

FUJITSU Storage  
ETERNUS LT260 Tape Library

User's Guide -Site Planning-

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# Preface

Fujitsu would like to thank you for purchasing our FUJITSU Storage ETERNUS LT260 Tape Library (hereinafter referred to as LT260).

The LT260 is designed to be connected to Fujitsu (PRIMEQUEST, PRIMERGY, Fujitsu M12/M10) or non-Fujitsu servers.

This manual describes the environmental requirements that are necessary to install and use the LT260.

This manual is intended for use of the LT260 in regions other than Japan.

Please carefully review the information outlined in this manual.

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# About this Manual

## Organization

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This manual is composed of the following three chapters:

- Chapter 1 Hardware Configuration

This chapter describes the main modules and related optional products that are installed in the LT260.

- Chapter 2 LT260 Installation

This chapter describes the installation specifications and the installation environment.

- Chapter 3 Connections

This chapter describes the configuration for each interface to connect to the LT260.

## Warning Notations

Warning signs are shown throughout this manual in order to prevent injury to the user and/or material damage. These signs are composed of a symbol and a message describing the recommended level of caution. The following explains the symbols, their levels of caution, and their meanings as used in this manual.



This symbol indicates the possibility of serious or fatal injury if the LT260 is not used properly.



This symbol indicates the possibility of minor or moderate personal injury, as well as damage to the LT260 and/or to other users and their property, if the LT260 is not used properly.



This symbol indicates IMPORTANT information for the user to note when using the LT260.

The following symbols are used to indicate the type of warnings or cautions being described.

Electric Shock



△ The triangle emphasizes the urgency of the WARNING and CAUTION contents. Inside the triangle and above it are details concerning the symbol (e.g. Electrical Shock).

No Disassembly



⊘ The barred "Do Not..." circle warns against certain actions. The action which must be avoided is both illustrated inside the barred circle and written above it (e.g. No Disassembly).

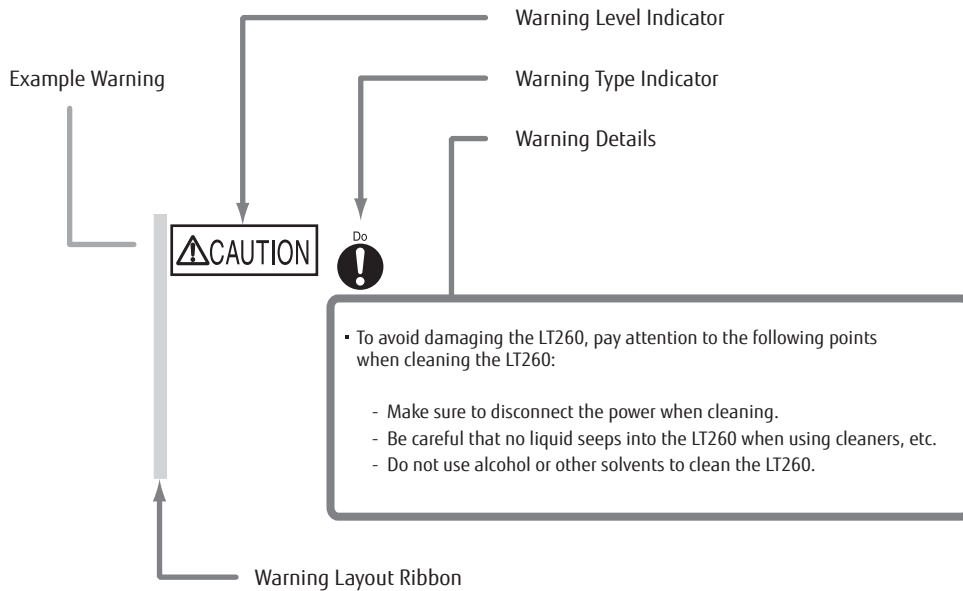
Unplug



● The black "Must Do..." disk indicates actions that must be taken. The required action is both illustrated inside the black disk and written above it (e.g. Unplug).

## How Warnings are Presented in this Manual

A message is written beside the symbol indicating the caution level. This message is marked with a vertical ribbon in the left margin, to distinguish this warning from ordinary descriptions. An example is shown here.



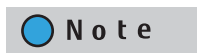
## Naming Conventions

### Symbols Used in This Manual

The following symbols are used throughout this manual:



This symbol alerts operators to particularly important information. Be sure to read this information.



Functions and know how which can be useful when setting up or operating the LT260.

### Abbreviations Used in This Manual

- "LT260" refers to the FUJITSU Storage ETERNUS LT260 Tape Library.
- Trademark symbols such as <sup>™</sup> and <sup>®</sup> are omitted in this document.

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# Chapter 1

## Hardware Configuration

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This chapter describes the hardware module configurations for the LT260.

All components such as operator panels, MailSlot, magazines, drive modules, cells, robots, tape drives, and power supply units are installed in System.

The following sections describe components that must be considered when installing the LT260.

Refer to "FUJITSU Storage ETERNUS LT260 Tape Library User's Guide -Installation & Operation-" for major components that are not described in this manual.

### 1.1 Module

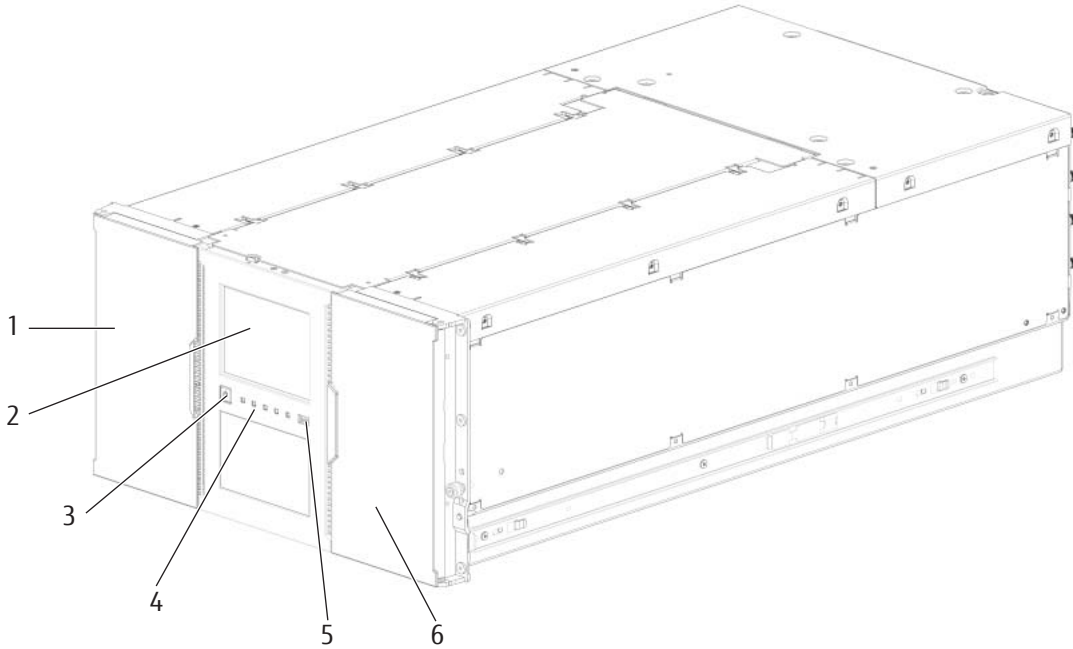
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Two types of Modules are available for the LT260: a Base Module and an Expansion Module.

Major components are installed in each module. The following figures show various views of the LT260.

■ Front view

Figure 1.1 Base Module front view

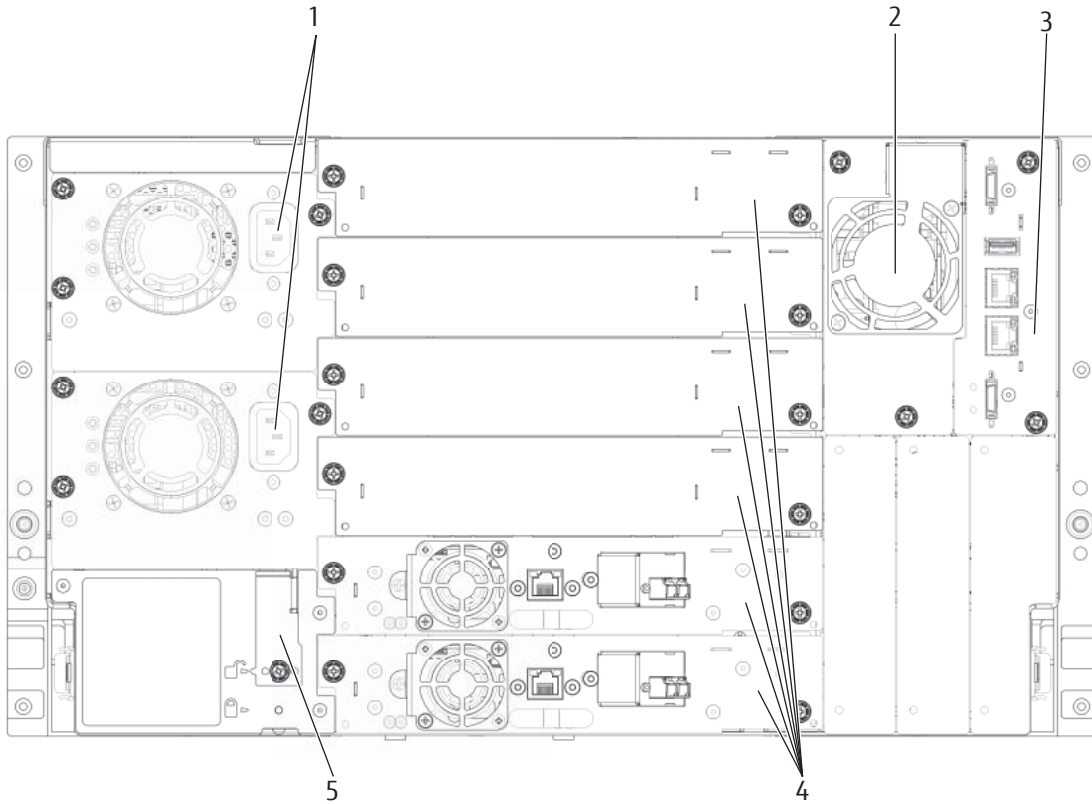


- 1 Magazine Access Door
- 2 Operator Panel
- 3 Power Button
- 4 LED Panel
  - Error LED, Amber
  - Attention LED, Amber
  - Clean LED, Amber
  - Ready LED, Green
  - Unit Identification LED, Blue
- 5 USB Port (not used)
- 6 Mailslot/Magazine Access Door

An expansion module doesn't have Operator Panel, Power Button, LED Panel and USB Port.

■ Rear view


Figure 1.2 Base Module rear view




- 1 Power Supplies
- 2 Chassis Fan
- 3 Library Controller
- 4 Half-Height Tape Drive Bays
- 5 Module Alignment Mechanism

## 1.2 Drive Module

The drive module is a module unit that contains the drive for recording data and external interface. When, for example, a drive fails, maintenance replacement is carried out in units of drive modules. The host interface supports the Fibre Channel (FC) and Serial Attached SCSI (SAS).

