EUROTECH
GROUP

DIGITAL TECHNOLOGIES FOR A BETTER WORLD

DSA

2008/V2

COTS PRODUCTS FOR SECURITY, DEFENCE AND AEROSPACE

Eurotech Group

Eurotech is a leading international technology group with headquarters in Italy and facilities throughout Europe, America and Asia. The Group's main focus is on the development of cutting-edge technologies that make our life better, safer, and more comfortable.

The fundamental assumption behind Eurotech's business strategy is the concept that as important technologies spread, they become increasingly integrated into our life, becoming nearly invisible.

Eurotech's role today is to support its customers in Defence markets and to identify new customers in the emerging markets breaking traditional boundaries via innovation.

With this vision in mind, Eurotech has oriented its R&D activities to the key high-growth sectors, like pervasive computation. Their goal is to develop innovative, integrated solutions (software, hardware, middleware and support services) that offer the flexibility and scalability needed to capture new market opportunities and integrate them in the traditional markets.

Eurotech's strategy, which couples standard solutions with a flexibility that allows customization and innovation, has made them one of the world leaders in high technology for computer miniaturization.

EUROTECH
GROUP

www.eurotech.com

- Stationary Computers
- Mobile Computers
- Wearable Computers
- Embedded Boards

DSA

COTS PRODUCTS
FOR SECURITY, DEFENCE AND
AEROSPACE

- Wearable Computers
- Mobile Computers
- Embedded Boards

TMS

TRANSPORTATION,
MOBILITY
& SURVEILLANCE

- Wearable Computers
- Stationary Computers
- Panel Computers
- LCD Industrial Monitors
- Embedded Boards

ICN

INDUSTRIAL,
COMMERCIAL
& NETWORKING

Table of Contents



MIL/COTS SOLUTIONS



CUSTOM DEVELOPMENT



EMBEDDED BOARDS

DSA

COTS PRODUCTS FOR SECURITY, DEFENCE & AEROSPACE

KEY FEATURES

- **Environmental and EMC Qualification**
- **Extended Temperature Operation**
- **Conduction Cooled Solutions**
- **Long Term Availability**

Our Commercial Off The Shelf (COTS) products for Security, Defence and Aerospace (DSA) markets include rugged board-level products and tactical sub-systems designed for airborne, shipboard, vehicle mounted and handheld applications. Products range from highly reliable single board computer (SBC), data communications, and I/O cards to complete rugged mobile computer systems, IP networking equipment (switches, routers) and rugged flat panel displays.

Deployed in command and control (C2) applications onboard planes, helicopters, armored vehicles, and ships, our products are often designed for MIL-STD-810F environmental and MIL-STD-461E EMI/EMC standards and/or other customer-specified specifications. With decades of systems engineering expertise serving prime contractors and systems integrators, we partner with our customers to provide long-term product life-cycle engineering and production support. We leverage a broad expertise in systems integration and electrical/mechanical design together with our own complete line of COTS boards and chassis to deliver products that operate reliably and withstand extreme temperature, shock, vibration, humidity, and ingress.

Networking Subsystems

Solutions Enable Seamless Mobility for Netcentric Operations

DuraMAR™ 1000 Router

Application	Rugged Mobile IP Router
Features	Based on wireless & mobile router with 5x POE Ethernet ports and 4x PWS Serial ports
PSU	DC/DC 9-36VDC
Standards	MIL-STD-461, MIL-STD-704, MIL-STD-1275, MIL-STD-810F, IETF Mobile IP Standard RFC 2002
Accessories	Cable sets, mounting brackets, remote wireless modem node
Options	Customization available; Rugged RJ-45 version
Operating Temp	-40/+70°C

DuraNET™ 1059 Switch

Application	Rugged Unmanaged Ethernet Switch
Features	MIL-C-38999 Connectors, 5x 10/100 Ethernet ports
PSU	MIL-STD-704 Compliant
Standards	Design to meet MIL-STD-810F
Performance	Pause frame-based non-blocking switch fabric Five fully independent media access controllers Integrated 512 KB frame buffer memory 1,024 MAC address look-up engine Store-and-forward switching
Operating Temp	-40/+70°C

DuraNET™ 2955 Switch

Application	Ruggedized Managed Ethernet Switch
Features	Catalyst Switch, 12x 10/100 Switched Ports, 2x Gigabit Uplinks, MIL-C-38999 Connections
PSU	MIL-STD-704 Compliant, 24 VDC nominal (18-32)
Standards	Designed to meet MIL-STD-810F
Performance	4.8 Mbps wire speed forwarding rate; 6.4 Gbps maximum forwarding bandwidth; Configurable up to 8000 MAC addresses; MAC Address Table Size: 8K entries
Operating Temp	-40/+70°C

DuraNET™ 1xRTT Modem

Application	Public cellular backhaul onboard military applications
Features	Rugged CDMA 1XRTT Cellular Modem Node
PSU	10 to 36VDC
Standards	IS-95A/B CDMA2000 1X Authentation Band: 800 MHz; Approved for Verizon 3G Network
Performance	Full duplex transceiver; TNC Antenna Connector; Data Rates: Forward Channel: up to 153.6 kbps Reverse Channel: up to 76.8 kbps
Operating Temp	-40/+70°C

Wearable Computers

Zypad WL1100

Application	Professional Data Acquisition and Management
Display	3.5" TFT 320x240 with touch screen
Memory	128 MB RAM/128 MB FLASH – Mini STDIO Memory Expansion
Battery Life	Up to 8hrs (*)
Positioning	12 channel GPS receiver
Wireless Connectivity	Wi-Fi 802.11 b/g Bluetooth class 2 (option ZigBee version)
Standards	FCC/CE EMC EN55022-024-CSA
Weight	290 g with battery and wrist band
Operating Temp	-10/+50°C

(*) depends on features activated

Industrial Design by Lineaguida

Linux

Windows CE.net

Zypad WR1100

Application	Rugged Data Acquisition and Wireless Computing
Processor	PXA270 @ 400 MHz
Display	640x480 pixels (VGA) 64K Colours 3.5" TFT with Touch Screen
Memory	256 MB RAM / 128 MB FLASH – Micro SD Card Expansion
Positioning	12 channels SiRF Star III Based
Wireless Connectivity	Wi-Fi 802.11 b/g; Bluetooth Ver 2.0 + EDR Class 2 (option ZigBee version)
Standards	FCC/CE EMC EN55022-024, MIL-STD-810F
Other Devices	Integrated accelerometer, integrated electronic compass, biometric fingerprint reader
Operating Temp	-20/+60°C

