

MIC-7500

Intel 6th Generation Core i Processor Compact Fanless System

Preliminary



Features

- Support Intel 6th Generation Core i7/i5/i3 BGA type CPU with Intel QM170 PCH
- Support I-Module expansion module
- Support VGA & DVI
- Support 1 x 2.5" HDD/1 x CFast slot/1x mSATA
- Support 2 Giga LAN and 8x USB 3.0
- Support 2 x RS-232/422/485 Serial & 4 x RS232 (Expansion by cable)
- Support Isolation COM module & 32bit GPIO module
- Supports wide power range of 9 ~ 36V DC input
- Support wide range operating Temperature of -20 ~ 60° C
- Supports SUSIAccess and Embedded Software APIs

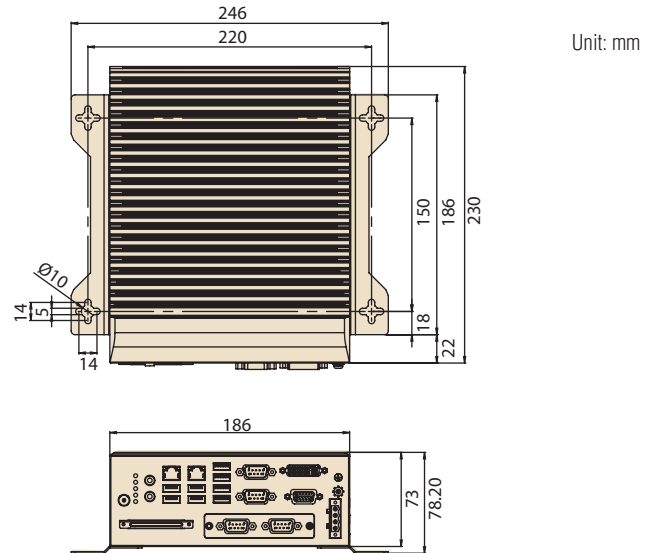
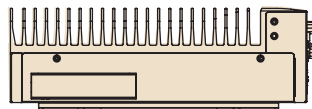
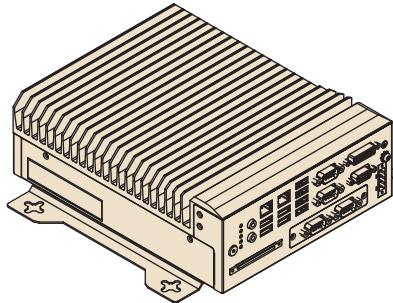


