TOSHIBA

FA3100T model 800

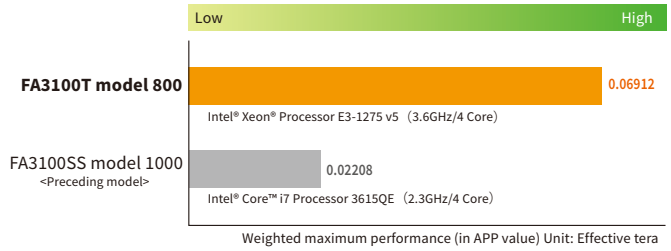
Next Generation of a Proven Platform Supports Stable System Operation

Faster and Better Performance

Intel® Xeon® Processor E3-1275 v5 (3.6 GHz) High-Performance CPU

Intel® Xeon® Processor E3-1275 v5 (3.6 GHz) high-performance CPU is installed to realize high-speed processing.

CPU performance comparison



*The above is a comparison of the weighted maximum performance (in APP value) released by Intel, and there may be differences from the above depending on your system.

Equipped with High-Speed, High-Performance Chipset and Memory

The Mobile Intel® C236 Chipset and high-speed memory with ECC function (up to 32 GB) provides high-speed data transfer.

Gigabit (3-channel) Ethernet Interface is a Standard Feature

Gigabit-compatible 3-channel Ethernet interface (with auto negotiation for 10BASE-T, 100BASE-TX, 1000BASE-T) is a standard feature (Compatible with the Wake On LAN function).

Graphic Function with built-in CPU Chipset Provided

The graphic function with a built-in CPU chipset (compatible with full HD display) is provided. It permits multi display of the expansion desktop function, clone display function, etc.

Expansion DesktopFunction

Monitors are used for wide display

Clone DisplayFunction

Monitors are used to show the same display on each screen

Collage DisplayFunction

Two monitors are used to display a single image

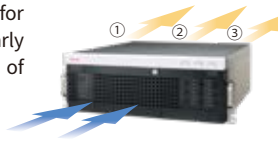
High Quality that Supports Stable Operation

Technology and Quality for Supporting 24-Hour Continuous Operation

High-quality, long-life parts are used, based on assumption of 24-hour continuous operation. The hardware is designed with derating taken into account. Thorough quality control is ensured by testing individual units at the component level, and then conducting, for all shipped products, function testing in the user shipment configuration and temperature tests to determine that product specifications will be fully satisfied (in the temperature range of 5 to 40°C).

Improved Cooling Performance

There are two intake fans on the front and one exhaust fan on the back. Cooling performance is improved by utilizing thermal fluid simulation inside the main unit. In addition, in order to achieve stable cooling performance, a dedicated duct is installed for the CPU which particularly generates a large amount of heat.



① Expansion card area
② CPU area
③ Disk drive area
Concept drawing

Uses ECC Memory

The unit is equipped with highly reliable memory with an ECC function for detecting and correcting memory errors.

Good Maintainability and Protection Structure

Easy Maintenance by Front Access

The Storage Devices, cooling fans, and battery can be easily replaced from the front of the main unit.

Examples of Replacement

Front-end Replacement of Storage Devices

Front-end Replacement of Cooling Fans and Battery

Security

Security key lock*

Operation Error Prevention

AC Power Cable Clamp

* The security lock key enables you to prevent illegal access by fixing the drive bay covers with special internal screws and using special parts inside the USB cover.