Note: Zypad Rugged image is only a preliminary prototype

Industrial Design by Lineaguida

Linux

Windows CE.net

DuraCOR™ 810

Application	Vehicle and Airborne Computing
Description	Rugged COTS Processor Platform
Processor	Intel Pentium M LV 1.4 GHz
Memory	1GB DDR RAM; CPFlash SolidStateDisk
Expansion	6x PC/104(+) Slots, PCI/ISA Bus
Interfaces	10/100 Ethernet, 4x USB, 2x Serial, VGA Video, Audio
PSU	28 VDC Input, MIL-STD-704E, MIL-STD-1275D Compliant
Standards	MIL-STD-810F, MIL-STD-461E
Operating Temp	-40/+71°C Ambient

Linux

Windows Embedded

DuraCOR™ 820

Applications	Manned/Unmanned Vehicle and Avionics Computing
Description	Small Form Factor Tactical Mission Computer <3-inches in height (75.95mm) and <3lbs in weight (1.36kg)
Processor	Intel Pentium M LV 1.4GHz
Memory	1GB DDR RAM; CPFlash SolidStateDisk
Interfaces	2x 10/100 Ethernet, 3x USB, 2x Serial, VGA Video, Audio, GPIO
PSU	28 VDC Input, MIL-STD-704E Compliant
Standards	MIL-STD-810F, MIL-STD-461E
Operating Temp	-40/+70°C Ambient

Linux

Windows Embedded

R-CLUSTER

Mounting	19" rack mount 4U Server Blade High Protection
Processor	Up to 8 CPU boards with single or dual Opteron Dual Core Up to 16 CPU boards Pentium M
Memory	Up to 8 GB RAM
Common Interfaces	Onboard 2.5" ATA100 IDE HDD or CompactFlash, Dual Gigabit Ethernet ports and one management LAN port, Built-in cableless KVM Switch, Double Switch Gigabit integrated
Expansions	PCI-X add-on card slot
PSU	6+1 redundant modules, 2100 watts
Operating Temp	0/+50°C

Linux

Windows Compute Cluster Server

Mobile Stack 104 Computers

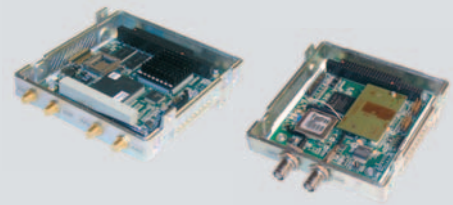
Stack 104 CPU Heads

Ruggedized modular computer developed for harsh environments (embedded or ground applications).
The complete computer complies with military standards (GAM EG13 and MIL STD). System operating temperature ranges from -40°C to +70°C.

The STACK 104 is composed of modules depending on the application requirements:

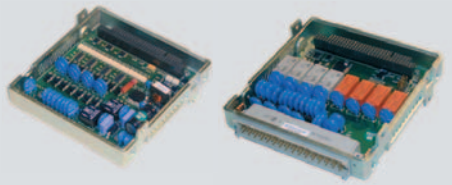
- CPU Heads & Peripheral connections
- I/O, Communication or all other function modules
- Power Supply

Name	VIPER based Head	M104CPU4	M104CPU5
Processor	PXA255 400 MHz	486 STPC Atlas 120 MHz	Geode GX466
Form Factor	Stack104	Stack104	Stack104
Expansion	Stack104 or PC/104	Stack104 or PC/104	Stack104 or PC/104
Memory	64 MB + 32 MB Flash	32 MB DRAM + up to 8 MB Flash	128 MB DDRAM + 1 GB Flash
Video	TFT	TFT and CRT	CRT
Common Interfaces	CF, 4x RS232, 1x RS422/485, USB 1.1	CF, 2x RS232, KEY, USB 1.1	CF, 2x RS232, KEY, USB 2.0
Accessories	PLC Kernel Straton Licence	PLC Kernel Straton License	PLC Kernel Straton License
	DOS	Linux DOS	Linux Windows CE.net



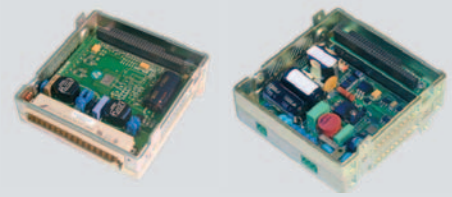
Stack 104 Add-on Modules

Name	Type	Form Factor	Description
M104LS85858585	Communication	Stack104	4x RS485 500V isolation
M104LS32323232	Communication	Stack104	4x RS232 500V isolation
M104LSBCBCBCBC	Communication	Stack104	4x Current Loop 500V isolation
M104CTR-1475	MPEG-4	Stack104	2x MPEG-4 video in and 2x audio in
M104COM-1289	GPS/GSM	Stack104	12ch GPS + GSM-GPRS /GSM-R modem



Stack 104 I/O Modules

Name	Type	Form Factor	Description
M10416ETOR	Digital I/O	Stack104	16 Digital Inputs 24/48/72/110 V 1500V isolation
M1048STOR	Digital I/O	Stack104	8 Output Relay, 1500 V isolation
M10412ET2K5F	Digital I/O	Stack104	12 Digital Input 24/48/72/110/220V isolation 2500V
M1046STR	Digital I/O	Stack104	6 Digital Relay 2500V isolation
M104LSA1A1A1A1	Analog I/O	Stack104	12 Analog Inputs 4 Analog Outputs



Stack 104 PSU Modules

Name	Form Factor	Input	Power	Isolation
M104ALIM24V30W/WS	Stack104	24-48VDC	25W (with redundancy capability)	1500V
M104ALIM110V30W/WS	Stack104	72-110VDC	>=25W (redundant and/or multiple power units configurations)	1500V
M104SPALIMN	Stack104	24-48/72-110/220 VDC	30W	2500V
M104ACS-5175	Stack104	28VDC	Aircrafts 75W	1000V

MIL Rugged Displays

DuraVIS™ 3000

Description	Rugged Military/Avionics Display - 6.5" LCD pushbutton controls
Display	6.5" TFT LCD 850 nit 640x480
Interface	VGA Analog Video Input
Power Input	14-35VDC
User Buttons	2 or 6 buttons for brightness/OSD control
Standards	MIL-STD-461, MIL-STD-810F
Operating Temp	-20/+60°C

