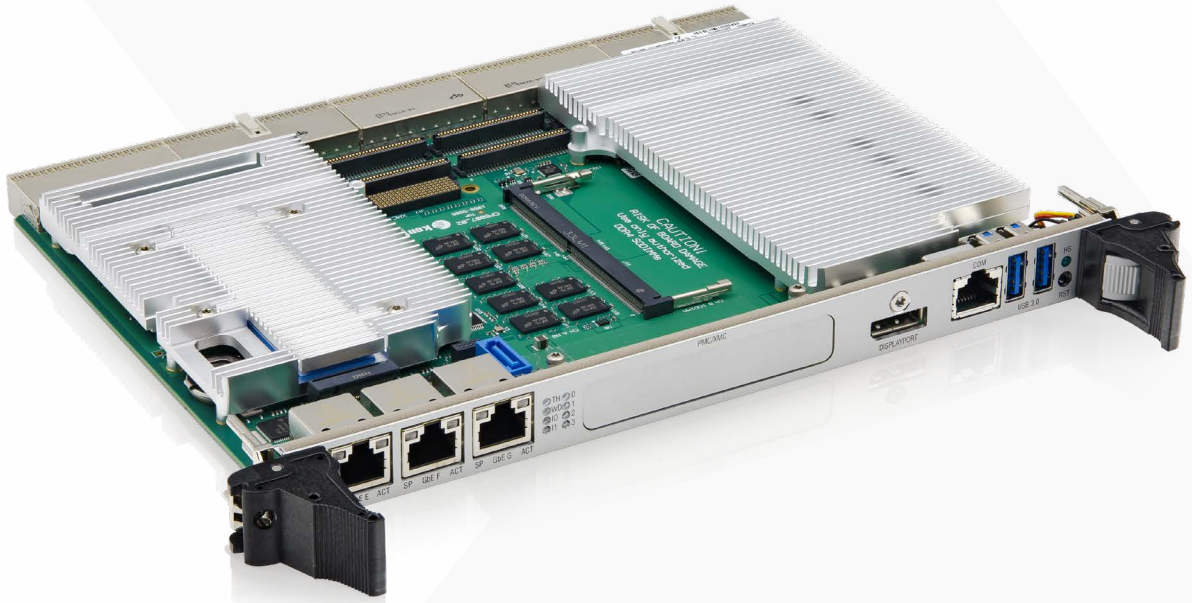
CP6007-SA



11th Gen Intel® Xeon® CompactPCI® Blade

- PICMG2.16 server and general computing
- 64 GByte ECC memory, NVMe or SATA flash
- European design and production
- Proven CPCI eco system, 10 years availability

kontron
The Power of IoT

CP6007-SA

11th Gen Intel® Xeon® CompactPCI® Blade

Future proof investment
CP6007-SA is designed for general purpose computing in harsh environments. As well, CP6007-SA is well suited for advanced Multi-CPU server applications, built as virtual machines and based on PICMG2.16. By using virtualization, any CP6007 based platform becomes a future proof investment.

Outstanding performance-per-watt
CP6007-SA is based on Intel's 11th Gen Xeon® processors with 10nm technology, with outstanding performance-per-watt values. Its scalable power budget allows users to tailor the power dissipation to their requirements. Moreover, CP6007-SA is featured by up to 64GB memory with Error Correction Code (ECC) support and a rich selection of communication and media interfaces. A Trusted Platform Module (TPM 2.0) stands for enhanced hardware and software based data and system security.

Various extensions: storage, XMC, PMC, rear-I/O
CP6007-SA is prepared to operate with different storage devices: onboard industrial grade M.2 flash devices, NVMe as well as SATA, or 2.5 inch SATA hard disk or SSD to be placed on a respective rear-I/O module. CP6007-SA also features an XMC site according to XMC.3 supporting x8 PCI Express®, and alternatively a PMC site, for various market available exten-sions. Based on the Kontron rear I/O concept, the rear I/O transition module series is fully functional with CP6007-SA.

A safe choice
Up-to-date technology and widely backward compatibility to earlier Kontron blades are not a contradiction. The well-established CompactPCI® eco system, combined with a long availability of the 11th Gen Intel® Xeon® processor family, and Kontron's reliable technical support, make CP6007-SA a safe choice.

