

Processor / MCU / DSP

Cortex-M0+ processor from ARM for Internet of things apps

Memory

TrendForce presents possible DRAM market impact due to Elpida's situation

Analog

Multiplexer and switch ICs from Maxim support both below and above 5V signals

Logic and Interface

WHDi, WirelessHD, and WiGig are rated as the three top tech for CE interface

PLD / FPGA

Xilinx ships 28nm Virtex-7 X690T FPGAs

Power-supply and Industrial ICs

Advanced insulation material can enable higher HVDC transmission

Automotive ICs

Honda's Fit EV battery electric car tested for smart charging by IBM

Cellphone ICs

MWC: Stiff battle-like competition between mobile phone OEMs

Consumer ICs

Sony to transform its mobile gaming and TV biz

Computer ICs

Rs.6499 tablet by Micromax is going to be a hit

Communication ICs (Data & Analog)

IBM makes a prototype optical chip set operating at speeds of 1000000 MB/s

RF / Microwave

Qualcomm providing Snapdragon-powered Windows on ARM PCs for testing

Subsystems / Boards

Bright LED camera flash in phone with 40 Watts power capability

Reference Design

Analog circuit design kit jointly by ADI and Digilent

Software / Development kits

Mentor Embedded Linux supports open source Yocto Project

Test and Measurement

New LCR meter for testing high-frequency passive components from Agilent

Discrete Devices

Non-IC semiconductor revenues in 2011 is \$57.4B, as per estimates

Opto

Mid-power lighting LEDs from Cree for multiple applications

Passive Components

Miniature high-rel electrolytic capacitors from Kemet

Interconnect

New POD cable assemblies by Molex meets Telcordia GR-1435 specs

Sensors

IHS: Revenue for digital MEMS microphones to reach \$315 Million in 2013

Batteries

Replacing Lead-Acid Batteries with Ultracapacitor Tech webinar on Mar 20

Top Stories: 15th May 2012

Qualcomm	3059	56%
Fujitsu	1216	6%
Broadcom	1770	1%
Intel	11874	0%
NXP	1071	0%

Top 20-semicon ranking update in 1q2012: revenues down by 4%



AIN semiconductor LEDs can generate UV rays to kill microbes in water



Cost optimized ARM Cortex M0 based STM32 F0 MCUs now in production

Latest EE News 13th May 2012

- **Processor IP biz: 10 Billion cores shipped with 25% growth in 2011, according to Linley**
- **Majority engineers use VHDL, though SystemVerilog use grows, as per a survey**
- **GaN on Silicon LED chip emitting 614mW in a space of 1.1mm square**
- **Qualcomm grants licenses to Brazilian firm to make 3G and 4G devices**
- **ESD and I/O tech from Sofics and ICsense used in NVIDIA's modem processor ICs**
- **Samsung adopts Dialog's power supply ICs for its 2nd smart phone platform**
- **Marvell collaborate with LED lamp makers in providing reference design**
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- **Jin Bains named the VP, RF research and development at National Instruments**

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- **Development Platform to evaluate gyroscope,**

News for the day: 14th May 2012

- **ARM tech based display controller from Evatronic for smartphones and tablets**
- **Shipment of MachXO2 PLD from Lattice Semiconductor touches one million mark**
- **New generation 1200 V NPT IGBT from Microsemi**
- **LVDS/LVPECL piezoelectric MEMS oscillator from IDT with <1 picosecond Jitter**
- **Phase dimmable LED controller from TI with constant power regulation**
- **Low power point of load solution design kit offered by Exar and Würth**
- **Golden Dragon Plus LEDs from Osram chosen for Olympic stadium in Kiev**
- **Solutions from Marvell to support all three clouds - private, public and home**
- **Portable quad port Ethernet/VLAN/MPLS/IP/UDP tester from GL**
- **Aeroflex to supply test systems to Qualcomm for automated testing of mobile devices**
- **DEKRA is now the testing institute for 'green products' and EPEAT criteria**
- **Low power point of load solution design kit offered by Exar and Würth**
- **Tool from ADI for evaluating isolated communication interfaces**
- **'Internet of Everything' chips and 3rd party solutions announced by Qualcomm**
- **Carrier grade Bandwidth Engine IC from MoSys released to production**
- **System Solutions from Arcturus for specialized audio/VoIP applications**
- **Power clip asymmetric dual MOSFET from Fairchild for power supply design**
- **Cavium and PACE to demonstrate processor solutions for cloud and enterprise apps**

