



3U 19" Rack Mount Corei7  
**IEC60945 Certified**  
High Performance Marine Computer

# MPC-MG20R-IEC

The MPC-MG20R-IEC is a marine grade high performance ruggedized computer specifically designed for shipboard use in operating consoles or in electronics bays. The MPC-MG20R-IEC has been fully tested and certified to IEC60945 standards for use in navigation, radar and other bridge located applications. The high performance Intel Core i7<sup>®</sup> CPU has 4-cores and 8-execution threads to insure super-fast processing, low power/heat and low maintenance. The use of a matched Intel Chipset<sup>®</sup> provides the latest in input/output, graphics and security support. For additional graphics processing capability, a supplemental HD graphics processor with dedicated video memory with 2GB of dedicated video RAM can provide real-time motion on any monitor of any size as well as multi-monitor support. Principle storage is accomplished with 2.5" SATA rotating or solid state hard drives. Multiple drives in various RAID configurations are available. System memory from 2GB up to 16GB is available. A minimum configuration includes 6 - USB 2.0 and 2 - USB 3.0, 2 - RS-232 COM, dual Fast Ethernet, and multiple PCIe expansion slots. The construction is all aluminum 3U rack mount and will withstand typical shipboard shock and vibration as well as wide variations in operating temperature and humidity, with conformal coating to survive in corrosive sea air. The MPC-MG20R-IEC is pre-loaded with Microsoft Windows7 64-bit. It also has a built-in CD-RW/DVD drive conveniently located on the front of the unit. The MPC-MG20R-IEC comes standard with an internal 12 VDC 300 watt ATX power supply. The MPC-MG20R-IEC is fully configurable and customizable to meet any requirement. Full testing and certification to meet all applicable International Standards has been accomplished, including (but not limited to) UL, CSA, TUV, CE, FCC Part 15 Class B, RoHS. In particular, the MPC-MG20R-IEC has Certified Marine Approval according to IMO Type Approval Standard IEC60945 and IACS-E10 including ABS, DNV, BV, NK, GL and LRS and others.



3U 19" Rack Mount

## Standard Features

- Intel Core i7<sup>®</sup> Quad-Core Processor and Chipset.
- 250GB Solid State SATA Hard Drive, Upgradable.
- 2GB DDR3 RAM Memory, Upgradable to 16GB.
- Single, dual or RAID Hard Drive Options.
- Advanced NVIDIA Graphics Processor Option.
- Dual 10/100/1000 Ethernet, RJ-45.
- 2 - RS-232C Serial Ports, Expansion optional.
- 6 - USB 2.0 Ports, 2 - USB 3.0 Ports.
- VGA, DVI, HDMI + DP Video Output Options.
- Filtered Multiple Active Cooling Circulating fans.
- Ruggedized Aluminum Chassis for 19" EIA Rack.
- CD-DVD/ RW 24x Optical Drive.
- 12 VDC ATX Power Supply.
- 5 - PCI Express Option Slots..



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## Specifications

☐	<b>CPU</b>	Intel® Core i7-4770S Quad-Core Processor with 8GB Cache	
☐	<b>Chipset</b>	Intel® C226 Matched Chipset with HD 4600 Advanced Graphics, Mult-Monitor Support	
☐	<b>Operating System</b>	Windows7® 64-bit Professional Edition	
☐	<b>Hard Drive</b>	250GB 2.5" Server Grade Solid State SATA Main Drive, Upgradable to 500GB or 1TB	
☐	<b>Secondary Drive</b>	Separate, RAID 0, 1 Secondary Hard Drive of Various Type and Size Optional	
☐	<b>Memory</b>	2GB DDR3, Expandable to 16 GB	
☐	<b>Digital Media</b>	Internal CD-RW/DVD, 24x	
☐	<b>Monitor Support</b>	1 - VGA (RGB), 1 - DVI-D, 1 - HDMI, 1 - Display Port (DP)	
☐	<b>Graphics Processor (opt)</b>	NVIDIA Quadro K620 with 2GB Dedicated Video RAM, Dual DVI-I and 1-DP Display Support	
☐	<b>I/O Ports</b>	6 - USB 2.0, 2 - USB 3.0, 2 - RS-232 Serial Ports	
☐	<b>Networking</b>	2 - RJ-45 10/100/1000 Base T Ethernet	
☐	<b>Expansion</b>	2 - PCIe x16 Slots, 3 - PCIe x1 Slots (2 Mechanical, 1 Electrical)	
☐	<b>Construction</b>	3U Aluminum Non-Corrosive Chassis, Internal Shock and Vibration Preparation, Conformal Coated Electronics	
☐	<b>Cooling</b>	Multiple Through-Flow Filtered Forced Air Case Cooling, Active CPU Cooling, Power Supply Cooling	
☐	<b>Weight (typical)</b>	9.0 kg / 19.8 lbs.	
☐	<b>Dimensions</b>	19" W x 5.25" H x 17" D (min., depth may increase with options) (437mm H x 86.4mm W x 412.8mm D)	
☐	<b>Power</b>	300 Watts ATX Standard	
☐	<b>Voltage (Nominal)</b>	12 VDC	
☐	<b>Environmental</b>	<b>Operating</b>	<b>Non-Operating</b>
	Temperature (Air Ambient)	0°C to 60°C (32°F to 140°F)	-40°C to 75°C (-40°F to 167°F)
	Relative Humidity	10% to 95%, non-condensing	
☐	<b>MTBF (Approx.)</b>	20,000 Hrs.	
☐	<b>Standards (Consult Factory)</b>	UL, CSA, TUV, FCC Class B, Part 15, RoHS Compliant	
☐	<b>Marine Approval</b>	IMO Type Approval, IEC60945, IACS-E10 DNV-GL	
☐	<b>Options</b>	Consult factory for customization.	