Industrial PC Solutions

Contents

ASEM designs and manufactures a wide range of Industrial PCs, HMI and PAC (Programmable Automation Controller) solutions based on x86 and ARM Cortex hardware platforms for the industrial automation market.

37 years of innovation **Made in Italy**

Since 1979, ASEM is a pioneer in the digital technology integrations between Information & Communication Technology and Industrial Automation.

The performance, configurability, robustness, design and the high number of software features of ASEM products and systems, are the result of 37 years of experience in designing and producing solutions for the most demanding industrial applications.
Exploring from the very beginning the potential of Open & Standard technologies into Factory Automation, and leveraging the first-class know-how in developing hardware, firmware and software, ASEM has strengthen its leading position in Italy in the Industrial PCs, HMIs, remote assistance and control systems market.

1979 - 1982
Specializing in Electronic Engineering

- Founded in 1979 by Renzo Guerra, current President and CEO, ASEM (**A**utomazione **S**istemi **E**lettronici **M**icrocomputer) started as an engineering company designing and producing microprocessor-based industrial automation systems.

1983 - 1992
Player of the IT world

- ASEM enters the IT market by designing and manufacturing interfaces and accessories for Personal Computers.
- As the only Italian company besides Olivetti®, ASEM manufactures MS-DOS compatible PCs, gaining in the latest 80's the 6% of the Italian PC market, more than global companies like Apple® and Compaq®.

1993 - 2005
Leading the Industrial PC market

- In the mid-90's, ASEM is the first company in Italy focused on the design and production of Industrial PCs, addressing the industrial automation market.

2006 - 2010
Producing automation systems on an international scale

- In 2006, ASEM begins a specialization path to approach the market not only as a manufacturer of Industrial PCs, but as a company providing automation systems with software.
- Thanks to agreements with partners ASEM offers Premium HMI and CODESYS (softPLC) software platforms.
- ASEM opens an office in Giussano (MB) dedicated to software and system support.
- ASEM opens a sales office in Germany to follow directly German OEM customers.

UBIQUITY

PREMIUM HMI 5

2011 - ...
The software and remote assistance era

- ASEM releases Premium HMI 3, the first visualization software with new features developed in-house.
- The company introduces the remote assistance platform UBIQUITY to remotely access automation devices via VPN.
- ASEM opens a second manufacturing facility dedicated to assembly and test of electronic boards and systems.
- ASEM opens a local software R&D office in Verona.
- ASEM starts designing and producing ARM-based HMIs, remote assistance and PAC systems.
- ASEM releases the new Premium HMI 5 visualization software version, inlcuding multitouch programming, support for multi-core processors and OPC UA protocol leading the way to the distributed connectivity of the "Industry 4.0" and Industrial "IoT".

ASEM and the "**Open Automation**"

Over 25 years of experience in design and production of IPCs and 10 years of specialization in PC-based systems for machine and process automation.

Leading the "Open Automation" in Italy, ASEM is a reliable and professional partner able to guide customers through the evolution of HMI, control and remote assistance technology for the Industrial Automation market, developing and producing "Open & Standard" hardware platforms integrated with innovative, flexible and easy-to-use software.
ASEM has its own complete hardware, firmware, software, mechanics and system design capability and manages internally all production phases, including board assembly and welding.

ASEM: entrepreneurship, investments, innovation
Thanks to a constant focus on innovation and quality, combined with investments in human resources, technology and manufacturing assets, ASEM is now one of the European emerging companies in the industrial automation market, providing systems and solutions that are entirely designed, engineered and produced in-house.
The company has been committed to anticipate customers' needs, convinced that machine builders should leave proprietary technologies, to embrace "Open & Standard" platforms, focusing on software application development.

The deep knowledge of "x86" (PC) and "ARM" technologies and the investments in software design are in tune with the evolution of the industrial automation market needs.
Market globalization and the economic crisis have forced machine builders to reduce costs and recover efficiency.
At the same time end users (factories) modified their demand requiring price and delivery time reduction while increasing customization requests.
Machine builders are then pushed to reduce development time and take an innovative approach using "Open & Standard" hardware platforms integrated with flexible and easy-to-use software development tools.

The integration of Information & Communication Technologies is now a need to produce automatic machines interconnected into a wider and more complex network where to exchange data and information.
ASEM technological excellence is guaranteed by significant investments in R&D and continuous training of the entire workforce.
The ability to understand and anticipate the fast market evolution, set and follow the right strategies, has enabled the company to maintain a steady growth momentum in the last 10 years.

ASEM in numbers:

- → 2016 Revenues: 34,8 million Euros
- → 175 employees
- → 5.200 sqm Headquarters in Artegna (UD)
- → 3.250 sqm manufacturing facility in Artegna (UD)
- → R&D offices in Verona
- → R&D offices in Giussano (MB)
- → Sales offices in Germany

R&D

The seamless integration of hardware and software technologies is key to success

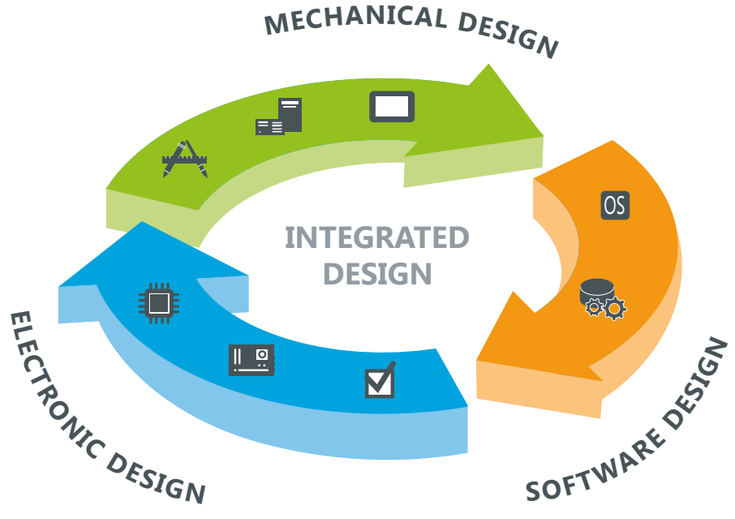
30% of ASEM human resources are dedicated to R&D. The team includes highly specialized engineers with complementary skills that cover all the electronic and mechanical design needs, as well as firmware and software development.

The close collaboration with leading technology trendsetters and the continuous dialogue with customers drive the specifications of hardware, firmware, software and systems engineering for each single product.

Thanks to the technological mastery of all system components and their perfect integration, ASEM designs performant, configurable, easy-to-use and reliable products for the most demanding industrial environments.

The different R&D teams work in synergy during the design process to ensure that hardware requirements and software features of each solution can be implemented in an integrated way.

The long experience and the high skills of the R&D engineers make ASEM a reliable technological partner to support machine builders and system integrators in the fast-changing industrial automation market.



High tech

& high quality manufacturing

ASEM manufacturing plants comprise two modern industrial facilities covering a total area of 8.500 sqm.

ASEM designs, engineers and manufactures electronic boards, products and systems internally.
The decision to assemble electronic boards in its own Italian facility is in contrast with the industry trend to relocate electronics production activities in Eastern Europe and Far East, but the results in terms of quality and in terms of flexibility confirm the accuracy of the company's strategic decision, much appreciated by customers.

For the automatic assembly of boards, ASEM uses technologically advanced machinery, tools and equipment, such as precise and fast SMT Pick & Place positioners, selective soldering machines for "through hole" components, ovens reflow and X-ray inspection ensuring high quality and flexibility.
The in-house assembly of electronic boards and a constant dialogue between operations' managers and the R&D engineers increase the sensitivity of electronics and mechanical designers towards production and test phases, with a consequent advantage of an increased reliability of the overall system.

The electronic components are supplied by the major global manufacturers and are specifically selected to ensure a long life cycle of products. Mechanical parts are purchased from European suppliers selected with rigorous qualification procedures.
100% of the electronic boards are subject to burn-in and functional tests for a minimum of 12 hours in special designed climatic chambers.
100% of the assembled systems are subjected to functional tests for 12 consecutive hours.

Continuity
The full control of design and production processes and the close cooperation with technology trendsetters allow ASEM to ensure a 7/10 years life cycle of its systems and reparability of the same for at least 5 further years, with availability of spare parts.
ASEM guarantees End of Life procedures lasting from 6 to 12 months for the Last Buy Order and deliveries.

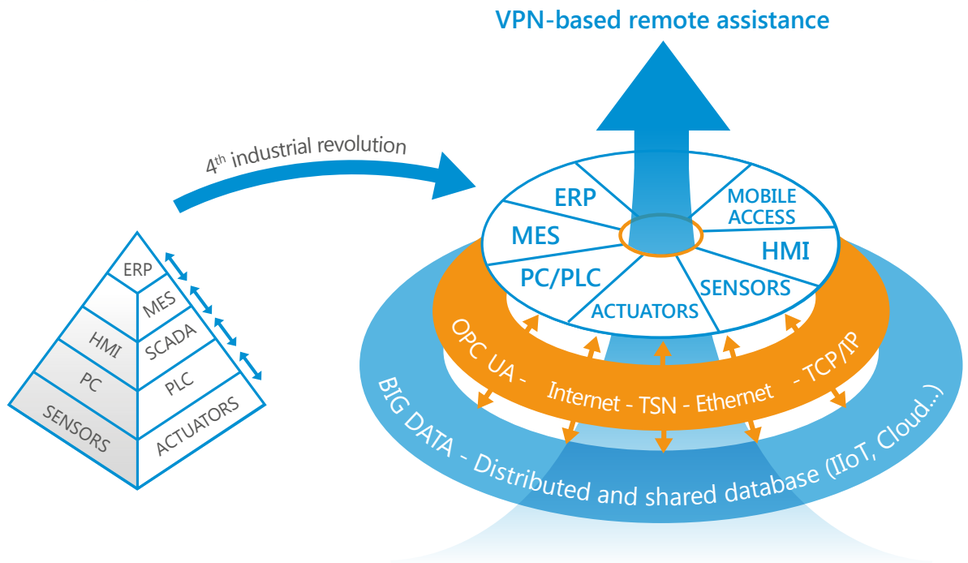
«Open Automation»
driving force of the Industry 4.0

SMART FACTORY

«Open & Standard» technologies integrated with flexible and user-friendly software solutions are leading the evolution to a digitalized industrial ecosystem, commonly known as "Industry 4.0".
The industrial IoT (Internet of Things) and the growing number of distributed smart devices connected to the Internet, transform factories in connected ecosystems in which sensors, automation devices, M2M («Machine to Machine») modules and software communicate and cooperate with each other and with humans in real time. These cyber-physical systems monitor physical processes, creating a virtual copy of the physical world enabling decentralized decision making.

This 4th Industrial Revolution is leading to a redesign of operations, services and Automation technologies providing the opportunity to significantly increase productivity, quality and flexibility of manufacturing systems.

Our vision



Designing UBIQUITY, an Internet-based software solution provinding remote access to automated machines and plants, ASEM was one the first companies understanding the value of Information and Communication Technologies applied to the Automation. Nowadays ASEM is one of the few European companies mastering on its own all driver technologies of the current 4th Industrial Revolution covering hardware development (x86, ARM platforms and OSs), and software, cloud and communication solutions design.

Asem PC-based Automation

Open & Standard technologies for Industry 4.0

Flexibility and openness
- Use of Open & Standard ARM and x86 technologies integrated with flexible and user-friendly software development tools
- Flexibility in creating distributed automation architectures

Internet & Ethernet based communication
- Internet as a communication media among different plants, smart factories and devices
- Horizontal communication among automation devices based on Ethernet protocols
- Vertical integration among different automation and business management solutions (Enterprise Resource Planning, Manufacturing Execution Systems, etc.) by means of open, non-proprietary communication protocols (OPC UA)

Open & Standard communication protocols
- OPC UA (Unified Architecture) is a non-proprietary M2M communication protocol for interoperability among different automation and business management solutions
- TSN, Time Sensitive Networking is an extension of Ethernet IEEE 802.1 stantard, designed to obtain real-time performances

Cyber Security
- Safety against threats and risks - physical integrity (hardware) and logical-functional (software) protection of the automation systems and content data

Asem Software Solutions

An added value for every machine and plant

HMI technology & Mobile devices
- Design of ergonomical user interfaces, able to provide users with all necessary information for a correct management of the production plant
- Use of mobile devices giving access to the plant and production data over the web

Remote access technology: UBIQUITY VPN
- Remote access to the plant by means of a VPN
- IEC 62443-3 & German BSI certification for security of internet based industrial communication

IoT & Cloud technologies
- Ability of the automation sistems to transfer information from sensors and field level to the cloud
- Information easily centralized and distributed
- The Cloud acts as a Gateway for an open and global interoperability of the smart factories
- Potentially unlimited data analysis power for the development of preventive and predictive maintenance models

Logic & Motion Control Technology
- Reduced design times thanks to modular, flexible and object oriented development tools, supported by real-time simulations
- Scalable control logic performances based on the choice of the CPU

Data integration among different automation software solutions

Smart Factory: manufacturing becomes intelligent

Ability of the smart factories to adapt to changing operating conditions and to sudden planning changes

→ Fast access to production data
→ Continuous production data diagnosis and analysis to obtain indications and results
→ More information available for machine/plant operators, support staff, production planners and management for a better business management
→ Condition monitoring: continuous monitoring of the machine / plant conditions
→ Power monitoring: consumption analysis and research for a higher efficiency

Industrial PC Solutions

ASEM IPCs

The only IPCs with remote assistance solution integrated

Industrial **PC & Monitor features**

More than 25 years of Industrial PCs

The "x86" (PC) and ARM Cortex platform technologies represent the evolution towards open and standard platforms, replacing systems based on proprietary technology.
These "Open & Standard" technologies are driving the process of technological convergence and digital integration between ICT (Information and Communications Technology) and Industrial Automation. Since the 80's ASEM has been designing x86 technology and since more than 20 years has been leading the "Open Automation" in Italy designing, engineering and manufacturing "Open & Standard" systems for the Industrial Automation market.

A complete product range

To satisfy different market needs, ASEM offers a wide range of industrial PCs including Panel IPCs with LCDs from 6.5" to 24" in 4:3 and Wide 16:9 aspect ratios, Arm Mounting IPCs with 15.6", 18.5", 21.5" and 24" Wide LCDs, Box IPCs with wall or DIN rail mounting and a complete range of Industrial Panel Monitors with LCDs from 8.4" to 24" in 4:3 and 16:9 aspect ratios and Arm Mounting Monitors with LCDs from 15.6" to 24" in 16:9 aspect ratio.

Quality, reliability and performances

The mastery of hardware, firmware and system technologies and the long experience in mechanical design and engineering have enabled ASEM to manufacture high quality and extremely reliable Industrial PCs and Monitors with strong attention to details and excellent value for money. The expertise on heat dissipation methods has allowed ASEM to manufacture fanless systems integrating high performance and high power consumption quad core processors.

Chassis and Front Panels

Over the years, ASEM has gained considerable experience on materials and surface treatments to ensure electrical conductivity, shielding optimization and protection from external agents to its industrial PCs and monitors' chassis. Chassis are made of galvanized steel or casted aluminium and are the result of an industrialization based on thermodynamic and fluid dynamic analysis aimed at a seamless integration of electronic boards and mechanical components. To meet the specific needs of food, chemical and pharmaceutical industries, some systems are designed and manufactured with stainless steel frames and chassis. One of the most important details of Panel IPCs and Monitors are the front panels, designed to meet aesthetic, ergonomic and robustness requirements and at the same time ensure IP65 / IP66 protection degree, even with USB interfaces. The ASEM standards include four front panel variants for Panel IPCs and monitors: Aluminium with resistive touchscreen, True Flat Aluminium with resistive touchscreen, Stainless Steel True Flat with resistive touchscreen and Aluminuim True Flat with glass projected capacitive (P-CAP) Multi-touchscreen. The four front panels are available for Panel IPC families of the HT series, for MH and MHR panel monitor families and for future Panel IPC and monitor families.

