

Box PC Fanless

Fanless box PCs based on ATOM, Pentium, Core 2 Duo processors, for wall or DIN rail mounting, with specific design that best meets automation-related application requirements in hard and critical environments.

Box PC Performance

Performance box PCs based on Pentium and Core 2 Duo processors, for wall or DIN rail mounting, that guarantee high calculating power and graphics processing capabilities.



PRODUCT FAMILY SELECTOR

Box PC Fanless

	MOUNTING	PROCESSORS	SLOTS	POWER SUPPLY	O.S.	PAGE
B-ONE	DESK WALL	ATOM	MiniPCI	12VDC 24VDC	CE6 WES W7	46
SMARTBOX	DIN RAIL WALL	LX800	MiniPCI	12VDC 24VDC	CE5 CE6 WES XP Pro	48
PB300 PB300-E	WALL DIN RAIL	ATOM	MiniPCI	24VDC	CE6 WES W7	50
PB1200	DESK DIN RAIL	CelM	PC/104Plus PCI	24VDC UPS	CE5 CE6 WES XP Pro	52
PB500	DIN RAIL WALL	CelM	PCI PCIe	24VDC 220VAC	WES XP Pro	54
PB550	DIN RAIL WALL	C2D	PCI PCIe	24VDC 220VAC	WES XP Pro	56

Box PC Performance

	MOUNTING	PROCESSORS	SLOTS	POWER SUPPLY	O.S.	PAGE
PB1300	DIN RAIL WALL	CelM PM	PC/104Plus PCI	24VDC	CE5 CE6 WES XP Pro	58
PB600	DIN RAIL WALL	CelM PM	PCI PCIe	24VDC 220VAC	WES XP Pro	60
PB650	DIN RAIL WALL	Cel C2D	PCI PCIe	24VDC 220VAC	WES XP Pro W7	62

DESK: desktop mount | WALL: wall mount | DIN RAIL: DIN rail mount | ATOM: Intel ATOM Z5XXP | LX800: Geode LX800 | Cel: Intel Celeron | PM: Intel Pentium M | CelM: Intel Celeron M | C2D: Intel Core 2 Duo | MiniPCI: MiniPCI bus | PC/104Plus: PC/104Plus bus | PCI: PCI bus | PCIe: PCI Express bus | CE5: Microsoft Windows CE 5.0 | CE6: Microsoft Windows CE 6.0 | XP Pro: Microsoft XP Pro | WES: Windows Embedded Standard | W7: Windows Seven | Res 4: resistive 4 wires | Res 5: resistive 5 wires | GFG: Glass Film Glass

Fanless

B-ONE

B-ONE is the new PC fanless box, for desktop applications, with ATOM ultra low power processors and extruded aluminium heat sink. B-ONE system uses ASEM 972 motherboard and Intel® Atom Z5XXP up to 1,6 GHz, low power processors with 'Hyper Threading Technology'. ATOM's technology, 2 USB frontal ports and the compact dimensions make B-ONE system well suited for desk application.



Image 1: Passive heatsink
Image 2: Rear connections
Image 3: Intel ATOM Z5XXP processors

