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CUSTOMER ORIENTED



ASEM designs and develops a wide and highly evolved range of industrial and embedded PCs, integrated with HMI and control (SoftPLC) logics to provide complete, flexible and reliable solutions for the world of industrial automation.



Established in 1979 by Renzo Guerra, the current chairman and managing director, ASEM S.p.A. is one of the most long-standing and technologically advanced Italian company in Information & Communication Technology and industrial electronics. ASEM specialises in designing, manufacturing and marketing solutions and systems based on open and standard PC architecture and embedded technologies, operating in industrial automation and building automation markets in Europe.

In this competitive context, the company is not only a leader in creating industrial PC platforms developed to withstand harsh environmental conditions, but also a reliable and professional partner offering complete solutions that integrate HMI, control and motion management logics in an open and flexible architecture.

ASEM in figures: 25.1 million Euro (end of 2007)

120 employees

Headquarters and production site in Artegna (UD) spread over a surface of 30,000 sqm, 5,200 sqm of which are covered

Technical-sales offices in Giussano (MI) and Stuttgart (Germany)









EXPERIENCE

Since 1979 it has experienced all the evolution phases of Information Technology, gathering a knowledge that is unmatched in the world of industrial automation.

TECHNICAL KNOW-HOW

Proprietary know-how on all the development phases of a PC based system, from design to production.

VAST PRODUCT PORTFOLIO

The widest and most complete range of Industrial PCs (Panel PC, BOX PC, RACKMOUNT PC, Embedded solutions) integrated with control and HMI software.

CUSTOMER ORIENTED PHILOSOPHY

A customer driven approach that goes from analysing application and market needs to after-sales assistance.

RELIABILITY

The leader in Italy since 2000 and among the top companies in Europe for industrial PCs: firmly and constantly serving customers.

INNOVATION

To continuously provide excellent technology, a major part of the annual turnover is reinvested in R&D, which employs almost 30% of human resources.

ASEM is constantly engaged in product research and innovation activities aimed at designing platforms based on PC architecture and embedded technologies, conceived to support harsh environmental working conditions, typical of the industrial world.

For some time the PC platform and the innate benefits of the open&standard logic represent the natural evolution of the systems based on proprietary technologies that for years have characterised industrial automation.

PRODUCT

PORTFOLIO

The company's history and mission and its belief in the potentials and pervasiveness of the PC encouraged ASEM to anticipate the introduction of PCs in the industrial world. As a result, today it is able to offer the widest range of IPCs on the market in panel, rack mount and box configurations.

Adopting a careful programme of investment in technical and market know-how, the company provides complete and flexible solutions that integrate industrial PCs with HMI software (Premium HMI®) and control logics (SoftPLC -Soft Motion).

All ASEM's solutions, using NETcore® communication technologies, are simply interfaced to the main industrial fieldbuses.

HMISCONTROL CoDeSys ASEM Premium HMI® / Premium HMI® PLUS





COMMUNICATION CARDS

ASEM NETcore® ASEM NETcore® X

FIELDBUS

MPI/PROFIBUS, CANOPEN. ETHERCAT, ETHERNET IP, PROFINET, SERCOS III

NEW PRODUCT

DEUELOPMENT

CONCEPT DEFINITION

In a dynamic and continuously evolving market, ASEM creates innovative and highly integrated platforms and systems able to meet the requirements of the industrial automation market.

Innovation is created day by day, with a rigorous and selective process founded on quality in design and production and on the attention to market requirements to effectively meet current needs and anticipate future trends, creating new business opportunities with a high added value. In this light ASEM has defined a precise "New Product Development" methodology that begins with the concept and ends with the sale of the new solution

DESIGN AND

NFUFI NPMFN1

PROCESS OF CONTINUOUS IMPROVEMENT



PROFILE

and the complete after-sales support that applies to the entire life cycle of the product, ensuring the maximum continuity of supply and customer care. This guarantees the right time to market in launching new products while planning targeted commercial actions and quickly collecting customer feed-back to continuously improve and optimise the solutions on the market.





ASEM's industrial PCs are integrated with the powerful and flexible Premium HMI® software.

PREMIUM HMI

The application was developed in cooperation with PROGEA, a company with proven specialist know-how, and creates complete systems that combine reliability and ease of use of an operator panel with the open and flexible SCADA systems.

Thus traditional users of operator panels are offered the power, advanced functionalities and openness of PC based architecture.

Premium HMI® represents the ideal choice for the users of simple SCADA systems who are looking for a high performance and value for money solution.

A feature of the offer is a professional and effective customer assistance in the development phase of HMI interface, guaranteed by ASEM specialists.

ONE PRODUCT FOR ANY NEED

Allowing the automatic porting of a project in The software is solid since it is based on an different operating systems. Automatic resizing is possible on displays with various resolutions.

SAVINGS IN COSTS AND DEVELOPMENT TIME

The intuitive environment, the standard interface, the completeness of the libraries and the powerful debugging tools mean that a system can be up and running easily and quickly

GREAT POTENTIAL

It has the best SCADA graphics functions, significantly improving data display: powerful vector and raster graphics, complete alarm management, archives on DB XML, trends and recipes. It is all ready to use in a programming environment that is powerful vet simple.

RELIABILITY

engine developed from more than ten years of experience.

SYSTEM AND COMPANY NETWORKING

Premium HMI® offers the advantage of free information circulation thanks to Ethernet networking functions and OPC technology. This lets you integrate your HMI with the company LAN systems. Furthermore, more IPCs using Premium HMI® can be networked to create shared applications where each system may be both data server and client. A powerful remote alarm management function is integrated in the application to let you create systems or machines of huge dimensions in which a single operator can manage the entire machine.