DuraVIS™ 3010

Description	Rugged Flat Panel, Touchscreen
Display	6.4" a-SI TFT LCD with LED Backlight; 850 cd/m²; 640 x 480 pixels, Anti-reflective
Interface	VGA Video Input (option for LVDS input)
Power Input	18-36VDC
User Buttons	6 Pushbuttons for Brightness adjustment, ON/OFF Backlight, colour adjustment or Key functions
Standards	GAM EG13, MIL-STD-810
Operating Temp	-20/+60°C

DuraVIS™ 3400

Description	Rugged Military/Avionics Display - 10.4" LCD, Touchscreen
Display	10.4" TFT LCD 400 nit 800x600
Interface	Standard VGA Video Input
Power Input	9-36VDC isolated
Touchscreen	Resistive
Standards	MIL-STD-461, MIL-STD-810F
Operating Temp	-20/+60°C

DuraVIS™ 4300

Description	Rugged Military /Avionics Multi-Function Display (MFD)
Display	Sunlight Readable nit 6.5" Color Active Matrix TFT
Interface	VGA RGB
Power Input	28VDC Input; MIL-STD-704E Compliance
Standards	MIL-STD-461, MIL-STD-810F
Other	18 user programmable pushbuttons: keys can be mapped for any function, including: brightness adjustments keypad emulates PC/AT keyboard
Processor	Celeron 400 MHz / Pentium III 800 MHz
Expansion	2 PC/104 (+) Slots, PCI/ISA Bus
Availability	Special order
Operating Temp	-40/+60°C

Linux

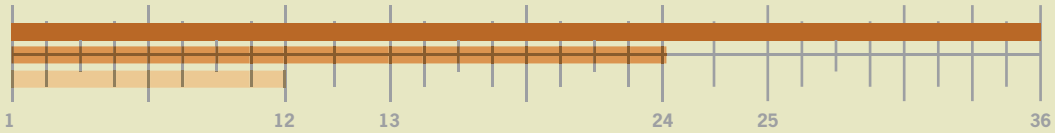
Windows Embedded

Custom Development

Eurotech leverages a three-phase development-to-production approach to reduce risk and provide certainty that systems meet customer expectations. Our experienced sales and engineering staff intimately know this process and will guide you through it from design to pre-production to production.

Phase I	Phase II	Phase III
DESIGN & DEVELOPMENT	**PRE-PRODUCTION**	**PRODUCTION**
Electrical/Mechanical Design Debugging Prototype Construction Acceptance Test Equipment	Adjustments to Design Pre-Manufacturing Begns Finalize Production Documents Qualification Testing	Final Signature Approval Production of Volume Quantities Continued Quality Control Packaging and Delivery

An Approximate Project Time Line in Weeks



PLATFORM EXPERIENCE

- AH-64 Apache
- AH/MH-6 Littlebird
- B1-B Lancer
- AC-130H Spectre
- EA-6B Prowler
- E-4B NAOC
- EFV/AAAAV
- F-14 Tomcat
- F-15 Eagle
- F-16 Falcon
- F-22 Raptor
- HMMWV
- M48 Chaparral
- Nimitz Carriers
- P-3C Orion
- P-8A MMA
- QF-4 Phantom
- Rover III Datalink
- T-38 Talon
- UH-60 Blackhawk

PROGRAM PARTNERS

(REFERENCE)

- BAE Systems
- Battelle
- Boeing Company
- General Dynamics
- L-3 Communications
- Lockheed Martin
- Northrop Grumman
- Raytheon
- SAIC
- Sikorsky
- US Navy

Custom Projects

Cockpit Operator Panel

Description	Avionics Mission Processor w/ 6.4" AMLCD Display + Joystick/Keypad
Operating Temp	-20/+50°C

Manpack Radio

Description	Multiband Datalink Receiver
Operating Temp	-20/+70°C

Multi-Function Display

Description	Avonics Multi-Function Display, 6.4" AMLCD, PC/104 Expansion, External SSD/Network Access
Operating Temp	-40/+60°C

Flight Test Display

Description	Rugged 6.4" AMLCD Dedicated Display
Operating Temp	0/+60°C

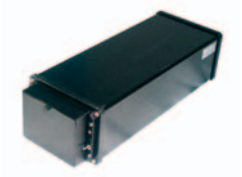
Vehicle Display Controller

Description	1/2 ATR Wide Enclosure
Operating Temp	-40/+70°C

3/4 ATR Computer

Description	3/4 ATR Aviation Processor with Removable Mass Storage
Operating Temp	-40/+70°C

Aircraft Network Server



Description	Aircraft Network Server
Operating Temp	0/+60°C

Embedded Boards

Our Embedded Boards are designed to meet the needs of extremely demanding customers. Our expertise in this area extends over 15 years, enabling us to offer:

- Single board computers in industry standard and customer-specific form-factors
- Processor boards pre-installed with industry leading operating systems
- Guaranteed longevity of supply
- Technical expertise and product guidance in multiple languages
- Easy-to-use hardware and operating system Development Kits

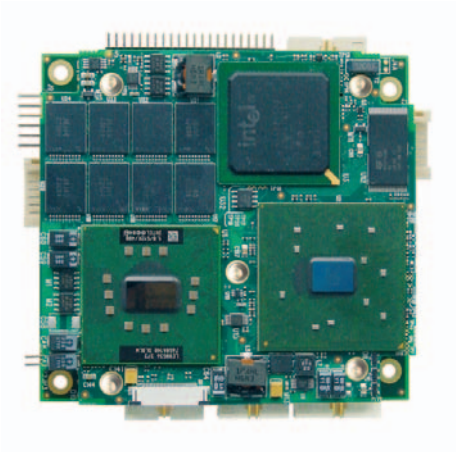
The following pages highlight our complete portfolio of embedded processors, communication boards and I/O modules, suitable for the Defence/Aerospace sector.

Since time-to-market is often critical, customers need to leverage the most complete solutions possible. For these customers, we offer a wide range of ready-to-run low-power Development Kits which pair an embedded processor board platforms (x86, PXA etc.) with the most popular embedded operating systems (from Linux to Windows Embedded, QNX, VxWorks, etc.).

Should customers not find a product which perfectly matches their requirement; our engineering teams can develop tailor-made boards using the same professional design approach that is used to create our standard portfolio.