Interchangeability and continuity

With a product life cycle of at least 7/10 years, ASEM designs Panel IPCs and monitors with the same cut-out (hole size needed for the installation) for each different LCD size to ensure interchangeability, without mechanical changes, among different families and compatibility with future families allowing to upgrade the Panel IPC or monitor even on machines on the field since many years.

UPS and Power Supply Systems

To prevent noise and overvoltage, IPCs and monitors' power supplies have galvanic isolation. Industrial PCs based on x86 processors have the option to integrate on the power supply unit the UPS (Uninterruptible Power Supply) function with an external battery pack. The ARM based systems can integrate the MicroUPS function with supercapacitors.

Motherboards

The IPC's motherboards have microprocessors included in Intel® embedded roadmap, with a long life cycle guaranteed by the manufacturer.
ASEM motherboards use different platform technologies with scalable performances, from entry-level processors in terms of price up to high performance dual and quad core processors, providing different expandability in terms of communication interfaces and expansion slots.
Currently, ASEM portfolio includes the latest generation Intel® BayTrail platform, with dual and quad core Atom E38xx processors, and quad core Celeron J1900, the 6th generation Intel® Core™ microprocessors Skylake™ H/U and Kaby Lake™ series and ARM-based systems equipped with dual and quad core iMX6 processors. Motherboards are designed to provide "all-in-one" integration of every possible function (for instance the touchscreen controller) and minimize cables and connectors in order to make systems more resistant to possible vibrations and shocks in industrial environments. 100% of the motherboards are subject to burn-in and functional tests, for 12 consecutive hours, in dedicated climate chambers. All motherboards feature the ASEM System Identity, a non-volatile storage for system identification data, as well as other useful customers' data for system traceability. One of the R&D teams is dedicated to BIOS and low level driver development for x86 platforms and to BSP (Board Support Package), boot loader and low-level drivers development for ARM Cortex platforms.

Operating Systems

Depending on microprocessor platform, ASEM ensures full compatibility of x86 systems with Win 32/64 Standard/ Embedded and Windows Embedded Compact 7 PRO operating systems and full compatibility with the most popular Linux distributions. ARM Cortex A8 and A9 platforms support Windows Embedded Compact 7 PRO and Linux distributions assembled by ASEM. ASEM specialists can also give support to implement a custom made image or develop customized embedded Win 32/64 and Linux images on specific customers request.

Fieldbuses

All x86 systems released by ASEM have the possibility to install fieldbuses (NetcoreX) boards, Master and Slave versions, that support the most spread industrial fieldbuses such as EtherCAT, CANopen, Profibus, Profinet and EtherNet / IP.

Compatibility, testing and systems certification
All ASEM industrial PCs and ARM-based systems are optimized for the use of Premium HMI and UBIQUITY remote assistance software platforms.
Most of the systems are also certified for the use of CODESYS SoftPLC and SoftMotion platform, also for real-time applications.
100% of sold systems are subject to functional tests at room temperature for 12 consecutive hours, and sample systems are subjected to functional tests at temperature ranging from 0° C to 50° C for 12 consecutive hours.
All ASEM products comply with EMC directives for emissions and immunity, the low voltage safety directive and the RoHS directive.
Most of the products and systems comply with UL norms and specific products comply with the ATEX norms.

Custom Solutions

The complete control of hardware, firmware and software technologies allows ASEM to realize custom systems for specific customer needs.

Light custom Solutions
Custom-light services provide different levels of customization of ASEM standard products:

Aesthetic light custom, such as:
→ removal or substitution of the ASEM trademark with a label showing the brand and/or logo of the customer;
→ customization of front film with silkscreen printing of client brands and/or logotype;

Mechanical light custom, such as:
→ personalization of the shape and / or thickness of the front panel;
→ Customization of the layout of the keyboard on the front panel;

Electronic light custom, such as:
→ addition of communication interfaces and / or modification of the standard configuration.

The customizations described do not involve any structural changes to standard products and meet the typical needs of OEMs and System Integrators who want to offer their own solutions to the market with a homogeneous representation of the brand. Custom-light solutions can be made in a relatively short time and low volume production.

Full custom solutions
Custom-full services include the creation of new platforms and solutions based on customer specifications. ASEM does not normally sell the intellectual property of custom projects, as their realization is solely dedicated to ASEM serial production. Custom full services include the following development activities:

Mechanical custom-full, such as:
→ creation of a new mechanical solution, also with plastic parts, that uses existing electronic cards and/or motherboards;

Electronic custom full, such as:
→ development of new motherboards and/or electronic cards;

Complete custom-full, such as:
→ development of a new system or solution that includes the design of mechanical components as well as electronic boards.

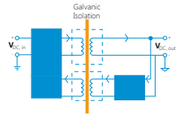
The **ASEM Standards**

ASEM STANDARDS

ASEM has set the electronic and mechanical design standards for Panel IPC, Box IPC and Monitor families to guarantee maximum flexibility, higher safety and continuity to customers.

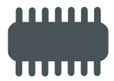
A unique cut-out for each different size of LCD to ensure:
→ Interchangeability among different families of Panel IPCs and Monitors
→ Mechanical compatibility with future families

Front panel available in four different variants
→ Aluminium with USB port
→ True Flat Aluminium with USB port
→ Stainless Steel True Flat
→ True Flat Aluminium with glass projected capacitive Multitouch screen



Power supply with galvanic isolation
To prevent:
→ Common mode noise at low/medium frequencies on the power supply line
→ Ground loop noise
→ Extra-voltage caused by lightning
And guarantee:
→ Power supply with grounded positive terminal (e.g. Japan)

Power supply with integrated UPS (uninterruptible power supply)
→ With external battery pack on the back of the system
→ With external standalone wall mounting battery pack



ASEM system identity
→ Non-volatile memory for system identification data storage

Four variants of the front panel

Aluminium with USB

True Flat Aluminium with USB port

Stainless Steel True Flat

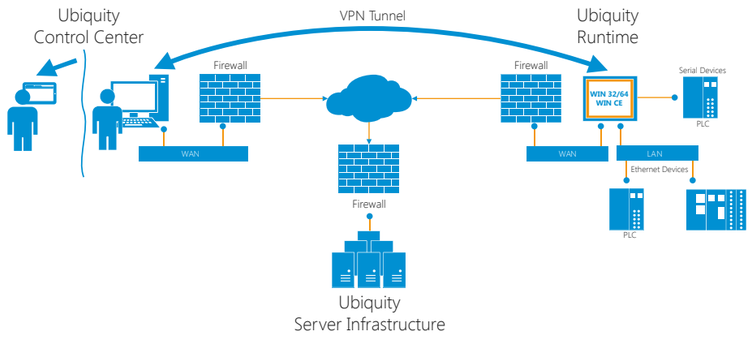
Aluminium P-CAP Multitouch

Software solutions for the industrial automation

ASEM offers its own software solutions for **remote assistance, visualization, and control**, providing a complete automation portfolio.

Remote Assistance: **UBIQUITY**

In 2011 ASEM presented UBIQUITY, the innovative software platform for remote assistance.
Designed for machine builders, the remote assistance solution UBIQUITY enables access to remote systems and their sub-networks as if they were connected with a cable.
The software solution UBIQUITY enables the access to remote supervision and control systems and to the automation devices (PLC, drive, etc), connected to the Ethernet and Serial subnetworks of the IPC/ operator terminal/controller, through a VPN (Virtual Private Network) based on proprietary technology optimized for industrial communication.
UBIQUITY does not require additional hardware and allows to operate in remote plants as if they were directly connected to your enterprise network.
It enables technical support teams to solve any issue, eliminating the need for on-site assistance, dramatically reducing post-sale service costs.
This solution is particularly useful during machine setup and commissioning, to monitor remote applications, to modify and update software applications andr emotely debug PLCs and other automation devices.



UBIQUITY

Starting from March 2016, UBIQUITY is installed on all ASEM IPCs, enhancing the value of every IPC with an integrated remote assistance solution.

Visualization: **Premium HMI and PHMI Mobile**

With Premium HMI software platform, ASEM has been providing valuable visualization systems appreciated for the **quantity and quality of the functionalities** available and the **transversality** of the platform, which makes it possible to use the sameproject both on HMI solutions based on ARM or x86 hardware platforms (also with multicore architecture support), with WinCE or Win 32/64 Runtimes without any need to modify or change settings in the '**Premium HMI Studio**' development tool.

Multitouch and OPC UA
Premium HMI 5 supports Multitouch programming for Win 32/64 and WEC 7 systems with multicore processors and supports OPC UA protocol, leading the way to the distributed connectivity of the "Industry 4.0" and Industrial "IoT".

Premium HMI Mobile is the App to view and interact with Premium HMI projects, via mobile devices (iOS and Android) connected to the enterprise Wi-Fi network.
The new app provides mobile and multitouch support to the HMI project running on Machine Operator Panels/ Panel IPCs.

Control: **CODESYS**

ASEM Programmable Automation Controllers base their PLC functionalities on the consolidated and widespread CODESYS SoftPLC of the German 3S, with a highly efficient implementation of version 3.5 which guarantees the deterministic execution of PLC control logic with WinCE and Win 32/64 operating systems.

It transfers projects between various operating systems and hardware platforms without the need to change the project code.

Product Portfolio

1. ARM based Panels

The ARM based Panels, with Cortex A8 and A9 processors, are available with Microsoft Windows Embedded Compact 7 Pro or Linux operating systems. They include a wide range of 16 milion colors TFT LED Backlight LCD screens, from 4.3" up to 15.6" with resistive touchscreens and Aluminium/True Flat Aluminium front Panels and True Flat Aluminium with glass projected capacitive Multitouch screen.

RT25	RT30/31	RT40
		
p. 21	p. 22	p. 24

2. PANEL IPCs

ASEM Panel IPCs are based on Atom, Celeron and Core™ i3, i5, i7 dual and quad core processors.
Available with TFT LCDs from 6.5" to 24" and Aluminium, True Flat Aluminium, Stainless Steel True Flat and True Flat Glass & Aluminium Multitouch screens.

HT2000	HT2150	HT2200
		
p. 28	p. 30	p. 32

HT3000	HT3200	HT3400	HT5000
		new	
			
p. 34	p. 36	p. 38	p. 40

3. BOOK MOUNTING IPCs

ASEM recently completed its Box IPC portfolio with a complete range of book mounting systems, combining performances, design, ergonomics and configurability.
Based on Intel® Bay Trail™ and Skylake™ platforms, they are supplied with a sturdy aluminium chassis, highly refined in every aesthetic and ergonomic detail.

BM2150	BM2200	BM3300	BM3400
		new	
			
p. 44	p. 46	p. 48	p. 50

3. BOX IPCs

ASEM provides a full range of Box IPCs based on Atom, Celeron, Core™ i3, i5, i7 dual and quad core processors and they are suitable for wall or DIN rail mounting.

PB2000	PB2150	PB2200
		
p. 54	p. 56	p. 58

PB3000	PB3200	PB3400	PB5000
		new	
			
p. 60	p. 62	p. 64	p. 66

4. Arm MOUNTING IPCs

The Arm Mounting IPCs are compact, fanless, ergonomic and easy to install systems with a stylish design, that are easy to install and compatible with the most common mounting standards.

Based on Intel® Broadwell™ platform they are available with 15.6", 18.5", 21.5" and 24" TFT LED Backlight LCDs in a Full IP65 aluminium chassis.

VK3200	VPC2200
	
p. 70	p. 72

5. RACK IPCs

19" 4U rack solutions with a wide range of configurations, motherboards, expansion slots and Intel® Core™ i3, i5, i7, dual and quad core processors.

PR4046 / PR4146	PR4047 / PR4147	PR4048 / PR4148
		
p. 76	p. 77	p. 78

6. INDUSTRIAL MONITORS

The panel Industrial Monitors are available with LCDs from 8.4" to 24", with 4:3, 5:4 or Wide format, and four front panel variants.
Arm Mounting Monitors are compact, fanless, ergonomic and easy to install solutions, compatible with the most common mounting standards and are available with 15.6", 18.5", 21.5" and 24" TFT LCDs in a full IP65 aluminium chassis.

MHR100 and MKR100 versions integrate the remotation technology for digital video and USB 2.0 signal up to 100 m with a Cat5e SF/UTP or Cat6A S/FTP cable.

MH100 / MHR100	MK100 / MKR100
	
p. 82	p. 84

ARM based Panels

The ARM based Panels, with Cortex A8 and A9 processors, are available with Microsoft Windows Embedded Compact 7 Pro or Linux operating systems.
They include a wide range of 16 milion colors TFT LED Backlight LCD screens, from 4.3" up to 15.6" with resistive touchscreens and Aluminium or True Flat Aluminium front Panels and True Flat Aluminium with glass projected capacitive Multitouch screen.

RT25
Entry level ARM based panel IPCs

The ARM based Panel IPCs of the RT25 family have the smallest LCD sizes of the ASEM portfolio. They are based on the ARM Cortex A8 (i.MX535) 1GHz processor. The "all in one" motherboard provides one Ethernet 100Mbps port, one USB 2.0 port, one serial RS232/422/485 interface with rear access, 1 GB DDR3 RAM, 256MB Nand-Flash for the operating system and 4GB pseudo-SLC eMMC memory to save and manage application and project data.
The RT25 family is available with 16 milion color LED Backlight TFT LCDs, 4.3" and 7" in Wide aspect ratio, with Aluminium or Aluminium True flat front panels and 4 wires resistive touchscreen.
RT25 systems have a 24 VDC power supply input.

c UL us LISTED

Highlights

- → Microsoft Windows Embedded Compact 7 Pro or Linux Yocto operating system
- → "All in one" motherboard
- → ARM Cortex A8 processor
- → Fanless ARM based panel IPC with 0-50° C operating temperature
- → 4.3" and 7" LCDs in Wide aspect ratio
- → 24 VDC power supply input
- → CE, cULus LISTED (508) certifications

RT30 / RT31
ARM based panel IPCs

The ARM based Panel IPC family RT30/31 is based on the ARM Cortex A8 (i.MX535 and i.MX537) 1GHz/800MHz processor.
The "all in one" motherboard provides one Ethernet 10/100Mbps port, one Ethernet 100Mbps port, two USB 2.0 ports, one serial RS232/422/485 interface with rear access, 1 GB DDR3 RAM, 256MB Nand-Flash for the operating system and the runtimes, 4GB pseudo-SLC eMMC memory to save and manage application and project data and a removable SDHC memory slot.
The RT30/31 family is available with 16 milion color LED Backlight TFT LCDs from 5.7" to 15.6", in 4:3 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels and 4 or 5 wires resistive touchscreen. All version with Wide LCDs are also available with aluminium and glass TrueFlat Capacitive front panels, with projected capacitive touchscreen.
RT30/31 systems have a 24 VDC power supply input and optionally an integrated MicroUPS based on supercapacitors.
RT31 versions have an additional CAN interface and isolated power supply.

