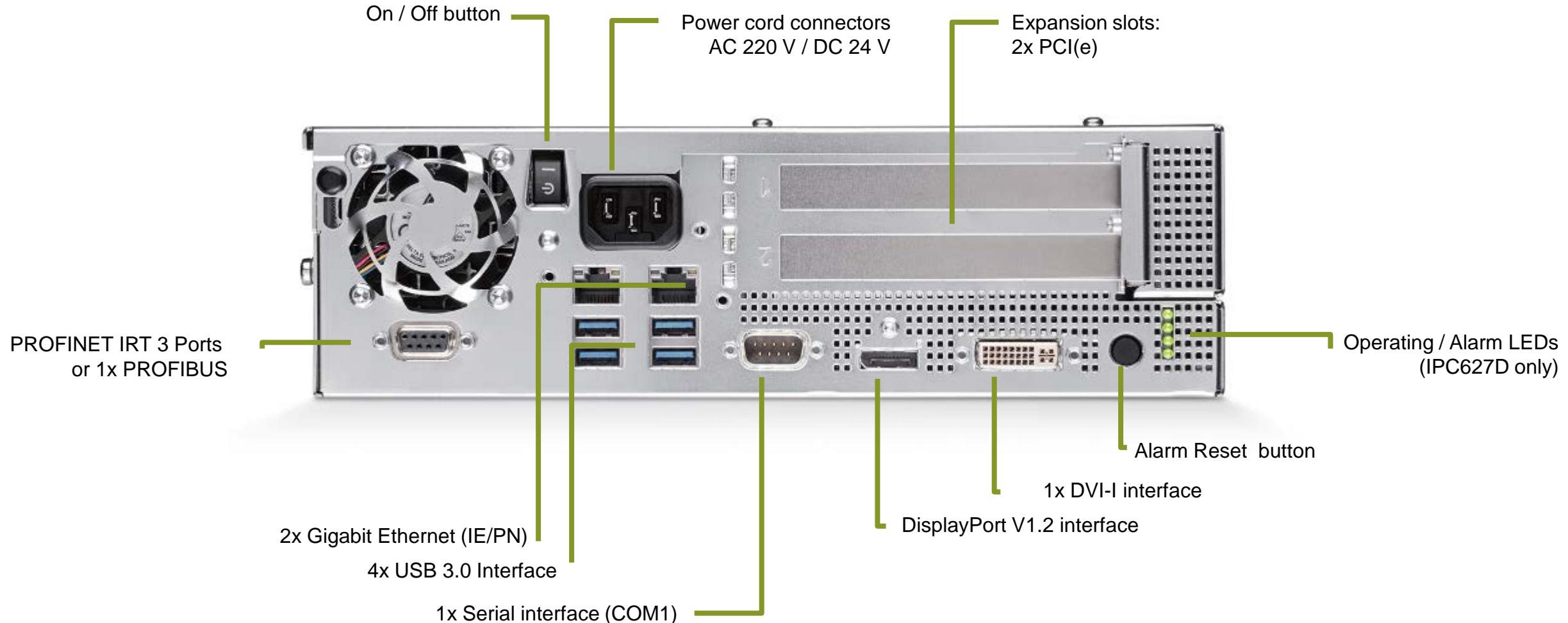


February, 2014

IPC627D/ IPC677D Technical Information

SIMATIC IPC627D/ IPC677D

Overview Interfaces



SIMATIC IPC627D/ IPC677D

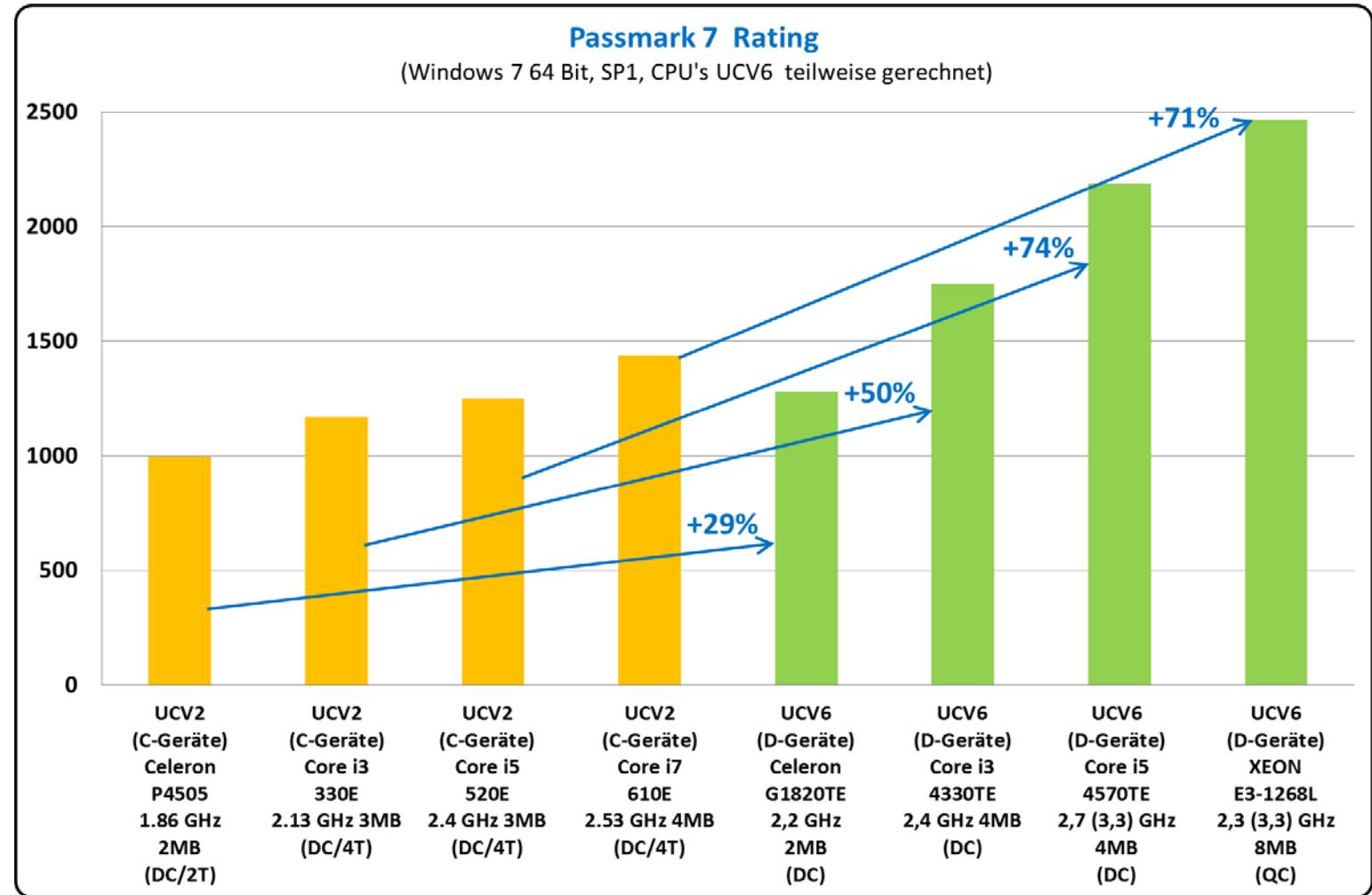
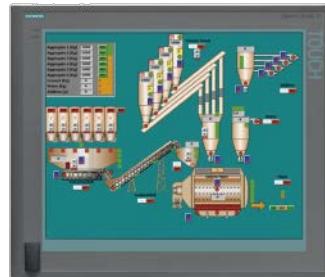
Processor Characteristics

	Processor	Cores	Threads	Frequency / Turbo Boost (GHz)	Cache	Virtualization	AMT 9.0	ECC
	Xeon E3-1268L_v3	4	8	2.3 / 3.3	8	VT-d	✓	✓(*
	Core i3 4330TE	2	4	2.4	4	VT-x	-	✓
	Celeron G1820TE	2	2	2.2	3	VT-x	-	-

The Intel Xeon E3 offers a optimized performance / watt and supports ECC memory – the comparable Intel Core i7 processors do not