PREMIUM PLUS For those who want the most out of the Windows® CE environment, Premium HMI® Plus provides all the functions of a SCADA in Windows® CE. In addition to the functions available in Premium HMI®, Premium HMI® Plus offers a Web server, the ability of logging variables in a databases that rest on the SQL Server CE engine, the possibility of tracking the modifications to the variables, the date of the modification and the author. It is also possible to make projects that provide CFR21 certification Part 11, which is compulsory in the pharmaceutical and food industry.





With the aim of providing the market with complete PC based systems that are highly integrated with the control and activation logic, ASEM has a partnership with the German company 3S to offer CoDeSys (Controller Development System), one of the most common programming software programs dedicated to softPLC & motion. IEC-61131-3 compliant, it makes it possible to emulate the typical functions of the PLC, on a PC platform with real-time operating systems, combining the power and flexibility of the most advanced programming languages (such as C or Visual Basic) with the intuitive and simple use of the PLC programming languages. The architecture of the CoDeSys suite basically consists of two parts: the CoDeSys development system for programming and the CoDeSys SP runtime environment. The latter

converts the device on which the CoDeSys is installed into an IEC 61131-3 controller, programmable with CoDeSys. The compilers integrated in the system ensure excellent speed in running the program code. Users can therefore benefit from the excellent processing capability of the PC platform, not only for display purposes but also to combine, on the same hardware, the control logic and the movement logic, if necessary. The benefits obtained include cost savings for the complete solution and the increased flexibility and elasticity that derive from PC based standards.



DEVELOPMENT LAYER The development system is composed of a

PLC programming system, which includes all online and offline functions, the compiler and the additional components for configuration. Additional components are available if the SoftMotion part is also included.

COMMUNICATION LAYER

The communication between the development system and the part that runs the PLC program occurs through the CoDeSys Gateway Server based on an **OPC** server.

DEVICE LAYER

CoDeSys SP runtime runs the project created with the Development Layer, making the device on which it is installed deterministic. In line with the IEC 61131-3 standard, it manages the communication with physical devices such as actuators, sensors, inputs, digital outputs and inverters by means of well-known industrial fieldbuses.





The connection to the field takes place via a driver, which is configured in the project tree of CoDeSys in the section dedicated to the configuration of the device.

CoDeSys SoftMotion offers the following models for motion control:

- Single or multi-axis movements with library functions conforming to the PLCopen motion specifications
- Electronic CAM
- Electronic gearing
- CNC control in 2½ D



ASEM RANCE

The SoftMotion licence lets you program and control any type of movement, from the simplest to the most complex, such as CNC applications. Classic motion solutions currently implement control systems that are not very flexible and are highly dependent on the hardware, whereas CoDeSys SoftMotion provides an innovative approach: a toolkit integrated in the PLC programming system provides the desired motion function by using the IEC 61131-3 programming language functions.



0T600 OT1200 AND PB1200 OT 1 3 0 0 AND PB 1 3 0 0 500 AND 600 FAMILY

HIGHLIGHTS



ASEM's technical know-how and in-depth knowledge of the market mean that it can present new and innovative solutions able to accurately and effectively meet the requests of the industrial automation world.

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EVOLUTION IN PROGRESS. JON JN PRO-CRESS.

HIGHLIGHTS



ELEGANCE AND DESIGN MEET THE INDUSTRIAL ENGIRONMENT SIGN MEET IFIL INUUS I KIAL ENVIRONMENT.

CREEP

The new VPC15, with a 15" LCD monitor, is the perfect blend of the state-of-the-art echnology featured by the new family of Intel® Atom™ processors series Z500 and a stylish and "essential" design that enhance the reliability, extra-small size and ntegration of ASEM PC based systems. With its arm fastening to the VESA 75/100 or CP-S attachment, the VPC15 is an "all in one" solution suitable to any industrial situation, even the harshest, thanks to the IP65 protection and the perfect aesthetical and functional integration with the external keyboard and side control panels

HARD DESIGN

Stylish and compact design that includes, within a tough front aluminium enclosure, an extremely integrated fanless architecture that combines excellent performance (clock rate up to 1.6GHz) with notably reduced consumption levels

GREAT FUNCTIONALITY

The elegant all-in-one solution effectively meets the application needs of an arm mounting, by simplifying the customer's activity considerably and guaranteeing great functionality.

control.





MAXIMUM INTEGRATION

VPC15 features a rich and complete range of possible configurations to accurately satisfy the various system requirements for supervision and



NEXT GENERATION ORERATOR PANEL. OPERATOR PANEL.



The HMI600 is the first operator panel developed and created by ASEM. It combines the reliability and essentiality of the traditional operator panels with the high performance and flexibility of the PC based platforms. The system's processing power and software functionality place it in the premium range of the market of operator panels. With a stylish and essential design, it guarantees an IP65 frontal protection degree and great resistance to vibrations even in hard going industrial environments. The HMI600, developed on a PC based software platform, ensures the passage to any ASEM IPC fitted with Premium HMI® and provides the portability of a project from an operating system to another without any need for modifications.

FIELDBUS

The Netcore® X MPI communication card and the numerous serial native communication drivers and Ethernet allow connection to the most common PLC's on the market

HARDWARE

AMD® Geode LX800, 500MHz; 3 x USB 2.0; 1 x Ethernet 10/100Mbps;



Using a library of customisable objects and hereditary support - Pages based on SVG vector graphics, with integrated editing functions, supporting BMP, GIF, JPG formats - Graphics automatically adaptable to the dimensions of the screen

LIGH

INTEGRATED WEB SERVER AND DATALOGGER

Possibility for remote connection by web and capability to memorize data on XML database or using integrated CE SQL server

LCD SIZE

6.5" VGA 640X480 - 8.4" SVGA 800X600 - 12.1" SVGA 800X600 - touch screen

ALARMS

Complete alarm management in accordance with ISA regulations thresholds on variables - external help also in HTML format - notifications via SMS or e-mail via SMTP



MAXIMUM FLEXIBILITY IN USAGE. IN USAGE.



ne RV500 is the HMI terminal with VESA attachment that in one highly ntegrated solution combines reduced consumption and contained costs. ASEM has designed a RISC platform with an Intel® PXA270 processor that offers a compact and versatile solution, thus extending the use of traditional HMIs to new industrial situations. The chassis made of thermoplastic resin with an 8.4" TFT LCD monitor gives the system a winning and modern design

COMPACT AND VERSATILE DIMENSIONS

VERSATILE DIFIENSIONS Thanks to the compact dimensions, the 75 mm VESA attachment and the possibility of also requesting the standbase for bench use, the RV500 can not only be used in the world of industrial automation as a displayer on board a machine or at the end of a line, but also in all the environments that require reliable and tough products, such as building automation, testing and measuring contexts.

