

MC-7200-MP-T Series

Intel® 3rd Gen Core™ CPU marine computer with DNV GL certification, 8 NMEA 0183 ports, PCIe x16 slot, and 2 universal PCI slots



Features and Benefits

- Intel® Core™ processor: i7 3555LE, i3 3120ME, or Celeron 1047UE
- Fanless design
- Full marine I/O design
- PCI/PCIe slot
- 3 independent displays (DVI-D x 2 + VGA x1)
- 2 USB 3.0 ports, 6 USB 2.0 ports
- 2 SATA drive slots for greater storage capacity
- Dual power: 100 to 240 VAC and 24 VDC
- -40 to 70°C operating temperature range
- Supports Moxa Proactive Monitoring software

Certifications



Introduction

The MC-7200-MP-T marine computer is powered by the Intel® Core™ i7 3555LE processor and delivers a full range of I/O connectivity, including 8 NMEA 0183 ports, 4 serial ports, 4 Gigabit Ethernet ports, as well as 6 USB 2.0 and 3 SuperSpeed USB 3.0 ports. The MC-7200-MP-T is designed to provide outstanding PC performance, bringing a new level of flexibility and control to marine applications.

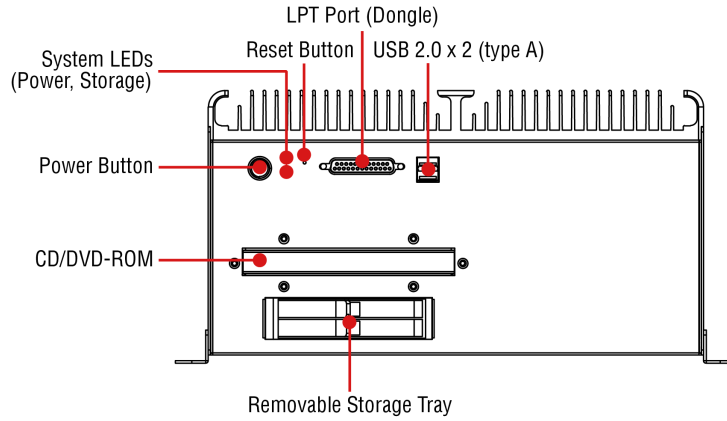
Designed with the highest quality and durability in mind, the marine-grade MC-7200-MP-T computer features a rugged chassis that can withstand vibrations up to 1G to provide the most reliable operation for harsh environments and conditions. In addition, low power consumption delivers an optimal thermal solution and makes installation easy for bridge systems in marine applications. In addition, the PCIe (x16) slot and two universal PCI slots allow users to easily install a variety of adapters, including radar cards, PROFIBUS cards, and VGA graphics cards, to fully satisfy their marine network needs.

Users can easily install Windows XP Embedded, Windows XP Professional, or Windows 7 to provide a flexible and friendly environment for system development and application implementation.

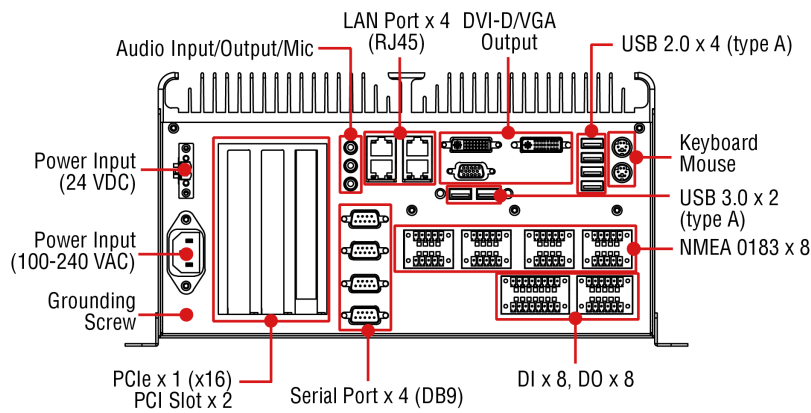
The MC-7200-MP-T supports Moxa Proactive Monitoring software, which is a small-footprint, resource-friendly, easy-to-use utility that allows users to track a number of system parameters. Users can view the current parameter values for these key parts by simply clicking on the icons corresponding to the parameters in the user interface. User-defined key part indicators (KPIs) are used to monitor the computer's key parts. Visible and/or audio alerts are triggered automatically via relay and SNMP traps when these KPIs exceed their preset threshold values, making it extremely convenient for operators to avoid system downtime by setting up predictive maintenance tasks well in advance.