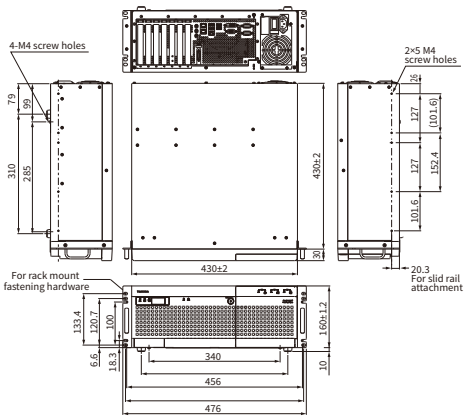
When installed

When set horizontally

When set vertically

Dimensions

Unit: mm



Specifications

Product Name		FA3100T model 800	
		Single Disk Model	RAID Disk Model
Processor	Main Processor	Intel® Xeon® E3-1275 v5 (3.6 GHz)	
	No. of Cores/No. of Threads*1	4/8	
	Level 2 Cache Memory	256 KB/Core (built into main processor)	
	Level 3 Shared Cache Memory	8 MB (built into main processor)	
Chipset		Intel® C236 Chipset	
Main Memory*2	Memory	DDR4 SDRAM (DDR4-2133/PC4-17000) with ECC function, DIMM 2 sockets	
	Capacity	Min. 4 GB (4 GB×1), Max. 32 GB (16 GB×2) A 32 GB model will be supported separately.	
Auxiliary Storage	Built-in HDD	Options(Refer to Optional Hardware Specifications)	
	Built-in SSD*18		
	Built-in DVD-ROM*3		
	Built-in DVD Super Multi-Drive*3*4		
RAID Compatible		—	RAID 1/5*5
Interface	COM Interface	RS-232C (9-pin D-SUB) × 2ch (rear)	
	Graphic Interface	RGB × 1 ch, DVI-D × 1ch (rear) CPU-chipset with built-in graphics function	
	LAN Interface	10BASE-T/100BASE-TX /1000BASE-T (Auto Negotiation) (RJ45) × 3 ch (rear) Wake On LAN (compatible for main unit port only)	
	Sound Interface*6	LINE IN/LINE OUT/MIC IN (3.5φ mini jack) (rear)	
	USB Interface*7	USB 3.0 (TYPE A) × 2 ports (rear)、USB 2.0 (TYPE A) × 4 ports (front/rear 2 ports each)	
	DI/DO Interface	Option(Refer to Optional Hardware Specifications)	
Expansion Interface	PCI-Express (x16)*8	1 slot (full size) PCI Express 3.0	
	PCI-Express (x4)*8	2 slot (full size ×1 half size x 1) PCI Express 3.0 Exclusive to RAID controller board in models with RAID disk	
	PCI slot*9	4 slots (full size) PCI 2.2 32 bit/33 MHz/5 V power supply	
Input Device	Keyboard	USB 109 keys (Japanese OS), 104 keys (English OS)	
	Mouse	USB (optical)	
RAS Function		Fan stop detection, CPU temperature rise detection, Internal temperature detection, Internal voltage detection, Memory error detection, Digital input/output*10 (DI/DO 4 points each; remote power ON/OFF or remote initialize 1 point), Watchdog timer monitoring (at system startup/during system operation), RAID disk monitoring, Software power off (shutdown), Remote initialize, Remote power on/off, Error information saved on RAS memory, Operating time monitor function, Temperature information trend function, Simulation function	
Power Supply (Wide Range Power Supply)*11		Rated voltage 100 VAC-240 VAC, allowable voltage 85 VAC-264 VAC, allowable frequency 50 Hz/60 Hz±3 Hz	
Electric Power Consumption		Max. 508 W/513 VA	
Dimensions and Weight		430 (W) × 170 (H)*12 × 460 (D) mm Weight: about 15 kg	
Items included in shipment package		AC power cable (1), AC power cable clamp (1), Rubber foot (4 pieces), Security key (1 set), Mouse, Keyboard, product recovery media (with OS pre-installed models), instruction manual PDF (included on optical media) * Items other than those listed above may be included depending on the configuration of the system ordered.	
Software (OS) *13*14		Windows® 10 IoT Enterprise 2019 LTSC (Japanese or English selectable) (64bit)*15 Windows® 10 IoT Enterprise 2016 LTSB (Japanese or English selectable) (64bit)*15 Windows® 7 Professional SP1 (Japanese version/English version) (32 bit/64 bit)*16 Windows Server® 2016 Standard (Japanese version/English version) (32 bit/64 bit)*17 Windows Server® 2012 R2 Standard Update (Japanese version/English version) (64 bit) Red Hat® Enterprise Linux® 7.5 Server compliant	

*1 The hyper-threading function is disabled in the factory setting. To enable this function, the BIOS setting must first be changed.

*2 If a main memory of 4 GB or more is installed with a 32 bit OS already installed in your system, the available memory capacity will be about 2.6 GB (default) in order to reserve the memory address area for PCI device, etc. Operation cannot be guaranteed when memory modules other than our company's genuine industrial computer modules are installed.

*3 No expansion at customer site because of pre-shipment options.

*4 Writing software is not included. Use the standard writing functions supported by each OS.

*5 Available only with a disk capacity of 500 GB for a RAID5 configuration.

*6 Use connecting units that meet the specifications below.

Terminal	Maximum Voltage	Remarks
LINE IN	1 Vrms	Input impedance 10 kΩ
LINE OUT	1 Vrms	Load impedance 10 kΩ to 600 kΩ
MIC IN	0.1 Vrms	Input impedance 10 kΩ

*7 USB interface does not always guarantee the operation of all the USB peripherals.

*8 PCI Express slot (half size) board size (167.65 mm (L) × 111.15 mm (H) or less) mountable.PCI Express slot (full size) board size (312 mm (L) × 111.15 mm (H) or less) mountable.

*9 PCI slot (full size) board size (312 mm (L) × 106.68 mm (H) or less)mountable.

