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HMI: SIMATIC IPC

Annuncio nuovo prodotto SIMATIC IPC647C



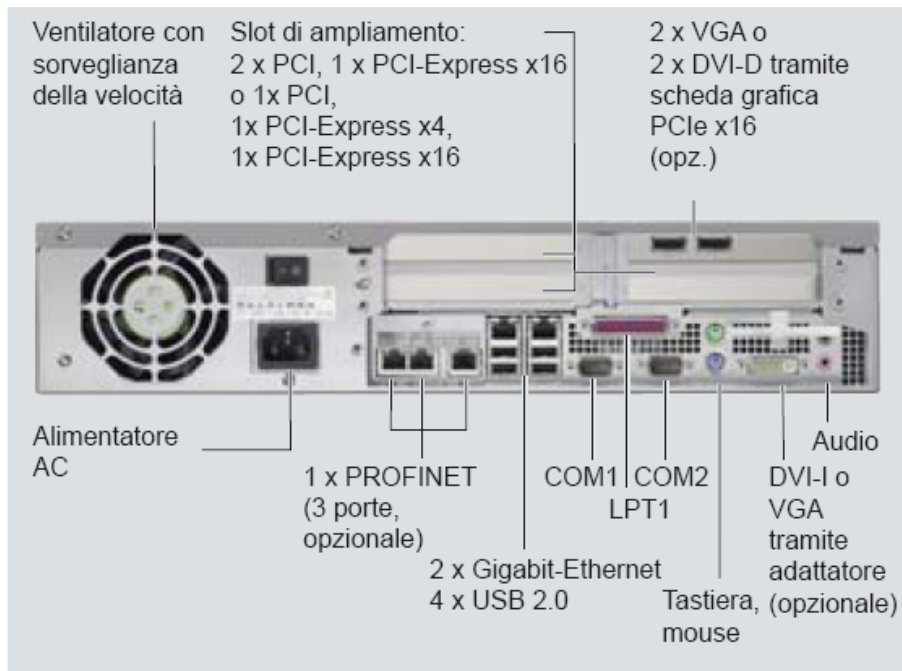
A partire da oggi è disponibile il nuovo **SIMATIC IPC647C** con processore intel Core i3, i5 e i7! Il SIMATIC IPC647C è un PC industriale in formato da 19" robusto ed estremamente compatto (altezza 88mm).

Caratteristiche chiave del SIMATIC IPC647C

- Massima potenza di calcolo grazie al processore mobile Intel® Core i7-610E a 2.53 GHz con Turbo Boost e Hyper Threading
- RAM DDR3 fino a 8 GB con ECC
- Nuova opzione SSD con 32GB per trasferimento dei dati ad alta velocità
- Implementata la ridondanza dell'alimentazione
- slot 3 liberi PCI-/PCI-Express a scelta: 2x PCI, 1x PCIe x16 o 1x PCI, 1x PCIe x16 e 1x PCIe x4. Tutti gli slots a lunghezza piena!
- Massima potenza di calcolo senza degrado di performance (throttling) con temperature ambiente da 5 a 50 °C
- Opzioni per diagnostica e monitoraggio intensivo tramite LED frontali e software di diagnostica

- Doppia GBit LAN con capacità di teaming
- 7 porte USB 2.0 di cui due su frontale e una interna. Interfaccia USB all'interno con protezione contro rimozione non autorizzata, ad es. per un dongle software
- Disponibile anche con il Sistema Operativo Microsoft Windows Server 2008 MUI e Microsoft Windows 7 Ultimate
- Sono presenti anche interfacce "datate" p.e. PS/2, COM e LPT
- Il design industriale particolarmente accurato è concepito per un service facilitato:
 - Ventilatore frontale sostituibile senza attrezzi
 - Custodia apribile rapidamente svitando una sola vite
- Il IPC647C è basato sulla stessa tecnologia del IPC 847C
- Certificazioni UL e CE per l'uso in aree residenziali e commerciali





Sicurezza di Investimento

Il SIMATIC IPC647C sarà disponibile alla vendita per un lungo tempo (3-4 anni), inoltre saranno disponibili i ricambi dei componenti per ulteriori 5 anni dalla data di dismissione.



Migrazione

Il SIMATIC IPC647C sostituirà a medio termine il SIMATIC Rack PC 647B.

Questo dispositivo è la continuità logica del SIMATIC Rack PC 647B, al quale rimane compatibile al 100% per quanto concerne il montaggio.



I SIMATIC IPC647C e SIMATIC Rack PC 647B non sono compatibili a livello di immagine in quanto la componentistica usata sui nuovi PC risulta più avanzata.

