



Fanless, Ruggedized DC Computer for Marine Use

MPC-FRE Series

The MPC-FRE Series is a high performance marinated computer designed for shipboard use in all sea states. The MPC-FRE Series uses genuine 4th Generation Intel Core i3® or i5® or i7® mobile CPUs. It is specially built for fanless operation, low power/heat and low maintenance. Designed for high shock and vibration and wide variations in operating temperature, the non-ventilated enclosure eliminates dirt and salt air drawn in by fan-cooled units. The MPC-FRE Series is designed to be bolted down where ever it is convenient for operation in a vessel. The MPC-FRE Series is user friendly, running Microsoft Windows7® Pro operating system. It offers expanded I/O including 4-RS-232, 4-RS-232/422/485 serial COM ports, 4-USB 2.0 and 4-USB 3.0 ports, dual RJ-45 fast ethernet, VGA, HDMI and dual DP monitor outputs, and has option slots for PCI and PCIe cards that can be added to the system. The MPC-FRE Series is designed to be powered directly from any 12-26 VDC source. The MPC-FRE Series has an all aluminum enclosure and is rated to operate from -20° to +60°C (-4° to 140°F). The MPC-FRE Series is extremely compact, taking only 9.85"W x 10.63"D x 4.45"H. Connections are made to the computer via standard computer connectors for interoperability and convenience. Available options include solid state HD, 802.11b/g Wi-Fi and external AC power adapter.



Front



Rear

Standard Features

- Intel i7 2.4 GHz or i5 1.8 GHz or i3 2.6 GHz Processor
- 320 GB SATA 2.5" HDD, Upgradable to 500 GB or 1TB, or
- 32GB or 64, 128, 250 or 500 GB Solid State Hard Drive.
- 2 GB DDR3 1333 MHz. RAM, upgradable to 4, 8 or 16 GB.
- Intel® QM77 Express Video Chipset.
- Dual 10/100/1000 Ethernet.
- 4 - RS232 Serial Port, 4 - RS-232/422/485 Serial Port.
- 4 - USB 2.0 Ports, 4 - USB 3.0 Ports.
- Windows7® Pro Operating System (64-bit).
- Deck/bulkhead mounting rails.
- Fanless Non-Corrosive Aluminum Sealed Case.
- 2-PCI Option Card Slots, Opt. Int. Wireless 802.11 b/g.
- 12-26 VDC Power Input.
- Super-compact 9.85" x 10.63" x 4.45", 8.8 lb.



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Specifications

■ CPU	Intel Core i7-4700EQ® 2.4 GHz. Quad core, i5-4422E 1.8 GHz. DualCore, or i3-4110E 2.6GHz. DualCore																														
■ Operating System	Windows7 Pro 64-bit, Windows8® Pro 64-bit, Linux																														
■ Hard Drive	320 GB 2.5" Industrial Grade SATA, Optional 500 GB or 1TB, or 32GB Optional 64, 128, 160, 250 or 500 GB Solid State																														
■ Memory	2 GB DDR3L 1333/1600MHz., Upgradable to 4, 8 or 16 GB																														
■ Video Chipset	Intel QM87 Express Chipset																														
■ Expansion	1 - PCI, 1- PCIe Optional Card Slots																														
■ I/O Ports	4 - USB 2.0, 4 - USB 3.0, 4 - RS-232, 4 - RS-232/422/485, GPIO - 8-In, 8-Out, Audio - MIC-In, Line-Out																														
■ Monitor Support	1 - VGA, 1 - HDMI (DVI-D with optional adapter), 2 - DP Outputs																														
■ Networking	2 - RJ-45 10/100/1000 Base T Ethernet																														
■ Mounting	Slotted mounting brackets																														
■ Weight	4.0 kg / 8.8 lbs.																														
■ Power	85 Watts Nominal																														
■ Environmental	<table border="0"> <tr> <td>Operating</td> <td>Non-Operating</td> </tr> <tr> <td>Temperature (Air Ambient)</td> <td>-20°C to 60°C (-4°F to 140°F) -20°C to 75°C (-4°F to 167°F)</td> </tr> <tr> <td>Relative Humidity</td> <td>5% to 90% (@40°C) non-condensing</td> </tr> <tr> <td>Shock</td> <td>50G (IEC60068-2-27, half-syne 11msec.)</td> </tr> <tr> <td>Vibration</td> <td>5Grms (IEC60068-2-64, Random, 10~500Hz, 1hr/axis)</td> </tr> </table>	Operating	Non-Operating	Temperature (Air Ambient)	-20°C to 60°C (-4°F to 140°F) -20°C to 75°C (-4°F to 167°F)	Relative Humidity	5% to 90% (@40°C) non-condensing	Shock	50G (IEC60068-2-27, half-syne 11msec.)	Vibration	5Grms (IEC60068-2-64, Random, 10~500Hz, 1hr/axis)																				
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■ Standards	CE, FCC Class A Part 15, Designed to Meet Basic MIL-STD-810G																														
■ Options	External AC Adapter Wireless IEEE 802.11 b/g Internal Mini-PCIe Card (Consult Factory)																														
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