Specifications

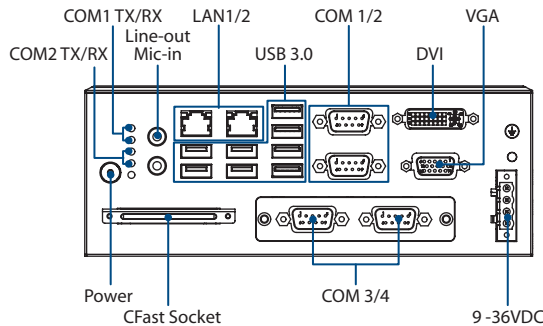


| | | | | |
|---------------------|-----------------------|---|-----------------------------------|------------------------------|
| System Chipset | CPU | i7-6822EQ | Intel i5-6442EQ | Intel i3-6110EQ |
| | Max Speed | 2.0 GHz | 1.9GHz | 1.9 GHz |
| | L3 Cache | 8MB | 6MB | 3MB |
| | Chipset | QM170 | | |
| | BIOS | AMI SPI 64 Mb | | |
| Memory | Technology | Dual Channel DDR4-2133MHz | | |
| | Socket | 2x 260 pin DDR4 SO-DIMM socket, up to 16GB per socket Note: One DDR4 SO-DIMM least size is 4GB | | |
| | Maximum Capacity | Build-in 4GB memory, update to 32GB | | |
| Display | Chipset | Intel HD Graphic 530, support DirectX12 | | |
| | VGA | 1 x DB15, max resolution up to 2048 x 1536 | | |
| | DVI | 1 x DVI, max resolution up to 1920 x 1200 @ 30Mhz (2nd DVI connector expanded by cable, option) | | |
| | Display Option | Support third independent display | | |
| Ethernet | Controller | LAN1: Intel i219LM; LAN2: Intel i210, support Wake-on-LAN | | |
| | Interface | 2 x RJ-45 | | |
| Storage | HDD | Support 1 x 2.5" HDD | | |
| | CFast | Support 1 x CFast slot | | |
| | SSD | 1 x internal mSATA (Mini-PCIE interface) | | |
| I/O | USB | 8 x USB 3.0 + 1 x Internal USB2.0 | | |
| | Serial Port | 2 x DB9, RS232/422/485 with automatic flow control, 4 x RS-232 (Expanded by Cable, Option) | | |
| | Audio | 2 (1 x Line-Out, 1 x Mic-in) | | |
| Expansion Slot | Expansion module | Support I-Module (MIC-75M13/MIC-75M40/MIC-75M20/MIC-75S20/MIC-75M11) | | |
| | Mini-PCle | 2x Mini-PCIE supported PCIe Gen2 signal, 1 supported U-SIM socket, 1 supported m-SATA | | |
| LED & Button | LED | TX 1&2; RX 1&2; Storage x 1 | | |
| | Button | Power on/off Switch x 1 | | |
| Power | Power Type | ATX/AT | | |
| | Power Input Voltage | 9 ~ 36V _{DC} | | |
| Watchdog Timer | Output | System reset | | |
| | Interval | Programmable 1~255 sec/min | | |
| Environment | Temperature | Operating (With Industrial SSD) -20 ~ 60° C with 0.7m/S air flow | Operating (with HDD) 0 ~ 40° C | Non-Operating -40 ~ 85° C |
| | Humidity | 95% @ 40° C (non-condensing) | | |
| | Vibration | With SSD: 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 1 Grms @ 5 ~ 500 Hz, random, 1 hr/axis | 2G | |
| | Shock | With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration | | 50G 11ms |
| Mechanical Features | Dimension (W x H x D) | 74 x 192 x 230 mm | | |
| | Weight | 2.9kg (6.39 lbs) | | |
| | Install | Desktop/Wall-mounting | | |
| Certifications | EMC | CE/FCC Class A, CCC, BSMI | | |
| | Safety | UL,CCC,BSMI | | |

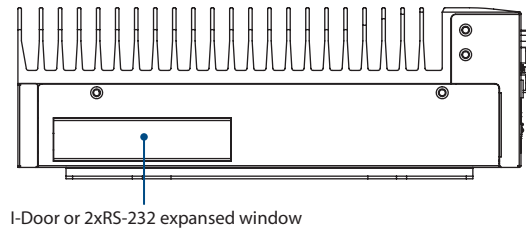
Dimensions



Front View



Left View



Ordering Information

| Part Number | CPU | VGA | DVI | 2.5" HDD | CFast | USB3.0 | GbE | COM | PCIe/PCI Exp | Power |
|----------------|-----------|-----|-----|----------|-------|--------|-----|-----|---------------------|-----------|
| MIC-7500-U0A1E | i7-6822EQ | 1 | 1 | 1 | 1 | 8 | 2 | 4 | i-Module (optional) | DC9 ~ 36V |
| MIC-7500-S9A1E | i5-6442EQ | 1 | 1 | 1 | 1 | 8 | 2 | 4 | i-Module (optional) | DC9 ~ 36V |

Packing List

| Part No. | Description |
|----------------|----------------------------------|
| - | MIC-7500 |
| 2061750000 | CD-ROM for MIC-7500 V1.0 |
| 2001750000 | MIC-7500 Startup manual |
| 1652003234 | 1 x 4pin Phoenix Power Connector |
| 1960070543N001 | 2 x Mounting Bracket |
| 1700019445 | 1 x SATA Cable |
| 1700024372-01 | 1 x SATA Power Cable |
| 1701200220 | 1 x 2xD9P Ports cable |

Optional Accessory

| Part No. | Description |
|-----------------------------------|--|
| 96PSA-A220W24P4-1 | ADP A/D 100-240V 220W 24V |
| 96PSA-A150W19P4-1 | ADP A/D 100-240V 150W 19V |
| 96PSA-A120W24T2 | ADP A/D 100-240V 120W 24V |
| 96PSA-A120W19T2 | ADP A/P 100-240V 120W 19V |
| 1702002600 | Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D |
| 1700022940-01 | Power cord PSE 7A 125V 3P 3m DAC-ST01 |
| 1702002605 | Power cord 2P FRANCE 10A/16A 220V 1.83M 90D |
| i-Door Module (MOS series module) | Support i-Door module (MOS series) except PoE Please refer Advantech Website below or search "iDoor Module Mini PCIe Expansion Kit". http://www.advantech.com.tw/products/idoor-module-mini-pcieexpansion-kit/sub_bc858a7f-a52b-441b-a59c-f511289f98bc |
| i-Door Module (PCM series module) | Support i-Door module (PCM series) except PoE Please refer Advantech Website below: http://www.advantech.com/products/idoor-technology-mini-pcieexpansion-kit/sub_efdb96af-a817-4cde-9592-dbf5c9794d16 Note : There need to order a bracket to fix PCM series i-door module. Pleaser refer P/N below: 1960065854N000 iDoor_bracket |

