

Alcommunication

FOR DESIGN ENGINEERS

TFT & Embedded Computing

Displays & Opto

Passives & Electromechanical

Power Conversion

Communiceren met Alcom

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Op onze nieuwe website heeft u als bezoeker toegang tot krachtige zoekfuncties per product en applicatie. Tevens kan u vlot beschikken over de laatste specificaties en overzichten. Een dynamische en steeds up-to-date functie-matrix vergemakkelijkt uw zoektocht naar de juiste oplossing. De laatste innovaties en nieuwigheden worden wekelijks geposteerd in de nieuws-secties.

SEMICONDUCTORS

M2M & WIRELESS MODULES

TFT & EMBEDDED COMPUTING

DISPLAYS & OPTO

PASSIVES & ELECTROMECHANICAL

POWER CONVERSION

⇒ Function Matrix in this issue. See pages 9-12.

Tips for Electronic Designers

Elke 3e donderdag van de maand verschijnt Alcoms e-news 'Tips for electronic Designers'. Hierin vindt u de nieuwste producten alsook applicatietips. 'Tips for electronic Designers' is een onmisbaar hulpmiddel als de laatste ontwikkelingen u bezighouden. Abonneer u via www.alcom.eu


Power Solutions



FRIWO – Proficiency in standards and developing individual solutions.

The FRIWO brand stands worldwide for high-quality power-supply and charging equipment. FRIWO develops, produces and markets power-supply and charging devices that are designed to meet the very wide range of technical and country-specific requirements. FRIWO strategically focusses on platform- and client-specific power supply units and chargers, with customers in the fields of medical technology, IT and communications, domestic appliances and power tools, along with industrial applications.

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 *Alcom electronics bv*

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Semiconductor EcoLight

Acriche series are designed for AC-current-based operation. Acriche is a semi-permanent and environmental safe semiconductor lighting that can be used in AC without additional device.

Warm White Acriche of 42 lm/W

Energy-Efficient Light Source Produces Near-Daylight Quality

Acriche, the world's first AC-driven semiconductor light source, which functions without the need of a converter or a ballast, can now achieve warm white of near-daylight quality, making it suitable for general and indoor lighting applications.

The warm white Acriche features 42 lm/W based on light source. Actual System Efficiency – which takes into account luminous efficacy, ballast efficiency and luminaire efficiency – for the warm white Acriche is 39.9 lm/W. This is higher than 7.5 lm/W for incandescent lamps and 30.6 lm/W for compact fluorescents.

Warm white Acriche is a suitable replacement for DC-LED lighting. Compared to conventional warm white DC LED which has a luminous efficacy of nearly 35 lm/W, the warm white Acriche - at 42lm/W - is 20% more efficient.

Z-Power LED (P4 series) 1W/100lm; 3,5W/240lm

The P4 emits 240 lm at 1 A of light and features the industry's highest luminous efficacy (100 lm/W @ 350 mA at the maximum) with only a single die, making it a brighter and more cost-effective light source compared to conventional 70 lm/W fluorescent and 15 lm/W incandescent lighting options.

Features

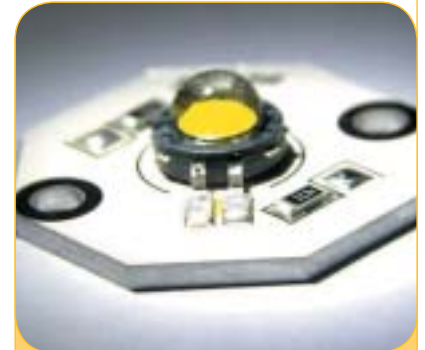
- The highest luminous flux
- Superior reliability characteristics
- Two different types of P4 products
 - T rank : 80 lm @ 350 mA (typ.)
 - U rank :100 lm @ 350 mA (typ.)

RGB High Power Led 3x1 Watt

Z-Power LED P5 Full Color is the first full color package, using 3 RGB power chips and rendering 7colors. In case of the full color product used in architectural lighting or decoration, it emits 7colors in one package so that it can render a clear mixed color when it is mixed with other colors (Multi color emitting including white). Size : Ø 9 x 2.3mm



SEOUL 070601



SEOUL 070602



SEOUL 070603



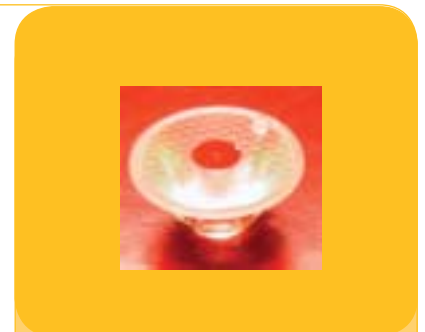
SEOUL 070604

Custom & Standard Optical Solutions for high-powered LED's

As the world's premier optics provider for High-Powered LEDs, Fraen continues to develop leading-edge standard optical components. These innovative solutions have all been specifically engineered, designed and optimized for each individual LED. The result of which, is supreme optical performance over other products available in the marketplace today.

FCM narrow for Seoul Semiconductor P5

- Single-optic color-mixing solution to fit the MR-11 form factor
- The FCM will allow lighting designers to move into architectural quality LED lighting for color changing applications



FRAEN 070605

The first intelligent graphic display – 320x240 – ¼ VGA 5,7” – 240x128 pixels

This is how graphics programming will look in the future: no more "pixel programming" but, instead, efficient operation with extensive drawing functions and fonts. The advantages are obvious:

- no time-consuming graphics programming
- drastically reduced time-to-market
- tested functions validated hundreds of times
- unparalleled flexibility thanks to powerful commands and a variety of interfaces (RS-232, I²C, SPI)
- extremely compact construction
- and not the least important benefit: a clear price advantage compared to individualized solutions



EA 070606

The new Fresh with green LCD displays

Stop now the boring old display technology. Once again ELECTRONIC ASSEMBLY is brilliant in innovative LCD displays. Subsequent to the amber coloured displays there are some new members of DIP family in green now. This will liven up the monochrome display world. You have the choice now for the same display in blue-white, black&white, amber and green-black, according to the application.

