

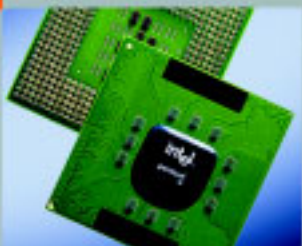
Industrial PCs offering maximum performance
and ruggedness in minimum space



Product Brief

simatic pc

BOX PC 627 / PANEL PC 677



SIEMENS

SIMATIC Box PC 627 and Panel PC 677 – a quantitative leap of performance, equipment and design

Two new industrial PCs convince with their high performance in harsh industrial environments: the especially compact SIMATIC Box PC 627 and the SIMATIC Panel PC 677, flexible in use thanks to a host of different front versions.



They are the first industrial PCs on the market equipped with Intel® Pentium® M processor 760 and are suitable for demanding automation tasks and the processing of large volumes of data at environmental temperatures of up to 50 °C.



- Highest performance through Intel® Pentium® M processor 760 (2 GHz, 2 MB L2-Cache, 533 MHz Front Side Bus), Mobile Intel® 915 GM Express Chipset and DDR2 memory technology (performance comparable with the Pentium 4 processors of the 3 GHz class)



- Main memory expansion to 2 GB
- Efficient Serial ATA hard disks up to 80 GB and different optical drives

SIMATIC Box PC 627

The extreme compact SIMATIC Box PC 627 is a convincing open PC platform in harsh industrial use thanks to its high degree of performance. It is equipped with powerful processors and is outstandingly suitable for high-speed processing of large volumes of data and demanding visualization solutions at ambient temperatures of up to 50 °C.

For especially compact solutions (in the control cabinet, for example), the Box PC 627 can also be installed in space-saving portrait format. An easily accessible compact flash drive slot is available for setting up low-maintenance, high-availability, hard-disk-free systems. With a memory expansion of up to 2 GB, there is no longer any obstacle to data-intensive applications.



- Two PCI slots, two Ethernet interfaces, one DVI-I interface, and one PROFIBUS interface onboard.



- Four high-speed USB ports (USB 2.0) for connecting external mass memories, from USB memory sticks to portable DVD burners.

- On the Panel PC 677, there is another high-speed USB port (USB 2.0) available on the front.



- Increased system availability and data security: Using optional RAID1 mirror disk system supported by the onboard RAID controller and the integral vibration-suppressed double hard disk module.



- High long-term availability (at least 3 years active marketing, and another 5 years repair/service, including operating system support).



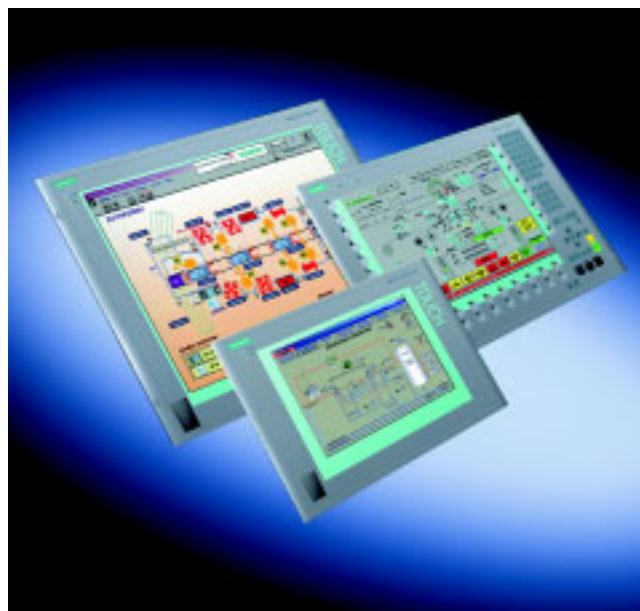
- Especially service-friendly setup concept: for example fast hard disk change, CMOS battery (admissible from outside).

SIMATIC Panel PC 677

Like their predecessors, the new SIMATIC Panel PCs 677 make convincing open PC platforms for harsh industrial use thanks to their compactness. Depending on the customer application, an attractive design can be selected from a host of front versions: 12" and 15" with touch or key operation, as well as a 19" touch version.



