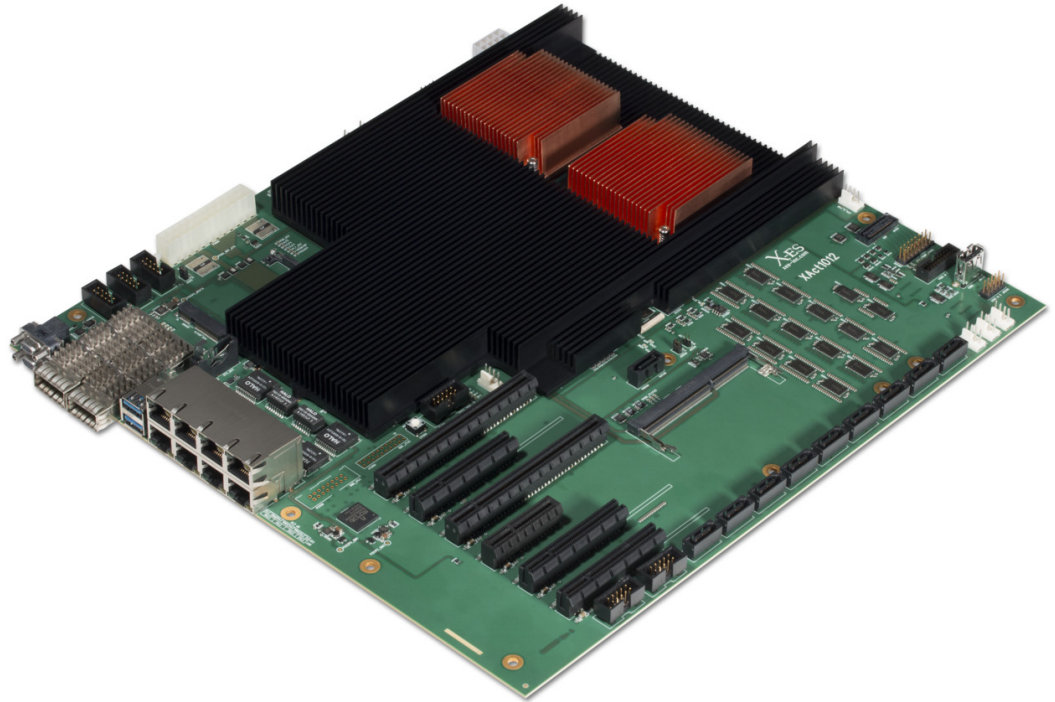


XAct1012

Intel® Xeon® E5-2600 v4 Family Processor-Based ATX-Class Server Motherboard with Security FPGA, Dual 40GbE, and Six PCIe Expansion Sites

- ▶ Supports dual Intel® Xeon® E5-2600 v4 family of processors (formerly Broadwell-EP)
- ▶ Standard Extended ATX (E-ATX) form factor
- ▶ Supports COTS 1U/2U/3U rackmount or E-ATX tower chassis
- ▶ Integrated Xilinx Kintex® UltraScale™ security FPGA (XCKU060 or XCKU095)
- ▶ Six PCI Express expansion sites
- ▶ Ruggedized design
- ▶ Up to 128 GB of DDR4-2400 ECC SDRAM across eight channels
- ▶ Two 40 Gigabit Ethernet ports
- ▶ Nine SATA ports
- ▶ Two RS-232/422/485 serial ports
- ▶ IPMI support
- ▶ X-ES Enterprise Linux (XEL) BSP
- ▶ Contact factory for additional OS support



XAct1012

The XAct1012 provides an industry-leading combination of security, performance, and flexibility for a server motherboard. It features dual Intel® Xeon® E5-2600 family v4 (formerly Broadwell-EP) processors with a tightly coupled Xilinx Kintex® UltraScale™ security FPGA, two 40 Gigabit Ethernet ports, and six PCI Express expansion sites.

The XAct1012 is designed and manufactured in the USA, using COTS components from trusted domestic supply chains. Supporting a standard Extended ATX (E-ATX) form factor with six standard PCI Express expansion slots, it is a true Open Systems Architecture (OSA) design that can be installed within COTS 1U/2U/3U rackmount or E-ATX tower chassis. The XAct1012 also integrates ruggedization features that enable it to perform in environmentally challenging applications without modifications or enhancements.

X-ES Enterprise Linux (XEL) BSP is standard, please contact the factory for additional OS support options.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

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Processor

- Dual Intel® Xeon® E5-2600 v4 family processors (formerly Broadwell-EP)
- Default configuration utilizes E5-2648L v4 processors
- Up to 128 GB of DDR4-2400 ECC SDRAM across eight channels

External I/O

- Two 40 Gigabit Ethernet ports
- Four 10/100/1000BASE-T Ethernet ports
- One FPGA 10/100/1000BASE-T Ethernet port
- One IPMI 10/100/1000BASE-T Ethernet ports (one IPMC)
- Two USB 3.0 ports (can be disabled)
- Two RS-232/422/485 serial ports (can be disabled)

Internal I/O

- Nine SATA ports capable of 6 Gb/s
- One mSATA site capable of 6 Gb/s
- One USB 3.0 front panel header (can be disabled)
- One USB 2.0 front panel header (can be disabled)
- One USB 2.0 internal port (can be disabled)

IPMI

- PICMG 3.0 R3.0-based IPMI support

PCI Express Expansion Sites

- Two x16 PCI Express Gen3-capable interfaces
- Three x8 PCI Express Gen3-capable interfaces
- One x4 PCI Express Gen2-capable interface

FPGA

- Xilinx Kintex® UltraScale™ security FPGA (XCKU060 or XCKU095)
- 8 GB DDR4 ECC SDRAM
- External Gigabit Ethernet interface
- SATA interface (optional)
- 128 MB configuration flash
- Two x8 and one x4 PCI Express Gen3-capable interfaces to processor subsystem

Physical Characteristics

- Extended ATX (E-ATX) form factor
- Air-cooled
- Dimensions: 305 mm x 330 mm
- Fits in standard COTS 1U/2U/3U rackmount or E-ATX tower chassis
- Standard configurations provide the XAct1012 pre-integrated inside a 2U front I/O rackmount chassis (XPand9011) or ATX mid-tower chassis (XPand9015)

Environmental Requirements

Contact factory if your requirements are outside of our advertised levels.

- Low temperature operation to 0°C
- High temperature operation limit is dependent on chassis and ambient airflow (e.g. 35°C with XPand9011 or XPand9015).
- Storage temperature of -40°C to +85°C ambient
- 0% to 95% non-condensing humidity
- Conformal coating available as an ordering option

Software Support

- X-ES Enterprise Linux (XEL) BSP
- Contact factory for additional OS support

Power Requirements

- Power will vary based on configuration and usage. Please consult factory

