

# MP1X20A-iX38

High Performance Configured  
Portable Computer System

Supports Core 2 Duo & Quad  
Processors

SYSTEMS ENGINEERED TO PERFORM®

## RUGGED ENTERPRISE CLASS



The MP1X20A-iX38 Rugged Enterprise class portable computer high performance system supporting LGA 775 Core 2 processors (Extreme, Duo, Quad) is designed to meet the needs of Mission Critical Applications, providing configurations that are truly Fit-for-Use in a variety of operating environments and with a wide range of options to serve the most demanding requirements.

### Features

- ◆ 20.1" UXGA 1600x1200 LCD
- ◆ Anti-glare hard coat on LCD
- ◆ Core 2 Extreme, Quad, Duo processor options (LGA775)
- ◆ Intel X38 + ICH9R Chipset
- ◆ Up to 8GB DDR3 1333/1066/800MHz memory
- ◆ EVGA GeForce GTX4xx Video w/ Matrox 3-in-1 splitter
- ◆ Up to 12TB SATA hard drives w/ Raid 0/1/5/10
- ◆ Slim line DVD+-R/RW/DL/RAM
- ◆ 7 Plug-in card slots (2 x16 & 1 x1 PCIe, 2 x 64-bit PCI-X, 2x 32-bit PCI)
- ◆ One external 5-1/4" drive slot
- ◆ Built-in speaker w/ amplifier & volume controls
- ◆ Five high flow cooling fans
- ◆ Rugged aluminum alloy construction
- ◆ Designed for harsh environments
- ◆ Detachable 108 key keyboard w/ touch pad
- ◆ Various power options

### Support

- ◆ All Products Carry a One Year Limited Warranty
- ◆ Alternative Processors, Drives and Power Supplies

### GSA

- ◆ Available under GSC Schedule GS-35F-0357V Component Sourcing Group, an 8(a) company



Schedule  
Contract number GS-35F-0357V



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The MP1X20A-iX38 portable "lunchbox" PC computer system offers a rugged solution for a transportable system with an installed ATX or EATX motherboard. Included is a 20.1" UXGA 1600x1200 TFT LCD. The LCD display offers 300nit brightness, 1000:1 contrast and 8ms response. An anti-glare hard coat is provided on the display. A touch screen is optionally available. Optional enhancement filters can be provided for improved viewing in the targeted mission environment.

Constructed with heavy duty aluminum alloy, the MP1X20A-iX38 is a robust system providing tough, go-anywhere functionality for demanding applications. The display is operated by an EVGA GeForce GTX4xx family high performance GPU. The 20.1" LCD is fixed to the



front and the included keyboard attaches to the outside front for a single-piece unit to transport. When installed, the keyboard provides protection for the LCD. A padded, wheeled transit case is provided.

The system provides an Intel X38 based motherboard supporting Core 2 Extreme, Duo and Quad processors in an LGA775 package. Seven plug-in card slots provide two x16 and one x1 PCIE, two 64-bit PCI-X and two 32-bit PCI slots. The I/O boards are all externally accessible for easy access to their connectors.

Six hot swap SATA 3-1/2" hard drive carriers offering up to 12TB, one 5-1/4" drive bay, one slim DVD and one slim floppy drive slots are included. A wide variety of fixed and removable drives are available and these can be configured in a RAID 0/1/5/10 format.

A speaker and amplifier with volume controls is built in. The volume controls are mounted on the right side.

Cooling is provided by five high flow fans plus the air flow through the power supply. The chassis is well designed for optimum airflow over the installed components for use in its targeted rugged environment.

The included 108 key keyboard is compact and provides a touch pad for cursor movement with two "mouse" buttons. The keyboard is secured to the outside front for transit and is easily removed for use with the system. The keyboard connects to the front via a single connector with the cord stored in a pocket on the keyboard for transit.

Power is provided by a PS/2 supply with options for AC, DC and redundant inputs.



## Features

### Dimensions

15.7x20.0x9.9-inches  
(H x W x D)

### Construction

Aluminum alloy external chassis with rubber corners. Aluminum alloy inner frame.