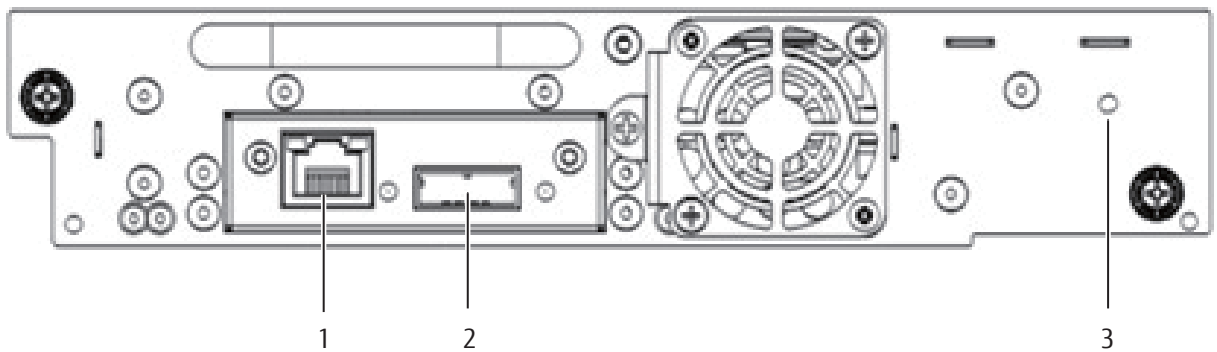
 **CAUTION**

 Do Not

**Malfunction**  
Do not pull out the drive module. If necessary to pull out a faulty drive module for replacement, contact your maintenance engineer.

### LTO-5 HH SAS

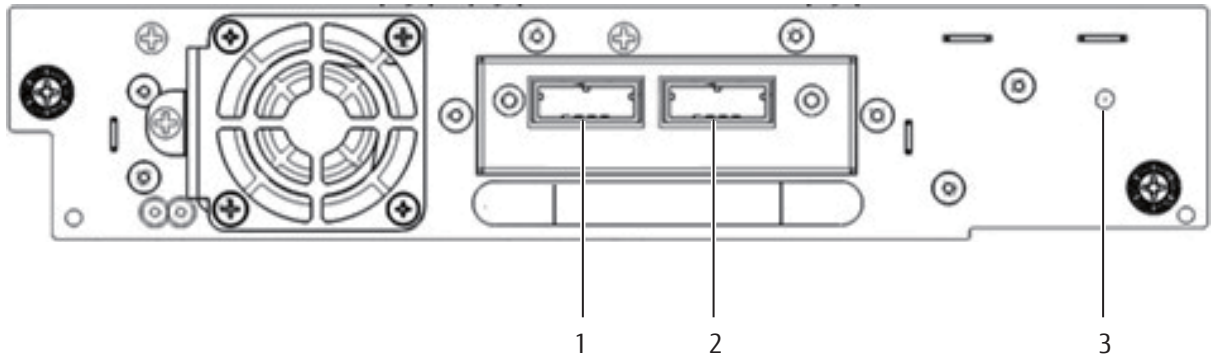
Figure 1.3 LTO-5 HH SAS (Product ID: LT26ASHE, LT26ASHL)



- 1 Tape Drive Ethernet Port (not used)
- 2 SAS Port A
- 3 Tape Drive Power LED, Green

■ LTO-6 HH SAS, LTO-7 HH SAS, LTO-8 HH SAS

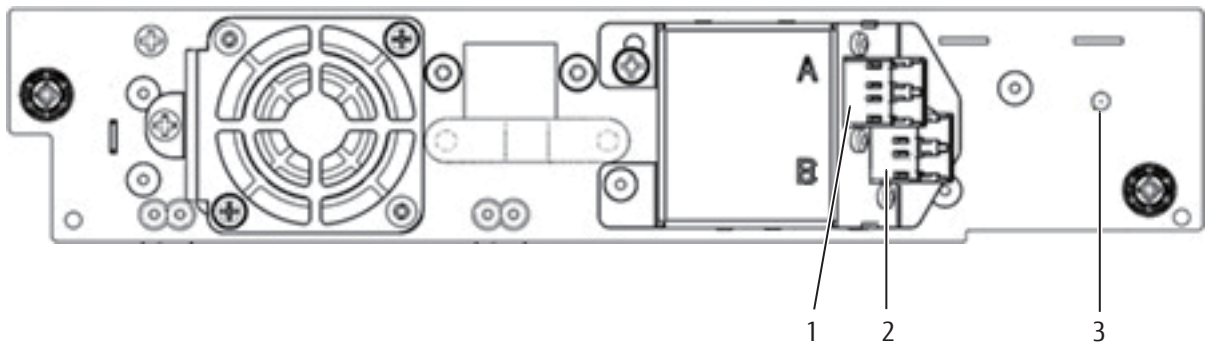
Figure 1.4 Rear view of LTO-6 HH SAS (Product ID: LT26BSKE, LT26BSKL),  
Rear view of LTO-7 HH SAS (Product ID: LT26BSME, LT26BSML),  
Rear view of LTO-8 HH SAS (Product ID: LT26BSNE, LT26BSNL)



- 1 SAS Port A
- 2 SAS Port B (unavailable)
- 3 Tape Drive Power LED, Green

■ LTO-6 HH FC, LTO-7 HH FC, LTO-8 HH FC

Figure 1.5 Rear view of LTO-6 HH FC (Product ID: LT26BFKE, LT26BFKL),  
Rear view of LTO-7 HH FC (Product ID: LT26BFME, LT26BFML),  
Rear view of LTO-8 HH FC (Product ID: LT26BFNE, LT26BFNL)

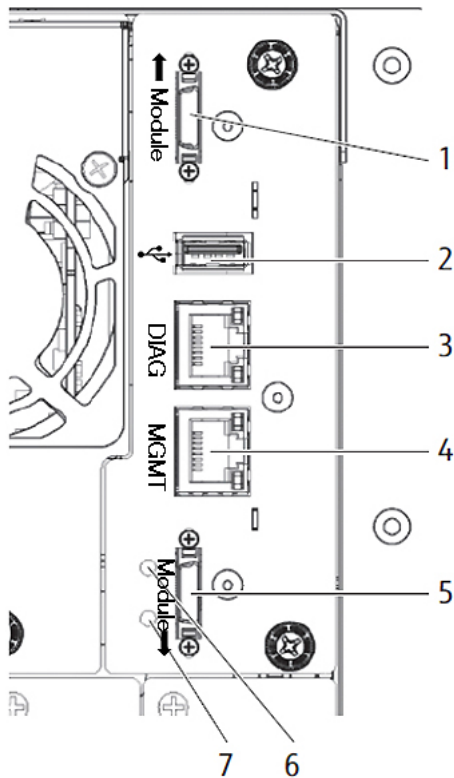


- 1 FC Port A
- 2 FC Port B (unavailable)
- 3 Tape Drive Power LED, Green

## 1.3 Library Controller

This library controller is located in the rear upper part of each module.  
This part hosts the library controller as well as the main management controllers for the system.  
The Library Controller of the Expansion Modules will not provide LAN port and USB port.

Figure 1.6 Library controller (Base Module)



- 1 Module Interconnect (to top)
- 2 USB Port (service) (not used)
- 3 LAN Port (DIAG) (service) (not used)
- 4 LAN Port (MGMT) (remote panel)
- 5 Module Interconnect (to bottom)
- 6 Controller Health Status LED
- 7 Unit Identifier LED

## 1.4 Power Supply Unit (PSU)

The power supply unit (PSU) distributes the power that is supplied from an external power source to the LT260.

Figure 1.7 Power supply unit (PSU)

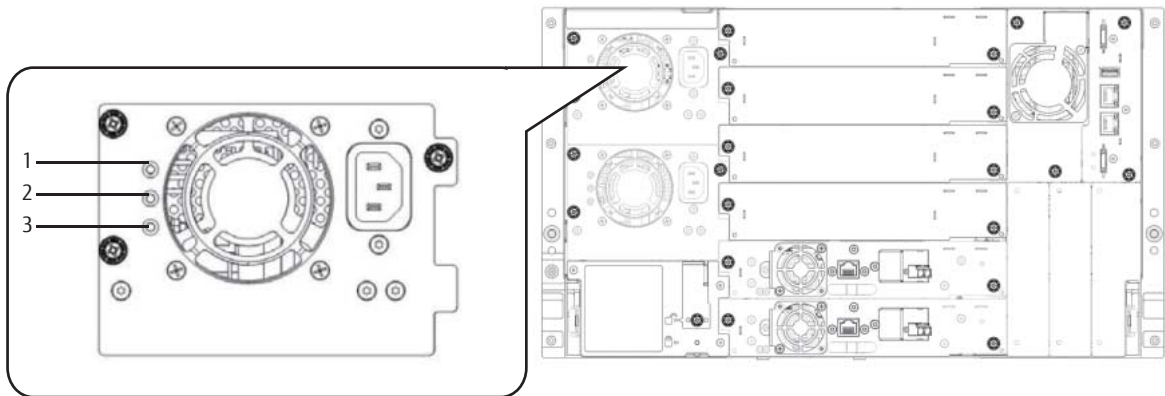


Table 1.1 Meanings of each LED

No.	LED	Meaning
1	White	AC power connected, but Module Powered Off
2	Amber	Power Supply Fault Condition, such as fan not running, too hot or producing power outside of specification
3	Green	Module Powered On

Each PSU receives 100VAC – 240VAC. It converts AC power to DC power for the internal component, such as Backplane, DC-DC Board and Library Controller.

Each unit can supply power to all of the drives and the robots module.

The LT260 Base Module is equipped with two PSUs as standard, and can operate using one PSU should the other PSU fail.

The Expansion Module does not provide multiple PSUs as standard.



# Chapter 2

## LT260 Installation

This chapter describes the installation specifications and the installation environment.

### 2.1 Installation Specifications

The following table shows the installation specifications of the LT260.

