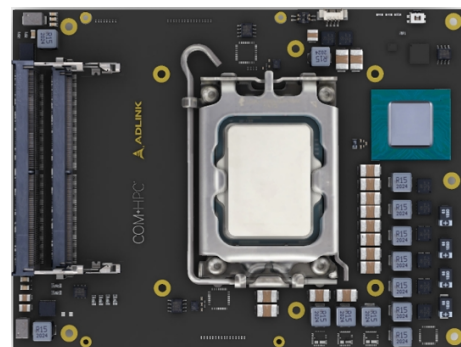


COM-HPC-cRLS

Client Type COM-HPC Size C Module
 based on Intel® Raptor Lake-S platform

Preliminary



Features

- Advanced hybrid architecture combining Performance-cores with Efficient –cores supporting up to 24 cores / 32 threads for superior multi-threaded performance
- Up to 128GB DDR5 SODIMM at max. 3200MT/s
- 16 PCIe Gen5 lanes, 8 PCIe Gen4 lanes, 14 PCIe Gen3 lanes
- 2x 2.5 GbE LAN
- Best-in-class longevity support
- Extreme Rugged operating temperature range (optional, selected SKU)

Specifications

Core System	SoC	Intel® Raptor Lake-S Processor Family (Socket) <ul style="list-style-type: none"> • Intel® Core™ i9-13900E 24 cores at 65W • Intel® Core™ i7-13700E 16 cores at 65W • Intel® Core™ i5-13500E 14 cores at 65W • Intel® Core™ i5-13400E 10 cores at 65W • Intel® Core™ i3-13300E 4 cores at 65W Note: Additional 35W SKUs are supported by project basis.
	Memory	Supports: Intel® VT (including VT-x / VT-d), Intel® Turbo Boost Technology 2.0, Intel® VNNI, Intel® TCC and Time-Sensitive Networking (TSN), Intel® Hardware Shield, Intel® TXT, Intel® System Security Report, Intel® APIC-v, Intel® PTT, Intel® TDT, Intel® CET, Intel® AMT, Intel® UPID, Intel® PMT, Intel® Thermal Velocity Boost (TVB) (by SKU) Note: Availability of features may vary between processor SKUs.
	Embedded BIOS	4 DIMM sockets Up to 128GB (4x 32GB) DDR5 SODIMM memory, up to 3200MT/s
	Cache	AMI UEFI with CMOS backup in 32 or 16MB (TBC) SPI BIOS
		TBC

Specifications

Core System	Expansion Busses	<p>16 PCIe Gen5 lanes</p> <ul style="list-style-type: none"> • 16 PCIe lanes 16-31 (J2): configurable to x16, x8, x4, x2 <p>8 PCIe Gen4 lanes</p> <ul style="list-style-type: none"> • 4 PCIe lanes 32-35 (J2): configurable to x4, x2 • 4 PCIe lanes 36-39 (J1): configurable to x4, x2 <p>6 PCIe Gen3 lanes</p> <ul style="list-style-type: none"> • 6 PCIe lanes 0-5 (J1): configurable to x4, x2 <p>Note: PCIe lanes 0-5, USB 3.0, SATA, NBASE-T and PCIe_BMC source from HSJO. The available total raw bandwidth is equivalent to PCIe x16 Gen3</p> <ul style="list-style-type: none"> • SMBus (system), 2x I²C (user)
	SEMA Board Controller	Supports: Voltage/current monitoring, power sequence debug support, AT/ATX mode control, logistics and forensic information, genral purpose I2C, UART, GPIO, watchdog timer, fan control
	Module Management Controller	Supports: IPMB (in conjunction with carrier BMC for remote management applications) by build option
	Debug Headers	40-pin multipurpose flat cable connector for use with DB40-HPC debug module providing BIOS POST code LED, MMC/EC access, SPI BIOS flashing, power testpoints, debug LEDs
Ethernet KR	MAC Interface	
NBASE-T Ethernet	Intel® MAC/PHY Interface	Intel® Ethernet Connection I226 Series (I226 supports TSN by build option, TBC) 2x 2.5GbE and 1000/100/10 Mbit/s Ethernet connection
Remote Management Dedicated Interface	PCIe_BMC IPMB	
Multi I/O and Storage	USB	<p>4x USB 3.0/2.0/1.1 (USB 0,1,2,3)</p> <p>8x USB 2.0 (USB 0-7)</p>
	SATA	2x SATA (SATA 0, 1)
	Serial	2x UART ports with console redirection
	GPIO	12x GPIO (GPI with interrupt, TBC)
	On-board Storage	NA
TPM (Optional)	Chipset	Infineon
	Type	TPM 2.0 (SPI based)
Power	Standard Input	ATX: 12V±5% / 5Vsb ±5%; or AT: 12V±5%
	Management	ACPI 5.0 compliant
Mechanical and Environmental	Power States	TBC
	Form Factor Dimension	PICMG COM-HPC: Rev 1.1 Client Type Size C 160X120 mm
	Operating Temperature	Standard: 0°C to 60°C (storage: -20°C to 80°C) Extreme Rugged: -40°C to 85°C (storage: -40°C to 85°C, build option, selected SKUs, TBC)
	Humidity	5-90% RH operating, non-condensing 5-95% RH storage (and operating with conformal coating)
Operating Systems	HALT	Thermal Stress, Vibration Stress, Thermal Shock and Combined Test
	Standard Support	Windows 10 IoT Enterprise LTSC Ubuntu 64-bit (TBC), VxWorks (TBC)

Ordering Information

Module

COM-HPC-cRLS-i9-125W

Client Type COM-HPC Size C module with Intel Raptor Lake-S i9-125W

Note: For processor SKUs not listed, please contact your ADLINK representative for availability.