The EA DIP128J-6N5LG provides with its 128x64 dots enough space for messages and pictures. Outline dimensions are 75x45.8x10.8mm only. Thanks to the new FSTN technology the viewing angle is extreme wide and the contrast is brilliant.

Readability under direct sunlight is also fine because of the transfective background. Already the standard type fullfills industrial requirements for the extended temperature range of 20 up to +70°C.



EA 070607

Cholesteric LCD Technology

Key features :

- "No Power"
- Sunlight Readable
- Wide Viewing Angle
- High Brightness & Contrast
- Active diagonal viewing dimension from 2.2 in. to 12.1 in.
- Resolution from 128 columns x 32 rows to 640 columns x 480 rows.
- DPI values from 20 to 127.



KENT 070608

LCD Display Module	Resolution/Format Columns x Rows	DPI	Viewing Area- in. W x H x Diag.	Viewing Area- mm W x H x Diag.
128x32x2.3	128 x 32	54	2.17 x 0.64 x 2.26	55 x 16 x 57
240x160x2.9 (1/8 VGA)	240 x 160	100	2.40 x 1.60 x 2.88	41 x 61 x 73.5
320x80x3.8	320 x 80	80	3.78 x 1.11 x 3.94	96 x 28 x 100
320x240x5.6 (1/4 VGA)	320 x 240	72	4.50 x 3.43 x 5.63	114 x 87 x 143
640x480x9.4 (LVGA)	640 x 480	85	7.56 x 5.67 x 9.45	192 x 144 x 240
INFOSIGN®	240 x 30	20	12.0 x 1.5 x 12.1	305 x 38 x 307

Small and Medium Size TFTs from Data Image (1,5" to 12,1")

Data Image is recognized as one of world's leading manufacturers on standard and customized LCMs. The range includes Slim Type LCM; Graphic LCM and Alphanumeric LCM. During the last years, Data Image has grown substantially into the field of small & medium sized TFT displays for applications such as automotive & industrial. In the table below you can find a snapshot of some products incl. key specifications.



DATA IMAGE 070609

Data Image Part Number	Display size (inches/format)	Interface	Resolution W x H (pixels)	Brightness (cd/m2)
FG080010DNCWAGT2	8		640 x 480	400
FG100200D	10.2 / 16:9	Digital	800 x 480	400
FG080000D	8	Digital	640 x 480	400
FG030200DNSWHG01	3.2	Digital	240 x 320	250
FG010820D	1.79	Digital	128 x 160	180
FG030530DNSWBGL1	3.5	Digital	320 x 240	250
FG070060DNCWAG01	7	Digital	1440 x 234	400
FG070050DNCWAG01	7	TTL	800 x 480	220
FG030521ANSWAGL2	3.5	TFT Analog	480 x 234	220
FG030540DNSWBGT1	3.5	Digital	320 x 240	250
FG0FG080010DNCWAGT2WDG01	5.7"	Digital	320 x 240	360
FG1FG100200D10.4ital	800 x 600	Digital		230
FG100200DNCWAG02	10.2	Digital	800 x 480	400
FG020410DNSWBG01	2.4	Digital	480 x 234	250
FG020513ANSWAG01	2.45		480 x 234	200
FG050020DNCWBG01	5	Digital	320 x 234	350
FG050600ANCWAG02	5.6	TFT Analog	960 x 234	300
FG050605DNCWAG01	5.6	Digital	960 x 234	500
FG050605DNSWAG01	5.6	Digital	960 x 234	350
FG040300DNSWA01	4.3	Digital	480 x 272	200
FG080010DNCWAGL	8	Digital	640 x 480	400
FG100410DNCWB01	10.4	Digital	640 x 480	380
FG120100DNCWAG01	12.1	LVDS	1024 x 768	170

Xscale based Embedded Solutions with 3,6"; 5"; 5,7"; 7" TFT LCDs

PXA255 / 5,7" Embedded Solution

- 5.7" 320x240 TFT LCD Integrated with Embedded Platform
- Intel Xscale PXA255 200MHz CPU with 32MB DOC Flash Memory
- OS with WinCE.Net 4.2
- Touch Panel Integrated
- High Brightness Display
- High Reliability with DOC(Disk-On-Chip) Solid Memory
- +12V Single Power Supply
- All-in-One Compact Mechanical Design
- Std. Embedded Screen of 65K Colors (max. 262K colors with LCD)



POWVIEW 070610

New 3.6"; 5.7"& 10.4" LCD with LED Backlight

PowerView proudly introduces new green products with LED backlight to the market. The T036Q1D1-x(QVGA, 320x240), T057Q1D1-x(QVGA, 320x240) and T104V1D1-x(VGA, 640x480) have the following common features, such as LED B / L, super wide view, wide operational temperature range, high contrast ratio, high brightness (sun-light readable version also available). The displays are designed specifically for industrial and medical use where severe environmental conditions have to be countered.



POWVIEW 070611

NEW 7,0" TFT from AUO

A new transmissive 7,0" model for industrial usage is now available. The C070VW model is a very interesting TFT in regards of the mechanical design and attractive price and design. The module has a 16:9 aspect ratio and is suitable for wide screen systems. It has a resolution of 800 x 480 dots. The outline dimensions are 165 x 104 x 9,15 mm. The viewing area is 152 x 91 mm.

The C070VW01 is the model with a CCFL-backlight. The high contrast ratio of 300:1 and the high brightness of 600 cd/m² are giving the display a brilliant optical performance. A wide operating temperature range of -30°C...85°C fits all industrial applications.

In order to reduce EMI-problems and product costs, there is also a LED-backlight version, model C070VW02, available. With the LED-backlight a contrast ratio of 300:1 and a brightness of 400 cd/m² can be achieved. The temperature range is also specified with -30°C...85°C. A 4-wire resistive touch panel, is available optionally.



