

■ This manual describes the various settings and system administration procedures for LEX1930-00 of the LightEdgeXchange series.

Thank you for purchasing our product.

Please read the general safety information below before installing or operating the product.

• Important Safety Instructions



- Do not use the product if it malfunctions or operates abnormally.
Stop using the product immediately and contact your dealer or service center for repair.

- Stop using the product immediately if any of the following occurs.
 - Smoke, strange odors, or abnormal sounds are emitted.
 - Water or foreign objects enter the product.
 - The product is dropped or the casing is damaged.
 - ① Turn off the power and unplug the power cord from the outlet.
 - ② Disconnect all other connection cables.
 - ③ Contact your dealer or service center for repair.

• Failure to follow these precautions may result in fatal injury, serious injury, fire, or electric shock.



- Do not damage the power cord or connection cables.
 - Damaging the cables may cause fire or electric shock.
 - Do not place heavy objects on the cables or pull them forcibly.
 - Do not modify, bend, or damage the cables.
 - Do not route the cables near heating appliances.
 - When unplugging the power cord, always hold the plug, not the cord.

- Do not allow water or foreign objects to enter the product.

If water or foreign matter enters the product, turn off the power immediately, disconnect the power cord, and contact your dealer for inspection or repair.

- Do not disassemble or modify the product.

Never open or modify the main unit or accessories (including cables). Doing so may cause fire or electric shock.

- Do not touch the product during a thunderstorm.

Touching the product or cables during a lightning storm may cause electric shock. If there is a risk of lightning, disconnect the power and connection cables in advance to prevent damage.

- Do not install the product outdoors or in similar environments.

Using the product outdoors may cause fire or malfunction. Avoid using the product in the following environments:

 - Places with high dust, humidity, or vibration.
 - Places exposed to direct sunlight or rapid temperature changes.
 - Places with corrosive gases or oily smoke.

- Failure to follow the precautions below may result in personal injury, fire, electric shock, or property damage.



- Do not touch the power plug or connectors with wet hands.
Doing so may cause electric shock.
- Use the specified power cord, connection cables, and voltage.
Do not overload power outlets or wiring devices.
Failure to use the specified cables and voltage, or exceeding the rating of the power outlet, may result in fire or electric shock.
- Do not block the ventilation openings.
Blocking the vents causes internal heat build-up, which may result in fire or malfunction.
To ensure proper ventilation, observe the following:
 - Do not place the product on deep-pile carpets or rugs.
 - Do not cover or wrap the product with cloth or blankets.
- Disconnect all cables before moving the product.
Moving the product with cables attached may damage the power cord or connection cables, potentially causing fire or electric shock.

この装置は、クラス A 機器です。
この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。
この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

This is Class A equipment.
Operation of this equipment in a residential environment could cause radio interference.
In such a case, the user may be required to take adequate measures.

VCCI-A

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

LEX1930-00 is a UL-recognized option module for use within the UL Listed chassis LEX1012-15. When used with the UL-marked LEX1012-15 chassis, this product is treated as an option for the chassis.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1 Introduction	4
1.1 Trademarks.....	4
1.2 Functional.....	4
1.3 Name and function of each part.....	5
1.3.1 Chassis (LEX1012-15/45).....	5
1.3.2 Management card.....	7
2 Installation	9
2.1 Mechanical Assembly.....	9
2.2 Basic settings.....	11
2.2.1 Logging in to Privileged mode.....	11
2.2.2 IP address setting.....	12
2.2.3 Save setting.....	14
3 Web Interface	15
3.1 Connect to the Web Interface.....	15
3.2 How to operate the Web interface.....	17
3.2.1 Front panel.....	18
3.2.2 Menu bar.....	19
3.2.3 Main Content.....	20
3.3 System Information.....	21
3.4 System Settings (General).....	23
3.5 Time settings.....	25
3.6 User Accounts.....	27
3.7 Line card Settings.....	29
3.7.1 Screen view.....	29
3.7.2 Slot Configuration.....	31
3.7.3 Port Configuration.....	32
3.7.4 Description of Configuration Items.....	35
3.8 Hardware Monitor.....	42
3.9 Alarm LED.....	43
3.9.1 How to configure the alarm LED.....	44
3.9.2 Alarm Specification.....	45
3.10 Syslog.....	46
3.10.1 Syslog dump.....	47
3.10.2 Syslog setting.....	48
3.10.3 Syslog event.....	49
3.11 SNMP system.....	51