PC/104 CPU Modules

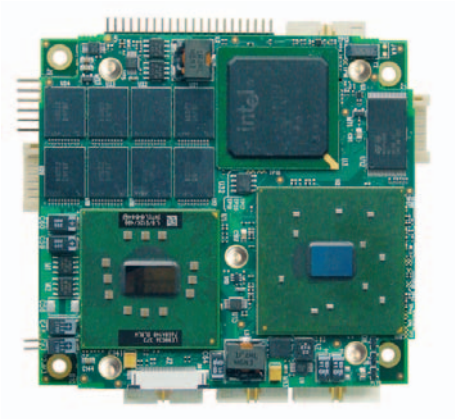
CPU-1482/1484



Processor	Intel Pentium M 1.4 GHz, 2 MB L2 cache, 400 MHz FSB
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	512 MB DDR, 266 MHz, soldered on board
Video	Analog VGA and Flat Panel LVDS Interfaces
Common Interfaces	Controller IDE ATA, 1x RS-232, 1x RS-232/422/485, 1x 10/100 Mbps Ethernet, Keyboard&Mouse, AC97 audio only for 1482: 8x USB 2.0 only for 1484: 4x USB 2.0, 1x Gigabit Ethernet
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set, LVSD receiver
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

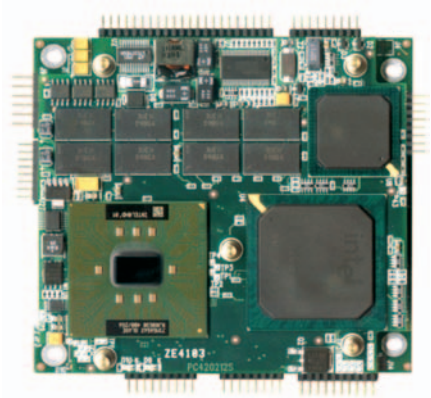
CPU-1472/1474



Processor	Intel Celeron M 1 GHz, 512 KB L2 cache, 400 MHz FSB
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	512 MB DDR, 266 MHz, soldered on board
Video	Analog VGA and Flat Panel LVDS Interfaces
Common Interfaces	Controller IDE ATA, 1x RS-232, 1x RS-232/422/485, 1x 10/100 Mbps Ethernet, Keyboard&Mouse, AC97 audio only for 1472: 8x USB 2.0 only for 1474: 4x USB 2.0, 1x Gigabit Ethernet
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set, LVDS receiver
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

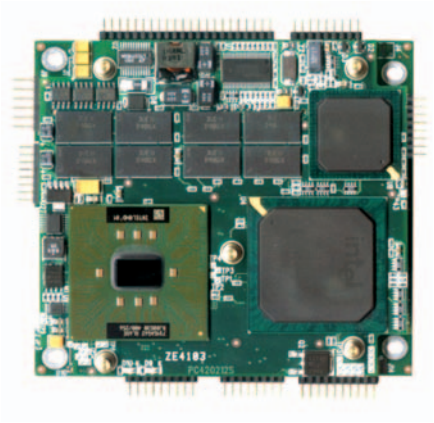
CPU-1462/1464



Processor	Pentium III 800 MHz, 512 KB L2 cache
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	256 MB SDRAM soldered on board
Video	Analog VGA and Flat Panel LVDS Interfaces
Common Interfaces	IDE Controller UltraATA, 1x RS-232, 1x RS-232/422/485, Fast Ethernet, 4x USB 1.1 only for 1462: 4x USB 2.0 only for 1464: 1x Gigabit Ethernet
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set, LVDS receiver
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

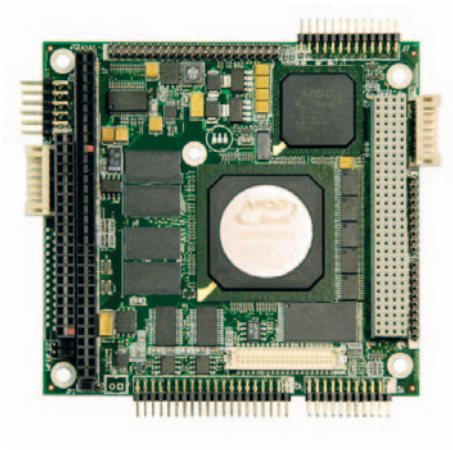
CPU-1452/1454



Processor	Celeron ULV 400 MHz, 256 KB L2 cache
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	256 MB SDRAM soldered on board
Video	Analog VGA and Flat Panel LVDS Interfaces
Common Interfaces	IDE Controller UltraATA, 1x RS-232, 1x RS-232/422/485, Fast Ethernet, 4x USB 1.1 only for 1452: 4x USB 2.0 only for 1454: 1x Gigabit Ethernet
Other Features	Disk on Module on board support
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set, LVDS receiver
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

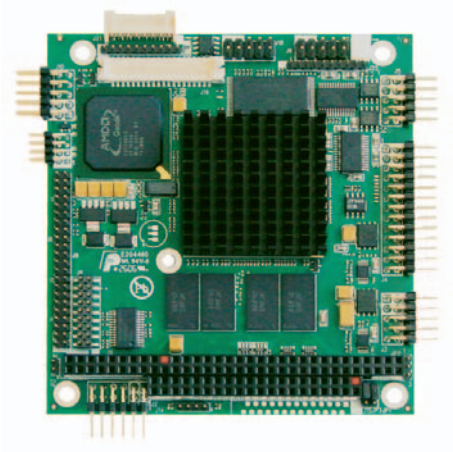
CPU-1433



Processor	Geode GX466 333 MHz
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	128 MB DDR soldered on board
Video	TFT or analog VGA Interfaces
Common Interfaces	IDE Controller, 1x RS-232, 1x RS-232/422/485, Fast Ethernet, 4x USB 2.0
Other Features	Disk on Module on board support
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set
Operating Temp	-40/+85°C

Linux · Windows CE.net

CPU-1233

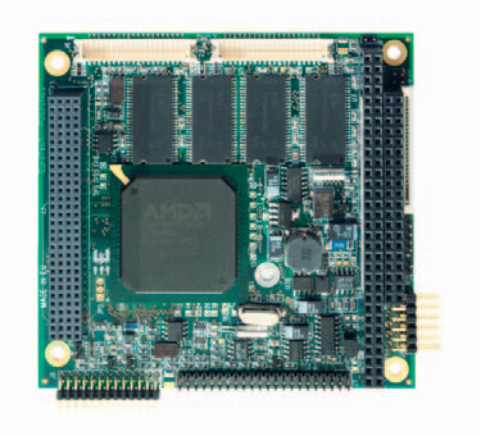


Processor	Geode GX466 333 MHz
Form Factor	PC/104
Expansion	PC/104
Memory	128 MB DDR soldered on board
Video	TFT or analog VGA Interfaces
Common Interfaces	IDE Controller, 1x RS-232, 1x RS-232/422/485, Fast Ethernet, 4x USB 2.0
Other Features	Disk on Module on board support
Accessories	Dev Kit, RJ45 adpt., USB adpt., audio codec, cable set
Operating Temp	-40/+85°C