For those who need a complete display solution, the system is equipped with the Premium HMI® software program, making the RV500 comparable to the best operator panels on the market.

OASEM.



HMI SOLUTION



FANLESS PANEL PCs

≚ FANLESS PANEL PCs

KEY ELEMENTS. ELEMENTS.



FANLESS

FANLESS

The FANLESS PANEL PCs by ASEM use 4 to 7 W ultra low consumption microprocessors; heat dissipation is favoured by the design of the chassis and the total absence of internal wiring, thus facilitating air circulation.

EXCELLENT INTEGRATION

ASEM's excellent know-how in designing ecards is testified by the motherboard 831, which combines its ultra compact size with an excellent integration of hardware and software functions.

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All the models use low consumption microprocessors and, depending on performance requirements, customers can choose between AMD® Geode LX800, Transmeta Crusoe and Intel® Celeron M ULV. The careful design and arrangement of the mechanic and electronic components, the absence of wiring and the excellent software integration ensure the best system integration. The comprehensive configurations and functions available make sure that customers identify the ideal solution for their applications.



DISKLESS

DISKLESS

All the models can be fitted with Compact Flash or SSD solid state memories. The removal of any moving parts significantly increases resistance to shocks and vibrations.

FANLESS PANEL PCs 🖄

PREMIUM HMI PLUS CODESys

FULL SYSTEM CONTROL

The FANLESS PANEL PCs by ASEM provide full control over the system automation thanks to Premium HMI®/Plus and SoftPLC CoDeSys. Fieldbuses are interfaced via ASEM NETcore® X communication cards.

ASEM 25

FANLESS PANEL PCS

FANLESS PANEL PCs



FANLESS

DISKLESS

PERFECT BALANCE DETWEEN PRICE, WEEN DIMENSIONS, AND PERFORMANCE, WEEN PRICE, DIMENSIONS, AND PERFORMANCE.



The OT600 is a state-of-the-art FANLESS PANEL PC featuring extreme compactness and excellent performance at an affordable price. It integrates all the HW and SW functions for a full system control by using NETcore® X fieldbus cards, SoftPLC/SoftMotion CoDeSys and the Premium HMI®/Plus application dedicated to supervision. It only uses Compact Flash and SSD solid state memories and can be extended with miniPCI add-ons.

KEY ELEMENTS.









FANLESS PANEL PCs 🖄

The OT600 can contain two Compact Flash cards so as to separate application data from the operating system. To avoid any damage or accidental writing of the operating system, the system Flash write protection can be activated directly during production.



The OT600 amazes for its external compactness: the rear chassis is only 172 x 147 x 62 mm (W x H x D). LCD available sizes: 6.5", 8.4", 12.1".

Expandibility is guaranteed by two miniPCI slots to integrate the OT600 with the NETcore® X fieldbus card and other supplementary peripherals such as WLAN and NOVRAM.

The OT600 uses a 500 MHz AMD® Geode LX800 processor with 128 KB of second-level cache and an outstanding 400 MHz Front side Bus. The AMD® chipset also integrates the graphic controller whose shared memory reaches 128 MB. The DDR-333 RAM can reach 1 GB.

¥ FANLESS PANEL PCs



FANLESS

DISKLESS

FLEXIBILITY AND RELIABILITY SYNTHETISED. JUY FIND RELIABILITY SYNTHETISED.



The OT800 is ideal for those applications that require the openess, flexibility and calculating power that are typical of PCs, combined with affordability, extreme reliability and ease of use of the operator panel. It derives from the very popular OT1000, of which it retains the size of the front panel, the drill gauges, the characteristics of the electronic board and the performance, but from which it differs for the simplified interfaces.







FANLESS PANEL PCs 🖄

The rear part of the OT800 hosts one Ethernet port, two USBs, one PS/2, one RS-232, one RS-232/422/485, one analog VGA. There is another USB port on the front panel. The display can be sized 8.4", 10.4", 12.1" and 15".

The OT800 uses Transmeta Crusoe low power microprocessors; the available frequencies are 667 MHz and 800 MHz, with 256 and 512 KB of II level cache, respectively. The DDR-333 RAM can reach 1 GB.

As an option, the OT800 can be equipped with a PCI expansion slot or a PC/104 plus slot.

An important feature of the OT800 lies in the possibility of being equipped with a UPS module. Purposefully designed for the products of the OT family, the UPS has a minimum backup time of 15 minutes and its operating mode can be programmed from the Windows control panel.

¥ FANLESS PANEL PCs



FANLESS

DISKLESS

THE BEST SELLING INDUSTRIAL PC. SELLING INDUSTRIAL PC.



Founder of the OT1000 family, it is an excellent tool for process supervision applications. Designed according to a modular logic and featuring a hard disk, expansion slots and UPS located at the back of the rear chassis, the OT1000 stands out for the wide range of communication interfaces. Available with LCD display sized 8.4", 10.4", 12.1" or 15", it uses the 800 MHz Transmeta Crusoe TM5900 microprocessor.