Appearance

Front View



Rear View



Specifications

Computer

| | |
|-----------------------------|---|
| CPU | Intel® Celeron® Processor 1047UE (2M Cache, 1.40 GHz) Intel® Core™ i3-3120ME Processor (3M Cache, 2.40 GHz) Intel® Core™ i7-3555LE Processor (4M Cache, up to 3.20 GHz) |
| System Chipset | Mobile Intel® QM77 Express Chipset |
| Graphics Controller | Intel® HD Graphics 4000 (integrated) |
| System Memory Pre-installed | 4 GB DDR3/DDR3L |
| System Memory Slot | SODIMM DDR3/DDR3L slot x 2 |
| Supported OS | Windows Embedded Standard 7 (WS7P) 64-bit Windows 10 Embedded IOT Ent 2016 LTSB High End EPKEA Windows 10 Embedded IOT Ent 2016 LTSB Value EPKEA |
| Storage Slot | 2.5-inch HDD/SSD slots x 2 |

Computer Interface

| | |
|----------------|---|
| Ethernet Ports | Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 4 |
| Serial Ports | RS-232 ports x 2 (DB9 male) RS-232/422/485 ports x 2, software selectable (DB9 male) |
| USB 2.0 | USB 2.0 hosts x 6, type-A connectors |
| USB 3.0 | USB 3.0 hosts x 2, type-A connectors |

| | |
|--------------------|---|
| Audio Input/Output | Line in x 1, Line out x 1, microphone x 1, 3.5 mm phone jack |
| Digital Input | DIs x 8 |
| Digital Output | DOs x 8 |
| Expansion Slots | PCIe x16 slot x 1 PCI slots x 2 |
| LPT port | 1, 25-pin D-sub |
| PS/2 | Keyboard PS/2 x 1, Mouse PS/2 x 1 |
| Video Output | DVI-D x 2, 29-pin DVI-D connectors (female) VGA x 1, 15-pin D-sub connector (female) |
| NMEA Port | NMEA 0183 ports x 8 (terminal block) |

Digital Inputs

| | |
|-------------|-----------------------------------|
| Connector | Screw-fastened Euroblock terminal |
| Dry Contact | On: short to GND Off: open |
| I/O Mode | DI |

Relays

| | |
|-------------------------------|-----------------------------------|
| Connector | Screw-fastened Euroblock terminal |
| Contact Current Rating | Resistive load: 2 A @ 30 VDC |
| Contact Resistance | 50 milli-ohms (max.) |
| Initial Insulation Resistance | 1,000 mega-ohms (min.) @ 500 VDC |
| Mechanical Endurance | 100,000,000 operations |
| Minimum Permitted Load | 20 A @ 30 VDC |

LED Indicators

| | |
|--------|-------------------------------|
| System | Power x 1 Storage x 1 |
| LAN | 2 per port (10/100/1000 Mbps) |

Serial Interface

| | |
|--------------|--|
| Baudrate | 50 bps to 115.2 kbps |
| Connector | DB9 male |
| Data Bits | 5, 6, 7, 8 |
| Flow Control | ADDC® (automatic data direction control) for RS-485, RTS/CTS, XON/XOFF |
| Isolation | N/A |