The new Panel PCs are suitable for demanding visualization tasks and the processing of large volumes of data thanks to the use of high-performance processor technology. Optimally coordinated packages comprising Panel PC and HMI software (WinCC flexible or WinCC) are available at an attractive special price. Special approvals and multilingual versions of the MS Windows operating system (e.g. NEMA 4, FM Class I Div. 2) offer global use.



Technical specifications

SIMATIC Box PC 627 and SIMATIC Panel PC 677																					
Processor	Intel® Pentium® M 760, 2.0 GHz, 533 MHz FSB, 2 MB SLC Intel® Pentium® M 730, 1.6 GHz, 533 MHz FSB, 2 MB SLC Intel® Celeron® M 370, 1.5 GHz, 400 MHz FSB, 1 MB SLC																				
Main memory Box PC 627 / Panel PC 677	from 128 / 256 MB DDR2 SDRAM, expandable to 2 GB																				
Free slots for expansions	2 x PCI (175/265 mm long) slots with card retainer																				
Graphics	UXGA LCD controller on the AGP bus 8 to 128 MB, 1600 x 1200, 85 Hz, 32-bit colors																				
Operating system	<ul style="list-style-type: none"> Without Microsoft® Windows® 2000 Professional (MUI) Microsoft® Windows® XP Professional (MUI) 																				
Power supply	<ul style="list-style-type: none"> 120/230 V AC; 85 to 132 V/170 to 264 V, autorange (NAMUR) 24 V DC; 20.4 to 28.8 V 																				
Drives																					
Hard disk	≥ 40 GB SATA; or 2 x 40 GB/RAID1 (onboard)																				
Optical drives	DVD-ROM or DVD-ROM/CD-R/W (combo), optional																				
Flash drive	for accommodating compact flash card (admissible from outside)																				
Interfaces																					
PROFIBUS/MPI	12 Mbit/s (isolated, CP 5611-compatible), optional																				
Ethernet	2 x 10/100 Mbit/s (RJ 45)																				
USB	4 x USB 2.0 (high-current) 1 x USB 2.0 (high-current) on front (additionally on Panel PC 677)																				
VGA/DVI	1 x DVI-I (VGA via adapter)																				
Monitoring functions																					
Functionalities	<ul style="list-style-type: none"> Temperature, watchdog, fan, hard disks (SMART) System/Ethernet monitoring, operating hours counter Communication via Ethernet, SNMP interface and OPC interface Two 7-segment displays and two LEDs for status display (freely programmable) 																				
Environmental conditions																					
Degree of protection in accordance with EN 60529 Box PC 627 / Panel PC 677	IP 20 / IP 65 (on front), NEMA 4																				
Protection class	Protection class I in accordance with VDE 0106 Part 1 (IEC 536)																				
Vibration	10 to 58 Hz: 0.075 mm; 58 to 500 Hz: 9.8 m/s ² (approximately 1 g) if operating optical drives: 10 to 58 Hz: 0.019 mm; 58 to 500 Hz: 2.5 m/s ² (approximately 0.25 g)																				
Shock	50 m/s ² 30 ms (approximately 5 g), if operating optical drives: 50 m/s ² 11 ms (approximately 5 g)																				
Ambient temperature in operation Box PC 627 / Panel PC 677	5 to 50 °C / 5 to 45 °C																				
Humidity	5 to 80% at 25 °C (no condensation)																				
System-tested software																					
SIMATIC Industrial Software ¹⁾	STEP 7®, STEP 5®, WinAC®, ProTool/Pro®, WinCC flexible, WinCC®, SOFTNET																				
Approvals																					
Safety regulations	IEC 60950, UL, CSA																				
Approvals	cULus (UL508 and UL60950)																				
CE mark	Use in the industrial area, domestic area, business and commercial area and for small-scale operations																				
Dimensions and weight – Box PC 627																					
Installation dimensions (W x H x D in mm)	298 x 301 (incl. rail) x 100; (298 x 301 x 80 without optical drives)																				
Weight	approx. 6 kg																				
SIMATIC Panel PC 677 front versions																					
Display	<table border="1"> <thead> <tr> <th>12" keys</th> <th>12" touch</th> <th>15" keys</th> <th>15" touch</th> <th>19" touch</th> </tr> </thead> <tbody> <tr> <td>12.1" TFT</td> <td>12.1" TFT touch</td> <td>15.1" TFT</td> <td>15.1" TFT touch</td> <td>19.1" TFT touch</td> </tr> <tr> <td>800 x 600</td> <td>800 x 600</td> <td>1024 x 768</td> <td>1024 x 768</td> <td>1280 x 1024</td> </tr> <tr> <td colspan="5">Typ. 60,000 hrs (with 24 hr continuous operation, dependent on temperature)</td> </tr> </tbody> </table>	12" keys	12" touch	15" keys	15" touch	19" touch	12.1" TFT	12.1" TFT touch	15.1" TFT	15.1" TFT touch	19.1" TFT touch	800 x 600	800 x 600	1024 x 768	1024 x 768	1280 x 1024	Typ. 60,000 hrs (with 24 hr continuous operation, dependent on temperature)				
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Typ. 60,000 hrs (with 24 hr continuous operation, dependent on temperature)																					
Resolution (pixels)																					
MTBF for backlighting																					
Operator elements																					
Membrane keyboard	• – • – –																				
Function keys	• – • – –																				
Touch screen	– Analog/resistiv – Analog/resistiv Analog/resistiv																				
Mouse on front	• – • – –																				
Expansion components	Direct key module, USB disk drive, etc.																				
Dimensions																					
Operator unit (W x H in mm)	483 x 310 400 x 310 483 x 355 483 x 310 483 x 400																				
Installation dimensions (W x H x D in mm)	450 x 290 x 104 368 x 290 x 122 450 x 321 x 123 450 x 290 x 120 449 x 380 x 129																				

