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e-nieuwsbrief, getiteld 'Tips for electronic Designers'. Verschijnt elke 3de donderdag in uw mailbox.

Topics : Semiconductors; M2M & Wireless Modules; TFT & Embedded Computing; Displays & Opto; Passives & Electromechanical; Power Conversion.

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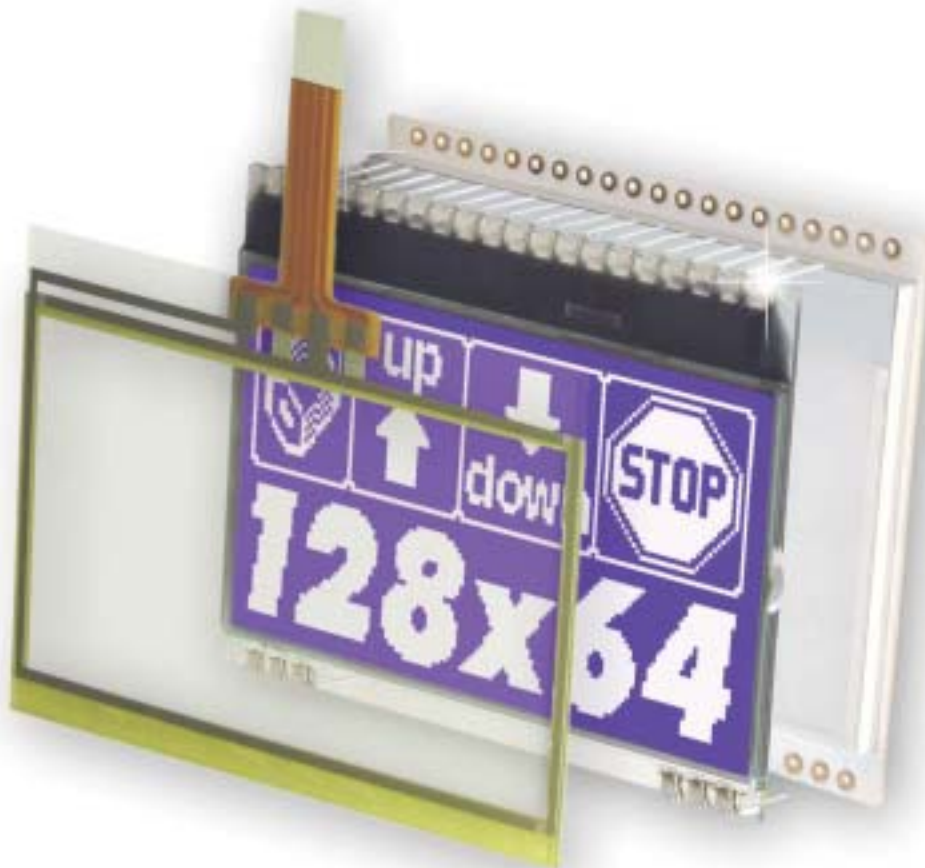
De nouveaux produits, clairement ordonnés par groupes de produits. Chaque lundi sur notre site web www.alcom.be.

Chaque mois :

une lettre d'information électronique, intitulée "Tips for electronic Designers". Elle tombe chaque 3ème jeudi du mois dans votre boîte à messages.

Sujets abordés: Semiconductors; M2M & Wireless Modules; TFT & Embedded Computing; Displays & Opto; Passives & Electromechanical; Power Conversion.

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ELECTRONIC ASSEMBLY

New Graphics module 128 x 64 with touchpanel option

The new graphics displays from the Electronic Assembly DOG-series provide a resolution of 128x64 dots. The assembly as well as the electrical connection is done via fixed pins, simple and reliable. The module interface is achieved via serial SPI. Data transmission rate is possible up to 20 MHz without any busyflag operation. The displays have very compact outline of 55x46mm and an extreme narrow edge. It consumes only 150uA at a single 3.3V. The module works at a temperature range of -20 up to +70°C. The latest option for this display is the 4 wire resistive touchpanel which will give you more flexibility for your next industrial design.

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RiTdisplay introduction

RiTdisplay Corporation, founded in 2000, is the first company in Taiwan to invest in research and development (R&D) and manufacturing of the organic light-emitting diode (OLED). RiTdisplay is also the only company in the world that have mass production lines for both small molecule OLED (SMOLED) and polymer OLED (PLED). RiTdisplay combines the cutting-edge technologies, innovative R&D, and customer-oriented sales and marketing strategies to provide the most advanced flat-panel display products to satisfy the customers' needs. The R&D and the development of manufacturing technologies at RiTdisplay have brought about more than 100 patents, approved and pending.



RITDISPLAYS 080101

OLED modules from 0,7 inch – 3,2 inch

RiTdisplay has a large range of monochrome OLED modules, single color blue, yellow, white and red. Of course a combination of colors in one display is possible. For color applications RiTdisplay will support 1.0, 1.3, 1.5, 1.8, 2.2, 3,2 inch modules in the following resolutions: 220x176, 128x160, 160x128, 93x64 and 256x64.

OLED modules offer a wide viewing angle, fast response time, and are low power and very compact, high bright and show an excellent contrast.



RITDISPLAYS 080102

“No Power” Cholesteric LCD Technology

Key features:

- "No Power"
- Reflective
- Sunlight Readable
- Wide Viewing Angle
- High Brightness & Contrast
- Active diagonal viewing dimension from 2.2 inch to 12.1 inch
- Resolution from 128 x 32 dots to 640 x 480 dots
- 20 to 127 DPI



KENT 080103

Module	Resolution	DPI	size in inch	Viewing Area W x H x Diag. in mm
128x32x2.3	128 x 32	54	2.26	55 x 16 x 57
240x160x2.9 (1/8 VGA)	240 x 160	100	2.88	41 x 61 x 73.5
320x80x3.8	320 x 80	80	3.94	96 x 28 x 100
320x240x5.6 (1/4 VGA)	320 x 240	72	5.63	114 x 87 x 143
640x480x9.4 (LVGA)	640 x 480	85	9.45	192 x 144 x 240
INFOSIGN®	240 x 30	20	12.1	305 x 38 x 307

Displays created around your design, as flexible as you wish

Kent Displays introduces flexible bistable reflective cholesteric displays. Unique, if you need a display solution which is Zero Power, light weight, flexible, durable and of course cost effective. This is the moment to design high volume, cost effective and flexible display solution for many applications where standard display technologies can not offer the right solution. MP3 players, USB drives, thermostats, price tags, labels, memory sticks and even credit cards will have displays in the near future that are No Power and extremely flexible.



KENT 080104

Your imagination will be captured by Data Image

Data Image is for many years a recognized and specialized manufacturer for the small and medium size TFT panels. The technology of "ultra slim" and "Energy saving" are the most important advantages and benefits to support portable end-product application. The product line-up supports you with a complete range of small and medium size products from 2,4" ~ 12,1 inch. Flexibility in touch panels, brightness, backlight and size gives you an advantage for your new design in the different markets and applications in fields as: handheld equipment, office automation, medical/ industrial equipment and vehicle use devices. For your application we can customize your products and materialize your concepts.



DATA IMAGE 080105

Data Image Part Number	Screen Size (inch)	Display Format (pixels)	T/P option	Backlight	Brightness (cd/m2)
FG020410D	2.4	480 x 234		LED	250
FG020410D	2.4	320xRGBx240		LED	175
FG030562D	3.5	320xRGBx240	4 Wire	LED	250
FG030565D	3.5	320xRGBx240	4 Wire	LED	200
FG040310D	4.3	480xRGBx272		LED	400
FG050605D new	5.6	960 x 234	4 Wire	LED	300
FG050605D new	5.6	960 x 234	4 Wire	CCFL	500
FG050700D	5,7	320xRGBx240	4 Wire	LED	350
FG050720D new	5,7	640xRGBx480	4 Wire	LED	320
FG070060D	7	480 x (R,G,B) x 234	4 Wire	CCFL	300
FG0700A0D	7	800 x (R,G,B) x 480	4 Wire	LED/CCFL	320
FG080015D (5V)	8	640 x (R,G,B) x 480	4 Wire	CCFL	350
FG080016D (3.3V)	8	640 x (R,G,B) x 480	4 Wire	CCFL	350
FG080030D new	8	800 x (R,G,B) x 600	4 Wire	LED	400
FG080010D new	8	640 x (R,G,B) x 480	8 Wire	CCFL	320
FG100410D TTL	10.4	640 x (R,G,B) x 480	4 Wire	CCFL	450
FG100430D LVDS	10.4	800 x (R,G,B) x 600		CCFL	230
FG120110D new	12.1	1024 x (R,G,B) x 768		CCFL	450
FG100210D new	12.1	800 x (R,G,B) x 600		CCFL	450

5,7 inch TFT with LVDS interface

LVDS interface is very popular in the industrial market. In view of this, Data Image developed a VGA 5,7" TFT LCD called the FG050722DSSWDG01. This LED module is equipped with an on board brightness control, LED drivers circuit and DC/DC circuit for easy operation. It is ideal when you need a color display for digital equipment such as point of sales, medical or industrial applications which need wide temperature specifications and a high contrast with LVDS interface. If you are designing a new application with a single board computer this TFT is the best choice.