Highlights

- Microsoft Windows Embedded Compact 7 Pro or Linux Yocto operating system
- "All in one" motherboard
- ARM Cortex A8 processor
- Fanless ARM based panel IPC with 0-50° C operating temperature
- 5.7", 8.4", 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 7", 10.1", 12.1" and 15.6" LCDs in Wide aspect ratio
- 24 VDC power supply input (isolated on RT31)
- Integrated MicroUPS with supercapacitors (optional)
- RT31 version with additional CAN interface
- CE, cULus LISTED (508) certifications
- ATEX area 2/22 certification (only for RT30)

Technical Data

	RT25	RT25-TF	RT30	RT30-TF	RT30-TFC	RT31	RT31-TF	RT31-TFC
OS AVAILABLE	Microsoft Windows Embedded Compact 7 Pro with Datalight Reliance Nitro file system							
	Embedded Linux distribution based on Yocto Project							
	No OS							
LED backlight TFT LCD	4.3" W - 480x272 7" W - 800x480		5.7" - 640x480 7" W - 800x480 8.4" - 800x600 10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768		7" W - 800x480 10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768	7" W - 800x480 8.4" - 800x600 10.4" - 800x600 10.1" W - 1280x800 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768		7" W - 800x480 10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768
TOUCHSCREEN	Resistive 4 wires		Resistive 4 wires for 5.7" and 7"		P-CAP Projective Capacitive	Resistive 4 wires for 5.7" and 7"		P-CAP Projective Capacitive
			Resistive 5 wires for other sizes			Resistive 5 wires for other sizes		
FRONT PANEL	Aluminium	True Flat Aluminium	Aluminium	True Flat Aluminium		Aluminium	True Flat Aluminium	
PROTECTION GRADE	IP66, Enclosure type 4x - frontal							
PROCESSOR	ARM Cortex A8 processor i.MX535 1 GHz					ARM Cortex A8 processor i.MX537 800 MHz		
SYSTEM MEMORY - RAM	1 GB with DDR3 soldered							
MASS STORAGE	256 MB Read-Only NAND-Flash for operating system and runtime							
	4 GB eMMC pseudo-SLC, file system organization for projects and applications							
	-		1 x Slot SD/SDHC v2.0					
LAN	LAN1 Ethernet 100 Mbps (RJ45)		LAN1 Ethernet 100 Mbps (RJ45)					
			LAN2 Ethernet 10/100 Mbps (RJ45)					
USB	1 x USB 2.0 rear (Type-A)		2 x USB 2.0 rear (Type-A)					
SERIAL	1 x RS-232/422/485 (DB15M)							
FIELDBUS	-					1 x CAN isolated channel (DB9M) with FlexCAN integrated controller		
POWER SUPPLY INPUT	24VDC					24VDC isolated		
	-		Backup for microinterruption, max 500ms, with supercapacitors (optional)					
OPERATING TEMPERATURE	0°- 50°C							
APPROVALS	CE, cULus LISTED (508)		CE, cULus LISTED (508), ATEX zone 22, II 3 D		CE, cULus LISTED (508), ATEX zone 2/22, II 3 G D	CE, cULus LISTED (508)		

RT40

ARM multicore based panel IPC

The ARM based Panel IPC family RT40 is based on the ARM Cortex A9 (i.MX6 DualLite) 1GHz multicore processor.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, two USB 2.0 ports, a serial RS232/422/485 interface with rear access, 1 GB DDR3 RAM, 4GB Pseudo-SLC eMMC memory and a slot for a removable MicroSD with rear access. Optionally, an additional RS485 or CAN serial port is available.
The RT40 family is available with 16 milion color LED Backlight TFT LCDs from 7" to 15.6", in 4:3 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels and 4 or 5 wires resistive touchscreen. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
RT40 systems have an isolated 24 VDC power supply input and optionally an integrated MicroUPS based on replaceable supercapacitors and 512kB MRAM (Magnetoresistive RAM).

c UL us LISTED

Highlights

- Microsoft Windows Embedded Compact 7 Pro or Linux Yocto operating system
- "All in one" motherboard
- ARM Cortex A9 dual core processor
- Fanless ARM based panel IPC with 0-50° C operating temperature
- 8.4", 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 7", 10.1", 12.1" and 15.6" LCDs in Wide aspect ratio
- Isolated 24 VDC power supply input
- Integrated MicroUPS with supercapacitors (optional)
- CE, cULus LISTED (61010) certifications
- ATEX area 2/22 certification

Gallery

Technical data

	RT40	RT40-TF	RT40-TFM
O.S. AVAILABLE	Windows Embedded Compact 7 Pro with Datalight Reliance Nitro file system		
	Embedded Linux distribution based on Yocto Project		
	No OS		
PROCESSOR	ARM Cortex A9 1GHz i.MX6 DualLite		
DRAM / SYSTEM MEMORY	1 GB DDR3 soldered		
MASS STORAGE	4 GB eMMC Pseudo-SLC		
	1x microSD slot on board with external access		
LED backlight TFT LCD	7" W - 800x480 8.4" - 800x600 10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W- 1280x800 15.0" - 1024x768 15.6" W - 1366x768		7" W - 800x480 10.1" W - 1280x800 12.1" W- 1280x800 15.6" W - 1366x768
TOUCHSCREEN	Resistive 4 / 5 wires		P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	True Flat Aluminium
PROTECTION DEGREE	IP66, Enclosure type 4x - front		
INTERFACES	2 x LAN 10/100/1000 Mbps		
	2 x USB 2.0 rear (Type-A)		
	1 x RS232/422/485 (DB15M) with MPI support (187Kb/s)		
	1 x RS485 isolated (DB9M) with terminations (optional)		
	1 x CAN isolated channel (DB9M) and terminations (optional)		
POWER SUPPLY INPUT	24VDC isolated		
	MicroUPS removable (optional)		
OPERATING TEMPERATURE	0°- 50°C		
APPROVALS	CE, cULus LISTED (61010), ATEX zone 22, II 3 D	CE, cULus LISTED (61010), ATEX zone 2/22, II 3 G D	

Panel IPCs

ASEM Panel IPCs are low consumption and high computing performance systems, with or without fans, based on Atom, Celeron and Core™ i3, i5, i7 dual and quad core processors. Available with TFT LCDs from 6.5" to 24" and Aluminium, True Flat Aluminium, Stainless Steel True Flat with resistive touchscreens and Aluminium/True Flat Aluminium front Panels and True Flat Aluminium with glass projected capacitive Multitouch screen.

HT2000

Intel® Cedar Trail™ based fanless panel IPCs

The fanless Panel IPC family HT2000 is based on the Atom™ D2550 1,86GHz dual core processor of the Intel® Cedar Trail™ platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with external rear access, one SATA II connector for the installation of 2.5" HDD/ SSD, up to 4 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial or USB interfaces.
The HT2000 family is available with 16 milion color LED Backlight TFT LCDs from 10.4" to 21.5", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel. All version with Wide LCDs are also available with aluminium ang glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT2000 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x1 slot.

c UL us LISTED

ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → Intel® Cedar Trail™ platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 15.6", 18.5" and 21.5" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S1 version with one PCI or PCIe x1 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery

Technical data

	HT2000	HT2000-TF	HT2000-TFX	HT2000-TFM
LED backlight TFT LCD	10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 15.6" W - 1366x768 17" - 1280x1024 18.5" W - 1366x768 19" - 1280x1024 21.5" W- 1920x1080		12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	15.6" W - 1366x768 18.5" W - 1366x768 21.5" W - 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROTECTION GRADE	IP66 - frontal			
PROCESSOR	Intel® Atom™ D2550 1,86 GHz, 2 cores / 4 threads, 1MB L2 cache, soldered			
CHIPSET	Intel® NM10			
VIDEO CONTROLLER	GMA3650 Integrated in Intel® Atom™ microprocessor, 640MHz, LVDS 8bit/color digital interface			
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB (1 x SODIMM DDR3 module)			
MASS STORAGE	1 bootable CFast slot on board with external access			
	1 x SSD 2,5" or 1 x HDD 2,5" SATA II			
	1 x PS/2 for keyboard or mouse			
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® 82574L)			
PS/2	1 x PS/2 for keyboard or mouse			
USB	4 x USB 2.0 rear (Type-A) 1 x USB 2.0 front (Type-A)		4 x USB 2.0 rear (Type-A)	
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x VGA or 1 x DVI-I (DVI-D + VGA)			
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)			
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)			
	2 x RS232 (DB9M)			
	2 x USB 2.0 (Type-A)			
EXPANSION SLOTS S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
	1 x PCI or 1 x PCIe x1 (2.5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows Embedded Compact 7 Pro			
OPERATING TEMPERATURE	0°- 50°C			
	0°- 45°C with 24x7 HDD			
	5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (508)			

HT2150

Entry level Intel® Bay Trail™ based fanless panel IPCs

The fanless Panel IPC family HT2150 is an entry-level solution, available with small LCD sizes, that offers an excellent performance/ price ratio. It is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, a USB 3.0 port, a USB 2.0 port and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial or USB interfaces.
The HT2150 family is available with 16 milion color LED Backlight TFT LCDs from 6.5" to 15.6", in 4:3 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT2150 systems have an isolated 24 VDC power supply input and are available in two versions, the SL with a reduced depth and the S0 with the possibility to install additional interfaces.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 6.5", 8.4", 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 7", 10.1", 12.1" and 15.6" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → SL version with reduced depth
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	HT2150	HT2150-TF	HT2150-TFM
LED backlight TFT LCD	6.5" - 640x480 7" W - 800x480 8.4" - 800x600 10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768		7" W - 800x480 10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	True Flat Aluminium
PROTECTION GRADE	IP66 - frontal		
PROCESSOR	Intel® Celeron J1900 2.0Ghz, 4 cores / 4 threads, 2MB L2 cache, soldered		
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface		
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)		
MASS STORAGE	1 bootable CFast slot on board with external access 1 x SSD mSATA SATA II		
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210)		
USB	1 x USB 3.0 rear (Type-A) 1 x USB 2.0 rear (Type-A) 1 x USB 2.0 front (Type-A)		1 x USB 3.0 rear (Type-A) 1 x USB 2.0 rear (Type-A)
ADD-ON INTERFACES (optional for S0, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A) 1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A) 2 x RS232 (DB9M) 1 x USB 2.0 (Type-A)		
POWER SUPPLY INPUT	24VDC isolated		
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit		
OPERATING TEMPERATURE	0°- 50°C		
APPROVALS	CE, cULus LISTED (61010) pending		

HT2200

Intel® Bay Trail™ based fanless panel IPCs

The fanless Panel IPC family HT2200 is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, one USB 3.0 port, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, one SATA II connector for the installation of 2.5" HDD/SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial or USB interfaces.
The HT2200 family is available with 16 milion color LED Backlight TFT LCDs from 10.1" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT2200 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in three versions, the SL with a reduced depth, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x1 slot.

c UL us LISTED

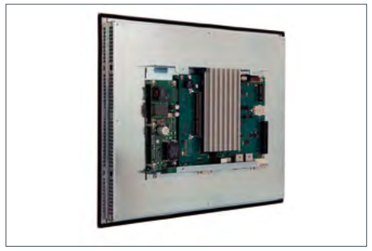
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 10.1", 12.1", 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → SL version with reduced depth
- → S1 version with one PCI or PCIe x1 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery



Technical data

	HT2200	HT2200-TF	HT2200-TFX	HT2200-TFM
LED backlight TFT LCD	10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768 15.6" W - 1920x1080 17" - 1280x1024 18.5" W - 1366x768 18.5" W - 1920x1080 19" - 1280x1024 21.5" W- 1920x1080 24" W- 1920x1080		12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W- 1920x1080 24" W- 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROTECTION GRADE	IP66 - frontal			
PROCESSOR	Intel® Celeron J1900 2.0Ghz, 4 cores / 4 threads, 2MB L2 cache, soldered			
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface			
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)			
MASS STORAGE SL	1 bootable CFast slot on board with external access			
	1 x SSD mSATA SATA II			
S0/S1	1 bootable CFast slot on board with external access			
	1 x SSD mSATA SATA II or 1 x SSD 2,5" or 1 x HDD 2,5" SATA II			
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210)			
	1 x LAN 10/100/1000Mbps (Intel® I210), optional			
USB	1 x USB 3.0 rear (Type-A)		1 x USB 3.0 rear (Type-A)	
	2 x USB 2.0 rear (Type-A)		2 x USB 2.0 rear (Type-A)	
	1 x USB 2.0 front (Type-A)			
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA with adapter)			
ADD-ON INTERFACES (optional for S0/S1, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)			
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)			
	2 x RS232 (DB9M)			
	2 x USB 2.0 (Type-A)			
EXPANSION SLOTS S1	1 x PCI or PCIe x1 (2.5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows Embedded Compact 7 Pro, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit			
OPERATING TEMPERATURE	0°- 50°C			
	0°- 45°C with 24x7 HDD			
	5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (508)			

HT3000

Intel® Ivy Bridge™ based fanless panel IPCs

The fanless Panel IPC family HT3000 is based on the third generation Core i3, i5, i7 (35W) and Celeron (17W) of the Intel® Ivy Bridge™ platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA III SSD, one SATA III connector for the installation of 2.5" HDD/SSD, up to 16 GB RAM with two DDR3 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces.
The HT3000 family is available with 16 milion color LED Backlight TFT LCDs from 12.1" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT3000 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot.

ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → 17W (Celeron) or 35W (Core i3, i5, i7) processors - Intel® Ivy Bridge™ platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 12.1", 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery

Technical data

	HT3000	HT3000-TF	HT3000-TFX	HT3000-TFM
LED backlight TFT LCD	12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768 15.6" W - 1920x1080	17" - 1280x1024 18.5" W - 1366x768 18.5" W - 1920x1080 19" - 1280x1024 21.5" W - 1920x1080 24" W - 1920x1080	12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	12.1" W - 1280x800 15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W- 1920x1080 24" W - 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROCESSOR	Intel® Celeron™ 1047E, 1.40GHz, 2 cores / 2 threads, 2MB Smart cache, 17W			
	Intel® Celeron™ 1020E, 2.20GHz, 2 cores / 2 threads, 2MB Smart cache, 35W			
	Intel® Core™ i3-3120ME, 2.40GHz, 2 cores / 4 threads, 3MB Smart cache, 35W			
	Intel® Core™ i5-3610ME, 2.70GHz (3.3GHz Turbo), 2 cores / 4 threads, 3MB Smart cache, 35W			
	Intel® Core™ i7-3612QE, 2.1GHz (3.1GHz Turbo), 4 cores / 8 threads, 6MB Smart cache, 35W			
CHIPSET	Intel® HM76 Express Chipset			
VIDEO CONTROLLER	Intel® HD Graphics, 650MHz integrated in Celeron™ microprocessor			
	Intel® HD Graphics 4000, 650MHz integrated in Core™ microprocessor			
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB or 16GB (2 x SODIMM DDR3 modules)			
MASS STORAGE	1 bootable CFast slot on board with external access			
	1 x SSD 2,5" or 1 x HDD 2,5" SATA III			
	1 x mSATA SSD SATA III			
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® 82574L, 1 x Intel®82579LM)			
USB	2 x USB 3.0 rear (Type-A)		2 x USB 3.0 rear (Type-A)	
	2 x USB 2.0 rear (Type-A)		2 x USB 2.0 rear (Type-A)	
	1 x USB 2.0 front (Type-A)			
SERIAL	1 x RS232 (DB9M)			
PS/2	1 x PS/2 for keyboard or mouse			
VIDEO OUTPUT	1 x VGA or 1 x DVI-I (DVI-D + VGA)			
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)			
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)			
	2 x RS232 (DB9M)			
	2 x USB 2.0 (Type-A)			
	1 x Ethernet10/100/1000Mpbs, Intel® 82574L			
	Unmanaged Ethernet switch 4 x 10/100/1000Mbps			
EXPANSION SLOTS S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
	1 x PCI or 1 x PCIe x4 (5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit			
OPERATING TEMPERATURE	0°- 50°C			
	0°- 45°C with 24x7 HDD			
	5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (508)			