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- **AMD's G-Series platform supports Windows Embedded Compact 7 RTOS**
- **New certification programs for advanced enterprise applications from Wi-Fi Alliance**
- **Telit's cellular module connects with CardioNet's MCOT to monitor patient's heart**
- **TrendForce: Micron offers JPY\$300 billion to Elpida, three major DRAM players emerge**
- **NXP's wireless smart lighting solutions to be showcased at LIGHTFAIR 2012**
- **Niels Anderskov is the new senior VP and GM of TI's high volume analog and logic**
- **Top 5 Indian IT services providers grew 23.8% in 2011, reports Gartner**
- **NXP has 74% share of contactless ticket market, reports ABI Research**

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- **Linear introduces broadband RF mixer for 4G wireless base stations**
- **Hittite releases a dual channel downconverter RFIC for multi standard diversity receivers**
- **High end testing platform presented by Rohde & Schwarz for audio/ video interfaces (HDMI, MHL)**

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News

Date:15th May 2012

AIN semiconductor LEDs can generate UV rays to kill microbes in water

Research from North Carolina State University are into developing Light Emitting Diode (LEDs) that can generate Ultra-Violet light radiation to kill pathogens such as bacteria and viruses. These LED devices can be used for wide range applications such as drinking-water treatment to sterilizing surgical tools.

"UV treatment utilizing LEDs would be more cost-effective, energy efficient and longer lasting," says Dr. Ramón Collazo, an assistant professor of materials science and engineering at NC State and lead author of a paper describing the research. "Our work would also allow for the development of robust and portable water-treatment technologies for use in developing countries."

LEDs utilize aluminum nitride (AlN) as a semiconductor, because the material can handle a lot of power and create light in a wide spectrum of colors, particularly in the UV range. However, technologies that use AlN LEDs to create UV light have been severely limited because the substrates that served as the foundation for these semiconductors absorbed wavelengths of UV light that are crucial to applications in sterilization and water treatment technologies, stated in the release.

A team of researchers from North Carolina and Japan have determined that trace carbon atoms in the crystalline structure of the AlN substrate were responsible for absorbing most of the relevant UV light. By eliminating the carbon in the substrate, the team was able to significantly improve the amount of UV light that can pass through the substrate at the desired wavelengths.

"Once we identified the problem, it was relatively easy and inexpensive to address," says Dr. Zlatko Sitar, Kobe Steel Distinguished Professor of Materials Science and Engineering at NC State and co-author of the paper.

HexaTech Inc., a spin-off company from NC State is commercializing this technology.

"This is a problem that's been around for more than 30 years, and we were able to solve it by integrating advanced computation, materials synthesis and characterization," says Dr. Doug Irving, assistant professor of materials science and engineering at NC State and co-author of the paper. "I think we'll see more work in this vein as the Materials Genome Initiative moves forward, and that this approach will accelerate the development of new materials and related technologies."

The paper, "On the origin of the 265 nm absorption band in AlN bulk crystals," is published online in Applied Physics Letters. Co-authors include Benjamin Gaddy, Zachary Bryan, Ronny Kirste and Marc Hoffman from NC State, as well as researchers from HexaTech Inc., Tokyo University of Agriculture and Technology, and the Tokuyama Corporation. The research was supported with funding from the U.S. Department of Defense.

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