Sulle prossime pagine si trova il confronto tecnico tra 647B e 647C

Technical Information IPC647C

Compatibilità

Dati tecnici con differenze tra SIMATIC IPC647C e SIMATIC Rack PC 647B (differenze in **blu**)

Product Name	SIMATIC IPC647C (New)	SIMATIC Rack PC 647B (Current)
Platform	Intel Core i 	Intel Core 2 Duo 
Order No.	6AG4112-1....-....	6AG4112-0....-....
Mechanical design	19" 2HU	19" 2HU
Processor	<ul style="list-style-type: none"> • Core i7-610E 2.53 GHz, 2 Cores, 4 Threads 4 MB Cache TB, HT, VT-x, VT-d, EM64T *) • Core i5-520E 2.4 GHz, 2 Cores, 4 Threads 3 MB Cache TB, HT, VT-x, VT-d, EM64T *) • Core i3-330E 2.13GHz, 2 Cores, 4 Threads 3MB Cache HT, VT-x, EM64T *) the new features are explained below	<ul style="list-style-type: none"> • Core2 Duo T7400 2.16 GHz, 2 Cores, 2 Threads 677MHz FSB, 4MB L2-Cache VT-x, EM64T • Core2 Duo T5500 1.66 GHz, 2 Cores, 2 Threads 677 MHz FSB, 2MB L2-Cache EM64T • Celeron M 440 1.86 GHz, 1 Cores, 1 Threads 533 FSB, 1MB L2-Cache
Chipset	Intel QM57 Express	Intel 945GM Express
Main memory	<ul style="list-style-type: none"> • 1 GB and more • DDR3 1066 • expandable to 8 GB • 2 DIMM socket • ECC optional 	<ul style="list-style-type: none"> • 256 MB and more • DDR2 667 • expandable to 4 GB • 2 SODIMM socket
Expansion slots (all long, up to 312mm)	<ul style="list-style-type: none"> • 1 x PCI • 1 x PCI-Express x16 • 1 x PCI-Express x4 or <ul style="list-style-type: none"> • 2 x PCI • 1 x PCI-Express x16 	<ul style="list-style-type: none"> • 1 x PCI • 1 x PCI-Express x16 (PEG**) • 1 x PCI-Express x4 or <ul style="list-style-type: none"> • 2 x PCI • 1 x PCI-Express x16 (PEG**) ** PEG (PCI-Express for Graphics) - expansion slot only for graphic cards
Graphics		
Graphics controller	Intel HD Graphics with Dynamic Frequency, integrated in processor	Intel GMA 950 integrated in chipset
Graphics memory	up to 1.7GB (shared memory)	up to 128 MB (shared memory)
Resolution Frequencies Colors	Max. analog resolution: 2048 x 1536 pixels, 60Hz, 32 Bit Max. digital resolution: 1920 x 1200 pixels , 60Hz, 32 Bit	Max. analog resolution: 2048 x 1536 pixels, 60Hz, 32 Bit Max. digital resolution: 1600 x 1200 pixels, 60Hz, 32 Bit
Graphics card (optional)		
Graphics controller	NVIDIA Quadro NVS 295	NVIDIA Quadro NVS 285
Graphics memory	256 MB, GDDR3	128 MB, GDDR2