DATA IMAGE 080106

New 3.5" single chip TFT

Data image developed a wide range of 3.5 inch TFT modules especially for handheld applications. The 3.5 inch TFT range with LED backlight is available with digital interface (Serial 8 bit / TTL / 8 bit / 24 bit / SPI command settings). To extent the range next panels are introduced.

FG030565DSSWBG03

- Fully compatible with dual chip versions
- Programmable gamma correction curve
- Non-Volatile Memory (OTP) for VCOM calibration

FG030562DSSWBG02

- On-chip voltage generator and DC/DC converter
- Programmable gamma correction curve
- Contrast / Brightness control on board
- Non-Volatile Memory (OTP) for VCOM calibration



DATA IMAGE 080107

Complete range QVGA monochrome modules

Crystal Clear Technology is specialized in modules for industrial applications with a QVGA resolution. All models offer a wide viewing angle, extended temperature specification, single or multi line addressing (SLA / MLA) and are RoHs compliant. Optional LED backlight can be chosen. See the matrix for an overview of the available QVGA displays.



CCT 080108

Family	Size	Controller
G2432-21	3.6"	SLA-13700
G2432-20	3.6"	SLA-NO/C
G2432-19	3.6"	SLA-NO/C-T/S
G2432-23	3.6"	ML-13700
G2432-22	3.6"	MLA-NO/C
G2432-12	4.7"	SLA - 8802
G2432-24	4.7"	SLA-13700
G2432-10	4.7"	SLA-NO/C
G2432-25	4.7"	MLA-13700
G2432-26	4.7"	MLA - NO/C
G2432-29	4.7"	SAMSUNG-NO/C
G2432-30	4.7"	SAMSUNG-13700
G2432-14	5.7"	SKA-NO./C-10L
G2432-13	5.7"	SLA-1905
G2432-17	5.7"	SLA-13700
G2432-27	5.7"	MLA-13700
G2432-28	5.7"	MLA - NO/C

Low voltage LCD operation with the new 64x128 model from CCT

This newly developed 64x128 module, G64128W17BBN00, is designed for many industrial type applications. The G64128W17BBN00 offer a lower VLCD (8.8V typical) compared to the existing G64128x01. Mechanical and functional are both modules similar.

Features:

- Display format: 128 (W) x 64 (H) dots
- Outline dimensions: 93.0mm x 70.0mm
- Viewing area: 70.7mm x 38.8mm
- LCD type: FSTN
- Polarizer mode: transfective
- Backlight: various LED color options
- Build in controller/driver: S6B0108A01COCX and S6B0107B01-COCX



CCT 080109

Crystal Clear Technology launches new QVGA modules

CCT developed two new products modules equipped with the latest technology for the industrial market:

G2432W31xxxx0

- Available in STN and FSTN technology
- Compatible with popular interfaces in the market
- High brightness white LED backlight
- Module dimension - 167mm x 109mm
- Viewing area - 122mm x 92

G2432W32xxxxx

- Affordable 5.7" solution
- Available in STN mode
- High brightness white LED backlight
- Module dimension - 160mm x 109mm
- Viewing area - 122mm x 92mm
- Optional on board DC-DC optional



CCT 080110

AC LEDS from Seoul

Acriche is an environmental friendly and proper economical solution for general illumination applications like architectural lighting, task lighting decorative / pathway lighting and many household appliances. The Acriche series is designed for AC current-based operation. Acriche is a semi-permanent and environmental safe semiconductor lighting that can be used in AC applications without the need for additional components. This makes the product reliable with excellent specifications such as:

- Long lifetime (35,000hr)
- Slim size to maximize space utility
- Reducing energy consumption
- Miniaturizing lighting applications
- No additional devices needed

Acriche is available in a 2, 4 and 8 Watt configuration. The latest development is a single 230 Volts LED with a very high 200 Lumen light output.

NEW AC LED 60 Lumen/Watt without any drivers directly on the mains

Seoul Semiconductor announced worldwide release of an upgraded version of Acriche, the world's first semiconductor lighting source for AC power outlets. The new Acriche AW3220 package type is being provided as an emitter with features including higher brightness of 200 lumens at 3.3 Watt (nearly 60 lm/W) which is 50% brighter than the version released earlier. They are offered as a single emitter without the heat sink PCB which enables greater flexibility for users. This broadens the range of applications for Acriche.

New KWT801-S Silicon Top Led with excellent light performance and lifetime

Seoul Semiconductor is known for its efficiency in Led lighting. Many new developments from SSC are meant for lighting applications such as automotive, backlighting, home lighting and electric applications. The KAWT801-S is the perfect and economic choice when an even and reliable warm white light source is required. This LED has already proven to be outstanding because of its features:

- White colored SMT package
- High Reliability
- 1500mcd @ 20mA, 3500 K
- Suitable for all SMT assembly methods
- Material: InGaN/SiC
- Suitable for all soldering methods
- Encapsulating Resin: Silicone Resin

Z-Power LED (P4 series Color)

The P4 emits 240 lm of light at 1A and features the industry's highest luminous efficiency (100 lm/W @ 350 mA at the maximum) with only a single die. This makes the P4 a brighter and more cost-effective light source compared to conventional 70 lm/W fluorescent and 15 lm/W incandescent lighting options. New are the colors Red, Green and Blue with a brightness increase of 30% light compared to the previous series and still more than 10% brighter compared to the competition. These leds are designed for applications such as automotive, architectural, traffic lighting, decorative and pathway applications, household appliances and many more.

Features:

- Highest luminous flux
- Superior reliability characteristics
- Two different types of P4 products: T rank: 80 lm @ 350 mA (typ.) and U rank: 100 lm @ 350 mA (typ.)



SSC 080111



SSC 080112



SSC 080113



SSC 080114

New display series run at 3.3V

For the first time it is possible to operate a standard display including the optional backlight at a single 3.3V! This new display series is especially developed for low-power hand-held applications. Simply clip the display at the backlight together. You can choose out of 23 possible module combinations.

Features:

- Compact 55 x 31 mm dot matrix modules
- 4-bit, 8-bit and SPI interface for the dot matrix modules
- Graphic 128x64 with 55 x 46 mm, SPI interface
- Graphic 132x32 with 55 x 31mm, SPI interface
- Thickness only 2.0 mm for the reflective module; 5.8 mm including backlight
- Can be soldered directly into the PCB without any further assembly
- Temp. range: -20..+70°C with integrated temperature compensation

Display options:

- STN yellow/green, reflective, STN blue, FSTN positive and negative:
- 1 x 8 characters with 11.97 mm font
- 2 x 16 characters with 5.57mm font
- 3 x 16 characters with 3.65mm font
- 128x64 dots, 2.3"
- 132x32 dots, 2.0"

Backlights colors: white, yellow/green, pure green, blue, amber, red and the full color RGB



EA 080115

3.3V DOG Module Series

This new display series is especially developed for low-power hand-held applications. For the first time it is possible to operate a standard display including LED backlight at 3.3V! The backlights are available in seven different colors white, yellow/green, pure green, blue, amber, red and the full colour RGB. Simply clip the display and the backlight together and you have up to 23 possible combinations. Currently, 4 different LCD variants are available, each of which come in STN yellow/green, reflective, STN blue, FSTN positive and negative:

- 1 x 8 characters with 11.97 mm font
- 2 x 16 characters with 5.57mm font
- 3 x 16 characters with 3.65mm font
- 128x64 dots, 2.3"
- 132x32 dots, 2.0"

Features modules:

- Compact at 55 x 31 mm
- Flat at 2.0 mm without backlighting and 5.8 mm with backlighting
- Can be soldered directly into the PCB without any further assembly
- 3.3V or 5V also for the LED backlighting
- Temp. -20..+70°C integrated temperature compensation



EA 080116

Orange last 100,000 hours

From now on Electronic Assembly provides many modules with orange (amber) colored backlight. As standard, Electronic Assembly offers dot matrix character modules with 1x8, 2x16 and 3x16 characters. Besides the dot matrix parts Electronic Assembly also offers graphic modules with resolutions of 128x64, 240x128 and 320x240 dots. These new models provide brilliant brightness and are very well readable in all conditions – even at direct sun light. The expected life time is 100.000 hours or more. Even at enhanced ambient temperature of up to +70°C.