FANLESS PANEL PCs 🖄

The OT1000 can be integrated with optional mechanical modules located at the back of the rear chassis and containing the hard disk or SSD, the expansion cards and the UPS. In the basic version the rear depth of the chassis is just 75 mm. The UPS has a dedicated interface for PC connection.



In addition to the many communication ports provided as standard, you may optionally require your OT1000 to have a parallel port, a wireless network, a digital I/O module (with 0.5 A output current) and a multistandard opto-isolated double serial port on PC/104 bus.



The OT1000 also features the ISA expansion bus, thanks to a slot with PC/104 connector; PCI or PC/104 plus add-on cards can also be installed.

A wide range of mass storage devices is also available; as a standard the OT1000 has two slots for Compact Flash; a hard disk or SSD can also be installed. A 36-pin base for non volatile RAM memory is also present.

≚ FANLESS PANEL PCs



FANLESS

DISKLESS

POWER AND FLEXIBILITY TOCETHER. HER.



The OT1200 is a FANLESS PANEL PC that guarantees high performance for maximum system openess. Based on Intel architecture with 915 GME chipsets, 900 GMA video controller and Celeron M ULV processors up to 1GHz and featuring a 400 MHz front side bus, the OT1200 comfortably runs the most demanding applications thanks to its high calculating power and graphics processing speed. All of this while keeping external dimensions extremely compact.











FANLESS PANEL PCs ≚

The OT1200 offers four USB ports (plus one on the front panel), one RS-232 serial port, one PS/2 with splitter, one analog VGA. Two Ethernet ports are also available. Optionally you can also request a multistandard serial port, also in opto-isolated version, the parallel port and the wireless network.

The processors available are 600 MHz and 1 GHz Intel® Celeron M ULV processors for extremely low consumptions (5.5 W for the 1 GHz CPU) and excellent performance, with 400 MHz front side bus and 512 KB of II level cache.

The OT1200 offers an amazing performance also in terms of graphics: the 3D graphic chip has 128 MB of video RAM and supports DirectX 9 and Open GL 1.4. Display sizes available: 8.4", 10.4", 12.1", 15" and 17".

The system can be optionally expanded with a PCI slot or a PC/104 plus.

FANLESS PANEL PCs





The models of the 500 family are at the top of the range of the ASEM fanless Panel PCs. This is due to the calculating power of the Celeron M ULV CPUs, the large array of possible mechanical solutions, with front panels in aluminium or plastic or frontless solutions for rear-panel installation, the possibility to have the integrated extended keyboard, the lateral modules for the pointing units as well as the 17" display. Floppy units and CD/DVD can also be requested.



KEY ELEMENTS.



FANLESS PANEL PCs



The Panel PCs of the 500 family host four USB ports (plus two on the front panel), two RS-232 serial ports, two PS/2 ports, one analog VGA and two Ethernet ports, one of which can be requested in the 10/100/1000 Mbps version. The parallel port is available as an

The Panel PCs of the 500 family in the H3 version can be requested with floppy units and CD/DVD slim with rear loading. The magnetic/ optic units can be installed onto the WS500-TE underneath the extended keyboard, thus allowing frontal access.

The H3 versions are originally available with two PCI expansion slots; upon request and without any further costs, it is possible to request a configuration with one PCI slot and a PCI-Express x1.

Depending on the version, data can be stored onto a 2.5" SSD or hard disc, onto a 3.5" hard disc or onto a Compact Flash that can be extracted from the rear.



FANLESS PANEL						
	0T600	0T800	OT1000	OT1200	500 FAMILY	
Aluminium front frame	•		•	-	•	
Plastic front frame	-	-	-	-	•	
Frameless version	-	-	-	-	•	
Frontal Protection	IP65	IP65	IP65	IP65	IP65	
LCD size	1	1	1	1		
6.5"	•	-	-	-	-	
8.4"	•	•	-		-	
10.4"		•	-	-	-	
12.1"	•	•	-		-	
15"	-	•	•		•	
17"	-	-	-	-		
Touch-screen	•	•	•	•	-	
Frontal Function Keys	-	-	4	4		
Keyboard version	-	-	-	-		
CPU frequencies MHz AMD® Geode LX800	500					
	500	-	-	-	-	
Transmeta Crusoe TM Intel® Celeron M ULV	-	667/800	800	-	- 1000	
Max RAM	- 1.00	- 1.00	- 1.00	600/1000	1000	
	1 GB	1 GB	1 GB	2 GB	2 GB	
Standard ports Serial	2	2	2	1	2+ 🗖	
Ethernet	1	2	3	1+ □ 2	2+0	
USB	3	3	5	5	6	
Parallel	3	J	5 			
	-	-				
Wireless connectivity Fieldbus connection NETcore® X						
Fieldbus connection NETcore®	-	-			-	
Mass storage devices	-	-	-	-	u	
Compact Flash slots	1+□	1	2	2	1	
SSD						
HDD	-					
FDD	-					
DVD	-	-	-	-		
Expansion slots	-	-		_		
PC/104	_	_	2	_	_	
PC/104 plus						
PCI	-				2	
PCI-Express	_		-			
miniPCI	2	_	_	_		
Power supply		1		<u> </u>		
12 V/DC		-	-	-	-	
24 V/DC						
220 V/AC						
Integrated UPS	-				-	
Operating systems *	1	I	1	l		
Win XP						
Win XP Embedded						
Win CE					-	
Software						
Premium HMI®						
CoDeSys softPLC/SoftMotion						

Reading key available as standard available as option - not available

FANLESS PANEL PCs



The PERFORMANCE PANEL PCs by ASEM are the ideal solution when a high calculating power and graphics processing capabilities are essential.

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PROBER BERRE

PERFORMANCE PANEL PCs

KEY ELEMENTS.







