

ALCOM TIPS FOR ELECTRONIC DESIGNERS



DEAR ELECTRONIC DESIGNER



Bezoek Alcom tijdens de [Bits&Chips Hardware Conference](#) 17 juni - Evoluon Eindhoven.

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SEMICONDUCTORS

Programmable dual USB 2.0 host/slave SOC assists in lowering design component count and reduces costs



FTDI announced the launch of their Vinculum VNC2 user programmable dual USB 2.0 Host/Slave intelligent SOC controller. VNC2 enhances the initial member of the Vinculum family, the VNC1L, by reducing the device cost as well as introducing the capability to develop your own application firmware and programme the host controller yourself. VNC2 comes with a royalty free software development environment – the Integrated Design Environment (IDE) which includes a compiler, linker and debugger to fully utilise the increased memory and multitude of communication protocols handled by VNC2. Datasheet: [VNC2](#)



First PCI Express Gen 3 Switch



PLX announced the world's first working PCI Express (PCIe) Gen 3 silicon. PLX will use this device to demonstrate PCIe Gen 3 capabilities to key partners this quarter. General availability of a complete portfolio of new PLX® PCIe Gen 3 switch products will be offered later this year, all of which are developed on 40nm technology.

PCIe Gen 3 initially will occupy only a relatively narrow high performance slice of the computer and communications I/O markets. Existing 2.5 GHz and 5 GHz Generation 1 and 2 PCIe interconnects will be widely used in mainstream systems for some time.

The most common application [for PCIe Gen 3 chips] will be high-end graphics and very high-speed network and storage devices for links such as Fibre Channel over Ethernet and iSCSI. Future volume technologies such as 12 Gbit/s SAS/SATA interconnects will also benefit from 8 GT/s PCIe as might solid state storage solutions.

[ExpressLane PCI Express Switches and Bridges](#)

SiLabs debuts wireless microcontrollers



A family of wireless transceivers was mated to a line of ultra-low-power microcontrollers to create a family of a dozen wireless microcontrollers. The new family offers the best of both worlds—a radio-frequency (RF) transceiver with a built-in power amplifier married to an extremely low-power high-performance microcontroller.

Silicon Labs claims its ultra-low-power family of 8051-compatible microcontrollers already had the industry's lowest active current consumption, and its lowest sleep current. Plus its line of wireless transceivers already offered +20 dBm output power without an external PA and -121 dBm receiver sensitivity. Together with an on-chip dc-to-dc converter for operating at .9 volts, the new Si10xx family of wireless microcontrollers is claimed to increase the lifetime of the battery powered RF devices using it by five times.

Silicon Labs is targeting its new wireless microcontroller family at RF battery-operating applications such as home automation, smart meters, on-site utility monitors and security systems.

[Wireless MCUs](#)
[Product Matrix](#)
[Development Kit](#)

CP240x Ultra-Low Power LCD Controllers



CP2400/1/2/3 devices are fixed function LCD drivers that can also be used for expanding GPIO, timekeeping, and increasing available system RAM by up to 256 bytes. The device is controlled using direct and indirect internal registers accessible through the 4-wire SPI or 2-wire SMBus interface. All digital pins on the device are 5 V tolerant.

[Product Matrix](#)
[Product Brief CP2400/1/2/3](#)
[CP2400 Development Kit](#)
[MCU Selector Guide](#)

Led driver uses closed-loop system to deliver maximum led light performance

Supertex inc.