EA 080117

Worlds slimmest and efficient VIA Eden ULV embedded system

Thin Clients are popular in many organizations, with large installations common place. ASM-CX700 is both an ideal replacement and alternative that will dramatically reduce power consumption. Described as B5 book sized, ASM-CX700 measures just 182 x 257 x 25mm, ASM-CX700 has also been designed for use in Digital Signage applications, featuring a fully VESA compliant mounting to enable easy integration with displays. Supporting MPEG2/4 with a DVI interface, ASM-CX700 is ready to deliver content rich information.

Features:

- On board VIA Eden 500MHz ULV CPU
- VIA CX700M chipset support MPEG-4 and WMV9 video acceleration
- One SODIMM up to 1 GB DDR2 SDRAM
- 5.1-CH Audio, 1 Mini PCI, 1 Type I/II CF
- 1 COM, 4 USB
- Optional DVI output, Tv-out, dual GigaLAN, 2W amplifier
- 4 LED indicators for Power, HDD, LAN1 & LAN2 (optional)
- Supports 2.5" SATA HDD and USB WiFi module
- Super slim size: 182 x 257 x 25 mm



AVALUE 080118

17" Intel® Multifunctional Touch Panel Computer

The MTP-1702 is a 17" Intel® Celeron® M 600 MHz / 1GHz with 512K Cache, Multi-functional Touch Panel Computer, with IP Phone, Smart Card Reader, HDD and 90 W Power Supply.

Features:

- 17" TFT LCD Display
- Shatterproof touch-screen
- TV / Phone / audio selector
- 10/100 Mbp Ethernet
- IP65 compliant front face sealing
- VESA mount (75mm)
- 4 USB expansion ports
- Fanless operation
- Anti-bacteria plastic housing
- Integrated smart card reader
- IP telephone
- Bluetooth
- TV tuner
- Deskstands



AVALUE 080119

Avalue Industrial Motherboards

Avalue Technology developed a full line of Industrial Motherboard (IMB), including mini-ITX, micro-ATX and ATX form factors for a variety of applications. In addition to providing high quality motherboards based on innovative technologies, Avalue offers a complete customisation OEM/ODM service.



AVALUE 080120

EAX945G	Intel® 945G LGA775 Core™ 2 Duo / Pentium® D / Pentium® 4 / Celeron® ATX Motherboard
EAX965Q	Intel® Q965 LGA775 Pentium® D / Pentium® 4 / Celeron®/Core™ 2 Duo ATX Motherboard
ERX915GV2	Intel® 915GV LGA775 Pentium® 4 / Celeron® Micro ATX Motherboard
ERX945G	Intel® 945G LGA775 Core™ 2 Duo / Pentium® 4 / Pentium® D / Celeron® D Micro ATX Motherboard
ERX965Q	Intel® Q965 LGA775 Core™ 2 Duo / Pentium® D / Pentium® 4 / Celeron® Micro ATX Motherboard
MX945GM	Intel® 945GM µFC-PGA 478 Core™ Duo/ Core™ Solo/ Core™ 2 Duo/ Celeron® M Mini ITX Main Board
EMB-9682/9680	Intel® 915GM Pentium® M / Celeron® M Mini ITX Main Board
EMB-9678	Intel® 852GM Pentium® M / Celeron® M Mini ITX Main Board
EMB-9676/9675/9672	Intel® 855GME Pentium® M / Celeron® M Mini ITX Main Board
EMB-9655	AMD Geode LX800 @ 0.9 W Mini ITX Main Board
EMB-9655L07	AMD Geode LX700 @ 0.8 W Mini ITX Main Board
EMB-9670	Intel® 855GME Pentium® M / Celeron® M ITX Main Board
EMB-9673	Intel® Celeron® M 600 MHz ITX Main Board
EMB-9674	Intel® Pentium® 4 / Celeron® ITX Main Board
EMB-9374	Intel® Pentium® 4 / Celeron® Micro ATX Mainboard

Cool LiteRunner 2 PC/104 single board computer

AMD GX 466@0.9W 333 MHz

The Cool LiteRunner 2 embedded PC module is an enhanced successor of the Cool LiteRunner. It resembles a complete PC/104 single board computer that adds full AC97 sound, 256 MB RAM, USB 2.0, and full 16 bit ISA bus capability. The Cool LiteRunner 2 is powered by an AMD Geode™ GX 466@0.9W Pentium compatible processor running at 333 MHz.

Cool LiteRunner 2 features:

- AC97 sound
- 256 MB RAM
- 4 x USB 2.0
- Full-fledged 16 bit ISA bus
- 2 x Ethernet (100/10BaseT)
- Graphics controller
- VGA, TFT
- EIDE (ATA66)
- PS/2 keyboard and mouse
- Parallel printer
- 3 x serial RS232/RS485
- GoldCap
- 8 x freely usable I/O signals
- Mini-PCI slot
- CompactFlash adapter



LIPPERT 080121

Dual Core COM Express Module with Dual Channel Memory Support

High End

The conga-B945 features many processors up to the latest Intel® Core™ 2 Duo 2x 2.16 GHz with 4 MByte shared L2 cache. It offers a rich feature set including 5x1 PCI Express and 1x16 PCI Express Graphic lanes.

COM Express Basic

The "Basic" version, based on the COM Express Typ 2, measures only 95x125mm².

Gigabit Ethernet

The conga-B945 features Gigabit Ethernet via the COM Express connectors to enable fast communication links.

Connectivity

Thanks to the 8x USB 2.0, 2x SATA®, 5x PCI Express Lanes, PCI Express Graphic (PEG), PCI, I²C, and others the conga-B945 offers more connectivity than most other computer modules.

Graphics Efficiency

The integrated Intel® Graphics Media Accelerator 950 features the latest 3D, 2D and video capabilities. It supports up to 224 MByte frame buffer using Dynamic Video Memory Technology (DVMT). With EPI support the conga-B945 automatically recognizes almost every available flat panel display and sets all parameters accordingly. Additional displays can be connected using the analog VGA interface or the SDVO ports. TV-Out is also supported.

Sound

conga-B945 can utilize several high definition audio (HDA) codecs. This allows for the easy implementation of telephone and audio applications that require the highest sound quality and numerous channels.

Security

The conga-B945 can be equipped optionally with a "Trusted Platform Module" (TPM). This TPM includes coprocessors to calculate efficient hash- and RSA-algorithms with key lengths up to 2,048 bits as well as a real random number generator. Security sensitive applications like gaming and ecommerce will benefit also with improved authentication, integrity and confidence levels.



CONGATEC 080122

COM Express Compact Module based on AMD Geode LX 800

COM Express COMPACT

The "COMPACT" version, based on the COM Express Typ 2, measures only 95x95mm².

It's an entry level product to step into the COM Express embedded module concept.

Gigabit Ethernet

The conga-CLX features Gigabit Ethernet via the COM Express connectors to enable fast communication links.

Low Power Consumption

The complete module is designed for low power consumption. Thanks to the low core voltage of the processor fanless and mobile applications are easily implemented.

Performance

AMD's Geode™ LX 800 processor offers a performance level that can be utilized by many different applications. High memory bandwidth is provided by supporting up to 1 GByte DDR200 memory.

