GE Fanuc
Intelligent Platforms

IS-200

2U Industrial-Grade Single Slot Server

Chassis Features

- 700W redundant power supplies
- Eight 3.5" Hot-swap SAS/SATA drive bays
- Optional DVD-ROM drive or floppy drive
- Three high performance counter-rotating fans
- Three standard size (full-height, full-length) PCI-X or PCI-Express expansion slots (horizontal mount, rear panel access)
- Two low-profile (half-height, half-length) PCI-Expression expansion slots (horizontal mount, rear panel access)
- Front panel power switch, reset button, five LED indicators, and two USB receptacles.
- Rear panel keyboard, mouse, USB, COM, Gigabit Ethernet, and VGA connectors
- Complies with RoHS 5/6 and WEEE Directives

Motherboard Features

- Processor
  - Two sockets available
  - Intel® 64-bit Xeon® Dual core (5100 / 5200 series) or Quad core (5400 series) processor with 1333/1066 MHz FSB
  - Processor configuration vs fan noise vs ambient temperature configuration rules
- Intel® 5100P/ICH9 (San Clemente) chipset
- Up to 32 GB 667 / 533 MHz DDR2 ECC Register SDRAM
- Two Gigabit Ethernet controllers
- 3 Gb/s SAS controller with software RAID 0/1/5/10 support (hardware RAID 0/1/5 optional)
- 3 Gb/s S-ATA controller with hardware RAID 0/1/5support
- ATi ES1000 graphics controller with 32 MB video RAM

The IS-200, a 2U mid-range product in the IS family of industrial grade servers, provides high-availability for long-lifecycle applications with life cycle management, and revision control. To endure the harsh elements of today's industrial workplaces, the IS-200 offers an optional set of extended operating temperature, extended shock and vibration specifications, plus optional remote maintenance and BIT functions.

The IS-200 is powered by either one or two Intel® 64-bit Xeon® Dual core / Quad core 1333/1066 MHz FSB processor(s) and features the Intel® 5100P/ICH9 (San Clemente) chipset, with up to 32 GB DDR2 ECC Register SDRAM of memory. Peripheral resources include two Gigabit Ethernet controllers, a 3 Gb/s SAS controller with software RAID 0/1/5/10 support (hardware RAID 0/1/5 optional), a 3 Gb/s S-ATA controller with hardware RAID 0/1/5 support, plus an ATi ES1000 graphics controller with 32 MB video RAM.

The IS-200 accommodates the most demanding of flexibility requirements with eight 3.5" Hot-swap SAS/SATA drive bays; three full-height, full-length expansion slots plus two half-height, half-length expansion slots; and a slim drive bay supporting either an optional DVD-ROM drive or an optional floppy drive. Keyboard, mouse, USB, COM, Gigabit Ethernet, and VGA connectors are located on the rear panel. Front panel power switch, reset button, five LED indicators, and two USB receptacles provide easy operator monitoring and control interfaces.

To minimize downtime, three high performance counter-rotating fans quietly contribute to the IS-200 high performance and high reliability standards. This unit is compliant with RoHS 5/6 and WEEE Directives.

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IS-200 2U Industrial-Grade Single Slot Server

Additional Product Views

IS-200 without bezel

IS-200 rear view

Chassis Specifications

Form Factor
- 2U rack-mount chassis with 26" depth

Dimensions
- Height: 3.5" (88.9 mm)
- Width: 17.2" (437 mm)
- Depth: 25.5" (648mm)
- Gross Weight: 52 lbs (23.7 kg)
- Color: Black

Expansion Slots
- 3x full-height, full-length PCI-X or PCI-Express horizontal mount expansion slots
  - Hosted at MCH across x16 PCI-Express link
  - PCI-Ex / PCI-X Riser card required
- 2x half-height, half-length PCI-Express horizontal mount expansion slots
  - Hosted at MCH across x8 PCI-Express link
  - PCI-Ex / PCIe Riser card required

Drive Bays
- 8x 3.5" SAS / SATA Hot-swap drive trays
  - Supports 2.5" and 3.5" HDD assemblies
- Slim drive bay
  - Supports optional DVD-ROM drive or floppy drive

SAS / SATA Backplane
- 1x 2U SAS / SATA backplane

System Cooling
- 3x 8 cm counter-rotating fans (6300 RPM)

Front Panel
- Buttons
  - Power On/Off button
  - System reset button
- LEDs
  - Power LED
  - Hard drive activity LED
  - 2x Network activity LEDs
  - System overheat LED
- Two USB 2.0 Type A (host) receptacles
- One RS-232 COM port connector (DB9)