*10 The separate option package (DI/DO interface, RAS terminal block, RAS cable) is required to use the digital input/output function.

*11 This model has a power supply with a built-in PFC (power factor correction) circuit. If you are using a UPS (uninterrupted power supply), select a sine wave output type.

*12 Shown with 10-mm rubber feet on.

*13 Of the Operating Systems listed here, your specified OS will be installed.
OS supply period is subject to change depending on the OS distribution period of the OS supplier.

*14 If Windows® is in use, the following functions are outside the scope of our support.
Windows Bitlocker, Windows® XP mode, power-saving modes (suspend, hibernation), fast startup, Windows Hello.

Optional Hardware Specifications

Expansion Main Memory	DDR4 SDRAM (DDR4-2133/PC4-17000) 4 GB/8 GB/16 GB selectable
Built-in HDD	Single disk model capacity: 2 TB 2 units mountable
	Mirroring disk model capacity: 2 TB 3 units mountable (hot swap compatible RAID disk)
Built-in SSD*18	Single disk model capacity: 128 GB/512 GB 2 units mountable
	Mirroring disk model capacity: 160 GB/ 400 GB 3 units mountable (hot swap compatible)
Built-in DVD-ROM*3	Read Media DVD-ROM,CD-ROM,DVD-R,DVD+R,DVD-RW,DVD+RW,DVD-RAM, CD-R,CD-RW
Built-in DVD super multi-drive*3	Write/Read Media DVD-ROM,CD-ROM,DVD-R,DVD+R,DVD-RW,DVD+RW,DVD-RAM, CD-R,CD-RW
LED Display Module*3	POST code display function during unit startup, RAS status lamp function to display hardware operating status (cooling fan, battery voltage, internal temperature, RAID disk)
DI/DO Interface*3 (Without Power Supply)	(DI/DO board) Digital input/output (half-pitch 20-pin) DI 4 points, DO4 points, remote input 1point
DI/DO Interface*3 (With Power Supply)	(DI/DO board) Digital input/output (half-pitch 36-pin) DI 4 points, DO4 points, remote input 1point
RAS Terminal Board (For No Power Supply)	DI 4 points, DO 4 points, remote input 1 point
RAS Cable (For No Power Supply)	Half pitch 20-pin male at both ends, Cable length 1 m or 2 m
RAS Terminal Board Mounting Panel	Simplified type
Rack Mounting Brackets	2 in each set
Slide Rail*19	2-step slide rail (2 steps in 1 set)
Slide Rail Support Bracket	Bracket (1 set) to secure the slide rail to the rack
Instruction Manual (Bound Booklet)	FA3100T model 800 unit instruction manual, RAS support software instruction manual, RAID controller instruction manual

Installation Environment Conditions

Installation Environment	Temperature (Operating/While Stored)	5 to 40°C/-10 to 50°C
	Humidity (Operating/While Stored)	20 to 80% RH (no condensation)/10 to 90% RH (no condensation)
	Vibration (Operating)*20	With HDD configuration: 2.0 m/s^2 (JIS C60068-2-6:9 to 150Hz 1 cycle) With SSD configuration: 4.9 m/s^2 (JIS C60068-2-6:9 to 150Hz 1 cycle)
	(While Packed)	19.6 m/s^2 or less
	Shock (Operating/While Packed)	19.6 m/s^2 or less / 245 m/s^2 or less
	Dust	0.3 mg/s^3 or less (JEITA IT-1004A Class B compliant)
	Corrosive gas / chemicals	Not to be detected (JEITA IT-1004A Class A compliant)
Allowable Instantaneous Power Failure Time		20 ms or less at the rated input voltage

*15 Please note that Windows® 10 IoT Enterprise 2019 LTSC or Windows® 10 IoT Enterprise 2016 LTSB is the only pre-installation option we support. We do not support any other versions, servicing models or editions. For language selection, select either Japanese or English at the initial setup.

*16 This product carries only a USB controller compatible with the USB 3.0 standard (not a USB controller compatible with the USB 1.0 and USB 2.0 standards). Since a USB 3.0 driver is not incorporated in Windows® 7 installation media, the USB-connected keyboard and mouse cannot be operated while installing Windows® 7. If using Windows® 7 on this product, please consider obtaining a Windows® 7 pre-installed model.

*17 The client access license (CAL) includes five licenses of Windows Server CAL. It does not include a CAL for any other specific function.

*18 The "S.M.A.R.T.(Self Monitoring Analysis and Reporting Technology) data monitoring software " that can be used to predict SSD life is not pre-installed. Customers can install and use the program as required. SSD and HDD cannot be mixed in the RAID disk model.

*19 Two types of slide rails are available to accommodate racks with different depth. For details, see the external dimensions diagram.

*20 Except while optical drive is in operation.