Linux · Windows CE.net

PC/104 CPU Modules

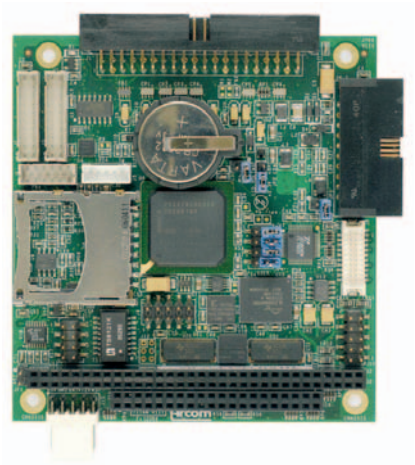
CPU-1421



Processor	Elan SC520 133 MHz
Form Factor	PC/104+
Expansion	PC/104 and PC/104+
Memory	64 MB SDRAM soldered on board
Common Interfaces	IDE controller, 2x Ethernet 10/100 Mbps, 1 EPP/ECP bidirectional, 2x RS232, 2x RS232/422/485, 2x 16bit Counter/Timers
Other Features	Disk on Module on board support
Accessories	Dev Kit, RJ45 adpt., cable set
Operating Temp	-40/+85°C

Linux · Windows CE.net

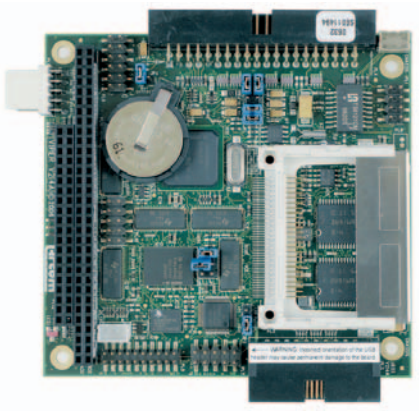
TITAN



Processor	XScale PXA270 520 MHz
Form Factor	PC/104
Expansion	PC/104
Memory	Up to 128 MB SDRAM soldered on board Up to 64 MB of AMD MirrorBit Flash
Video	TFT/STN/LVDS flat panel support; 4 or 5-wire touchscreen controller
Common Interfaces	Fast Ethernet, 4x RS232, 1x RS422/485, 2x USB 1.1, SD/SDIO/MMC card socket, RTC, WD
Other Features	I²C bus, 8 buffered digital inputs/8 buffered digital outputs
Accessories	AC97 audio controller, Quick Capture Camera Interface
Operating Temp	-40/+85°C

Linux · Windows CE.net · VxWorks · IBM Java

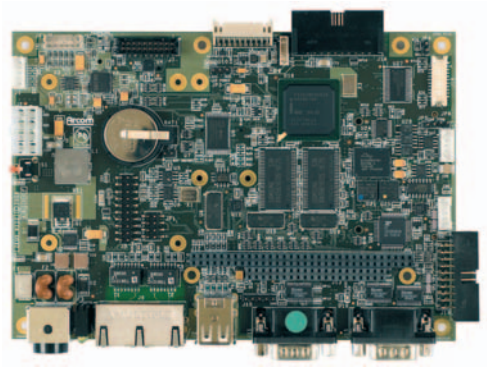
VIPER



Processor	XScale PXA255 400 MHz
Form Factor	PC/104
Expansion	PC/104
Memory	Up to 64 MB SDRAM soldered on board
Video	TFT/STN flat panel, support LVDS output
Common Interfaces	1x 10/100baseTx Ethernet, 4x RS232, 1x RS422/RS485, 2x USB 1.1, RTC, Type II CompactFlash (CF+) up to 32 MB; 256 KB of battery backed SRAM
Other Features	I²C controller; Atmel AT97SC3201 (TPM), 8 buffered digital inputs / 8 buffered digital outputs
Accessories	Dev Kit + LCD TFT or VGA adapter + Viper IO
Operating Temp	-40/+85°C

Linux · Windows CE.net · QNX Software Systems · VxWorks · RFID · IBM Java

ZEUS



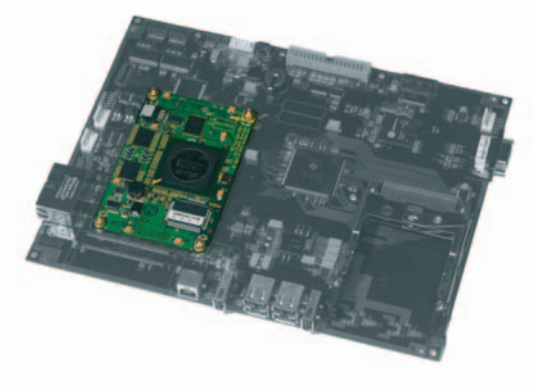
Processor	XScale PXA270 520 MHz
Form Factor	EPIC
Expansion	PC/104
Memory	Up to 256 MB SDRAM soldered on board
Video	TFT/STN flat panel, support LVDS output
Common Interfaces	2x 10/100baseTx Ethernet, 2x RS232, 1x RS232/422/485, 1x RS422/485, 2x USB 1.1, RTC, CompactFlash
Other Features	SD/SDIO/MMC card socket; 4 or 5-wire analog touchscreen controller; I²C controller; Microchip MCP2515 - CAN 2.0B; 16 buffered digital inputs / 8 buffered digital outputs (+5V tolerant); AC97 audio controller
Accessories	Cellular / Wireless modem port, GPS port, IEEE802.15.4/ZigBee, Dev Kit
Operating Temp	-40/+85°C

