of the largest known color gamuts in an LCD panel to date at 93.7 percent coverage of Rec. 2020 – large enough to accurately represent 99.4 percent of the 53,497 color samples in the Standard Object Color Spectra database. Based on a recent study by 3M, 98 percent coverage of Rec. 2020 would be perceptually indistinguishable from the ITU Rec. 2020 standard. This demo at Display Week signals a clear direction for manufacturers looking to achieve a high coverage Rec. 2020 display.

To date, displays' color gamuts have been one of the weakest links in the ecosystem required to support Rec. 2020. “The Rec. 2020 standard has been a difficult standard to meet because the primaries of the gamut are particularly pure compared to previously met standards such as Rec. 709 and Adobe RGB,” explained Art Lathrop, 3M Marketing Development Manager. “But now, 3M has developed a solution to bring these broad color capabilities to displays over four years ahead of the standards’ namesake year, 2020, with already commercially available materials.” Versions of quantum dot enhancement film optimized for Rec. 2020 are currently being sampled.

Please visit the 3M booth #416 at SID Display Week through June 4 in San Jose, Calif., or visit www.3M.com/displayfilms for more information.

About 3M

At 3M, we apply science in collaborative ways to improve lives daily. With $32 billion in sales, our 90,000 employees connect with customers all around the world. Learn more about 3M’s creative solutions to the world’s problems at www.3M.com or on Twitter @3M or @3MNewsroom.

About 3M Display Materials and Systems Division

3M Display Materials and Systems Division creates exceptional viewing experiences for users around the world with leading display innovations. In warehouses, stores, offices, at home and on the go, displays foster interaction between people and technology every day. The division works with the leading global brands to drive advances in displays and improve the user experience across devices by making them lighter, more flexible, thinner, brighter, more energy efficient, sustainable in tough work environments and more responsive to touch commands. To learn more, please visit us at www.mmm.com/optics101.

About Nanosys, Inc.

Nanosys, Inc. is leading the development of Quantum Dot technology for displays. Since our founding in 2001, we have partnered with leading display makers in creating standout tablets, TVs and smartphones that are thinner, lighter, brighter and more colorful than ever before. For more information, visit www.nanosysinc.com.

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