Passmark 7 Rating

IPC6x7C versus IPC6x7D



SIMATIC IPC627D/ IPC677D

Technical Data

Housing, Chipset, Processors, Main Memory, and Expansion Slots

Housing	<ul style="list-style-type: none">• Box• Rugged all-metal housing, blue chromated• Prepared for Book Mounting ¹⁾• Flexible Mountings ¹⁾
Chipset	<ul style="list-style-type: none">• Intel DH82C226 PCH
Processors / Graphics	<ul style="list-style-type: none">• Intel Xeon E3-1268L v3 / Intel HD 4600 Graphics Onboard 4C/8T, 2.3(3.3)GHz, 8 MB Cache, VT-d, AMT• Intel Core i3-4330TE / Intel HD 4600 Graphics Onboard 2C/4T, 2.4GHz, 4MB Cache, VT-x• Intel Celeron G1820TE / Intel HD Graphics Onboard 2C72T, 2.2GHz, 2MB Cache
Main Memory	<ul style="list-style-type: none">• 2 GByte DDR3-1600 SDRAM, Dual Channel support• Expandable up to 16 GByte²⁾
Expansion Slots	<ul style="list-style-type: none">• 2x PCI (185 mm) or• 1x PCI and 1x PCIe x16 (185/185 mm) or• 1x PCIe x16 und 1x PCIe x4 (185/185 mm)

1) IPC627D only

2) For configurations up to 4 GByte, the visible memory could be reduced to ca. 3.5 GByte or less (when using 32 bit operating systems). For configurations with 8 GByte, the visible memory could be reduced to ca. 7.5 GByte or less (depending on the system configuration).

SIMATIC IPC627D/ IPC677D

Technical Data

Drives

Hard Disk Drives (HDD), SATA 3,5", NCQ	Installation internal: <ul style="list-style-type: none">• 1x 250 Gbyte (3.5")• 1x 500 Gbyte (3.5")• RAID1 250 Gbyte (2x 2.5")
Solid-State Drive (SSD), SATA 2,5", MLC	<ul style="list-style-type: none">• 240 GByte
Optical Drive	<ul style="list-style-type: none">• Without• DVD±R/RW (Slim)

SIMATIC IPC627D/ IPC677D

Technical Data

Graphics, Power Supplies and Operating Systems

Power Supplies	<ul style="list-style-type: none">• AC: 100-240 V, 190 W, wide range• DC: 24 V, 190 W
Short-time voltage interruption	<ul style="list-style-type: none">• Max. 20 ms
Operating Systems	<ul style="list-style-type: none">• With out Pre-installed and activated (and enclosed on Restore DVD):<ul style="list-style-type: none">• Windows 7 Ultimate, MUI¹⁾ (32 / 64 bit), SP1

¹⁾ Multi Language User Interface, 5 languages: English, German, French, Spanish, Italian

SIMATIC IPC627D/ IPC677D

Technical Data

Interfaces

Ethernet	<ul style="list-style-type: none">• 2x Gigabit Ethernet (IE/PN), RJ 45, teaming capable• Intel Ethernet controller WGi217LM und WGi210IT• Wake on LAN (WoL) support
DisplayPort	<ul style="list-style-type: none">• 1x (V1.2)
DVI-I	<ul style="list-style-type: none">• 1x (either DVI-D or VGA)
VGA	<ul style="list-style-type: none">• Via DVI to VGA adapter (accessory)
USB 3.0	<ul style="list-style-type: none">• 4x (IPC677D: additional Front-USB)
USB 2.0	<ul style="list-style-type: none">• 2x expandable in slot bracket (option, occupies one PC slot)• Internal: 1x
Serial	<ul style="list-style-type: none">• 1x COM1 (V.24)• 1x COM2 (V.24) (option, occupies one PC slot with COM2/LPT)
Parallel	<ul style="list-style-type: none">• 1x LPT (EPP/ECP) (option, occupies one PC slot with COM2/LPT)

SIMATIC IPC627D

Technical Data

Electromagnetic Compatibility (EMC)

Noise emissions	<ul style="list-style-type: none">• EN 61000-6-3• EN 61000-6-4, CISPR22 Class B (IPC627D)• EN 61000-6-4, CISPR22 Klasse A (IPC677D)• FCC Class A
Immunity against conducted interference on the supply lines	<ul style="list-style-type: none">• ± 2 kV according IEC 61000-4-4; Burst• ± 1 kV according IEC 61000-4-5; Surge symm.• ± 2 kV according IEC 61000-4-5; Surge asymm.
Noise immunity on signal lines	<ul style="list-style-type: none">• ± 1 kV according IEC 61000-4-4; Burst; length < 3 m• ± 2 kV according IEC 61000-4-4; Burst; length > 3 m• ± 2 kV according IEC 61000-4-5; Surge; length > 30 m
Immunity against discharge of static electricity	<ul style="list-style-type: none">• ± 6 kV contact discharge; according IEC 61000-4-2• ± 8 kV discharge to air; according IEC 61000-4-2
Immunity against high-frequency radiation	<ul style="list-style-type: none">• 10 V/m 80–1000 MHz und 1,4–2 GHz, 80% AM according IEC 61000-4-3• 3 V/m 2–2,7 GHz, 80% AM; according IEC 61000-4-3• 10 V/m 10 KHz–80 MHz, 80% AM; according IEC 61000-4-6
Immunity against magnetic fields	<ul style="list-style-type: none">• 100 A/m, 50/60 Hz; according IEC 61000-4-8