POWERFUL

The calculating power is guaranteed by the Intel architecture with 915 or 965 chipsets of the mobile family. The most powerful models have Core 2 Duo microprocessors with 45 nm technology and 800 MHz front side bus, for a superior performance.

MECHANICAL FLEXIBILITY

The family is made up of models that provide a huge array of mechanical solutions; Panel PCs with plastic and aluminium fronts are available, both also in the version with integrated keyboard or without front panel; additional lateral modules dedicated for peripherals and electric components can be requested.

A top of the range performance is achieved with Intel platforms with 915 or 965 mobile chipsets and microprocessors up to the Core 2 Duo. Another alluring feature of PERFORMANCE PANEL PCs models lies in the possibility to choose from an almost endless number of configurations, guaranteed by the several mechanical solutions and a wide range of accessories available, allowing customers full system customisation possibilities. customisation possibilities.



COMMUNICATION PORTS

The wealth of communication interfaces provided includes, on all the models, the double Ethernet, also Gigabit, at least 5 USBs and up to 2 serial ports that may also be opto-isolated; the Wireless network and parallel interface are available upon request. Furthermore all of them can be ordered with integrated NETcore® fieldbus cards.

PERFORMANCE PANEL PCs





CONTROL

Thanks to the Premium HMI® and CoDeSys software programs, the PERFORMANCE PÁNEL PCs are able to centralise the process supervision and control, allowing heavier applications to be managed thanks to the processing power.

PERFORMANCE PANEL PCs

PERFORMANCE PANEL PCs



HIGH REREORMANCE AT LOW COSTS? LOW COSTS? NOW YOU CAN.



The OT1300 is the low cost solution for those who need a powerful PERFORMANCE PANEL PC. Equipped with Celeron M and Pentium M class microprocessors with up to 2 GHz, RAM DDR2 up to 2 GB and a powerful 3D video controller with up to a maximum of 128 MB of memory, the OT1300 also stands out for its compact size as well as the reduced weight.











PERFORMANCE PANEL PCs X

The OT1300's connectivity is brilliantly resolved by means of two Ethernet interfaces, five USBs, one RS-232 serial port and an optional opto-isolated multiprotocol, one parallel, one PS/2 and one VGA for connecting an additional external monitor. The Ethernet WLAN card may also be requested.

Available with an LCD sized 8.4", 10.4", 12.1", 15" or 17", the OT1300 boasts a reduced weight and size: the 8.4" version weighs less than 3 Kg. All the LCDs feature a resolution of at least 800 x 640 pixels and the availability of a 5-wire resistive touch screen.

The OT1300 can host add-on cards on bus PC/104 plus or PCI to guarantee expandability according to customers' needs.

On the OT1300 it is possible to use two Compact Flash cards: in this way the application data is separated from the operating system, that on request may be write-protected. The OT1300 is also available with a hard disk and SSD Serial-ATA.

≚ PERFORMANCE PANEL PCs





The PERFORMANCE PANEL PCs of the 600 family have been designed to allow customers to customise the configurations they need. To achieve this objective the models combine an impressive flexibility in the choice of mechanical solutions and accessories, with high performance supplied by Celeron M / Pentium M microprocessors or Core 2 Duo processors with technology up to 45nm. The range includes versions with the front panel made of plastic, aluminium or frameless versions for rear panel installation.



KEY ELEMENTS.





PERFORMANCE PANEL PCs 🖄

Included as standard on all of the models of the 600 family are two Ethernet ports, two RS-232 serial ports, six USB ports, two PS/2 ports and one analog VGA. The third RS-232/422/485 serial port, which can be optically isolated, as well as the parallel port, are optional. It is also possible to request the Ethernet Gigabit network.

The WS versions integrate the LCD in the 30 mm thick thermoplastic resin front panel; this reduces the depth of the rear chassis to just 58 mm.

There are three formats for the rear chassis: H1, H3 and H4, which differ for the various depths and the availability of accessories such as floppy disks, CD/DVD units and the number of expansion slots on PCI-Express and PCI bus.

The 650 versions are available with dual hard disc configurations that allow the backup of the data to be performed in automatic, thanks to the on-board integrated RAID controller with support for the levels 0 and 1.

A further feature of the 600 family is the possibility to combine the PC with the lateral pushbutton stations and the inclined modules with touchpad or trackball pointing devices. The membrane keyboard is also available, predisposed for magneto-optical units.

PERFORMANCE PANEL PCs

PERFORMANCE PANEL PCs



OT1300 Aluminium front frame Plastic front frame Frameless version **Frontal Protection** IP65 LCD size 8.4″ 10.4" 12.1" 15″ . 17″ **Touch-screen** Front functional keys 4 Keyboard version -**CPU** frequencies Intel® Celeron M 1.5 GHz Intel® Pentium M 1.73/2.0 GHz Intel® Core Duo Intel® Core 2 Duo 2 GB Max RAM Standard ports Serial 1+ 🗖 Ethernet 2 USB 5 Parallel Wireless connectivity Fieldbus connection NETcore® X Fieldbus connection NETcore® -Mass storage devices Compact Flash slots 2 SSD HDD 2nd HDD FDD DVD Integrated RAID controller -**Expansion slots** PC/104 plus PCI PCI-Express Power supply 24 V/DC 220 V/AC **Operating systems *** Win XP Win XP Embedded Win CE Software Premium HMI®/Plus CoDeSys softPLC/SoftMotion

Reading key available as standard available as option - not available

* All systems are compatible with Linux; tested distributions are RedHat, Ubuntu, Fedora.