FEATURES PLUS

- ✕ INTEL ATOM Z510P AND Z530P MICROPROCESSORS UP TO 1.6GHZ
- ✕ FOR DESKTOP OR WALL MOUNT
- ✕ COMPACT DIMENSIONS

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB972 Temperature monitor Time programmable	
CPU	Processor FSB Cache Chipset	Intel® ATOM Z510P 1.1GHz 400MHz 512KB L2 Intel® US15WP	Intel® ATOM Z530P 1.6GHz 533MHz 512KB L2 Intel® US15WP
Graphic	Controller Memory	GMA500 integrated in Intel® US15WP Shared – 1MB, 4MB, 8MB system selectable	
Video interfaces	Type	1 x DVI-I (single link – max resolution 1600x1200 UXGA)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 1 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	1 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Ethernet interfaces	Type Controller	2 x 10/100/1000Mbps (RJ45) Intel 82574L	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port, 2 on the front) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type II (external access)	
Mass storage interfaces	Serial	1 x SATA 1 1,5Gb/s Master/Slave	
Expansion slots	Type	2 x MiniPCI	
Battery	Type Removable Lifetime	Coin (CR2032 3V) Yes 2 years	
Buttons, leds and keys	Reset buttons LEDs	Reset System / Watch-dog Power, HDD, system fail, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage Power consumption	Integrated on board, auto ranging 18-32 VDC 6.7W (B-One ATOM 1.1GHz 512MB RAM)	
Mechanical characteristics			
Case	Type Material Top enclosure	Desktop and wall mount Steel, nickel treatment Aluminium / Steel, zinc galvanization Extruded aluminium black anodization	
Measurements mm		Dimensions (W x H x D) 215 x 148 x 62	Weight (Kg) 1.7
Enviromental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	

SMARTBOX

The entry level embedded BOX SMARTBOX is an highly integrated system that combines high performances with reduced consumption, compact dimensions and a complete set of communication interfaces. Due to these features SMARTBOX can satisfy different customer needs in many industrial environments.

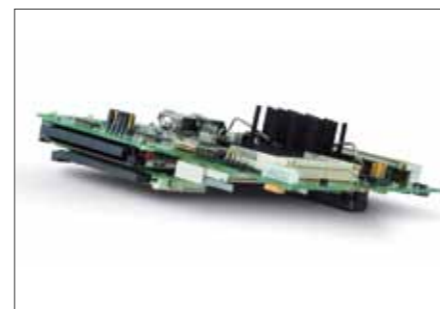


Image 1: Industrial filebuses optional

Image 2: Compact Flash slots

Image 3: 2 MiniPCI slots for add-on cards

FEATURES PLUS

- WALL OR DIN RAILS MOUNT
- COMPACT DIMENSIONS
- SUITED FOR SUPERVISOR AND CONTROL OF SMALL PLANTS
- 2 CFS FOR OPERATING SYSTEM AND DATA STORAGE
- 2 MINIPCI SLOTS FOR EXPANSION CARDS

System characteristics		
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB831-V Temperature monitor Time programmable
CPU	Processor Cache Socket	AMD LX800 500MHz 128KB L2 Soldered on board
Graphic	Controller Memory	Integrated on board Shared - 2MB÷128MB system selectable
System memory	Type Size Socket	DDR PC2700 256MB, 512 MB, 1 GB 1 x SODIMM module
Video interfaces	Type	1 x VGA (DB15F)
Serial interfaces	Type UART Transfer rate Optoisolation	1 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No
	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No
Ethernet interfaces	Type Controller	1 x 10/100Mbps (RJ45) Intel 82551QM
USB interfaces	Type Transfer rate	3 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)
Compact Flash slots	Type	1 x Type II (external access), optional 1 x Type II (internal access)
Mass storage interfaces	Parallel	1 x ATA/66 Master/Slave
Expansion slots	Type	2 x MiniPCI type III
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years
Buttons, leds and keys	Reset buttons LEDs	System / Watch-dog Power
Electrical characteristics		
Power supply	Type Input voltage Power consumption	Integrated on board, auto ranging 9÷36 VDC 6W basic configuration (without add-on)
Mechanical characteristics		
Case	Type Material	Wall and DIN rail mount Steel, zinc galvanization
Measurements mm		Dimensions (W x H x D) 221 x 163,1 x 61,1
		Weight (Kg) 1,3
Environmental characteristics		
Temperature	Operation Storage	0° ÷ +50°C, 0° ÷ +45°C with HDD -20° ÷ +60°C
Humidity	Operation/Storage	80% (non-condensing)
Warranty & Approvals		
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety
UL	Marks Safety Certificate N°	UL, cUL Conforms to UL-60950-1 – Information technology Equipment - Safety 2090306-E315863
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)

PB300 PB300-E

PB300 is the new PC fanless box, for wall and DIN rail mount, with ATOM ultra low power processors. PB300 systems use ASEM 972 motherboard and Intel® Atom Z5XXP up to 1,6 GHz, low power processors with 'Hyper Threading Technology'. PB300-E version (Expanded) has got 2 MiniPCI slots. The ATOM's technology, the compact dimensions and the possibility to use softPLC applications make PB300 systems well suited for process control in harsh environment.



