

ALCOM TIPS FOR ELECTRONIC DESIGNERS



DEAR ELECTRONIC DESIGNER



29 september - Utrecht



[Agenda](#)

Schrijf u nu in voor het SBC-TFT seminar van Alcom. Gastsprekers van de volgend fabrikaten zijn aanwezig: Avalue, CMO, Civue en STEC.



Bezoek op 24 september de [lezing van Congatec](#) tijdens het D&E event.

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SEMICONDUCTORS

MACH8 SOLID STATE DRIVE : Revolutionizing the Storage World



STEC's MACH8 Solid State Drive is revolutionizing the



storage world by delivering industrial temperature rated products and maintain performance in a fully integrated device.

At the heart of the MACH8 Solid State Drive there is STEC's industrial grade controller able to address multiple flash chips simultaneously to achieve up to 100MB/s sustainable Read/Write speed.

The MACH8 SSD product is embedding the Full Data Path Protection, STEC's proprietary set of algorithms capable to protecting the data wherever they are temporary or permanently stored.

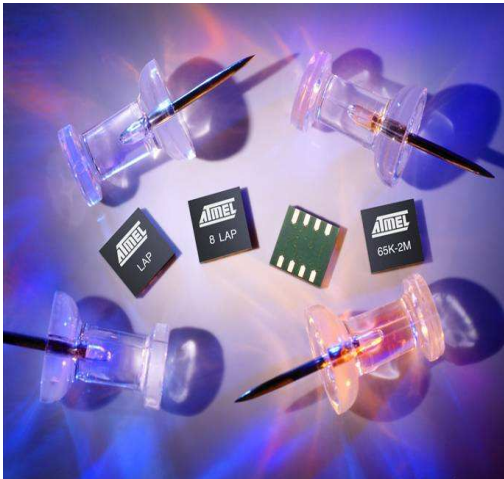
[MACH8 Brochure](#)
[STEC SSD & Compact Flash Product Offering](#)

Low jitter crystal oscillators (XO)/voltage-controlled crystal oscillators (VCXO)



The Si590/591/595 low jitter crystal oscillators (XO)/voltage-controlled crystal oscillators (VCXO) significantly expand Silicon Labs' oscillator portfolio to address lower frequency (<525 MHz), cost-sensitive 5x7mm XO/VCXO applications at 1 ps rms jitter performance. Based on 3rd generation DSPLL technology, the Si59x is the industry's only XO/VCXOs offering any-rate frequency flexibility and 1 ps rms jitter performance. The Si59x supports any frequency from 10 to 525 MHz, any format (CMOS, LVPECL, LVDS, and CML), and any supply voltage (1.8V, 2.5V, 3.3V). Datasheets: [Si590-591](#), [Si595](#)

Switch now to Atmel's AT17LV Series Configuration Memory



Atmel's configuration memory family of AT17LVxxx devices are a Pin Compatible Replacement for the XC1700 series due to EOL of Xilinx - XC17 Series. The Atmel AT17LV devices can be used to configure SRAM FPGAs from Xilinx in serial mode.

Features:

- EE Reprogrammable Serial Memories, Designed to Store Configuration Data for Field Programmable Devices
- Memory Sizes Include 65K, 128K, 256K, 512K, 1M, 2M and 4M Bits
- In-System Programmable via 2-wire Bus
- Simple Interface to SRAM FPGAs
- Programmable Reset Polarity
- High-reliability
 - Endurance: 100,000 Write Cycles
 - Data Retention: 90 Years for Industrial Parts (at 85°C) and 190 Years for Commercial Parts (at 70°C)

Datasheet: [AT17LV](#)

AAT5101 : Class D Audio Amplifier Extends Battery Life in Portable Applications



The AAT5101 is a high efficiency, 2.5W mono class D audio power amplifier. The low noise, filterless PWM architecture eliminates the output filter, reduces the external component count and system cost, and



simplifies system design. With high efficiency of up to 92% and the industry lowest 1.35mA quiescent current, it increases battery lifetime and dramatically lowers the junction temperature. The space saving wafer-level chip scale package (WLCSPP) and minimum external component requirements make it ideal for cellular phones and PDAs. With high PSRR, low THD+N, and 91dB SNR, the AAT5101 guarantees clean sound across the wide audio output power range and the full audio frequency domain. Short circuit and thermal protection with self-recovery prevents the device from being damaged during over current conditions. In cellular phones, the earpiece, speaker phone and melody ringer can each be driven by the AAT5101. Also, proprietary technology successfully suppresses pop and click noise.