AUO 070612

NEW 12,1" sunlight readable SVGA-TFT from AUO

A new 12,1" model G121SN01 V.2 from AUO is now available. It is a sunlight readable so-called ECO-transflective version. The one channel LVDS interface and the slim design are making this display easy to design in. It is an SVGA-TFT with a resolution of 800 x 600 dots. The compact outline dimensions of 279 x 209 x 11 mm are compatible with the transmissive version G121SN01 V.0. The viewing area is specified with 246 x 184,5 mm. It is a high brightness version with 400 cd/m² and a contrast ratio of 500:1. The reflectance is 2%. Sunlight readable, a compact design and a wide operating temperature range of -10°C...+ 65°C - The G121SN01 V.2 will be the first choice for industrial applications.



AUO 070613

New 10.4" SVGA-TFT from AUO

The new AUO 10.4" G104SN03 V.1 has a single channel LVDS interface and the slim design makes this display easy to design in. The TFT offers a resolution of 800 x 600 dots and the compact outline dimensions of 236 x 174 x 5,6 mm are compatible with the G104SN03 V.0. The viewing area is 211 x 158,4 mm, with better viewing angle and wider operating temperature range (-20°C ... +70°C) than the G104SN03 V.0. With brightness of 230 cd/m² and a contrast ratio of 500:1, the compact design makes the G104SN03V.1 the perfect solution for industrial applications.



AUO 070614

Alcom Display Kits

Alcom offers complete TFT-solutions. With accessories like TFT controller boards, inverters and cables, we create a complete panel solution. Contact us to discuss your specific requirements.



AUO 070615

EES-3723; Fanless Intel® 852GM Celeron® M 600 MHz Micro PC

Features :

- Onboard Intel® Celeron® M 600 MHz with 512K L2 Cache CPU
- Intel® 82852GM Chipset
- Scalable with Avalue EPIC SBC
- One SODIMM up to 1 GB DDR SDRAM
- Dual View, Optional LVDS I/F
- 5.1 CH Audio
- Dual Intel® 82551ER 10/100Mbps LAN
- 1 COM, 4 USB 2.0



AVALUE 070616

Computer on Module series

Computer-on-Module is a series of complete CPU modules that mount onto easily designed application-specific solution boards. Avalue offers two SOM product lines: the high performance SOM-ETX and SOM-144 platforms for power-conscious applications. Custom solutions can be delivered in just 30 days with our Baseboard Prototyping Services.

ETXexpress Modules

ESM-945GM	Intel® 945GM Core™ Duo / Core™ 2 Duo / Celeron® M ETXexpress Module
ESM-2850	Intel® 915GM Pentium® M / Celeron® M ETXexpress Module

COM-ETX Modules

ESM-2740	Intel® 855GME Pentium® M / Celeron® M ETX Module
ESM-2743	Intel® 852GM Celeron® M 600 MHz with 0K/512K L2 Cache ETX Module
ESM-CN700	VIA CN700 Eden V4 1 GHz ETX Module
ESM-2640	Mobile Intel® ULV Celeron® ETX Module
ESM-2545	AMD Geode LX800 @ 0.9 W ETX Module
ESM-2646	VIA Eden-N ESP10K ETX Module
ESM-2643	VIA Eden ESP6000 ETX Module



AVALUE 070617

Innovative technologies to gaming industry

Based on cutting-edge technology, Avalue products provide seamless integration between hardware and software. Avalue's customers can now focus on application development without the persistent problems associated with hardware/software integration.

Features :

- Fast, Flexible and Scalable: Customized Performance to Suit your Needs
- Long Lifecycle Motherboard
- Good Failure Recovery Capability
- Sophisticated Data Protection
- Powerful Multimedia Functions for Gaming Industry

Avalue gives you two best-recommended models for gaming applications: EAP-EX95 and MX945GM.

EAP-EX95 is a base board which is especially designed for gaming application by being equipped with enhanced security function and JAMMA interface.

Features

- Mini-ITX Form Factor
- Accept Avalue ETX module & other SOM-ETX compatible CPU Modules
- Battery backup 512Kx2 SRAM
- Security IC Protection
- 80hm/20W Amplifier
- 1 PCI Slot, Type I/II CF
- 1 LAN, 4 COM, 4 USB 2.0, 64-bit GPIO, 8-bit Isolated DIO
- JAMMA Interface

MX945GM is strongly recommended because of the outstanding specification and wide expansion.



AVALUE 070618



AVALUE 070619

Top Speed with Gigabit Ethernet

With its TQM83xx embedded module family, TQ Components offers the latest in PowerPC-based modules. The communications performance is supported by powerful functions: Dual gigabit Ethernet, high-speed USB, a security engine and the new double-precision floating point unit.

Features:

- Based on MPC83xx PowerQUICCII pro family
- 2 Gigabit Ethernet
- Pincompatible with TQM85xx mini-modules based on PowerQUICCIII microcontrollers
- CPU speed : 266 MHz to 667 MHz available
- Up to 2 GB DDR-SDRAM
- Up to 128 MB Flash
- 2 High Speed USB
- Dual UART, SPI, GPIOs, Dual I²C, FPU
- Very compact dimensions : 77 x 55 mm²



TQ 070620



Tiny Box TB5200

TQ Components gets small: The mini industrial terminal in the size of a Slimline disk drive. The TB5200 Tiny Box integrates powerful communication interfaces with high processing performance in a tiny space.

- Small dimensions : 125 x 105 x 30 mm³
- Solid aluminum box
- High Performance 32-bit Embedded PowerPC processor with 400 MHz
- Integrated graphic controller up to SXGA, simultaneously connect two displays with different contents
- Extended temperature range
- Passive cooling
- CAN, RS232, USB, Ethernet, CRT, TFT, Touch, Backlight, CompactFlash



TQ 070621

PC/104-Plus : Cool RoadRunner-LX800

The PC/104-Plus module is the plug-compatible successor of the well known Cool RoadRunner II, which was discontinued because its processor reached the end-of-life state. The Cool RoadRunner-LX800 features an AMD Geode LX800@1.0W processor and all required peripherals, including graphics and Ethernet.