Image 1: Closed enclosure
Image 2: 2 MiniPCI expansion slots
Image 3: Intel ATOM processors

FEATURES PLUS

- ✕ INTEL ATOM Z510P AND Z530P MICROPROCESSORS UP TO 1,6GHZ
- ✕ COMPLETELY CLOSED ENCLOSURE
- ✕ 2 MINIPCI SLOTS FOR ADD-ON CARDS (PB300-E)
- ✕ WALL AND DIN RAILS MOUNT
- ✕ 2 GIGABIT ETHERNET PORTS WITH WAKE-ON-LAN

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB972 Temperature monitor Time programmable	
CPU (note 1)	Processor FSB Cache Chipset	Intel® ATOM Z510P 1.1GHz 400MHz 512KB L2 Intel® US15WP	Intel® ATOM Z530P 1.6GHz 533MHz 512KB L2 Intel® US15WP
Graphic	Controller Memory	GMA500 integrated in Intel® US15WP Shared – 1MB, 4MB, 8MB system selectable	
Video interfaces	Type	1 x VGA (DB15F - max resolution 1280x1024 SXGA) , optional 1 x DVI-I (single link – max resolution 1600x1200 UXGA)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 1 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	1 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Ethernet interfaces	Type Controller Wake-on-Lan	2 x 10/100/1000Mbps (RJ45) Intel 82574L Yes	
USB interfaces	Type Transfer rate	2 x USB 2.0 (rear, TYPE-A, host port), optional 2 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type II (external access)	
Mass storage interfaces	Serial	1 x SATA 1 1,5Gb/s Master/Slave	
Expansion slots	Type	2 x MiniPCI	
Battery	Type Removable Lifetime	Coin (CR2032 3V) Yes 2 years	
Buttons, leds and keys	Buttons LEDs	Reset / Watch-dog Power, HD, Watchdog, System error	
Electrical characteristics			
Power supply	Type Input voltage Power consumption	Integrated on board, auto ranging 18÷32 VDC 6.7W (PB300 ATOM 1.1GHz 512MB RAM)	
Mechanical characteristics			
Case	Type Material Top enclosure	Panel mount and optional kit for DIN rail mount Steel, zinc galvanization Closed in PB300 version, with holes if HDD present or PB300-E version	
Measurements mm		Dimensions (WxHxD) 250 x 150 x 50	Weight (Kg) 1,7
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		PB300-E version is available only with ATOM Z530P 1.6GHz	

Fanless

PB1200

PB1200 is an industrial PC for wall or DIN rail installation with nicked steel chassis.

Ideal for process supervisor and control applications, it ensure an high calculating power and graphic performances, due to the Intel® Celeron M ULV processors and the integrated video controller with 128MB of memory.

With compact dimension is also expandible with PC/104 plus or PCI add-on cards.



Image 1: Optional UPS module
Image 2: Industrial fieldbuses add-on cards
Image 3: PCI slot for expansion cards