Table 2.1 Installation specifications

Item		Spec	
Module		Base Module	Expansion Module (*1)
Tape drive	Max number installed	6	
External dimensions	Height	265 mm (6U)	
	Width	480 mm	
	Depth	893 mm	
Weight (*2)		36 kg	34 kg
Power	Voltage	100 - 240 V	
	Number of phases	single	
	Frequency	50/60 Hz	
	AC input sources	2	1 (standard) or 2 (redundant option)
Maximum power consumption		231W (249VA)	
Maximum heat generation		831.6kJ/h	
Environmental conditions	Temperature	Operating	10 to 35° C
		Idle	10 to 45° C
		In transport	-40 to 60° C (excluding media)
	Humidity	Operating/Idle	20 to 80% RH
		In transport	10 to 80% RH (excluding media)
	Altitude above sea level		5000 meters (16,450 feet)
Dust concentration		Less than 200 microgram / cubic meter	

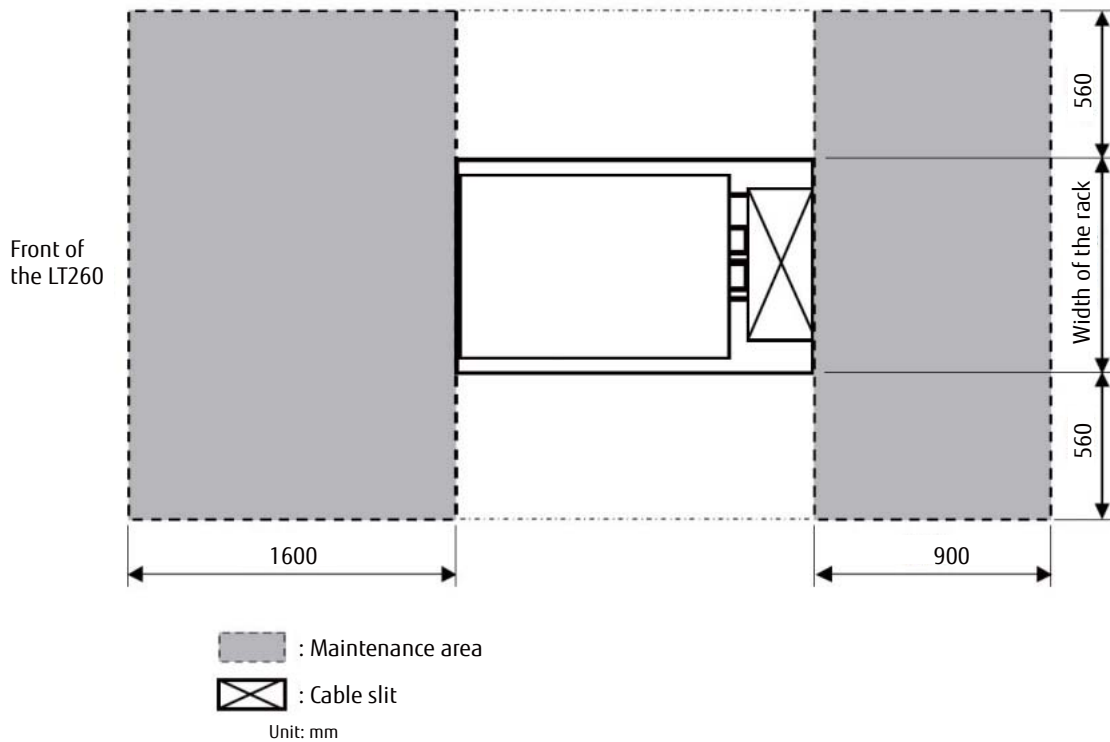
\*1: The expansion module can be increased to one base module up to six.

\*2: excluding media and drives, including redundant PSU

## 2.2 Installation Area

It is necessary to secure a place for the maintenance area as shown in [Figure 2.1](#).

Figure 2.1 Maintenance area



### Caution

- Be careful not to have the rack to fall due to the weight of the LT260 during maintenance.
- The maintenance area of the width direction is dependent on the size of the rack.  
Reference: the minimum width of our rack is 590mm
- Make sure to have ventilation holes for cooling on the front and rear doors of the rack.  
If the door has the specifications with no ventilation holes of perforated metal or mesh metal, make sure that the temperature inside the rack does not exceed the temperature limit.

## 2.2.1 Location Requirements

### Note

- The library was designed for rack installation and must be installed using the provided rack rails. Installation on a table top or other similar surface could result in library operation errors.
- The library is a heavy load. Please note the height of the installing position so that the rack should not fall by weight.
- Select a rack with access to the host server.
- Choose a location that meets the criteria in [Table 2.2](#).

Table 2.2 Location requirements

Criteria	Definition
Rack requirements	Standard 19-inch rack with an appropriate # of U's (Rack Units) of clearance for the planned module quantity
Rack space requirements	6U for the Base Module and 6U for the Expansion Module
Room temperature	10-35° C (50-95° F)
Power source	<ul style="list-style-type: none"><li>• AC Power Voltage: 100-240 VAC</li><li>• Frequency: 50/60 Hz</li><li>• Library Located near AC Outlet(s)</li></ul> The AC power cord is the library's main AC disconnect device and must be easily removable at all times.
Air quality	<ul style="list-style-type: none"><li>• Place the library in an area with minimal sources of particulate contamination</li><li>• Avoid areas near frequently used doors and walkways, stacks of supplies that collect dust, printers, and smoke-filled rooms</li><li>• Excessive dust and debris can damage tapes and tape drive</li></ul>
Humidity	20-80 percent RH non-condensing

## 2.2.2 Notes of Mounting in the Rack

- The rack must be a 19 inch rack and meet the EIA standard universal pitch.
- The dimension of the prop for fixing the rack must meet [Figure 2.2](#) and [Figure 2.3](#).
- The dimensions of the protruding objects such as props in the rack must meet [Figure 2.2](#) and [Figure 2.3](#).
- The hole geometries of the props must be 9.5 mm or larger corner holes, 9mm corner holes, or 6.8mm round holes.
- There must be a vent hole in the anteroposterior position and the library must be coolable enough. (The temperature in the rack not to exceed the limited temperature. Refer to "Operating" under "Temperature" in [Table 2.1](#) for details.)
- Take measures to ensure the physical stability of the entire rack (including the pulled out status of modules from a rack). If the rack is equipped with the anti-toppling feature, be sure to use it. Also, mount the LT260 in the lowest location possible. If the LT260 is mounted in combination with other devices, heavier devices must be mounted in the lower locations. If the LT260 is mounted together with other devices the total height of this library and other devices must be under 24U.

Figure 2.2 Explanation drawing of the dimensions (top view)

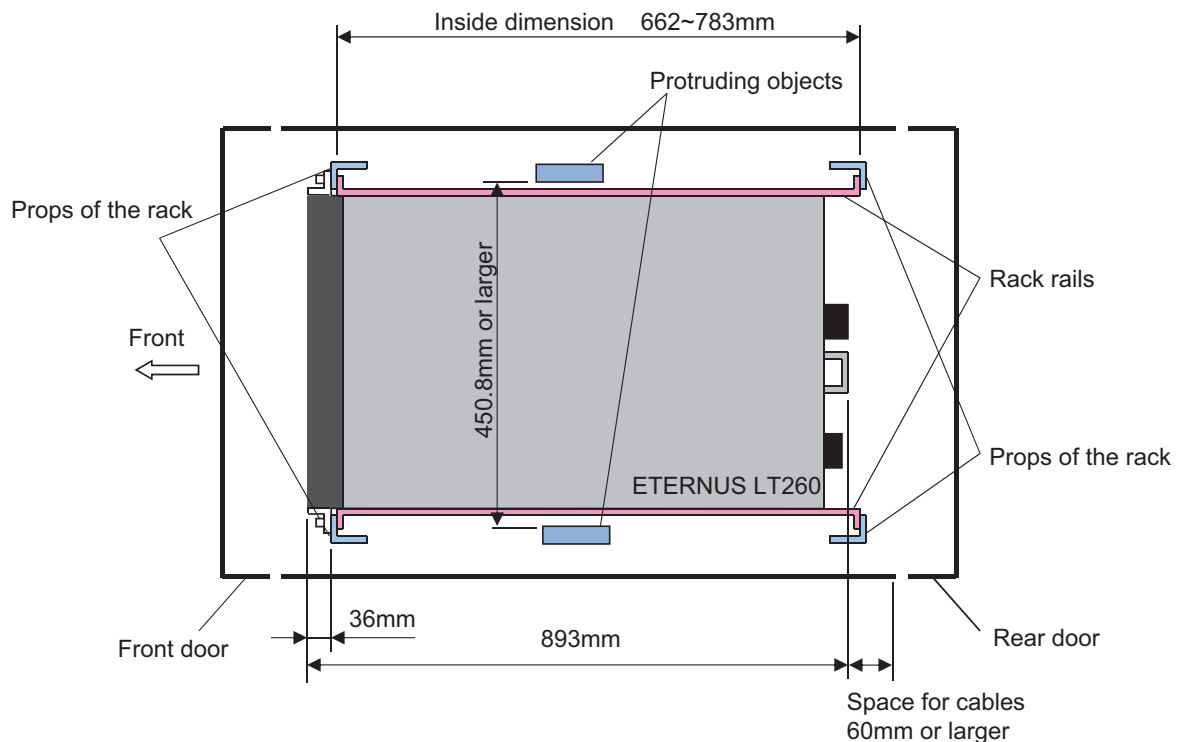
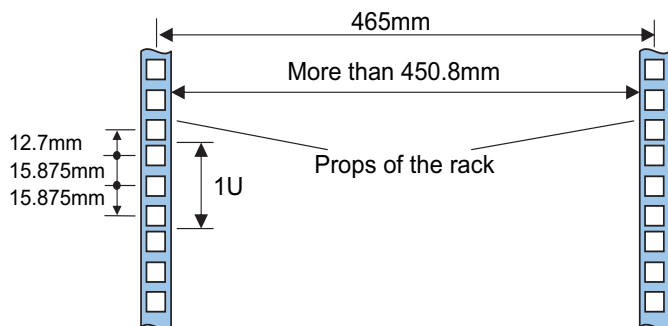
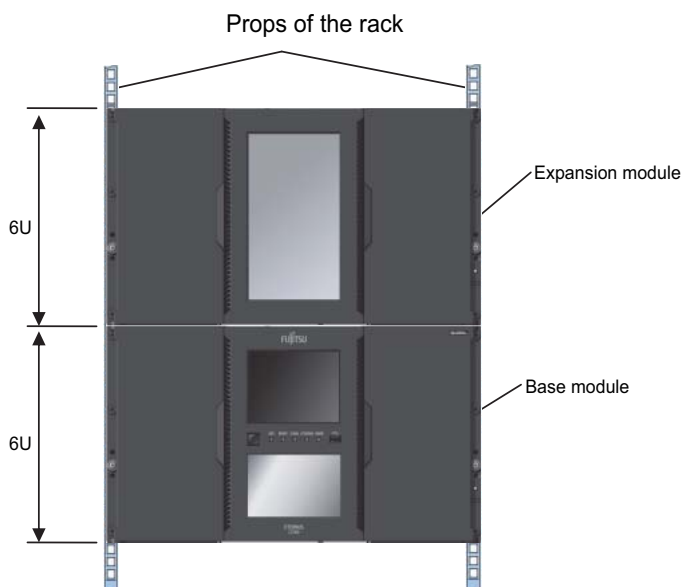


Figure 2.3 Explanation drawing of the dimensions (front view)