PEREORMA	NCE PANEL PCs 🛎
600 F	AMILY
600 version	650 version
IP65	IP65
-	-
-	_
	-
	-
	_
	_
1.5 GHz	
1.73/2.0 GHz	-
-	
	-
2 GB	4 GB
2 00	
2+ 🗖	2
2	2
6	8
	0
U	-
1	1
	•
-	•
	-
-/2/4	-/2/4
-/1	-/1
	_
•	•
	-







The wide range of ASEM's BOX PCs solutions allows you to always choose the model that best meets your automation-related application requirements. Super Spritewaster



BOX PCs

KEY ELENIS: NTS



There are several ASEM's BOX PCs installation methods to choose from: in addition to models with chassis in minitower format, which can also be transformed into 19" rackmount solutions, there are others for wall or DIN rail installation. Easy and rapid assembly.

The variety of mechanical dimensions available allows you to identify the model that best suits your applications and installation space. ŚMART BOX only measures 172 x 147 x 62 mm.



The wealth of communication ports provided, including LAN, USB and serial ports that can be combined with expansion modules towards the more common fieldbuses, makes BOX PCs ideal for control functions, data storage and client-server applications.

BOX PCs X

The family includes fanless or system ventilation solutions based on "All-in-one" motherboards or passive bus.



Expandibility can also be largely customised: depending on the models, you can choose from miniPCI, PCI, PC/104 plus, PC/104 and ISA slots. The passive bus architecture supports full-size format cards.

BOX PCs





The extreme flexibility in terms of price, type of installation, dimensions, calculating power, connectivity and expandability of the large family of BOX PCs by ASEM means that you can find a specific solution for each situation.

Deriving from the OT600 system, this highly integrated system combines high performance with reduced consumption, compact dimensions and a complete set of communication interfaces.





Deriving from the OT800 fanless system, it combines application flexibility and calculating power with ease of use and compact dimensions. It uses 667 and 800MHz low power Transmeta-Crusoe processors.



Fanless and diskless system that can be wall mounted to ensure a high performance in harsh environments. Available with additional modules such as hard disk, UPS and PC/104 or PC/104 plus expansion cards. The standard set of communication ports complements its versatility.

HIGH GALCULATING POWER. EXCELLEENTLGRAPHIC PEREÓRMANCE.

Industrial system for wall installation with nickeled steel PC cell that guarantees a high calculating power and an excellent graphic performance, thanks to the Intel® Celeron M ULV processors and the integrated video controller with 128MB of memory.







Completely fanless industrial system that uses Celeron M ULV (Ultra Low Voltage) Intel® processors. Can be installed on DIN rail and allows the use of magnetooptical units and 2 expansion slots.



System for wall installation, it 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.



System with steel chassis, installable as desktop, wallmount and 19" rack mount. Based on passive bus architecture with ISA and PCI backplanes for full-size cards, it uses Intel® Celeron / Pentium III processors.

BOX PCs 🗵





DIN rail monitoring 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.

🛛 BOX PCs



Installation	SMART BOX	PB800		PB1200	PB500	PB1300	PB600	PB709	
Installation			PB1000				PB600	PB650	
Instanation		1		1		1		1.5000	1
Desktop	-	-	-	-	-	-	-	-	
Wall					-		-	-	
DIN-rail	-	-	_	-		-			_
Rack 19"	-	-	-	-	-	-	-	-	
Fanless						-	-	-	-
CPU frequencies						<u> </u>		1	1
AMD® Geode LX800	500MHz	_	_	-	-	_	-	_	_
Transmeta Crusoe TM	-	667/800MHz	800MHz	-	-	_	-	_	_
Intel® Celeron M ULV	-	-	-	600/1000MHz	1000MHz				
Intel® Celeron M	-				-	1.5GHZ	1.5GHZ	-	1.5GHZ
Intel® Pentium M				_		1.73/2GHZ	1.73/2GHZ	-	1.73/2GHZ
Intel® Celeron D									
	-	-	-	-	-	-	-	-	-
Intel® Pentium 4	-	-	-	-	-	-	-	-	-
Intel® Core Duo	-	-	-	-	-	-	-	•	-
Intel® Core 2 Duo	-	-	-	-	-	-	-	•	-
Intel® Core 2 Quad	-	-	-	-	-	-	-	-	-
Max RAM	1 GB	1 GB	1 GB	2 GB	2 GB	2 GB	2 GB	4 GB	2 GB
Max resolution on ext. monitor	1024x768	1280x1024	1280x1024	2048x1526	2048x1526	2048x1526	2048x1526	2048x1526	2048x1526
Standard ports									
Serial	2	2	3	1+ 🗖	2+ 🗖	1	2	2	4
Ethernet	1	1	1	2	2	2	2	2	2
USB	2	2	4	4	4	4	4	4	5
Parallel	-	-							-
VGA port	-					-			
Fieldbus connection									
NETcore®/NETcore® X	-								
Mass storage devices									1
Compact Flash slots	1+ 🗖	1	2	2	1	2	1	1	1 + 🗆
HDD/SSD									
2nd HDD	-	-	-	-	-	-			
FDD	-	-	-	-		-			
CD/DVD	-	-	-	-		-			
Integrated RAID controller	-	-	-	-	-	-	-	-	-
Expansion slots									
MiniPCI	2	-	-	-	-	-	-	-	-
PCI	-				2		-/2/4	-/2/4	4
PCI-E	-	_	_	-		-	-/2/4	-/2/4	4/4
PC/104 plus	-				-		-	-	-
PC/104	-	-	2	-	-	-	-	_	_
ISA	-	_	-	-	-	_	-	_	1/2
Power supply		1	I					1	1 1/2
12 V/DC	-	-	-	-	-	-	-	-	-
24 V/DC	-								
-	•	•	•	•	-	•	-		-
220 V/AC	-				•				
Operating systems ¹		_	_	_		_			1
Win XP									
Win XP Embedded									



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CREATENDABILITY AND CONFIGURABILITY CONFIGURA

ASEM's RACKMOUNT PCs solutions are particularly suitable for all those applications that require extreme sturdiness and a high calculating and data saving power.

