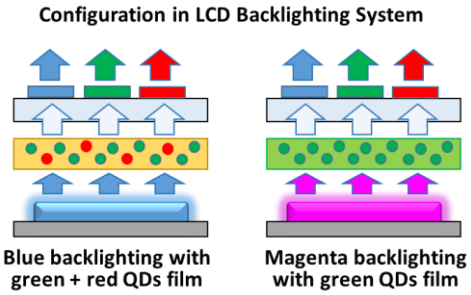
QDot™ SharpGreen Perovskite QDs Film for LCD Displays

Quantum dots extend the color gamut of LCD displays, present more vibrant colors with better contrast in TVs, laptops and tablets. Ideal solution for HDR displays to meet Rec2020 standard. On top of that, QDs help to reduce the energy consumption (up to 25 %). Nowadays, the technology is adopted by many TV manufacturers. QUANTUM SOLUTIONS offers novel QDot™ SharpGreen Perovskite QDs Film for LCD application ("LCD backlighting"). This material has emission 525 nm, high photoluminescence efficiency (up to 100 %) and narrow band emission (< 20-25 nm) that make it a better quality alternative to the current CdSe or InP QDs.

BENEFITS:

- LCD display with > 80% Rec2020, > 90 % DCI-P3 and > 95% Adobe RGB color gamut coverage
- Emission for Rec2020 and beyond - 525 nm
- The narrowest FWHM among all QDs (< 20-25 nm)
- High PLQY up to 100 %
- RoHS compliant for LCD backlighting, cadmium free
- High reliability



QDot™ SharpGreen Perovskite QDs Film:

QDot™ SharpGreen Perovskite QDs Film can be used as a LCD backlighting unit in combination with magenta LEDs.

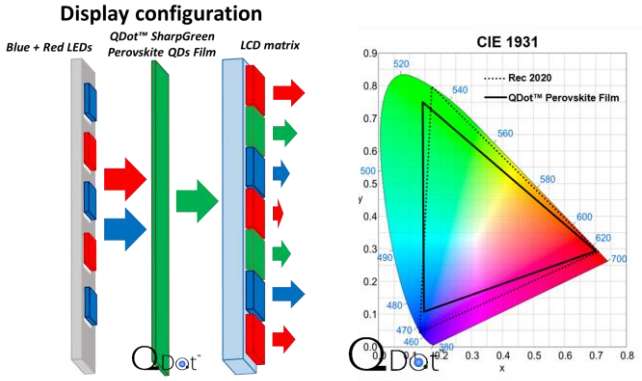
Qdot™ SharpGreen Film LCD optical properties	
Emission peak	525 ± 3 nm
FWHM	< 25 nm
PLQY	> 70 %
Pb content	< 1000 ppm (RoHS compliant)

Products portfolio:

QDot™ SharpGreen Perovskite QDs Film

LCD Display Performance:

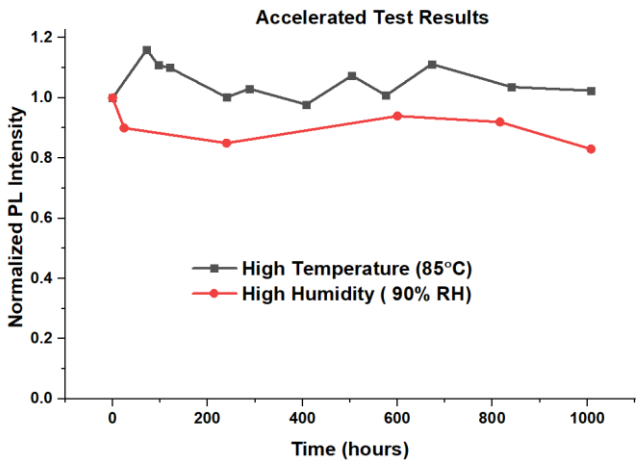
QDot™ SharpGreen Perovskite QDs Film in combination with magenta LED extend the color gamut of LCD display to the record high Rec2020 > 80%, DCI-P3 > 90% and Adobe RGB > 95%.



Reliability:

QDot™ SharpGreen Film has high reliability under heat, light and humidity. It retains > 80 % of initial photoluminescence within 1000 h of accelerated exposure tests:

✓ under heat (85 °C/blue light 10 mW/cm^2 exposure)
✓ under high relative humidity (90 % RH at 60 °C)



qdot.inc info@qdot.inc +44 7389826941
Quantum SOLUTIONS™