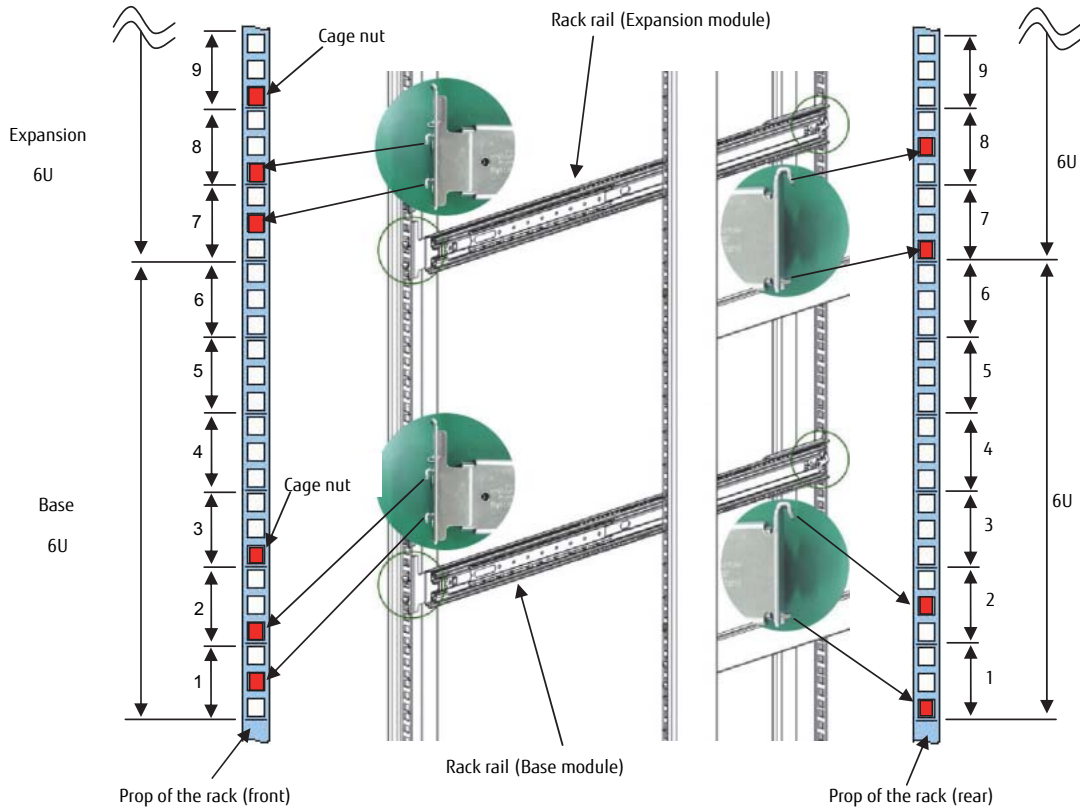
### 2.2.3 Mount in the Rack

Figure 2.4 Mount in the rack



- For the rack having 9.5x9.5mm or larger corner holes

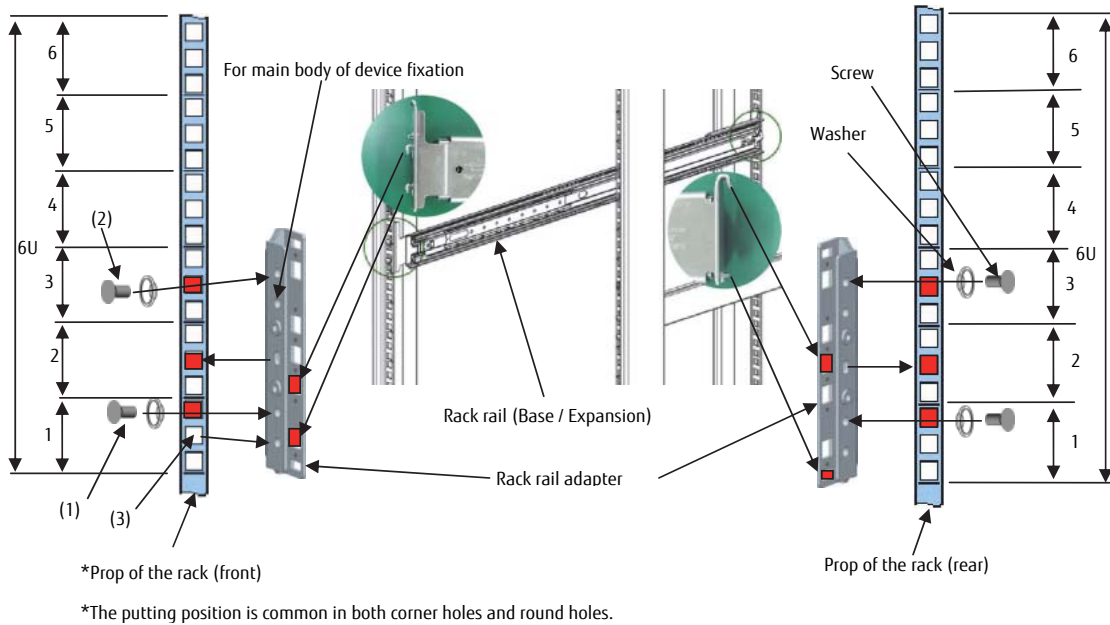
Figure 2.5 Mount rack rails (1)



- For the rack having 9x9mm corner holes  
For the rack having 6.8mm round holes

Two screws and washers are used respectively and four rack rail adaptors are installed in the prop of the rack.

Figure 2.6 Mount rack rails (2)

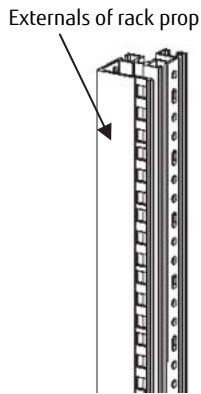


**Note**

- When the installation of the washer shakes by the shape of the rack prop, the washer is available even if it does not use it.
- When the installation hole of the rack is a round hole geometry, the washer is available even if it does not use it.
- Even if the position where the screw at position (2) is installed changes into the place of (3), it is acceptable.

- The rack prop : with the rack made by Fujitsu for the corner hole of 9x9mm solid shape and the installation hole

Figure 2.7 Mount rack rails (3)



Follow the installation of the rack rail adaptor as follows. Refer to [Figure 2.6](#) for the installation method to the rack prop.

### Procedure

- 1 The rack rail adaptor is installed in the device front side of the rack rail.
- 2 The rack rail that installs the rack rail adaptor is fixed to the rack prop on the device front side with two screws.
- 3 The rack rail adaptor is installed in the device back side of the rack rail.
- 4 It fixes to the rack prop on the device back side with two screws with the rack rail adaptor installed in the rack rail.

End of procedure

### Caution

When the rack rail adaptor is previously installed in the prop of the rack, the rack rail is not installed.



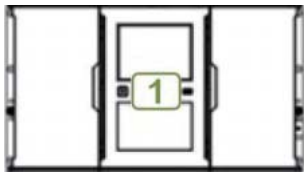
## 2.2.4 Supported Library Configurations

The following configurations are supported for module libraries:

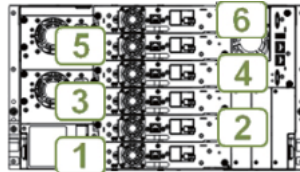
**Caution**

- The library will generally display logical element numbering of modules, storage slots and tape drives starting with number one from the bottom up.
- When the amount and the position where the component is installed are changed, the re-setting of the backup software is needed.
- You may install the tape drive where of each module, and when the tape drive is installed in the expansion module, it is necessary to install drive power board OP (Support it up to three drives a piece) in the expansion module.

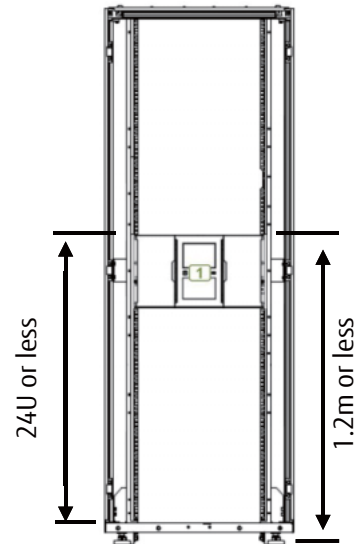
### ■ 1Module Library (Base Library)



Logical element numbering of modules

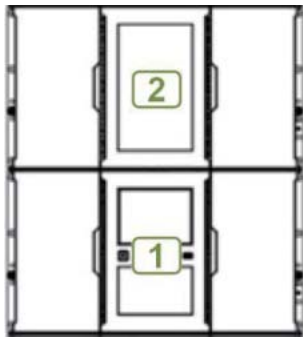


Example of the logical element numbering of Tape Drives

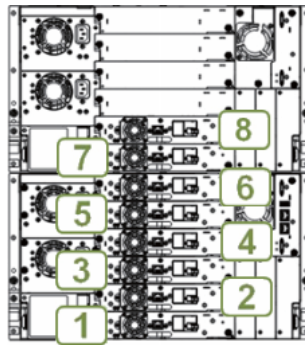


Installing example to 19-inch rack (42U)

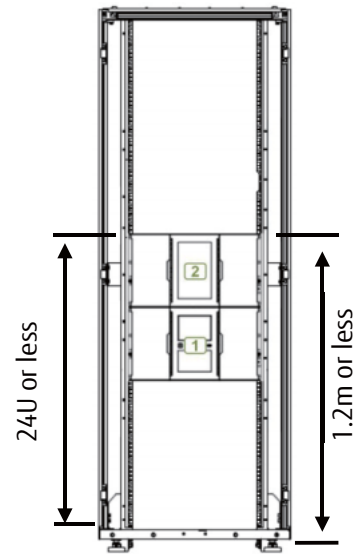
■ 2Module Library (Base Library + 1 Expansion Modules)



Logical element numbering of modules

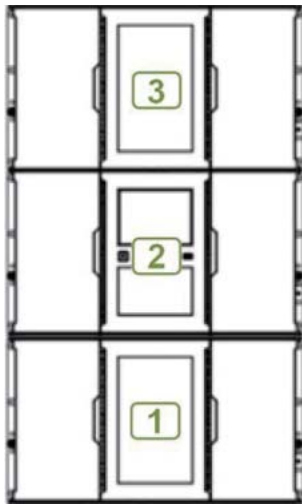


Example of the logical element numbering of Tape Drives

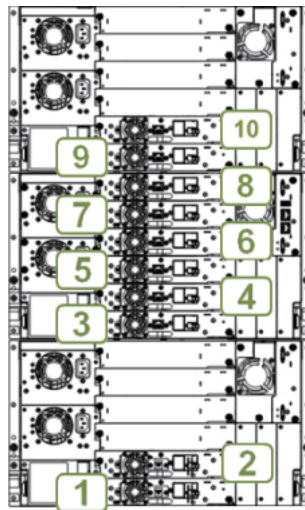


Installing example to 19-inch rack (42U)

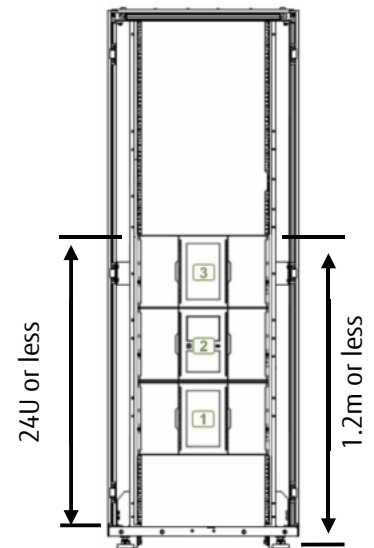
■ 3Module Library (Base Library + 2 Expansion Modules)