HT3200

Intel® Broadwell™ U based fanless panel IPCs

The fanless Panel IPC family HT3200 is based on the fifth generation Core i3, i5, i7 and Celeron of the Intel® Broadwell™ U platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, one USB 2.0 port, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA III CFast slot with rear external access, an mSATA connector for SATA III SSD, one SATA III connector for the installation of 2.5" HDD/SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial, USB or Ethernet interfaces.
The HT3200 family is available with 16 milion color LED Backlight TFT LCDs from 12.1" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel.
All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT3200 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in three versions, the SL with a reduced depth, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → 15W processors - Intel® Broadwell™ U platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 12.1", 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → SL version with reduced depth
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	HT3200	HT3200-TF	HT3200-TFX	HT3200-TFM
LED backlight TFT LCD	12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768 15.6" W - 1920x1080	17" - 1280x1024 18.5" W - 1366x768 18.5" W - 1920x1080 19" - 1280x1024 21.5" W - 1920x1080 24" W - 1920x1080	12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	12.1" W - 1280x800 15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W - 1920x1080 24" W - 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROTECTION GRADE	IP66 - front			
PROCESSOR (soldered)	Intel® Celeron 3765U 1,9Ghz, 2 cores - 2 threads - 2MB smart cache - 15W			
	Intel® Core™ i3-5010U 2,1Ghz, 2 cores - 4 threads - 3MB smart cache - 15W			
	Intel® Core™ i5-5350U 1,8Ghz (2,9GHz Turbo), 2 cores - 4 threads - 3MB smart cache - 15W			
	Intel® Core™ i7-5650U 2,2Ghz (3,1GHz Turbo), 2 cores - 4 threads - 4MB smart cache - 15W			
CHIPSET	Intel® Broadwell PCH-LP (Platform Controller Hub - Low Power) • Included into processor chip			
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor Celeron 3765U, 850MHz Clock Intel® HD Graphics 5500 integrated in microprocessor i3, 900MHz Clock Intel® HD Graphics 6000 integrated in microprocessor i5, i7, 1GHz Clock with LVDS 8bit/color digital interface			
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB (1 x SODIMM DDR3 module)			
MASS STORAGE SL	1 bootable CFast SATA II slot on board with external access			
	1 x SSD mSATA SATA III			
S0/S1	1 bootable CFast SATA II slot on board with external access			
	1 x SSD mSATA SATA III			
	1 x SSD or 1 x HDD 2,5" SATA III			
LAN	3 x Ethernet 10/100/1000 Mbps (RJ45 - 2 x Intel® I210-AT, 1 x Intel® I218-LM)			
USB	2 x USB 3.0 rear (Type-A)	2 x USB 3.0 rear (Type-A)		
	1 x USB 2.0 rear (Type-A)	1 x USB 2.0 rear (Type-A)		
	1 x USB 2.0 front (Type-A)			
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA with adapter)			
ADD-ON INTERFACES (optional for S0/S1, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)			
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)			
	2 x RS232 (DB9M)			
	2 x USB 2.0 (Type-A)			
EXPANSION SLOTS S1	1 x PCI or 1 x PCIe x4 (5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit			
OPERATING TEMPERATURE	0°- 50°C			
	0°- 45°C with 24x7 HDD			
	5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (61010) pending			

HT3400 [new]

Intel® Skylake™ H based fanless panel IPCs

The fanless Panel IPC family HT3400 is based on the sixth generation Core i3, i5, i7 and Celeron of the Intel® Skylake™ H platform.
The "all in one" motherboard provides four Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, three USB 3.0 ports, two USB 2.0 port, a serial RS232 interface, a DVI-D video output and a SATA III CFast slot with rear external access, an mSATA connector for a SATA III SSD, one SATA III connector for 2.5" SSD/HDD, up to 32 GB RAM with two DDR4 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces.
The HT3400 family is available with 16 milion color LED Backlight TFT LCDs from 12.1" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel.
All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT3400 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → High performance Intel® Skylake™ H platform
- → Fanless panel IPC with 0-50° C operating temperature
- → 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	HT3400	HT3400-TF	HT3400-TFX	HT3400-TFM
LED backlight TFT LCD	12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 15.6" - 1366x768 15.6" - 1920x1080 17" - 1280x1024 18.5" - 1366x768 18.5" - 1920x1080 19" - 1280x1024 21.5"- 1920x1080 24"- 1920x1080		12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	15.6" - 1366x768 15.6" - 1920x1080 18.5" - 1366x768 18.5" - 1920x1080 21.5" - 1920x1080 24" - 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch, 4 fingers
FRONT PANEL	Aluminium	True Flat Aluminium	True Flat Stainless Steel	True Flat Aluminum and Glass
PROTECTION GRADE	IP66 - front			
PROCESSOR (soldered)	Intel® Celeron G3900E 2.40GHz 64bit, 2 cores / 2 threads, 2MB Smart cache, soldered Intel® Core™ i3-6100E 2.70GHz 64bit, 2 cores / 4 threads, 3MB Smart cache, soldered Intel® Core™ i5-6440EQ 2.70GHz (3.40GHz Turbo) 64bit, 4 cores / 4 threads, 6MB Smart cache, soldered Intel® Core™ i7-6820EQ 2.80GHz (3.50GHz Turbo) 64bit, 4 cores / 8 threads, 8MB Smart cache, soldered			
CHIPSET	Intel® HM170 PCH (Platform Controller Hub)			
VIDEO CONTROLLER	Intel® HD Graphics 510 integrated in Celeron 3900E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i3-6100E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i5-6440EQ, Core i7-6820EQ processors ▪ 350MHz/1,00GHz ▪ DirectX 12 and OpenGL 4.4 support			
SYSTEM MEMORY - RAM	4GB or 8GB or 16GB or 32GB (2 x SODIMM DDR4 modules)			
TPM	TPM module (optional)			
MASS STORAGE	1 bootable CFast SATA III slot on board with external access 1 x SSD mSATA SATA III 1 x SSD or 1 x HDD 2,5" SATA III			
LAN	4 x LAN 10/100/1000Mbps (3 x Intel® I210 + 1 x Intel® I219LM)			
USB	3 x USB 3.0, rear (Type-A) 2 x USB 2.0, rear (Type-A) 1 x USB 2.0, front, protected (Type-A)		3 x USB 3.0, rear (Type-A) 2 x USB 2.0, rear (Type-A)	
SERIAL	1 x RS232 (DB9M)			
VIDEO OUTPUT	1 x DVI-D			
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A) 1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A) 2 x RS232 (DB9M) 2 x USB 2.0 (Type-A) 1 x LAN 10/100/1000Mbps (Intel® I210)			
EXPANSION SLOTS S1	1 x PCI or 1 x PCIe x4 (5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated kit for ATX mode power supply (optional) 24VDC isolated with UPS (optional) with external battery pack			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64bit, Microsoft Windows IoT Enterprise 2016 64bit		Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64bit, Microsoft Windows IoT Enterprise 2016 64bit	
OPERATING TEMPERATURE	0°- 50°C 0°- 45°C with 24x7 HDD 5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (61010) pending			

HT5000

Intel® Ivy Bridge™ based highly expandable panel IPCs

The Panel IPC family HT5000 is based on the third generation Core i3, i5, i7 (35/45W) and Celeron (35W) of the Intel® Ivy Bridge™ platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, two SATA III connector for the installation of 2.5" HDDs/SSDs, the possibility to set the mass storages in RAID 0,1 configuration, up to 16 GB RAM with two DDR3 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces.

The HT5000 family is available with 16 milion color LED Backlight TFT LCDs from 15" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen.
HT5000 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack, or as an alternative a 110/230 VAC power supply.
The systems are available in three versions, the S0 with the possibility to install additional interfaces, the S1 with a PCI or PCIe x4 slot and the S3 with three PCI slots or two PCI + one PCIe x4 slots.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → RAID 0,1 (optional)
- → "All in one" motherboard
- → 35W (Celeron) or 35/45W (Core i3, i5, i7) processors - Intel® Ivy Bridge™ platform
- → Panel IPC with 0-50° C operating temperature
- → 15" LCD in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → 110/230 VAC or isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional, only for S0 and S1 with 24 VDC power supply)
- → S1 version with one PCI or PCIe x4 expansion slot
- → S3 version with three PCI or PCIe x4 expansion slots
- → CE, cULus LISTED (508) certifications

Gallery

Technical data

	HT5000	HT5000-TF	HT5000-TFX	HT5000-TFM
LED backlight TFT LCD	15.0" - 1024x768 15.6" W - 1366x768 15.6" W - 1920x1080 17" - 1280x1024 18.5" W - 1366x768	19" - 1280x1024 18.5" W - 1920x1080 21.5" W - 1920x1080 24" W -1920x1080	15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W - 1920x1080 24" W -1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROTECTION GRADE	IP66 - frontal			
PROCESSOR (on socket)	Intel® Celeron™ 1020E, 2.20GHz, 2 cores / 2 threads, 2MB Smart cache, 35W			
	Intel® Core™ i3-3120ME, 2.40GHz, 2 cores / 4 threads, 3MB Smart cache, 35W			
	Intel® Core™ i5-3610ME, 2.70GHz (3.3GHz Turbo), 2 cores / 4 threads, 3MB Smart cache, 35W			
	Intel® Core™ i7-3610QE, 2.30GHz (3.3GHz Turbo), 4 cores / 8 threads, 6MB Smart cache, 45W			
CHIPSET	Intel® HM76 Express Chipset			
VIDEO CONTROLLER	Intel® HD Graphics, 650MHz integrated in Celeron™ microprocessor			
	Intel® HD Graphics 4000, 650MHz integrated in Core™ microprocessor			
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB or 16GB (2 x SODIMM DDR3 modules)			
RAID	RAID 0, 1 (optional) with Intel® QM77 Express Chipset			
MASS STORAGE	1 bootable CFast slot on board with external access 2 x SSD 2,5" or HDD 2,5" SATA III (also in RAID or with extractable drawers) 1 x mSATA SSD SATA II			
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® 82574L, 1 x Intel® 82579LM)			
USB	2 x USB 3.0 rear (Type-A)	2 x USB 3.0 rear (Type-A)		
	2 x USB 2.0 rear (Type-A)	2 x USB 2.0 rear (Type-A)		
	1 x USB 2.0 front (Type-A)			
SERIAL	1 x RS232 (DB9M)			
PS/2	1 x PS/2 for keyboard or mouse			
VIDEO OUTPUT	1 x VGA or 1 x DVI-I (DVI-D + VGA)			
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)			
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)			
	2 x RS232 (DB9M)			
	2 x USB 2.0 (Type-A)			
	1 x Ethernet 10/100/1000Mpbs, Intel® 82574L			
	Unmanaged Ethernet switch 4 x 10/100/1000Mbps			
EXPANSION SLOTS S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
	1 x PCI or PCIe x4 (5 Gb/s)			
S3	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards			
	3 x PCI or 2 x PCI + 1 x PCIe x4 (5 Gb/s)			
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional only for S0 or S1 versions) with external battery pack or 110V / 230VAC			
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit			
OPERATING TEMPERATURE	0°- 50°C 0°- 45°C with 24x7 HDD 5°- 45°C with standard HDD			
APPROVALS	CE, cULus LISTED (508)			

Book Mounting IPCs

ASEM recently completed its Box IPC portfolio with a complete range of book mounting systems, combining performances, design, ergonomics and configurability.
Based on Intel® Bay Trail™ and Skylake™ platforms, they are supplied with a sturdy aluminium chassis, highly refined in every aesthetic and ergonomic detail.

BM2150

Entry level Intel® Bay Trail™ based fanless book mounting IPC

The Book Mounting fanless IPC BM2150 is an entry-level solution that offers an excellent performance/price ratio.
It is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.

The "all in one" motherboard provides, on top, two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, one USB 3.0 port, one USB 2.0 port, a DVI-D video output and on front a SATA II CFast slot.
The motherboard has also an mSATA connector for SATA II SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial and USB interfaces.
BM2150 system has an isolated 24 VDC power supply input.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless book mounting IPC with 0-50 °C operating temperature
- → Optional DIN rail mounting
- → Isolated 24 VDC power supply input
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	BM2150
PROCESSOR	Intel® Celeron J1900 2.00Ghz 64 bit, 4 cores / 4 threads, 2MB L2 cache, soldered
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)
MASS STORAGE	1 bootable CFast slot on board with front external access
	1 x SSD mSATA SATA II
LAN	2 x LAN 10/100/1000Mbps top (2 x Intel® I210)
USB	1 x USB 3.0 top (Type-A) 1 x USB 2.0 top (Type-A)
BATTERY	1 x CR2032 internal access
VIDEO OUTPUT	1 x DVI-D, top
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M) + 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	1 x USB 2.0 (Type-A)
POWER SUPPLY INPUT	24VDC isolated
CASE Installation	For wall or DIN raid book mounting (optional)
Material	Alluminium alloy 6082/5754/5056, Plastic front door
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 2016 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
APPROVALS	CE, cULus LISTED (61010) pending

BM2200

Intel® Bay Trail™ based fanless book mounting IPCs

The Book Mounting fanless IPC BM2200 is based on the Celeron J1900 2.0GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
BM2200 systems are supplied with a sturdy aluminum chassis, highly refined in every aesthetic and ergonomic detail.
The "all in one" motherboard provides, on top, two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 2.0 ports, a DVI-I (DVI-D + VGA) video output or, as an alternative, a Remote Video Link connector (RJ45) for the remotation of the video and USB signals up to 100 m; on front, a USB 3.0 port, a slot for a SATA II CFast, a slot for the extractable system battery and the signalling LEDs. The motherboard provides also an mSATA connector for a SATA II SSD, a SATA II connector for a 2.5" SSD/HDD, the possibility to install up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for the installation of additional serial and LAN interfaces. BM2200 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Highly refined aluminium chassis
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless book mounting IPC with 0-50 °C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → RVL version (Remote Video Link) with remotation of DVI and USB 2.0 signals up to 100m
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	BM3400
PROCESSORS	Intel® Celeron G3900E 2.40GHz 64 bit, 2 cores / 2 threads, 2MB Smart cache, soldered Intel® Core i3-6100E 2.70GHz 64 bit, 2 cores / 4 threads, 3MB Smart cache, soldered Intel® Core i5-6440EQ 2.70GHz (3.40GHz Turbo) 64 bit, 4 cores / 4 threads, 6MB Smart cache, soldered Intel® Core i7-6820EQ 2.80GHz (3.50GHz Turbo) 64 bit, 4 cores / 8 threads, 8MB Smart cache, soldered
CHIPSET	Intel® HM170/CM236 PCH (Platform Controller Hub)
VIDEO CONTROLLER	Intel® HD Graphics 510 integrated in Celeron 3900E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i3-6100E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i5-6440EQ, Core i7-6820EQ processors ▪ 350MHz/1,00GHz ▪ DirectX 12 and OpenGL 4.4 support
SYSTEM MEMORY - RAM	4GB or 8GB or 16GB or 32GB (2 x SODIMM DDR4 modules)
TPM	TPM module (optional)
MASS STORAGE S0 / S2	1 bootable CFast slot on board with front external access 1 x SSD mSATA SATA III
S0	without RVL: 1 x SSD/HDD 2,5" SATA III or max 2 x SSD/HDD 2,5" SATA III with front extractable drawer with RVL: 1 x SSD/HDD 2,5" SATA III or 1 x SSD/HDD 2,5" SATA III with front extractable drawer
S2	max 2 x SSD/HDD 2,5" SATA III or max 2 x SSD/HDD 2,5" SATA III with front extractable drawer
RAID	RAID 0, 1
LAN	4 x LAN 10/100/1000Mbps top (3 x Intel® I210 + 1 x Intel® I219LM)
USB	1 x USB 3.0 front (Type-A)
	2 x USB 2.0 top (Type-A) + 2 x USB 3.0 top (Type-A)
SERIAL	1 x RS232 (DB9M)
BATTERY	1 x CR2032 Removable front access
VIDEO OUTPUT	1 x DVI-D, top 1 or 2 x RJ45 connectors Remote Video Link (DVI-D and USB 2.0 signals remotation up to 100 m, optional)
ADD-ON INTERFACES (optional)	1 x RS232/422/485 (DB15M) + 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
EXPANSION SLOTS S2	2 x PCIe x4 or 1 x PCI + 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack
CASE Installation	For wall book mounting
Material	Alluminium alloy 6082/5754/5056
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 2016 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with HDD 24x7 or S2 versions
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (61010) pending

BM3300 [new]

