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Data sheet 6AG4102-0DE10-1AC2

SIMATIC IPC RS-828A (rack server, 19", 2 HU); 6x SSD removable trays; 2x 10 Gbit LAN(IE/PN), RJ45; 1x 1 Gbit LAN(BMC), RJ45; 1x VGA; 1x COM; TPM2.0 4x USB 3.1 Gen 2 type A, 2x M.2 slot, key M, 22110 2x USB 3.1 type A on the front, 7 slots PCIe x16 Gen 5: 2x16L or 4x8L FHFL, 3x 16L FHHL LEDs: power, SSD, LAN, watchdog, temperature, fans, PS; system management BMC: IPMI 2.0 2x AMD EPYC 9454 48C/96T, 2.75 (3.8) GHz, 256 MB cache 2x 2 TB 2.5" SATA SSD + HW RAID controller (1 PCIe slot occupied), RAID 1 preconfigured 1x 2 TB SSD M.2 NVMe 256 GB DDR5-4800 MHz RDIMM ECC (4x 64 GB) network adapter Intel X710 (2x 10 GB LAN, RJ45) PCIe x8 (1 slot occupied) AI accelerator 1x NVIDIA L4 (1 slot occupied) Windows Server 2022 IoT Standard Edition incl. unlimited clients for this server, 64-bit, MUI (en, de, fr, it, es), for 64 cores power supply unit 2600 W (2 modules, each with 2600 W, redundant) - power supply cord USA

General information	
Product type designation	IPC RS-828A
Installation type/mounting	
Mounting	For horizontal rack mounting
Design	Rack PC, 19", 2U
Supply voltage	
Type of supply voltage	AC redundant 100/240 V (autorange) 50 Hz/60 Hz
Line frequency	
● Rated value 50 Hz	Yes
● Rated value 60 Hz	Yes
Mains buffering	
● Mains/voltage failure stored energy time	5 ms
Processor	
Processor type	Dual Socket SP5 - 2x AMD EPYC™ 9454 Embedded Series Server Processors - max. 400 W cTDP, 48 Cores/each; Dual Socket SP5 - 2x AMD EPYC™ 9354 Embedded Series Server Processors - max. 300 W cTDP, 32 Cores/each; Dual Socket SP5 - 2x AMD EPYC™ 9254 Embedded Series Server Processors - max. 240 W cTDP, 24 Cores/each; Dual Socket SP5 - 2x AMD EPYC™ 9124 Embedded Series Server Processors - max. 240 W cTDP, 16 Cores/each
Chipset	SoC
Graphic	
Graphics controller	ASPEED AST2600 Graphics Family (WDDM)
Graphics card	Yes; NVIDIA A100, NVIDIA H100, NVIDIA L4, NVIDIA L40
Drives	
Hard disk	1x 2 TB 2.5" SATA SSD; 2x 2 TB 2.5" SATA SSD; 4x 2 TB 2.5" SATA SSD; 6x 2 TB 2.5" SATA SSD; 1x 2 TB 2,5" U.3 NVMe SSD; 2x 2 TB 2,5" U.3 NVMe SSD; 4x 2 TB 2,5" U.3 NVMe SSD; 6x 2 TB 2,5" U.3 NVMe SSD
SSD	Yes; 1x 1/2 TB SSD M.2 NMVe
Memory	
Main memory	256 GB ... 1.5 TB DDR5-4800 MHZ RDIMM ECC
Capacity of main memory, max.	1 536 Gbyte
Hardware configuration	
Slots	
● free slots	7 Slots: 2 x PCI-E Gen5 x16 Slot optional for 2 x DW GPU Card or 4 x PCI-E Gen5 x8 (FHFL) + 3 x PCI-E Gen5 x16 Slot (FHHL)
● Number of PCI slots	7
Interfaces	
Interfaces/bus type	Interfaces front: 2x USB 3.1 (Type A) frontside; LED Indicators: Power, SSD, Ethernet 1-2, Watchdog, Temp, Fans, drives alarm, PS alarm Interfaces rear: 2x 10 Gbit Ethernet (IE/PN), RJ45; 1x 1 Gbit Ethernet (BMC), RJ45; 1x COM1; 1x VGA; 4x USB 3.1 Gen. 2, Type A Interfaces internaly: 2x M.2 PCIe x4, Key M, 22110 Slot; Riser card: 2 x PCI-E Gen5 x16 Slot optional for 2 x DW GPU Card or 4 x PCI-E Gen5 x8 (FHFL) + 3 x PCI-E Gen5 x16 Slot (FHHL) System Management: IPMI 2.0 / RedFish, TPM 2.0
USB port	Interfaces front: 2x USB 3.1 (Type A) Interfaces rear: 4x USB 3.1 Gen. 2, Type A