Logical element numbering of modules

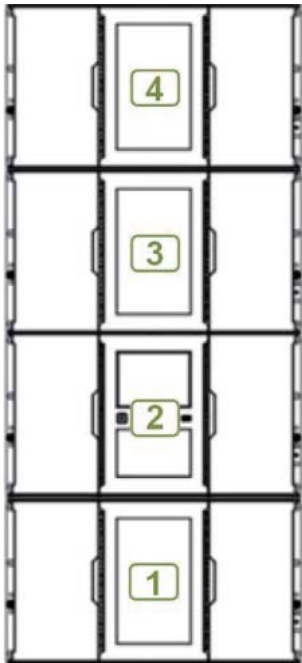


Example of the logical element numbering of Tape Drives

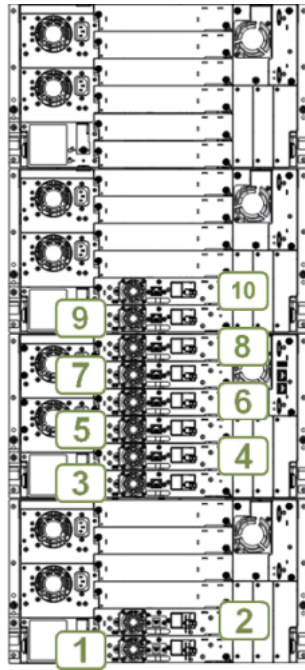


Installing example to 19-inch rack (42U)

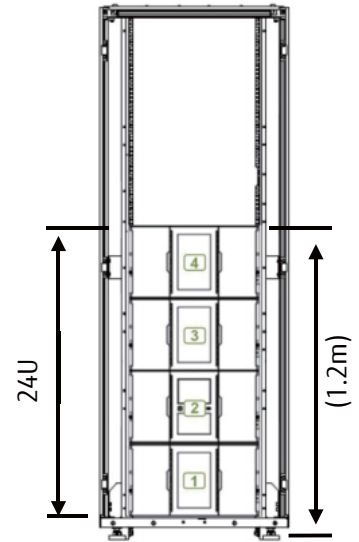
■ 4Module Library (Base Library + 3 Expansion Modules)



Logical element numbering of modules

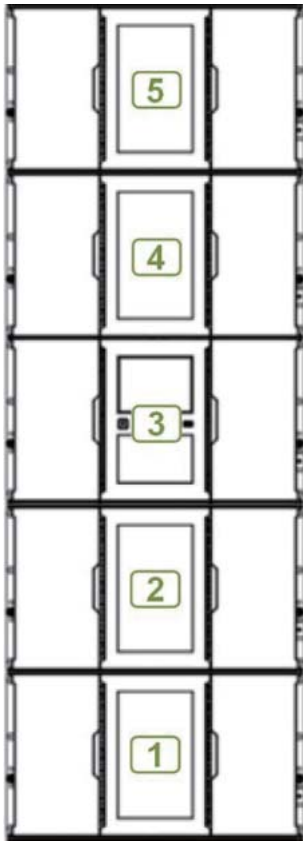


Example of the logical element numbering of Tape Drives

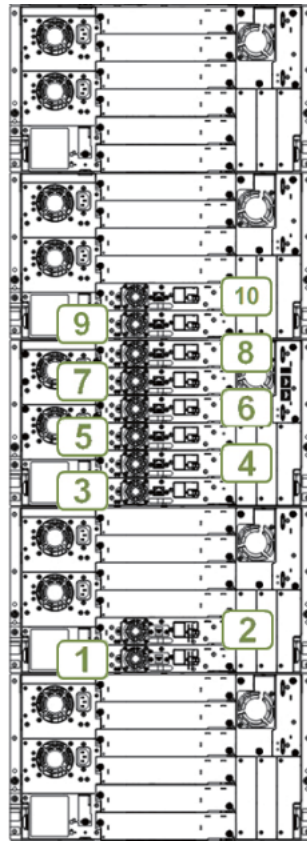


Installing example to 19-inch rack (42U)

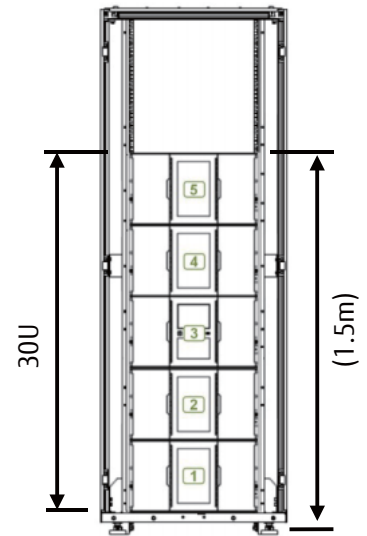
■ 5Module Library (Base Library + 4 Expansion Modules)



Logical element numbering of modules



Example of the logical element numbering of Tape Drives

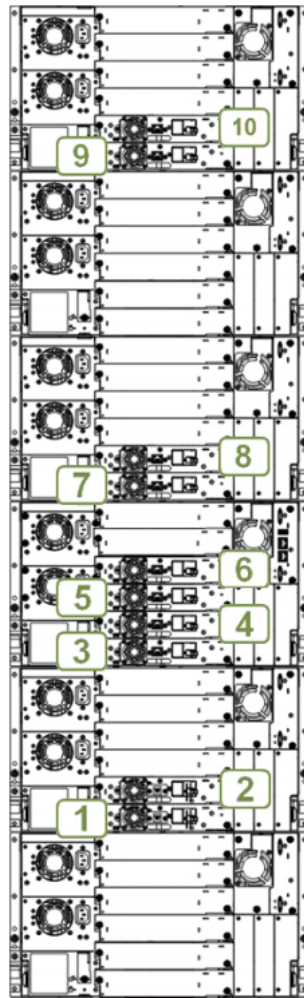


Installing example to 19-inch rack (42U)

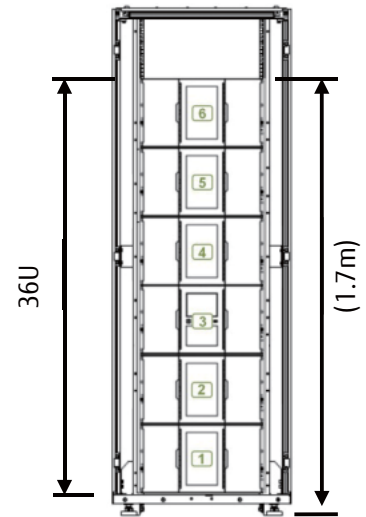
■ 6Module Library (Base Library + 5 Expansion Modules)



Logical element numbering of modules



Example of the logical element numbering of Tape Drives

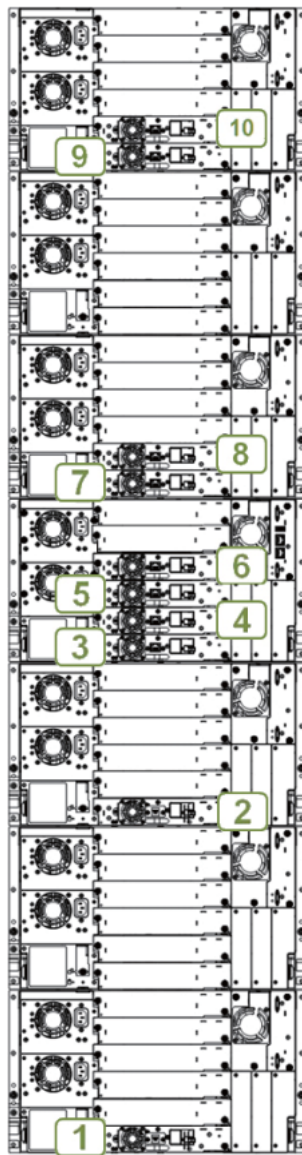


Installing example to 19-inch rack (42U)

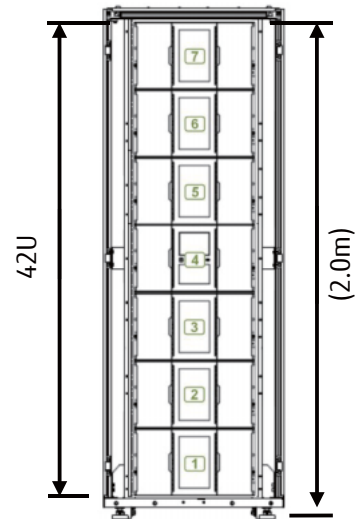
■ 7Module Library (Base Library + 6 Expansion Modules)



Logical element numbering of modules



Example of the logical element numbering of Tape Drives



Installing example to 19-inch rack (42U)

## 2.2.5 Supported Module Configurations

[Table 2.3](#) describes the supported configurations for each module type – Base Module and Expansion Module.

Table 2.3 Supported module configurations

Module Type	PSUs	Drive Power Boards	Half-Height Tape Drives
Base Module	2 (standard)	2 (standard)	Up to 6
Expansion Module	1 (standard) or 2 (redundant)	0 (standard)	0
		1 (optional)	Up to 3
		2 (optional)	Up to 6

## 2.3 Circuit Protectors

Protection coordination must be secured between the distribution board circuit protectors and the ETERNUS LT260 to protect the ETERNUS LT260 by blocking the failed circuit immediately when a power supply input error occurs.

Distribution board circuit protectors must satisfy the following required conditions and breaking characteristics.

### ■ Required Conditions

The distribution board circuit protectors must satisfy the required conditions that are listed below.

Table 2.4 Required conditions for distribution board circuit protectors

Connection device	Power supply voltage	Current capacity
ETERNUS LT260	AC100-240V	30A

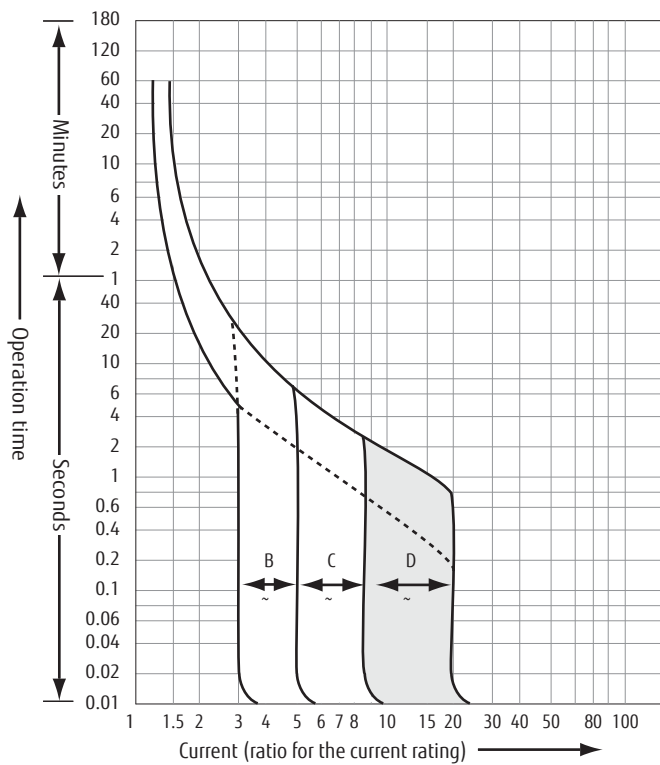
### ■ Breaking Characteristics

**Caution**

The breaking characteristics (\*1) of the distribution board circuit protectors must be the long-time delay type and must be equivalent to or slower than the D (IEC/EN60898-1) shown in [Figure 2.8](#). If the distribution board's circuit protectors have a breaking characteristic that is faster than D, the breaker may trip when a power supply unit in the ETERNUS LT260 fails. When the breaker trips, a shutoff occurs on multiple power supply units connected to the same connection line as the failed power supply unit.