SIMATIC IPC627D/ IPC677D

Technical Data

System-tested SIMATIC Software, Approvals, Dimensions and Weight

SIMATIC Software	<ul style="list-style-type: none">• STEP 7• WinAC• WinCC• SOFTNET
Safety regulations	<ul style="list-style-type: none">• EN 60950-1• UL60950-1• UL508; CSA C22.2 No 142
Approvals	<ul style="list-style-type: none">• CE• cULus (UL 60950)• KC• C-Tick
CE Mark	<p>Operation in residential, office, and industrial areas ¹⁾</p> <ul style="list-style-type: none">• Interference emission: EN 61000-6-3:2007• Noise immunity: EN 61000-6-2:2005
EU Directives	<ul style="list-style-type: none">• RoHS
Installation dimensions	IPC627D: 312mm x 301mm x 80mm (100mm with DVD; W x H x D); IPC677D: mounting cut-out 541mm x 362 mm, depth from 112mm
Weight	7 kg (IPC627D), 16 kg (IPC677D)

SIMATIC IPC627D

Turbo Boost 2.0 (Xeon)

Depending on the CPU core utilization and the temperature levels (TDP and ambient temperature), CPUs which support Turbo Boost technology automatically increase the clock frequency of CPU cores in steps of 133 MHz (bins). Additionally the graphics frequency increases.

The Intel Xeon Processor E3-1268L v3 offers these Turbo Boost values

- Processor frequency: 2.3 GHz Max. frequency (Turbo): 3.3 GHz
- Graphics frequency: 350 MHz Max. frequency (Turbo): 1000 MHz
- Burst Mode: Increased over clocking of the cores by utilizing the thermal budget (TDP) of the CPU for a short time



Migration

SIMATIC IPC627C to IPC627D

Installation compatibility		
Housing measures	No changes	<input checked="" type="checkbox"/>
Housing design	No major changes	<input checked="" type="checkbox"/>
Interface compatibility		
Anzahl der Steckplätze	No changes	<input checked="" type="checkbox"/>
Art der Steckplätze	No changes	<input checked="" type="checkbox"/>
External interfaces	1x DisplayPort and 1x DVI (VGA or DVI-D) <u>instead</u> 1x DVI-I (VGA+DVI-D)	<input checked="" type="checkbox"/>
Software-Kompatibilität		
Software	Applications can still be used; maybe new drivers need to be loaded	<input checked="" type="checkbox"/>
Operating system support	<ul style="list-style-type: none">Windows XP <u>not</u> available anymore	<input type="checkbox"/> !
Miscellaneous compatibility		
Image	New chipset, therefore <u>not</u> image compatible	<input type="checkbox"/> !

SIMATIC IPC677D

Display overview



	22" Touch Widescreen
Resolution	1920 x 1080
MTBF LED backlight	Up to 80.000 h
LED backlight dimming	0..100 %
Brightness	Up to 400 cd/m ²
Reading angle	Approx. 170 ° (vertical / horizontal)
Front USB connection	1 x USB 3.0
Installation position	Horizontal format Vertical format
Installation dimensions approx.	541 x 362 x 112 mm
Dimensions approx.	560 x 380 mm

1) IPC677D: Display sizes 15", 19" Singletouch and 15", 19", 22" Multitouch in preparation

SIMATIC IPC627D/ IPC677D

Order Information



Body-MLFB	6AG4131-2....-
Ordering system	<ul style="list-style-type: none">▪ A&D Mall: http://www.siemens.de/automation/mall▪ Online-Konfigurator: http://www.siemens.com/ipc-configuration▪ Excel-Konfigurator: http://intra1.nbqm.siemens.de/pccconfig
Support	<ul style="list-style-type: none">▪ Presales: presales-ipc.i-ia@siemens.com▪ Aftersales: http://www.siemens.com/asis▪ http://www.siemens.com/automation/support-request