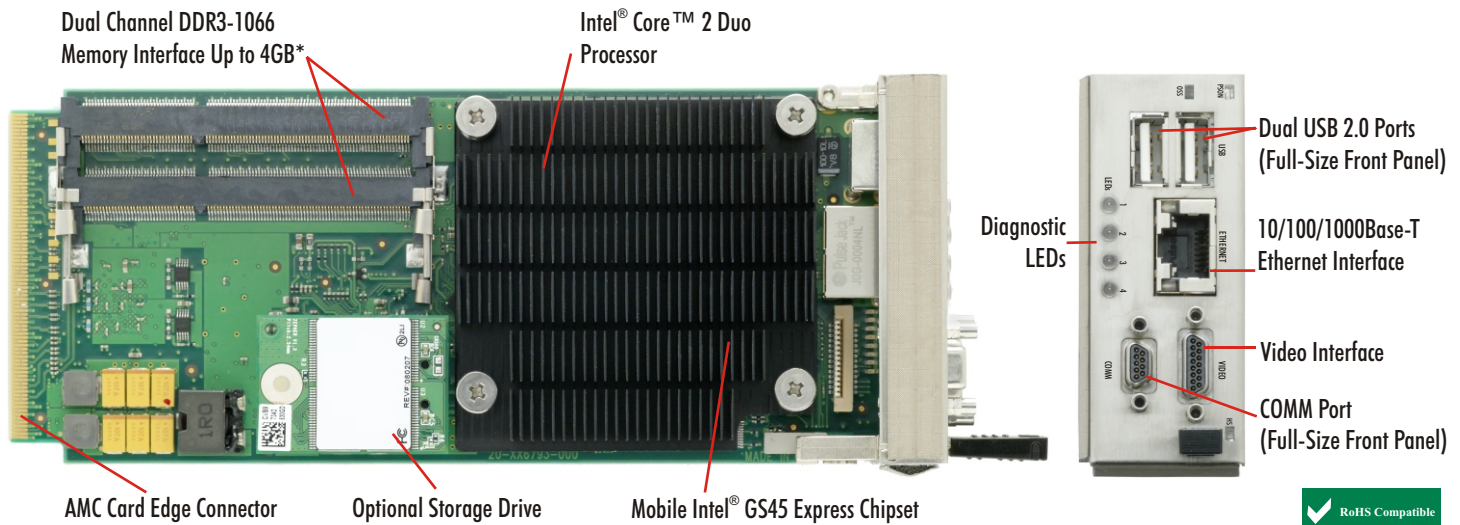


MCP6792 Processor AMC (PrAMC) Module



Trenton's MCP6792 is a Processor AMC module designed for insertion directly into MicroTCA® (uTCA®) backplanes or the AMC slots of an AdvancedTCA® (ATCA®) blade or carrier card. The full- or mid-size front panel configuration of the MCP6792 provides support for a broad array of uTCA and ATCA chassis styles and applications. The AMC's Small Form Factor (SFF), dual-core processor options deliver impressive MCP6792 performance. An extended life Intel® Core™ 2 Duo Processor and the Mobile Intel® GS45 Express Chipset are used on the Trenton MCP6792 to enable 4GB of DDR3 memory, multiple PCI Express® links, three Ethernet interfaces and much more.

PROCESSOR:

Intel® Core™ 2 Duo Processor SP9300 - 2.26GHz
 Intel® Core™ 2 Duo Processor SL9400 - 1.86GHz
 Intel® Core™ 2 Duo Processor SU9300 - 1.2GHz
 Processor Package: SFF (22mm x 22mm) BGA

The Intel® processor options on the MCP6792 support a 1066MHz or 800MHz system bus depending on the choice of processor. All of the processor options support both 64-bit and 32-bit applications. Other processor features:

- Dual-Core, low voltage or ultra low voltage processor option
- 6M L2 Cache (Intel® Core™ 2 Duo Processor SL9400 & SP9300)
- 3M L2 Cache (Intel® Core™ 2 Duo Processor SU9300)