1) Under observation of the permitted system configuration

Subject to technical changes/improvements

SIMATIC Box PC 627 and Panel PC 677

The right decision

Innovation and continuity – under one roof.

Our product strategy brings two decisive success factors under one roof: innovation and continuity. That's why we back mature products and components without restriction. In practice, this means we concentrate on the essential innovations in PC technology that will have lasting effect in the long term. This secures your investment over a much longer period!

With their long service life, high-quality industrial PCs make a decisive contribution to preventing costly machine downtimes. This is ensured by intensive quality checks and by the system test and load test at the development and production stages.

Additional system integration tests ensure smooth functioning when interconnected with other SIMATIC components.

The platform for PC-based automation

Siemens is the all-round vendor for automation technology. At Siemens, you'll find the complete modular system of automation components, harmoniously matched with each other.

Whether it's PC-based control with SIMATIC WinAC, PC-based visualization with SIMATIC WinCC flexible or SIMATIC WinCC – with us, you get everything from a single source.

To increase system availability in PC-based automation solutions, there is a range of expansion components available to you for the SIMATIC PCs, (for example, RAID1 technology: 2 hard disks with mirror disk technology, that is, both hard disks continuously maintain the same data. In the event of a hard disk failure, an automatic switch-over is made to the functional hard disk during operation. Integration into the mirror disk system follows installation of the new hard disk and restart).

These tools allow users to apply PC functionality in the environment of rugged, classic automation systems.

Global service & support

You can depend on SIMATIC PCs, even under harsh environmental conditions. Thanks to careful development and testing, they run day after day, month after month, year after year. However, despite this care, faults can never be completely eliminated.

The difference between being left alone in the event of a fault, or getting prompt support, is obviously of crucial importance here.

For us, service & support must be comprehensive, and must provide much more than just the odd repair. At Siemens, you always have the right contact for all service issues. We advise and support you, offer emergency services round the clock, supply spare parts for your own service department, and carry out professional repairs or expansions to your system – even locally on-site.

Complete know-how you can depend on, of the highest standard, bang up-to-date, and always by the shortest route to more than 30 countries!

You can find more information about the SIMATIC PCs on the Internet at:

www.siemens.com/simatic-pc



To arrange a **personal meeting** with your local SIMATIC representative, visit:

www.siemens.com/automation/partner



You can now go to the A&D Mall to configure and order your personal SIMATIC PC:

www.siemens.com/automation/mall



the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.

The information provided in this brochure contains descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of