3.11.1 Configurations	52
3.11.2 Community Name	53
3.11.3 Trap Receiver	55
3.11.4 Trap Notification Settings (Trap event).....	57
3.12 Configuration manager	60
3.12.1 list of configuration values	60
3.12.2 Write memory	62
3.12.3 Upload an external file.....	63
3.12.4 Reload default config.....	64
3.12.5 Download from an external file.....	66
3.13 Firmware Upgrade	69
3.13.1 Management card.....	69
3.13.2 Line cards	72
3.14 System Reboot	75
4 Command line interface.....	77
4.1 How to use the CLI	77
4.1.1 Console connection	77
4.1.2 Telnet connection	77
4.2 Command input	78
4.2.1 How to display help on command	78
4.2.2 abbreviation and Completion of Commands	79
4.2.3 Command mode	80
4.3 Command Reference.....	82
4.3.1 CLI Operations	83
4.3.2 System.....	86
4.3.3 IP Interface	88
4.3.4 Time setting	91
4.3.5 User Account	94
4.3.6 Slot Settings	96
4.3.7 Alarm LED Settings	105
4.3.8 System Monitor.....	108
4.3.9 Syslog Settings.....	110
4.3.10 SNMP Settings	114
4.3.11 Configuration File Operation.....	120
4.3.12 Firmware Update	125
Appendix	126

A.1. Private MIB List.....	126
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1 Introduction

1.1 Trademarks

LightEdgeXchange is a registered trademark of FXC, Inc in the United States and other countries

This manual describes the features of the LightEdgeXchange® (hereinafter referred to as 'LEX')

1.2 Functional

The LEX1930-00 is an SNMP Management card compatible with the LEX1000 Series chassis LEX1012-15/45 (19-inch, 1U type, 12 slots).

By installing it in the chassis, you can monitor the status of the power and fan units, as well as the link status of each LEX1000 Series media converter, and perform various configurations via the network.

Management card provides the following functions.

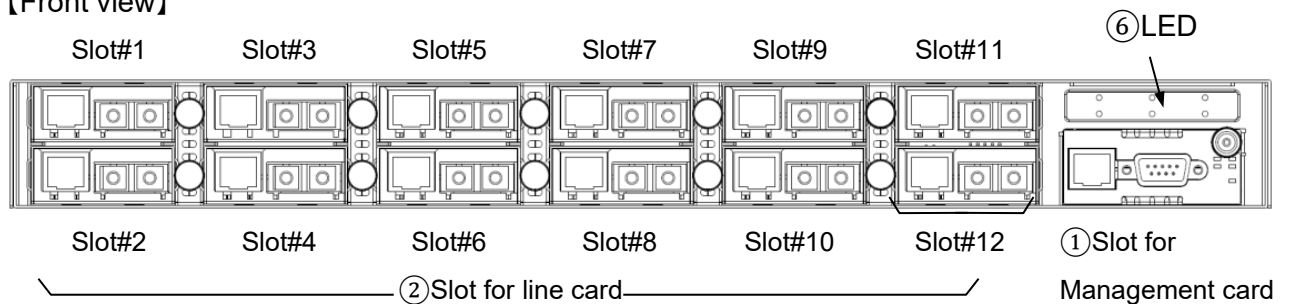
- ◆ Access to management interface via Console/SNMP manager/Web browser/Telnet is possible.
- ◆ Setting change/status monitoring of the line card (LEX 1000 series, each media converter) is possible.
- ◆ Firmware Upgrade of line card and Management card, and backup of configuration file by TFTP are possible.
- ◆ Status indication through various LEDs
- ◆ Alarm configuration
- ◆ Hardware monitor (power supply status/internal voltage status, fan status/rotation speed, internal temperature) can be displayed.
- ◆ User account management
- ◆ SNMP management function
- ◆ Syslog messages transmission
- ◆ Backup and restore of settings in text-based format
- ◆ IP address and gateway configuration for:
Management card / NTP server / TFTP server / Syslog server / SNMP manager / Trap manager