Linux

Windows CE.net

Low Power CPU Boards in other form factors

TurboIXP System



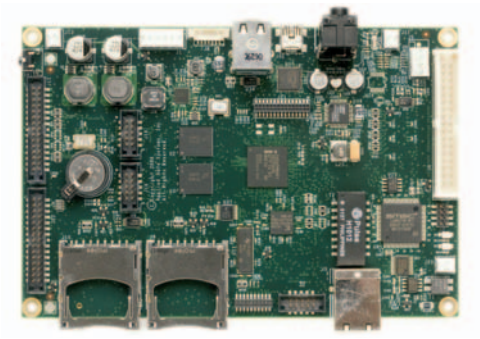
Description	Module with Adapter Board
Processor	Intel IXP465 @ 667 MHz
Form Factor	9.4x7.3 inches (239x185 mm)
Memory	Up to 128 MB DDR SDRAM
Video	LCD, Analog RGB (DB-15), 24-bit LVDS, RGB565
Common Interfaces	2x 10/100base-T Ethernet with RJ-45 connectors; 5x USB host ports (low/full/high speed); 1x USB 2.0 host port (low/full speed) with Type A connector and power supply; 1x USB 1.1 function port (low/full speed) with Type B connector and cable detection circuit; 2 serial ports: 1x EIA-232/EIA-485, 1x EIA-232/3.3V; 11x GPIO; 1x 32-bit PCI v2.2; mini PCI; 2x CAN (2.0b); 1x I²C port; 1x SSP port
Other Features	4 or 5-wire touchscreen interface; IEEE1588; 1x 32-bit expansion interface
Operating Temp	-40/+85°C

Linux

Windows CE.net

Low Power CPU Boards in other form factors

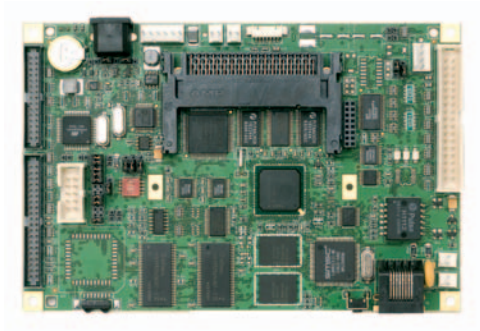
GCM



Processor	Marvell PXA320 @ 806 MHz
Form Factor	4x6 inch (102x152 mm)
Memory	Up to 256 MB DDR SDRAM
Video	LCD, RGB565, VGA
Common Interfaces	10/100base-T Ethernet; 2x USB 1.1 host ports; 1x USB 2.0 function port (low/full/high speed); 3 serial ports: 1x EIA-232/EIA-422/EIA-485, 2x EIA-232 w/ LVTTL option (for external alternatives like Bluetooth, IrDA); ADSmartIO: analog inputs, digital GPIO, UART, 6x8 keypad support; 1x CAN 2.0b port; 1x I²C port
Other Features	Stereo audio codec, 4 or 5-wire touchscreen interface, 1x Camera Sensor Interface port option, 2x software-controlled LED status indicators, RTC
Operating Temp	-40/+85°C

Linux Windows CE.net

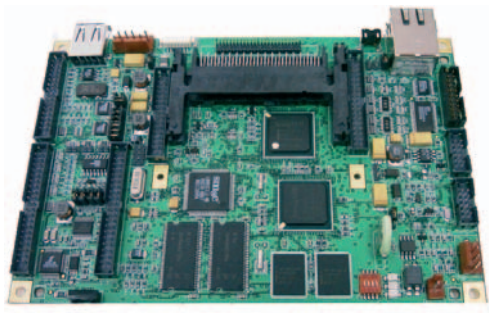
GCX



Processor	Marvell PXA255 @ 400 MHz
Form Factor	4x6 inch (102x152 mm)
Memory	Up to 256 MB DRAM
Video	LCD or VGA interface
Common Interfaces	10/100base-T Ethernet; 1x USB 1.1 function port; 3 serial ports: 1x EIA-232/EIA-422/EAI-485, 1x EIA-232/IrDA, 1x EIA-232; ADSmartIO: up to 18x digital IO, 4x analog inputs, PS/2 interface; PCMCIA; CAN 2.0b support; I²C controller; NSSP (Network Synchronous Serial Port)
Other Features	Stereo audio codec; 4 or 5-wire touchscreen interface; 3x software controlled LED status indicators; 4x software readable configuration switches; RTC w/ backup battery
Operating Temp	-40/+85°C

Linux Windows CE.net

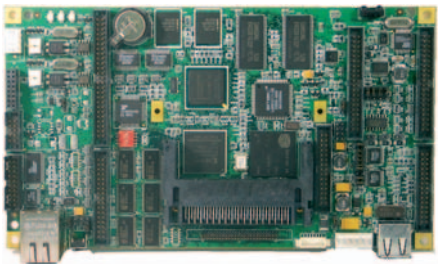
AGX



Processor	Marvell PXA255 @ 400 MHz
Form Factor	4x7 inches (102x178 mm)
Memory	Up to 256 MB SDRAM
Video	16-bit LCD
Common Interfaces	10/100base-T Ethernet; 1x USB 1.1 host; 1x USB 1.1 function; 7 serial ports: 1x EIA-232/EIA-422/EIA-485/JI708, 1x EIA-232/IrDA, 2x EIA-232/3.3V logic, 1x EIA-232/3.3V CMOS, 2x 3.3V logic; 10x digital GPIO; 4x analog input; ADSmartIO: 16x digital GPIO configurable for digital I/O and/or up to 8x8 matrix keypad; 1x CAN bus
Other Features	Stereo audio codec, 4 or 5-wire touchscreen interface, System backup, RTC, Graphics Accelerator
Operating Temp	-40/+85°C

Linux Windows CE.net

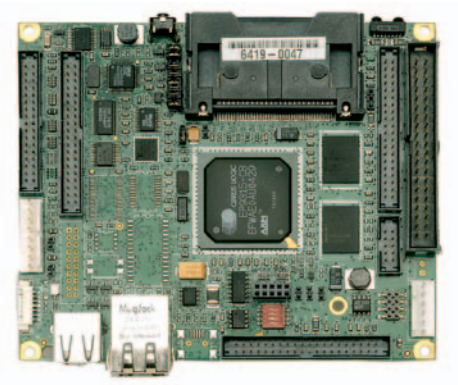
VGX



Processor	Marvell PXA255 @ 400 MHz
Form Factor	4x7 inches (102x178 mm)
Memory	Up to 256 MB SDRAM
Video	LCD, Analog RGB, 24-bit LVDS, RGB565
Common Interfaces	10/100base-T Ethernet; 1x USB 1.1 host; 1x USB 1.1 function; 7 serial ports: 1x EIA-232/EIA-422/EIA-485/JI708, 1x EIA-232/IrDA, 3x RS-232/3.3V logic, 2x 3.3V logic; ADSmartIO: 16x digital I/O, 10x GPIO, 4x A/D inputs, 8x8m matrix keypad support; 2x CAN 2.0b buses (full speed); 1x I²C port; 1x SPI/SSP port
Other Features	4 or 5-wire touchscreen interface; 3x software-controlled LED status indicators; 4x software readable configuration switches; RTC
Operating Temp	-40/+85°C

