

# HQ-BOX2 | Edge Server



## Flexible & Powerful IoT-Edge / Networking server

- Based on Intel® Xeon D-1700 LCC, 4-10 Cores
- 3x DDR4-ECC channels, up to **384GB memory capacity**
- 2x 2.5GbE(i225) + 1x GbE (i210)
- 8x SFP+ with up to 100Gb Ethernet throughput
- Rugged Fanless design for harsh environments.
- AST2600-based BMC with Display Port (DP) video
- On-board storage: M.2 NVMe + M.2 SATA + eMMC (soldered)
  - M.2 slots have specially designed heatsink mounting points specially designed for transportation environments (shock and vibration protected).
- Extension: 24 lanes of PCIe for Add-on cards and SSD distributed as:
  - 16-Lane PCIe Gen 4, can be bifurcated into 4x, 8x and 16x lanes
  - 8-Lane PCIe Gen 3, can be bifurcated into 4x, 8x lanes
- Storage options (in addition to the on-board storage)
  - 4x M.2 NVMe (G4) or
  - 4 x U.3 (2.5", 17mm, PCIe G4) + PCIe SSD AOC (8-lane, G3)
- Mixed PCIe Add-on cards and storage:
  - Storage :4 x U.3 (2.5", 17mm, PCIe G4) .
  - Add-on: 8-Lane PCIe G3, Full height half length card.



The HQ-Box2 was designed for the (hard) Edge and networking applications. The HQ-Box2 utilizes Intel®'s densest compute and connectivity SOC, and has integrated accelerators such as Intel® QuickAssist Technology (QAT) and Inline IPSec. Combined with a flexible 8-port Ethernet controller, the HQ-Box is the best fit for 5G / Edge network applications. Security features such as Intel® Boot Guard, Intel® SGX & Intel® TME-MT ensure better protection in hostile environments. Real-Time Features TSN (Time Sensitive Networking) and Intel® TCC (Time Coordinated Computing) are supported.

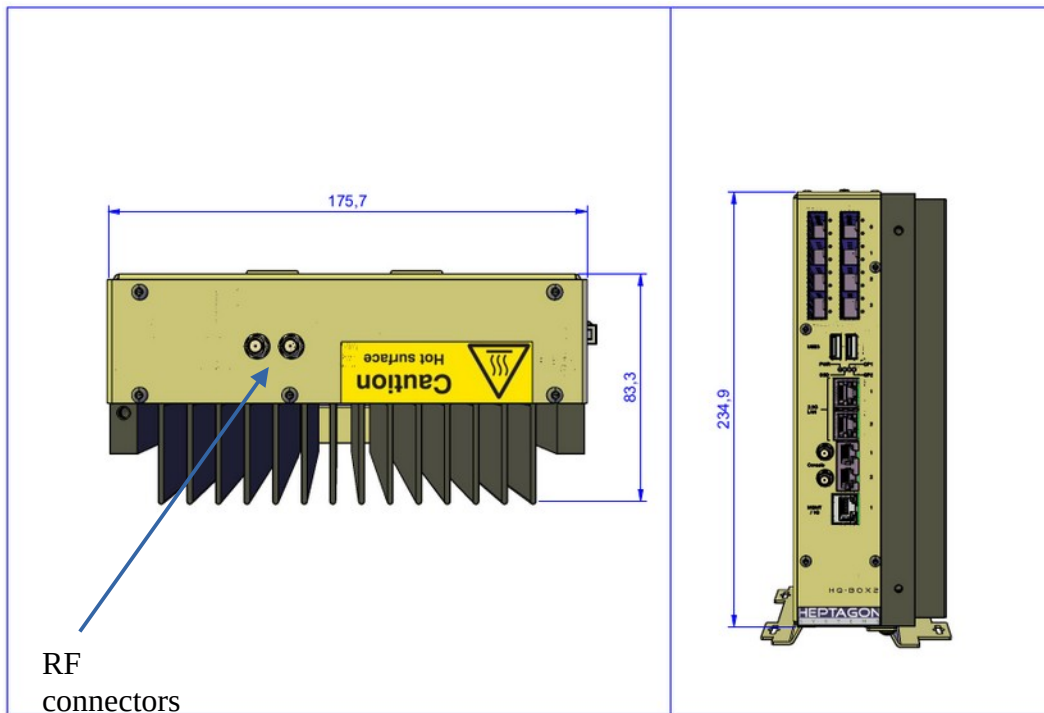
The built-in Board Management Controller is based on Aspeed most advanced AST2600 BMC enabling secure and safe remote administration and recovery.