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X RACKMOUNT PCs



The range includes models with 1U, 2U, 3U and 4U standard heights, all for 19" rack installation. They are based on passive bus architectures or "All-in-one" motherboards in ATX format.



All the models provide 3.5" front slots for floppy disks and 5.25" front slots for CD DVD optical units and hard disk with extractable drawer. Most models provide multi hard disk configurations, also in RAID.

RACKMOUNT PCs 🛎



The expandability of all the systems is always guaranteed by the presence of expansion slots that, depending on the model, can be ISA, PCI, PCI-E and/or AGP. The number of slots available goes from 2 for the 1U rack up to a maximum of 12 for 4U passive bus racks.



Based on 19" rack mechanics, the many extremely reliable and functional solutions cover all market needs thanks to the wide range of heights and configuration types available.



STEEL CABINET AND PROTECTED FRONT PANEL ┶╜╴║╘╼╸║ ╃┲╲┺┍┨┍┹┩┍┺ PANEL

It features a steel cabinet with front panel protected by a door with key lock. Only 480 mm deep, it hosts "All-In-One" motherboards in ATX format; it comes with a large array of microprocessors to choose from: it can be ordered to have Intel® Celeron D / Pentium 4 / Core 2 Duo.





This newborn solution boasts a sturdy chassis made of pregalvanised steel and an elegant and compact design. Based on the ASEM 901 motherboard, it comes with an Intel® Celeron M or a Pentium M microprocessor. Its key feature is the front connectors.





It features a steel cabinet with front panel protected by a door with key lock. It hosts PICMG 1.0 motherboards and is available with Intel® Celeron M / Pentium M / Pentium 4 / Core 2 Duo microprocessors. Expandable with PCI cards, including full-size ones.

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ERCURY 901 STURDWAND RELIABLEY AND

With its nickeled steel chassis and aluminium front, it stands out for its reduced depth. Based on passive bus architecture, it uses Intel® Celeron / Pentium III processors and is available with backplanes, both ISA and PCI, with 12 or 14 slots

RACKMOUNT PCs 🖄







Solution with chassis made of nickeled steel, extremely scalable in terms of performance. It uses motherboards in PICMG format with passive bus or ATX, for Intel® Celeron / Pentium III / Celeron D / Pentium 4 / Pentium D processors. It is available with ISA, PCI, AGP and PCI-Express expansion slots.

KACKMOUNT PCs



	PR1091	PR2031	PR2091	PR3040	PR3042	PR4030	PR4031	PR4040	PR4042	PR4091	MERCURY 901
Chassis height											
1U	-	-	-	-	-	-	-	-	-	-	-
2U	-	-	-	-	-	-	-	-	-	-	-
3U	-	-	-		-	-	-	-	-	-	-
4U	-	-	-	-	-	-	=	-	-	-	-
Chassis deepness mm	430	488	488	480	480	503	503	503	503	503	425
CPU frequencies GHz											
Intel® Celeron M	1.5	-	1.5	-	-	-	-	-	-	1.5	1.5
Intel® Pentium M	1.73/2	-	1.73/2	-	-	-	-	-	-	1.73/2	1.73/2
Intel® Celeron D	-	-	-	2.8	-	2.8	-	2.8	-	-	-
Intel® Pentium 4	-	3.4	-	3	3.4	3	3.4	3	3.4	-	-
Intel® Core 2 Duo	-	2.13	-	-	2.13	-	2.13	-	2.13	-	-
Max RAM	2 GB										
Standard ports											
Serial	2	2	2	6	6	2	2	6	6	4	4
Ethernet	2	2	2	1	2	1	2	1	2	2	2
USB	4	5	4	6	6	4	5	6	6	6	6
Parallel				1	1	1	1	1	1		
Mass storage devices											
Compact Flash slots	-	-	-	-	-	-	-	-	-	-	
HDD											
2nd HDD											
FDD											
CD/DVD											
Expansion slots ¹											
ISA	-	-	-	2	-	8/5	8/5	2	-	8/5	8/5
PCI	2	3	3	5	6	4/7	4/7	5	6	4/7	4/7
PCI-Express x16	-	-	-	-	1	-	-	-	1	-	-
AGP 8x4x	-	-	-	1	-	-	-	1	-	-	-
Redundant P.S.	-	-	-	-	-						
Operating systems ²											
Win XP											
Win XP Embedded		-		-	-	-	-	-	-		

RACKMOUNT PCs 🖄





Thanks to a wide range of mechanical solutions and formats, the INDUSTRIAL MONITORS by ASEM are always able to satisfy any need our customers may have.

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≚ INDUSTRIAL MONITORS



The panel mount models with aluminium or plastic front panel are complemented by the versions for 12" rack mount, desktop monitors and the new solution with arm attachment, which guarantees an IP65 integral protection of the enclosure and can be remote controlled from up to 50 meters. The range includes LCD displays with sizes from 12.1" to 19".



The MAxx and MPxx models can be requested also in their FrameLess version, i.e. without a front frame for rear panel mount.

INDUSTRIAL MONITORS X









All the models can be fitted with five-wire resistive touch screen; on MAxx, MPxx and MRxx the control interface can be serial (RS-232 or RS-422) or USB. Furthermore, as an alternative to the analog VGA input, it is also possible to request the DVI type.

INDUSTRIAL MONITORS

≚ INDUSTRIAL MONITORS



The range includes solutions that meet any requirement in terms of format, installation and materials while always ensuring maximum reliability. All the solutions feature an IP65 degree of protection for the front panel.



The new VESA mount industrial monitor stands out for its reduced depth, the total degree of protection IP65, the comprehensive configurations available and the highly integrated design. Available with a 15" LCD display with a five-wire resistive touch screen, the MV15 can be ordered to have an external keyboard and side control panels integrated with the system both aesthetically and functionally.



