MPC-1700 Portable Workstation
Rugged Portable Workstation with Slots

CMS™

Features

» *Custom-build and expandable portable workstation.*

» *Aluminum alloy construction.*

» *Supports ATX, Micro-ATX form-factor system boards.*

» *Supports a single multi-core CPU.*

» *Supports PCI, PCI-X and PCI-Express slots for add-on cards.*

» *Integrated 17" active matrix flat panel display.*

» *Five drive bays: one 5.25" drive bay, two 3.5" drive bays, two slim-line drive bays for optical drive and floppy drive.*

» *Integrated keyboard with touchpad pointing device.*

» *650-watt power supply standard, up to 850-watt.*

Self-contained Portable Workstation Solution

The MPC-1700 is a portable workstation designed to pack the highest desktop PC performance in a portable package. It comes in a road-ready lunchbox style portable enclosure constructed of aluminum alloy. Protective corner rubber bumpers help to absorb shock during transport, or in the field. It includes a spacious enclosure that supports a Micro-ATX or ATX motherboard, an integrated flat panel display, five drive bays for data storage devices, and expansion slots for add-on cards.

The keyboard folds out for use and includes a touchpad mouse. A 650-watt power supply is standard. A rubber-clad carrying handle makes carrying the system easy, and a luggable carry case with wheels let you transport the system over long distances.

Expandable and upgradable system features

The MPC-1700 offers flexible system configuration using the latest COTS (commercial off-the-shelf) PC components. It packs powerful workstation-class computing capability using the latest multi-core processor technologies by Intel and AMD. The MPC-1700 supports up to three 3.5" hard disk drives in its drive bays. If a RAID configuration is required, it also supports up to six 2.5" hard drives. The MPC-1700 can be configured with an entry-level integratd graphics controller or a high end video card installed in one of its PCI-Express slots.

MPC-1700 Portable Workstation
System Chassis Specifications

System Chassis

Chassis Construction	Portable lunchbox style chassis constructed of aluminum alloy and steel.
	Integrated flat panel display and fold-out keyboard.
	Rubber corner bumpers.
	Tilt-up feet under chassis.
	Built-in speakers with 2x 6-watt output.
Integrated Display	17" TFT LCD, 1280 x 1024 resolution, 250 cd/m², 350:1 contrast ratio.
Storage Bays	2x 5.25" externally accessible drive bays.
	1x 3.5" externally accessible drive bay.
	1x internal 3.5" drive bay.
	1x slim-type optical disk drive bay.
Add-on Card Support	Chassis supports up to seven expansion cards.
	Number 1 slot* supports expansion card length (length of PCB) up to 8.25"
	Number 2 ~7* slot positions support expansion cards up to 13.3"
Keyboard	Fold-down 108-key keyboard with positive tactile feedback keyswitches. Integrated touchpad pointing device.
Cooling	Two 120mm case fans with filter.
Dimensions	17.5" (W) x 13.5" (H) x 9.5" (D).
Weight	Fully assembled system weighs approximately 35 lbs.
	Shipping weight: 55 lbs.
	Actual weight depends on system configuration.

Electrical and Power

Input AC	100 ~ 240 V @ 50 ~ 60 Hz, full range (PFC).
Output	650 watt ATX power supply standard, upgradable to 850 watt power supplies.

Environmental

Temperature	Operating 0~50-C (32~122 -F); non-operating -20~60-C (-4~140 -F)
Humidity (non-condensing)	Operating 20~90% @ 40-C, non-condensing;
	non-operating 10~95% @ 40-C, non-condensing
Shock	Operating: 10g, 11ms.
	non-operating: 50g, 11ms.
Vibration	Operating: 20-60Hz, 0.075mm.
	non-operating: 10-50Hz, 0.15mm
EMI/Safety	Power supply: CE, UL, FCC

Note:

* **In most ATX form-factor motherboards, number 1 slot location is usually occupied by a x1 PCI-Express slot. Number 2 ~ 7 slot locations are usually occupied by x16, x8, x4 PCI-Express, or PCI slots. Available slots for add-on cards depends on specific motherboard and system configuration.**

MPC-1700 Portable Workstation
Quad-Core CPU System Configuration

System Configuration with Intel Quad-Core Desktop Processor

System Board	Intel Z77 chipset LGA 1155 system board.
	Supports 4-Channel, dual-port Thunderbolt technology.
Processor	Intel Core i7-3770 Ivy Bridge 3.4GHz quad-core processor with Intel HD Graphics 4000.
System Memory	8GB dual channel DDR3 DRAM installed, up to 32GB.
Graphics Controller	Processor integrated Intel HD Graphics 4000.
Installed Storage	One 320GB 7200 RPM hard drive.
	One DVD +/- RW optical disk drive.
Storage Device Controller	4x SATA 3.0Gb/s ports.
	4 x SATA 6.0Gb/s ports.
	RAID 0/1/5/10 support.
LAN	Broadcom BCM57781 LAN controller, 10/100/1000Mbps.
Audio	Realtek ALC898 7.1 channels audio controller.
Expansion Slots	2x PCI-E 3.0 x16 slots.
	2x PCI-E 3.0 x1 slots.
	2x PCI slots.
External Panel I/O Ports	1x PS/2 keyboard/mouse.
	1x D-Sub.
	1x HDMI.
	1x DisplayPort Input for Thunderbolt port (TBT2 for test only).
	2x USB 2.0.
	4x USB 3.0.
	1x eSATA 6Gb/s.
	1x S/PDIF Out
	5x audio ports.
Operating System	Microsoft Windows 7 Professional 64-bit.

Note

Please use this as a starting point from which components can be modified to meet your application requirements.

MPC-1700 Portable Workstation
Six-Core CPU System Configuration

System Configuration with Intel Six-Core Server Processor

System Board	Intel C602 chipset LGA 2011 system board.
	Supports Intel Xeon E5-2600/E5-1600 series processors.
Processor	Intel Xeon E5-2630 Sandy Bridge-EP 2.3GHz six-core processor.
System Memory	16GB ECC Registered DDR3 DRAM installed, up to 256GB.
Graphics Controller	Integrated Matrox G200eW with 16MB DDR2 video RAM.
Installed Storage	One Intel 335 Series 240GB SATA III MLC SSD.
	One 1TB 7200 RPM 32MB Cache SATA 6.0Gb/s hard drive.
	One DVD +/- RW optical disk drive.
Storage Device Controller	4x SATA 3.0Gb/s.
	2 x SATA 6.0Gb/s.
	RAID 0/1/5/10 support (Windows).
	RAID 0/1/10 support (Linux).
LAN	Dual 10/100/1000Mbps Ethernet.
Expansion Slots	1x PCI-E 3.0 x16 slot.
	1x PCI-E 3.0 x8 (in x16) slot.
	1x PCI-E 2.0 x4 (in x16) slot.
	3x PCI-X 64bit slots.
External Panel I/O Ports	2x PS/2 ports.
	1x COM port.
	1x D-Sub VGA port.
	2x USB 2.0 ports.
Operating System	Microsoft Windows 7 Professional 64-bit.

Note

Please use this as a starting point from which components can be modified to meet your application requirements.

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