

# G383-R80-AAP1

HPC/AI Server - 3U AMD Instinct™ MI300A APU

**AMD**  
**INSTINCT**  
**MI300A**



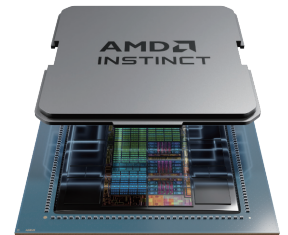
## Features

- 4 x AMD Instinct™ MI300A APUs
- 128GB HBM3 per APU
- Dual ROM Architecture
- 2 x 10Gb/s LAN ports via Broadcom® BCM57416
- 1 x M.2 slot with PCIe Gen5 x4 interface
- 8 x 2.5" Gen5 NVMe bays
- 4 x FHFL Dual slot PCIe Gen5 x16 slots
- 4 x FHFL Single slot PCIe Gen5 x16 slots
- 3+1 3000W 80 PLUS Titanium redundant power supplies

## AMD Instinct™ MI300A APU

### 228 AMD CDNA™ 3 GPU compute units and 24 AMD “Zen 4” x86 CPU cores

AMD Instinct MI300A accelerated processing units (APUs) combine the power of AMD Instinct accelerators and AMD EPYC™ processors with shared memory to enable enhanced efficiency, flexibility, and programmability. They are designed to accelerate the convergence of AI and HPC, helping advance research and propel new discoveries.



#### 128GB HBM3

with 5.3 TB/s peak memory bandwidth

#### Up to 122.6 TFLOPS

peak theoretical single precision (FP32) HPC performance

#### Up to 61.3 TFLOPS

peak theoretical double precision (FP64) HPC performance

#### Up to 3.9 PFLOPS

peak theoretical 8-bit precision (FP8) with sparsity for AI performance

## G383-R80-AAP1 Specification

|                        |                                                                                                                                                                     |                             |                                                                                                                                                                                    |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dimensions</b>      | 3U (W447 x H131 x D950 mm)                                                                                                                                          | <b>I/O ports</b>            | Front: 2 x USB 3.2 Gen1, 1 x VGA, 2 x RJ45, 1 x MLAN<br>Rear: N/A                                                                                                                  |
| <b>APU</b>             | 4 x AMD Instinct™ MI300A APUs<br>- 24 x Zen4 CPU cores per APU<br>- 228 x CDNA3 compute units per APU<br>- TDP up to 550W (CPU + GPU + memory)<br>- Peak up to 760W | <b>Backplane Board</b>      | Speed and bandwidth: PCIe Gen5 x4                                                                                                                                                  |
| <b>Socket</b>          | 4 x Socket SH5                                                                                                                                                      | <b>Security Modules</b>     | 1 x TPM header with SPI interface<br>- Optional TPM2.0 kit: CTM010                                                                                                                 |
| <b>Chipset</b>         | System on Chip                                                                                                                                                      | <b>Power Supply</b>         | 3+1 3000W 80 PLUS Titanium redundant power supplies<br>AC Input: 100-240V<br>*The system power supply requires C19 power cord.                                                     |
| <b>Memory</b>          | 128GB HBM3 unified memory<br>Memory bandwidth 5.3TB/s                                                                                                               | <b>System Management</b>    | ASPEED® AST2600 Baseboard Management Controller<br>GIGABYTE Management Console web interface                                                                                       |
| <b>LAN</b>             | 2 x 10Gb/s LAN ports (1 x Broadcom® BCM57416)<br>Support NCSI function<br>1 x 10/100/1000 Mbps Management LAN                                                       | <b>System Fans</b>          | 2 x 60x60x56mm (25,700rpm), 8 x 80x80x80mm (16,500rpm)                                                                                                                             |
| <b>Video</b>           | Integrated in ASPEED® AST2600 - 1 x VGA port                                                                                                                        | <b>Operating Properties</b> | Operating temperature: 10°C to 35°C<br>Operating humidity: 8%-80% (non-condensing)<br>Non-operating temperature: -40°C to 60°C<br>Non-operating humidity: 20%-95% (non-condensing) |
| <b>Storage</b>         | 8 x 2.5" Gen5 NVMe bays<br>1 x M.2 slot (PCIe Gen5 x4, 2280/22110)                                                                                                  | <b>Packaging Content</b>    | 1 x G383-R80-AAP1, 4 x APU heatsinks,<br>1 x L-shape Rail kit                                                                                                                      |
| <b>Expansion Slots</b> | 4 x FHFL Dual slot PCIe Gen5 x16 slots<br>4 x FHFL Single slot PCIe Gen5 x16 slots                                                                                  | <b>Part Numbers</b>         | Barebone package: 6NG383R80DR000AAP1*                                                                                                                                              |



Learn more at <https://www.GIGABYTE.com/enterprise>

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