Rear Panel
- PS/2 keyboard and mouse ports
- 2x 10/100/1000BaseT Ethernet ports
- 1x VGA port (DB-15)
- 1x RS-232 COM port (DB-9)
- 2x USB 2.0 Type A (host) receptacles
- Cut-outs for seven host adapters

Power Supply
- 1+1 redundant 700W AC power supplies with PFC
- Min 90% power conversion efficiency
- AC voltage: 100 - 240V, 47 - 63 Hz

Operating Environment (System)
- +10° to +35° C (commercial operating temperature range)
- -20° to +55° C (industrial operating temperature range)

Chassis Specifications Continued

- -40° to +70° C (storage temperature range)
- 8% to 90% non-condensing humidity range
- 5% to 95% non-condensing humidity range (storage)
- Mechanical Shock
  - Operating: 2-3 ms duration, 20-40G, half-sine, one shock on each side.
  - Non-operating: 12-20 ms duration, 20-30G, square wave, one shock on each side.
- Mechanical Vibration
  - Operating: 0.35g rms at 5 to 200 Hz. Approx. 60 min./axis.
  - Non-operating (Random): 0.98g rms at 5 to 200 Hz. Approx. 30 min./axis.
- Operating Altitude: sea level to 10,000 ft
- Predicted MTBF (MIL-217, 25C / GB)
  - Consult factory for prediction
- RoHS 5/6 and WEEE Compliant

Regulatory
- USA - UL listed
- Canada - CUL listed
- EN 60950/IEC 60950-compliant
- CB Report
- CCC certification
- FCC Pt 15 A (industrial)
- CE Mark

Chassis Options

Front Panel
- Ports
  - 2x USB

Peripheral Drive
- TEAC 3.5" 1.44 MB Slim floppy drive
- Panasonic Slim 8x DVD; 24x CD/DVD-ROM drive

Front Bezel
- Front cover bezel with key lock and filter; call GE Fanuc Intelligent Platforms for details.

Heatsink / Retention
- Call GE Fanuc Intelligent Platforms for thermal component options.

Motherboard Specifications

Processor / Cache
- One or two Intel® 64-bit Xeon® processor(s)
  - Quad-Core Intel® Xeon® processor 5400 sequence up to 2.83 GHz
  - Dual-Core Intel® Xeon® processor 5200/5100 up to 2.66 GHz

System Bus
- 1333 / 1066 MHz front side bus

Motherboard Specifications

Operating System Software
- Supports 32-bit and 64-bit operating systems
- Windows® XP/2003/Server 2003
- Linux 2.6 distributions

BIOS
- 8 MB Flash with Phoenix® BIOS
- Features
  - Plug and Play (PnP)
  - DMI 2.3
  - PCI 2.2
  - ACPI 1.0/2.0
  - USB keyboard support
  - Hardware BIOS virus protection
  - SMBIOS 2.3

Memory Capacity
- 6x 240-pin DIMM sockets
- 32 GB maximum memory capacity using paired SoDIMM modules
- Memory mirroring and Interleaved memory bus operation supported

Memory Type
- 667/533 MHz Register DDR2 ECC Single Rank SDRAM 72-bit, 240-pin gold-plated DIMMS

Memory DIMM Module Sizes
- 1 GB, 2 GB, 4 GB, 8 GB

Memory Error Detection
- Corrects single-bit errors
- Detects double-bit errors (using ECC memory)
- Supports Intel® x4 and x8 Single Device Data Correction (SDDC)

Chipset (On-Board Devices)
- Intel® 5100 (San Clemente) chipset
- Intel® ICH9R

SAS Controller (On-Board Device)
- 3 Gb/s SAS controller
- Software RAID 0/1/5/10 support

SATA Controller (On-Board Device)
- 3 Gb/s S-ATA controller with hardware RAID 0/1/5 support

Network Controllers (On-Board Devices)
- Intel® 82575V/L Gigabit Ethernet Controllers
- Supports 10BaseT, 100BaseTX, and 1000BaseT with autonegotiation, RJ-45 receptacles on rear panel

Graphics Controller (On-Board Device)
- ATi ES1000 with 32 MB of video RAM
- VGA (640x480) to UXGA (1600x1200) pixel field formats supported
- DB-15 receptacle on rear panel