Flexible Graphics

The integrated graphic controller has the ability to control displays and monitors. Flat panel displays can be attached using LVDS. EPI is supported and allows automatic panel detection.

Software and Driver Support

congatec offers advanced Board-Support-Packages for the modules, which include both the latest tested drivers from silicon vendors and the congatec specific drivers for accessing all of our additional embedded BIOS features.

Congatec Embedded BIOS Features

The conga-CLX is equipped with the congatec Embedded BIOS and supports the following Features:

- ACPI Power Management
- ACPI Battery Support
- Supports Customer Specific CMOS Defaults
- Multistage Watchdog
- User Data Storage
- Manufacturing Data and Board Information
- OEM Splash Screen
- Flat Panel Auto Detection
- BIOS Setup Data Backup
- Fast Mode I²C Bus
- Real Headless Operation

Conga SBM2C-Kit

This kit can be operated in conjunction with the congatec COM Express™ starter kit. When used together they provide a fast and simple way of evaluating all features and configurations offered by the COM Express™ and conga-SBM2C modules.

Contents:

- SMART Battery Manager Module conga-SBM2C
- SMART Battery
- Complete set of cables required for testing in conjunction with the conga-CEVAL evaluation carrier board



CONGATEC 080123



CONGATEC 080124

Complete range wide screen TFT panels

AUO has developed an extensive range of wide screen TFT solutions. Wide screen 16:9 models are becoming the standard next to the traditional 4:3 models. AUO's wide screen models offer high resolution in both compact and larger sizes and offer a great advantage because they can easily be operated in portrait mode.



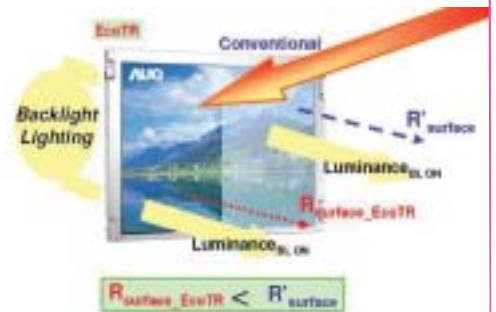
AUO 080125

Size	Model Name	Resolution	Pixel	Active Area H x V (mm)	Colors	Contrast Ratio	Brightness (nit)
12,1"	B121EW02	WXGA	1280 x 800	261.1 x 163.2	262K	400:1	200
15,4"	B154EW03 V1	WXGA	1280 x 800	331.2 x 207.0	262K	500:1	500
17"	B170PW04	WXGA+	1440 x 900	367.2 x 229.5	262k	700:1	500
19"	M190PW01 V0	WXGA+	1440 x 900	408.24 x 255.15	16.7M	800:1	300
20"	M201EW01 V3	WSXGA+	1680 x 1050	433.4 x 270.9	16.7M	1000:1	300
	T200XW01	WXGA	1366 x 768	443.6 x 249.4	16.7M	800:1	450
24"	M240UW01 V1	WUXGA	1920 x 1200	518.4 x 324.0	16.7M	1000:1	500
26"	T260XW02 V5	WXGA	1366 x 768	575.769 x 323.712	16.7M	800:1	500
32"	T315XW02 VC	WXGA	1366 x 768	697.68 x 392.26	16.7M	1500:1	500
37"	T370XW01	WXGA	1366 x 768	819.6 x 460.8	16.7M	1000:1	550
42"	G420XW01	WXGA	1366 x 768	930.25 x 523.01	16.7M	1500:1	700

AUO's ECO-Transflective technology for a sunlight readable solution

AUO introduced the "EcoTR" (Eco Transflective) technology. This is an economical and affordable solution to increase sunlight readability and power efficiency. ECO-Transflective type TFT-LCD combines both transmissive as well as reflective technologies in one display. Due to this technology the TFT-LCD can be utilized in both indoor and outdoor applications such as ATM, POS, and Kiosk. Benefits of adopting ECO-Transflective technology include:

- Power saving
- Sun light readability
- Indoor readability
- Light-weight
- AUO offers several EcoTR models like 6.5", 12.1", 15" and 42" and new panels will follow shortly early 2008.



AUO 080126

AUO introduces new backlight technology in TFT-LCD range

AUO is a worldwide top 3 manufacturer of TFT-LCD and supplies a full range of panels in sizes ranging from 1.5 inches to 65 inches. AUO TFT panels are integrated in a variety of product applications including ATM, POS, Kiosk, IPC (Industrial PC), marine/aviation electronics, lottery/gambling gaming machines, medical equipment, factory automation (FA), e-Signage, and Public Information Displays (PID). AUO provides a total solution to the general industrial display market with a complete product line of high-performance, high-reliability products, as well as long-term product support. In backlight module technology, AUO has adopted long-life backlights and replaceable CCFL lamp assembly designs which offer benefits in easy-field maintenance, extended product usage, and cost effectiveness.



AUO 080127

PXIS-2508/2558T : 3U 8-Slot Smart PXI Chassis with 350 W AC Power Supply

Features:

- Compliant with PXI Specification Rev. 2.2
- Compact 8-slot PXI chassis with one system slot and seven PXI/CompactPCI peripheral slots
- 0°C to 55°C extended operating temperature range
- Intelligent chassis management
 - Automatic fan speed control
 - Around-the-clock chassis status monitoring
 - Remote chassis management including on/off control
- 41.6 dBA silent operation
- 5.9 kg lightweight aluminum-metal construction
- 350 W industrial-grade AC power supply
- Power, temperature, and fan monitoring LEDs
- 8.4" built-in LCD with touch panel function (PXIS-2558T only)



ADLINK 080126



ADLINK 080127

PCI-8174 : Advanced DSP-based 4-axis Stepper & Servo Motion Control Card

The ADLINK PCI-8174 offers an on-board DSP with motion ASIC to easily allow implementation of time-critical motion sequences. The DSP will execute the sequence via the motion ASIC without consuming CPU resources, making it ideal for interrupt control and synchronization among multiple axes. All processes are executed in the hardware layer, so the PCI-8174 operates as a standalone controller.

Features:

- TI TMS320C6711 200Mhz DSP on-board
- DSP firmware customizable
- Time-critical motion and standalone control
- Support helical/linear/circular motion
- Linear/Circular interpolation; T/S-curve speed profile
- Hardware emergency input
- 13 Home modes and auto home search



ADLINK 080128

ADLINK delivers the power of PCI Express to your data acquisition

with the comprehensive and high-performance DAQe-2000 Series cards

ADLINK presents the DAQe-2000 Series - a dozen of high-performance multi-functional data acquisition cards which implement the high-bandwidth advantage of the PCI Express® x1 interface for large-scale data transfers of up to 250 MB/s per direction. Highly-suitable for intensive and large-scale DAQ applications, the DAQe-2000 Series cover a wide range of specifications from 12-bit to 16-bit resolution, 250 kS/s to 3 MS/s sampling rate, and four simultaneous to 96 multiplexed channel configurations. The DAQe-2000 Series includes:

- DAQe-2000 Series: 12-/16-bit resolution with simultaneous-sampling rates of up to 2 MS/s
- DAQe-2200 Series: 64-CH multi-function cards with sampling rates of up to 3 MS/s
- DAQe-2208: 96-CH analog input card with 3 MS/s sampling rate
- DAQe-2500 Series: 12-bit, 4-/8-CH multi-function analog output cards with hardware arbitrary waveform generator



ADLINK 080129

cPCI-6910 : 6U CompactPCI Dual-Core Intel® Xeon® Processor LV/ ULV Universal Blade

Features:

- Supports Single Dual-Core Intel® Xeon® LV or ULV processors
- Front Side Bus 667 MHz
- Up to 2GB DDR2 400 MHz soldered SDRAM with ECC
- Four PCI-Express Gigabit Ethernet
- Up to 4 USB 2.0 ports
- One 64 bit / 66 MHz PMC slot
- Multiple storage interfaces: Serial ATA, IDE, CF, Serial Attached SCSI(SAS), SCSI
- PICMG 2.0, 2.1, 2.9, 2.16 compliant



ADLINK 080130

AdvancedTCA

ADLINK vigorously promotes the advantages of the AdvancedTCA technology by providing complete platform solutions that offer high-density processing power, faster data throughput, and intelligent system management. Designed for next-generation telecom, datacom, and equipment manufacturers, ADLINK's AdvancedTCA platforms significantly reduce over-all development costs, come with extended operating lifecycles, and speed up critical time-to-market.

