



Robust, High Performance
19" Rack Computer
Certified for Marine Use

MPC-MG20R

The MPC-MG20R is an industrial grade high performance marinated computer specifically designed for shipboard use in operating consoles or in electronics bays. Its compact size allows for performance, flexibility and functionality beyond what is found in most PC's of any size. High performance Intel Core i7® 8GEN or Xeon® CPUs insure super-fast processing, low power/heat and low maintenance. The use of a matched Intel Chipset® provides the latest latest in input/output, graphics and security support. For additional graphics processing capability, a range of supplemental graphics engines with dedicated video memory (from 1GB to 4GB) 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 solid state hard drives. Multiple drives in various RAID configurations or hot-swap arrays for server applications are available. System memory up to the maximum supported by the Intel platform is available. Minimum configurations always include ample USB 2.0 and/or 3.0, at least one RS-232 COM, dual Fast Ethernet, and multiple PCI-E expansion slots. The construction is all aluminum 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. Standard is 2U rack mount, with custom sizes from 1U to 4U available. The MPC-MG20R is pre-loaded with Microsoft Windows10 64-bit Professional or Windows Server. It also has a built-in CD-RW/DVD drive conveniently located on the front of the unit. The MPC-MG20R comes standard with an internal 24 VDC or 120/240 VAC 350 watt ATX power supply, with larger wattages and redundant supplies available. The MPC-MG20R is fully configurable and customizable to meet any requirement. Full testing and certification to meet all applicable International Standards is available, including (but not limited to) UL, CSA, TUV, CE, FCC Part 15 Class B, RoHS. In particular, Marine Approvals according to IMO Testing Standards such as IEC60950, IEC60945, IEC61174, and IACS-E10 and can qualify for ABS, DNV, BV, NK, and LRS. Also available is testing and certification to MIL-STD-810G.



2U 19" Rack Mount

Standard Features

- Intel Core i7® or Xeon® Processor and Chipset.
- 250GB to 2TB Rugged SATA SSD Drive.
- 8GB DDR4 RAM Memory, Upgradable to 64GB.
- Single, RAID or Server Configuration Options.
- Advanced NVIDIA Graphics Processor Options.
- Dual 10/100/1000 Ethernet, RJ-45.
- 1 - RS-232C Serial Port, Expandable to 2, 4, 8, 16 .
- 6 - USB 2.0 Ports, Expandable to 10.
- VGA, DVI-D, DVI-I and HDMI Video Output Options.
- Filtered Multiple Active Cooling Circulating fans.
- Ruggedized Aluminum Chassis for 19" EIA Rack.
- CD-DVD/ RW 24x Optical Drive.
- 24 VDC or 115/230 VAC ATX Power Supply.
- 4 - PCI Express Option Slots, Expandable.

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Specifications

- ❑ **CPU** Intel Core i7® Family or Xeon® Processor, Intel Matched Chipsets
- ❑ **Operating System** Windows10® 64-bit Professional Edition or Windows Server (Various Editions)
- ❑ **Hard Drive** 250 GB 2.5" Industrial Grade SATA Solid State Main Drive, Upgradable to 2TB
- ❑ **Multiple Arrays** RAID 0, 1, 5 - Multiple Removable Hot Swap up to 8 Drive Bays
- ❑ **Memory** 8GB DDR4, Expandable to 64 GB
- ❑ **Digital Media** Internal CD-RW/DVD, 24x
- ❑ **Graphics Processor (opt.)** NVIDIA GeForce or PNY Minimum 1GB Video RAM, Provide Specification
- ❑ **I/O Ports** 4 - USB 3.0, 2 - USB 2.0, Upgradable, 1 - RS-232C Serial Upgradable to 2, 4, 8, 16 (RS-422/485 Available)
- ❑ **Monitor Support (Up to 3)** Standard VGA (RGB) Out via Mini DB-15 F, DVI-D Out via High-density DVI connector, Optional HDMI
- ❑ **Networking** 2 - RJ-45 10/100/1000 Base T Ethernet
- ❑ **Expansion** 4 - PCIe 8X Minimum, Expandable and Configurable
- ❑ **Construction** 2U Aluminum Non-Corrosive Chassis, Internal Shock and Vibration Preparation, Conformal Coated Electronics
- ❑ **Cooling** Multiple Through-Flow Filtered Forced Air Case Cooling, Active CPU Cooling, Power Supply Cooling
- ❑ **Weight (typical)** 11.0 kg / 24.6 lbs.
- ❑ **Dimensions** 17.2" W x 3.40" H x 16.25" D (min., depth may increase with options) (437mm H x 86.4mm W x 412.8mm D)
- ❑ **Power** 350 Watts Minimum - up to 1050 watts or Dual 550 Watts Redundant, ATX Standard
- ❑ **Voltage (Nominal)** 24 VDC or 115/230 VAC 47-63 Hz.
- ❑ **Environmental**

	Operating	Non-Operating
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	
- ❑ **MTBF (Approx.)** 20,000 Hrs.
- ❑ **Standards (Consult Factory)** UL, CSA, TUV, FCC Class B, Part 15, RoHS Compliant
- ❑ **Marine Approvals** (pending) IMO Testing, IEC60945, IEC60950, IEC61174
- ❑ **Military Approvals** (optional) MIL-STD-810G, others available, consult factory.
- ❑ **Options** A wide variety of options, features, additions and deletions are available. Consult factory for customization.



Sample Configuration