1.3 Name and function of each part

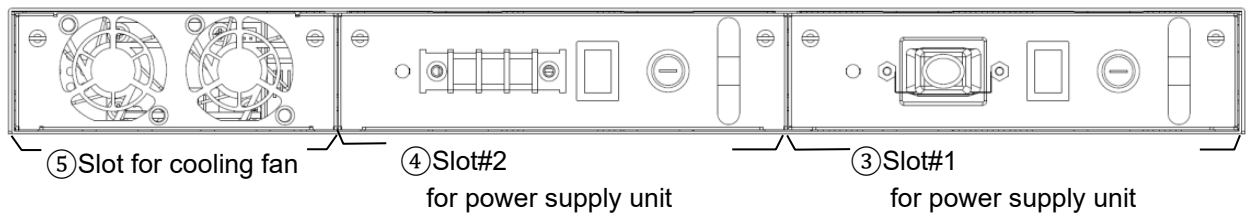
1.3.1 Chassis (LEX1012-15/45)

The external view of the chassis installed in Management card is shown below.

【Front view】



【Rear view】



- ① Slot for Management card
Insert Management card into this slot. For the procedure, please refer to Section 2.1 Mechanical Assembly.
- ② Slot for line card
These slots are for installing LEX1000 Series media converters, which are offered separately.
Up to 12 units can be installed.
- ③ Slot # 1 for power supply unit
- ④ Slot # 2 for power supply unit
- ⑤ Slot for cooling fan

All of these slots support hot-swap.

⑥ LED

The status of each unit (power, fan, and line card as well as the meanings of their LED indicators) are shown in the table below.

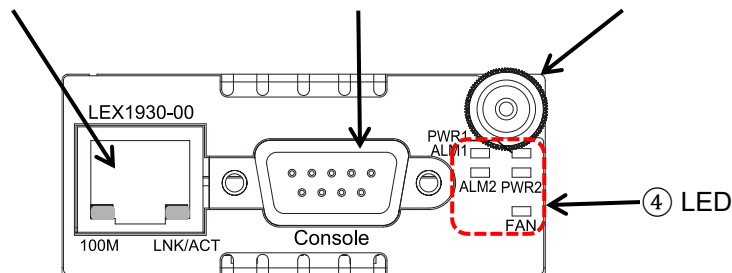
Item	LED Indication	Description	Remarks
PWR1/ PWR2	Off	Power supply unit not installed or powered off	
	Green	Power supply unit installed, power supply normal	
	Red	Power supply unit installed, power supply failure	Light up only when
	Orange	Power supply unit installed, power supply start	Management card is installed
FAN	Red	Fan is abnormal	Light up only when
	Off	Fan is operating normally	Management card is installed
Minor	Green	User-defined alarm has occurred(Alarm content can be set by user.For setup instructions, see Section 3.9 Alarm settings.)	Light up only when Management card is installed
Major	Orange		
Critical	Red		

1.3.2 Management card

The external view of the front panel for Management card is shown below.

【Front view】

- ① 10BASE-T/
100BASE-TX port
(Ethernet port)
- ② Console port
(D-sub 9-pin female)
- ③ Screw for
main unit mounting



① 10BASE-T/100BASE-TX port

This port is used for connection with a UTP cable, enabling LAN access via Telnet, Web browser, or SNMP manager.

The functions of the LEDs located below the port are described in the table below.

Name	Function	LED indication		Description
		Color	Status	
LNK/ACT	Link status	Orange	Solid	Link is established
			Blinking	Transmitting Data
			Off	Link is not established
100M	Transmission speed	Green	Solid	Connected at 100BASE-TX
			Off	Connected at 10BASE-T

② Console port

This port is used to connect Management card to a PC using the supplied RS-232C cable.

For details on connection and configuration procedures, refer to Section 2.1.

③ Screw for main unit mounting

This screw is used to secure this module to the LEX1012-15/45 chassis. It also serves as a handle when extracting the module.

④ LED

Indicates the status for power supply/fan module and user-defined alarm. The indications for each LED are detailed in the table below.

