

## ALCOM TIPS FOR ELECTRONIC DESIGNERS



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### SEMICONDUCTORS

#### 16-Channel White LED Driver IC Solution with Full LED Current and Timing Control



The AAT2400/2401 is a highly integrated, high efficiency white LED backlight solution for large size LCD panels used in LCD TVs. To accommodate power requirements, the solution consists of two devices, a master device (AAT2400) and a slave device (AAT2401). The devices operate from a regulated 12V or 24V DC power supply.  
Datasheet: [AAT2400/2401](#)

#### Atmel® introduces the picoPower® ATtiny261A, ATtiny461A and ATtiny861A devices



The ATtiny261A/461A/861A are fit and functional equivalents for the ATtiny261/461/861 devices. In addition ATtiny261A/461A/861A provides a migration path for customers using ATtiny26 and offers significantly reduced power consumption in Active and Idle operating. This current



reduction is a result of different manufacturing processes for the ATtiny26/261/461/861 and the ATtiny261A/461A/861A. Datasheet: [ATtiny261A/461A/861A](#)

### Space saving, energy efficient 2A, 100V Schottky Bridge Rectifier



Central Semiconductor Corp. announces the release of the CBRHDSH2-100 Schottky Bridge Rectifier packaged in the HD DIP case. This new energy efficient device has a low reverse leakage current of 0.7µA and addresses the need for a space saving 2A, 100V full wave bridge rectifier essential for today's power management, solid state lighting, and power over ethernet applications. The space saving advantage of the CBRHDSH2-100 is a 50% reduction in utilized board space compared to four individual Schottky rectifiers in the SMA package. Coupled with a low profile of less than 2.7mm, this device provides the ideal solution for the increasing number of applications with limited space requirements. [CBRHDSH2-100 Product Brief](#)

### GN7350 Industry's First Single-Chip 10G EPON Transceiver



The GN7350 is a single chip transceiver solution for 10G EPON applications. It features a burst mode DFB driver, a limiting amplifier and a receive side CDR.

The GN7350 is designed to enhance robustness of 10G EPON links by eliminating the excessive channel noise that is present in PON systems.

Through re-timing the high speed signal, the CDR within the GN7350 ensures highest link margin and lowest jitter signal. This provides much needed margin on the IEEE P802.3av 10G EPON standard, simplifies the module design, and enables interoperability with different MAC (Media Access Control) vendors. Gennum's long-standing leadership in CDR technology allows for easy integration of this functionality into the chip, while still meeting the cost structure and low power consumption that PON systems demand. [Read More...](#)

### New Metering Chips Eliminate Costly Current Transformers



The new product family includes the 71M6541x and 71M6xx1 and features digitally isolated current sensors based on the company's proprietary MicroDAATM isolation technology. The new 71M6541x, as a stand-alone meter system-on-chip (SoC) for single element meters, offers significantly reduced power consumption and enhanced accuracy. The 71M6xx1 isolated sensor IC eliminates current transformer and associated copper wiring in 2-element residential meters, with up to class 0.2 accuracy (ANSI 200A). The result is up to 25 percent reduction in bill of materials (BOM) costs for residential applications.



[6541 : single-phase-metering SOC Metering IC Solutions](#)

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## M2M & WIRELESS MODULES

### Sierra Wireless AirPrime™ MC Series Intelligent Embedded Modules



Sierra Wireless AirPrime™ MC Series intelligent embedded modules deliver reliable, high-quality mobile broadband connectivity with a variety of advanced air interfaces. An AirPrime MC Series module can turn any mobile computing or mobile consumer device into a powerful communication tool. The AirPrime MC Series modules are based on the PCI Express Mini Card standard with a USB 2.0 interface. They are designed to work with EV-DO Rev A, HSPA or HSPA+ networks.

Sierra Wireless AirPrime ...

[MC5728V Intelligent](#)  
[MC8700 intelligent](#)  
[MC8790 and MC8790V](#)  
[MC8792V Intelligent](#)  
[MC8795V Intelligent](#)

### Embedded PoE VPN Router Computer: 1 WAN, 4 PoE, 4 Serial



- Intel IXP435 667MHz with Networking Processor to enhance routing and VPN performance
- Complete Layer3 routing support: OSPF, RIP, DVMRP, IPv6
- Full managed features with QoS, VLAN
- 48V PoE, 4 port, 15.4W per port
- 4-port serial device server (DB37 connector), supporting TCP server/client and paired TCP modes
- Versatile interfaces of USB, DIO, CF/ SD card slot
- Linux ready platform with Linux UI Webmin (optional), programmable
- Cross-platform applications
- DC 12~48V power input (48V for PoE)
- Fan-less and Ruggedized Industrial Design for anti-vibration, anti-shock, and -25~70°C operation temperature

[Datasheet](#)  
[Selection Guide](#)



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## TFT & EMBEDDED COMPUTING

**New EPIC Board EPI-QM57 Based On The New Intel® Core™ i7 Processor And Mobile Intel® QM57 Express Chipset**



The EPI-QM57 is a nextgeneration Intel® Core™ i7 processor-based EPIC computing board. Based on Intel's 32nm process technology and featuring a two-chip platform that integrates the Northbridge chip with the CPU, this platform delivers enhanced performance, energy efficiency, manageability, security functions and smoother visual experiences.