Datasheet [AAT5101](#)
 Datasheet [Evaluation Board](#)

Supertex inc.

LED driver delivers very high accuracy via constant current control



Supertex introduced the HV9961, an average-mode, constant control LED driver integrated circuit (IC) designed to drive LEDs using a buck topology. It is well suited for a variety of solidstate lighting applications. The HV9961 provides current accuracy of +/-3% and requires no loop compensation or high-side current sensing because of Supertex's proprietary averagemode control scheme. The IC features hiccup-mode LED short-circuit protection and both linear and PWM dimming. The HV9961 is available in SOIC-8 and SOIC-16 packages (HV9961LG-G and HV9961NG-G, respectively) and is pin-compatible with Supertex's HV9910B LED driver. Datasheet: [HV9961](#)

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M2M & WIRELESS MODULES

How to develop an embedded web server using a MiniCore?



The MiniCore family of microcontroller modules is Rabbit's smallest and lowest cost embedded solution. It offers designers an easy path to adding reliable control and network connectivity to any system. Using a standard 52-pin mini PCI Express socket, users can design a board once and choose the best connectivity solution for the application. MiniCore microcontrollers combined with Rabbit's Dynamic C® integrated development environment makes application design and development quick and easy.

How to develop an embedded web server using a Minicore? [click here](#)

[Order here your Rabbit MiniCore kit](#)

First 802.11N single stream module for Wi-Fi based real time location system



A new module for supporting Wi-Fi® RTLS tags from Redpine Signals®, Inc., offers the first 802.11n single stream solution for asset tracking. Redpine's Find-iT™ module provides all the control and wireless functionality required to build and deploy tags for advanced two-way communicating real-time location systems (RTLS) in industrial and enterprise applications. The module is also the first 802.11n solution to meet Cisco Compatible Extensions (CCX) tag specifications for system designs for the Cisco Location Solution. Redpine is a leading developer of ultra low power multi-standard OFDM and MIMO silicon-based solutions for Wi-Fi, mobile WiMAX™ and 3GPP LTE. Productbrief: [RS9110-N-11-51](#)

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TFT & EMBEDDED COMPUTING

Avalue brings exceptional range of Industrial Panel PCs



- Intel Atom Platform
- LED Backlight Display
- Optical Bonding (Sunlight Readable)
- Super Anti-abrasion (Glass-On-Top)
- Customization
- Expandability
- Embedded OS
- Technical Support

- HMI : [LPC-series](#)
- Kiosk Terminal : [FPC-Series](#)
- Medical Terminal : [MTP-Series](#)

Superior Special-Application Panel Performance



CMO's superior technology can also be seen in the special-application panels. Boasting features such as high resolution, wide operating temperature range, wide viewing angle, high contrast, quick response time and high reliability for thermal and pressure, CMO's panels, in 7, 8, 10.4, 12.1, 13.3, 15 and 15.4, fit the requests for industrial, amusement, avionics, vehicle displays and other special-application requirements. In addition to CCFL backlight, a new series of LED backlight panels for special applications is developed to meet requirements for environmental conservation and energy efficiency, including the 7, 8, 10.4 and 12.1 . In particular, the 7 and 8 have been designed with vehicle display specification, using a LED backlight source to provide low power consumption, high efficiency and high brightness features. The 10.4 and 12.1 panels, on the other hand, have the advantage of superior high resolution XGA (1024x768) to meet a wide range of industrial requirements. [Master Chart of CMO's Special-application Panel Specifications](#)

DISPLAYS & OPTO

Add a splash of color to your life with our new **DOMINANT Semiconductors** RGB SPNovaLED!



DOMINANT introduced the new high intensity RGB SPNovaLED (NMRTB-USD) of its SPNovaLED series, replacing the existing NMRTB-USS device. The utilized RGB technology of this LED also allows driving each chip in the package individually to mix and match any requested color even white; to provide balanced lighting distribution. With an operating current of 250mA this LED features a typical luminous intensity of 9000mcd for Red, 18,000mcd for True Green and 4500mcd for Blue. This new RGB SPNovaLED offers an excellent lifetime due to its silicone encapsulation and low thermal resistance of the housing, converting it to an impeccable MultiLED product. In terms of the design and size of the package the dimensions are equal to the other SPNovaLEDs (6.0(L) x 6.0 (W) x 1.5(H) mm). However the viewing angle was designed to 125° to ensure superior color mixing among the colors. This LED is a true high intensity light source that leverages the benefits to a greater stability and an extended lifetime. Datasheet: [SPNovaLED](#)