Intel® Skylake™ U based fanless book mounting IPCs

The Book Mounting fanless IPC BM3300 is based on sixth generation Celeron, Core™ i3, i5 and i7 dual core 15W processors of the Intel® Skylake™ U platform.
BM3300 systems are supplied with a sturdy aluminum chassis, highly refined in every aesthetic and ergonomic detail.
The "all in one" motherboard provides, on top, three Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, one DVI-D video output or, as an alternative, a Remote Video Link connector (RJ45) for the remotation of the video and USB signals up to 100 m; on front, a USB 3.0 port, a SATA III CFast slot, a slot for the extractable system battery and the signalling LEDs. The motherboard has also an mSATA connector for a SATA III SSD, one SATA III connector for a 2.5" SSD/HDD, up to 16 GB RAM with one DDR4 SODIMM module and an internal connector for additional serial or USB interfaces.
BM3300 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Highly refined aluminium chassis
- → Remote Video Link - remotation of DVI and USB 2.0 signals up to 100m (optional)
- → "All in one" motherboard
- → Low consumption Intel® Skylake™ U platform
- → Fanless book mounting IPC with 0-50 °C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	BM3300
PROCESSOR	Intel® Celeron 3955U 2.00GHz 64bit, 2 cores / 2 threads, 2MB Smart cache, soldered Intel® Core i3-6100U 2.30GHz 64bit, 2 cores / 4 threads, 3MB Smart cache, soldered Intel® Core i5-6300U 2.40GHz (3.00GHz Turbo) 64bit, 2 cores / 4 threads, 3MB Smart cache, soldered Intel® Core i7-6600U 2.60GHz (3.40GHz Turbo) 64bit, 2 cores / 4 threads, 4MB Smart cache, soldered
CHIPSET	Intel® Skylake U PCH (Platform Controller Hub) ▪ Included into processor chip
VIDEO CONTROLLER	Intel® HD Graphics 510 integrated in Celeron 3955U processor ▪ 300MHz/900MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 520 integrated in Core i3-6100U, Core i5-6300U processors ▪ 300MHz/1GHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 520 integrated in Core i7-6600U processor ▪ 300MHz/1,05GHz ▪ DirectX 12 and OpenGL 4.4 support
SYSTEM MEMORY - RAM	4GB or 8GB or 16GB (1 x SODIMM DDR4 module)
TPM	TPM module (optional)
MASS STORAGE	1 bootable CFast SATA III slot on board with external access (front)
	1 x SSD mSATA SATA III 1 x SSD or 1 x HDD 2,5" SATA III
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210); 1 x LAN 10/100/1000Mbps (1 x Intel® I219LM)
USB	1 x USB 3.0, front (Type-A)
	2 x USB 3.0, top (Type-A)
BATTERY	1 x CR2032 Removable from the front
VIDEO OUTPUT	1 x DVI-D or 1 x RJ45 connector for the DVI-D and USB 2.0 signals remotation up to 100 m
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M) + 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
POWER SUPPLY INPUT	24VDC isolated
	24VDC isolated with UPS (optional) with external battery pack
CASE Installation	For book mounting
Material	Alluminum alloy 6082/5754/5056
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro; Microsoft Windows 10 IoT Enterprise 2016 LTSB 64 bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with HDD 24x7
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (61010) pending

BM3400

Intel® Skylake™ based fanless book mounting IPCs

The Book Mounting fanless IPC family BM3400 is based on sixth generation Celeron, Core™ i3, i5 and i7 dual and quad core processors of the Intel® Skylake™ platform.
BM3400 systems are supplied with a sturdy aluminum chassis, highly refined in every aesthetic and ergonomic detail.
The "all in one" motherboard provides, on top, four Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, two USB 2.0 ports, a serial RS232 interface, one DVI-D video output and, as an option, one or two Remote Video Link connectors (RJ45) for the remotation of the video and USB signals up to 100 m; on front, a USB 3.0 port, a SATA III CFast slot, a slot for the extractable system battery, the signalling LEDs and optionally two slots for extractable storage units drawers. The motherboard has also an mSATA connector for a SATA III SSD, two SATA III connector for 2.5" SSD/HDDs, the possibility to set the mass storage devices in RAID 0, 1 configuration, up to 32 GB RAM with two DDR4 SODIMM modules and an internal connector for additional serial and USB interfaces.
BM3400 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S2 with two PCI or PCIe expansion slots.

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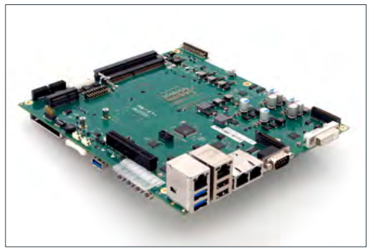
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Highly refined aluminium chassis
- → Extractable drawers for 2.5" storage devices
- → RAID 0,1
- → Up to 2 Remote Video Link - remotation of DVI and USB 2.0 signals up to 100m
- → "All in one" motherboard
- → High performance Intel® Skylake™ platform
- → Fanless book mounting IPC with 0-50 °C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S2 version with two PCI or PCIe 4x expansion slots
- → CE, cULus LISTED (61010) certifications

Gallery



Technical data

	BM3400
PROCESSORS	Intel® Celeron G3900E 2.40GHz 64 bit, 2 cores / 2 threads, 2MB Smart cache, soldered Intel® Core i3-6100E 2.70GHz 64 bit, 2 cores / 4 threads, 3MB Smart cache, soldered Intel® Core i5-6440EQ 2.70GHz (3.40GHz Turbo) 64 bit, 4 cores / 4 threads, 6MB Smart cache, soldered Intel® Core i7-6820EQ 2.80GHz (3.50GHz Turbo) 64 bit, 4 cores / 8 threads, 8MB Smart cache, soldered
CHIPSET	Intel® HM170/CM236 PCH (Platform Controller Hub)
VIDEO CONTROLLER	Intel® HD Graphics 510 integrated in Celeron 3900E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i3-6100E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i5-6440EQ, Core i7-6820EQ processors ▪ 350MHz/1,00GHz ▪ DirectX 12 and OpenGL 4.4 support
SYSTEM MEMORY - RAM	4GB or 8GB or 16GB or 32GB (2 x SODIMM DDR4 modules)
TPM	TPM module (optional)
MASS STORAGE S0 / S2	1 bootable CFast slot on board with front external access 1 x SSD mSATA SATA III
S0	without RVL: 1 x SSD/HDD 2,5" SATA III or max 2 x SSD/HDD 2,5" SATA III with front extractable drawer with RVL: 1 x SSD/HDD 2,5" SATA III or 1 x SSD/HDD 2,5" SATA III with front extractable drawer
S2	max 2 x SSD/HDD 2,5" SATA III or max 2 x SSD/HDD 2,5" SATA III with front extractable drawer
RAID	RAID 0, 1
LAN	4 x LAN 10/100/1000Mbps top (3 x Intel® I210 + 1 x Intel® I219LM)
USB	1 x USB 3.0 front (Type-A)
	2 x USB 2.0 top (Type-A) + 2 x USB 3.0 top (Type-A)
SERIAL	1 x RS232 (DB9M)
BATTERY	1 x CR2032 Removable front access
VIDEO OUTPUT	1 x DVI-D, top 1 or 2 x RJ45 connectors Remote Video Link (DVI-D and USB 2.0 signals remotation up to 100 m, optional)
ADD-ON INTERFACES (optional)	1 x RS232/422/485 (DB15M) + 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
EXPANSION SLOTS S2	2 x PCIe x4 or 1 x PCI + 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack
CASE Installation	For wall book mounting
Material	Alluminium alloy 6082/5754/5056
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 2016 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with HDD 24x7 or S2 versions
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (61010) pending

Box IPCs

ASEM provides a full range of Box IPCs in terms of configurability, dimensions and performances. They are based on Atom, Celeron, Core™ i3, i5, i7 dual and quad core processors and they are suitable for wall or DIN rail mounting.

PB2000

Intel® Cedar Trail™ based fanless box IPCs

The fanless box IPC family PB2000 is based on the Atom™ D2550 1,86GHz dual core processor of the Intel® Cedar Trail™ platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 2.0 ports, a serial RS232 interface, a VGA or DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, one SATA II connector for the installation of 2.5" HDD/SSD, up to 4 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial and USB interfaces.

PB2000 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x1 slot.

ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → Intel® Cedar Trail™ platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S1 version with one PCI or PCIe x1 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery

Technical data

	PB2000
PROCESSOR	Intel® Atom™ D2550 1,86 GHz, 2 cores / 4 threads, 1MB L2 cache, soldered
CHIPSET	Intel® NM10
VIDEO CONTROLLER	Integrated in Intel® Atom™ microprocessor, 640MHz, LVDS 8bit/color digital interface
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB (1 x SODIMM DDR3 module)
MASS STORAGE	1 bootable CFast slot on board with external access
	1 x SSD 2,5" or 1 HDD 2,5" SATA II
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® 82574L)
USB	4 x USB 2.0 (Type- A)
SERIAL	1 x RS232 (DB9M)
VIDEO OUTPUT	1 x VGA or 1 x DVI-I (DVI-D + VGA)
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
EXPANSION SLOTS S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards
S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards
	1 x PCI or 1 x PCIe x1 (2.5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows Embedded Compact 7 Pro
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with 24x7 HDD
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (508)

PB2150

Intel® Bay Trail™ based fanless box IPCs

The fanless box IPC family PB2150 is an entry-level that offers an excellent performance/price ratio.
It is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, a USB 3.0 port, a USB 2.0 port, a DVI-D video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial and USB interfaces.

PB2150 systems have an isolated 24 VDC power supply input and are available in two versions, the SL with a reduced depth and the S0 with the possibility to install additional interfaces.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → SL version with reduced depth
- → CE, cULus LISTED (61010) certifications

Gallery

Technical data

	PB2150
PROCESSOR	Intel® Celeron® Processor J1900 2.00Ghz, 4 cores / 4 threads, 2MB L2, 22nm technology
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIM DDR3 module)
MASS STORAGE	1 bootable CFast slot on board with external access
	1 x SSD mSATA SATA II
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210)
USB	1 x USB 3.0 rear (Type-A)
	1 x USB 2.0 rear (Type-A)
VIDEO OUTPUT	1 x DVI-D
ADD-ON INTERFACES (optional for S0, max 1)	1 x RS232/422/485 (DB15M) + 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	1 x USB 2.0 (Type-A)
POWER SUPPLY INPUT	24VDC isolated
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 2016 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
APPROVALS	CE, cULus LISTED (61010) pending

PB2200

Intel® Bay Trail™ based fanless box IPCs

The fanless box IPC family PB2200 is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
The "all in one" motherboard provides two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, one USB 3.0 port, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, one SATA II connector for the installation of 2.5" HDD/SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial and USB interfaces.
PB2200 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in three versions, the SL with a reduced depth, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x1 slot.

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ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Support to 32 or 64 bit operating systems
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → SL version with reduced depth
- → S1 version with one PCI or PCIe x1 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery

Technical data

	PB2200
PROCESSOR	Intel® Celeron J1900 2.0Ghz, 4 cores / 4 threads, 2MB L2 cache, soldered
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface
SYSTEM MEMORY - RAM	1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)
MASS STORAG SL	1 bootable CFast slot on board with external access
	1 x SSD mSATA SATA II
S0/S1	1 bootable CFast slot on board with external access
	1 x SSD 2,5" mSATA SATA II or 1 x SSD 2,5" or HDD 2,5" SATA II
LAN	2 x LAN 10/100/1000Mbps (2 x Intel® I210)
	1 x LAN 10/100/1000Mbps (Intel® I210), optional
USB	1 x USB 3.0 rear (Type-A)
	2 x USB 2.0 rear (Type-A)
SERIAL	1 x RS232 (DB9M)
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA with adapter)
ADD-ON INTERFACES (optional for S0/S1, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
EXPANSION SLOTS S1	1 x PCI or PCIe x1 (2.5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with 24x7 HDD
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (508)

PB3000 / PB3010

Intel® Ivy Bridge™ based fanless box IPCs

The fanless box IPC family PB3000/PB3010 is based on the third generation Core i3, i5, i7 (35W) and Celeron (17W) of the Intel® Ivy Bridge™ platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA III SSD, one SATA III connector for the installation of 2.5" HDD/SSD, up to 16 GB RAM with two DDR3 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces. PB3000/PB3010 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot. PB3010 versions have two digital video output, a DVI-I (DVI-D + VGA) and a DVI-D.

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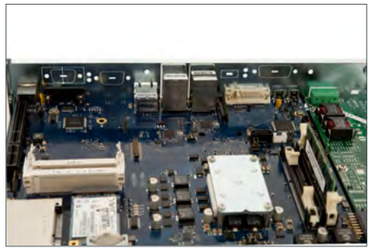
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → 17W (Celeron) or 35W (Core i3, i5, i7) processors - Intel® Ivy Bridge™ platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → PB3010 version with double DVI output
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (508) certifications

Gallery



Technical data

	PB3000	PB3010
PROCESSOR	Intel® Celeron™ 1047UE, 1.40GHz, 2 cores / 2 threads, 2MB smart cache, 17W	
	Intel® Celeron™ 1020E, 2.20GHz, 2 cores / 2 threads, 2MB smart cache, 35W	
	Intel® Core™ i3-3120ME, 2.40GHz, 2 cores / 4 threads, 3MB smart cache, 35W	
	Intel® Core™ i5-3610ME, 2.70GHz (3.3GHz turbo), 2 cores / 4 threads, 3MB smart cache, 35W	
	Intel® Core™ i7-3612QE, 2.1GHz (3.1GHz turbo), 4 cores / 8 threads, 6MB smart cache, 35W	
CHIPSET	Intel® HM76 Express Chipset	
VIDEO CONTROLLER	Intel® HD Graphics, 650MHz integrated in Celeron™microprocessor	
	Intel® HD Graphics 4000, 650MHz integrated in Core™microprocessor	
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB or 16GB (2 x SODIMM DDR3 modules)	
MASS STORAGE	1 bootable CFast slot on board with external access	
	1 x SSD 2,5" or 1 x HDD 2,5" SATA III	
	1 x mSATA SSD SATA III	
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® 82574L, 1 x Intel® 82579LM)	
USB	2 x USB 3.0 (Type-A)	
	2 x USB 2.0 (Type-A)	
SERIAL	1 x RS232 (DB9M)	
VIDEO OUTPUT	1 x VGA or 1 x DVI-I (DVI-D + VGA)	1 x DVI-I
		1 x DVI-D
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)	
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)	
	2 x RS232 (DB9M)	
	2 x USB 2.0 (Type-A)	
	1 x Ethernet 10/100/1000Mpbs, Intel® 82574L	
	Unmanaged Ethernet switch 4 x 10/100/1000Mbps	
EXPANSION SLOTS S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards	-
S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards	-
	1 x PCI or 1 x PCIe x4 (5 Gb/s)	1 x PCI or 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack	
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit	
OPERATING TEMPERATURE	0°- 50°C	
	0°- 45°C with 24x7 HDD	
	5°- 45°C with standard HDD	
APPROVALS	CE, cULus LISTED (508)	

PB3200

Intel® Broadwell™ U based fanless box IPCs

The fanless box IPC family PB3200 is based on the fifth generation Core i3, i5, i7 and Celeron of the Intel® Broadwell™ U platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, one USB 2.0 port, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA III CFast slot with rear external access, an mSATA connector for SATA III SSD, one SATA III connector for the installation of 2.5" HDD/SSD, up to 8 GB RAM with one DDR3 SODIMM module and an internal connector for additional serial, USB or Ethernet interfaces.
PB3200 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in three versions, the SL with a reduced depth, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot.