Linux Windows CE.net

Sphere II

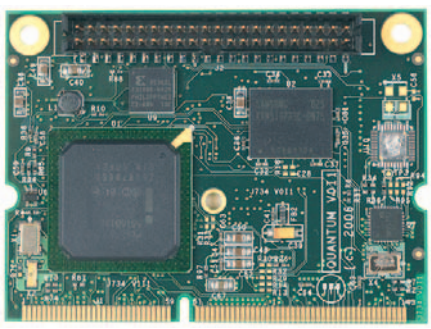


Processor	Cirrus EP9315 @ 200 MHz
Form Factor	4.0x4.6 inches (102x117 mm)
Memory	Up to 128 MB DRAM
Video	LCD
Common Interfaces	10/100base-T Ethernet; 3x USB 2.0 host ports (low/full speed); 3 serial ports: 1x EIA-232, 1x EIA-232/IrDA, 1x EIA-422/485; ADSmartIO: 16x digital I/O or 8x8 matrix keypad, 20x additional GPIO; 1x I²C port; 1x SSP/SPI port
Other Features	Stereo audio codec, 4 or 5-wire touchscreen interface, RTC with battery backup, IDE interface
Operating Temp	-40/+85°C

Linux Windows CE.net

Low Power CPU Cores

QUANTUM



Processor	XScale PXA270 312 or 520 MHz
Form Factor	67.6x50 mm SO-DIMM CPU core
Memory	64 MB SDRAM soldered on board; 256 KB SRAM; up to 64 MB Flash soldered on board
Video	TFT/STN/LVDS flat panel support; 4 wire touchscreen
Common Interfaces	5x TTL serial ports, 1x USB 1.1 host port, 1x USB 1.1 host/client port, IDE, MCC/SD/SDIO, CF, AC97 CODEC
Other Features	I²C bus, 2x PWM outputs
Operating Temp	-40/+85°C

Linux Windows CE.net IBM Java

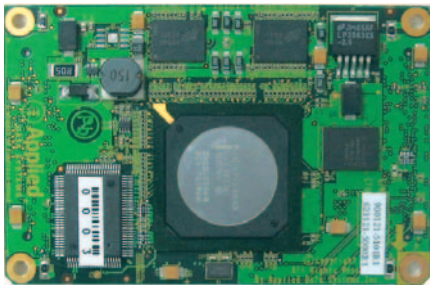
Low Power CPU Cores

TurboXb Module

Processor	Marvell PXA270 @ 520 MHz
Form Factor	2.7x2.4 inch (68x60 mm) SO-DIMM CPU core
Memory	Up to 128 MB DRAM
Video	24-bit color LCD to SVGA
Common Interfaces	Support for 10/100base-T Ethernet; support for 1x USB 1.1 host; support for 1x USB function; 3 serial ports, 4x analog inputs, SPI
Other Features	Support for CompactFlash Type I and II
Operating Temp	-40/+85°C

Linux · Windows CE.net

TurboIXP Module



Processor	Intel IXP465 @ 667 MHz
Form Factor	4.0x2.7 inches (102x185 mm)
Memory	Up to 128 MB DDR SDRAM
Video	Support available through Adapter Board
Common Interfaces	Support for 2x 10/100base-T Ethernet; support for 1x USB 2.0 host port (low/full speed); support for 1x USB 1.1 function port (low/full speed); 2 serial ports: 1x EIA-232/EIA-485, 1x EIA-232/3.3V; 11x GPIO; 1x 32-bit PCI v2.2; 1x I²C port; 1x SSP port
Other Features	IEEE1588; 1x 32-bit expansion interface; 2x PCMCIA
Operating Temp	-40/+85°C

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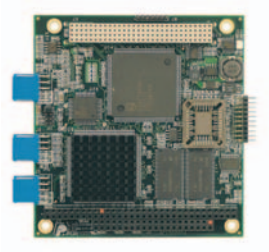
PC/104 Add-on Modules

CTR-1474

Type	Video acquisition capture and compression
Form Factor	PC/104
Description	JPEG 2000 encoder module with 8 analog video input
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

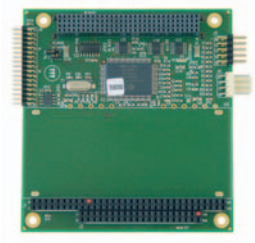
CTR-1475



Type	Video acquisition and compression
Form Factor	PC/104+
Description	MPEG-4 video compressor, encoder and frame grabber module compressor with 4 video in + 8 digital I/O channels
Operating Temp	-40/+85°C

Linux Windows CE.net Windows Embedded

INT-1462



Type	Video acquisition
Form Factor	PC/104+
Description	Fusion Bt878 frame grabber with 4 video in + one audio input, +24 flexible digital I/O channels
Operating Temp	-40/+85°C

Linux Windows CE.net Windows Embedded

INT-1410

Type	Audio Switch Matrix
Form Factor	PC/104+
Description	4x CODEC's Audio Switch Matrix module with 8 audio in + 8 audio out
Operating Temp	-40/+85°C

Linux Windows CE.net Windows Embedded

CTR-1462

Type	PCMCIA Cardbus Removable Expansion
Form Factor	PC/104+
Description	PCMCIA Cardbus controller module with 1 32-bit slot for type I, II and III card support
Operating Temp	-40/+85°C

Linux Windows CE.net Windows Embedded

PRV-1059

Type	Ethernet Switch
Form Factor	PC/104
Description	5 ports Ethernet 10/100 Mbps switch with VLAN support
Operating Temp	-40/+85°C

PC/104 Add-on Modules

COM-1274

Type	Multi Serial Communication
Form Factor	PC/104
Description	8x Asynchronous serial port (RS232/422/485), 2x CAN 2.0B
Operating Temp	-40/+85°C

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AIM104-COM4

Type	Multi Serial Communication
Form Factor	PC/104
Description	4x Asynchronous serial interface module with 2x RS-232 and 2x isolated RS-422/RS-485 port
Software	C Library
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

COM-1289

Type	Wireless Communication and Positioning
Form Factor	PC/104
Description	Low power 12-channel GPS receiver and Tri-band class 16 GSM/GPRS modem
Operating Temp	-40/+85°C

