

MC1600 Series

Extreme Edge Servers

DATA SHEET

The MC1600 Series of Extreme Edge servers support remote VRAN, MEC and IoT applications

- Up to two 4-, 8-, or 12-core Intel Intel® Xeon® D processors
- PCIe Gen 3 x8 lanes per CPU to PCIe slot for ¾-Length accelerator card
- Onboard Broadcom 8 x 10GbE L2 switch supporting synchronous Ethernet
- NVME M.2 SSD per CPU
- Air inlet operating temperature -40°C to +65°C
- 1U x 300mm deep for mounting in a 19" rack
- -48VDC power

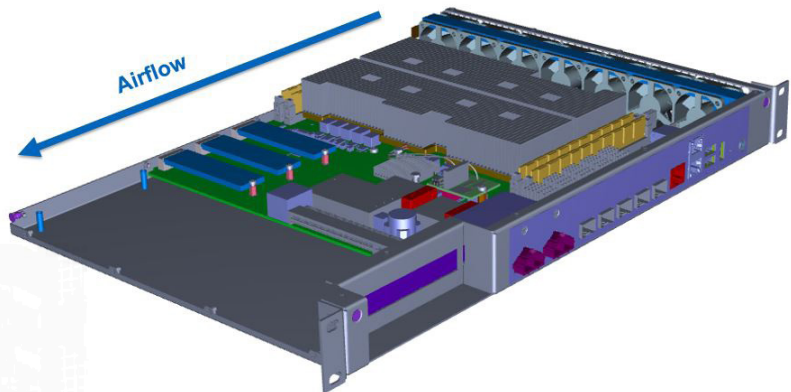
The MC1600 series of Extreme Edge servers from SMART Embedded Computing are designed to provide high performance compute capability in remote cabinet environments. The platform is targeted at virtual RAN, MEC and IoT applications and features low power Intel® Xeon® processor D CPUs with a companion PCI Express slot for offload processing.

The Extreme Edge server is designed to be an off-the-shelf offering. It enables customers to select the right combination of hardware and software and install the right size system for any edge deployment. The all-x86 architecture insures that the compute power can be reallocated to any load required by the network operator.

The 1U form factor allows for mounting with other standard rack-mount equipment. However, the Extreme Edge server is designed to operate safely in environments where the inlet temperatures can reach as high as 65°C or as low as -40°C. The design enables side-to-side cooling found in many IP55/65 outdoor cabinets. The system itself is IP20 compliant.