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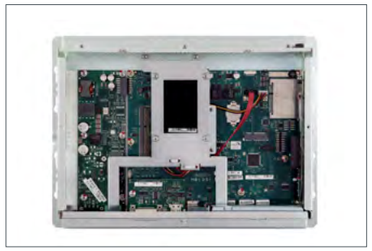
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → 15W processors - Intel® Broadwell™ U platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → SL version with reduced depth
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (61010) certifications

Gallery



Technical data

	PB3200
PROCESSORS	Intel® Celeron 3765U 1,9Ghz, 2 cores - 2 threads - 2MB smart cache - 15W
	Intel® Core™ i3-5010U 2,1Ghz, 2 cores - 4 threads - 3MB smart cache - 15W
	Intel® Core™ i5-5350U 1,8Ghz (2,9GHz Turbo), 2 cores - 4 threads - 3MB smart cache - 15W
	Intel® Core™ i7-5650U 2,2Ghz (3,1GHz Turbo), 2 cores - 4 threads - 4MB smart cache - 15W
CHIPSET	Intel® Broadwell PCH-LP (Platform Controller Hub - Low Power) • Included into processor chip
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor Celeron 3765U, 850MHz Clock Intel® HD Graphics 5500 integrated in microprocessor i3, 900MHz Clock Intel® HD Graphics 6000 integrated in microprocessor i5, i7, 1GHz Clock with LVDS 8bit/color digital interface
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB (1 x SODIMM DDR3 module)
MASS STORAGE SL	1 bootable CFast slot on board with external access
	1 x SSD 2,5" or 1 x HDD 2,5" SATA III
S0/S1	1 bootable CFast slot on board with external access
	1 x SSD mSATA SATA III
	1 x SSD or 1 x HDD 2,5" SATA III
LAN	3 x Ethernet 10/100/1000 Mbps (RJ45 - 2 x Intel® I210-AT, 1 x Intel® I218-LM)
USB	2 x USB 3.0 (Type-A)
	1 x USB 2.0 (Type-A)
SERIAL	1 x RS232 (DB9M)
VIDEO OUTPUT	1 x DVI-I (DVI-D + VGA with adapter)
ADD-ON INTERFACES (optional for S0/S1, max 1)	1 x Ethernet 10/100/1000Mpbs
	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
EXPANSION SLOTS S1	1 x PCI or 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated with or without UPS (optional) with external battery pack
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with 24x7 HDD
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (61010) pending

PB3400 [new]

Intel® Skylake™ H based fanless box IPCs

The fanless Box IPC family PB3400 is based on the sixth generation Core i3, i5, i7 and Celeron of the Intel® Skylake™ H platform.
The "all in one" motherboard provides four Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, three USB 3.0 ports, two USB 2.0 port, a serial RS232 interface, a DVI-D video output and a SATA III CFast slot with rear external access, an mSATA connector for a SATA III SSD, one SATA III connector for 2.5" SSD/HDD, up to 32 GB RAM with two DDR4 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces.
PB3400 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack.
The systems are available in two versions, the S0 with the possibility to install additional interfaces and the S1 with a PCI or PCIe x4 slot.

c UL us LISTED

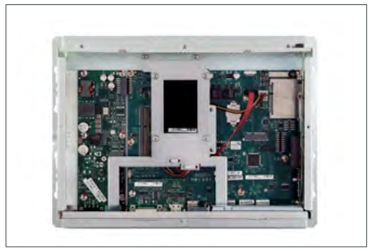
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → "All in one" motherboard
- → High performance Intel® Skylake™ H platform
- → Fanless box IPC with 0-50° C operating temperature
- → Isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional)
- → S1 version with one PCI or PCIe x4 expansion slot
- → CE, cULus LISTED (61010) certifications

Gallery



Technical data

	PB3400
PROCESSORS	Intel® Celeron G3900E 2.40GHz 64bit, 2 cores / 2 threads, 2MB Smart cache, soldered
	Intel® Core i3-6100E 2.70GHz 64bit, 2 cores / 4 threads, 3MB Smart cache, soldered
	Intel® Core i5-6440EQ 2.70GHz (3.40GHz Turbo) 64bit, 4 cores / 4 threads, 6MB Smart cache, soldered
	Intel® Core i7-6820EQ 2.80GHz (3.50GHz Turbo) 64bit, 4 cores / 8 threads, 8MB Smart cache, soldered
CHIPSET	Intel® HM170 PCH (Platform Controller Hub)
VIDEO CONTROLLER	Intel® HD Graphics 510 integrated in Celeron 3900E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i3-6100E processor ▪ 350MHz/950MHz ▪ DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i5-6440EQ, Core i7-6820EQ processors ▪ 350MHz/1,00GHz ▪ DirectX 12 and OpenGL 4.4 support
SYSTEM MEMORY - RAM	4GB or 8GB or 16GB or 32GB (2 x SODIMM DDR4 modules)
TPM	TPM module (optional)
MASS STORAGE	1 bootable CFast SATA III slot on board with external access
	1 x SSD mSATA SATA III
	1 x SSD or 1 x HDD 2,5" SATA III
LAN	4 x LAN 10/100/1000Mbps (3 x Intel® I210 + 1 x Intel® I219LM)
USB	3 x USB 3.0, rear (Type-A)
	2 x USB 2.0, rear (Type-A)
SERIAL	1 x RS232 (DB9M)
VIDEO OUTPUT	1 x DVI-D
ADD-ON INTERFACES (optional, max 1)	1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)
	1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
	2 x RS232 (DB9M)
	2 x USB 2.0 (Type-A)
	1 x LAN 10/100/1000Mbps (Intel® I210)
EXPANSION SLOTS S1	1 x PCI or 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT	24VDC isolated
	kit for ATX mode power supply (optional)
	24VDC isolated with UPS (optional) with external battery pack
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64bit, Microsoft Windows IoT Enterprise 2016 64bit
OPERATING TEMPERATURE	0°- 50°C
	0°- 45°C with 24x7 HDD
	5°- 45°C with standard HDD
APPROVALS	CE, cULus LISTED (61010) pending

PB5000

Intel® Ivy Bridge™ based highly expandable box IPCs

The box IPC family PB5000 is based on the third generation Core i3, i5, i7 (35/45W) and Celeron (35W) of the Intel® Ivy Bridge™ platform.
The "all in one" motherboard provides three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output and a SATA II CFast slot with rear external access, an mSATA connector for SATA II SSD, two SATA III connector for the installation of 2.5" HDDs/SSDs, the possibility to set the mass storages in RAID 0,1 configuration, up to 16 GB RAM with two DDR3 SODIMM modules and an internal connector for additional serial, USB or Ethernet interfaces.
PB5000 systems have an isolated 24 VDC power supply input and optionally an integrated UPS with external battery pack, or as an alternative a 110/230 VAC power supply.
The systems are available in three versions, the S0 with the possibility to install additional interfaces, the S1 with a PCI or PCIe x4 slot and the S3 with three PCI slots or two PCI + one PCIe x4 slots.

c UL us LISTED

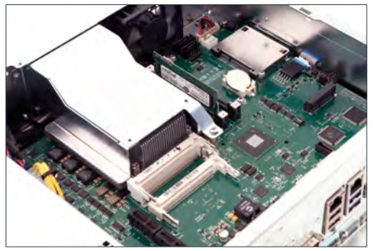
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → RAID 0,1 (optional)
- → "All in one" motherboard
- → 35W (Celeron) or 35/45W (Core i3, i5, i7) processors - Intel® Ivy Bridge™ platform
- → Box IPC with 0-50° C operating temperature
- → 110/230 VAC or isolated 24 VDC power supply input
- → Integrated UPS with external battery pack (optional, only for S0 and S1 with 24 VDC power supply)
- → S1 version with one PCI or PCIe x4 expansion slot
- → S3 version with three PCI or PCIe x4 expansion slots
- → CE, cULus LISTED (508) certifications

Gallery



Technical data

		PB5000
PROCESSOR (on socket)		Intel® Celeron™ 1020E, 2.20GHz, 2 cores / 2 threads, 2MB Smart cache, 35W
		Intel® Core™ i3-3120ME, 2.40GHz, 2 cores / 4 threads, 3MB Smart cache, 35W
		Intel® Core™ i5-3610ME, 2.70GHz (3.3GHz Turbo), 2 cores / 4 threads, 3MB Smart cache, 35W
		Intel® Core™ i7-3610QE, 2.30GHz (3.3GHz Turbo), 4 cores / 8 threads, 6MB Smart cache, 45W
CHIPSET		Intel® HM76 Express Chipset
VIDEO CONTROLLER		Intel® HD Graphics, 650MHz integrated in Celeron™ microprocessor
		Intel® HD Graphics 4000, 650MHz integrated in Core™ microprocessor
SYSTEM MEMORY - RAM		2GB or 4GB or 8GB or 16GB (2 x SODIMM DDR3 modules)
RAID		RAID 0, 1 (optional) with Intel® QM77 Express Chipset
MASS STORAGE		1 bootable CFast slot on board with external access
		2 x SSD 2,5"or HDD 2,5" SATA III (also in RAID or with extractable drawers)
		1 x mSATA SSD SATA II
LAN		3 x LAN 10/100/1000Mbps (2 x Intel® 82574L, 1 x Intel® 82579LM)
USB		2 x USB 3.0 (Type-A)
		2 x USB 2.0 (Type-A)
SERIAL		1 x RS232 (DB9M)
PS/2		1 x PS/2 for keybaord or mouse
VIDEO OUTPUT		1 x VGA or 1 x DVI-I (DVI-D + VGA)
ADD-ON INTERFACES (optional, max 1)		1 x RS232/422/485 (DB15M)+ 1 x USB 2.0 (Type-A)
		1 x RS232/422/485 (DB15M) isolated + 1 x USB 2.0 (Type-A)
		2 x RS232 (DB9M)
		2 x USB 2.0 (Type-A)
		1 x Ethernet 10/100/1000Mpbs, Intel® 82574L
		Unmanaged Ethernet switch 4 x 10/100/1000Mbps
EXPANSION SLOTS	S0	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards
	S1	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards
		1 x PCI or 1 x PCIe x4 (5 Gb/s)
	S3	2 x MiniPCI dedicated to ASEM fieldbuses, I/O and NVRAM boards
		3 x PCI or 2 x PCI + 1 x PCIe x4 (5 Gb/s)
POWER SUPPLY INPUT		24VDC isolated with or without UPS (optional) with external battery pack or 110V / 230VAC
O.S. CERTIFIED		Microsoft Windows 7 Pro/Ultimate 32/64 bit, Windows XP Pro 32 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Windows Embedded Standard 2009 (XPe SP3) 32 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit
OPERATING TEMPERATURE		0°- 50°C
		0°- 45°C with 24x7 HDD
		5°- 45°C with standard HDD
APPROVALS		CE, cULus LISTED (508)

Arm Mounting IPCs

The Arm Mounting IPCs are compact, fanless, ergonomic and easy to install systems with a stylish design, that are easy to install and compatible with the most common mounting standards.
Based on Intel® Broadwell platform they are available with 15.6", 18.5", 21.5" and 24" TFT LED Backlight LCDs in a Full IP65 aluminium chassis.

VK3200

Intel® Broadwell™ U fanless arm mounting IPCs

The fanless Arm Mounting IPC family VK3200 is based on the fifth generation Core i3, i5, i7 and Celeron of the Intel® Broadwell™ U platform.
They are made of a Full IP65 cast aluminium chassis, powder coated with anti-scratch treatment compatible with the most used installation standards. The front button area, totally configurable at the order, allows to install light indicators, buttons, lever switches, keylock switches, encoders, an emergency stop button and USB, Ethernet or RFID interfaces (described at page 85).
The "all in one" motherboard provides two USB 3.0 ports with rear external protected access and, inside the chassis, three Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 2.0 port, a serial RS232/422/485 interface, a SATA III CFast slot, an mSATA connector for SATA III SSD and up to 8 GB RAM with one DDR3 SODIMM module.
The VK3200 family is available with 16 milion color LED Backlight TFT LCDs from 15.6" to 24", in Wide aspect ratio, with Aluminium True flat front panels and 5 wires resistive touchscreen or with aluminium and glass TrueFlat Multitouch front panels and projected capacitive touchscreen.
VK3200 systems have an isolated 24 VDC power supply input.

ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Full IP65 chassis
- → Button area with up to 15 Ø22 elements
- → "All in one" motherboard
- → Intel® Broadwell™ U platform
- → Fanless arm mounting IPC with 0-50° C operating temperature
- → 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → CE, cULus LISTED (61010) certifications

Gallery




Technical data

	VK3200-TF	VK3200-TFM
LED backlight TFT LCD	15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W- 1920x1080	15.6" W - 1366x768 15.6" W - 1920x1080 18.5" W - 1366x768 18.5" W - 1920x1080 21.5" W- 1920x1080 24" W - 1920x1080
TOUCHSCREEN	Resistive 5 wires	P-CAP Multitouch
FRONT PANEL	True Flat Aluminum	True Flat Aluminum
PROTECTION GRADE	Full IP65	
PROCESSOR (soldered)	Intel® Celeron 3765U 1,9Ghz, 2 cores - 2 threads - 2MB smart cache - 15W Intel® Core™ i3-5010U 2,1Ghz, 2 cores - 4 threads - 3MB smart cache - 15W Intel® Core™ i5-5350U 1,8Ghz (2,9GHz Turbo), 2 cores - 4 threads - 3MB smart cache - 15W Intel® Core™ i7-5650U 2,2Ghz (3,1GHz Turbo), 2 cores - 4 threads - 4MB smart cache - 15W	
VIDEO CONTROLLER	Intel® HD Graphics integrated in microprocessor Celeron 3765U, 200/1000MHz Clock Intel® HD Graphics 4400 integrated in microprocessor i3-5010U, 200/1000MHz Clock Intel® HD Graphics 4400 integrated in microprocessor i5-5350U, 200/1100MHz Clock Intel® HD Graphics 5000 integrated in microprocessor i7-5650U, 200/1100MHz Clock with LVDS 8bit/color digital interface	
SYSTEM MEMORY - RAM	2GB or 4GB or 8GB (1 x SODIMM DDR3 module)	
MASS STORAGE	1 bootable CFast SATA III slot on board, internal access	
	1 x SSD mSATA SATA III	
LAN	3 x LAN 10/100/1000Mbps (2 x Intel® I210-AT, 1 x Intel® I218-LM)	
USB	2 x USB 3.0 external rear, protected, IP65 (Type-A)	
	2 x USB 2.0 internal (Type-A)	
SERIAL (optional)	1 x RS232/422/485 (DB15M)	
	1 x RS232/422/485 (DB15M) isolated	
CASE Installation	For pole or suspension arm mounting system compatible with RITTAL CP40/ROLEC TARAPLUS/ HASEKE ULT KUPPLUNG 48	
Material	Alluminum alloy EN AB46400	
Color	Anti-scratchable painted - RAL 9006	
BUTTONS AREA (hard wired or slave modular fieldbus version)	Buttons, lights and interfaces on the front panel are optional. 1 x Emergency stop button (always hard wired), 1 x RFID (internally connected to USB), 1 x USB port, lights, button keys and switches (hard wired or fieldbus). Several industrial fieldbus masters are supported. The push-button panel design allows easy device substitution.	
POWER SUPPLY INPUT	24VDC isolated	
O.S. CERTIFIED	Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit	
OPERATING TEMPERATURE	0°- 50°C	
APPROVALS	CE, cULus (61010)	

VPC2200

Intel® Bay Trail™ fanless arm mounting IPCs

The fanless Arm Mounting IPC family VPC2200 is based on the Celeron J1900 2GHz quad core 64 bit processor of the Intel® Bay Trail™ System On Chip (SoC) platform.
They are made of a Full IP65 cast aluminium chassis, powder coated with anti-scratch treatment and it is compatible with VESA, Rolec Taraplus and Rittal CP-40 standards. A keyboard and two side modules are available, both with predisposition to install light indicators, buttons, lever switches, keylock switches and an emergency stop button.
The "all in one" motherboard provides, inside the chassis, two Ethernet 10/100/1000Mbps ports, that support "Jumbo Frame" and "Wake on Lan" functionalities, one USB 3.0 port, two USB 2.0 ports, a serial RS232 interface, a DVI-I (DVI-D + VGA) video output, a SATA II CFast slot, an mSATA connector for SATA II SSD and up to 8 GB RAM with one DDR3 SODIMM module.
The VPC2200 family is available with 16 milion color LED Backlight TFT 15" LCD in 4:3 aspect ratio, with Aluminium front panel, 5 wires resistive touchscreen and two additional USB 2.0 ports on front.
VPC2200 systems have an isolated 24 VDC power supply input
and the VPC2200-E version integrates a MiniPCI slot for the installation of ASEM NETcore® X fieldbus boards.