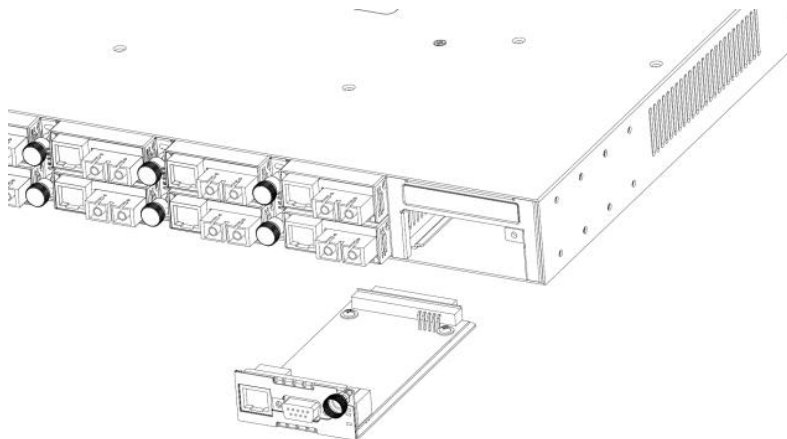
Name	Function	LED indication		Description
		Color	Status	
PWR1	State of power supply 1	Green	Solid	Power supply slot 1 is supplying power normally.
			Off	Power supply slot 1 is not powered on, not installed, or there is any failure.
PWR2	State of power supply 2	Green	Solid	Power supply slot 2 is supplying power normally.
			Off	Power supply slot 2 is not powered on, not installed, or there is any failure.
FAN	State of the fan	Green	Solid	Fan is operating normally.
			Off	Fan is not installed, or there is any failure.
ALM1	State of alarm 1	Red	Solid	Warning status due to User-Defined Alarm 1.
			Off	No warning status due to Alarm 1.
ALM2	State of alarm 2	Red	Solid	Warning status due to User-Defined Alarm 2
			Off	No warning status due to Alarm 2.

2 Installation

2.1 Mechanical Assembly

- (1) Insert the unit LEX 1930-00 into the slot at the far right end of the LEX 1012 chassis.

☞ Please insert a card into the rail at both ends inside the slot and slide it.



- (2) Tighten the fixing-screw and mount the card.
- (3) Connect Management card to the PC with the supplied RS-232C cable.
Insert the female connector into the console port on the PC side and the male connector into the console port on the unit side, and fasten the fixing-screws on each side of the connector.
- (4) Set the PC terminal software as follows.

Transmission port	Name of the port to which the RS-232C cable is connected(such as COM 1)
Transmission speed	115,200 bps
Data bit	8 bit
Stop bits	1 bit
Parity bit	None
Flow control	None

- (5) Turn on the switch of the power supply unit and then turn on the power to Management card (This procedure is unnecessary if power has already been turned on).

-
- (6) When the above procedure is completed correctly, the startup screen will be displayed on the console.

Wait about 30 seconds for the message to appear and press the <Enter> key when the message "Please press Enter to activate this console." Is displayed.

2.2 Basic settings

2.2.1 Logging in to Privileged mode

In order to make settings using Management card, please follow the steps below

- (1) Press the <Enter> key after the message "Please press Enter to activate this console", which appears after Management card starts up.

The page shifts to the system login screen.

- (2) Type "admin" and press the <Enter> key.

You will log in to the system, and the prompt will appear.

- ☞ If an incorrect input is made here, a password entry will be requested. Press the <Enter> key to return to the login screen, then re-enter the information.

- (3) Enter "enable" command and press <Enter> key. The page shifts to the user input screen for entering Privileged mode.

- ☞ You can type part of the command, such as "en", and press the <tab> key to auto-complete the command. Please refer to Section 4.2 Command input.

- (4) Enter your user name and password.

In the factory default settings, the following account is registered as the Admin user.

- User name : "**admin**"
- Password : "**admin**"

- ☞ The password you enter will not be displayed on the screen.

- (5) When Privileged mode is enabled, the prompt symbol is displayed as "#".

```
Please press Enter to activate this console.
LEX1000 login: admin
LEX1000>enable
user:admin
password:
LEX1000#
```

2.2.2 IP address setting

To access the management functions of Management card via the network, it is necessary to set the IP address. Also, to access Management card from PCs in a different segment, a default gateway must also be configured.

Before setting the IP address, please obtain the necessary information below from the network administrator.

- IP address for setting in Management card
- Network default gateway address
- Network mask (prefix length)

To set the IP address, follow the steps below after completing the procedure in Section 2.2.1.