- AdvancedTCA Processor Blade
 - aTCA-6890 : Dual 64-bit Intel® LV Xeon Octet Gigabit Ethernet
 - aTCA-6892 : Dual 64-bit Intel® LV Xeon® Dual Fiber Channel
- AdvancedTCA Switch Blade
 - aTCA-3100 Series : 24/48-Port AdvancedTCA Base/Fabric Switch Blade with 10GbE Uplink
- AdvancedTCA Platform
 - aTCA-8505 : 5U 5-slot AdvancedTCA Rackmount System

NuPRO-965 : PICMG 1.3 Full-Size LGA775 Intel® Core™2 Quad/ Duo SHB with DDR II, Dual GbE, SATA II, IDE

Features

- Supports 1066MHz FSB LGA775 Intel® Core™2 Quad/ Duo processor
- Intel® Q965 + ICH8 chipset with Dual-Channel DDR2 800/667/533MHz, up to 8GB
- One PCI Express® x16 and four PCI Express® x1 Link to backplane
- Dual Gigabit Ethernet via PCI Express® x1 Bus
- Supports Serial ATA II (3.0 Gbps) for highest speed storage devices

Computer On Modules

ETX-NR667 : Intel® Core™ 2 Duo Processor ETX Module

Features

- Intel® Core™ Duo/Core™ 2 Duo processor
- Intel® 945GME Express chip
- Maximum 2GB DDR2 667MHz SDRAM
- Dual 24-bit LVDS, TV out
- SATA, PATA, LAN, USB 2.0, ISA

ETX-GLX : AMD Geode™ LX800 ETX® module with USB 2.0 and SATA

Features

- Low power AMD Geode™ LX800
- Display support for CRT, TFT LVDS and TV-out
- USB 2.0, Serial ATA and IDE support
- Optional 128/256MB DDR soldered onboard
- Serial Console, EEPROM CMOS backup, USB boot legacy

Express-DW400 : Intel® Core™ 2 Duo Server Level COM Express Module

Features

- Intel® Core™ 2 Duo and Core™ Duo support
- PCI Express® two x4 or one x8 with EDMA
- Additional PCI Express four x1
- Two vertical SODIMM or one horizontal for DDR2 400 with ECC
- Intel® 82573 GbE LAN
- USB 2.0, Serial ATA and IDE support
- Standard size PICMG® COM.0 COM Express™ Module type II

ADLINK 080131



ADLINK 080132



ADLINK 080132



ADLINK 080132



ADLINK 080132

Filtered power entry module with IP65 seal protection

The new and first of its kind power entry module, series 5707, advances the range of applications in the area of detachable power. The new power entry module is resistant to dirt, dust and other fine particles. The inlet portion of the 5707 is C14 or C18. It is combined with a 1-or 2-pole fuseholder and a standard or medical EMC filter rated up to 8 Amps at 250 VAC. The complete unit is rated IP65. Special screws guarantee the sealing at the mounting holes. The 5707 offers 6.3x0.8 quick connect terminals. The series is approved according to ENEC, UL & CSA. Versions for protection class I or II are available, as well as a version with special class I capacitors for increased voltage withstand. The module is according to medical standards IEC/UL 60601-1 and is ideally suited for use in medical applications such as diagnostic, dialysis and infusion devices, as well as commercial appliances such as drink dispensing equipment.



SCHURTER 080128

High current 3 phase line filters

Schurter offers a wide range of 3-phase filters. International approvals centers (UL) demand high filter performance with regard to attenuation and loading characteristics. During the design special considerations were made for applications that require high attenuation at the specific maximum load or where asymmetrical loading of the filter occur independently from line impedance at the installation site. The high current line filters portfolio are formed by the FMAC, FMBC and FMAD series, ranging from 6 Amps up to 550 Amps. These series are complementing the well known FMW4 standard 3-phase filters. The implemented filter range fully conforms to the requirements of international standards EN133200, UL1283 and IEC60939. Typical applications are frequency converters, stepper motor drivers, UPS-systems and inverters.



SCHURTER 080129

Most compact power entry modules for safe power input

The latest Schurter power entry modules, series DD11 and DD12, are extremely compact and robustly designed. The excellent performance makes them suitable for nearly any application using detachable power. The DD11 is equipped with multiple functions including an appliance connector, switch and fuseholder. The DD12 combines the same functions and additionally includes a line filter. The compact design makes the series ideally suited for the use in equipment with limited space and more demanding electrical and mechanical requirements. The series mounts to the panel with screws. The filtered version has a broad metal flange, ensuring optimal contact to the appliance chassis for ideal shielding and filtering. Special filters with enhanced voltage withstand are available on request. Areas of applications include IT and telecom as well as medical, office, household appliances and automation.



SCHURTER 080130

Public Transport Switch

The Public Transport Switch made by Schurter is designed as a pushbutton switch for usage in public transportation applications. Due to the user-friendly design the PTS switches can be easily operated by elderly and handicapped people. The switching status is visually indicated through an illuminated ring. The illumination ring is lit by LED's according to the customer's request. A typical switch option is equipped with 8 green LED's and 4 red LED's. The red LED's give the passenger an actuation signal that the switch was pressed. The PTS switches can be fixed with 3 screws and are located behind the front bezel. The front bezel can be lettered with Braille codes and legends. A unique feature of the PTS series is the outstanding tactile feedback with a lifetime of 2 millions cycles. A further advantage is the illumination with a viewing angle of 180 degree. The PTS switches of Schurter are available as standard version with 24 V and 110 V supply voltage ratings and angled cables.



SCHURTER 080131

Robust vandal-proof switch with latching action

The robust metal switches of the existing MSM product family are now also available with a push-on, push-off latching function. The switch position (ON / OFF) is easy to recognize from the resting position of the actuator. In the OFF state, the actuator position protrudes from the housing; in the ON state, it is depressed into the housing. This provides a user-friendly actuating function and also prevents inadvertent switching, e.g. caused by objects leaning on the switch. The switch is designed with two isolated contacts and may thus be used for single- and two-pole switching solutions. The MSM LA can be used at an operating voltage of 30 VDC up to 250 VAC at a maximum switching current of 12 A. Due to the IP67 rating the switch is suitable for different fields of application. The switch is available with a mounting diameter of 19 and 22 mm and may be used within a temperature range of -25°C to +85°C. The design of the new MSM LA is the same as that of the existing MSM product line.

In addition, the switch is also available with ring illumination. The illumination can be used to display the switch position or may be activated to provide visibility during night-time use. Typical application areas for the switch include industrial automation, the food-processing industry, passenger transportation, medical equipment, measuring devices, info terminals, vending machines and operating unit.



SCHURTER 080132

Shock-safe fuseholder for high current application

SCHURTER released the first PCB vertical mount shock-safe fuseholder FUA, which offers an enhanced rated power acceptance and rated current. With the 500 VAC approved voltage rating at VDE, the fuseholder is also suitable for 3-phase systems. It accepts with its screw type fuse carrier either 5x20 mm or 6.3x32 mm cartridge fuses.

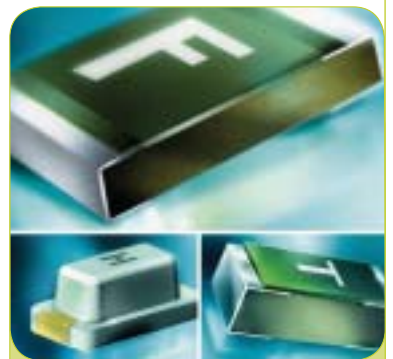
It is RoHS compliant and approved by VDE for 500 VAC, 16 A and by UL/CSA for 250 VAC, 30 A. The FUA has a rated power acceptance of 4 W at 16 A at 23°C which is unique in the market for PCB shock-safe fuse holders. The FUA is technically the same and has the same drilling diagram as the successful horizontal mounting version FUP. Through the 500 VAC approval at VDE, the fuse holder is suitable for 3-phase systems applications with 6.3x32 mm fuses. It also suits the market for high current single-phase protection up to 16 A. These are HVAC (heating, ventilation and air conditioning) systems, power supplies, frequency converter and medical appliances.



