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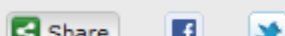
September 2014

Lasers Help Carmakers Chase Fuel Efficiency



Laser-based technologies and techniques including drilling, welding and measurement allow auto manufacturers to keep pace with the demand for lower emissions. For car manufacturers, the number 54.5 looms large. That's the MPG requirement from the U.S. EPA set to take effect in 2025. To get to 54.5 mpg, carmakers are innovating and developing manufacturing advances that get weight out, tighten tolerances and yield other improvements.

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Vehicle Vision Puts the 'Auto' in 'Automobile'

Whether it's a flying, automatically driven car like the Jetsons' or an artificially intelligent robotic automobile named KITT, people have long dreamed of automated, self-driving vehicles that come when you call them and know exactly where to take you. For photonics companies and enthusiasts of a future with driverless cars, there's good news and better news: The dream will become a reality. It's a matter of when, not if.

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Dual-Band Monitoring Keeps Trains Running in Winter



Keeping critical parts of the railroad infrastructure free of snow, sleet, hail and ice – and even detecting unauthorized persons walking the rails – is essential for a safe and uninterrupted transportation service. Switch heaters can be inspected up to 2000 feet away with a pan, tilt and zoom camera in the visible and thermal infrared range.

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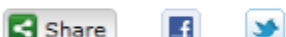


QDs Generate Light for Next-Generation Displays

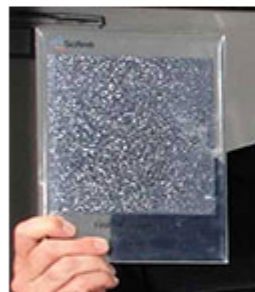


Large color gamut and better color reproducibility will be highly desired features of displays in the near future. Quantum dots will be the down-conversion technology of choice, allowing LCD makers to cost-effectively reach and exceed 100 percent of the NTSC and Adobe RGB color standards while achieving maximum system efficiency.

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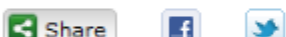


Solar Cell Materials: Finding a Happy Medium



Marrying the low cost of thin film and the efficiency of crystalline silicon helps to improve solar cells. The solar cell industry is at another inflection point in its development. Costs have come down as a result of a significant increase in capacity, and those reduced costs have caused demand to grow.

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For Harsh Environmental Conditions

AOS Technologies AG
The ultra-compact PROMON cameras by AOS offer 2 megapixel resolution at high-frame rates.

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Low Light Color CMOS Camera

PHOTONIS USA, Inc.
PHOTONIS Digital Imaging introduces a new Color Low-Light CMOS camera, optimized for low-light conditions.

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Silicon APDs

First Sensor Inc.
The Series 8r silicon avalanche photodiodes (APD) from First Sensor Inc. offers high sensitivity in the red and green wavelength range.

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Integrated Vision System

Teledyne DALSA, Machine Vision OEM Components
Meeting the requirements of industrial inspection, the GEVA-312T integrated vision system from Teledyne Dalsa is a multi-camera, stand-alone device, offering easy migration.

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LME 2014 - Sept. 23-24, 2014 · Schaumburg, IL
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