- (1) Enter the command "configure terminal" and press the <Enter> key.
(It can be abbreviated as "co t") The console shifts to config mode, and "(config)" is appended to the prompt.
- (2) Enter the command "interface eth0" and press the <Enter> key (It can be abbreviated as "in e").
- (3) Enter the command "ip address default-gateway [default gateway address]" and press the <Enter> key.
- (4) Enter the command "show" and press the <Enter> key.
- (5) The current Ethernet port settings are displayed. Confirm that the specified IP address has been registered.
- (6) Enter the command "end" and press the <Enter> key to return to Root mode (Privileged mode).

```
LEX1000#configure terminal
LEX1000(config)#interface eth0
LEX1000(config-if)#ip address 192.168.3.210/24
Confirm change IP?(yes/no)yes
Successfully.

LEX1000(config-if)#ip address default-gateway 192.168.3.1
Successfully.

LEX1000(config-if)#show
eth0      Link encap:Ethernet  HWaddr 00:17:2e:xx:xx:xx
          inet addr:192.168.3.210  Bcast:192.168.3.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:337251 errors:0 dropped:0 overruns:0 frame:0
          TX packets:18707 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:37727111 (35.9 MiB)  TX bytes:5782293 (5.5 MiB)

Default gateway: 192.168.3.1

LEX1000(config-if)#end
LEX1000#
```

- ☞ These settings are reset when turning on the power supply and rebooting the system. Please follow the procedure in Section 2.2.3 Save setting and save the setting value.

2.2.3 Save setting

There is a configuration file in the built-in memory of Management card, and when setting the power supply of Management card again and rebooting the system, read this configuration file and apply the setting.

Since there is a configuration file on the built-in memory of Management card, when turning on the power supply of Management card again - When reading the system reboot this configuration file and apply the setting.

To save the operation settings and the user account of Management card set up in the previous section, please follow the procedure below.

- (1) Enter the command "configure terminal" and press the <Enter> key.
- (2) The console shift to configuration mode and "(Config)" is added to the prompt.
- (3) Enter the command "write memory" and then enter the <Enter> key.

```
LEX1000#configure terminal
LEX1000(config)#write memory
Successfully.
```

- ☞ By entering the command "write memory with slot", the slot information can be saved(described later).

3 Web Interface

3.1 Connect to the Web Interface

This device has a Web server for management.

You can change settings and monitor Management card's status through a Web browser.

Please connect to Management card using the following procedure:

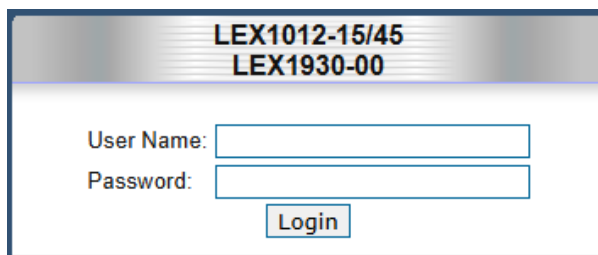
- (1) When using the Web interface, both the PC and Management card must have IP addresses configured in advance.

Please refer to instructions on setting Management card IP address.

- (2) Connect a LAN cable to Management card Ethernet port and ensure it is connected to the specified network.
- (3) On the PC's Web browser, enter the IP address of Management card in the address bar.

< Example >http://192.168.1.1/

The login screen will appear.



LEX1012-15/45
LEX1930-00

User Name:

Password:

Login

Depending on the browser, a message like the one below may appear and prevent you from logging in. It is recommended to use Internet Explorer 10 or later, Google Chrome 32.0 or later, or Mozilla Firefox 25.0 or later.

[Error] Your browser is not supported

Recommended:

- Internet Explorer 10+
- Google Chrome 32.0+
- Mozilla Firefox 25.0+

-
- (4) Enter the user name and password.

Use the same user account that was configured through the console.

By default, a user with the username and password “admin” is registered.

- (5) Press the <Login> button.

If the user account is registered, access will be granted and Management card home page will be displayed.

3.2 How to operate the Web interface

When accessing the Web interface, the following screen is displayed.

The screenshot displays the web interface for the FXC LEX1930-00 device. The top header includes the FXC logo, model information (LEX1012-15/45, LEX1930-00), and navigation options like 'Auto Refresh', 'Refresh', 'Show front view', 'Japanese', and 'Logout'. A status bar shows slot configurations (Slot #2, Slot #7) and various indicators (FAN, PWR2, PWR1, CRI, MAJ, MIN, ALM1, ALM2).