FEATURES PLUS

- WALL AND DIN RAILS MOUNT
- 1 PCI SLOT FOR EXPANSION CARD
- UPS OPTIONAL
- DATA STORAGE ON SSD/CF/HDD

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB951 Temperature monitor Time programmable	
CPU (note 1)	Processor FSB Cache Socket Chipset	Intel® Celeron M 600MHz 400MHz 512KB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M	Intel® Celeron M 1GHz (373) 400MHz 512KB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M
Graphic	Controller Memory	GMA900 integrated in Intel® 915GME Shared - 64MB÷128MB system selectable	
Video interfaces	Type	1 x VGA (DB15F - max resolution 2048x1536 QXGA)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 1 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	1 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes	
Parallel interfaces (note2)	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M	
PS/2 interfaces	Type	1 x PS/2 Keyboard / Mouse	
Ethernet interfaces	Type Controller	2 x 10/100Mbps (RJ45) Intel 8255QM - Intel 82562EZ	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port), 1 x USB 2.0 (front, TYPE-A, host port, protected) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type I (internal access), 1 x Type II (external access)	
Mass storage interfaces	Parallel Serial	1 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots)	
Expansion slots	Type	1 x PC/104 Plus or 1 x PCI half size	
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years	
Buttons, leds and keys	Reset buttons LEDs	System / Watch-dog Power, HDD, system fail, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage Power consumption UPS	Integrated on board, auto ranging 18÷36 VDC 19W basic configuration (PB1200 Celeron M 600MHz 512MB RAM) Optional	
Mechanical characteristics			
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment	
Measurements mm (note 2)		Dimensions (W x H x D) 252 x 190 x 90	Weight (Kg) 2,0
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
UL	Marks Safety Certificate N°	UL, cUL Conforms to UL-60950-1 – Information technology Equipment - Safety 2090306-E315863	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		RS-232/422/485 standard and optoisolated can be installed one alternative to the other	
2		SL (SLIM) version is 73.2mm depth – parallel interface not available	

PB500

Completely fanless industrial system that uses Celeron M ULV (Ultra Low Voltage) Intel® processors. Realized in nicked steel chassis, PB500 can be installed on wall or DIN rail, allows the use of magneto-optical units and can have 2 PCI/PCle expansion slots.



Image 1: 2 PCI/PCle slots on H3 version

Image 2: Optional optical drives

Image 3: Up to 3 serial ports

FEATURES PLUS

- WALL AND DIN RAILS MOUNT
- H3 VERSION FOR PCI/PCIE EXPANSION
- DVD/FDD OPTIONAL

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB921 Temperature monitor Time programmable	
CPU	Processor FSB Cache Socket Chipset	Intel® Celeron M 373 ULV 1GHz 400MHz 512KB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M	
Graphic	Controller Memory	GMA900 integrated in Intel® 915GME Shared - 64MB÷128MB system selectable	
Video interfaces	Type	1 x VGA (DB15F)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 2 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	2 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes	
Parallel interfaces	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M	
PS/2 interfaces	Type	1 x PS/2 Keyboard, 1 x PS/2 Mouse	
Ethernet interfaces	Type Controller	2 x 10/100Mbps (RJ45) Intel 82559ER	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type II (external access)	
Mass storage interfaces	Parallel Serial	H1 2 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots)	H3 2 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots) 1 x FDD, 1 x DVD-RW
Expansion slots	Type alternative	H1 - -	H3 2 x PCI half size 1 x PCI, 1 x PCI-e x1 half size on riser card
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years	
Buttons, leds and keys	Reset button LEDs	System / Watch-dog Power, HDD, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage	Integrated on board, auto ranging 110÷230VAC 140W 18÷36 VDC 140W (optional)	
Mechanical characteristics			
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment	
Measurements	H1 H3	Dimensions (W x H x D) 370 x 236 x 61 370 x 236 x 117	Weight (Kg) 4,8 6,4
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		RS-232/422/485 standard and optoisolated and parallel port can be installed one alternative to the others	

Fanless

PB550

PB550 is the top-level fanless box PC based on ASEM 1021 motherboard that supports Intel® Core® 2 Duo Ultra Low Voltage microprocessors with 65 nanometer technology. The systems are the answer to the request of solution with high performance, low power consumption and optimal heat dissipation.



Image 1: 2 PCI/PCIe slots on H3 version

Image 2: Optional optical drives

Image 3: Industrial fieldbus add-on cards

FEATURES PLUS

- WALL AND DIN RAILS MOUNT
- INTEL CORE 2 DUO ULV U7500 1,06GHZ MICROPROCESSOR
- INTEL 965GME CHIPSET WITH INTEL GMA X3100 GRAPHIC ACCELERATOR
- H3 VERSION FOR PCI/PCIE EXPANSION
- DVD/FDD OPTIONAL
- DVI AND VGA VIDEO OUTPUT