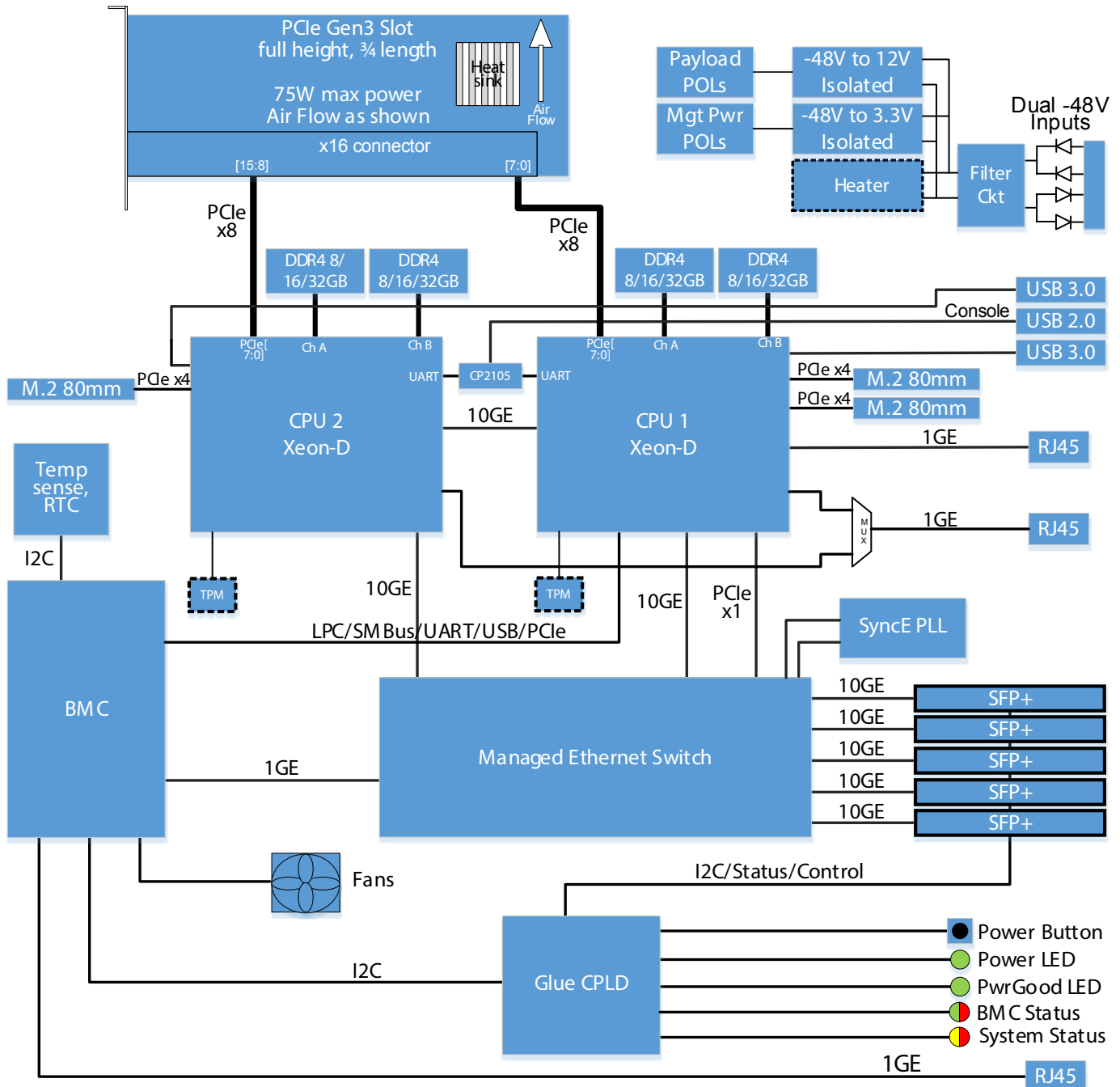


The MC1600 Extreme Edge server in standard 1U form factor features side-to-side cooling.



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System Block Diagram





Specifications

SERVER FEATURES

- Up to two Intel® Xeon® D processors
 - Intel Xeon D-1519 4-core @ 1.6GHz
 - Intel Xeon D-1541 8-core @ 2.1GHz
 - Intel Xeon D-1567 12-core @ 2.1GHz
 - Dual DIMM sockets per CPU
 - 8GB or 16GB DDR4-2133 memory, up to 32GB per CPU
- One standard PCIe expansion slot
 - PCIe Gen3 x8 connectivity to each CPU
 - Full height, ¾ length

ETHERNET CONNECTIVITY

- Embedded Ethernet switch
- 10GB-KR connection from each CPU to Ethernet switch
- Up to 5x SFP+ I/O connections
- Supported switch features:
 - VLAN tagging
 - DSCP marking
 - 802.1q, 802.1ad
 - Ethernet management according to Y.1731, IEEE 802.1ag
 - Frame loss and delay measurements
- SyncE clock regeneration to other switch ports
- Dual 1GbE RJ-45 ports
- Switch is capable of functioning in an un-managed mode. Contact SMART EC for details

STORAGE

- Optional dual 80mm NMVE M.2 SSDs with connectivity to CPU1 and single 80mm NVME M.2 SSD with connectivity to CPU2

SOFTWARE

- CentOS 7.x
- KVM
- Remote console access to BIOS and Linux OS
- Hardware monitoring software
- Firmware and software update tools
- Utilities to configure on board switch

BMC FOR REMOTE PLATFORM MANAGEMENT

- IPMI 2.0 support
- 1x 1000Base-T

ELECTROMECHANICAL

- Dual feed -48V connections (operating redundantly)
- High-efficiency 40mm fans in N+1 configuration with temperature sensor-based tach control
- Mechanical dimensions: 1U (H) x 300mm (D) for mounting in a 19" rack
- Front-mounting

ENVIRONMENTAL

- Compliant to IP20 Ingress Protection Rating
- Designed for installation in an IP55/IP65 outdoor cabinet
- Able to operate from -60m to 1800m altitude without temperature derating, up to 4000m with derating of 1°C per 300m
- Operating temperature -40°C to +65°C at the air inlet
- Storage temperature -40°C to +70°C



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Ordering Information

Part Number	Description
MC1612-1-16-128	1U SERVER WITH SINGLE 12-CORE INTEL® XEON® D1567, 16G RAM, 128G M.2, 0°C to 65°C
MC1612-2-16-128	1U SERVER WITH DUAL 12-CORE INTEL® XEON® D1567, 16G RAM PER CPU, 128G M.2 PER CPU, 0°C to 65°C
MC1612-1-16-128-ET	1U SERVER WITH SINGLE 12-CORE INTEL® XEON® D1567, 16G RAM, 128G M.2, -40°C to 65°C
MC1612-2-16-128-ET	1U SERVER WITH DUAL 12-CORE INTEL® XEON® D1567, 16G RAM PER CPU, 128G M.2 PER CPU, -40°C to 65°C

Note: Other CPU, DRAM and SSD configurations are possible. Contact SMART EC for details

SOLUTION SERVICES

SMART Embedded Computing provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

CONTACT DETAILS

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