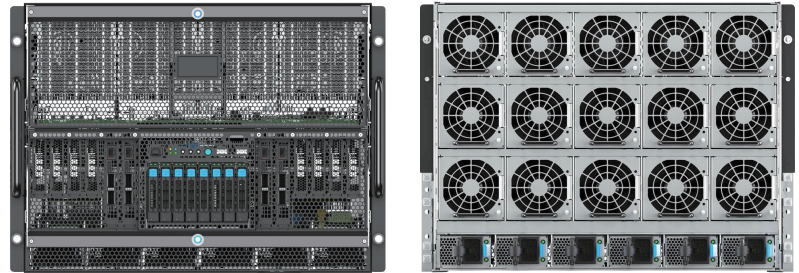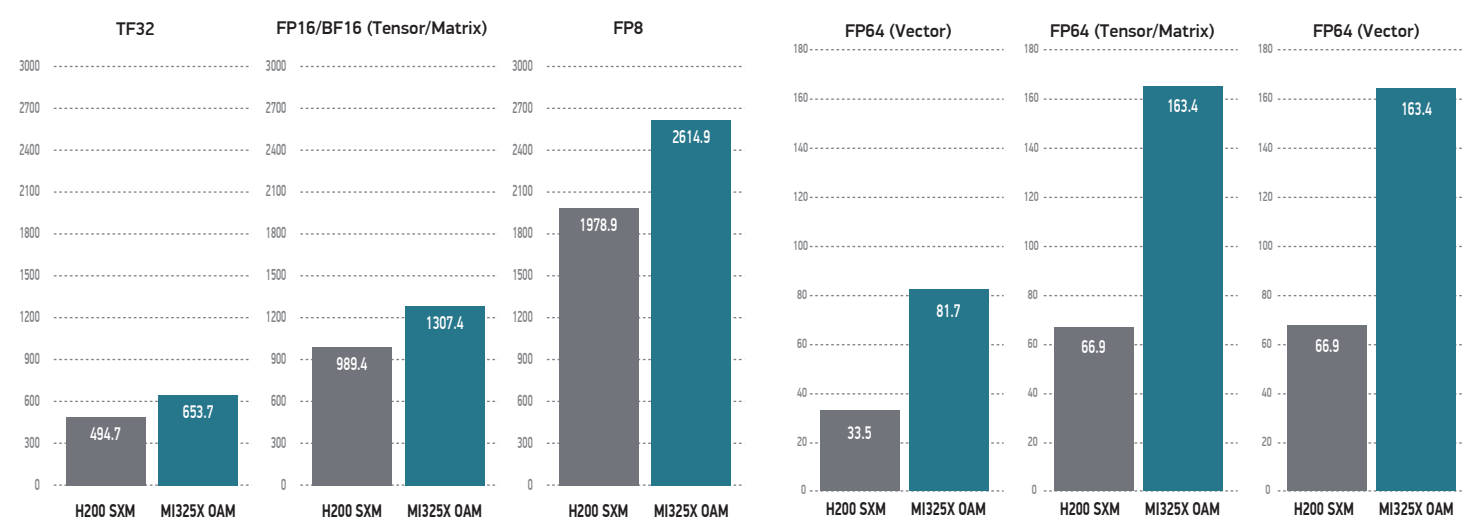# AI Server
AGS8600

The Edgecore AGS8600 is a high-performance, scalable, GPU-based server suitable for AI/ML (Artificial Intelligence/Machine Learning) and HPC (High-Performance Computing) applications. The server is ideal for training large language models, automation, object classification, and recognition use cases. The system is designed with eight AMD Instinct MI325X processors and dual AMD EPYC 9005/Turin series processors. The AMD MI325X processor integrates 256 GB of HBM3 memory.

Each MI325X offers a 16-lane PCIe Gen5 host interface and seven AMD Infinity Fabric™ links for full connectivity between eight GPUs in a ring. AMD Infinity Fabric technology delivers excellent I/O efficiency, scaling, and communication within and between industry-standard accelerator module (OAM) device packages.