SCHURTER 080133

Smallest fuse for secondary overcurrent protection

SCHURTER released the electronic chip fuse USF 0402 which offers very quick-acting characteristic with rated current values up to 5 A. The low voltage drop generates less heat dissipation compared to competitor products. The current rating ranges from 0.375 to 5.0 A with voltage ratings of 32 VDC up to 4.0 A, which is unique in the market, and 24 VDC for the 5 A rating. The device provides a breaking capacity of 35 A at rated voltages and an operating temperature range of -55 °C to +125 °C. The fuse is designed to provide secondary overcurrent protection on systems using DC power sources up to 32 VDC. The legend marking on each fuse allows visual identification. The fuse is UL approved. The device is RoHS compliant and is supplied on tape either with 1k, 5k or 15k pieces. This fuse is designed for applications such as portable electronics, providing optimal performance in an extremely small package size 0402 (1.05 mm by 0.55 mm by 0.475 mm).



SCHURTER 080134

Thermal circuit breaker snaps-in easy

SCHURTER's TA35 series introduced a new generation of circuit breakers for equipment. The breakers are available in 1-, 2- or 3-pole arrangements and stand out through their compact form and attractive design. The rocker-actuating switch can be supplied either with or without illumination, in six different colours with various legends or customer specific symbols. The breakers have been designed for efficient snap-in mounting, fitting panel thicknesses ranging from 1 to 4 mm. Connections are made with 6.3 x 0.8 mm quick connect terminals. The TA35 provides both the function of a switch as well as thermal overload protection. It has finely graduated rated currents of 0.05 A to 20 A for the 1- and 2-pole types, or 0.05 A to 12 A for 3-pole versions. An optional protective cover gives a protection class of IP 65, making the unit suitable for applications exposed to dust or splashing water. Typical applications are laboratory equipment for chemical and medical applications, wood and masonry processing machines, construction site equipment, power generators, cleaning equipment, food-processing equipment and appliances.



SCHURTER 080135

Enlargement of the multimedia connector-program with a high-speed Fire Wire / IEEE 1394 connector

W+P PRODUCTS expands the present multimedia connector program with the series 841/8410 as a serial interface for computer and video units to transmit digital data. The fire wire connector is characterized by the "hot plug"- and "hot unplug"- ability, a data transfer rate of 400 Mbit/s and a maximum wire length of 70m. They provide SMD- and solder versions with 4 and 6 contacts. The connector is defined by a contact resistance of max. 30mOhm, a voltage rating of 50 VAC, and an insulation resistance of min. 500 MOhm. Typical applications for this digital high speed interfaces are the connection of consumer and industrial electronics. They are used for example to transmit images (industrial cameras, fire wire cameras) to a PC.



W+P 080136

Mini IDC connector series

With the 1.27 mm pitch „Mini“ IDC-Connector series 376 W+P PRODUCTS offers a fast and safe solution to attach flat cables using less board space in comparison with the 2.0 and 2.54 pitch IDC connectors also available from W+P. The contacts of the series 376 are designed for a current rating of 1A. The "mini" is available with 10 to 50 contacts. W+P PRODUCTS also offers the corresponding counter pieces. As additional service W+P PRODUCTS offers cable assemblies in any lengths.



W+P 080137

High-speed connector program for multimedia applications

W+P PRODUCTS presents high-speed connectors for the multimedia range like HDMI-connectors, DVI-connectors, Fire-Wire / IEEE 1394 and Mini-USB-connectors. HDMI-connectors are powerful interfaces transmitting digital video data and at the same time digital audio. DVI-connectors transmit digital video data, in the computer world they turned out to be the standard to connect high resolution TFT-monitors with PC`s. IEEE 1394-connectors allow a direct communication of multiple mobile applications without the need of a central host. Mini-USB-connectors allow a high frequent data transmission according to the USB-2.0-specification. The data transfer rate ranges from 400 Mbit/s (IEEE 1394) up to 5 Gbit/s (HDMI), the connectors are available as SMT-type and as solder-type in various configurations. As a special service W+P PRODUCTS offers complete cable assemblies: Standard cable lengths of 0,5 m, 1,0 m, 2,0 m, 3,0 m, 4 m and 5 m as well as customer specific cable lengths can be realized. Shielded HDMI-cable, DVI- and DVI-HDMI-cable, Fire-Wire-cable and Mini-USB-cable are available.



W+P 080138

1.0, 1.25 and 1.5 mm SMD wire-to-board connectors

To optimize space and mounting time W+P PRODUCTS enlarges the wire-to-board connector program with new SMD versions in small pitches: 1.0, 1.25 and 1.5 mm. The new connectors are designed for wire gauges from AWG 28-32. The SMD-WTB connectors are compatible to many of the standard connectors. Equipped with a pick & place pad they are perfectly fitting for automatically assembly in applications with limited space resources, as e.g. in systems of measurement and control technology, consumer electronics and medical devices. Complete cable assemblies can be ordered in all pitches.



W+P 080139

Profec's New Isolation DC/DC Converter Transformers

Profec introduced a new series of isolation transformers meant for DC/DC converters. The new series consists of the P2760, P2470 and P2780. All parts are produced in SMD housing and have an operating temperature range of -40 to 85 degrees centigrade. The P2460 is a high voltage isolation transformer with a reinforced insulation and 4500Vrms isolation, the P2470 has 1250Vrms isolation and the P2480 1500Vrms. Besides DC/DC converters the typical applications are isolated RS485/RS232 interfaces and power across safety barriers.



PROFEC 080140

Custom connectors

Preci-Dip is well known for its high quality board-to-board connectors and sockets. They also offer the best connection solutions for your specific application requirement. They can manufacture custom design products based on its screw machine contacts and spring loaded contacts. Typical application examples are industrial sensors, pcb interconnect for electronic banking terminals, docking stations for mobile equipment such as PDA's and bar code readers as well as sensor connection for liquid analysis. Take advantage of Preci-Dips's experience in studying and quoting solutions according to your specific requirements. You will be pleasantly surprised by the rapidity of implementation.



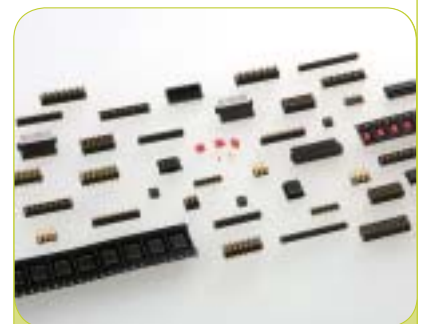
PRECIDIP 080141

Spring loaded connectors from Preci-Dip

Preci-Dip is the worldwide leader in manufacturing connectors with spring-loaded contacts, a modern alternative to conventional connection solutions. Preci-Dip offers a large line of reliability, high quality standard contacts, available in loose condition or assembled with insulator bodies. Thanks to its numerous advantages the spring loaded connectors found usage in applications such as: mobile communication terminals, vehicle equipment, aircraft and military applications, test and measurement, professional and consumer electronics and medical equipment. Preci-Dip fully guarantees the reliability and the irrefragable performance of their products.

General characteristics:

- Very long lifetime: up to 100.000 cycles
- Very good resistance to shocks and vibrations
- Small dimensions for use in applications with limited space
- SMD, through hole, press-fit or wire soldering terminations
- Very good design flexibility: floating contact, double action contact
- Many product versions, from 3 mm contact length upwards
- Tape & reel or carrier packaging for automatic assembly equipment



PRECIDIP 080142

Extended temperature quad- and dual-port Gigabit discrete isolation transformer modules

Pulse introduced a dual-port and the first quad-port extended-temperature gigabit discrete isolation transformer modules. With an operating temperature range of -40 to +85°C, these modules are well-suited for industrial and ruggedized Ethernet and military computer, telecommunications, and networking applications. Pulse's HX5400NL and HX5401NL quad-port modules and HX5200NL and HX5201NL dual-port modules are part of Pulse's Quattro (quad-port) and Dos (dual-port) series of high-density gigabit transformer modules. At 29mm long x 17.5mm wide x 11mm high for the quad-port and 14.7mm long x 17.5mm wide x 11mm high for the dual-port, these modules are 50% smaller than currently available modules. They are solder bumped and tested for easy surface mount (SMT) attachment. Small size and ball grid array (BGA) design provide flexibility for designers to either fit more components on a PCB or to reduce PCB size using the same number of components. The quad-port module fits perfectly behind a 2x2 RJ45 connector, which makes board layout easier and more compact.