\*1: Relationship between the size of excess current and operation time

Figure 2.8 Breaking characteristics of distribution board circuit protectors





### ■ Connection Diagrams

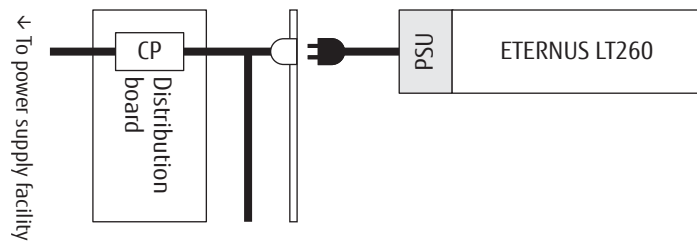
The following diagrams show connections between the ETERNUS LT260 and the power sockets of the distribution boards.

 **CAUTION**

 **Do**

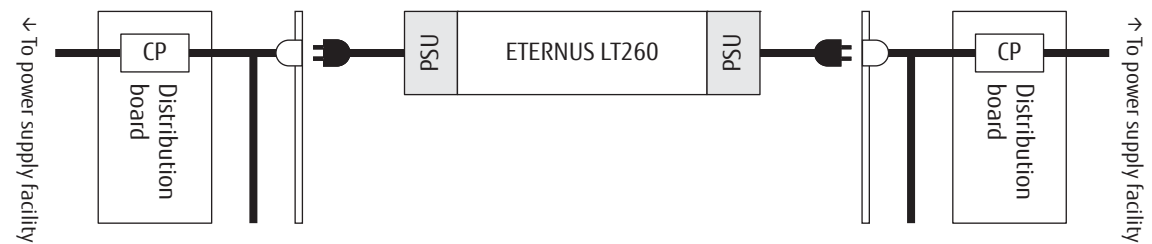
- Connect only the ETERNUS LT260 to the circuit protector.

Figure 2.9 Example of a power supply connection (single configuration)



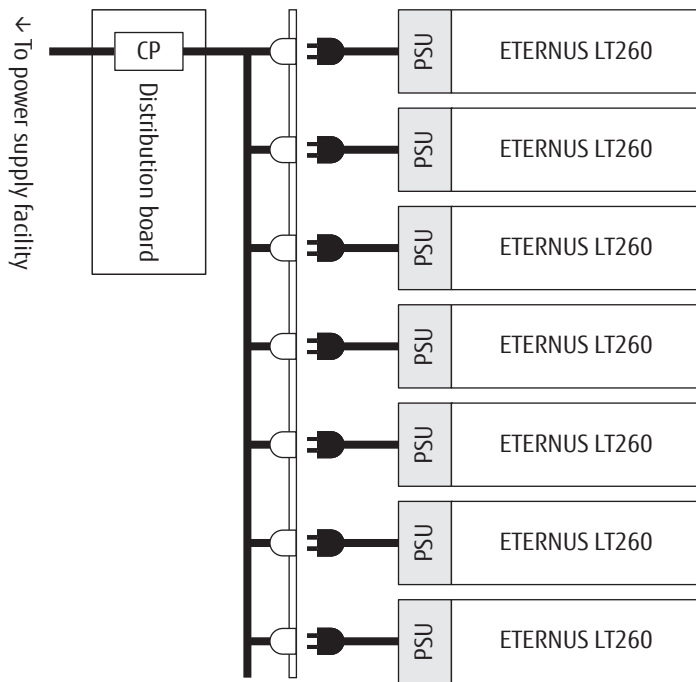
PSU: Power Supply Unit  
CP: Circuit Protector

Figure 2.10 Example of a power supply connection (single configuration when the redundant power supply option is installed)



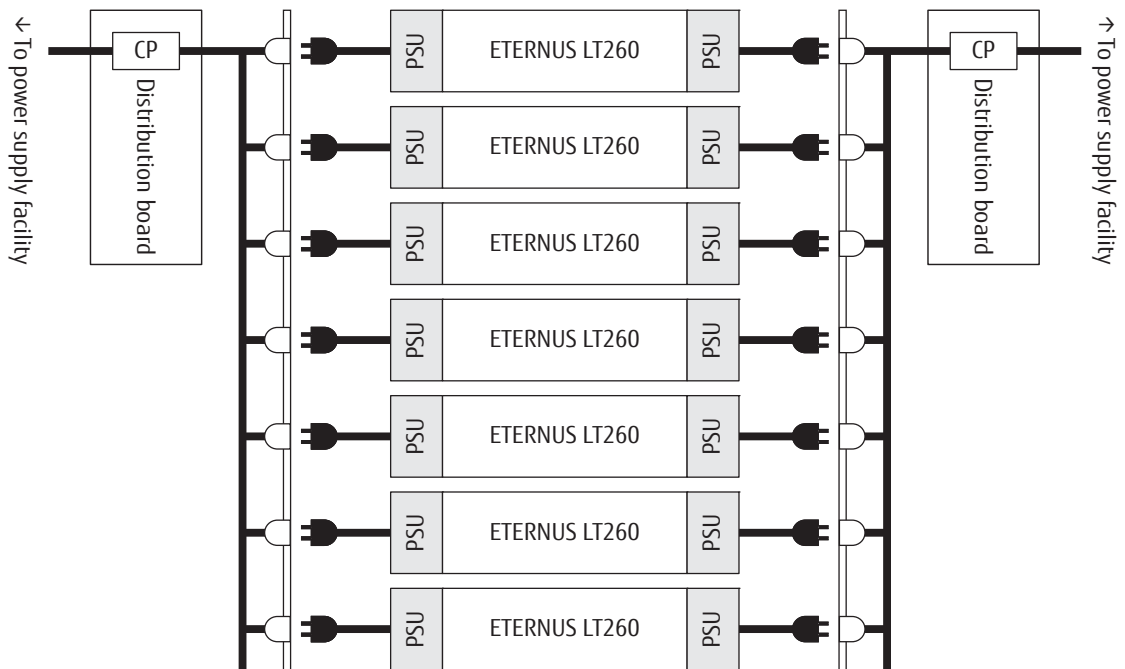
PSU: Power Supply Unit  
CP: Circuit Protector

Figure 2.11 Example of a power supply connection (extended configuration)



PSU: Power Supply Unit  
CP: Circuit Protector

Figure 2.12 Example of a power supply connection (extended configuration when the redundant power supply option is installed)



PSU: Power Supply Unit  
CP: Circuit Protector

## 2.4 Input Power Supply Lines

When the redundant power supply option of the ETERNUS LT260 is installed, it is recommended to use multiple power supply facilities in the building or multiple UPS units for redundancy, and divide the AC input system for the ETERNUS LT260 into a dual system (line 0 and line 1).

Because the power supply of the ETERNUS LT260 is configured redundantly, business can continue even if one of the power supply lines fails.

However, a single power supply facility configuration is also allowed for the entire system optimization (including the server). When selecting a single configuration, take into consideration the availability of the system.

Figure 2.13 Dual-line power supply (when connected to power sockets)

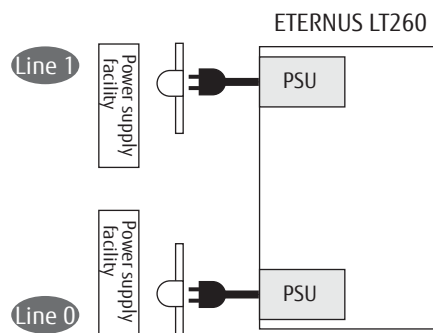


Figure 2.14 Dual-line power supply (when connected to UPS units)

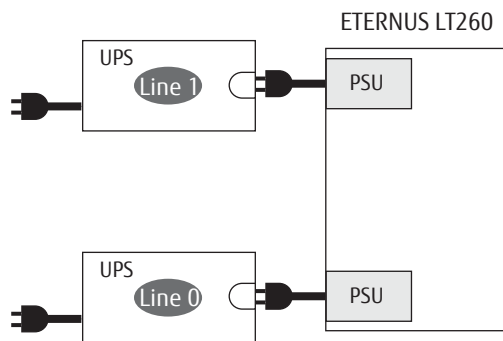


Figure 2.15 Single-line power supply (when connected to a power socket)

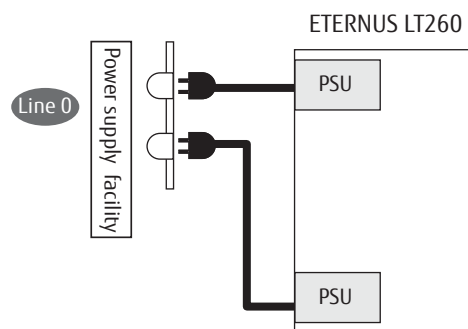


Figure 2.16 Single-line power supply (when connected to a UPS unit)

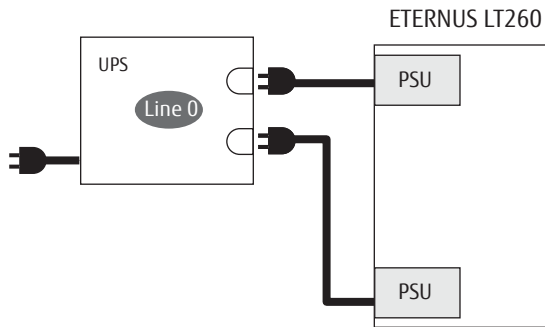
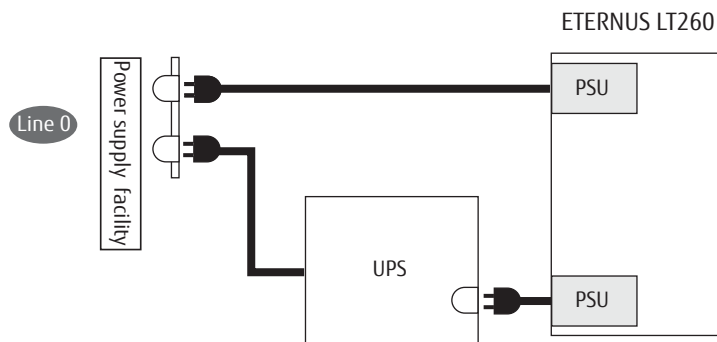


Figure 2.17 Single-line power supply (when connected to a power socket and a UPS unit)



## 2.5 Earthquake Resistance

Take the necessary measures (e.g. secure the cabinet to the floor or wall) to prevent an LT260 from falling down when earthquakes occur.

Earthquake countermeasures vary depending on the installation location, the floor conditions, and the number of connected expansion modules.

Contact your installation contractor for more details regarding earthquake countermeasure methods and how work should be conducted.

# Chapter 3

## Connections

This chapter describes the configuration for each interface to connect to the LT260.

### 3.1 Host Connection

#### 3.1.1 Host Preparation



CAUTION



**Static Sensitive**  
**Risk of damage to devices**

- A discharge of static electricity damages static-sensitive devices or micro circuitry.
- Proper packaging and grounding techniques are necessary precautions to prevent damage.