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This wall mount solution featuring a high contract ratio and an excellent viewing angle, has a front panel made of aluminium alloy according to an oxidation process that makes it immune to electromagnetic disturbances and very resistant to aggressive agents. Available in TFT LCD formats from 12.1" to 19", it may come with a five-wire resistive touch screen with USB or RS-232 serial interface.



Front panel made of plastic resin that resists shocks and chemical agents and a nickeled steel rear cell that guarantees electromagnetic shielding. Available in TFT LCD formats from 12.1" to 17", it may come with resistive touch screen



LCD desktop monitor, predisposed also for wall installation with 75 mm standard VESA mount. An ideal solution for non harsh industrial environments that require a convenient solution with a good quality/price ratio.

INDUSTRIAL MONITORS ¥





This solution, with simple 19" rack installation, has an aluminium alloy front panel that ensures great sturdiness also in harsh environments. Available in TFT LCD formats from 12" to 15", it may come with a five-wire resistive touch screen with USB or RS-232 serial interface.



$\stackrel{\scriptstyle{\scriptstyle{\mathrm{M}}}}{=}$ INDUSTRIAL MONITORS



		INDUSTRIAL MONITORS ≚							
	MU15	MAXX	MPXX	MRXX	VISION				
Installation		1	•						
VESA		-	-	-					
Panel	-	=		-	-				
Rack 19" (6U and 8U)	-	-	-	-	-				
Desktop	-	-	-	-					
LCD size/resolution									
12.1"	-	SVGA	SVGA	SVGA	-				
15″	XGA	XGA	XGA	XGA	XGA				
17"	-	SXGA	SXGA	-	SXGA				
19"	-	SXGA	-	-	-				
Video input									
VGA		-	-	-	-				
DVI		•			-				
Touch-screen									
Serial	-	•			-				
USB									
Power supply									
24 V/DC					-				
220 V/AC	-								

Legend:

VGA 640x480 SVGA 800x600 XGA 1024x768 SXGA 1280x1024





SOLUTIONS



By carefully and professionally analysing our customers' specific involvement in every step, starts from a study of the technical needs, we are able to offer a qualified and flexible custom and economic feasibility, followed by the sharing of the project engineering service that develops tailor made solutions. specifications to develop the design, prototyping, test and This activity, which envisages our customers' continuous validation phases for the subsequent industrial production.

ASEM specializes in the following Custom Engineering services:

Desian and development of microprocessorbased electronic boards, built and 32-bit RISC architecture;

Design and development be used with the

Design and development of complete and software customisation

The projects concern aesthetic customisations that do not involve changes in the standard product structure, and satisfy the typical needs of OEMs and System Integrators who want to offer the market their own solutions along with a homogenous brand representation.



Aesthetic Custom Light - OT1000 Eltex



CUSTOM FUL

The projects concern the production of new platforms and MECHANICAL CUSTOM FULL integrated solutions developed according to customer Production of new mechanical solutions developed on specifications, while defining time schedules and production existing motherboards and electronic boards plans.

CLISTOM-LIGHT.

AESTHETIC CUSTOM LIGHT

Customisation of brand label and front panel film

MECHANICAL CUSTOM LIGHT Customisation of keyboard layout or thickness of the front panel

ELECTRONIC CUSTOM LIGHT Production of a different backplane and addition of communication interfaces

ELECTRONIC CUSTOM FULL

Development of new motherboards and electronic boards

COMPLETE CUSTOM FULL

Complete design of a new solution

SPECIAL



ASEM is a leading company in the digital integration process. By simplifying its technology and making it usable, it guarantees its customers a perfect combination between **technological evolution** and **range continuity**, with a view to establishing sound and long-lasting partnerships.

ASEM's customer oriented philosophy focuses on customers' maximum satisfaction, which is the core of constant attention to customers' needs, thanks to a the entire business. The aim is to guarantee an excellent comprehensive and qualified before- and after-sales quality of the products and an operating flexibility to service. All the internal process are devoted to our promptly react to the market's changing needs.



QUALITY SYSTEM



ASEM ensures product and process quality by systematically and rigorously adopting its own corporate management system for quality compliant with the UNI EN ISO 9001:2000 standard (VISION). The quality system introduced in 1999 is certified by Moody International Certification and is constantly updated to improve the effectiveness and efficacy of corporate operations.

CUSTOMER CARE

The Customer Care service is provided by a team of technical on the customer's needs and type of support necessary, the specialists that handle customers' needs immediately and call may be diverted to the most suitable ASEM specialist clearly, not only by phone and via internet, but also through on-site visits and technical development courses. WITH THE "HELP DESK ON-LINE"

To optimise the support and system repair process and customers can access the ASEM Customer Care division directly minimise our response time, ASEM proposes some effective on-line via the company website **www.asem.it**. This simple and services. straightforward tool allows customers to automatically request the technical assistance service and the RMA for the repair service, with the monitoring of the request status in real time.

THE "HELP DESK PHONE"

service, accessed by dialling +39 0432-967250, active from Monday to Friday, from 8.30 am to 12.30 am and from 2 In addition to these services, any request and hardware, pm to 5.30 pm. A qualified technician provides an initial and firmware and software support can be communicated to the prompt technical assistance service or starts the product e-mail address suptec@asem.it. return procedure (Return Material Authorization). Depending

SYSTEM DEVELOPMENT ACTIVITIES.

ASEM assists its customers with a complete hardware and XP and Windows® XP Embedded, Linux and OS real time software consulting activity for Premium HMI® and CoDeSys applications), thus only maintaining those components applications. The company also offers a straightforward that are essential for the correct operation of the industrial and effective firmware support service with the creation of PCs and the integration with the main internal applications. ad hoc "images" of the operating system. The advantage As an exclusive advantage of the ASEM service, proprietary lies in the reduced memory space necessary to install the components can also be integrated on the basis of operating systems (Microsoft Windows® CE, Windows® customers' specific needs.



SERVICE



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