PULSE 080143

10/100 base-TX filtered SMD RJ45 connector

Pulse offers the JOC-0003/4/5/6 series fully integrated RJ45 single port (1-by-1) tab-down connectors with integrated magnetics 10/100Base-TX in SMT package. A significant feature of the JOC connectors is the co-planarity on the SMT pins of less than 0.102mm (0.004 inch), minimizing dry joints after solder reflow and decreasing rework and scrap. The operating temperature range extends from 0 to 70°C. The robust JOC connector series can withstand the mechanical and thermal stresses of reflow soldering encountered on high-speed, automated, surface mount production lines, yet they are priced competitively with through-hole connectors. Designed for Digital Subscriber Line Access Multiplexer (DSLAM), the JOC Series adds value to Small Office/Home Office (SOHO), LAN on Motherboard, hubs, switches, Network Interface Cards (NICs), remote Device Terminals (DTs), and remote servers. The JOC Series connectors are available in tape-and-reel or tray packaging.



PULSE 080144

Cost effective flat-coil power inductors

Pulse announced a new series of flat-coil surface mount (SMT) power inductors that lowers the inductor operating temperature of a notebook computer by as much as 5°C and improves battery operating time by 6%, increasing its efficiency and reliability. In addition, a special process is used to wind the flat wire in the inductor, resulting in an average 30% lower direct current resistance (DCR). These inductors are ideal for use in voltage regulator modules in DC/DC point-of-load (POL) converters and other high-density, high-power, high-ambient-temperature applications. Pulse's PG0437NL series consists of four parts, the PG0437.321NL, PG0437.401NL, PG0437.451NL, and PG0437.601NL, with inductance values from 0.32 to 0.6 microhenries with a peak saturation of 39 Amperes (A).



PULSE 080145

EPT offers Zone 1 power connectors for AdvancedTCA systems

EPT announced their new product offering of the AdvancedTCA Zone 1 Power Connector. By utilizing a unique selective plating process, EPT maximizes contact reliability with gold over nickel at the contact area and RoHS compliant tin at the press-fit section. EPT also added their proven "Tcom press®" -fit section to the contact for highly reliable and efficient manufacturing. EPT's Zone 1 connectors have 8 power contacts and 22 signal contacts. EPT's power connector is designed with a guide pin for ease of mating with a daughter card connector and the insulator bodies are manufactured with UL 94 V-0 rated material. Pre and post mating contacts are provided to allow for a controlled power ramp up and hot-swap capability of the ATCA carrier boards. EPT's power connectors are fully interchangeable with alternative connectors designed to the same standard. Flat-rock insertion tools for the assembling process are also available direct through EPT.



EPT 080146

Press-fit style PC/104 plus connector

Since the PC/104 plus stacking connector in press-fit version was released by EPT, this connector has shown to be very successful. The PC/104 Plus is a 2 mm pitch connector featuring 4 rows of 30 contacts in a PC/104 board. This connector eliminates the need to hand or re-flow solder 120 long pins to the circuit board. Fast press-fit insertion is achieved by means of a flat rock style upper tool pressing the connector into the standard plated through holes, which is placed on a simple bottom support fixture. Bottom shrouds and straight pin headers are also available to compliment this product line.

The press-fit advantages

- Fast and reliable assembly of the connector with simple insertion tools results in lower production costs
- Proven reliability in environmental testing where temperature changes, shock and vibration weaken solder joints
- Constant and defined impedance across all positions (excellent high-frequency properties)
- No thermal stresses on the PCB
- No chance of fumes, gases, flux residue or solvents penetrating the solder joint
- No risk of cold solder joints
- No risk of shorts as a result of solder bridging
- No risk of solder paste interference on long tail connectors
- Compensation for plated through hole irregularities



EPT 080147

Customized housing solutions using standard components

As a systems supplier, Elma develops complete assemblies – from front panel, through ventilation system and power supply, up to the customized backplane. To fulfil customers' diverse requirements, the company relies on a modular concept. When designing a system, engineers can call on a large number of standard components. The product database contains detailed data on over 40,000 components that have been developed worldwide in the last twenty years. Every component and assembly is extensively tested in the laboratory and has proved itself in countless customer applications.

ELMA covers a wide field of application with standard components – from systems for use in air-conditioned rooms to assemblies for aircraft that are exposed to heavy vibrations or wide temperature fluctuations. The standard library includes applications based on VME/VME64x, CompactPCI, AdvancedTCA, MicroTCA or VXS.



Elma MicroTCA System Platforms

blu!cube

- Development System Platform
- Support for MCH Single Module - Full size
- Support for one PM Full Size (6 HP) or Extended Size (9 HP) or 12 HP for AC version
- PCI-Express, Serial Rapid I/O and 1 OGBase-BX4 Switching support
- Direct connection to S-ATA / SAS
- 3 synchronization clock networks
- ELMA EMMC Cooling Unit
- AC or DC version for Single or Double Modules available.

blu!box

- MicroTCA Development System Platform 19" x 5 U x 200 mm
- 2 x MCH, two Power Modules and two ELMA high performance EMMC Cooling Units
- Up to 12 AMC: 8 Full Size and 4 Compact Size or 10 Full Size modules
- Components are hot-swappable and controlled via IPMI
- Up to 8 temperature sensors



ELMA 080138



ELMA 080139

MicroBox(TM)

Compliant to MicroTCA.0 specification, the MicroBox is designed to offer the performance benefits of MicroTCA within a space-saving 1U high platform. Optimizing the available space (up to 10, mid-sized, single-width modules) the MicroBox Classic holds 6 x AMC modules while providing MCH and J-TAG Switch Module (JSM) capability. Powered by a robust 380 watt PSU, the MicroBox box converts 48VDC efficiently to the 3.3V and 12V's needed to power the modules.

- Low profile, 1U height
- 19" rack mountable (210mm depth)
- Optimized performance density
- Mounting for 6 x AMC modules (single-width/mid-size)
- Superior cooling (96CFM @ 0.75" H2O)
- JSM (J-TAG Switch)

Rugged MicroTCA

MicroTCA for markets where environmental requirements may be much harsher than the telecommunications market. The target markets for Rugged MicroTCA are commercial and military applications including airborne, shipboard, and ground or mobile equipment.

- Structural integrity through milled front-and rear-panel
- Designed to meet MIL-STD 810 E
- Support for MCH Single Module - Full Size
- Support for single Power Module 6HP or 9HP
- ELMA high performance EMMC Cooling Unit

AMC load board

AMC full-size (single width, full height) load board dedicated for testing the cooling and power of μ TCA systems. The board is hot swap pluggable and has IPMI support.

- AMC load board with IPMI support
- Configurable load from 0W to 70W in 7 steps
- Configurable load by IPMI commands or push button the front panel
- On-board temperature sensors



ELMA 080140



ELMA 080141



ELMA 080142

Linear versus switch mode power supplies

Linear power supplies were the mainstay of power conversion until the beginning of the 1980's when the first commercial switch mode power supply became available. They have a bulky steel or iron transformer which transforms the main voltage to a lower rectified output voltage. Switch mode power supplies are more intelligent and smaller. The voltage is transformed by high frequency current switching. This eliminates the need for big heavy transformers and saves a lot of power loss.

