Hawk is...

• The codename for an Ampere™ eMAG™-based motherboard design targeted for high density telco, edge, and datacenter deployments.
• Designed to fit in a half-width chassis based on openEDGE and Open19 Specifications.
• Currently available and shipping.
## Hawk Features

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| CPU             | • 1x Ampere eMAG 8180 CPU (TDP ~110-125W), 32x ARMv8 64-bit CPU cores at 3.30 GHz with Turbo  
|                 | • 1x Ampere eMAG 8140 CPU (TDP ~75W), 16 x ARMv8 64-bit CPU cores at 3.30 GHz with Turbo         |
| Form Factor     | • Half Width (1U)                                                   |
| Chassis         | • openEDGE, Open19                                                  |
| Memory          | • 8 x DDR4 2667 RDIMM (1DPC)                                       |
| Network         | • OCP Mezzanine v2 (Conn. A and Conn. B) supporting 10/40/100 GbE NIC  
|                 | • 1 x 1 GbE (RJ45) Onboard                                        |
| Storage         | • 2 x NVMe M.2 (PCIe x4)                                           |
|                 | • 4 x SATA (Gen3)                                                   |
| PCIe Expansion  | • One PCIe slot (x16)                                               |
| Other I/Os      | • VGA, USB 2.0                                                      |
| Power           | • Power Shelf, ATX                                                  |
| Mgmt.           | • 1 G RJ45, slimline (openEDGE)                                     |
Hawk Motherboard Block Diagram
Hawk Motherboard Placement

- PSMI connector
- M.2 connector (x2)
- 24 PIN PWR
- BMC
- Battery socket
- Front Panel IO connector
- M.2 connector (x2)
- OCP 2.0 CONN
- Front USB
- RMC RJ45
- Stack up VGA+Serial port
- 8 PIN PWR
- 4X DDR4 socket
- PCIe X16 slot
- PSMI connector
- 8 PIN PWR
- FAN connector (x3)
- Front Panel IO connector
- SATA CONN. (x4)

PCB Dimension:
165.1mm(W) x 351.79mm(L)
6.5” (W) x 13.85” (L)
Hawk Motherboard in openEDGE Sled
Hawk Sled in openEDGE Chassis

- System Power Distribution Board
- System Backplane
- Sled
- OE19 Chassis
- Mainboard
- 3x 4028 or 4056 Fans
- PDB
Rear and Front Views of the Hawk Board

**Rear View**

- Stack up VGA+serial port
- RJ45
- ID SW/LED
- USB (x2)
- x16 FHHL PCIe card
- OCP V2 MEZZ card

**Front View**
Hawk Motherboard Connection with Wiwynn Interposer
Hawk Motherboard in Wiwynn openEDGE Chassis – Front View
Thank You