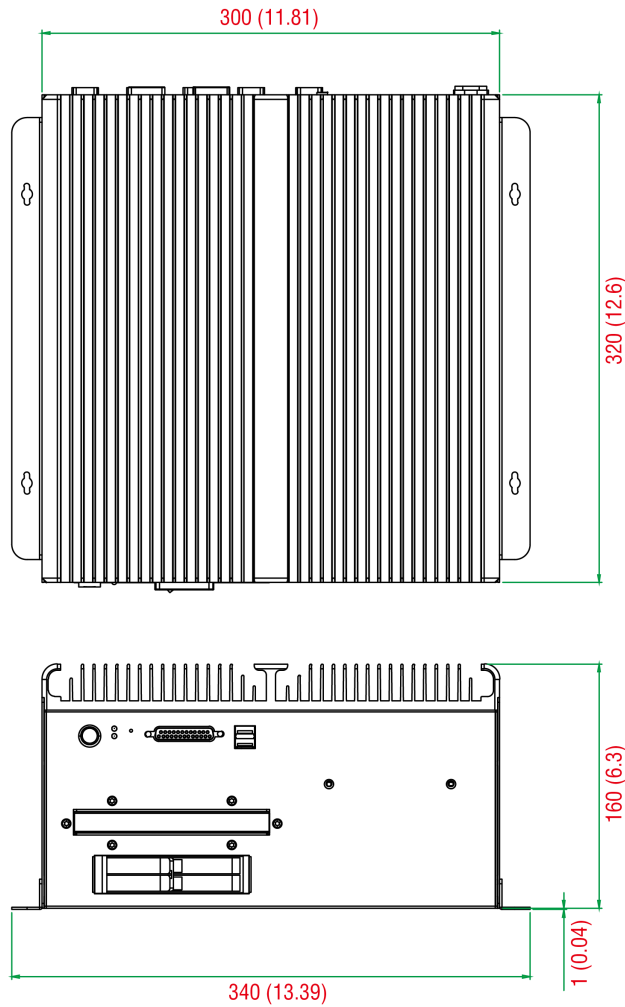
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|--|--|
| Parity | None, Even, Odd, Space, Mark |
| NMEA Interface | Serial Standards: NMEA 0183: RS-422 Baudrate: 4800 bps Data Bits: 8 Handshake: None Optical Isolation Protection: 3 kV Parity: None Serial Standards: NMEA 0183v2 Stop Bits: 1, 1.5, 2 |
| Serial Signals | |
| RS-232 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND |
| RS-422 | Tx+, Tx-, Rx+, Rx-, GND |
| RS-485-2w | Data+, Data-, GND |
| RS-485-4w | Tx+, Tx-, Rx+, Rx-, GND |
| Power Parameters | |
| Input Voltage | 100 to 240 VAC, 24 VDC |
| Power Connector | Terminal block (for DC power input) |
| Power Consumption (Max.) | 120 W |
| Reliability | |
| Automatic Reboot Trigger | Built-in WDT |
| Physical Characteristics | |
| Housing | Metal |
| Dimensions (with ears) | 320 x 340 x 160 mm (12.6 x 13.39 x 6.3 in) |
| Weight | 9,215 g (20.32 lb) |
| Installation | Wall mounting |
| Environmental Limits | |
| Operating Temperature | -40 to 70°C (-40 to 158°F) |
| Storage Temperature (package included) | -50 to 80°C (-58 to 176°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |
| Standards and Certifications | |
| EMC | EN 55032/24 |
| EMI | CISPR 32, FCC Part 15B Class A |
| Maritime | CCS, DNV-GL, IEC 60945 |
| Radio Frequency | FCC |
| Safety | UL 60950-1 |
| Warranty | |
| Warranty Period | 3 years |
| Details | See www.moxa.com/warranty |

Package Contents

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|------------------|--|
| Device | 1 x MC-7200-MP-T Series computer |
| Cable | 1 x terminal block to power jack converter |
| Installation Kit | 1 x terminal block, 2-pin (for DC power input) 1 x terminal block, 2-pin (for power ON/OFF) 2 x terminal block, 6-pin 2 x terminal block, 8-pin |
| Documentation | 1 x document and software CD 1 x quick installation guide 1 x warranty card |

Dimensions

Unit: mm (inch)



Ordering Information

| Model Name | CPU | RAM | Storage | LAN | Serial | USB 2.0/3.0 | DI/DO | NMEA 0183 | Video Outputs |
|--------------|----------------|------|--------------|-----|--------|-------------|-------|-----------|--------------------|
| MC-7210-MP-T | Celeron 1047UE | 4 GB | 2 x SSD tray | 4 | 4 | 6/2 | 8/8 | 8 | 1 x VGA, 2 x DVI-D |
| MC-7230-MP-T | i3-3120ME | 4 GB | 2 x SSD tray | 4 | 4 | 6/2 | 8/8 | 8 | 1 x VGA, 2 x DVI-D |
| MC-7270-MP-T | i7-3555LE | 4 GB | 2 x SSD tray | 4 | 4 | 6/2 | 8/8 | 8 | 1 x VGA, 2 x DVI-D |

Accessories (sold separately)

Cables

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|------------------|--|
| PWC-C13AU-3B-183 | Power cord with Australian (AU) plug, 1.83 m |
| PWC-C13CN-3B-183 | Power cord with three-prong China (CN) plug, 1.83 m |
| PWC-C13EU-3B-183 | Power cord with Continental Europe (EU) plug, 1.83 m |
| PWC-C13UK-3B-183 | Power cord with United Kingdom (UK) plug, 1.83 m |
| PWC-C13US-3B-183 | Power cord with United States (US) plug, 1.83 m |

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