Key Features and Benefits

- Featuring eight AMD Instinct™ MI325X GPUs based on CDNA™ 3 architecture
- Dual 5th Gen AMD EYPC processors with advanced data center performance and efficiency
- 7 Infinity Fabric™ links with 128 GB/s for full connectivity between 8 GPUs in a ring (scale-up)
- 16 PCIe Gen5 with 128GB/s bandwidth for scale-out network
- Up to 1.3X AI performance and up to 2.4X HPC performance vs. competitive accelerators
- AMD ROCm™ software optimized for generative AI and HPC applications, easy for migrating existing code.
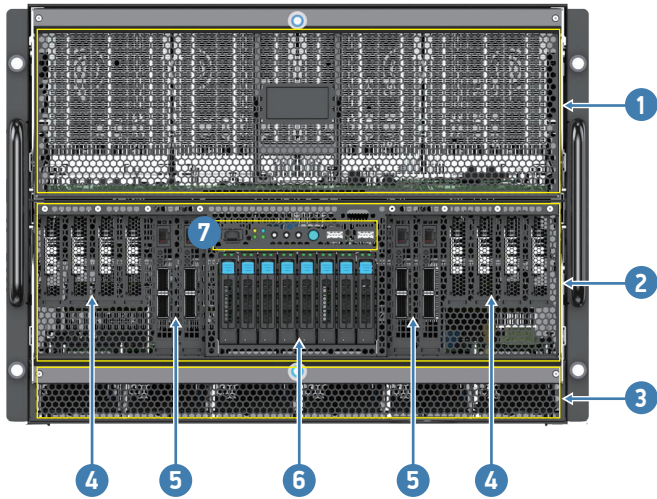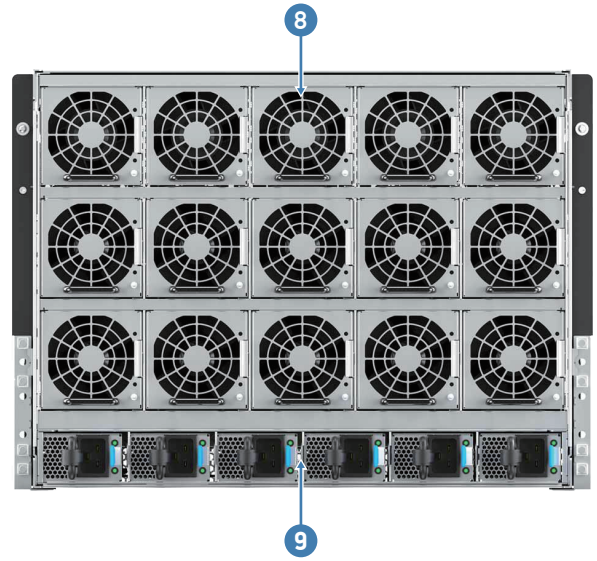

AI Performance (Peak TFLOPs)

TF32: H200 SXM 494.7, MI325X OAM 653.7
FP16/BF16 (Tensor/Matrix): H200 SXM 989.4, MI325X OAM 1307.4
FP8: H200 SXM 1978.9, MI325X OAM 2614.9

HPC Performance (Peak TFLOPs)

FP64 (Vector): H200 SXM 33.5, MI325X OAM 81.7
FP64 (Tensor/Matrix): H200 SXM 66.9, MI325X OAM 163.4
FP64 (Vector): H200 SXM 66.9, MI325X OAM 163.4