Cost-efficient White DomiLED with Higher Light Output

DOMINANT Semiconductors



DOMINANT introduced a new high intensity white DomiLED, the DDW-KJG. This product family also includes a High Color Rendering Index (CRI) version, the DDW-KJC. With an operating current of only 20mA, these LED feature a luminous intensity of 2200mcd (typical) for DDW-KJG and 2000mcd (typical) for DDW-KJC and fulfill the stringent requirements of the automotive industry. The high CRI version is compliant to the United States "Energy Star guidelines. Observing the required minimum CRI of 75 and a typical value of 80 the DDW-KJC reveals its ability being the perfect fit for all lighting applications. Compared to DOMINANT's other PLCC2 DomiLEDs (3.2 (L) x 2.8 (W) x 18 (H) mm), no design and dimensional changes of the package have been made. With the low thermal resistance of the housing, allowing optimal heat dissipation and a silicone encapsulation these LEDs are designed for a longer life-span.

Datasheets: [DomiLed Ingan white CRI DDW-KJC](#), [DomiLed Ingan white DDW-KJG](#)

PASSIVES & ELECTROMECHANICAL

Low-loss, High-saturation, Round-wire Coil SMT Power Inductors



Pulse introduced the new PG0871NL and PG0702NL



series of round-wire coil surface mount power inductors. These inductors use a ferrite core material which yields a 90% core loss reduction and 30% increase in maximum operating temperature when compared to standard iron powder material used in flat-coil inductors. Because ferrite material is immune to thermal aging, these inductors are more reliable and better performing at higher temperatures and frequencies than non-ferrite core inductors. Using round wire instead of a flat coil results in a 25% cost reduction. The Pulse PG0871NL has a low DCR of 1.5 to 31.5 m Ω with a tight tolerance of \pm 8% and operates up to 130°C without any thermal aging concerns. Inductance values range from 0.46 μ H. Operating temperature ranges from -40°C to 130°C. Datasheets: [PG0871NL](#), [PG0702NL](#)

Panel Mount Fuseholder Provides Shock-Safe Protection in an Economical Design



Schurter complements the wide range of fuseholder products with the new panel mount version FQE. The FQE is offered with caps in two different colours (black and red). With the solid metal nut, it allows to have a panel thickness of up to 4.5 mm. In the target applications, solder terminals as offered are mostly in use.

- Rated voltage: 250 VAC
- Rated Current: 6.3 A
- Rated Power Acceptance: 2.5 W / 6.3 A

Datasheet: [M366x](#)

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POWER CONVERSION

SynQor Establishes New Benchmark with Super-Wide 8:1 Input Range DC/DC Converters



SynQor's new IQ64 family of industry-standard half brick dc/dc converters establishes a new performance benchmark with a super-wide 8:1 input voltage range of 18-135V, which doubles the existing ultra-wide 4:1 input ratio standard. With one converter designers can now simultaneously satisfy EN50155 requirements for 36V, 48V and 72V railway systems. The IQ64 family uses SynQor's patented two-stage topology with a constant mid-bus voltage, which enables an optimized isolation stage design based on synchronous rectifiers, greatly reducing heat loss and achieving up to 90% efficiency at full load.

The IQ64 series further expands the InQor family of fully encased and ruggedized isolated dc/dc converters for industrial and transportation applications. The half-brick format is comprised of nine output voltages, including 1.8V, 3.3V, 5V, 12V, 15V, 24V, 28V, 40V and 48V. For each output voltage there are two converters: one with a power rating in the 200W range, and a second cost-optimized unit in the 150W range for lower power requirements. [InQor DC/DC Converters Product Overview](#)

Alcom represents RedRocket, the award winning EOS brand of power



Alcom electronics represents exclusively the EOS brand of power supplies in the Benelux. The EOS brand is recognized as the leading seller of ultra miniature, high efficiency power supplies. The product range consists of :

- [Open Frame AC/DC](#)
V-Series High Density Open Frame AC/DC power supplies from 40-200 Watt
- [High Efficiency Medical Power Supplies](#)
MVL-Series 40-200 Watt
- [External High Efficiency Adapters](#)
Z-Series from 20-180 Watt

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Alcom Belgium - Singel 3 - 2550 Kontich
Tel.: +32 (0)3 458.30.33 - Fax: +32 (0)3 458.31.26 - info@alcom.be

Alcom Netherlands - Rivium 1e straat 52 - 2909 LE Capelle a/d IJssel
Tel.: +31 (0)10 288.25.00 - Fax: +31 (0)10 288.25.25 - info@alcom.nl

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