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Connection for keyboard/mouse	USB
serial interface	1x COM
Video interfaces	
● Graphics interface	1x VGA
Industrial Ethernet	
● Industrial Ethernet interface	2x 10 Gbit Ethernet (IE/PN), RJ45; 1x 1 Gbit Ethernet (BMC), RJ45
— 100 Mbps	Yes
— 1000 Mbps	Yes
Interrupts/diagnostics/status information	
LED status display	Power, SSD, Ethernet 1-2, Watchdog, Temp, Fans, drives alarm, PS alarm
Integrated Functions	
Monitoring functions	
● Temperature monitoring	Yes
● Watchdog	Yes
● Fan	Yes
● Monitoring function via network	Yes (per IPMI)
EMC	
Interference immunity against discharge of static electricity	
● Interference immunity against discharge of static electricity	±6 kV contact; ±8 kV air (to IEC 61000-4-2, ESD)
Interference immunity against high-frequency electromagnetic fields	
● Interference immunity against high frequency radiation	• 10 V/m; 80 up to 2 700 MHz 80 % AM to IEC 61000-4-3 • 3 V/m; 2.7 to 6 GHz 80 % AM to IEC 61000-4-3 • 10 V; 150 kHz up to 80 MHz 80 % AM 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
● Interference immunity on signal cables >30m	± 2 kV; in accordance with IEC 61000-4-4; burst; length > 30 m
● Interference immunity on signal cables < 30m	± 1 kV; in accordance with IEC 61000-4-4; burst; length < 30 m
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	100 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 EN 55032 Class A; FCC Class A; KS C 9832 Class A EN 61000-3-2 Class D; EN 61000-3-3
Degree and class of protection	
IP (at the front)	IP20
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes; use in industry (interference emission: EN 61000-6-4)
CSA approval	Yes; CAN/CSA-C22.2 No. 62368-1
UL approval	Yes; standard UL 62368-1
cULus	Yes; standard UL 62368-1
RCM (formerly C-TICK)	Yes
KC approval	Yes; in preparation
FCC	Yes
BSMI	Yes
EMC	EN 61000-6-3; EN 61000-6-4 EN 55032 Class A; FCC Class A; KS C 9832 Class A EN 61000-3-2 Class D; EN 61000-3-3
Dust protection	dust filter with mounted front bezel
Ambient conditions	
Ambient temperature during operation	
● min.	5 °C; Max. 10 °C/h (no condensation)
● max.	45 °C
Relative humidity	
● Relative humidity	tested to IEC 60068-2-78; IEC 60068-2-30 5 % to 85 % at 30 °C; no condensation gradient: ≤ 10 K/h; no condensation 5 % to 95 % at 25 °C to 55 °C; no condensation gradient: ≤ 20 K/h; no condensation
Vibrations	
● Vibration resistance during operation acc. to IEC 60068-	Tested according to IEC 60068-2-6: 10 cycles, 10 Hz to 58 Hz: 0.0375 mm, 58

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2-6	Hz to 500 Hz: 4.9 m/s² (0.5 g)
Shock testing	
● Shock load during operation	Tested according to IEC 60068-2-27: 50 m/s², 30 ms
Operating systems	
pre-installed operating system	Windows Server 2022 IoT Standard Edition incl. unlimited Clients for this server, 64bit, MUI (en, de, fr, it, sp)
Additional info on operating system	optional: SIMATIC Industrial OS
without operating system	Yes
Dimensions	
Width	444 mm
Height	88 mm; 2U
Depth	585 mm

Classifications

	Version	Classification
eClass	14	19-20-01-02
eClass	12	19-20-01-02
eClass	9.1	19-20-01-02
eClass	9	19-20-01-02
eClass	8	19-20-01-02
eClass	7.1	19-20-01-02
eClass	6	19-20-01-02
ETIM	10	EC001413
ETIM	9	EC001413
ETIM	8	EC001413
ETIM	7	EC001413

Approvals / Certificates

General Product Approval

Declaration of Conformity | Miscellaneous | China RoHS

General Product Approval | **Environment**

BIS CRS | Environmental Confirmations

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