# **TOSHIBA**

# **FA3100TX** model 800

**Next Generation of a Proven Platform Supports Stable System Operation** 



# Now more functional

# High performance CPU Intel® Xeon® processor

High-performance CPU Intel® Xeon® processor for Workstations with built-in W-1270TE (2.0GHz/8 core) for 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

Reference: APP Metrics for Intel(R) Microprocessors Intel(R) Xeon(R) Processor Revision.06 Date:1/4/2024

# **Gigabit (4 Ports) Ethernet Interface as a Standard Feature**

Gigabit-compatible 4 Ports 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 is provided. It permits multi display of the expansion desktop function, clone display function,

Expansion DesktopFunction



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



(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

Front-end Replacement of Cooling Fans and Battery

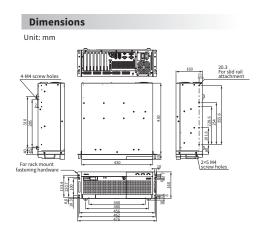


Security key lock



\* The back of the unit comes equipped with a security lock slot as standard, which can be used to prevent theft and block access





### **Specifications**

Specifi	ications		
Product Name		FA3100TX model 800	
		Single Disk Model RAID model	
Processor	Main Processor	Intel® Xeon® W-1270TE(2.0GHz)	
	No. of Cores/No. of Threads*1	8/16	
	Level 2 Cache Memory	256 KB/Core (built into main processor)	
	Level 3 Shared Cache Memory	16 MB (built into main processor)	
Chipset		Intel® W480E Chipset	
Main	Capacity	Min.8GB (8GB×1), Max. 32GB (16GB×2)	
Memory <sup>12</sup>	Memory	DDR4-SDRAM (DDR4-2933 SDRAM / PC4-23400) with ECC function, DIMM 2 sockets	
Auxiliary	Built-in HDD	Options (Refer to Optional Hardware Specifications)	
Storage	Built-in SSD*3		
	Built-in DVD-ROM <sup>*4</sup>		
RAID Comp	patible	<ul> <li>RAID1, RAID1+HS(Hot Spare Disk), RAID5</li> </ul>	
Interface	COM Interface	RS-232C (9-pin D-SUB) × 2ch (rear)	
	Graphic Interface'5	RGB × 1 ch, DisplayPort'6 × 1ch (rear) CPU-chipset with built-in graphics function	
	LAN Interface	10BASE-T/100BASE-TX /1000BASE-T (Auto Negotiation) (RJ45) × 4 ch (real Wake On LAN (compatible for main unit port only)	
	Sound Interface*7	LINE OUT (3.5φ mini jack) (rear)	
	USB Interface's	USB 5Gbps × 6 (front2/rear4)	
	DI/DO Interface	Option(Refer to Optional Hardware Specifications)	
	PCI-Express (x16)*9	1 slot (full size) PCI Express 3.0	
Interface	PCI-Express (x4)*9	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*10	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"¹¹ (DI/DO 4 points each; Remote control input 1 point), Watchdog timer monitoring (at system startup/during system operation), RAID disk monitoring, Software power off (shutdown), Remote initialization or Remote power control, Error information saved on RAS memory, Operating time monitor function, Temperature information trend function, Simulation function	
Power Sup (Wide Rang	ply ge Power Supply)*12	Rated voltage 100 VAC-240 VAC, allowable voltage 85 VAC-264 VAC, allowable frequency 50 Hz/60 Hz±3 Hz	
Electric Po	wer Consumption'13	Max. 461W / 480VA	
Dimensions and Weight		430 (W) × 170 (H)" <sup>14</sup> × 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'15), 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) *16*17		Windows® 10 IoT Enterprise 2021 LTSC (Japanese or English selectable) (64bit)¹¹¹8 Windows® 10 IoT Enterprise 2019 LTSC (Japanese or English selectable) (64bit)¹¹³8 Windows Server® IoT 2022 Standard (Japanese version/English version) (64bit)¹¹³9 Windows Server® IoT 2019 Standard (Japanese version/English version) (64bit)¹¹³9 MIRACLE LINUX 8.6 (64bit)	

- \*1 The hyper-threading function is disabled in the factory setting. To enable this function, the BIOS setting must first be changed.
- \*2 As the product supports dual channels, communication speed between the memory and CPU improves when 2 memory modules are mounted. Operation will not be guaranteed if you combine other than the genuine memory modules for Toshiba industrial computers.
- \*3 A "SMART support software" tool that can be used to predict SSD life is not pre-installed. In case of an OS pre-installed model, an installation program is stored on the internal storage. Customers can install and use the program as needed. Also, mixed use of the SSD and HDD is only possible with the single disk model.
- \*4 No expansion at customer site because of pre-shipment options.
- \*5 The graphic interface (multi-display) support details are as follows:

	Number of	Multi-display		
Connector	connected monitors	Extended desktop	Clone display	Combined desktop (collage mode)
RGB×1	1	_	_	_
DisplayPort ×1	1	_	_	_
RGB×1+DisplayPort×1	2	0	0	0
DisplayPort ×2	2	0	0	_
DisplayPort ×3	3	0	0	_
RGB×1+DisplayPort×2	3	0	0	_

- Supported Not supported
- The DisplayPort of this product supports Display audio. When outputting audio from a display connected to a DisplayPort, use a cable and display that support DisplayPort audio. This product's DisplayPort supports MST (Multi Stream Transport) and can output video to up to three displays in daisy chain connection (total Link Bandwidth connection possible up to 21.6 Gbps). Please correctly connect the Input and Output of MST-compatible displays.
- \*7 Use correcting units that meet the specifications below.

Terminal	Maximum Voltage	Remarks
LINE OUT	1 Vrms	Load impedance 10 kΩ to 600 kΩ

- \*8 USB interface does not always guarantee the operation of all the USB peripherals.
- \*9 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.

### **Optional Hardware Specifications**

Built-in HDD	Single disk model capacity: 4 TB 2 units mountable	
	RAID model capacity: 500GB or 4TB 3 units mountable (hot swap compatible)	
Built-in SSD*3	Single disk model capacity: 128GB or 512GB 2 units mountable	
	RAID model capacity: 160GB or 400GB 3 units mountable (hot swap compatible)	
Built-in DVD-ROM'4	Read Media DVD-ROM,CD-ROM,DVD-R,DVD+R,DVD-RW,DVD+RW,CD-R,CD-RW	
LED Display Module'4	POST code display function during unit startup, RAS status lamp function to display hardware operating status (cooling fan, battery voltage, internal temperature)	
DI/DO Interface <sup>*4</sup> (Without Power Supply)	(DI/DO board) Digital input/output (half-pitch 20-pin) DI 4 points, DO4 points, Remote control input 1point	
DI/DO Interface <sup>-4</sup> (With Power Supply)	(DI/DO board) Digital input/output (half-pitch 36-pin) DI 4 points, DO4 points, Remote control input 1point	
RAS Terminal Board (For No Power Supply)	DI 4 points, DO 4 points, Remote control 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(L/S)*20	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)	FA3100TX model 800 unit instruction manual, RAS support software instruction manual, RAID controller instruction manual	

#### **Installation Environment Conditions**

Installation	Temperature (Operating/While Stored)	5 to 40°C/-10 to 50°C
Environment	Humidity (Operating/While Stored)	20 to 80% RH (no condensation)/10 to 90% RH (no condensation)
	Vibration (Operating)*21	With HDD configuration: 2.0 m/s² (JIS C60068-2-6:9 to 150Hz 1 cycle) With SSD configuration: 4.9 m/s² (JIS C60068-2-6:9 to 150Hz 1 cycle)
	(While Packed)	19.6 m/s² or less
1	Shock (Operating/While Packed)	19.6 m/s² or less / 245 m/s² or less
	Dust	0.3 mg/s³ 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*22

- \*10 PCI slot (full size) board size (312 mm (L) × 106.68 mm (H) or less) mountable.
  Installable PCI boards are 5V key boards and 5V/3.3V shared key boards (Boards of 3.3V keys only cannot be installed).
- \*11 To use the digital input/output function, optional hardware is required (DI/DO interface, RAS terminal block and RAS cable).
- \*12 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.
- \*13 As a reference value to power consumption, when no peripherals are connected to the FA3100TX model 800 main unit (16 GB memory × 2, HDD × 3 (RAID5)), the maximum power consumption is about 170 W during startup of the main unit, and about 120 W after startup when the application is not running.
- \*14 Shown with 10-mm rubber feet on.
- \*15 Windows adopts optical media and MIRACLE LINUX adopts a USB memory device.
- \*16 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.

  17 If Windows is in use, the following functions are outside the scope of your support. Windows Bitlocker,
- \*17 If Windows is in use, the following functions are outside the scope of your support. Windows Bitlocker, power-saving modes (suspend, hibernation), Windows fast startup, Windows Hello.
  \*18 Please note that Windows\* 10 IoT Enterprise 2021 LTSC or Windows\* 10 IoT Enterprise 2019 LTSC 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.
- \*19 Client Access License (CAL) includes five licenses of Windows Server CAL. It does not include CAL for other specific functions. The secure boot function, Windows Bitlocker is not supported.
- \*20 Two types of slide rails are available to accommodate racks with different depth. For details, see the external dimensions diagram.
- \*21 Except when a drive unit such as an optical drive is running. If the SSD and HDD are used in a mixed configuration, the vibration specification will be the same as for HDD configuration (2.0 m/s2 or less (0.2G or less)).
- \*22 The allowable momentary power interruption time of 20 ms is achieved when power consumption is 413 W/430 VA.