CHIPSET:

The Mobile Intel® GS45 Express Chipset enables the card's dual-channel DDR3-1066 memory interface. The AMC's Intel® I/O Controller Hub 9M (ICH9M) provides multiple Gigabit Ethernet LANs, configurable PCI Express links and SATA ports on the MCP6792's card edge. The AMC's chipset implementation also supports the following:

- Trusted Platform Module (TPM)
- Intel® Trusted Execution Technology (Intel® TXT)
- Module Management Controller (MMC)

MODULE MANAGEMENT CONTROLLER (MMC):

The MCP6792's MMC or Module Management Controller supports the Intelligent Platform Management Interface (IPMI) commands for monitoring the following functions:

- Board temperature
- Voltage levels
- Payload Status

A shelf manager's MicroTCA Carrier Management Controller (MCMC) sends and receives data along the Intelligent Platform Management Bus (IPMB) to and from various MicroTCA system components including the MCP6792 card. The card's MMC uses the data to manage monitor functions, provide appropriate output signals and drive the status LEDs on the front on the AMC. These status LEDs indicate Hot Swap Status, Health and Out Of Service conditions. The MMC also manages the interface to the Hot Swap Switch located on the AMC's front panel.

CARD EDGE INTERFACES:

Trenton's MCP6792 Processor AMC (PrAMC) module supplies two 1000Base-BX Ethernet interfaces to the AMC's card edge connector. Other fabric interfaces available on the card edge connector are one x4 and one x1 PCI Express link with a PCIe reference clock. A MicroTCA backplane or ATCA carrier card may use the x4 PCI Express link as four x1 PCIe links resulting in five x1 PCIe links available for use in a system application with the Trenton MCP6792. The PCIe links on the card edge connector are user configurable via AMC dip switch settings. Other card edge interfaces include the IPMB for the AMC's Management Controller and support for two SATA II 300 ports.

ETHERNET INTERFACES (AMC CARD EDGE CONNECTOR):

The MCP6792 uses an internal x4 PCI Express link from the x16 port of the GS45 GMCH to connect to the dual-port Gigabit Ethernet controller chip. This design feature enables two very fast 1000Base-BX Ethernet interfaces from the AMC's card edge connector to either a MicroTCA backplane or to the AMC carrier card slots on an ATCA blade. The LAN interfaces provided by the MCP6792 are designed to provide robust Ethernet communications in MicroTCA and AdvancedTCA system applications.

TRUSTED PLATFORM MODULE (TPM):

The MCP6792 is compliant with version 1.2 of the Trusted Computing Group specification for Trusted Platform Modules via the use of the Atmel® AT97SC3203 TPM. The card's TPM and the chipset's Intel® Trusted Execution Technology (Intel® TXT) maximizes the security and integrity of any system design using a Trenton MCP6792 Processor AMC module.

SERIAL ATA/300 PORTS:

The primary and secondary Serial ATA/300 (i.e. SATA II 300) ports on the MCP6792 are available for use on the AMC's card edge connector.

FRONT PANEL CONFIGURATION OPTIONS:

- Single-Width, Full-size (28.95mm) - One 10/100/1000Base-T Ethernet, one video, one COM, two USB 2.0 ports and four diagnostic LEDs
- Single-Width, Mid-size (18.96mm) - One 10/100/1000Base-T Ethernet, one video and one USB 2.0 port

DDR3-1066 MEMORY INTERFACE:

The DDR3-1066 interface is a dual-channel interface originating at the Intel® GS45 Graphics Memory Controller Hub (GMCH), with each channel terminating at an SO-DIMM module socket. The MCP6792 supports system memory transfer rates of either 800 or 1066MHz using unbuffered, non-ECC, PC3-6400 or PC3-8500 SO-DIMMs. The MCP6792's two SO-DIMM sockets support a maximum memory capacity of 4GB*.

*Additional memory support of 8GB currently under evaluation



Dependable, always.



