

MVP-6100 Series

Value Family 9th Generation Intel® Xeon®/Core™ i7/i5/i3 & 8th Gen Celeron® Processor-Based Expandable Computer

Features

- 9th Gen Intel® Xeon®/Core™ i7/i5/i3 & 8th Gen Celeron® LGA processor
- Dual SODIMMs for up to 32GB DDR4 non-ECC/ ECC memory
- Rich I/O: 2x DP++/ DVI/ VGA/ 3x GbE/ 4x COM/ 8-ch DI/ 8-ch DO/TPM2.0
- 2x USB 3.1 Gen2 + 1x USB 3.1 Gen1 + 3x USB 2.0
- Rich storage: up to 4x 2.5" SATA, CFast, M.2 2280
- Embedded Expansion: Mini PCIe/ M.2 3042/ 2x USIM
- Front accessible I/O and adaptive Function Module v.2 option
- Flexible modular expansion with 2 or 4 slots



Software Support

- Win10 IoT Enterprise CBB 64bit
- Linux Ubuntu 18.04

Optional Accessories

- **MVP-6100 Fan Kit (P/N: 91-95267-0010)**
- **Factory Installed 2.5" SATA SSD/HDD/M.2/CFast**
- **Wireless Module**
Wi-Fi/ BT/ 3G/ 4G LTE/ LoRa wireless kit (w/ antenna)
- **Optional 2x 2.5" SATA Kit (w/ Bracket and Cable)**
- **AC/DC Adapter**
220W (P/N: 31-62149-0000)
280W (P/N: 31-62162-1010-A0)
- **Internal power cable for add-on card**
30-21656-0000-A0: for MVP-6120
30-21655-0000-A0: for MVP-6140

Ordering Information

| Model | CPU | PCH | Slot # |
|-----------------|------------------------|------|--------|
| MVP-612X-1E/M4G | Intel® Xeon® E-2278GE | C246 | 2 |
| MVP-612A-1E/M4G | Intel® Core™ i7-9700E | H310 | 2 |
| MVP-6121-1E/M4G | Intel® Core™ i7-9700TE | H310 | 2 |
| MVP-6122-1E/M4G | Intel® Core™ i5-9500TE | H310 | 2 |
| MVP-6123-1E/M4G | Intel® Core™ i3-9100TE | H310 | 2 |
| MVP-6124-1E/M4G | Intel® Celeron® G4900T | H310 | 2 |
| MVP-614X-3E/M4G | Intel® Xeon® E-2278GE | C246 | 4 |
| MVP-614A-3E/M4G | Intel® Core™ i7-9700E | C246 | 4 |
| MVP-6141-3E/M4G | Intel® Core™ i7-9700TE | C246 | 4 |
| MVP-6142-3E/M4G | Intel® Core™ i5-9500TE | C246 | 4 |
| MVP-6143-3E/M4G | Intel® Core™ i3-9100TE | C246 | 4 |
| MVP-6144-3E/M4G | Intel® Celeron® G4900T | C246 | 4 |