PC/104-Plus SBC based on Pentium M7xx processor

It is a complete single board computer, built according to the PC/104-Plus standard. There are several processor variants with different clock rates available: Pentium M 738 @ 1.4 GHz and Pentium® M 745 @ 1.8 GHz, and a Celeron M 373 @ 1.0 GHz. The Cool RoadRunner-PM's i82855GME chipset features a fast Intel Extreme Graphics 2 graphics engine with 2D and 3D capabilities, delivering outstanding graphics performance for embedded computer applications. The main memory can be expanded up to 1 GByte using suitable DDR-SODIMM modules. As for network connectivity, there is a FastEthernet (100BaseT) controller integrated on board. There are two serial ports available.



LIPPERT 070622



LIPPERT 070623

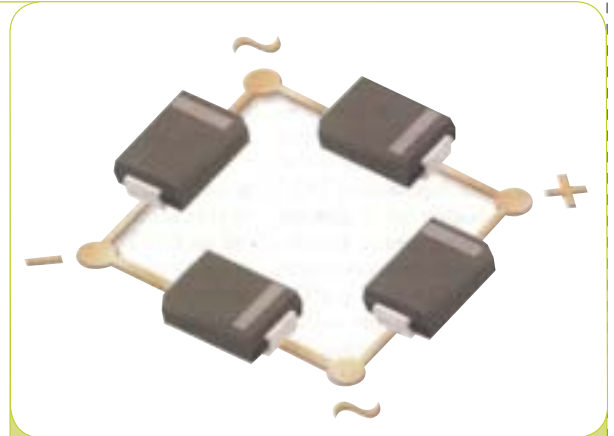
Central's New High Density Schottky Bridge Rectifiers

The new Central Semiconductor CBRHDSH1-40L (1A, 40V, Low VF), CBRHDSH2-40 (2A, 40V) and CBRHDSH1-100 (1A, 100V) are full wave glass passivated Schottky bridge rectifiers manufactured in a durable HD DIP surface mount case. Compared to the larger SMDIP surface mount package, the HD DIP case is 57% smaller, and utilizes 60% less board space.

Designed for applications requiring a smaller and more energy efficient alternative to a standard bridge rectifier, these new devices are ideal for today's latest electronic product designs. 60V device is under development.

Typical Applications :

- Voice over IP
- Power over Ethernet
- Network equipment
- Modems
- Laptops
- Data Line Protection
- Any circuit requiring a small energy efficient Schottky bridge rectifier.



CENTRAL 070624

New power connectors for MicroTCA systems

The MicroTCA™ specification describes the power module, which is connected at the rear with the bus board by a new power connector. After lengthy discussion in the PICMG consortium, it was decided to include two "footprints" in the specification for the "Power Backplane" connector. This addressed the problem that one of the two footprints is protected by patent. ept therefore played a major part in developing an additional footprint for inclusion in the specification. It is not protected by patent and is therefore freely available.

This "MicroTCA™ Power Connector" is a combination of the familiar hm2.0-8 connector with 72 signal contacts and a UPM power component, which is now of two-row pattern with 24 power contacts. This combination permits a load of up to 12 A per pin.

ept supplies this power connector with the reliable ept Tcom press® press-fit technology



Power Connectors

EPT 070625

"Mini" IDC-Connector with 1.27 mm pitch

With the 1.27 mm pitch „Mini“ IDC-Connector series 376 W+P PRODUCTS offers a fast and safe solution to attach flat cable. The new series enlarges the existing IDC-Connector programm; now IDC-Connectors are available in 1.27 mm, 2.0 mm and 2.54 mm pitch. Main advantage of the new connector series: the necessary space on the pcb is reduced by more than 60 % compared to the 2.54 mm series. The contacts are designed for a current rating of 1A. The "mini" is available with 10 to 50 contacts, W+P PRODUCTS offers as well the corresponding counterpieces: box headers and pin headers in 1.27 mm pitch, in solder- and SMT-versions.



W+P 070626

Function Matrix - TFT & Embedded Computing

	ADLINK*	Alcom	AUO	Avalue	Congatec	Data Image	Green	Hanbit	Lippert	Memory Corp nv	Powerview	Promate	Seco	STEC	TQ Components	WEDC White Electronic Designs Corporation
Display Solutions	Display Kits	x														
	High Brightness TFT										x	x				x
	Interface Boards				x	x					x	x				
	Ruggedized Display Systems															x
	TFT Accessories	x														
	TFT Backlight Inverters						x					x				
	TFT Displays		x			x					x	x				
	TFT Industrial Displays		x			x					x	x				
	TFT OEM Solutions	x														
	TFT Wide Temperature Range										x					
	TouchScreen / Input Devices											x				
Embedded Board Computers	x86 Embedded 5 1/4; 3 1/2; EPIC; EBX; PC/104; Industrial Motherboards; Mini-ITX	x		x					x				x			
	X-Scale Embedded			x						x						
	Fanless / Mini - Box Computer			x											x	
	PanelPC			x									x			x
Full/ Half size PC	Compact PCI; ATCA	x														
	ISA96; AT96; PCI; Chassis; Backplanes	x														
Memory Cards & Modules	DRAM; DDR2; DDR; SDRAM; EDO/FPM							x						x		x
	Flash Cards CF; SD; MMC; ATA; SCD			x				x		x				x		x
	Flash Disk Modules USB & IDE			x				x					x	x		
	IDE Flash-Drives 2,5" 3,5"			x												x
	Solid State Drives													x		x
USB Portable Disk							x									
PC-Based Automation	Motion Control	x														
	Remote I/O Modules	x														
	Vision, Surveillance	x														
System on module	Baseboards	x		x	x											
	Freescall / Infineon Mini Modules														x	
	XTX; ETX; ETX Express; COM Express; UTX	x		x	x				x				x			
Test & Measurement	Data Acquisition	x														
	GPIB	x														
	PXI	x														