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB1021 Temperature monitor Time programmable	
CPU	Processor FSB Cache Socket Chipset	Intel® Core 2 Duo ULV U7500 1,06GHz 533MHz 2MB L2 Soldered on board Intel® 965GME + ICH8M	
Graphic	Controller Memory	GMA X3100 integrated in Intel® 965GME Shared – up to 256MB system selectable	
Video interfaces	Type	1 x VGA (DB15F - max resolution 2048x1536QXGA 60Hz) , 1 x DVI-D (single link – max resolution 1600x1200 UXGA)	
System memory	Type Size Socket	DDR2 PC5300 1 GB, 2 GB, 4GB 2 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	2 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes	
Parallel interfaces	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M	
PS/2 interfaces	Type	1 x PS/2 Keyboard, 1 x PS/2 Mouse	
Ethernet interfaces	Type Controller	1 x 10/100Mbps (RJ45), 1 x 10/100/1000Mbps (RJ45) Intel 82551QM, Intel 82566M	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type II (external access)	
Mass storage interfaces	Parallel Serial	H1 3 x SATA 2 3Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slot)	H3 3 x SATA 2 3Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slot) 1 x FDD, 1 x DVD-RW
Expansion slots	Type alternative	H1 - -	H3 2 x PCI half size 1 x PCI, 1 x PCI-e x4 half size on riser card
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years	
Buttons, leds and keys	Reset button LEDs	System / Watch-dog Power, HDD activity, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage	Integrated on board, auto ranging 110÷230VAC 140W 18÷36 VDC 140W (optional)	
Mechanical characteristics			
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment	
Measurements mm	H1 H3	Dimensions (W x H x D) 370 x 236 x 60,5 370 x 236 x 117	Weight (Kg) 4,8 6,4
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		RS-232/422/485 standard and optoisolated and parallel port can be installed one alternative to the others	

Performance

PB1300

PB1300, a box system for wall or DIN rail installation, is the “high performing” evolution of PB1200. Fitted with powerful Intel® Celeron M and Pentium M processors up to 2GHz, it is equipped with system ventilation.



DIN RAIL
 WALL
 CeIM
 PM
 512MB
 1GB
 2GB
 PC/104Plus
 PCI
 24VDC
 CE5
 CE6
 WES
 XP Pro



Image 1: Industrial fieldbuses add-on cards
 Image 2: PCI slot for expansion cards
 Image 3: Intel Celeron M and Pentium M processors up to 2GHz

FEATURES PLUS

- WALL AND DIN RAILS MOUNT
- 1 PCI SLOT FOR EXPANSION CARD
- 2 FASTETHERNET PORTS
- PARALLEL PORT OPTIONAL
- VGA VIDEO OUTPUT
- DATA STORAGE ON SSD/CF/HDD

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB951 Temperature monitor Time programmable	
CPU	Processor FSB Cache Socket Chipset	Intel® Celeron M 373 1,5GHz 400MHz 1MB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M	Intel® Pentium M 740 1,73GHz 533MHz 2MB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M
Graphic	Controller Memory	GMA900 integrated in Intel® 915GME Shared - 64MB÷128MB system selectable	
Video interfaces	Type	1 x VGA (DB15F - max resolution 2048x1536 QXGA)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 1 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	1 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes	
Parallel interfaces Optional (note2)	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M	
PS/2 interfaces	Type	1 x PS/2 Keyboard / Mouse	
Ethernet interfaces	Type Controller	2 x 10/100Mbps (RJ45) Intel 8255QM - Intel 82562EZ	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port), 1 x USB 2.0 (front, TYPE-A, host port, protected) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type I (internal access), 1 x Type II (external access)	
Mass storage interfaces	Parallel Serial	1 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots)	
Expansion slots	Type	1 x PC/104 Plus or 1 x PCI half size	
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years	
Buttons, leds and keys	Reset button LEDs	System / Watch-dog Power, HDD, system fail, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage Power consumption	Integrated on board, auto ranging 18÷36 VDC 19W basic configuration (PB1300 Celeron M 1,5GHz 512MB RAM)	
Mechanical characteristics			
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment	
Measurements mm (note 2)		Dimensions (W x H x D) 252 x 190 x 96-160	Weight (Kg) 2,0
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
UL	Marks Safety Certificate N°	UL, cUL Conforms to UL-60950-1 – Information technology Equipment - Safety 2090306-E315863	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		RS-232/422/485 standard and optoisolated can be installed one alternative to the other	
2		SL (SLIM) version is 73.2mm depth – parallel interface not available	

Performance

PB600

PB600 is a DIN rail box system available in a variety of configurations and customisations. It uses Intel® Celeron M / Pentium M processors and is available with expansion slots and magneto-optical units.