Follow these general guidelines:

- Check with a system administrator before powering off the host computer.
- For a SAS library, confirm availability or install a SAS HBA that supports multiple LUNs.
- For a direct-attach Fibre Channel library, confirm availability of install an FC HBA.
- For connection of a Fibre Channel library through a compatible switch, verify that sufficient ports are available.

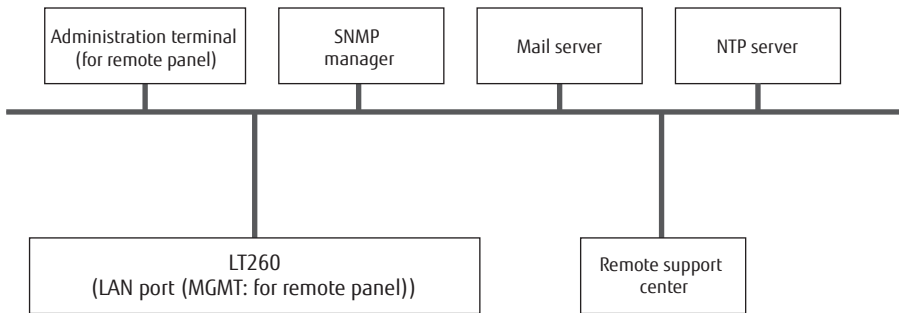
 **Note**

- Use an appropriate HBA for your tape drive due to performance requirements. If the transfer rate of the HBA is low, performance may degrade when moving highly compressible data to a tape drive with a higher transfer rate.
- In a SAN installation, all switches between the host and the library must be of the appropriate type. If the transfer rate of the switch on the path is low, performance may degrade. Configure zoning so only the backup servers may access the library.

### ■ LAN Connection

The LT260 requires a LAN connection for status monitoring, operation management, and maintenance of various devices.

Figure 3.1 Example of a LAN connection

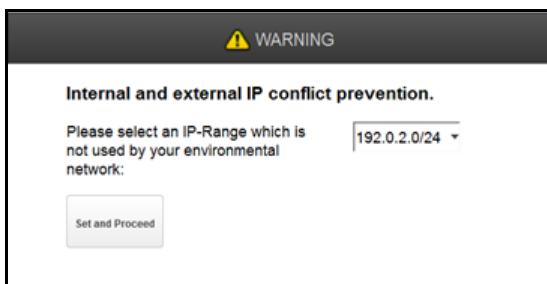


### ■ LAN for operation management

By using a LAN, checking the LT260 status from the remote panel, sending the SMTP (e-mail sending) in the event of a failure, and NTP (time correction) are available. In addition, functions that are provided by the management/monitoring server on the LAN, such as SNMP (device monitoring) can be used.

## 3.1.2 Internal IP Range Selection

For internal communication between modules the tape library uses an Ethernet connection with an internal IP address range. To prevent any conflict between the internal IP address range and the external IP addresses it is required to select the internal IP range before the tape library gets connected to the external Ethernet port.



### ● Note

The last section of the IP address is not set because it will be set internally.

### 3.1.3 Fibre Channel Configuration Requirements

The Fibre channel tape drive can be connected directly to the server with a host bus adapter (HBA) or through a storage area network (SAN).

The installation requires one Fibre Channel cable for each tape drive. The tape drives all utilize an LC-style connector. Some drives will have two FC ports, but only one cable connection is needed per drive. Supported speeds by drive generation are listed in the table below.

Table 3.1 Supported Fibre Channel speeds

LTO generation	Supported speeds
LTO-5	2 Gbit/s, 4 Gbit/s, 8 Gbit/s
LTO-6	2 Gbit/s, 4 Gbit/s, 8 Gbit/s
LTO-7	2 Gbit/s, 4 Gbit/s, 8 Gbit/s
LTO-8	2 Gbit/s, 4 Gbit/s, 8 Gbit/s

### 3.1.4 SAS Configuration Requirements

Serial Attached SCSI (SAS) is a computer bus technology mainly used to transfer data to and from storage devices, including disk drives and tape drives. SAS is designed to transfer data at up to 6 Gbit/s.

SAS uses serial connections, with a direct connection between the host server and each of the storage devices. This eliminates the need to configure SCSI busses and assign SCSI IDs, as is required for parallel SCSI devices.

The host server must have a SAS host bus adapter with an external connector. The HBA uses multiple LUNs to communicate with the library. Verify that your HBA supports multiple LUNs, as most RAID controllers do not. Most SAS HBA ports have four SAS channels. A tape drive uses one channel, so each HBA port can support up to four tape drives. You can use a cable with one connector on each end, but only one channel will be used.

Supported speeds by drive generation are shown in the table below.

Table 3.2 Supported SAS speeds

LTO generation	Supported speeds
LTO-5	1.5 Gbit/s, 3 Gbit/s, 6 Gbit/s
LTO-6	1.5 Gbit/s, 3 Gbit/s, 6 Gbit/s
LTO-7	1.5 Gbit/s, 3 Gbit/s, 6 Gbit/s
LTO-8	1.5 Gbit/s, 3 Gbit/s, 6 Gbit/s

#### Caution

- High quality SAS cables rated at the transfer rate the SAS drives are required. Always verify that the SAS cable you are using is rated for the data transfer speed of the interface of your components. SAS cables described as "equalized" may not support 6 Gbit/s data rates and should not be used with LTO-5 or later generation tape drives unless these cables are verified for 6 Gbit/s data rates.
- The library has one or more mini-SAS connectors on each SAS tape drive. Mini-SAS connectors are keyed. Do not force a SAS cable's mini-SAS connector into the tape drive as it might be keyed differently.

A SAS tape drive is identified by a unique identifier called a World Wide Name (WWN) or World Wide Identifier (WWID). The library assigns the WWID to the drive bay. When a tape drive is replaced, the WWID is re-assigned to the new tape drive.

The operating system tracks the WWID for the tape drive on each HBA channel. Each of the drive connectors on the fan-out cable is associated with an HBA channel. Once a tape drive has been plugged in, it should remain on the same channel to retain the association between the HBA channel and WWID.



## 3.2 Direct Connection to the Server

This section provides an example of direct connection between the LT260 and the server.

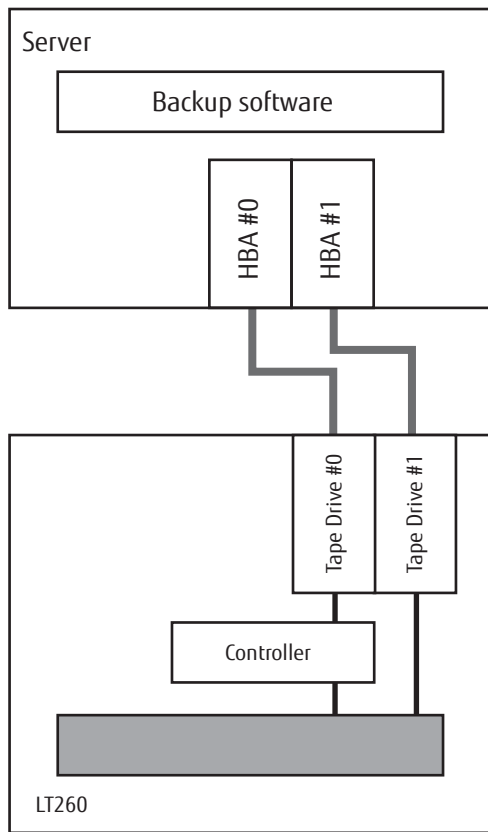
**Note**

The methods and settings for the backup operation depend on which backup software is used. For details, contact the support department of the backup software vendor.

### 3.2.1 Connection to a Single Server

This section provides an example of zoning when the LT260 is connected to a single server.

Figure 3.2 Direct FC-AL connection, a single server connection



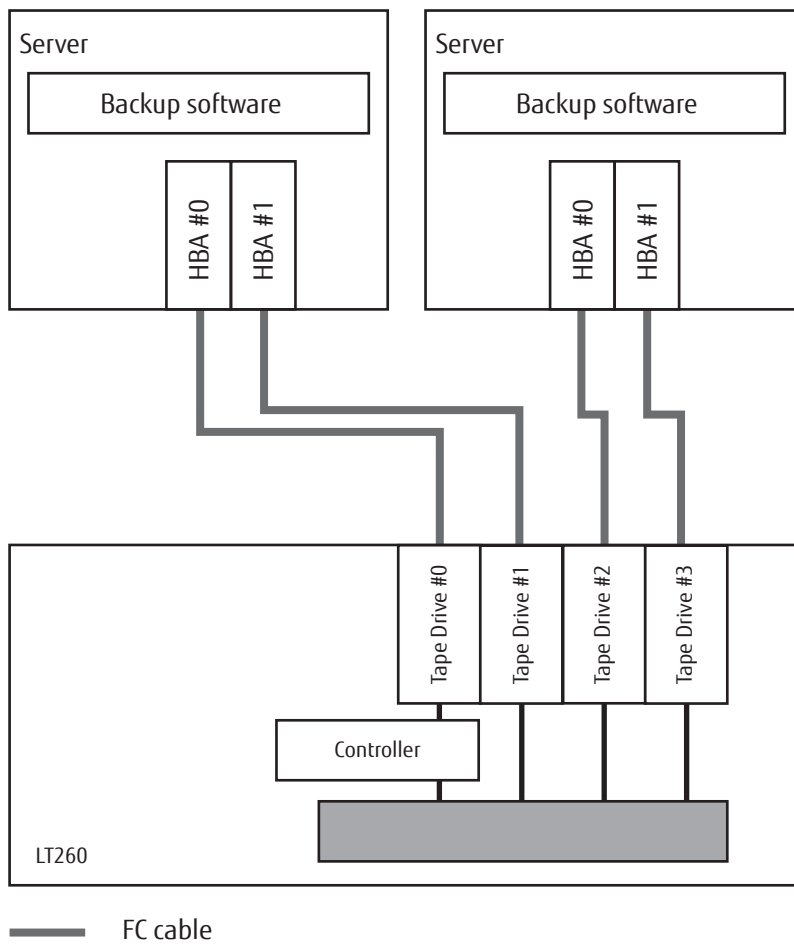
Using Serial Attached SCSI (SAS) in combination with double ended cables, you can connect two drives to one HBA. If there is a double ported HBA available four drives per HBA are possible.

### 3.2.2 Connection to Multiple Servers

■ Tape library shared but not drives

The following figure shows an example of zoning when the LT260 is shared by two servers. In this case, all the servers use the same backup software, and the LT260 is shared by the functions of this backup software. However, the drives are not shared but individually belong to each server. Only one server controls the LT260 controller.