* Franchised in BeLux only

Function Matrix - Display & Opto

	Apex Science & Engineering	CCT Crystal Clear Technology	Data Image	Data International	Electronic Assembly	Elma*	Fraen	Kent	Lexedis	Seoul Semiconductor	V&S Optoelectronic*
LCD Displays	3,3V LCD				*						
	Character LCD	*	*	*	*						
	Cholesteric "No Power" LCD							*			
	Colour LCD					*					
	Customer Specific Display	*	*	*	*	*					
	DIP Module LCD					*					
	Graphic LCD	*	*	*	*						
	Intelligent Graphic Displays					*					
	LCD Control Units					*					
	PLED				*	*					
LED technologies	Dot Matrix & Displays	*									*
	High Brightness LED								*	*	
	Industrial LED	*								*	*
	LED Accessories					*				*	*
	LED Arrays					*					*
	LED backlights										*
	LED Lightbars	*									*
	Multicolor LED	*								*	*
	Optics for High Power LEDs						*				
	Power LED								*	*	*
	White LED								*	*	*

* Franchised in BeLux only

Function Matrix - Passives & Electromechanical

	Central Semiconductor	C-Mac	Cooper	Deltron	Elma*	Epson	EPT	Golledge	Honda Connectors	JAE	NIC Components*	Otto Heil	Preci-Dip	Profec	Protek	Pulse	Schurter	W+P Products	
Bus System Modules	Canbus				✖														
	Fiber Optic Modules & Systems				✖														
	Interbus				✖														
	Profibus				✖														
Circuit Protection	Circuit Breakers for Equipment																	✖	
	Overcurrent Protection (Fuses; Blocks; Clips)			✖														✖	
	Overvoltage Protection (TVS; ESD; ...)	✖		✖											✖				
	Varistors										✖								
Connectors	Automotive Connectors									✖									
	Board-to-Board 0,4-0,5-0,8-1,00-1,27-2,00 mm								✖	✖								✖	
	Box Headers																	✖	
	Centronics																	✖	
	Coaxial SMA;SMB;BNC;TNC; ...								✖	✖									
	cPCI Connector										✖								
	DIN41612; PC/104										✖								
	Dip Switches 2,54 & 1,27 mm																		✖
	D-Sub Connectors & Hoods; D-Sub Press Fit; D-Combi				✖														✖
	Edge card Connectors 2,54 & 1,27 mm																		✖
	Female Headers: 5,08-2,54-2,00-1,80-1,27-1,00 mm;													✖					✖
	Fiber Optic										✖								✖
	Flat Cable																		✖
	Hardmetric 2,00 & 2,54 mm										✖								
	I/O rectangular & Circular									✖	✖								
	IC-Sockets BGA-PGA-PLCC SOJ & Strips													✖					✖
	IDC Connectors - Sockets; DIP & Printed Circuit									✖	✖								✖
	Infiniband Products									✖									
	Memory Module									✖	✖								
	Micro Coaxial Connectors for Fire Wire Coaxial Cab									✖									
	Modular PCB Jack																		✖
	Optical Connectors									✖									
	Pin Headers: 5,08-2,54-2,00-1,80-1,27-1,00- F-2,50													✖					✖
	Press Fit Tooling & machines										✖								
Small Memory Card PCMCIA; Compact Flash; SD; MMC;									✖	✖									
Spring loaded connectors													✖						
Terminal Blocks for PCB-Wire Inlet; Solder Pins																		✖	
USB Connectors SMT-Type A&B									✖									✖	
Wire-to-Board 0,3-0,4-0,5-1,00-1,25-1,50-2,00-2,50									✖	✖								✖	
ZIF-LIF Connectors / Flex Flat Cable									✖									✖	
Discretes	Diodes / Rectifiers	✖									✖								
	Thyristors	✖													✖				
	Transistors & FET's	✖																	
Electromechanical Comp.	Backplanes				✖														
	Cord Connectors & Cord Sets											✖						✖	
	cPCI Handles and Frontpanels					✖													
	Enclosures, Cabinets & Subracks					✖													
	Inlet/Outlet Connectors												✖					✖	
	Keyboards & Keypads					✖												✖	
	Other e-mech products					✖												✖	
	Power Entry Modules												✖					✖	
	Power Supply Cords												✖						
	Single/Three Phase Block Filters																	✖	
	Switches & Buttons					✖												✖	
Frequency Control	System Platforms				✖														
	Clock Oscillators		✖			✖		✖											
	OCXO; TCXO; VCXO		✖			✖		✖											
	Other frequency control products		✖			✖		✖											
	Programmable Oscillators		✖			✖													
Magnetics	Quartz Crystals		✖			✖		✖											
	Inductors & Chokes			✖							✖			✖		✖	✖		
	Mini Telecom Transformers			✖										✖		✖			
	RF Passive Components										✖					✖			
	Specialty Magnetics			✖										✖		✖	✖		
Passives	Transformers			✖										✖		✖	✖		
	Capacitors										✖								
	Low ESR Capacitors										✖								
	Resistive Products										✖								
Supercapacitors			✖																

* Franchised in BeLux only

Function Matrix - Power Conversion

		Astrodyne	Bias Power	Chinfa	Deutronic*	Friwo	Hengfu	Marschner	MicroPower Direct	N2Power	Sedlbauer*	Synqor
DC/DC Converters	DC/DC Converters > 50W	*			*		*					*
	DC/DC Converters 1-30W PCB	*			*				*			
	DC/DC Converters for vehicles 25-350W				*							
	High Density Brick Converters to 400W											*
Plug-In / External Power Supplies	Car Adapters					*						
	Linear Adapters				*	*						
	Linear Chargers NiCd/NiMH					*						
	Plug-In Power Accessories					*						
	Plug-In Power Supplies Medical					*						
	Switchmode Adapters (3-100 watt)				*	*						
	Switchmode Chargers Li-Ion					*						
	Switchmode Chargers NiCd/NiMH					*						
Power Supplies	19" power Supplies				*							
	AC/DC Enclosed; Open Frame; U-channel 10-1000W	*			*	*	*		*	*		
	AC/DC Power Modules PCB	*		*	*				*			
	DIN RAIL	*		*	*		*		*			
	Low power switches < 2 Watt		*									
	Medical Power Supplies	*			*	*			*			
Specials	AC generators				*							
	Battery Chargers 45W-2700W				*							
	High Voltage Converters				*							
Transformers	Low Profile							*				
	Single Phase							*				
	Special Transformers							*				
	Standard PCB							*				
	Toroidal										*	

* Franchised in BeLux only

Pulse Reduces Size of Quad and Dual Port Gigabit Discrete Isolation Transformer Modules by 50 Percent

These new gigabit modules are 50 percent smaller than currently available modules, so printed circuit board (PCB) designers can fit more components on the circuit board or further reduce the circuit board size for greater design flexibility. Taking advantage of the ball grid array (BGA) technology, these surface mount modules are solder bumped and tested for easy surface mount (SMT) attachment to the PCB for computer, telecommunications, and networking applications such as Power over Ethernet (PoE), small office home office (SOHO), hubs, routers, and switches.

