

# M50B Small-size and High-Performance Fanless Embedded System

M50B is a fanless embedded product with a small size and high performance, featuring onboard 6th-generation Intel® Core™ i7/ i5/i3 U series processors, onboard J1900 processor + BayTrail platform chip, and onboard Intel® Celeron™ J6412/Intel® Atom™ X6425E processor. It supports WIN7 (64bit), WIN10, LINUX, and other operating systems. The design is simple with compact dimensions, a fanless structure, and excellent sealing for dust prevention, heat dissipation, and vibration resistance. M50B is primarily used in various embedded intelligence fields such as mechanical testing equipment, industrial automation control, and robot controllers.



## Product Features



Fully sealed and fanless



Low power consumption and high performance



Small size

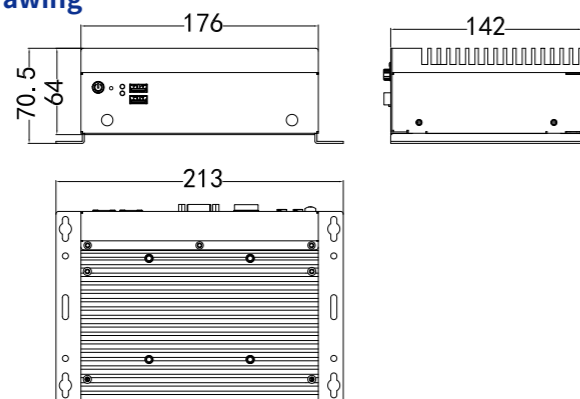


Operating in a wide temperature range



Rich and expandable port

## Product Dimensions Drawing



(Please refer to the user manual to check detailed specifications and dimensions) (unit: MM)

## Product Specifications

| Item                 | Description  |   |   |
|----------------------|--|---|---|
| System Configuration | Processor  | M50B-E: Intel® Celeron J1900 2.0Ghz, quad-core, Intel® Celeron™ J6412/Intel® Atom™ X6425E processor, onboard processors which are non-replaceable<br>M50B-H: supports Intel® I3-6100U/I5-6300U/I7-6600U processor, and onboard processors which are non-replaceable   |   |
|                      | Chipset  | M50B-E: Intel® BayTrail, Elkhart lake<br>M50B-H: Intel® SkyLake-U   |   |
|                      | Memory   | BayTrail: supports 1 x 204Pin DDR3L SO-DIMM slot<br>Standard configuration: 4GB, with the slot supporting up to 8GB and the PC memory supporting up to 8GB<br>Elkhart lake: supports 1 x 260Pin DDR4 SO-DIMM slot, with the slot supporting up to 32GB and the PC memory supporting up to 32GB<br>SkyLake-U: supports 1x 260Pin DDR4 SO-DIMM slot<br>Onboard 4GB; the slot supporting up to 16GB, and the PC memory supporting up to 20GB |   |
| I/O Port             | LAN Port   | 2 x RJ45 10/100/1000Mbps LAN port, expandable up to 4LAN ports . LAN1 supporting Wake-on-LAN  |   |
|                      | Display  | Provide 1 VGA and 1 HDMI display, and support dual display  |   |
|                      | USB  | BayTrail: supports up to 1 x USB3.0 + 5 x USB2.0 port<br>Elkhart lake: Standard configuration 1x USB3.0 + 3 x USB2.0 port, supporting up to 1x USB3.0 + 5x USB2.0 port<br>SkyLake-U: supports up to 2 x USB3.0 + 4 x USB2.0 port  |   |
|                      | COM  | 2~4x serial port, COM1~COM4, RS232/485/422 (optional)   |   |
| Expansion Bus        | Audio  | 1 group of Audio ports (supporting MIC-IN and LINE-OUT)   |   |
|                      | Motherboard Integration  | BayTrail/ SkyLake-U:  | 1 x M.2 key E slot (for WIFI function)<br>1 x M-SATA slot (for 4G or storage function. The 4G function and storage expansion cannot be used simultaneously)                   |
|                      |  | Elkhart lake:   | 1 x M.2 key B-slot (for 5G or storage)<br>1 x Mini-PCIE slot (for 4G or WiFi)<br>1 x M.2 key M or PCIe4 (X2 resources), horizontal (supporting M.2 key M function by default) |
|                      |  | Hard Disk   | 1 x SATA port (with optional 2.5-inch HDD or SSD)   |
|                      |  | Storage   | M-SATA/M.2  |
| Working Environment  |  |   | 0°C~+45°C (HDD) -10°C~+60°C (wide-temperature SSD/DOM)<br>Note: The air flow rate in the working environment of the PC must be greater than 0.5m/s.                           |
| Storage Environment  | -40°C~+85°C; humidity: 5%-95% (non-condensing state)   |   |   |
| Installation Method  | Wall-mounted, desktop, VESA standard arm   |   |   |
| Product Dimensions   | 176 mm (W) × 142 mm (D) × 64 mm (H) (excluding mounting bracket)   |   |   |
| Power Supply         | 1 x 4Pin Phoenix terminal power port<br>External AC 220V power adapter for power supply or DC 9-30V wide voltage input (optional)<br>Standard single-voltage DC output of the complete PC:<br>Intel® SkyLake-U: DC 19V single power supply<br>Intel® BayTrail/Elkhart lake: DC 12V single power supply |   |   |
| Operating System     | Intel® BayTrail/SkyLake-U: supports WIN7 (64bit), WIN10, LINUX (Kernel 2.6) and other operating systems<br>Intel® Elkhart lake: LINUX systems with high kernel versions such as WIN10, CentOS, Linux and Ubuntu  |   |   |

Note: EVOC Intelligent reserves the right to final interpretation of product specifications and ordering information etc.