Interfaces

Front View

Rear View

Front Panel
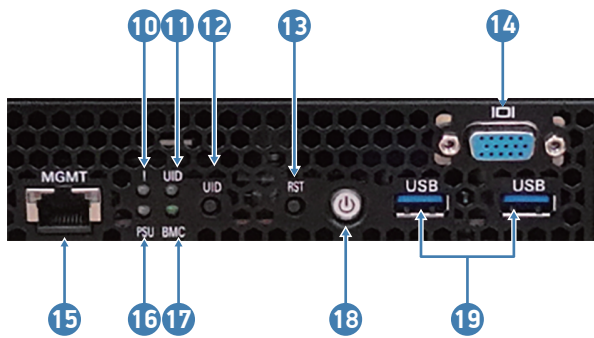
Description			
1.	4U UBB+OAM module	11.	1 x Unit ID
2.	3U Head Node module	12.	UID button
3.	1U power supplies	13.	RST reset button
4.	8 x backend NICs PCIe 5.0 x16	14.	1 x VGA D-Sub 15-pin port
5.	4 x Front End NICs PICIe 5.0 x16	15.	1 x RJ-45 managment port
6.	8 x NVMe U.2 drive bays	16.	Power supply unit
7.	Front panel module	17.	Baseboard Management Controller
8.	15 x hot-swappable 8086 fan modules	18.	Power button
9.	6 x 3300 W PSU w/(4+2) redundancy	19.	2 x USB 3.0 ports
10.	Indicator (over temperature warning indicator, fan and PSU fail)		

Form Factor
- 8 U

Compute Node
- CPU: AMD EPYC™ 9005/Turin series processor, 2 sockets EPYC 9575F 64C 3.3GHz 400W SP5
- Memory: 24 x 64GB RDIMM 2 RANK 5600
- Operating System: Linux
- BIOS: AMI BIOS (32 MB SPI Flash ROM)
- Front End Interface: 2 x BCM957608-P2200GQF00 Dual-Port 200GbE QSFP112 PCIe Ethernet NIC
- Storage: 2 x 1.92TB U.2 2.5 NVME4 1DWPD (non SED)

GPU
- AMD MI325X 8 GPUs with Infinity Fabric

Input/Output
- USB: 2 x USB3.0 ports
- VGA: 1 x D-Sub 15-pin port
- RJ-45: 1 x GbE port dedicated for IPMI
- Buttons: UID button, power button, reset button
- LEDs:
  UID led
  PWR led
  Baseboard management controller
  Indicator (over temperature warning indicator/fan and PSU fail)

Scale-Out Interface
- RDMA (ROCE v2)
- 8 x LP slots for switch board (PCIe x16)
- 8 x BCM957608-P1400GDF00 Single-Port 400G QSFP112-DD PCIe Ethernet NIC

Storage
- Front:
  6 x 7.68TB U.2 2.5 NVME4 1DWPD (non SED)

BMC
- AST2600

TPM 2.0

PSU
- 3300 W hot-swap RPSU, 80+ Titanium (4+2 redundancy)

Fans
- 15 hot-swappable fans

Dimensions
- W x D x H: 448 x 850 x 351 mm (17.63 x 33.46 x 13.82)

Operating Temperature
- 10°C-35°C

Expansion Slots
- 8 half-height + 4 full-height PCIe 5.0 x16 slots

Software
- ROCm: 6.2.4
- RCCL: 2.20.5
- PyTorch: 2.3, 2.2, 2.1, 2.0, 1.13
- TensorFlow: 2.16.1, 2.15.1, 2.14.1
- JAX: 0.4.26
- ONNX Runtime: 1.17.3

Warranty
Please check www.edge-core.com for the warranty terms in your country.

For More Information
To find out more about Edgecore Networks Corporation products and solutions, visit www.edge-core.com.

About Edgecore Networks Corporation
Edgecore Networks Corporation is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edgecore Networks Corporation delivers the software and systems that transform the way the world connects. Edgecore Networks Corporation serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

Edgecore Networks Corporation is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edgecore data center switches are developed and manufactured by Accton.

To purchase Edgecore Networks solutions, please contact your Edgecore Networks Corporation representatives at +886 3 563 8888 (HQ) or +1 (949)-336-6801 or authorized resellers.