The main content area is titled 'System' and contains a 'System Information' table. The table lists the following details:

Info	General	Time	User account
System Information			
Vendor	FXC Inc.		
Product	LEX1000		
MAC Address	00:17:2e:9e:9c:37		
Serial No.	227A203028		
H/W Version	V1.0		
Boot Code Version	1000-081-1.0.0.S0		
Firmware Version	v2.3		
Built Date	2020-03-17 13:49:28 +0900		
IP Address	192.168.11.144		
Subnet Mask	255.255.255.0		
Default Gateway	192.168.11.1		

The left sidebar contains a navigation menu with categories: System (System Information, General Settings, Time Settings, User Account), Line card (Line card Settings), Monitoring (Hardware Monitor, Alarm LED, Syslog Dump, Syslog Setting), SNMP (SNMP system, SNMP community, SNMP trap receiver), and Maintenance (Configuration manager, Firmware Upgrade, System Reboot).

3.2.1 Front panel

The slot status is displayed as an image, allowing you to check each slot's mounting status and alarm indicators.

You can also perform operations by clicking the areas shown below.

Item	Function/Operation
Line card in slot	Navigates the main content to the "Line Card Settings" page described in Section 3.7.
Chassis LED	Navigates the main content to the "Hardware Monitor" page described in Section 3.8.
Management Card LED	Navigates the main content to the "Alarm LED" page described in Section 3.9.
Japanese	Switches the language of the entire page: when checked, the display changes to Japanese; when unchecked, it changes to English.
Auto Update	When checked, the line card and LED status on the front panel diagram are automatically refreshed every 5 seconds.
Reload	Performs a reload of the front panel diagram.
Logout	Logs out of the management Web interface.

3.2.2 Menu bar

The menu bar consists of the following 15 items displayed on the left side of the screen.

Clicking an item displays the corresponding function page in the center of the screen.

▼ System	
System Information	→ Refer to Section 3.3 System Information
General Settings	→ Refer to Section 3.4 System Settings
Time Settings	→ Refer to Section 3.5 Time Settings
User Account	→ Refer to Section 3.6 User Accounts
▼ Line card	
Line card Settings	→ Refer to Section 3.7 Line card Settings
▼ Monitoring	
Hardware Monitor	→ Refer to Section 3.8 Hardware Monitor
Alarm LED	→ Refer to Section 3.9 Alarm LED
Syslog Dump	→ Refer to Section 3.10.1 Syslog Dump
Syslog Setting	→ Refer to Section 3.10.2 Syslog Setting Section 3.10.3 Syslog Event
▼ SNMP	
SNMP system	→ Refer to Section 3.11.1 SNMP system
SNMP community	→ Refer to Section 3.11.2 SNMP community
SNMP trap receiver	→ Refer to Section 3.11.3 SNMP trap receiver & Section 3.11.4 Trap event
▼ Maintenance	
Configuration manager	→ Refer to Section 3.12 Configuration manager
Firmware Upgrade	→ Refer to Section 3.13 Firmware Upgrade
System Reboot	→ Refer to Section 3.14 System Reboot

3.2.3 Main Content

The configuration interface is displayed according to each management item. Clicking on the front panel or menu will navigate to the corresponding page. The following sections explain how to operate each of the displayed pages.

3.3 System Information

Clicking “Info” on the menu bar will display the following page.

System	
Info	General
Time	User account
System Information	
Vendor	FXC Inc.
Product	LEX1000
MAC Address	00:17:2e:9e:9c:37
Serial No.	227A203028
H/W Version	V1.0
Boot Code Version	1000-081-1.0.0.S0
Firmware Version	v2.3
Built Date	2020-03-17 13:49:28 +0900
IP Address	192.168.11.144
Subnet Mask	255.255.255.0
Default Gateway	192.168.11.1

The following items are displayed here.

Items	Description	Remarks
Vendor	Our company : "FXC Inc."	
Product	Product name : "LEX 1000"	
MAC address	MAC address of Management card Ethernet port	
Serial No.	Product serial number of Management card	
H/W Version	Hardware version of Management card	
Boot Code Version	The version of the boot loader installed in Management card	
Firmware Version	Version of firmware installed on Management card	
Built Date	Release date and time of the firmware installed in Management card.	
IP Address	IP address of Management card	For instructions on changing settings, refer to "Section 2.2.2 IP Address setting".
Subnet mask	Subnet mask of Management card	
Default Gateway	Default gateway of Management card	

<CLI Command> show model

3.4 System Settings (General)

Clicking “General” on the menu bar will display the following page.