Pulse's Quattro H5400NL and H5401NL quad-port modules are 29mm long x 17.5mm wide x 11 mm high, while the Dos H5200NL and H5201NL dual-port are 14.7mm long x 17.5mm wide x 11 mm high. The quad-port fits perfectly behind a 2x2 RJ45 connector making board layout easier and more compact.

XFP Connector Modules for High-Speed 10Gigabit Ethernet

Pulse announces a new line of 10-gigabit (10Gb) small-form-factor pluggable (XFP) modules for use with 10Gb hot pluggable optical transceiver modules. The cage and connector comply with the Multisource Agreement 3.0 (MSA 3.0) standard and support OC192/STM-64, 10Gb Fibre Channel, G.709, and 10Gb Ethernet protocols in applications such as blade servers, routers, add-drop multiplexers, and in remote base stations and central office (CO) equipment. They supply enhanced electromagnetic interference (EMI) protection for 10Gb Ethernet applications.

Pulse Introduces Line of Ceramic High-Performance Diversity Antennas

These antennas enable high-data-rate transmission yet are small enough to fit in mobile terminals such as new-generation multimedia phones, notebook computers, PDAs, media players, WLAN routers, data cards, and other wireless devices. Their ceramic composition provides a high degree of signal immunity, enabling them to be placed close to other antennas for high-performance diversity operation in small devices.

The series consists of six products: the 850 MHz RX, 900 MHz RX, 1.8 GHz RX, 1.9 GHz RX, 2.1 GHz RX, and 2.4 GHz RX. Based on standard diversity platforms. These light weight omnidirectional radiation antennas feature low profiles and compact sizes.

Change of name from era Elektronik GmbH to Pulse GmbH

The era Group was taken over by Pulse, a subsidiary of the American technology company Technitrol. Transformers of the brand era are characterized by innovative technology and many years of experience in development and production. This guarantees the absolute quality of our high-value transformers.

The era transformer product line at a glance:

- Mini Line EE20 | 0.08VA - 0.5VA
- Print Line EI30 | 0.5VA - 2.8VA
- Print Line EI38 | 3.2VA - 4VA
- Print Line EI42 - EI54 | 5VA - 50VA
- Mountable tabs | 5VA - 50VA
- Low profile transformers | 2VA - 30VA
- Compact power supplies | 8.4VA - 60VA
- Customized transformers



PULSE 070627



PULSE 070628



PULSE 070629



PULSE 070630

DR Series; High Power Density, High Efficiency, Shielded Inductors

The Cooper Coiltronics family of power transformers and inductors offers a broad range of solutions to meet precise specifications in a variety of applications. The DR Series of inductors offer four different height options in two different package sizes for versatility in your next application.

Features

- 125°C maximum total temperature operation
- Four sizes of shielded drum core inductors
- Inductance range from 0.33uH to 1000uH
- Current range up to 56 Amps peak
- Magnetic shielding
- Secure mounting
- Ferrite core material



COOPER 070631

5.5V Supercapacitors for Hold-up and Memory Back-up Applications

Features

- Maintains Supply Integrity
- Extensive Offering
- Low Leakage Current
- Space Saving
- RoHS Compliant

Typical Applications:

- Computer & Peripherals
- Telephones
- DSL Modems & Routers
- Digital Radios
- Set Top Boxes
- White Goods & Kitchen Appliances
- Copiers
- Electric Utility Meters
- HVAC Controls



COOPER 070632

3216FF High Current Chip Fuse

Introducing the 3216FF Series; Now Available in Ratings as high as 20 Amps

Features

- Space Savings
- Low Heat-Rise
- Up to 40A Protection
- Low Resistance

Typical Applications:

- POL/VRM
- Notebooks
- Power Supplies
- Mobile Electronics
- Computers
- Telecom



COOPER 070633

SR-5 / SS-5 Micro Fuse

The SR-5 and SS-5 Series Provides the Global Market with a Compact Option for Primary Circuit Protection

- Space Savings
- Cost Effective
- Extensive Offering
- High Amperage Approvals
- Packaging Options



COOPER 070634

Protect High Speed Data Circuits

Introducing Ultra-Low Capacitance ESD Protection in a Discrete 0402 SMD Device

- Maintains Signal Integrity
- Protects ICs from ESD Damage
- Provides Long Lasting Protection
- Space Savings

Ideal for protection of high speed data ports such as:

- USB 2.0
- IEEE 1394
- HDMI
- DVI
- High Speed Ethernet
- Test Probe I/O Ports
- Controller I/O Ports



COOPER 070635

First IEC Compliant Chip Fuse for Secondary Protection up to 6.3A

SCHURTER released the first IEC chip fuse series USI 1206, Universal Modular Fuse (UMF). The USI 1206 offers quick-acting characteristic (F) according to IEC 60127-4 with rated current values up to 6.3 A. It boasts high melting I_{2t} values, which provides greater withstand against high inrush or pulse currents. Current ratings range from 0.5 to 6.3 A with voltage ratings of 63 VDC and 32 VAC. The device provides a breaking capacity of 63 A at rated voltages and an operating temperature range of -55°C to +90°C.