Linux · Windows CE.net · Windows Embedded

COM-1480

Type	High Speed 3G Wireless Communication and positioning
Form Factor	PC/104+
Description	Tri-band UMTS/HSDPA (optional CDMA 1xEV-DO Rev A) cellular modem with 12-ch GPS receiver
Operating Temp	-20/+60°C

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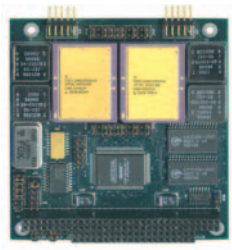
COM-1250/1251



Type	1553 Serial Communication
Form Factor	PC/104
Description	MIL-STD-1553 Interface, 1 or 2 channel
Operating Temp	-40/+85°C

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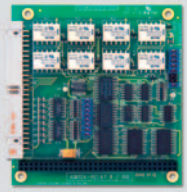
COM-1452

Type	Network Communication
Form Factor	PC/104+
Description	Multi Ethernet board with 5 Ethernet controllers
Operating Temp	-40/+85°C

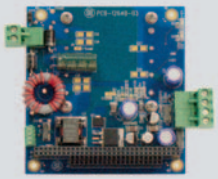
PC/104 I/O Modules



I/O Boards

Name	Type	Description	Software	Operating Temp
DAQ-1278	Digital I/O	Galvanically Isolated DIO 24 Inputs, 24 Outputs		-40/+85°C
AIM104-IN16	Digital Input	16-channel Opto-Isolated Digital Input Module		-40/+85°C
AIM104-RELAY8/IN8	Digital Power I/O	8 Changeover Relays and 8 Opto-isolated Inputs		-40/+85°C
VIPER-I/O	Digital I/O	Multi-purpose Opto-isolated Digital Input Output Module		-40/+85°C
AIM104-ADC16/IN8	Galvanic Isolated Analog and Digilal I/O	Opto-Isolated 16-channel 12-bit ADC, Opto-Isolated 8-channel Digital Inputs Module	C Library	-40/+85°C

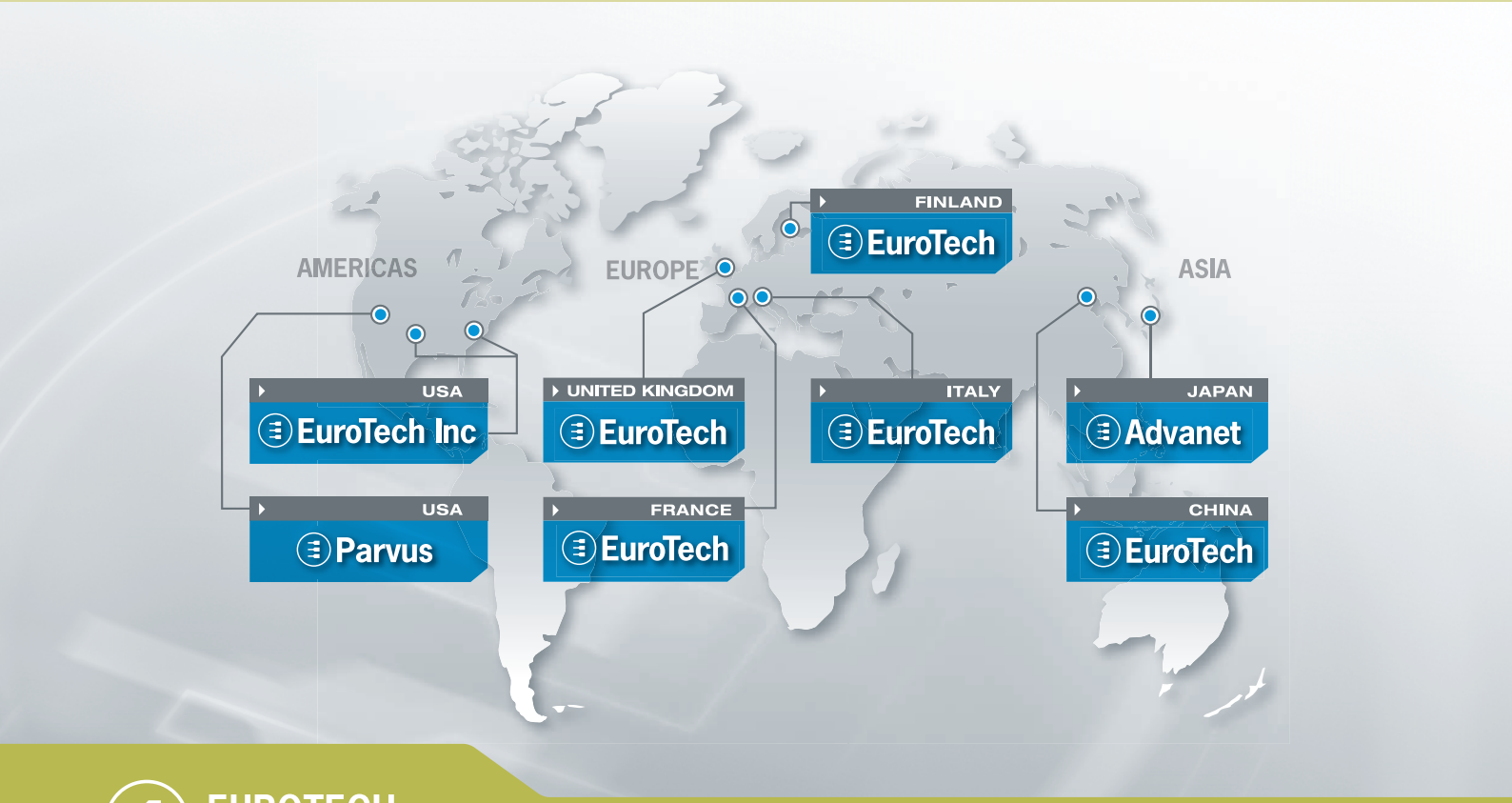
PC/104 PSU Boards



PSU Boards

Name	ACS-5175	ACS-5161
Type	PSU	PSU
Form Factor	PC/104	PC/104
Description	Isolated 75W PSU	Galvanic Isolated 60W PSU
Power Output	75W	60W (100W surge)
Input Range	16-80VDC and 9-45VDC	18-36VDC
Output	+5V, +12V	+5, +12V
Standards	MIL-STD-810, MIL-STD-461, MIL-STD-704, GAM-EG-13B tested, certified and flight approved	CE compliance EN55022-B and EN61000
Heat Dissipation Scheme	Convection cooled	Structural heat dissipation
Operating Temp	-40/+85°C	-40/+85°C

EUROTECH GROUP WORLDWIDE PRESENCE



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