

SIMATIC IPC RS-545A (rack IPC, 19", 4 U); MB: chip set R680E, 3x RJ45: 2x 1 Gbit (IE/PN), 1x 2.5 Gbit (IE/PN); 3x display port, 1 x DVI-D; 4x USB 3.2 Gen. 2 type A, 2x USB 3.2 Gen. 2x2 type C, 2x USB 2.0 type A internal, 2x M.2 slot, TPM2.0, audio; 7 slots: 1x PCI, 2x PCIe x16(1x 16L or 2x 8L), 1x PCIe x8(4L), 3x PCIe x4(4L), 2x USB 3.1 type A on the front, 12x status LEDs on the front; Core 7 253PE 10C(10P)/20T, 2.5 (5.5) GHz, 33 MB cache, iAMT 2 TB HDD 3.5" SATA 1 TB SSD M.2 NVMe (1 slot M.2 occupied) 32 GB DDR5 SDRAM (2x 16 GB) enclosure with drive support type B (for internal installation; 0.2 g vibration, 2 g shock), blue chromated 700 W 2x100/240 V AC redundant industrial power supply unit Windows Server 2025 Standard Edition, including 5 clients; with USB flash drive (restore image; D&D) power supply cord USA

General information	
Product type designation	RS-545A
Installation type/mounting	
Mounting	For horizontal and vertical installation; prepared for telescopic rails; 19" mounting bracket can be removed externally; tower kit (optional)
Design	Rack PC, 19", 4U
Supply voltage	
Type of supply voltage	redundant 100/240 V AC (autorange) 50/60 Hz
Line frequency	
<ul style="list-style-type: none"> Rated value 50 Hz Rated value 60 Hz 	Yes Yes
Mains buffering	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	20 ms
Processor	
Processor type	Core i5-12500E 6C(6P)/12T, 2.9 (4.5) GHz, 18 MB Cache
Chipset	Intel R680E
Graphic	
Graphics controller	Intel® UHD Graphics 770
Graphics card	No
Drives	
SSD	Yes; RAID1 2x 960 GB 2.5" SATA SSD, 1x 1024 GB M.2 NVMe SSD
Slot for drives	mounting on the front in removable trays (hot swap in RAID configurations) in drive cage type A; mounting internally on the fixed drive cage optional
Memory	
Main memory	32 GB DDR5 4 800 SDRAM DIMM
Capacity of main memory, max.	128 Gbyte
Hardware configuration	
Slots	
<ul style="list-style-type: none"> free slots Number of PCI slots Number of PCI slots number of M.2 slots 	7 free slots for expansions (all long); 2x PCIe x16 (1 x 16 or 2 x 8 lanes) Gen 4; 1x PCIe x8 (4 lanes) Gen 3; 1x PCIe x4 (4 lanes) Gen 3; 1x PCIe x4 (4 lanes) Gen 4; 1x PCIe x4 (4 lanes) Gen 4; 1x PCI 1 6 2
Interfaces	
Interfaces/bus type	2x Gigabit Ethernet (IE/PN), RJ 45, teaming-capable; 1x 2.5 Gigabit Ethernet (IE/PN), RJ 45, teaming-capable; USB 3.2 Gen 2: 4x type A, USB 3.2 Gen 2x2: 2x type C, on rear, USB 3.1 Gen 1: 2x on front, USB 2.0: 2x internal e.g. for software dongle with option interlock, 3x DisplayPort V1.4a, 1x DVI-D, 1x COM1 and 1x COM2 (optional), audio: line in, line out, micro
USB port	USB 3.2 Gen 2: 4x type A, USB 3.2 Gen 2x2: 2x type C, on rear; 2x USB 3.1 Gen. 2 type A internally, e.g. for software dongle with optional interlock; 2x USB 3.1 Gen. 1 type A on the front, can be used with door closed
Connection for keyboard/mouse	USB
serial interface	COM1 (optional): 1x RS 232 or RS 485; COM2 (optional) 1x RS 232

Multimedia	
• Audio In/Out	Yes
• Microphone In	Yes
Video interfaces	
• Graphics interface	3x DisplayPort; 1x DVI-D
Industrial Ethernet	
• Industrial Ethernet interface	3x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes
• number of interfaces (1 000 Mbps)	2
• number of interfaces (2 500 Mbps)	1
Interrupts/diagnostics/status information	
LED status display	POWER, HDD, ETHERNET 1, ETHERNET 2, ETHERNET 3, WATCHDOG, TEMP, FAN, HDD3 ALARM, HDD2 ALARM, HDD1 ALARM, HDD0 ALARM
Integrated Functions	
Monitoring functions	
• Temperature monitoring	Yes
• Watchdog	Yes
• Fan	Yes
EMC	
Interference immunity against discharge of static electricity	
• Interference immunity against discharge of static electricity	±4 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against high-frequency electromagnetic fields	
• Interference immunity against high frequency radiation	10 V/m for 80 ... 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 80 MHz, 80% AM acc. to IEC 61000-4-6
Interference immunity to cable-borne interference	
• Interference immunity on supply cables	±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-5, surge, length > 30 m
• Interference immunity on signal cables < 30m	±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against voltage surge	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
• Interference immunity to magnetic fields at 50 Hz	30 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
• Interference emission via line/AC current cables	EN 61000-6-3; EN 61000-6-4, CISPR 32, EN 55032 Class B; FCC Class A; KS C 9832; EN 61000-3-2 Class D; EN 61000-3-3
Compliance with line harmonic distortion limits	
• Compliance with line harmonic distortion acc. to IEC 61000-3-2, IEC 61000-3-3	Yes; EN 61000-3-2 Class D; EN 61000-3-3
Degree and class of protection	
IP (at the front)	IP30
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005)
CSA approval	Yes; CAN/CSA-C22.2 No. 61010-2-201 Second Edition
UL approval	UL 61010-2-201 Second Edition, File E85972
cULus	Yes; UL 61010-2-201 Second Edition; CAN/CSA-C22.2 No. 61010-2-201 Second Edition
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
FCC	Yes
BIS	Yes
EMC	EN 61000-6-3; EN 61000-6-4, CISPR 32, EN 55032 Class B; FCC Class A; KS C 9832; EN 61000-3-2 Class D; EN 61000-3-3
Dust protection	With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered

Ambient conditions	
Ambient temperature during operation	
• min.	0 °C; Max. 10 °C/h (no condensation)
• max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
• Relative humidity	tested according to IEC 60068-2-78, IEC 60068-2-30: operation: 0 °C to 31 °C: 5-85%; decreasing linearly to 5-50% at 40 °C (no condensation), storage/transportation: 5% to 95% at 25 °C to 55 °C (gradient: ≤ 20 K/h; no condensation)
Vibrations	
• Vibration resistance during operation acc. to IEC 60068-2-6	Tested according to IEC 60068-2-6, 10 cycles; 20 to 58 Hz: 0.015 mm; 58 to 200 Hz: 2 m/s ² (0.2 g)
Shock testing	
• Shock load during operation	Tested according to IEC 60068-2-27; half-sine: 9.8 m/s ² (1 g), 20 ms, 100 shocks per axis
Operating systems	
pre-installed operating system	without operating system; without USB flash drive (restore image; D&D)
without operating system	Yes
Dimensions	
Width	430 mm
Height	177 mm; 4U
Depth	446 mm
Approvals / Certificates	
General Product Approval	EMV

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