The screenshot shows a web interface titled "System" with a menu bar containing "Info", "General", "Time", and "User account". The "General" tab is active. Below the menu bar is a "System Settings" section with four rows of input fields: Hostname (value: LEX1000), IP Address (value: 192.168. .144), Subnet Mask (value: 255.255.255.0), and Default Gateway (value: 192.168. .1). An "Apply" button is located at the bottom center of the settings area.

The following items can be operated by logging in as the Admin user.

Menu	Description
Hostname	Up to 64 alphanumeric characters or "_" (underscore), "-" (hyphen), "." (Period), "@" are available. Default value : LEX1000
IP Address	Enter in IPv4 dotted decimal notation. Default value : 192.168.1.1
Subnet Mask	Default value : 255.255.255.0
Default Gateway	If an IP address from a different network is entered, it will not be applied. To disable, enter a blank value or 0.0.0.0. Default value : 192.168.1.254
[Apply]	Clicking the button applies the settings entered above. If the IP address has been changed, the following dialog will appear. <div data-bbox="507 1637 1246 1888" data-label="Image"> <p>The dialog box has a dark background with white text. It displays the IP address '192.168. .144' followed by 'says' and the question 'IP will be changed. Are you sure?'. At the bottom right, there are two buttons: 'OK' and 'Cancel'.</p> </div> Click [OK] to change the IP address. After the change, you will need to enter the new URL in your browser.

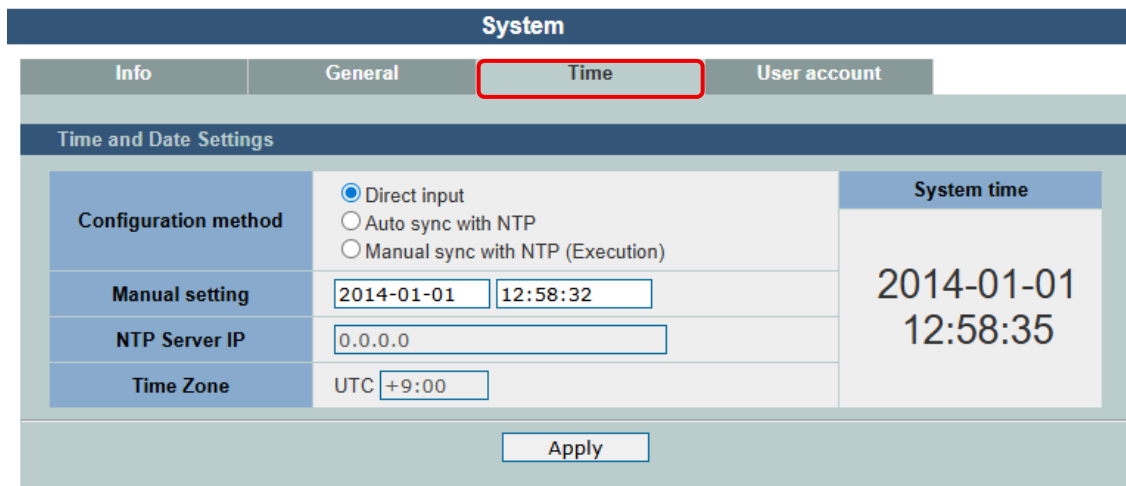
-
- ☞ All settings will be reset after a reboot.
If you want to retain the settings after reboot, you need to save them (see “3.12.2 Write memory”).

```
<CLI Command> ip address/ip address default-gateway / hostname
```

3.5 Time settings

Clicking “Time” on the menu bar will display the following screen.

An example of the GUI screen is shown below.



By logging in as an Admin user, the following operations are available.