DIN RAIL WALL
CelM PM
512MB 1GB 2GB
PCI PCIe
24VDC 220VAC
WES XP Pro



Image 1: 4 PCI/PCIe slots on H4 version

Image 2: Data storage on SSD/CF/HDD

Image 3: Industrial fieldbuses add-on cards

FEATURES PLUS

- WALL AND DIN RAILS MOUNT
- H3 AND H4 VERSIONS FOR PCI/PCIE EXPANSION
- DVD/FDD OPTIONAL

System characteristics			
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB921 Temperature monitor Time programmable	
CPU	Processor FSB Cache Socket Chipset	Intel® Celeron M 370 1,5GHz 400MHz 1MB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M	Intel® Pentium M 740 1,73GHz 533MHz 2MB L2 Socket 478 uFC-BGA Intel® 915GME + ICH6M
Graphic	Controller Memory	GMA900 integrated in Intel® 915GME Shared - 64MB÷128MB system selectable	
Video interfaces	Type	1 x VGA (DB15F)	
System memory	Type Size Socket	DDR2 PC5300 512 MB, 1 GB, 2 GB 2 x SODIMM module	
Serial interfaces	Type UART Transfer rate Optoisolation	2 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No	
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes	
Parallel interfaces	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M	
PS/2 interfaces	Type	1 x PS/2 Keyboard, 1 x PS/2 Mouse	
Ethernet interfaces	Type Controller	2 x 10/100Mbps (RJ45) Intel 82559ER	
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)	
Compact Flash slots	Type	1 x Type II (external access)	
Mass storage interfaces	Parallel Serial	H1 2 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots)	H3 / H4 2 x SATA 1 1,5Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slots) 1 x FDD, 1 x DVD-RW
Expansion slots	Type alternative	H1 / H1-TE - 1 x PCI, 1 x PCI-e x1 half size on riser card	H3 2 x PCI half size 3 x PCI, 1 x PCI-e x1 half size on riser card
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years	
Buttons, leds and keys	Reset button LEDs	System / Watch-dog Power, HDD, watch-dog	
Electrical characteristics			
Power supply	Type Input voltage	Integrated on board, auto ranging 110÷230VAC 140W 18÷36 VDC 140W (optional)	
Mechanical characteristics			
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment	
Measurements mm	H1 H3 H4	Dimensions (W x H x D) 370 x 236 x 60,5 370 x 236 x 117 370 x 236 x 160	Weight (Kg) 4,8 6,4 8,0
Environmental characteristics			
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C	
Humidity	Operation/Storage	80% (non-condensing)	
Warranty & Approvals			
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety	
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)	
Notes			
1		RS-232/422/485 standard and optoisolated and parallel port can be installed one alternative to the others	

Performance

PB650

PB650 is a BOX PC performance, based on ASEM 1021 motherboard that support Intel® Core® 2 Duo microprocessors with 45 nanometer technology and Intel® 965 GME chipset.

The 650 family systems are top level products in ASEM portfolio in terms of computation performances and graphic functionality and are the state-of-the-art in the industrial automation systems.



FEATURES PLUS

- ✕ WALL AND DIN RAILS MOUNT
- ✕ INTEL CORE 2 DUO MICROPROCESSORS UP TO 2,4GHZ
- ✕ INTEL 965GME CHIPSET AND INTEL GMA X3100 GRAPHIC ACCELERATOR
- ✕ H3 AND H4 VERSIONS FOR PCI/PCIE EXPANSION
- ✕ DVD/FDD OPTIONAL
- ✕ 1 GIGABIT ETHERNET PORT AND 1 FASTETHERNET PORT
- ✕ DVI AND VGA VIDEO OUTPUT

