

Introduction

The color range visible to the human eye far exceeds what typical LCD displays today can reproduce. The total color range produced by a LCD display is referred to as its “color gamut.” The larger the color gamut of the display, the more real-life the image will appear.

New display technology development has focused to expand the color gamut in order to broaden the range of colors an LCD display can produce. Known as Ultra-Wide-Gamut (UWG) displays, this new era of LCD displays provide a more real-life viewing experience. As an example, the two images below illustrate the difference between the appearances of a standard gamut versus a UWG display:



Standard Gamut



Ultra-Wide-Gamut (UWG)

Radiance Ultra TruColor Technology

As a leader in medical visualization solutions, NDS has made a significant investment in the development of UWG technology. Introduced at MEDICA 2015 as one of the first color calibrated UWG medical displays, the Radiance Ultra TruColor display incorporates unique technologies that precisely calibrates the full spectrum of colors that produces a more broad color gamut spectrum.

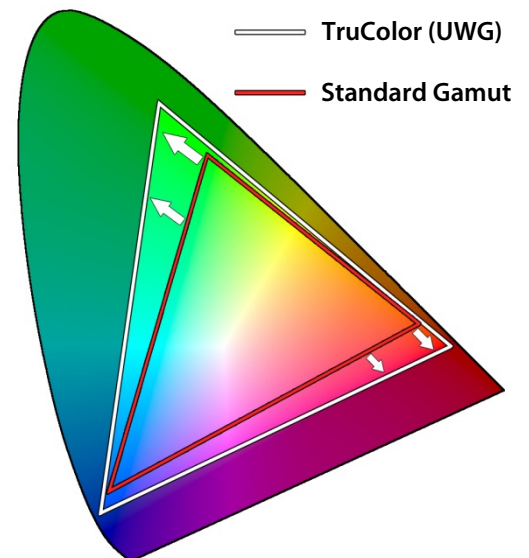
The NDS TruColor technology platform applies our proprietary Medi-Match color calibration techniques to the UWG display to produce vivid and life-like motion video. For endoscopic surgeons performing minimally invasive procedures, the new Radiance Ultra TruColor display provides a visualization experience that more accurately resembles anatomy the human eye would visualize during an open surgical procedure.

Incredibly vibrant colors enhance anatomical recognition as a result of broader color differentiation between reds, yellows, oranges, and purples.

Technical Details

The color gamut chart to the right represents the full spectrum of color that the human eye can detect. The red triangle represents the colors that a standard high-definition display can produce. The larger expanded triangle (white) outlines the wider range of colors that the TruColor UWG technology incrementally adds to the displayed image. The additional color spectrum range enhances a surgeon’s visualization capabilities, and literally enables them to potentially see distinctive colors previously not seen.

The Radiance Ultra displays below illustrate the visual difference between standard and ultra-wide gamut TruColor technology.



Radiance Ultra HD



Radiance Ultra TruColor