Technical Information

PROCESSOR, CHIPSET		Intel® Xeon® W-11555MRE, 6 core, 12 MByte cache, 2.6 GHz 45 W (TDP), 2.1 GHz 35 W (cTDP) Intel® Xeon® W-11865MRE, 8 core, 24 MByte cache, 2.6 GHz 45 W (TDP), 2.1 GHz 35 W (cTDP) Chipset RM590E
MEMORY		32 GByte soldered RAM with ECC and data speed of up to 3200 MHz 32 GByte SODIMM as additional option, dual channel DDR4 with ECC, up to 3200 MHz
STORAGE	SSD FLASH FLASH BIOS	Sockets NVMe and SATA for alternative use, for M.2 2280 Solid State Drive Two redundant 32 Mbyte SPI Flashes
FRONT PANEL FUNCTIONS	GIGABIT ETHERNET USB INTERFACE SERIAL DISPLAY PORT MICRO SWITCH STATUS LED	3x 1000BASE-T Ethernet channels on RJ45 connector 2x USB interface on USB-A host connector 1x RS232 serial interface on RJ45 connector Display Port Connector For Hot Swap and reset Eight bicolor (red and green) control and status LEDs: Two IPMI LEDs, one Watchdog and one thermal LED, four GP LEDs. One blue hot Swap LED
ONBOARD INTERFACES	GIGABIT ETHERNET SATA NVME SERIAL PORT COMPACTPCI® BUS PMC/XMC	Two ports to rear I/O (to rear module or PICMG2.16) Three ports to front I/O Four ports to rear I/O (SATA 3Gb/s), one standard SATA 6Gb/s connector, one mounting option for M.2 2280 SSD flash (SATA 6Gb/s). Mounting option for M.2 2280 SSD, PCIe Gen3 x4 flash, M.2 SATA and NVMe mutually exclusive COM1 (RS232) routed to front panel and rear I/O COM2 (RS232/RS422) routed to rear I/O only PICMG 2.0 Rev. 3.0 compatible, 64-bit / 66 MHz, Universal V(I/O) 5 V or 3.3 V signalling, Operating in system slot as system master and in peripheral slot in PCI passive mode (no communication to CompactPCI® bus) One 64-bit / 66 MHz PMC slot, Pn1-Pn4, 3.3 volt V(I/O) Alternatively one XMC slot via P15, supporting XMC.3 x8 PCI Express®
REAR IO	J3 J4 J5	2x ETH for rear I/O or PICMG2.16, VGA, COM 1/2, 4x USB, GPIO, fan sense PMC rear I/O 4x SATA, 2xDVI/HDMI, battery, fan control, additional GPIO
SUPERVISORY FUNCTIONS CLOCK/CALENDAR		Watchdog, software configurable, 125 msec to 256 sec, generates IRQ or hardware reset. Hardware monitor for thermal control, fan speed, and all onboard voltages RTC battery backup
IPMI		IPMI 1.5-compliant for IPMI based management and CompactPCI® System Management PICMG 2.9
SECURITY		Kontron Security Solution as assembly option Trusted Platform Module (TPM) 2.1

Technical Information

I/O TABLE SUMMARY	DESCRIPTION	Front IO	Rear IO	Onboard Connector	Total
	DISPLAY PORT	1			1
	VIDEO CRT		1		1
	DVI/HDMI		2		2
	USB	2	4		6
	SERIAL	1	2 (RS232, RS422)		2
	ETHERNET	3	2 (RIO or PICMG2.16)		5
	SATA		4	2	6
	NVME			1	1
	PMC / XMC			1 / 1	1 / 1
	FAN CONTROL		2		2
	BATTERY INPUT		1		1
	I^2C		1 optional		1 optional
SOFTWARE SUPPORT	EFI/BIOS	AMI uEFI (BIOS) with POST codes, BIOS parameters saved in EEPROM, diskless, keyboardless, videoless operation, LAN boot, Quick boot, Board identification data accessible via EEPROM.			
	OS SUPPORT	Windows® 10 (64bit), Windows® Server 2019, Linux®, VxWorks 7.x on request			
MTBF		Approx. 110K hrs acc. to MIL-HDBK-217 FN2 Ground Benign 30°			
DIMENSIONS		233 x 160 x 20.5 mm, 6U, 4HP (standard, up to 32 GByte RAM)			
WEIGHT		Approx. 800 gr			
POWER CONSUMPTION		Typical 55 watts or 65 watts, depending on CPU type			
ENVIRONMENTAL	SHOCK / VIBRATION	EN60068-2-27 / EN60068-2-6			
	OPERATING TEMP.	0 °C to +60 °C, passive module heat sink, requires forced airflow cooling			
	STORAGE TEMP.	- 55 °C to + 85 °C (without battery)			
	HUMIDITY	93 % RH at 40°C, non-condensing (acc. to EN 60068-2-78)			
	ALTITUDE	50,000 ft (15,240 m)			
COMPLIANCY	GENERAL	CE / UKCA			
	COMPACTPCI®	CompactPCI® Core Specification PICMG 2.0 Rev. 3.0 CompactPCI® Hot Swap Specification PICMG 2.1 R2.0 CompactPCI® System Management PICMG 2.9 R1.0, IPMI 1.5 CompactPCI® Packet Switching Backplane PICMG 2.16 R1.0			
	SAFETY	61010-1:2010/A1:2019			
	EMI/EMC	EN55032:2015/A11:2020 EN55035:2017/A11:2020 EN IEC 61000-6-2:2019			