System characteristics		
Motherboard	Model HW monitor Watch-dog	All-in-one, ASEM MB921 Temperature monitor Time programmable
CPU	Processor FSB Cache Socket Chipset	Intel® Celeron single core 900 2,2GHz 800MHz 1MB L2 Socket P Intel® 965GME + ICH8M Intel® Celeron dual core T3100 1,9GHz 800MHz 1MB L2 Socket P Intel® 965GME + ICH8M Intel® Core 2 Duo T5870 2GHz 800MHz 2MB L2 Socket P Intel® 965GME + ICH8M Intel® Core 2 Duo T7500 2,2GHz 800MHz 4MB L2 Socket P Intel® 965GME + ICH8M Intel® Core 2 Duo T8300 2,4GHz 800MHz 3MB L2 Socket P Intel® 965GME + ICH8M
Graphic	Controller Memory	GMA X3100 integrated in Intel® 965GME Shared – up to 256MB system selectable
Video interfaces	Type	1 x VGA (DB15F - max resolution 2048x1536QXGA 60Hz), 1 x DVI-D (single link – max resolution 1600x1200 UXGA)
System memory	Type Size Socket	DDR2 PC5300 1 GB, 2 GB, 4GB 2 x SODIMM module
Serial interfaces	Type UART Transfer rate Optoisolation	2 x RS232 (DB9M) 16550 compatible (FIFO 16 byte) 115Kbps max No
Optional (note 1)	Type UART Transfer rate Optoisolation	1 x RS-232/422/485 (DB15M) 16550 compatible (FIFO 16 byte) 115Kbps max No / Yes
Parallel interfaces	Type Connection	1 x SPP, EPP, ECP bidirectional DB25M
PS/2 interfaces	Type	1 x PS/2 Keyboard, 1 x PS/2 Mouse
Ethernet interfaces	Type Controller	1 x 10/100Mbps (RJ45), 1 x 10/100/1000Mbps (RJ45) Intel 82551QM, Intel 82566M
USB interfaces	Type Transfer rate	4 x USB 2.0 (rear, TYPE-A, host port) Up to 480Mbit (high speed)
Compact Flash slots	Type	1 x Type II (external access)
Mass storage interfaces	Parallel Serial	H1 3 x SATA 2 3Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slot) H3 / H4 3 x SATA 2 3Gb/s 1 x ATA/100 Master/Slave (dedicated for CF Slot) 1 x FDD, 1 x DVD-RW
Expansion slots	Type alternative	H1 - H3 2 x PCI half size 1 x PCI, 1 x PCI-e x4 half size on riser card H4 4 x PCI half size 3 x PCI, 1 x PCI-e x1 half size on riser card
Battery	Type Removable Lifetime	AA Lithium (3.6V) No 20 years
Buttons, leds and keys	Reset button LEDs	System / Watch-dog Power, HDD, watchdog
Electrical characteristics		
Power supply	Type Input voltage	Integrated on board, auto ranging 110÷230VAC 140W 18÷36 VDC 140W (optional)
Mechanical characteristics		
Case	Type Material	Wall and DIN rail mount Steel, nickel treatment
Measurements mm	H1 H3 H4	Dimensions (W x H x D) 370 x 236 x 60,5 370 x 236 x 117 370 x 236 x 160 Weight (Kg) 4,8 6,4 8,0
Environmental characteristics		
Temperature	Operation Storage	0° ÷ +50°C without HDD, 0° ÷ +45°C with HDD -20° ÷ +60°C
Humidity	Operation/Storage	80% (non-condensing)
Warranty & Approvals		
CE	Emission Immunity Safety	Conforms to EN 55022 Information technology equipment – Radio disturbance characteristics Conforms to EN 61000-3-2 – Limits for harmonic current emissions Conforms to EN 61000-3-3 – Limits of voltage fluctuation and flicker Conforms to EN 55024 Information technology equipment – Immunity characteristics Conforms to EN 60950-1 – Information technology equipment – Safety
Warranty	Management Standard Extended	By ASEM headquarters 12 months 18 / 24 / 36 months (optional)
Notes		
1		RS-232/422/485 standard and optoisolated and parallel port can be installed one alternative to the others