Shock-Safe Fuseholder for Surface Mounting

Schurter has extended its FPG series to include a version for SMD mounting. Like the original FPG5 through-hole design, the new FPG7 accepts 5x20mm cartridge fuses. The fuse carrier is available either as screwdriver slot knob or as fingergrip knob. The new fuse block is made of RoHS compliant materials that are heat resistant and compatible with reflow solder processes. The FPG7 is specifically designed for automating assembly, with packaging options that facilitate faster pick-and-place.

Power Entry Module for PCB Mounting

New to Schurter's broad range of power entry modules is the DD21/22 series, offering maximum functionality, higher power density and extra safe features – all in one compact pre-winded package for PCB mounting. For example, the switch is designed for inrush currents up to 100A.

New 10/15A Outlets and 16/21A Inlet

The PCB assembly offers high economic efficiency to the user. Otto Heil supplies solutions in 2.5A, 10/15A and 16/21A ratings. The new 10/15A outlets (5001+5005) and the 16/21A inlet (1601) complete the range of products. Otto Heil products are of highest quality made in Germany.

2-Stage Single Phase Filter

The 2-stage single phase filter FSW persuades through its excellent broadband attenuation for currents up to 36A. This filter brings the solution wherever you have to solve challenging EMC tasks.

Filter for DC Applications

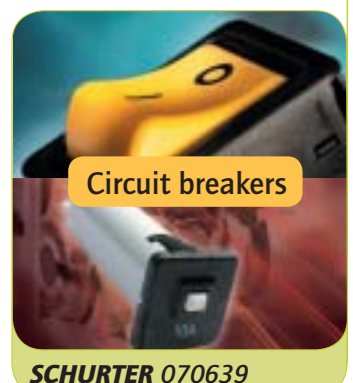
Schurter extends its product range with block filters especially developed for DC applications. The filters are designed for current ratings up to 30A. The 4-pole series FMEB is for +24V, the 6-pole version FMEC for +/- 24V voltage. Field of application are to be found in the design of electrical and control cabinets.

TA35 Thermal Circuit Breaker 1-, 2-, 3- pole

Compact and attractive design are the outstanding features of the new circuit breaker TA35, which is available in 1-, 2- or 3- pole versions. Rated current range is from 0.05 up to 20A, 3-pole max. 12 A. There is also a special version with rotary knob actuation.

T9 Thermal Circuit Breaker Reset Type, 1-pole

The circuit breaker T9 is now available in three different mounting types: snap-in from frontside, snap-in from rear side and threaded neck mounting with optional splash water cover for protection degree of IP65. In this combination the T9 can be used in application in roughly environment.



DRAN120 : 120W Power Supply for Industrial Control Equipment

Features :

- Compact Design
- High Efficiency : up to 87%
- P.F.C. Function available
- Parallel function available (Switch)
- Input Voltage 115/230VAC Auto Select



CHINFA 070640

Type	Watt	Safety Approval	Input voltage	No. Of OUTPUTS	Output (VOC)				Material	Dimensions	
					5	12	24	42		(1)	(2)
DRAN120	120W	TUV, CE, UL, cUL	115/230 VAC Auto Select	1	x	x	x	Metal	125 x 63.5 x 123.6	142 x 63.5 x 123.6	
WRA480	480W	TUV, CE, UL, cUL	3phi 340 ~ 575 VAC	1		x	x		124 x 150 118	-	

(1) Screw Terminal Type
(2) Detachable Connector Type

WRA480 : 3-Phase DIN Rail Mountable 480W Power Supply For Industrial Control Equipment

Features :

- Compact Design
- High Efficiency : up to 91%
- Universal Input Voltage
- Parallel function available (Switch)



CHINFA 070641

World's smallest 250W AC/DC power supply is up to 88% efficient

N2Power's XL250 is the world's smallest 250W AC/DC power supply with a footprint of 3in x 6in or 3in x 7in and a height of 1.5in, less than 1U. The open-frame switcher has a power density of up to 9.25W/in³. and is up to 88% efficient. It has a universal AC input and up to 5 single outputs between 5VDC and 48VDC as well as multi-output variants. Other features include remote on-off, remote sense, built in Or'ing diodes for parallel connection in N+1 power architectures, and active power factor correction. A major feature is the low in-rush current rating, which at 12A at 240VAC is the lowest in the industry - an important factor in current share applications.

Auxiliary outputs of 10W, 5V standby and 12V 2.5A are standard on all single-output units, as well as being part of the multi-output configuration.



N2POWER 070642

XL275 Series : Ultrasmall, High Efficiency Powersupplies. 275W AC/DC in 3" x 5" footprint

N2Power leads the power density race with its latest small, high efficiency XL275 Series AC-DC power supplies. Their advanced technology yields a very small footprint, reduces wasted power, and offers the highest power density in its class. This efficient design means reduced energy costs, a greater return on your investment, greater reliability and longer product life

Features :

- Up to 90% Efficiency
- High Power density: over 12 W/in³
- All outputs may be paralleled
- Remote on/off
- 5W 5V Standby Supply
- Universal AC input
- Active PFC (90-264 VAC)
- Built in Or'ing Mosfet for N, N+1
- Inrush Current Protection
- RoHs Compliant
- I²C Interface for digital Power Management



N2POWER 070643

The smallest, most efficient switching power supplies ever

Don't waste power or space ! New BIAS BPS Series micro switching power supplies are the world's smallest, most efficient low-power switchers. With wattages from 1/2 to 2 watts, there is a Bias supply that is a good match for your low-power or standby application. Based on the patented concepts of the original, award-winning BIAS Power designs, comes a new generation of state-of-the-art low-wattage AC to DC power supplies. Up to 50% smaller than their predecessors, these incredibly compact and efficient devices are complete, ready-to-apply switching power supplies. Whether your project requires an expedient solution to Energy Star compliance, standby power, a reliable low-power DC source or specialized AC to DC power package, BIAS is the solution.