Features:

- Onboard Intel® Arrandale LV/ ULV CPU
- Intel® QM57 Chipset
- One 204-pin SODIMM Up to 4GB DDR3 800/ 1066 SDRAM
- Dual View, Dual-channel LVDS, DVI-I
- Dual Intel® Gigabit Ethernet
- 1 CF, 4 SATA, 2 COM, 8 USB, 16-bit GPIO
- Options: Express Card/34mm, Built-in Touch Screen
- Support iAMT 6.0
- Support RAID 0/ 1/ 5/ 10

Datasheet: [EPI-QM57](#)

## PXA270M DIMM Module



The PXA270M family consists of 3 low-cost PXA 270M based modules.

PXA270M DIMM Module Max specification:

- PXA270M / 520MHz (by default set to 312MHz)
- 256MB NAND Flash (16bit)
- 256MB SDRAM (32bit)
- Audio AC'97 with controller and support for touchscreen



- 10/100 Mbps Ethernet
- 121 GPIOs
- 200pin SODIMM connector
- JTAG connector pads
- Power supply 3.3V with flexible PMIC
- Dimensions 67.6 x 38.0mm
- Preinstalled OS Linux 2.6
- 0°C to +70°C commercial temperature range
- -25°C to +85°C extended temperature range (except Ethernet)

Other available configurations for customized boards (MQO: 10pcs):

- CPU speed: 312/416/520MHz
- Flash size: 64/128/256MB
- SDRAM size: 8/16/32/64/128/256MB
- Audio/touch: included/excluded
- 10/100 Mbps Ethernet: included/excluded

[Datasheet](#)

[PXA270M DIMM PC Products](#)

[TFT Display Data Image with touchscreen set](#)

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## DISPLAYS & OPTO

**Dominant introduced radiant Primax White for 80mA solution**

**DOMINANT Semiconductors**



DOMINANT's newest LED product series, Primax, is designed to provide a high intensity light output using a very small package optimized for applications where space is a premium. With an operating current of 80mA, this new generation Primax LED is able to achieve a typical luminous intensity of 15,000 mcd (37.5lm). Besides an excellent lifetime up to 50k hours due to its enhanced resin mixture for encapsulation the package features an electrically isolated heat sink that allows optimal heat dissipation, converting this LED to an unimpeachable product. With DOMINANT's new definition of the color bins as well as flux binning, these white Primax provides a much better homogeneity in illumination especially for high sophisticated lighting solutions.

This Primax LED with a small package outline (3.5(L) x 3.5 (W) x 1.29(H) mm), its conclusive high intensity paired with an excellent efficiency gives prove of being the ideal choice for general lighting applications, LED bulbs and channel lighting projects.

[White LED Primax Primax](#)

**I<sup>2</sup>C bus not nearly dead**

**ELECTRONIC  
ASSEMBLY**

The widespread I<sup>2</sup>C bus insert since long in LCD display world. The latest member EA DOGXL160-7 is a 3.3" display, which is set up ultra compact. It's outline dimensions are 78x64x6.5mm only and even so the prototyping process and mass production process are very easy. Thanks to the pins with a pitch of 1/10" (2.54mm) cost-effective standard material can be used all the time. After all this display alternatively can be interfaced via SPI (3- or 4-wire) also. [Read More...](#)



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## PASSIVES & ELECTROMECHANICAL

### SMD Clock Oscillators



Offering low phase jitter of under 1pS over a bandwidth of 12kHz to 20MHz, the CFPS-34 oscillator is suitable for incorporation into the latest telecommunications infrastructure designs where fast rise and fall times are required for reliable data rate transfer. This surface mount oscillator is housed in an industry standard 7x5mm ceramic package and provides a dual LVPECL output across the frequency range 75.0MHz to 170MHz. The CFPS-34 can be ordered in either bulk or tape and reel packaging. Datasheet: [CFPS-34](#)

### Fuse, 1206 Footprint, Offers Low Current Ratings in Compact Design



Schurter introduced the new USFF 1206 fuses with super-quick-acting characteristic for low current applications. The new product extends the current range of the successful USF 1206 for lower ratings ranging from 160 to 250 mA. The wire bonded fuse offers extremely low impedance values compared to competitive products, providing exceptional performance in dense circuits. Datasheet: [USFF 1206](#)

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## POWER CONVERSION

### EI30 Transformer with 0,7VA / 1,2VA



Marschner introduced 2 new EI30 transformers ([0,7VA](#) and [1,2VA](#)) according to VDE 0570 / EN 61558-standards in a temperature range up to 70°C



**Ultra-miniature, 15W wide 2:1 input range DC/DC converters**



The I1500RW series is a family of compact, high performance 20W DC/DC converters. They are designed to provide the small size, long field reliability and robust performance required for space critical applications. Standard high performance features include an ultra-wide 2:1 input voltage range, efficiency to 89%, industry standard pin-out, remote On/Off control, and tight line/load regulation. Datasheet: [I1500RW](#)

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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](mailto: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](mailto:info@alcom.nl)

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