Super I/O (On-Board Device)
- Winbond 83627HF chip

Motherboard Specifications Continued

IDE (Input / Output)
- Single EIDE channel supports up to two UDMA IDE devices (IDE-M, IDE-S) including CF card
- Supports UDMA Mode 5, PIO Mode 4, and ATA/100

Floppy (Input / Output)
- 1x floppy controller; 1.44 MB, 2.88 MB

Power Configurations
- ACPI Power Management
- Main Switch Override Mechanism
- Wake-On-Ring (WOR) header
- Wake-On-LAN (WOL) header
- Power-on mode for AC power recovery

CPU Monitoring
- Monitors for CPU cores, +1.8V, +3.3V, +5V, ±12V, +3.3V standby, +5V standby, VBAT, HT, Memory, Chipset
- CPU core 6-phase-switching voltage regulator with auto-sense from 0.8375V - 1.60V

Fan Monitoring
- Tachometer monitoring
- Status monitor for speed control
- Status monitor for on/off control
- Low noise fan speed control

Other Monitoring Features
- Chassis intrusion detection
- Chassis intrusion header
- Chipkill support

Temperature Monitoring
- Monitoring for CPU and chassis environment
- CPU thermal trip support
- Thermal control for 6x fan connectors
- PSU I^2C temperature sensing logic
- Thermal monitor 2 (TM2) support
- Platform Environment Control Interface (PECI) support

Status LEDs
- CPU / system overheat LED
- Suspend-state indicator LED

Dimensions
- 13.05" x 8" (33.15 mm x 203 mm)

Options

SAS RAID Controller Module
- Hardware RAID 0/1/5 support

IPMI Controller Module
- Support for Intelligent Platform Management Interface v1.5 / 2.0

Software Management
- IPMI (Intelligent Platform Management Interface) v1.5 / 2.0
- Remote Maintenance software package

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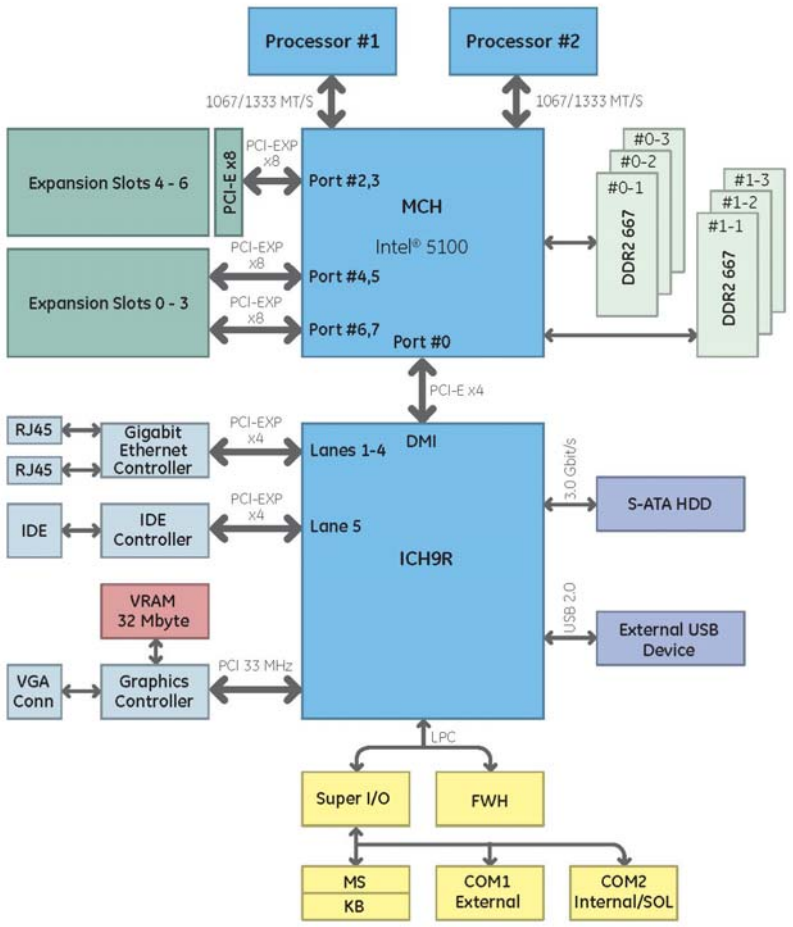
Block Diagram



Ordering Information

IS-200 2U Industrial-Grade Single Slot Server

About GE Fanuc Intelligent Platforms

GE Fanuc Intelligent Platforms is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit 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