

# TMS102

## ATCA Transition Module

### Features

- Two 10/100/1000Base-T Ethernet interfaces via PCIe-attached MAC/PHY
- Two USB 2.0 interfaces
- Two-port SAS/SATA interface via PCIe-attached SAS/SATA controller with on-board HDD
- 8-bit general-purpose I/O (GPIO) interface
- I<sup>2</sup>C-attached peripherals to complement main board IPMC, including EEPROM, thermal sensors, and voltage monitors
- Blue LED per PICMG 3.0
- Ejector handle in upper position includes a sensor to identify handle movement
- Optional analog video interface via PCIe-attached video chip

The TMS102 is the first of an anticipated series of RTMs defined to provide additional peripheral controller and rear access port resources for the A10xxx series Processor ATCA boards. The resources provided for the front board include a gigabit Ethernet port controller with two external interfaces and a SAS/SATA drive controller with two 2.5" Hard Disk Drives (HDD). Additional local processor interfaces include USB ports. An optional VGA video controller and interface may also be installed for development use.

This TMS102 is a hot-swap resource completely powered from the front board power converter. The IPMC and the host processor on the front board provide resource control and surveillance, as the TMS102 only

contains hardware support circuits for hot-swap operation. The TMS102 is capable of operating in a non-hot-swap configuration if the IPMC on the front board is not capable of managing the hot-swap resources on the RTM.

The TMS102 is an 8U ATCA rear-panel I/O board that mates with the A10200 8U ATCA single-board computer. It provides logic devices and a set of connectors to terminate external cables for the various rear access interfaces on the A10200.

The board assembly is defined for deployment in NEBS office environments.

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## Specifications

### SAS/SATA Controller with Flash & NVRAM

- LSI1064E SAS/SATA Controller
  - 4-port 3.0 Gbit/s SAS/SATA controller compliant with Fusion-MPT™
  - PCIe x8

### SAS/SATA HDD

- 2x 2.5" HDD connectors

### Gigabit Ethernet Controller

- Intel® 82576 controller with attached 128k-bit SPI EEPROM
- 2x 10/100/1000Base-T interfaces
- PCIe x4

### USB

- 2x USB 2.0 ports on front

### GPIO

- 8x GPIO

### Video Controller

- XGI Volari Z11 GPU provides VGA interface
- Up to 1600x1200 resolution supported
- 16M x16 DDR2 SDRAM graphics memory

### EEPROM

- Atmel AT24C512 EEPROM, 512K-bit storage accessible on the IPMI serial maintenance bus

### Monitors

- Voltage monitor
- 2x digital temperature sensors

### Backplane

Function	J3X Connectors
Power and IPMI	J30
PCI-Express, USB, GPIO	J32
PCI-Express and JTAG	J33

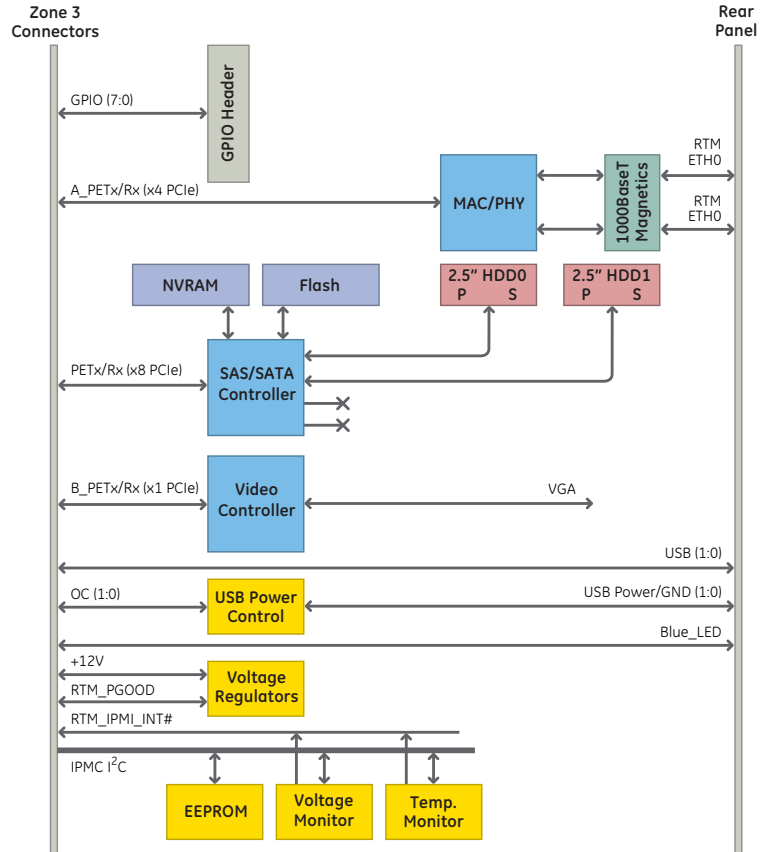
### Mechanical

- ATCA rear I/O form factor
- Height: 322.6 mm (12.7")
- Depth: 94 mm (3.7")
- PCB thickness: 2.0 mm (0.0787")
- Optional conformal coat (IPC-CC-830B, MIL-I-46058C)

### Front Panel

- 2x RJ-45 Ethernet connectors
- 2x USB
- LED (blue)
- 2x HDD

## Block Diagram



## Ordering Information

**TMS10200S1101** AATCA transition module without video and LAN ports, with one SAS drive 146 GB

**ATS102B200001** ATCA single board computer, 2x 2.13 GHz Quad Core, 16 GB DDR3  
For additional configurations, please contact GE Fanuc Intelligent Platforms.

### About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms, a joint venture between General Electric Company (NYSE: GE) and FANUC LTD of Japan, is an experienced high-performance technology company and a global provider of hard-ware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Fanuc Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Enterprise Solutions. For more information, visit [www.gefanuc.com](http://www.gefanuc.com).

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### Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

[www.gefanuc.com](http://www.gefanuc.com)