Specifications

| Model Name | MVP-610X | MVP-610A | MVP-6101 | MVP-6102 | MVP-6103 | MVP-6104 |
|-----------------------|--|--|------------------------|------------------------|------------------------|------------------------|
| System Core | | | | | | |
| Processor | Intel® Xeon® E-2278GE | Intel® Core™ i7-9700E | Intel® Core™ i7-9700TE | Intel® Core™ i5-9500TE | Intel® Core™ i3-9100TE | Intel® Celeron® G4900T |
| TDP | 80W | 65W | 35W | 35W | 35W | 35W |
| # of Cores | 8 | 8 | 8 | 6 | 4 | 2 |
| Base Freq. | 3.3 GHz | 2.6 GHz | 1.8 GHz | 2.2 GHz | 2.2 GHz | 2.9 GHz |
| Max Turbo Freq. | 4.7 GHz | 4.4 GHz | 3.8 GHz | 3.6 GHz | 3.2 GHz | - |
| Chipset | C246 | MVP-6120 series: H310 MVP-6140 series: C246 | | | | |
| Memory | 4GB DDR4 non-ECC 2400 MHz, dual SODIMMs, up to 32GB (Optional: 4/8/16/32GB ECC, only for Intel® Xeon®/Core™ i3/Celeron w/ C246) | | | | | |
| I/O Interface | | | | | | |
| Display | 2x DP++ 1.2, DVI-D, VGA (dual independent displays w/ H310, 3 independent displays w/ C246) | | | | | |
| Ethernet | 3x Intel GbE: 2x i211AT + i219 (Support Intel® AMT/vPro™ w/ C246) | | | | | |
| Serial Ports | COM1/2: RS-232/422/485, COM3/4: RS-232 (Optional COM5/6: RS-232, shared w/ DI/O) | | | | | |
| USB | 3x USB 3.1 Gen 1 + 3x USB 2.0, 1x internal USB 2.0 dongle (2x USB 3.1 up to Gen 2 w/ C246) | | | | | |
| Audio | Line-out, Mic-in (Optional: speaker-out) | | | | | |
| Mini PCIe | 1x Full size (USB 2.0 + PCIe) | | | | | |
| M.2 | 1x socket 2, key B+M or B, 2280/3042 (USB3.1 + SATA III + PCIe x1. Up to PCIe x2 w/ C246) | | | | | |
| USIM | 2 | | | | | |
| DI/O | 8-CH DI and 8-CH DO | | | | | |
| I ² C | 2 (3.3V/5V) | | | | | |
| TPM | TPM2.0 | | | | | |
| Expansion Slots | MVP-6120 series: PCIe x16 + PCI (total up to 150W) MVP-6140 series: PCIe x16 + 2 PCIe x4 + PCI (total up to 150W with 12V in; total up to 250W with 24V in) | | | | | |
| Storage Device | | | | | | |
| 2.5" SATA | 2x internal (RAID 0/1/5/10 support w/ C246) (Optional: additional 2x internal, w/ C246) | | | | | |
| CFast | 1 Type II | | | | | |
| Mechanical | | | | | | |
| Dimensions | MVP-6120 series: 165 (W) x 240 (D) x 210 (H) mm (6.5" x 9.45" x 8.27") MVP-6140 series: 206 (W) x 240 (D) x 210 (H) mm (8.11" x 9.45" x 8.27") | | | | | |
| Weight | MVP-6120 series: 4.8 kg (10.6 lbs) MVP-6140 series: 5.1 kg (11.2 lbs) | | | | | |
| Mounting | Wall mount | | | | | |
| Fan | Optional | | | | | |
| Power Supply | | | | | | |
| DC Input | 12-24V (± 10% tolerance) | | | | | |
| AC Input | Optional: 220W/280W AC/DC adapter | | | | | |
| Environmental | | | | | | |
| Operating Temperature | Standard: (w/ air flow 0.6 m/s) | | | | | |
| | 0°C to 40°C | 0°C to 50°C | | | | |
| | Extended: (w/ air flow 0.6 m/s & ind. storage) | | | | | |
| Storage Temperature | -20°C to 40°C | -20°C to 50°C | -20°C to 60°C | | | |
| | -40°C to 85°C (-40°F to 185°F) (excl. storage) | | | | | |
| Humidity | ~95% @ 40°C (non-condensing) | | | | | |
| Vibration | Operating: 5 Grms, random, 5-500 Hz, 3 axes (w/2.5" SSD/CFast, 3 Grms w/ fan) | | | | | |
| | Operating: 0.5 Grms, random, 5-500 Hz, 3 axes (w/ HDD) | | | | | |
| Shock | Operating: 50 G, half sine 11ms duration (w/ 2.5" SSD/CFast) | | | | | |
| ESD | Contact +/-4KV, Air +/-8KV | | | | | |
| EMC | EN61000-6-4/-2, CE & FCC Class A | | | | | |
| Safety | UL/cUL, CB, CCC | | | | | |