### Weight

49lbs (typical system)

### LCD Displays

20.1-inch UXGA TFT LCD 1600x1200 with 300-nit brightness, 1000:1 contrast, 8ms response, anti-glare hard coat

### Drives

6x hot swap SATA 3-1/2" drive bays  
1x 5-1/4" drive bay  
1x slim DVD & 1x slim floppy drive bay

### Motherboard

iX38 w/ X38 + ICH9R chipset  
Performance Tailored Custom BIOS

### Power Supply

PS/2 w/ AC, DC, redundant options

### Cooling

Three external & two internal fans

### Keyboard

108-key compact form factor  
w/ integrated touch pad

### Environmental

Temperature -  
-10 - +55 deg C operating,  
-40 - +65 deg C non-operating  
Relative Humidity - 5 -95% non-cond.  
Shock - 10G operating, all axis, 30G non-operating  
Vibration - 1.25Grms @ 10-100Hz operating, all axis, 3.0Grms non-operating  
Drop - 4-inches on four corners operating, up to 24 inches non-operating  
Transit Drop - 32 inches, 10 drops in Shipping Carton  
Compliance - CE, FCC Class B, CCC, RoHS  
Specifications are ultimately dependent on installed components

## Motherboard



|                           |  |
|---------------------------|--|
| <b>Form Factor</b>        | ATX (9.6 x 12-inch)  |
| <b>Microprocessor</b>     | Core 2 Extreme, Duo, Quad  |
| <b>Chipset</b>            | Intel X38 + ICH9R + PXH/V  |
| <b>Front Side Bus</b>     | 1333/1066/800MHz   |
| <b>System Bus (Slots)</b> | Two x16 and one x1 PCIe<br>Two 32-bit 33MHz PCI<br>Two 64-bit 100MHz PCI-X 3.3V  |
| <b>On Board I/O</b>       | Six SATA-II ports (3Gbps)<br>One EIDE for two drives<br>One 10/100/1000 Ethernet RJ45<br>Twelve USB 2.0 (six rear mounted, six on-board)<br>High Def 7.1 Channel Audio<br>On-board VGA connector<br>Four Serial ports (2 rear panel)<br>One Parallel port<br>Two 1394 Firewire headers |
| <b>Memory</b>             | Four DIMM sockets supporting up to 8GB DDR3 1333/800/667 memory  |
| <b>Industrial Devices</b> | Hardware Monitoring including fans, CPU temperature and volt-ages  |
| <b>Bios</b>               | AMI w/ 16Mb SPI Flash EEPROM   |

## Video

|                     |  |
|---------------------|--|
| <b>Model</b>        | EVGA GeForce GTX4xx family   |
| <b>Ports</b>        | Two DVI-D + mini HDMI  |
| <b>Resolution</b>   | 1600 x 1200  |
| <b>Memory</b>       | Up to 1536MB 3800MHz effective   |
| <b>Architecture</b> | 3 <sup>rd</sup> Generation w/ up to 480 cores  |
| <b>Features</b>     | DirectX 11 support, CUDA technology, PCI Express 2.0 support, NVIDIA PhysX & PureVideo HD technology, OpenGL 3.2 support, Windows XP, Vista, 7 support |

## Drives

|                            |  |
|----------------------------|--|
| <b>Hard Drives</b>         |  |
| <b>Form Factor</b>         | 3.5-inch Enterprise Class                    |
| <b>Standard Capacities</b> | 500GB thru 2TB                               |
| <b>Number Available</b>    | One to six, Removable                        |
| <b>Interface</b>           | SATA-II 3GB/s, RAID 0/1/5/10                 |
| <b>Spindle Speed</b>       | 7200   |
| <b>Cache</b>               | 16/32MB Cache Options                        |
| <b>DVD/RW</b>              |  |
| <b>Type</b>                | DVD±RW (±R DL) / DVD-RAM Double Layer, 8.5GB |
| <b>Device Size</b>         | Slim form factor                             |
| <b>Read Speed</b>          | 24x (CD) / 8x (DVD)                          |
| <b>Write Speed</b>         | 24x (CD) / 8x (DVD±R) / 6x (DVD± DL)         |

## Power Supply

|                    |  |
|--------------------|--|
| <b>Fixed</b>       |  |
| <b>Form Factor</b> | PS/2   |
| <b>Input</b>       | 100-250VAC 50/60Hz   |
| <b>Outputs</b>     | 650W @ 80% Efficiency<br>3.3V@24A, 5V@30A, 12V@62A total, -12V@1A, 5Vsb@2.5A |
| <b>Redundant</b>   |  |
| <b>Form Factor</b> | PS/2 Mini Redundant, 2 Modules   |
| <b>Input</b>       | 90-264VAC, 50/60Hz   |
| <b>Outputs</b>     | 600W<br>3.3V@28A, 5V@28A, 12V@45A, -12V@1A, -5V@.8A, 5Vsb@2.5A               |

## Specifications

|                    |                                |
|--------------------|--------------------------------|
| <b>Temperature</b> |                                |
| <b>Operating</b>   | -10° to 55° C (14° to 131° F)  |
| <b>Storage</b>     | -40° to 65° C (-40° to 149° F) |
| <b>Humidity</b>    | 5% to 95% RHNC @ 40° C         |
| <b>Shock</b>       | 10G operating                  |
| <b>Vibration</b>   | - 1.25Grms @ 10-100Hz          |