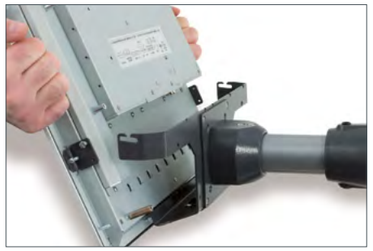
ASEM STANDARDS

UBIQUITY INSIDE

Highlights

- → UBIQUITY remote assistance software providing remote access to the system
- → Pole or Arm Mounting system, compatible with VESA 75-100, RITTAL CP40, ROLEC TARAPLUS
- → Two side button areas for Ø22 elements (optional)
- → Keyboard module (optional)
- → "All in one" motherboard
- → High performance Intel® Bay Trail™ SoC platform
- → Fanless arm mounting IPC with 0-45° C operating temperature
- → 15" LCD in 4:3 aspect ratio
- → Isolated 24 VDC power supply input
- → CE certification

Gallery



Technical data

		VPC2200	VPC2200-E
LED backlight TFT LCD		15.0" - 1024x768	
TOUCHSCREEN		Resistive 5 wires	
FRONT PANEL		Aluminium alloy with polycarbonate foil Pantone 429C color	
PROTECTION GRADE		IP65 frontal	
PROCESSOR		Intel® Celeron J1900 2.0Ghz, 4 cores / 4 threads, 2MB L2 cache, soldered	
VIDEO CONTROLLER		Intel® HD Graphics integrated in microprocessor, 688MHz Clock 854MHz Turbo, LVDS 8bit/color digital interface	
SYSTEM MEMORY - RAM		1GB or 2GB or 4GB or 8GB (1 x SODIMM DDR3 module)	
MASS STORAGE		1 x SSD mSATA/2.5" SATA II	1 x SSD mSATA/2.5" SATA II
		1 bootable CFast SATA II slot on board, internal access	
LAN		2 x LAN 10/100/1000Mbps (2 x Intel® I210)	2 x LAN 10/100/1000Mbps (2 x Intel® I210)
		Optional 1 x LAN 10/100/1000Mbps (1 x Intel® I210)	
USB		2 x USB 2.0 external front, protected (Type-A)	
		1 x USB 3.0 internal (Type-A)	
		2 x USB 2.0 internal (Type-A)	
SERIAL		1 x RS232 (DB9M)	
EXPANSION SLOTS		-	1 x MiniPCI dedicated to ASEM fieldbuses
VIDEO OUTPUT		1 x DVI-I (DVI-D + VGA with adapter)	
CASE	Installation	For pole or suspension arm mounting system compatible with VESA / RITTAL CP40 / ROLEC TARAPLUS	
	Material	Steel	
	Color	Anti-scratchable painted RAL 7035	
BUTTONS & LEDS (optional)		Side modules for emergency stop button, buttons, lights, keys and switches	
KEYBOARD (optional)		US-international layout keyboard module with 86 keys and antiglare protection also with emergency button	
POWER SUPPLY INPUT		24VDC isolated	
O.S. CERTIFIED		Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows Embedded Standard 7E/7P 32/64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 10 64 bit, Microsoft Windows 10 IoT Enterprise 2016 64 bit	
OPERATING TEMPERATURE		0°- 45°C	
APPROVALS		CE	

Rack IPCs

19" 4U rack solutions with a wide range of configurations, motherboards, expansion slots and Intel® Core™ i3, i5, i7, dual and quad core processors.

PR4046 / PR4146
Intel® Ivy Bridge™ based rack IPCs

The 19" Rack IPC PR4046/4146 family is based on the Pentium dual core and third generation Core™ i3, i5, i7 processors of the Intel® Ivy Bridge™ platform.
The industrial motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 3.0 ports, two USB 2.0 ports, one RS232/422/485 serial interface, one HDMI, one DVI-I (DVI-D + VGA) and a DVI-D video outputs; on the front, two USB 2.0 ports. The motherboard also has two SATA III and four SATA II connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storages in RAID 0, 1, 5, 10 configuration and up to 32 GB RAM with four DDR3 DIMM modules.
PR4046/4146 systems are provided with 110/230 VAC power supply and are available in two versions, PR4046 with up to two 500W redundant power supplies and PR4146, with reduced depth chassis.

Highlights
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Ivy Bridge™ dual and quad core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4146 version with compact cabinet
- → CE certification

PR4047 / PR4147
Intel® Haswell™ based rack IPCs

The 19" Rack IPC PR4047/4147 family is based on the Pentium dual core and fourth generation Core™ i3, i5, i7 processors of the Intel® Haswell™ platform.
The motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, two USB 3.0 ports, six USB 2.0 ports, one RS232 serial interface, two DisplayPort and a DVI-I (DVI-D + VGA) video outputs; on the front, two USB 2.0 ports. The motherboard also has an mSATA connector for a SATA III SSD, six SATA III connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storages in RAID 0, 1, 5, 10 configuration and up to 32 GB RAM with four DDR3 DIMM modules.
PR4047/4147 systems are provided with 110/230 VAC power supply and are available in two versions, PR4047 with up to two 500W redundant power supplies and PR4147, with reduced depth chassis.

Highlights
- → "Heavy-duty" motherboard for 24/7 industrial applications
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Haswell™ dual and quad core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4147 version with compact cabinet
- → CE certification

PR4048 / PR4148

Intel® Skylake™ based rack IPCs

The 19" Rack IPC PR4048/4148 family is based on the sixth generation Core™ i3, i5, i7 and Xeon processors of the Intel® Skylake™ platform.
The motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 3.0 ports, four USB 2.0 ports, one RS232 serial interface, two DisplayPort and a DVI-D video outputs; on the front, two USB 3.0 ports. The motherboard also has an mSATA connector for a SATA III SSD, six SATA III connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storages in RAID 0, 1, 5, 10 configuration and up to 64 GB RAM with four DDR4 DIMM modules.
PR4048/4148 systems are provided with 110/230 VAC power supply and are available in two versions, PR4048 with up to two 500W redundant power supplies and PR4148, with reduced depth chassis.

Highlights

- → "Heavy-duty" motherboard for 24/7 industrial applications
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Skylake™ dual and quad core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4148 version with compact cabinet
- → CE certification

Technical Data

	PR4046	PR4146	PR4047	PR4147	PR4048	PR4148
19" RACK CABINET	long	short	long	short	long	short
MOTHERBOARD	ATX format, CL630-CRM (DFI)		ATX format, D3236-S (Fujitsu)		ATX format, D3446-S (Fujitsu)	
PROCESSOR	Intel® Pentium™ G2030, 3.00GHz, 2 cores / 2 threads, 3MB L2, 22nm technology		Intel® Pentium™ G3260, 3.30GHz, 2 cores / 2 threads, 3MB L2, 22nm technology		Intel® Core™ i3-6100, 3,7 GHz, 2 cores / 4 threads, 3MB L2, 14nm technology	
	Intel® Core™ i3-3250, 3.50GHz, 2 cores / 4 threads, 3MB L2, 22nm technology		Intel® Core™ i3-4170, 3,7 GHz, 2 cores / 4 threads, 3MB L2, 22nm technology		Intel® Core™ i3-6300, 3,8 GHz, 2 cores / 4 threads, 3MB L2, 14nm technology	
	Intel® Core™ i5-3470S, 2.9GHz, 4 cores / 4 threads, 6MB L2, 22nm technology		Intel® Core™ i5-4460S, 3,4 GHz, 4 cores / 4 threads, 6MB L2, 22nm technology		Intel® Core™ i5-6600, 3,3 GHz (3,9 GHz Turbo), 4 cores / 4 threads, 6MB L2, 14nm technology	
	Intel® Core™ i7-3770S, 3.1GHz, 4 cores / 8 threads, 8MB L2, 22nm technology		Intel® Core™ i7-4790, 3.6GHz, 4 cores / 8 threads, 8MB L2, 22nm technology		Intel® Core™ i7-6700, 3,4 GHz (4,0 GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology	
					Intel® Xeon™ E3-1225 V5, 3,3 GHz (3,7 GHz Turbo), 4 cores / 4 threads, 8MB L2, 14nm technology	
					Intel® Xeon™ E3-1275 V5, 3,6 GHz (4,0 GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology	
CHIPSET	Intel® C216 Express Chipset		Intel® Q87 Chipset		Intel® C236 Express Chipset	
O.S. CERTIFIED	Microsoft Windows 8 32/64 bit, Microsoft Windows 7 Pro/Ultimate 32/64 bit, Microsoft Windows XP Professional 32/64 bit		Microsoft Windows 8 32/64 bit, Microsoft Windows 7 Pro/Ultimate 32/64 bit		Microsoft Windows 10 IoT Enterprise 64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 7 32/64 bit, Microsoft Windows Server 2012 R2 64 bit Standard Edition	
VIDEO CONTROLLER	Intel® HD Graphics, 650MHz integrated into Pentium G2030		Intel® HD Graphics, 650MHz integrated into Pentium		Intel® HD Graphics 530 integrated in Core i3-6100 processors, 350MHz/1,05GHz	
	Intel® HD Graphics 2500, 650MHz integrated into Core™ i3 and Core™ i5		Intel® HD Graphics 4400, 350MHz integrated into Core™ i3		Intel® HD Graphics 530 integrated in Core i3-6300, Core i5-6600, Core i7-6700 processors, 350MHz/1,15GHz	
	Intel® HD Graphics 4000, 650MHz integrated into Core™ i7		Intel® HD Graphics 4600, 650MHz integrated into Core™ i5 and Core™ i7		Intel® HD Graphics P530 integrated in Xeon processors, 400MHz/1,15GHz DirextX 12 and OpenGL 4.4 support	
	DX11 and OpenGL 3.0 support		DX11 and OpenGL 3.0 support			
SYSTEM MEMORY	4GB / 8GB / 16GB / 32GB		4GB / 8GB / 16GB / 32GB		4GB / 8GB / 16GB / 32GB / 64GB DDR4	
EXPANSION SLOTS	3 x PCI full size (32 bit, 33MHz, Rev.2.3)		4 x PCI full size (32 bit, 33MHz, Rev.2.3)		2 x PCI full size (32 bit, 33MHz, Rev.2.3)	
	2 x PCIe x16 (1 x16 se Gen3, 2 x8 se Gen2)		2 x PCIe x16 (16 lanes, Gen2, 4 lanes, Gen2)		2 x PCIe x16 (16 lanes, Gen3, 4 lanes, Gen3)	
	2 x PCIe x4 (1 x4 Gen2, 1 x1/x4 Gen2)		1 x PCIe x8 (1 lane, Gen2)		1 x PCIe x8 (1 lane, Gen3)	
	1 x MiniPCIe (PCI 2.0)				2 x PCIe x4 (4 lanes, Gen3, 1 lane, Gen3)	
DRIVE BAY	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external
	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal
SPECIAL FEATURES			24/7 operation		24/7 operation	
DRIVE INTERFACES	4 x SATA II 3Gbit/s 2 x SATA III 6Gbit/s		1 x mSATA III 6Gbit/s 6 x SATA III 6Gbit/s		1 x mSATA III 6Gbit/s 6 x SATA III 6Gbit/s	
MASS STORAGE	up to 4 x HDD 3,5" SATA 2/3 without or with extractable drawer in a 5,25" bay (max 3)		up to 4 x HDD 3,5" SATA III without or with extractable drawer in a 5,25" bay (max 3)		up to 4 x HDD 3,5" SATA III without or with extractable drawer in a 5,25" bay (max 3)	
	up to 4 x SSD 2,5" SATA 2/3 without or with extractable drawer in a 3,5" bay (max 2)		up to 4 x SSD 2,5" SATA III without or with extractable drawer in a 3,5" bay (max 2)		up to 4 x SSD 2,5" SATA III without or with extractable drawer in a 3,5" bay (max 2)	
RAID	RAID 0, 1, 5, 10 on SATA II		RAID 0, 1, 5, 10 on SATA III		RAID 0, 1, 5, 10 on SATA III	
OPTICAL DRIVE	1 x DVD-RW		1 x DVD-RW		1 x DVD-RW	
LAN	2 x LAN 10/100/1000Mbps (1 x Intel® 82574L, 1 x Intel® 82579LM)		2 x LAN 10/100/1000Mbps (1 x Intel® I210AT, 1 x Intel® I217LM)		2 x LAN 10/100/1000Mbps (1 x Intel® I210AT, 1 x Intel® I219LM)	
USB	4 x USB 3.0 rear (Type-A)		2 x USB 3.0 rear (Type-A)		4 x USB 3.0 rear (Type-A)	
	2 x USB 2.0 rear (Type-A)		6 x USB 2.0 rear (Type-A)		4 x USB 2.0 rear (Type-A)	
	2 x USB 2.0 front (Type-A)		2 x USB 2.0 front (Type-A)		2 x USB 3.0 front (Type-A)	
SERIAL	1 x RS232/422/485 (DB9M)		1 x RS232 (DB9M)		1 x RS232 (DB9M)	
KEYBOARD & MOUSE	1 x PS/2 (K/M)		2 x PS/2 (K/M)		2 x PS/2 (K/M)	
VIDEO OUTPUT	1 x DVI-I		1 x DVI-I		1 x DVI-I	
	1 x DVI-D		2 x DisplayPort		2 x DisplayPort	
	1 x HDMI					
AUDIO	Realtek ALC886, 5.1-channel, High Definition Audio Codec		Realtek ALC886, 5.1-channel, High Definition Audio Codec		Realtek ALC671, 5.1-channel, High Definition Audio Codec, S/PDIF	
	Audio Mic In, Line in, Line out		Audio Mic In, Line in, Line out		Audio Mic In, Line in, Line out	
ADDITIONAL INTERFACES	2 x RS232 (DB9M)		1 x RS232 (DB9M)		1 x RS232 (DB9M)	
	4 x USB 2.0 internal on connector		1 x USB 2.0 for internal dongle		1 x USB 2.0 for internal dongle	
			1 x LPT EPP, ECP bidirectional			
POWER SUPPLY INPUT	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W
	230VAC 2 x 500W		230VAC 2 x 500W		230VAC 2 x 500W	
DIMENSIONS w-h-d	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm
OPERATING TEMPERATURE	0°- 40°C with 24x7 HDD 5°- 40°C with standard HDD		0°- 40°C with 24x7 HDD 5°- 40°C with standard HDD		0°- 40°C with 24x7 HDD 5°- 40°C with standard HDD	
APPROVALS	CE		CE		CE	

Industrial Monitors

The panel Industrial Monitors are available with LCDs from 8.4" to 24", with 4:3, 5:4 or Wide format, and four front panel variants.
Arm Mounting Monitors are compact, fanless, ergonomic and easy to install solutions, compatible with the most common mounting standards and are available with 15.6", 18.5", 21.5" and 24" TFT LCDs in a full IP65 aluminium chassis.
MHR100 and MKR100 versions integrate the remotation technology for digital video and USB 2.0 signal up to 100 m with a Cat5e SF/UTP or Cat6A S/FTP cable.

MH100 / MHR100

Panel Mounting industrial monitors

The panel monitor family MH100/MHR100 is available with 16 milion color LED Backlight TFT LCDs from 8.4" to 24", in 4:3, 5:4 and Wide aspect ratio, with Aluminium or Aluminium True flat front panels, 5 wires resistive touchscreen and an additional USB 2.0 port on front. As an alternative, the systems with 12.1", 15", 17" and 19" LCD can have a Stainless Steel True Flat front panel. All version with Wide LCDs are also available with aluminium and glass TrueFlat Multitouch front panels, with projected capacitive touchscreen. MH100/MHR100 monitors have an isolated 24 VDC or optionally 110/230 VAC power supply input.