Comparison linear and switch mode

	Linear 12V/500mA	Switchmode PP6 12V / 450 mA
No-load losses (at 230V ac)	~ 2.1W	<0.3W
Efficiency	~ 58%	~ 75%
Weight	~ 400g	~ 90g
Volume (without output lead & plug socket)	~ 184 cm ³	~ 62 cm ³
Input voltage	230VAC	100-240VAC; worldwide
MTBF	100.000 hours	200.000 hours
Standard	Class II SELV; IEC61558; CE	Class II SELV; EN / IEC 60950, VDE, CE, UL 60950
EMC	Conforms to EN55022, class B IEC61000-4-3; IEC61000-4-6	Conforms to EN55011, EN55014, EN55022/B, FCC47 part15, EN61000-3-2, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11



FRIWO 080148

New PP8 power plug platform

Friwo introduced the new PP8, 8 Watt Power Plug triwing design. This power supply replaces the current platform and combines the latest design advantages with the established Friwo quality. Electrical output data has not changed. Compared to the previous PP8 platform the new series offers the following advantages:

- Improved electrical design
- Housing fixed with triwing screws
- Higher robustness
- Short-term availability
- Fulfills class B / BF / CF for medical applications
- Leakage current $\leq 10\mu\text{A}$
- Standby power $\leq 0,3\text{W}$
- EMC conform
- Continuously short circuit proof
- Available in different country versions EU / USA (JPN) / UK
- 3 – 24Vdc / 1700mA – 330mA



FRIWO 080149

Our "Global Player" GPP 10 / 18 / 36 Watt

The new Friwo GPP platform (GPP = Global Power Plug) serves your individual requirements. All units offer a universal input of 100 - 240 V, outputs of 5 - 24 V as well as interchangeable primary adapters. These products are therefore universally applicable.

The new GPP platform combines the latest design with the proven FRIWO quality and a higher output in a small housing at a competitive price. Friwo takes extra pride in its new primary plug system which complies with all major standards. Conservation of nature and natural resources is of vital importance to Friwo, which is why the GPP platform already meets the sophisticated Energy Star requirements. The GPP platform's "typical applications" are office communication, data transfer devices, IT peripherals as well as measuring and weighing technology. The GPP platform is also available for medical applications since it meets the necessary standards.

- 10 / 18 / 36 Watt
- Simple handling
- Interchangeable primary adapters with "click" for worldwide use
- Higher Efficiency = higher power from same unit size
- Complies with IEC 60950 (Office) and IEC 60601-1 (Medical)
- Conforming to California Energy Standard
- Low Standby power losses $\leq 10\mu\text{A}$
- Continuously short circuit proof
- Also available as Li-Ion charger



FRIWO 080150

High performance compact desktop adapter

Friwo already offered the DT12 and DT50 desktop power supplies but now they introduced the new DT60. This 60 Watt power supply is designed for applications such as office / IT equipment and data transmission devices.

Characteristics:

- Universal input 100 – to 240V AC
- Constant voltage, current limited
- Low leakage current $\leq 0,25\mu\text{A}$
- Low standby power $\leq 0,75$ Watt
- EMC conform
- Continuously short circuit proof
- Available in 12V, 15V, 18V and 24V output voltages
- Complies with IEC 61000 requirements
- Fulfils Class II SELV for the following applications:
EN 60950 / IEC 60950, UL 60950, CSA950 (cUL), VDE and CE label
- Plug connector IEC320, C8 socket
- Available from Q1 2008



FRIWO 080151

Desktop DT80

The big brother of the DT60 is the new DT80 desktop power supply. With an output power of 80W it is suitable for office applications such as measuring- and laboratory equipment. Typical applications are: inhalers, patient monitors, patient lifts, measuring equipment, and laboratory equipment.

Characteristics:

- Universal input 100 – to 240V AC
- Low leakage current $\leq 100\mu\text{A}$
- Low standby power $\leq 0,75$ Watt
- Continuously short circuit proof
- Available in 12V, 15V and 24V
- Complies with IEC 61000 requirements
- Plug connector IEC320, C8 socket
- Green LED indicator
- Available at Q2 2008

Friwo also offers the right mains powercords suitable for use with the IEC 320 C8 socket.



FRIWO 080152

Custom made power supplies and chargers

Next to all standard products which you can also find on the Internet or in the catalogue, Friwo also offer OEM custom made power supplies and chargers, meeting all your specific, application related requirements with an optimum between price and performance. Whether you need a different voltage, current, housing shape, design, or secondary lead with a special connector, Friwo delivers state of the art solutions for every design and application. Highly approved and tested. Let your design-in problem be our challenge.



FRIWO 080153

NiQor point of load range delivering 30A

SynQor's new NQ15W50SGA30 is the latest addition to its NiQor family of non-isolated point of load converters and delivers up to 30A in the DOSA standard 0.53" x 1.30" footprint and pinout, ensuring true second source capabilities. The wide input voltage range of 6-15V allows for operation in a variety of Intermediate Bus Architecture (IBA) applications. The output can be programmed between 0.8V and 5.5V, and have the current share feature. Efficiency of the device is as high as 93%. Control and protection features include remote sense, input under-voltage lockout, output OVP, current limit, short circuit protection, and thermal shutdown. Operating temperature range is -40 to +105°C. The devices are fully 6/6 RoHS compliant and have an MTBF figure of nearly 11 million hours using MIL-HDBK-217F calculations.



SYNQOR 080154

Moving into the industrial market with the new InQor DC/DC converter family

SynQor introduced a new family to its extensive range of high quality products. The InQor family is meant for the industrial market. This family consists of various high efficient DC/DC converters in a compact quarter brick package bringing the following features and benefits:

- High efficiency – low power dissipation, less cooling required
- High power density – small size, more board area for other functions
- Low weight – reduces strain under vibration testing
- Fixed switching frequency – allows predictable EMI filtering
- Wide range of output voltages – 9 models from 1.8 V out to 48V out covers numerous application requirements.
- Proven designs – Utilizes Synqor's known 48V in designs to leading high reliability and quality.



SYNQOR 080155

Synqor's PowerQor offer high power density with ultra-high efficiency

The PQ6012QE25 PowerQor Exa quarterbrick converter is a next generation, board-mountable, isolated, fixed switching frequency DC/DC converter. The Exa series offers industry leading power density for standard isolated DC/DC converters with both a wide input range and a tightly regulated output.

Features:

- Isolated step down voltage from 35-75V to 12V
- Interfaces directly with iQor power modules
- Ultra-high efficiency: >96% at full rated load; >96.5% at half rated load
- Delivers up to 25A of output current (300W) with minimal derating – no heatsink required
- Fixed frequency switching provides predictable EMI performance
- No minimum load requirement means no preload resistors required
- Wide output voltage trim range (-50% to + 5%)
- PowerQor bricks can be combined with SynQor's new iQor family



SYNQOR 080156

World's smallest full patient contact 400W medical grade power supply

SynQor continues its successful diversification into new markets with the introduction of its first AC/DC product designed specifically for medical applications. The ACuQor® range of power supplies pack 400W of useable power into just 3" x 5" x 1.44", which is one of the world's smallest footprint for the power level. The ACuQor models include versions designed for both BF (direct patient contact) and CF (direct cardiac contact) applications in accordance with UL/EN60601-1. Input earth leakage current and type CF patient leakage current are well below the requirements of the standard at < 110uA and < 4uA respectively. There is also the option of ordering defibrillation rated models that incorporate the minimum output to protective earth creepage & clearance distances and withstand the defibrillator pulse test guidelines of UL/EN60601-1. Conducted noise emissions are below Level B limits of EN55011/55022, FCC part15.



SYNQOR 080157

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MPA300Dx series smallest 300W dual output power supplies

The MPA300Dx series provides 300W of output power in a very small 1U height U-chassis. The MPA300DX series features dual outputs, an auto ranging 90 to 264 VAC input, power factor correction, full safety approvals and robust filtering. Four standard models operate from auto ranging inputs of 90 to 132 VAC or 180 to 264 VAC, providing tightly regulated dual output combinations of +5V/+12V, +5V/+24V, +5V/+48V or +12V/+24V. All models are UL, CUL, and TUV approved and offer a MTBF greater than 100 khours. Several package options include a cover (finger safe), enclosure with end-mount fan or enclosure with top-mount fan. Each model is specified for operation in 0°C to +70°C ambient temperature. The MPA300Dx series is an ideal solution for a wide range of high power applications requiring high performance, compact size and low cost. Applications would include networking equipment, telecommunications systems, machine/process control equipment and industrial automation systems.



MPD 080158

MPE-25S Series low cost AC/DC Power supplies

Micro Power Direct introduced the economy 25W enclosed, single output AC/DC power converter. The MPE-25S series provides 25W of output power in a compact enclosed case. The MPE-25S series is an ideal solution for a wide variety of applications requiring high performance features, compact size and attractive cost. Applications would include industrial systems such as machine / process control, telecommunications, data processing and industrial automation.



MPD 080159