Ordering Information

ARTICLE	DESCRIPTION
CPU BOARDS	
CP6007-SA-2.6S-32-4R-T	With 6 core Intel® Xeon® W-11555MRE, 32 GByte DDR4-3200 soldered, ECC, standard air cooled, temperature range 0 °C to +60 °C
CP6007-SA-2.6O-32-4R-T	With 8 core Intel® Xeon® W-11865MRE, 32 GByte DDR4-3200 soldered, ECC, standard air cooled, temperature range 0 °C to +60 °C
CP6007-SA-2.6O-64-4R-T	With 8 core Intel® Xeon® W-11865MRE, 32 GByte DDR4-3200 soldered, 32 GByte SODIMM DDR4-3200, ECC, standard air cooled, temperature range 0 °C to +60 °C
ACCESSORIES	
CP-SSD-M2P-2280-....GB-E2	M.2 SSD 22 x 80 mm, PCIe/NVMe, 3D TLC, Industrial Grade, several capacities available
CP-HDD-2.5-SATA-CUR CP-HDD.2.5-SATA-KING	2,5" Harddisk with SATA interface. Current Size (ask) 2,5" Harddisk with SATA interface. KING size (ask)
CP-SSD-2.5-SATA600-CUR	2.5" SSD, MLC, SATA 6Gbps, 0 °C - 70 °C, Current Size (ask)
CP-HDD-S CP-HDD-S-KIT-S CP-HDD-S-KIT-D	3U Carrier for 2,5" SATA storage, with activity LED Single KIT for 2.5" SATA storage. 3U carrier board, 1-slot backplane, SATA cable, guide rails Dual KIT for 2.5" SATA storages. Two 3U carriers, 2-slot backplane, two SATA cables, guide rails
REAR TRANSITION MODULES (RTM)	
CP-RIO6-001	2x DVI-D; 2x USB2.0; 2x GbE; headers for 2x COM, Flash, SATA, Fan
CP-RIO6-001-HD	1x DVI-D; 2x USB2.0; 2x GbE; socket for SATA 2.5" disk; headers for 2x COM, Flash, SATA, Fan
CP-RIO6-001-HD-216	Similar to CP-RIO6-001-HD, but PICMG 2.16 compliant; without external Ethernet
CP-RIO6-001-HD-VGA	Similar to CP-RIO6-001-HD, but with VGA interface instead of DVI-D
CP-RIO6-B	2x USB, 2x GbE; 2x COM, DVI, HDMI, Connectors for USB Flash, 4x SATA, Fan
CP-RIO6-B-216	Similar to CP-RIO6-B, but PICMG 2.16 compliant; without external Ethernet ports
CP-RIO6-A	2x USB, 2x GbE; 2x COM, VGA, Connectors for USB Flash, 4x SATA, Fan
CP-RIO6-A-216	Similar to CP-RIO6-A, but PICMG 2.16 compliant; without external Ethernet ports
CP-RIO6-M	2 disk sockets
SAMPLE CARD CAGES	
CP-ASM6R	19" 6U CompactPCI® card cage, 8 slot backplane with rear I/O, two 200 W 3U AC PSU
CP-ASM10-PSB	19" 10U PICMG2.16 compliant CompactPCI® system. Space for up to four 250 W 3U AC PSU

Global Headquarters

Kontron Europe GmbH

Gutenbergstraße 2
85737 Ismaning, Germany
Tel.: + 49 821 4086-0
info@kontron.com

www.kontron.com

kontron
The Power of IoT