Resolution Frequencies Colors	Max. analog resolution: 2048 x 1536 pixels, 75Hz, 32 Bit Max. digital resolution: 1920 x 1200 pixels, 60Hz, 32 Bit	Max. analog resolution: 2048 x 1536 pixels, 75Hz, 32 Bit Max. digital resolution: 1920 x 1200 pixels, 60Hz, 32 Bit
Operating system		
without	yes	yes
Windows 2000 Prof. MUI 32 Bit	no	yes (preinstalled and activated)
Windows Vista Ultimate MUI 32 Bit	no	yes (preinstalled and activated)
Windows XP Prof. MUI 32 Bit	yes (preinstalled and activated)	yes (preinstalled and activated)
Windows 7 Ultimate MUI 32 Bit	yes (preinstalled and activated)	No
Windows Server 2003 Standard Edition incl. 5 Clients, MUI, 32 Bit	No	yes (preinstalled and activated)
Windows Server 2008 Standard Edition incl. 5 Clients, MUI, 32 Bit	yes (preinstalled and activated)	No
Power supply		
100 ... 240 V AC, 50 ... 60 Hz	yes	yes
Redundant 100 ... 240 V AC, 50 ... 60 Hz	no	no
Mains switch	yes	no
Drives		
Floppy disc drive	No	3.5", 1.44 MByte (optional)
Hard disk drives	S-ATA: <ul style="list-style-type: none"> • 250 GByte • 500 GByte • 2x 500 GByte 	S-ATA: <ul style="list-style-type: none"> • 160 GByte • 250 GByte • 2x 250 GByte
Mounting options for Hard disk drives:	<ul style="list-style-type: none"> • Internal in shock and vibration damped drive holder (up to 5g/0.5g) • Front side in replacement frame 	<ul style="list-style-type: none"> • Internal in shock and vibration damped drive holder (up to 5g/0.5g) • Front side in replacement frame
RAID1 Configuration	SATA RAID Controller on board: <ul style="list-style-type: none"> • 2x 500 GByte 	SATA RAID Controller on board: <ul style="list-style-type: none"> • 2x 250 GByte
RAID5 Configuration	No	No
Solid-State Drive (SSD)	Serial-ATA, 2.5" <ul style="list-style-type: none"> • 32 GB (optional) 	No
Compact Flash drives	Accessible from front side (optionally) instead of optical drive	Internal (optionally)
Optical drives	Serial-ATA , slim line <ul style="list-style-type: none"> • DVD±R/RW 	Parallel-ATA, slim line <ul style="list-style-type: none"> • DVD±R/RW
Mounting locations for drives	Front side: <ul style="list-style-type: none"> • 2 x 3.5" slim line replacement frame • 1x slim line ODD or CF-drive or Internal: <ul style="list-style-type: none"> • 2 x 3.5" 	Front side: <ul style="list-style-type: none"> • 2 x 3.5" slim line replacement frame • 1x slim line ODD or Internal: <ul style="list-style-type: none"> • 2 x 3.5" • 1x CF-drive
RAID Controller	Intel Rapid Storage Technology integrated in chipset	Intel 82801 FR SATA RAID Controller - onboard
Interfaces		
PROFINET	10/100 Mbit/s, Integral 3-port switch	10/100 Mbit/s Integral 3-port switch




	CP1616-compatible (onboard, optional) for use as standard interface under Windows (with NDIS driver)	CP1616-compatible (onboard, optional) for use as standard interface under Windows (with NDIS driver)
PROFIBUS/MPI	12 MBit/s, CP5611-compatible (onboard, optional) Windows 7 only 1,5MBit with Simatic Net CD V8	12 MBit/s, CP5611-compatible (onboard, optional)
Ethernet	1 x 10/100/1000 MBit/s (RJ45), Intel 82574L 1 x 10/100/1000 MBit/s (RJ45) Intel 82577LM teaming ability	2 x 10/100/1000 MBit/s (RJ45) Intel 82573L teaming ability
USB 2.0 (500mA high current)	<ul style="list-style-type: none"> • 2x front side (1x can be used with door closed) • 4x rear side • 1x internal 	<ul style="list-style-type: none"> • 2x front side (1x can be used with door closed) • 4x rear side
Serial (COM)	<ul style="list-style-type: none"> • 1x COM1 (V.24), 9-pin • 1x COM2 (V.24), 9-pin 	<ul style="list-style-type: none"> • 1x COM1 (V.24), 9-pole • 1x COM2 (V.24), 9-pole
Parallel (LPT)	1x	1x
PS/2 (mouse, keyboard)	2x	2x
VGA	1x via adapter cable	1x
DVI	1x	1x via Add card
Dual-Monitoring (optional)	2x VGA or 2x DVI via PCI-Express graphics card	2x VGA or 2x DVI via PCI-Express graphics card
Audio	1x Micro, 1x Line Out	1x Micro, 1x Line Out
Monitoring functions		
Temperature	yes	yes
Fan speed	yes	yes
Watchdog	yes	yes
Monitoring software	<ul style="list-style-type: none"> • SIMATIC PC DiagBase (incl.) • SIMATIC PC DiagMonitor (optional) 	<ul style="list-style-type: none"> • SOM (included) • SIMATIC PC DiagMonitor (optional)
Status front LEDs	<ul style="list-style-type: none"> • POWER • HDD • ETHERNET 1 • ETHERNET 2 • PROFIBUS • PROFINET • WATCHDOG • TEMP • FAN • HDD1 ALARM • HDD2 ALARM 	<ul style="list-style-type: none"> • POWER • HDD • ETHERNET 1 • ETHERNET 2 • PROFIBUS • PROFINET • WATCHDOG • TEMP • FAN • HDD1 ALARM • HDD2 ALARM
Ambient conditions		
Degree of protection to EN 60529	IP41 front side, IP20 rear side	IP41 front side, IP20 rear side
Vibration in operation to DIN IEC 60068-2-6 (restrictions in the operation with optical drives and HDD replacement frames)	Internal mounting of the hard disk drives in optional, internal drive holder: 10 to 58 Hz: 0.0375 mm; 58 to 500 Hz: 5 m/s ² (approx. 0.5 g) Internal fixed mounting of the hard disk drives: 10 to 58 Hz: 0.019 mm; 58 to 500 Hz: 3 m/s ² (approx. 0.3 g)	Internal mounting of the hard disk drives in optional, internal drive holder: 10 to 58 Hz: 0.0375 mm; 58 to 500 Hz: 5 m/s ² (approx. 0.5 g) Internal fixed mounting of the hard disk drives: 10 to 58 Hz: 0.019 mm; 58 to 500 Hz: 3 m/s ² (approx. 0.3 g)
Shock immunity in operation to	Internal mounting of the hard disk drives in optional, internal drive holder:	Internal mounting of the hard disk drives in optional, internal drive holder:

DIN EN 60068-2-27 IEC 60068-2-29 (restrictions in the operation with optical drives and HDD replacement frames)	50 m/s ² , 30 ms (approx. 5 g) Internal fixed mounting of the hard disk drives: 30 m/s ² , 30 ms (approx. 3 g)	50 m/s ² , 30 ms (approx. 5 g) Internal fixed mounting of the hard disk drives: 30 m/s ² , 30 ms (approx. 3 g)
Ambient temp. in operation to DIN EN 60068-2-2 with full processor load (w/o loss of performance)	5 to 50 °C (restrictions in the operation with optical drives)	5 to 50 °C (restrictions in the operation with optical drives)
Relative humidity in operation to DIN EN 60068-2-78	5 to 85% at 30 °C (no condensation)	5 to 85% at 30 °C (no condensation)
Approvals		
Safety regulations	IEC 60950-1 Second Edition EN 60950-1:2006, UL 60950-1 Second Edition, CSA C22.2 No 60950-1-07 Second Edition	IEC 60950-1 Second Edition, EN 60950-1:2006, UL 60950-1 Second Edition, CSA C22.2 No 60950-1-07 Second Edition
Dimensions and weight		
Dimensions (W x H x D in mm)	430 x 88 x 448	430 x 88 x 448
Weight	Min. 10 kg, max. 14 kg	Min. 10 kg, max. 14 kg

Questo dispositivo è la continuità logica del SIMATIC Rack PC 647B, al quale rimane compatibile al 100% per quanto concerne il montaggio.

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New technology and explanations

Feature	Description	Core i7	Core i5	Core i3
				
Turbo Boost (TB)	The Intel Turbo Boost technology (TB) permits a higher clock rate for the cores, depending on the overall loading of the processor and the ambient temperature. This increases the processor performance. - Core i7: 2.53 GHz to max. 3.2 GHz - Core i5: 2.4 GHz to max. 2.933 GHz	X	X	-
Intel HD Graphics with Dynamic Frequency	Similarly to Turbo Boost, this graphics technology can increase the graphics performance under certain conditions. Standard Graphics Base Frequency: 500 MHz Max. Graphics Base Frequency: - Core i7: 766 MHz - Core i5: 766 MHz - Core i3: 667 MHz	X	X	X
Core (C)	The individual hardware processor cores are called Cores.	X	X	X

	- Core i7/i5/i3: each have 2 cores (2C)			
Thread (T)	Threads are program segments that can be processed in parallel.	X	X	X
Hyper-Threading (HT)	Intel Hyper-Threading technology permits two programs (Threads) to be processed in parallel on one core. Core i7/i5/i3 have 2 cores/4 Threads (2C/4T), i.e. when two Cores are used up to 4 programs can be processed simultaneously.	X	X	X
Intel Virtualization Technology for Directed I/O (VT-d)	I/O (innovation of VT-x). Virtualization technology with access to HW components via direct	X	X	-
Intel Virtualization Technologie (VT-x)	Standard virtualization technology provides special commands for this purpose.	X	X	X
Error Correction Code (ECC)	Enables the identification of user memory errors and correction of 1-bit errors. A feature of the PCH and the memory HW.	X	X	X
Platform Controller Hub (PCH)	Follow-up of the well-known INTEL CHIP set (North-/Southbridge). The PCH no longer has a Northbridge and the Memory Controller is integrated. This architecture increases the performance.	X	X	X