MH100 versions have a VGA and a DVI-D standard input. MHR100 versions integrate the remotation technology for DVI and USB 2.0 signals that allows the connection of the IPC within 100 meters with a Cat 5e SF/UTP or CAT6A S/FTP cable.

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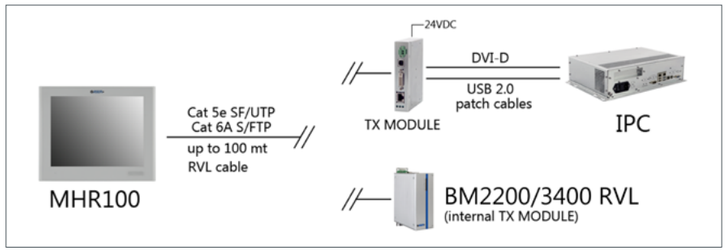
ASEM STANDARDS

Highlights

- Industrial Monitor with 0-50° C operating temperature
- 8.4", 10.4", 12.1" and 15" LCDs in 4:3 aspect ratio, 17" and 19" LCDs in 5:4 aspect ratio, 10.1", 12.1", 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- Isolated 24 VDC power supply input or 110/230 VAC power supply (optional)
- MHR100 version with remotation of DVI and USB 2.0 signals up to 100m
- CE, cULus LISTED (508) certifications

Gallery

Remotation



Technical data

	MH	MH-TF	MH-TFX	MH-TFM	MHR100	MHR100-TF	MHR100-TFX	MHR100-TFM
LED backlight TFT LCD	8.4" - 800x600 10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768 15.6" W- 1920x1080 17" - 1280x1024 18.5" W - 1366x768 18.5"W - 1920x1080 19" - 1280x1024 21.5" W- 1920x1080 24" W- 1920x1080		12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" - 1280x1024 19" - 1280x1024	10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768 15.6" W- 1920x1080 18.5" W - 1366x768 18.5"W - 1920x1080 21.5" W -1920x1080 24" W- 1920x1080	8.4" - 800x600 10.1" W - 1280x800 10.4" - 800x600 12.1" - 800x600 12.1" - 1024x768 12.1" W - 1280x800 15.0" - 1024x768 15.6" W - 1366x768 15.6" W- 1920x1080 17" - 1280x1024 18.5" W - 1366x768 18.5"W - 1920x1080 19" - 1280x1024 21.5" W- 1920x1080 24" W- 1920x1080		12.1" - 800x600 12.1" - 1024x768 15.0" - 1024x768 17" -1280x1024 19" -1280x1024	10.1" W - 1280x800 12.1" W - 1280x800 15.6" W - 1366x768 15.6" W- 1920x1080 18.5" W - 1366x768 18.5"W - 1920x1080 21.5" W -1920x1080 24" W- 1920x1080
TOUCHSCREEN	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch	Resistive 5 wires GFG (optional)	Resistive 5 wires	Resistive 5 wires	P-CAP Multitouch
T/S CONTROLLER	USB / Serial			USB	USB			
FRONT PANEL	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium	Aluminium	True Flat Aluminium	Stainless Steel True Flat	True Flat Aluminium
PROTECTION GRADE	IP66 - frontal							
VIDEO INPUT	1 x VGA 1 x DVI-D				1 x RJ45 remotation with Cat 5e SF/UTP or Cat 6A S/FTP cable			
USB	2 x USB 2.0 rear (Type-A) 1 x USB 2.0 front (Type-A)		2 x USB 2.0 rear (Type-A)		2 x USB 2.0 rear (Type-A) 1 x USB 2.0 front (Type-A)		2 x USB 2.0 rear (Type-A)	
REMOTATION					Remotation of DVI-D and USB 2.0 signals up to 100mt with Cat 5e SF/UTP cable or Cat 6A S/FTP cable			
POWER SUPPLY INPUT	24VDC isolated 24VDC (optional) 110V/230VAC (optional)				24VDC isolated 24VDC (optional)			
OPERATING TEMPERATURE	0° ÷ +50°C							
APPROVALS	CE, cULus LISTED (508)							

MK100 / MKR100

Arm Mounting industrial monitors

The arm mounting monitors of the MK100/MKR100 family are made of a Full IP65 cast aluminium chassis, powder coated with anti-scratch treatment, compatible with the most used installation standards. The front button area, totally configurable at the order, allows to install light indicators, buttons, lever switches, keylock switches, encoders, an emergency stop button and USB, Ethernet or RFID interfaces (described at page 85).
They are available with 16 milion color LED Backlight TFT LCDs from 15.6" to 24", in Wide aspect ratio with Aluminium True flat front panels and 5 wires resistive touchscreen or with aluminium and glass TrueFlat Multitouch front panels and projected capacitive touchscreen.
MK100/MKR100 monitors have an isolated 24 VDC power supply input.
MK100 versions have a VGA and a DVI-D standard input.
MKR100 versions integrate the remotation technology for DVI and USB 2.0 signals that allows the connection of the IPC within 100 meters with a Cat 5e SF/UTP or CAT6A S/FTP cable.

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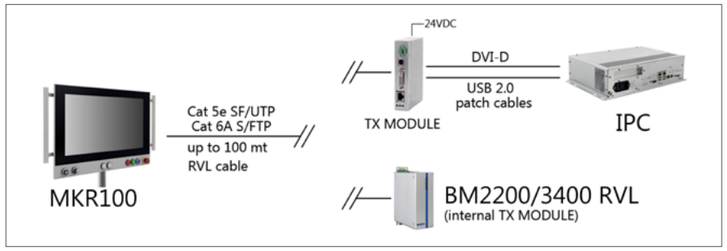
ASEM STANDARDS

Highlights

- → Full IP65 chassis
- → Button area with up to 15 Ø22 elements
- → Arm Mounting Monitor with 0-50° C operating temperature
- → 15.6", 18.5", 21.5" and 24" LCDs in Wide aspect ratio
- → Isolated 24 VDC power supply input
- → MKR100 version with remotation of DVI and USB 2.0 signals up to 100m
- → CE, cULus LISTED (61010) certifications

Gallery

Remotation



Technical data

	MK100-TF	MK100-TFM	MK100R-TF	MK100R-TFM
LED backlight TFT LCD	15.6" W - 1366x768 15.6" W - 1920x1080 18.5"W - 1366x768 18.5"W - 1920x1080 21.5" W- 1920x1080	15.6" W - 1366x768 15.6" W - 1920x1080 18.5"W - 1366x768 18.5"W - 1920x1080 21.5" W- 1920x1080 24" W - 1920x1080	15.6" W - 1366x768 15.6" W - 1920x1080 18.5"W - 1366x768 18.5"W - 1920x1080 21.5" W- 1920x1080	15.6" W - 1366x768 15.6" W - 1920x1080 18.5"W - 1366x768 18.5"W - 1920x1080 21.5" W- 1920x1080 24" W - 1920x1080
TOUCHSCREEN	Resistive 5 wires	P-CAP Multitouch	Resistive 5 wires	P-CAP Multitouch
T/S CONTROLLER	USB 2.0			
FRONT PANEL	True Flat Aluminium	True Flat Aluminium	True Flat Aluminium	True Flat Aluminium
PROTECTION GRADE	Full IP65			
VIDEO INPUT	1 x VGA 1 x DVI-D		1 x RJ45 remotation with Cat 5e SF/UTP or Cat 6A S/FTP cable	
USB	2 x USB 2.0 rear, protected, IP65 (Type-A)			
CHASSIS Installation	For pole or suspension arm mounting system compatible with RITTAL CP40 / ROLEC TARAPLUS / HASEKE HLT KUPPLUNG 48			
Material	Alluminum alloy EN AB46400			
Color	Anti-scratchable painted - RAL 9006			
BUTTONS AREA (hard wired or slave modular fieldbus version)	Buttons, lights and interfaces on the front panel are optional. 1 x Emergency stop button (always hard wired), 1 x RFID (internally connected to USB), 1 x USB port, lights, button keys and switches (hard wired or fieldbus). Several industrial fieldbus masters are supported. The push-button panel design allows easy device substitution.			
REMOTATION			Remotation of DVI-D and USB 2.0 signals up to 100mt with Cat 5e SF/UTP cable or Cat 6A S/FTP cable	
POWER SUPPLY INPUT	24VDC isolated			
OPERATING TEMPERATURE	0°- 50°C			
APPROVALS	CE, cULus LISTED (61010)			

Configurations & Options

Front panels

True Flat technology

ASEM realizes the True Flat front panel through a special manufacturing process which takes place in a clean room to avoid environmental contamination such as dust or airborne microbes.

In this process, using an Optically Clear Adhesive (OCA) a thin polyester film is glued on the touchscreen, then the two components are attached on the Aluminium front panel.

Stainless Steel True Flat Front Panel

Panel IPCs with Stainless Steel True Flat front panels without USB port on the front are particularly used in pharmaceutical and food & beverage industries.

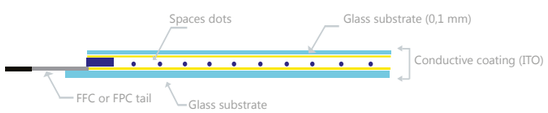
Glass Multitouch technology

All Panel IPC and monitor families are available with the new generation of Multitouch front panels in 7", 10.1", 12.1", 15.6", 18.5", 21.5" and 24" screen sizes with Wide aspect ratio.
Glass projected Capacitive Touchscreen Technology allows mobile gestures such as zoom, swipe and rotate (even with work gloves), now increasingly adopted in the factory automation.
Multitouch front panels are made of a robust aluminium frame and a tempered glass surface in a completely true-flat design that gives maximum resistance to environmental influences and facilitates cleaning.

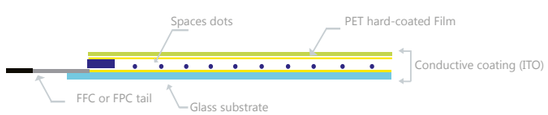
Touchscreen Glass-Film-Glass Technology

The option Glass-Film-Glass (GFG) for 12", 15" and 17" touchscreen is available for most of the ASEM IPCs and monitors. In GFG touchscreen, there is an additional thin glass (0,1 mm) on the touch surface that provides greater resistance to scratches and a better products cleaning.

GFG technology



Standard technology



Fieldbuses boards

NETcore® X
NETcore®X fieldbus boards are the link between the IPC and the I/O devices on field and enable control and visualization applications to receive data from the field according to the industrial fieldbuses available.

NETcore® X Industrial Ethernet
APCI / MiniAPCI format

NETcore® X Profibus
APCI / MiniAPCI format

NETcore® X CANopen
APCI / MiniAPCI format

Dual CAN-RAW
PCI / MiniPCI format

Board	Protocols	PCI/APCI	MiniPCI / MiniAPCI
NETcore X PROFIBUS	Profibus DP Master/Slave, MPI	✓	✓
NETcore X CANopen	CANopen Master/Slave	✓	✓
NETcore X Industrial Ethernet	EtherCAT Master/Slave	✓	✓
	PROFINET IO Controller/Device	✓	✓
	Ethernet/IP Scanner/Adapter	✓	✓
CAN RAW	CANopen Master in combination with CODESYS (2 x isolated channels also with 512kB NVRAM)	✓	✓
NVRAM	512kB static RAM for SoftPLC	-	✓
ETHERNET	EtherCAT Master in combination with CODESYS	✓	✓

NETcore®X and proprietary application
A DLL library is available for developing applications under Win32 or WinCE operating systems. All DLL programming languages such as C, C++ or .NET are available.

NETcore®X with CODESYS
Using NETcore®X fieldbus boards, the integration with CODESYS is automatic and does not require any code to implement the communication stack.

NETcore®X with PremiumHMI
Premium HMI uses NETcore®X boards with SIEMENS MPI and PROFIBUS Slave protocols, using a dedicated communication driver.

Configurable button area
for Arm Mounting IPCs and Monitors

The button area of the VK3200 and MK100/ MKR100 Arm Mounting systems is totally configurable at the order, depending on customer's requirements, and allows front access for further modifications and/or integrations.

Connections
The single elements of the button area can be connected in two ways: hard wired or via fieldbus.

Hard wiring
With the hard wired connection it is possible to install up to eight elements (excluding the USB, Ethernet and RFID interfaces), whose wiring is brought to two clamps, accessible from the back.

Fieldbus button area
The implemented fieldbus standard is EtherCAT. The quantity of elements that is possible to install on the systems with fieldbus button area depends on the display size: up to 9 with the 15.6" LCD, up to 11 with the 18,5" LCD, up to 13 with the 21,5" LCD and up to 15 with the 24" LCD, including USB, Ethernet, RFID interfaces and the emergency stop button.

Front access to the wiring of the button area

Wiew of the rear clamps of a hard wired button area

A wide range of elements is available to compose the button area of the Arm Mounting systems.

LED indicators
→ LED lit (5 colours available)

Push buttons
→ unlit
→ LED lit (5 colours available)
→ with custom exchangeable symbol

Emergency stop button
→ with rotating unlock movement
→ double contact

Keylock switch and levers
→ with key
→ keyless LED lit
→ with 2 or 3 positions

Buzzer

Communication ports
With IP65 protection cap
→ USB port
→ Ethernet port

RFID
→ LF (125 kHz)
→ HF (13,56 MHz)
→ on Ø 22 element

Mechanical accessories
for Arm Mounting IPCs and Monitors

Side handles
Kit composed of two aluminium side handles is available for simplifying system moving.

Perimetral handle
A perimetral handle to simplify system movements and protect the operator from accidental impacts.

Keyboard holder kit
Keyboard holder kit, including a cable hole on the rear cover, with a rubber wire holder.

Technical support
& Services

Technical support and service

Customer oriented philosophy
Providing a meticulous attention and a complete pre and post sales service is the foundational concept of our costumer oriented service. All internal processes aim to ensure an excellent product quality and a higher degree of flexibility, in order to be responsive to the ever-changing market needs. To ensure product and process quality, ASEM has adopted the standard UNI EN ISO 9001:2008 for its quality management system.

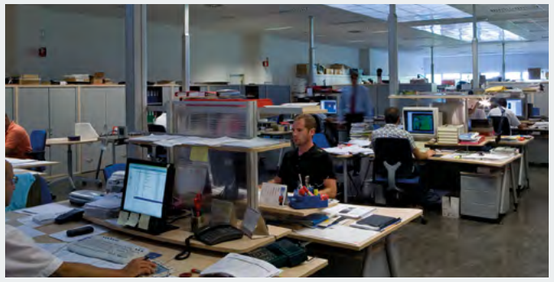
ISO 9001:2008 CERTIFICATION
Intertek
9809792

Customer care
The customer care service is led by a team of technical specialists that answer with immediacy and clarity to customers' needs, not only by telephone and via the Internet, but also with on-site visits and technical training courses. To optimize the process of support and repair of systems and to minimize response time, ASEM offers some effective services:

''HELP DESK PHONE" **SERVICE** can be accessed calling +39/0432/967250, from Monday to Friday from 09:00 to 12:30 and from 14:00 to 17:30 A qualified technician provides initial assistance, or starts the procedure for repairing or replacing the product (Return Material Authorization). Based on needs and the type of support required, the call may be turned to the most suitable ASEM specialist.

''HELP DESK ONLINE" **SERVICE** allows access to the ASEM customer care service directly online, through the company website www.asem.it. This easy and quick tool allows to request technical assistance for any repair service, with real-time monitoring of the request status. In addition to these services, you can send any request for hardware, firmware and software support to the e-mail address suptec@asem.it.

Technical support
ASEM offers an excellent service of hardware and software consulting and assistance. It also includes a prompt and efficient system service assistance with the creation of ad-hoc operating system images, which allows to shrink the memory space needed for the installation of the operating systems (Microsoft Windows® CE, Windows® XP and Windows® XP Embedded, Windows® 7, Windows® 7 Embedded, Microsoft Windows, Windows 8.1, Windows 10 2016, Windows 10 IoT Enterprise 2016, Linux and OS real time) maintaining only the necessary components for the proper functioning of the industrial PCs and the integration with the main applicative software.



IPC-0617-EN

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