MXC-6400 Series

Fanless Embedded PCs with Intel[®] Core™ i7 / i5 / i3 6th Gen. CPUs



Features

- Intel® Core™ i7/i5/i3 6th Gen. CPU
- 2x DDR4 SODIMM RAM, up to 32GB
- Intel® QM170 chipset
- lx PCI + 2x PCIe Gen3 x8 or lx PCI + lx PCIe Gen3 x16
- Operating temperature: -20° ~ 70 °C



MXC-6400 Series – Robust design and high computing power

The MXC-6400 series is characterized by a very high energy efficiency and is therefore very economical in operation (15W TDP). They have two DDR4 RAM slots and can be equipped with up to 32 GB RAM. In the basic configuration Bressner delivers the three computers with two GB DDR4 RAM. As main memory a 128 GB SSD is installed and the whole unit is controlled by a QM170 chipset. The integrated graphics chipset provides up to 4K resolution with 3840×2160 pixels at 60 Hz and the video signal can be output to two monitors via the dual display ports.

Various connection options via PCIe, PCI or digital I/Os

To meet the different needs of different application platforms and development environments, the MXC-6400 series is equipped with two PCle x8 slots and one PCl slot or one PCle x16 slot and one PCl expansion slot – with support for second-generation PCle. With two DisplayPorts and one DVI-I connector, the computers offer three independent display connection options. A wide range of peripherals can be easily connected via the six external USB ports – four of which offer the fast USB 3.0. Users also have an internal USB port, sixteen isolated digital inputs and outputs each, and two onboard SATA III ports for 2.5-inch SSDs or hard drives, including support for Raid 0 and Raid 1. This allows the system to automatically create a backup copy of important data. The two GbE-LAN ports offer the practical teaming function.

Extreme performance for graphics or video applications

The embedded computers of the MXC-6400 series were designed for use under challenging conditions. Therefore they are extremely robust and suitable for extreme temperatures down to -20°C or 70°C without any problems. They are also characterized by a compact design, a fanless configuration and optimal heat dissipation. Thanks to the high-performance equipment, the slim computers are predestined for all kinds of computationally and graphically intensive tasks. Thus they are particularly well suited for applications such as high-resolution imaging processes in medical technology, industrial image processing, machine automation, sophisticated measurement and testing technology, maritime automation and monitoring tasks. However, thanks to their high reliability and versatile and easy configurability, they can also be used professionally in many other areas.

| Optional Accessories | | |
|---|---|--|
| MXC-6400 Optional Fan Module | P/N: 91-95199-0010 | |
| 8/16/32 GB DDR4 Option | Upgrade to 1x 8GB/ 2x 8GB/ 2x 16GB DDR4 SODIMM | |
| 2.5" SATA HDD/SSD & CFast | Factory-installed and test | |
| 160W AC-DC Adapter | 160W industrial grade AC-DC adapter (-20 to 70°C4°F to 158°F) | |
| Extended Temperature Option* | Optional screening service to extended operating temperature (-20° to 70°C) | |
| Kit for Internal USB Wafer Connector | P/N: 91-95199-100E (including 2 sets) A cable for type A USB connector, bracket and screws for fixing the cable | |

^{*}Extended operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast card

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| Specifications | MXC-6401D | MXC-6402D | MXC-6403D | | |
|------------------------------|--|---|--|--|--|
| SYSTEM | | | | | |
| CPU | Intel® Core™ i7-6820EQ 4 Core/8 Threads, 2.8GHz, 8M Cache (Max Turbo Frequency 3.5 GHz) | Intel® Core™ i5-6440EQ 4 Core/4 Threads, 2.7GHz, 6M Cache (Max Turbo Frequency 3.4 GHz) | Intel® Core™ i3-6100E 2 Core/4 Threads, 2.7 GHz, 3M Cache | | |
| Chipset | Intel® QM170 | | | | |
| RAM | Up to 32GB DDR4, dual SODIMMs | | | | |
| Storage | Up to 2x 2.5" SATA drives (supports RAID 0/ 1/ 5/ 10) 1x CFast type II | | | | |
| AMT | Intel® iAMT | | | | |
| ТРМ | TPM12 | | | | |
| Watchdog | Watchdog timer support | | | | |
| Expansion | 1x PCI + 2x PCIe Gen3 x8 or 1x PCI + 1x PCIe Gen3 x16 (auto-switched) 2x Full size mini PCIe1x USIM | | | | |
| Operating System | Win10/Win7/Embedded Standard 7 Linux® Ubuntu 16.04 LTS | | | | |
| INTERFACE | | | | | |
| Ethernet | 3x GbE (2x Intel® 1210IT + 1x Intel® 1219 PHY) | | | | |
| USB | lx USB 2.0 ports (internal) 6x USB 3.0 ports | | | | |
| СОМ | COM 1/2: 2x RS-232/422/485 COM 3/4: 2x RS-232 | | | | |
| Digital I/O | 16-CH DI and 16-CH DO with 1.5KV isolation | | | | |
| Video | lx DVI-I 2x Display Port (4K2K resolution) | | | | |
| Audio | 1x Mic-in and Line-out | | | | |
| Other | PS/2 for mouse and keyboard | | | | |
| ENVIRONMENTAL | | | | | |
| Cooling | Fanless Optional hot-pluggable fan module with smart fan control | | | | |
| Power Supply | DC input: Built-in 9 ~32V DC wide range input 3x pluggable connectors with latch (GND, V-, V+) AC input: 160W external AC-DC adapter (optional) | | | | |
| Remote Control & LED | 3-pin remote power on/off switch on the front | | | | |
| Operating Temperature | Standard: $0^{\circ} \sim 50^{\circ}$ C (with HDD) Extended: $-20^{\circ} \sim 70^{\circ}$ C (with ind. SSD or CFast) | | | | |
| Storage Temperature | -40° ~ 85°C (without HDD/SSD/CFast) | | | | |
| Vibration / Shock Resistance | Vibration: Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CFast or SSD) Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ HDD) Shock: Operating, 50 G, half sine 11 ms duration (w/ CFast or SSD) | | | | |
| Humidity | ~95% @ 40°C, non-condensing | | | | |
| Dimensions | 170 (W) x 225 (D) x 200 (H) mm | | | | |
| Weight | 4kg | | | | |
| Mounting | Wallmount | | | | |
| Certifications | Safety: UL/cUL, CB EMC: CE & FCC Class A ESD: Contact +/-4 KV and Air +/-8 KV | | | | |