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|                  |  |  |                      |
|------------------|--|--|----------------------|
| Processor        | Intel® Xeon D-1700 LCC, 4-10 Cores   |  |                      |
| Memory           | 3x DDR4-ECC channels, <b>384GB memory capacity</b>   |  |                      |
| Storage          | <b>Motherboard :</b>   | NVMe SSD: M.2 M-KEY, PCIE3.0 x4, 2280/2260<br>SATA3 SSD: M.2 B-KEY, 2280<br>EMMC: Up to 256GB boot media, soldered |                      |
|                  | <b>Extension:</b>  | 4x M.2 NVMe SSD: M.2 M-KEY, PCIE3.0 x4, 2280<br>4x U.3 (2.5", 17mm, PCIe G4)                                       |                      |
| Networking       | 4x or 8x ports SFP+ 10/25/50/100 Gigabit configurations<br>2x I225 (2.5GbE)<br>1x I210 (1GbE)<br>WWAN / WLAN: 5G,LTE,3G / 802.11ax Wireless with M.2E-KEY slot |  |                      |
| Display          | Display port (DP), with BMC  |  |                      |
| Interfaces       | USB: 2x USB3.0   |  |                      |
|                  | Serial ports: 2x RS232   |  |                      |
| Expansion Slots  | 1x PCIe 4.0 x16, 1x PCIe 3.0 x8  |  |                      |
|                  | M.2 M-KEY: 1x sockets, NVME, PCIe4   |  |                      |
|                  | M.2 B-KEY: 1x socket, SATA, USB3.0/2.0 + SIM   |  |                      |
|                  | M.2 E-KEY: 1x socket, PCIe4, USB2.0  |  |                      |
| Management       | BMC AST2600, OpenBMC, IPMI 2.0, DCMI, iKVM, Virtual Media  |  |                      |
| Security         | TPM 2.0, SLB9665   |  |                      |
|                  | SECURE BOOT, SECURE FLASH  |  |                      |
| Power            | 12VDC. Reverse polarity, Over/under Voltage protection   |  |                      |
| Software support | Windows: Win 10 IoT, WS19H1,WS19H2,WS20H1, Win11   |  |                      |
|                  | Linux: All major distributions   |  |                      |
|                  | Virtualization: KVM, ACRN, Vmware ESXi, Microsoft Hyper-V  |  |                      |
|                  | RTOS: Wind River VxWorks   |  |                      |
| Led              | Power, SSD, 2x GPIO  |  |                      |
| Mechanical       | DIMENSIONS:  |  |                      |
|                  | Slim: 84x176x235mm (WxDxH)<br>Extended: 151x176x235mm (WxDxH),   |  |                      |
| Environment      | OPERATING TEMPERATURE  | Standard   | 0°C to 50°C          |
|                  |  | Extended*  | -20°C to 60°C        |
|                  |  | <b>Industrial*</b>   | <b>-40°C to 72°C</b> |
|                  |  | * On selected configurations   |                      |
|                  | STORAGE TEMPERATURE  | -40°C to 85°C  |                      |
|                  | HUMIDITY   | 95%@40°C (non-condensing)  |                      |
| Certification    | EMC: CE, FCC ,AS/NZS, SAFETY: IEC 60950-1, AS/NZS  |  |                      |
| Contact          | Email  | sales@heptagonsystems.com  |                      |
|                  | Web  | <a href="http://www.heptagonsystems.com">www.heptagonsystems.com</a>   |                      |

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Dimensions and Panels