Optional i-Module

| Feature | Model name and specification |
|-------------------------------------|---|
| 4-slot Expansion Module | MIC-75M40 (4x PCIe slots) MIC-75M13 (1x PCIe + 3x PCI slots) |
| 2-slot Expansion Module | MIC-75M20 (2x PCIe slots) MIC-75M11 (1x PCIe + 1x PCI slots) |
| 2-slot Expansion and Storage Module | MIC-75S20 (2x PCIe slots + 2x 2.5" hot-swap HDDs) |

*optional i-Module details as next page

Embedded OS

| Part Number | Description |
|-------------|-------------------------------------|
| 2070014106 | img WES7P MIC-7500 x64 V5.6.6 10MUI |

i-Module for MIC-7 Series

Compatible with MIC-7 Series System Fan-Less System

4 Slot Expansion Module

MIC-75M40

- 1x PCIe8
- 3x PCIe4
- 1x SATA (2x 2.5" HDD bay)
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm
- Environment
Operation Temperature:
-20 ~ 60° C with 0.7 m/sec air flow:
with 1 x Industrial SSD without PC expansion boards
0 ~ 50° C with FAN module : with 1 x Industrial SSD with Graphic card/PoE card



Note:

- If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- MIC-75M40 does not support MIC-7300 series system.

MIC-75M13

- 1x PCIe16
- 3x PCI
- 1x SATA (2x 2.5" HDD bay)
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm
- Environment
Operation Temperature:
-20 ~ 60° C with 0.7 m/sec air flow:
with 1 x Industrial SSD without PC expansion boards
0 ~ 50° C with FAN module : with 1 x Industrial SSD with Graphic card/PoE card



Note:

- If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- For MIC-7300 series products (ATOM CPU), only support 1 xPCIEx4 signal.

2 Slot Expansion Module

MIC-75M20

- 1x PCIe16
- 1x PCIe4
- 45 x 192 x 230 mm
- Support 2x 4cm FAN (Optional)
- Dimension (W x H x G): 45 x 192 x 230 mm
- Environment
Operation Temperature:
-20 ~ 60° C with 0.7 m/sec air flow:
with 1 x Industrial SSD without PC expansion boards
0 ~ 50° C with FAN module : with 1 x Industrial SSD with Graphic card/PoE card



Note:

- If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- MIC-75M20 does not support MIC-7300 series system.

MIC-75M11

- 1x PCIe16
- 1x PCI
- 45 x 192 x 230 mm
- Support 2x 4cm FAN (Optional)
- Dimension (W x H x G): 45 x 192 x 230 mm
- Environment
Operation Temperature:
-20 ~ 60° C with 0.7 m/sec air flow:
with 1 x Industrial SSD without PC expansion boards
0 ~ 50° C with FAN module : with 1 x Industrial SSD with Graphic card/PoE card



Note:

- If your Expansion card power performance is total over 45W, please add a fan for thermal issue.
- For MIC-7300 series products (ATOM CPU), only support 1 xPCIEx4 signal.

MIC-75S20

- 1x PCIe16
- 1x PCIe4
- 2x Hot Swappable HDD tray
- Support 1x 8cm FAN (Optional)
- Dimension (W x H x G): 90 x 192 x 230 mm



Note:

- Please install SSD for Wide-range Temperature.
If system has without SSD ,Please add Fan module.
- MIC-75S20 only supports low performance expansion card. Please does not install Graphic card or PoE card.
- MIC-75S20 does not support MIC-73 series system.

Optional Accessory

| Part No. | Description |
|-------------|---|
| 98R1751300E | 8cm FAN Accessory for 4x slot i-module |
| 98R1752000E | 2x 4cm FAN Accessory for 2x slot i-module |

Order Information

| Part No. | Description |
|-----------------|-------------|
| MIC-75M13-00A1E | MIC-75M13 |
| MIC-75M40-00A1E | MIC-75M40 |
| MIC-75M11-00A1E | MIC-75M11 |
| MIC-75M20-00A1E | MIC-75M20 |
| MIC-75S20-00A1E | MIC-75S20 |