Supertex introduced the HV9963, a closed-loop LED driver IC with pulse width modulated (PWM) dimming capability designed to optimize LED performance and efficiency and extend LED life. The IC excels in DC/DC applications such as RGB or white LED backlighting, LCD TVs and monitors, and LED lamps for general lighting. The HV9963 utilizes a closed-loop system to control the current going to the LED string, which is an active, real-time system that continuously monitors the LED current via sense resistors. Datasheet: [HV9963](#)

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M2M & WIRELESS MODULES

New long range bluetooth module

blue giga



Bluegiga introduced the first truly long range Bluetooth module providing exceptional radio performance. Bluegiga WT41 provides +20 dBm output power which is the maximum allowed in Americas, Europe and various Asian countries. WT41 Bluetooth module can achieve 1000 meters distance in optimal conditions and several hundreds of meters in an urban or office environment. In addition to a RF power amplifier, WT41 also implements a low noise amplifier significantly improving the module sensitivity down to -90 dBm. The sensitivity improvement extends the WT41's range to Bluetooth class 2 devices such as mobile phones or PDAs. WT41 module is available with integrated chip antenna or U.FL antenna connector. Product brief: [WT41](#)

M2M modem with Embedded SIM



Sierra Wireless announced the introduction of a new offer for wireless machine-to-machine (M2M) communication, in partnership with the innovative French wireless network operator Bouygues Telecom. Targeting industrial, sales and payment and security solutions, the two companies present a truly ready-to-use package which greatly facilitates the development, logistics and management of M2M solutions. The offer gives access to Bouygues Telecom ready-to-use pan-European data airtime on the new Sierra Wireless AirLink(TM) GL6100 GSM/GPRS modem with Embedded SIM. In addition, the offer includes a one year subscription to Sierra Wireless' AirVantage(TM) Management Services for remote diagnosis and software upgrades. Datasheet: [GL6100](#)

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TFT & EMBEDDED COMPUTING

Open Frame HMI products 4,3 inch / 5,7 inch / 7 inch



Garz & Fricke 's open frame platforms can be found between pure processor modules and boxed HMIs. They are the ideal basis for customers, who want to create a proprietary end-product without developing the entire electronics at own cost and risk. You just need to integrate the device into your own housing.

[CUPID 7.0 open frame - Advanced Embedded Systems.](#)
(CUPID 5.7 available soon!)

[Starterkit](#)

[NESO 5.7 / 7.0 open frame - Enhanced Embedded Systems](#) (NESO 4.3 available soon!)

[Starterkit](#)

Compact Fanless & Ruggedized Embedded System with VIA Nano CPU



The VIA ART 3000 is a complete fanless ruggedized embedded box system based on the unique I/O-rich VIA EITX-3000 board, offering application developers the ideal solution for a variety of industrial and commercial scenarios that include the latest kiosk, POI, digital signage and industrial automation.

Features:

- Fanless operation in sealed construction
- Built-in VIA Nano™ processor with 1MB L2 Cache and low power consumption
- Dual-sided multiple I/O connectors for easy access



- Two 24-bit single channel LVDS ports and one VGA port for triple concurrent display with dual independent display
- Built-in two Gigabit Ethernet, four USB 2.0 ports, and four COM ports (two RS-232 and two RS-232/422/485, configured via BIOS setup), enabling comprehensive communication and connective capability
- Accepts a wide range of DC power inputs from 7 V~36 V
- Easy integration, Quick setup, convenient maintenance

Datasheet: [ART-3000](#)

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DISPLAYS & OPTO

New products for the general lighting market



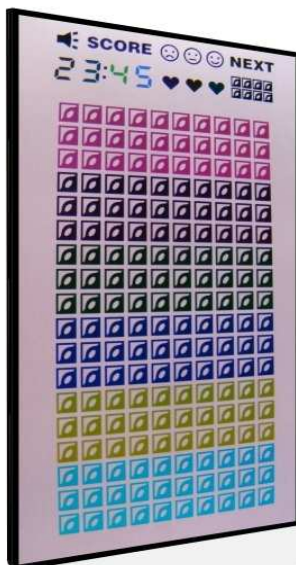
Bridgelux unveiled three new LED array product families that deliver high-quality, energy-efficient light sources cost-optimized for the burgeoning solid-state lighting market. These new products are designed to replace incandescent, halogen, high intensity discharge (HID) and compact fluorescent lighting. The low power consumption, long lifetime, and high quality light of the Bridgelux LED Arrays deliver ideal options for indoor and outdoor applications ranging from retrofit light bulbs to street and wide area lighting. The Bridgelux LED Array product portfolio now features light output performance that ranges from 240 to 4500 operational or "hot lumens (lumens under normal operating conditions), providing a full breadth of LED solutions to replace a broad range of high-volume conventional light sources. The new products and their features are:

[ES Array Series](#)

[RS Array Series](#)

[LS Array Series](#)

New Display Technology Offers Substantial Savings on Custom Colour LCDs



Densitron introduced a new display technology that allows custom colour LCDs to be produced at a fraction of the cost of a typical colour LCD module. The new technology has been successfully utilised into the white goods industry and also into large digital information boards for public information. This advancement in LCD technology offers an extended operating temperature range of -20°C to +70°C and a high contrast ratio (>300:1), ensuring great visibility in all conditions. Displays manufactured using the new technology have low power consumption, and can achieve very fast switching speed and more than 140° viewing angle, making them ideal for hand-held and many other applications where low power or excellent readability is required. To explore Densitron's product range, please [click here](#).

PASSIVES & ELECTROMECHANICAL

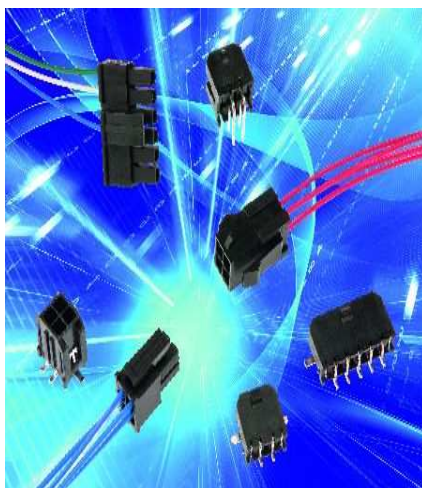
SMD quartz crystal



Reflecting the trend for ever increasing miniaturisation the CFPX-188 quartz crystal is housed in a 2x1.6x0.45mm ceramic package. The 4-pad device is available in frequencies between 20.0MHz and 50.0MHz with stabilities down to ± 10 ppm. The standard operating temperature range is -10 to +60°C but wider temperature ranges can be manufactured upon request. The CFPX-188 is suitable for a wide variety of applications including Avionics, Telecoms, Wireless and Metering. The CFPX-188 can be ordered in either bulk or tape and reel packaging. Datasheet: [CFPX-188](#)



Mini Power Connectors



Wire-to-Board Connectors for current rates up to 5 A in small pitches of only 3.0 mm

W+P PRODUCTS presents an attractive range of new wire-to-board connectors. The Mini Power Connectors combine the ability to carry current rates up to 5 A with a miniaturized contact design. A pitch of 3.0 mm allows high packing densities compared to usual power connectors. An ideal combination to apply in personal computers, workstations, handheld devices, fan tray assemblies and power supplies! The new series 583 and 5830 offer high security and stability. Equipped with fully polarized housings they suit for blind mating. Positive latchings prevent accidental disconnects, additional security on the PCB is realized by locking tangs on the terminal. Datasheets: [583](#), [5830](#)

POWER CONVERSION

Miniature, 5W SMT wide 2:1 input range DC/DC converters



The LF500RW series is a family of miniature SMT mountable 5W DC/DC converters. These converters provide high performance features such as a wide 2:1 input range, tight line/load regulation, output power/overload protection and low noise operation; in a miniature SMT package.

Features:

- * 5W Output Power
- * Wide 2:1 Input Voltage Ranges
- * 1,500 VDC I/O Isolation
- * 21 Single & Dual Output Models



- * >1.0 MHour MTBF
- * Miniature SMT Package!

Datasheet: [LF500RW](#)

Power for Embedded Mini-ITX Solutions



FSP has a full range of products for Total Embedded Power Solutions. Typical applications include POS; ATM; Kiosk; Digital Signage; All in one PC; Nettop; DVR.

[Flyer](#)
[Datasheets](#)

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