Features :

- Ultra-compact, 1/2, 1, 2 and 4 watt models
- Up to 75% efficiency- EPA efficiency award winner
- Patented design eliminates EMI without filtering
- Less than 30mW no-load
- Ready-to-apply standby and low-power solutions
- Recognized per IEC60950
- Meets or exceeds EN55022 class B and FCC Part 15 class B
- CB Test Certificate Number US/7104B/US
- UL File Number E210855



BIASPOWER 070644



SynQor Introduces 4:1 Input Voltage Devices. 9-36V Input Covers 12V and 24V Bus Systems

SynQor announces a new range of isolated Quarter Brick DC/DC converters to address industrial, medical and telecom applications running from a 12V and/or 24V bus (operating range is 9-36V). Single output voltages offered range from 1.8V to 48V (with nine different models available), and are capable of supplying up to 40A or 100W of usable power. Housed in the industry standard 2.30" x 1.45" Quarter Brick footprint and pinout, the IQ18xxxQTAxx family of devices are available as open frame units for convection-cooled applications; with baseplates for conduction-cooled applications; and for the first time, fully encapsulated for harsh environment applications.



SYNQOR 070645

SynQor Enters the railway / transportation market utilizing a 110V DC Bus with the highest efficiency DC/DC converters

The IQ1B family of InQor Tera quarter-brick converters are next-generation, board-mountable, isolated, fixed switching frequency DC/DC converters that use synchronous rectification to achieve extremely high conversion efficiency. The power dissipated by the converter is so low that a heatsink is not required, which saves cost, weight, height, and application effort. An optional base-plated version is available for those demanding applications that require heatsinks, and for harsh environments an encased version is also available. The Tera series offers the maximum usable output current for any standard "quarter-brick" module. RoHS compliant.



SYNQOR 070646

P/N	Input	Output	Current	Isolation Voltage	Package
IQ1B070QTA20	110V (66-160V)	7V	20A	2250 VDC	Quarter-brick
IQ1B120QTA12		12V	12A		
IQ1B150QTA10		15V	10A		
IQ1B240QTA06		24V	6A		
IQ1B300QTA05		30V	5A		
IQ1B480QTA03		48V	3A		



PMMK150 Open Frame Switcher with PFC/Medical Approvals

The PMMK150 Series' ultra-compact design offers a 30% smaller package than equivalent power products. With Active PFC and Medical isolation ratings to 4,000 volts/rated to IEC60601-1, the PMMK150 offers all desired features in a small 3" x 5.5" x 1.4" package. Available with outputs from 5VDC to 48VDC, all models offer universal AC input from 85-265VAC, power good LED and output adjust, and will operate with convection cooling over the range of 0-50 Deg C without power derate. The PMMK150 includes OVP/Over Current protection, and integral input line filtering. The series utilizes screw terminal I/O connections, and is available in Open Frame, U Channel, Enclosed, and DIN-Rail mounting styles to fit any application requirement.

Features :

- 150W Output Power
- Active PFC
- Medical Safety Rating
- Power Density to 6.5W/In³
- 4 Package Styles! : Open Frame, U Channel, Enclosed, DIN Mount Packaging



ASTRODYNE 070647

DC/DC Converters

MicroPower Direct offers a full line of miniature low cost DC/DC power converters. With over 2,000 standard models, we offer high performance application solutions for designers requiring miniature size, high efficiency, high isolation and reliable field operation.

Standard DC/DC converters range from 1W to 30W. Models are available with a wide variety of performance features, input/output combinations, isolation levels and package types. Many families are already UL approved and more are being added on a regular basis.



MPD 070648

AC/DC Power Supplies

MPD offers a full range of compact enclosed, U-channel, open frame and DIN Rail mount AC/DC power supplies; including our new low cost DIN-Rail mount models and new high power density 1-U height models. If your equipment requires a small footprint, universal AC input, robust filtering, high efficiency or multiple outputs; we have a low cost power supply to fit your application. From 10W to 1,000W, nearly 2,000 models are available.



MPD 070649

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conga-X945/64: High Performance XTX Module based on Intel® Core® 2 Duo

The conga-X945/64 is equipped with a 1.5 GHz 64 Bit Intel Core 2 Duo processor. This CPU has 4 MByte L2 cache and can address up to 2 GByte DDR2 667 RAM. The conga-B945/64 utilizes the Intel® 945GM chipset. It features numerous interfaces and choices for expansions. The conga-X945/64 provides 4x PCI Express lanes, 6x USB 2.0, HDA digital audio, 2x serial ATA and signals for 2x ExpressCard. All congatec system extensions, such as ACPI battery management, multi stage watchdog timer, fast multimaster I²C bus and the congatec embedded BIOS features are implemented. Security sensitive applications such as gaming and e-commerce will benefit also from improved authentication, integrity and confidence levels. The Intel Media Accelerator 950 graphics controller is integrated in the chipset and is able to drive two independent graphic channels using 2x24 Bit LVDS, SDVO, TV-Out or analog VGA.

conga-E855 is based on Intel® Pentium® M up to 1.8 GHz and supports the ISA bus

The conga-E855 can be equipped with processors up to the Intel® Pentium® M 745 1.8 GHz with 2 MByte L2 cache. It is a pure ETX embedded computer module and supports the ISA bus. The newly announced conga-E855 and conga-E852 expand the product family of RoHS compliant ETX embedded computer modules. These modules are designed according to the latest ETX specification 3.0, including the ISA bus, yet do not feature the optional serial ATA. The conga-E855 uses the Intel 855 GME chipset. Compared to the economy version conga-E852, the conga-E855 has a higher graphics and memory performance. The conga-E852 features the Intel Celeron M 600 MHz processor with 512 kByte L2 cache while the conga-E855 is available with processors ranging from the Intel Celeron M 1.0 GHz up to the Intel Pentium M 1.8 GHz. The graphics controller is integrated in the chipset and is able to drive two independent graphic channels using 2x24 Bit LVDS, analog VGA or optional TV-Out. Flat panel displays are automatically recognized and configured using EPI (Embedded Panel Interface).



CONGATEC 070650



CONGATEC 070651



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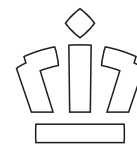
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