Figure 3.3 Direct FC-AL connection, a multiple server connection, a shared library, and tape drives that are not shared



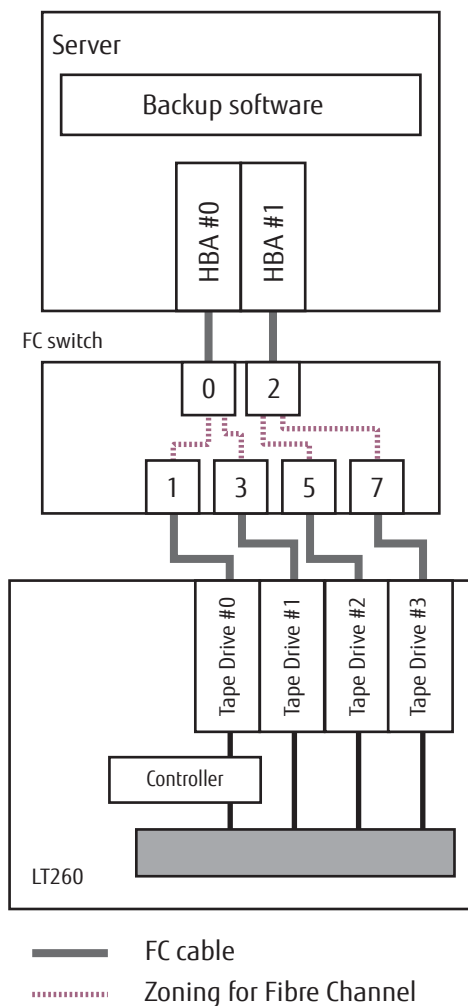
## 3.3 Connection to a Server via a FC Switch

When the tape library is connected to a server via a FC switch, set the zoning for the FC switch. Refer to "FUJITSU Storage ETERNUS LT260 Tape Library User's Guide -Server Connection-" for details.

### 3.3.1 Connection to a Single Server

This section provides an example of connecting the tape library to a single server.

Figure 3.4 FC switch connection, a single server connection

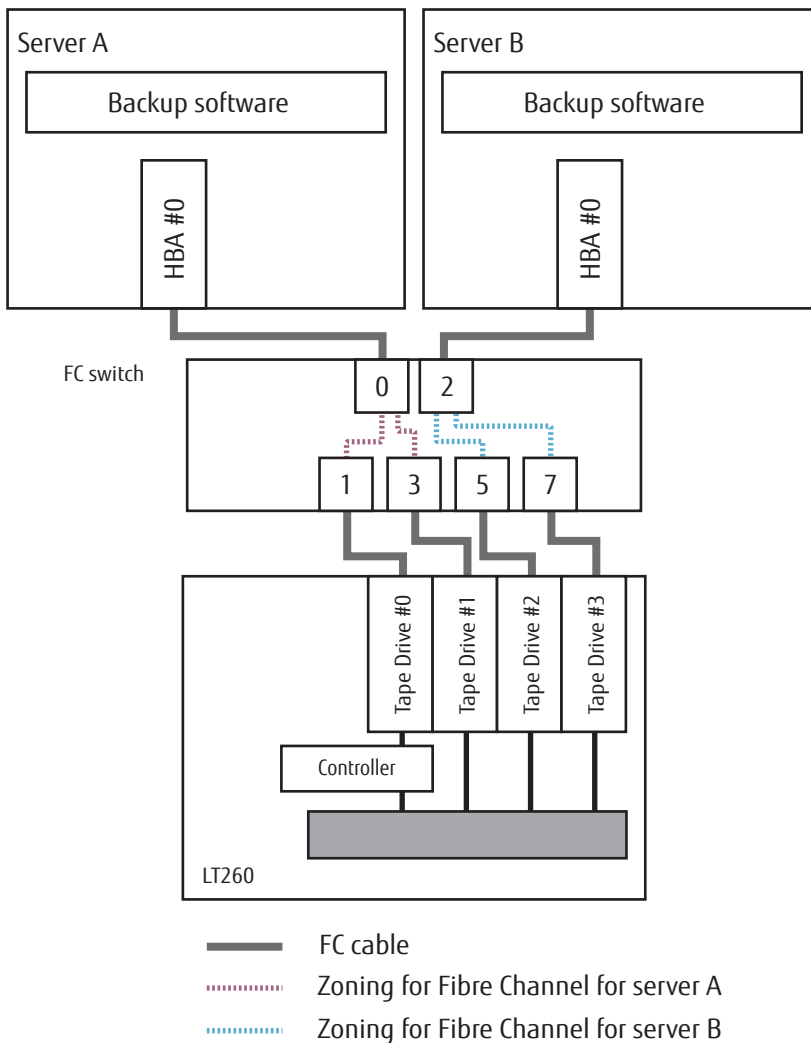


### 3.3.2 Connection to Multiple Servers

■ Tape library shared but not drives

The following figure shows an example of zoning when the LT260 is shared by two servers. In this case, all the servers use the same backup software, and the LT260 is shared by the function of the backup software. However, the drives are not shared but individually belong to each server. Only one server controls the LT260 controller.

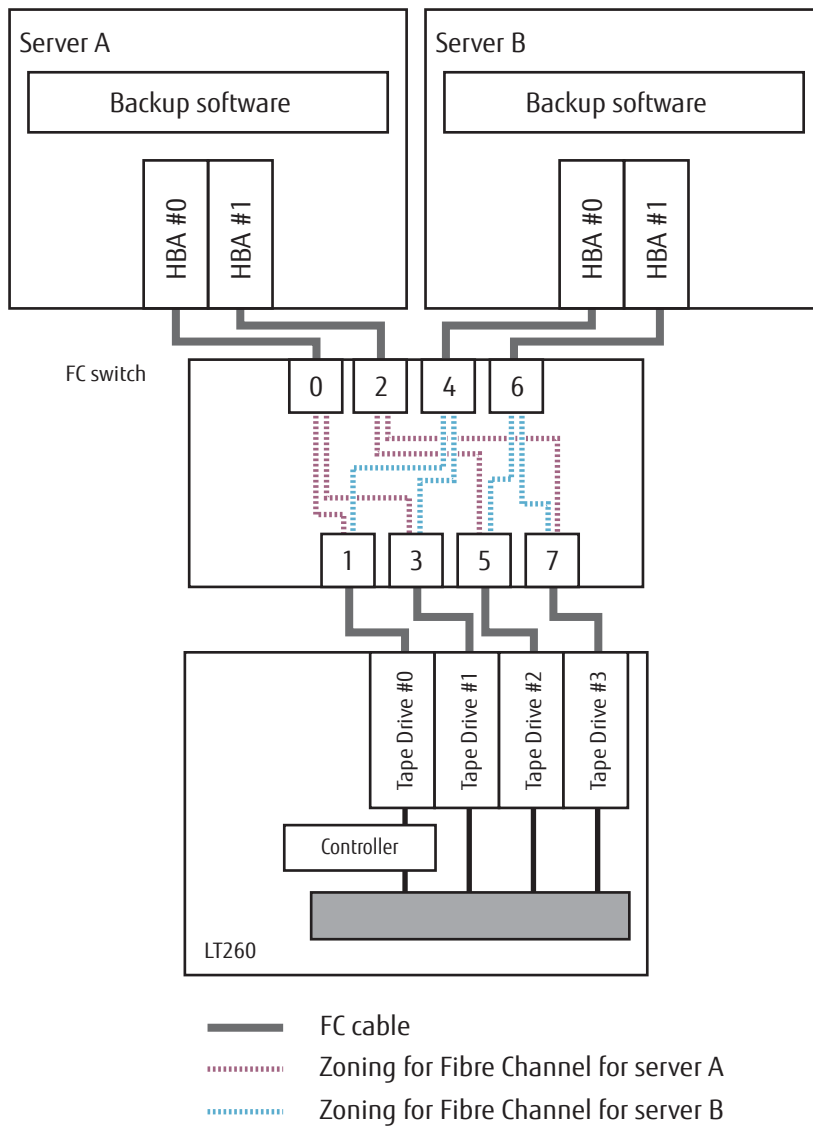
Figure 3.5 FC switch connection, a multiple server connection, a shared library, and tape drives that are not shared



■ Tape library and drives shared

The following figure shows an example of zoning when the LT260 is shared by two servers. In this case, each server uses the same backup software and the drives are shared through the function of backup software. However, only one server controls the LT260 controller.

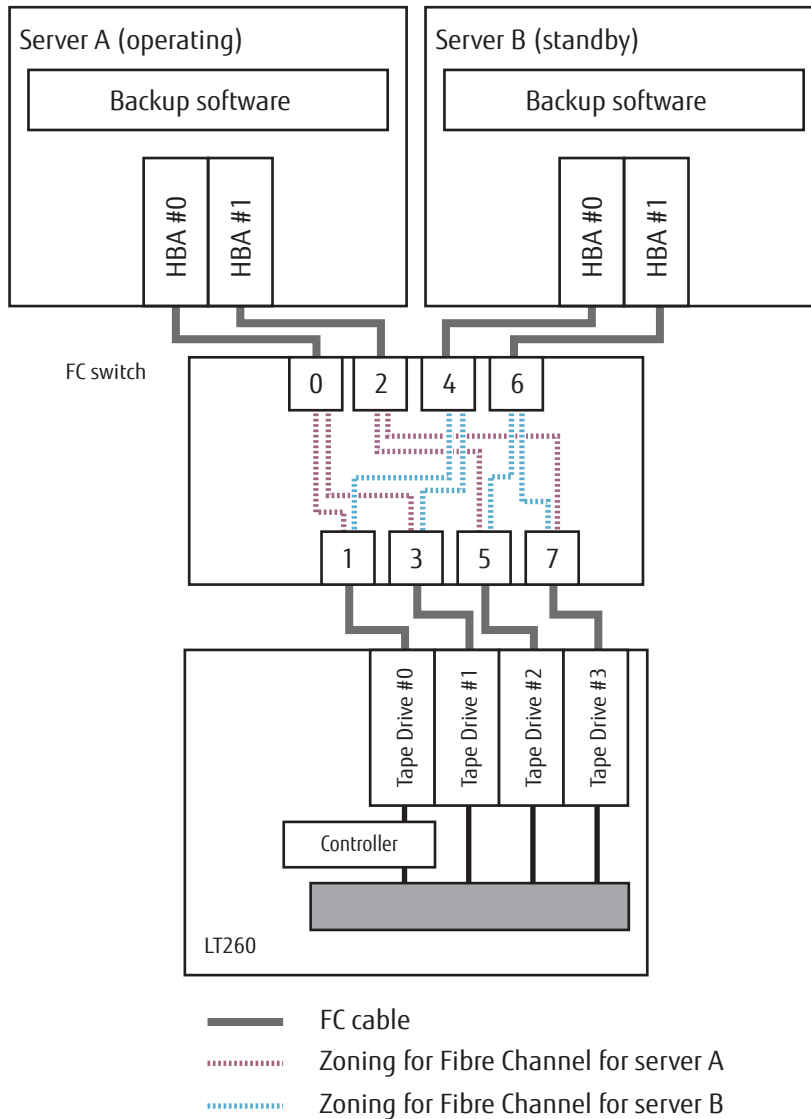
Figure 3.6 FC switch connection, a multiple server connection, a shared library, and tape drives that are shared



■ Cluster system

The following figure shows an example of zoning when the LT260 is connected to a cluster system (standby configuration). Both servers recognize the LT260 controller and drives as the same configuration.

Figure 3.7 FC switch connection, a cluster system configuration



## 3.4 Using Partitions

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If using partitions you can connect multiple servers. Each server will handle the Partition of the LT260 like an independent Library, no exchange between Partitions is possible by using Backup Software. If partitions are create, each master drive can control the library.

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FUJITSU Storage ETERNUS LT260 Tape Library  
User's Guide -Site Planning-

P3AM-8782-07ENZO

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