Menu	Description
Configuration method	<p>Select one of the following three methods using the radio buttons:</p> <p>Direct Input: Sets the system clock to the time entered manually. After a reboot, the time resets to the default value (2014-1-1 / 09:00:00).</p> <p>Auto sync with NTP: Sets the time by synchronizing with the NTP server, and continues to synchronize with the server every hour thereafter.</p> <p>Manual sync with NTP (Execution): Sets the time by synchronizing with the NTP server once only, and does not perform further synchronization. After clicking the “Apply” button, the radio button selection will revert to “Direct Input.”</p>
Manual Setting	<p>Can be entered only when “Direct Input” is selected.</p> <p>Enter the date in each text box using hyphens (“-”) for year, month, and day, and colons (“:”) for hour, minute, and second.</p> <p>Valid range: 2000-1-1 00:00:00 to 2037-12-31 11:59:59.</p>
NTP Server IP	Can be entered only when “Auto sync with NTP” or “Manual sync

	with NTP (Execution)" is selected. Enter the IP address of the NTP server.
Time Zone	Can be entered only when "Auto sync with NTP" or "Manual sync with NTP (Execution)" is selected. Enter the offset from UTC (GMT). Default: +9:00 (Japan Standard Time)

☞ After a reboot, the time will reset to the default value (2014-1-1 09:00:00).

When the time is set manually, the system operates using the default time.

For automatic NTP configuration, it is necessary to save the settings for "Auto sync with NTP" and "NTP Server IP" to the internal configuration file.

Even if these settings are saved internally, immediately after startup the system will display the default date and time until access to the NTP server is completed.

For details on saving settings, refer to "Section 3.12.2 Write memory".

```
<CLI Command> time, time date / time ntp-server, time auto-
receive-time / time sync-ntp-server
```

3.6 User Accounts

Clicking “User Account” on the menu bar will display the following screen.

Info	General	Time	User account
User Account Lists			
No.	Name	Password	Authority
*	<input type="text"/>	<input type="password"/>	Normal <input type="button" value="Apply"/>
1	admin	*****	Admin
2	fxc	*****	Normal <input type="button" value="Delete"/>

By logging in as an Admin user, you can perform the following operations:

Menu	Description
No.	Clicking the number link allows the corresponding row to be edited.
Name	Up to 32 alphanumeric characters or the following symbols can be used: _ (underscore), - (hyphen), . (period), , (comma), @ (at sign).
Password	Up to 32 alphanumeric characters or the following symbols can be used: _ (underscore), - (hyphen), . (period), , (comma), @ (at sign).
Authority	Normal: View status only (cannot change settings) Admin: Can change settings
Action ([Apply])	Clicking the “Apply” button will add a user account based on the information entered in the top row. If an existing user name is specified, that user’s settings will be overwritten. Please note that if a logged-in user updates their own information, they will be forcibly logged out. Up to 6 users can be added.
Action ([Delete])	Clicking the “Delete” button will display the following dialog: <div data-bbox="475 1585 1182 1848" data-label="Image"> </div> <p>Click [OK] button to delete the user account for the corresponding row. Note: If there is only one Admin user, that user cannot be deleted.</p>

-
- ☞ All settings will be reset after a reboot.
If you want to retain the settings after a reboot, you need to save them
(Refer to “3.12.2 Write memory”).

```
<CLI Command> add user account / show user account / delete  
user account
```

3.7 Line card Settings

3.7.1 Screen view

Clicking “Line Card Settings” on the menu bar will display a page as shown below. Additionally, clicking the tabs numbered 1 to 12 at the top of the main content area will display information for the line card installed in the corresponding slot.

(For slot numbers and their arrangement, refer to Section 1.2.1 Chassis.)

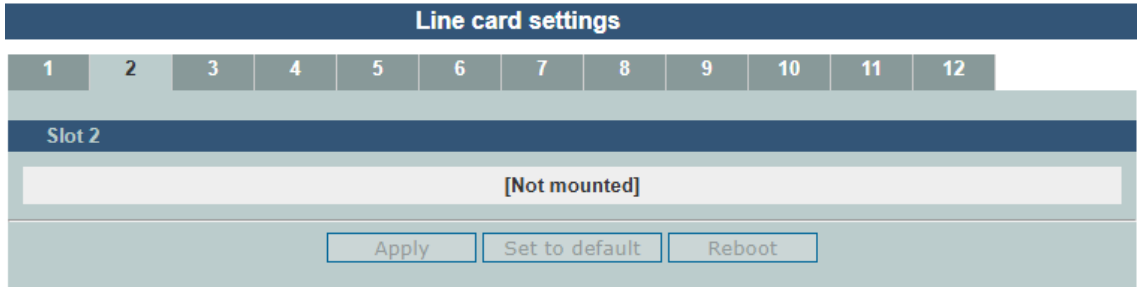
Line card settings											
1	2	3	4	5	6	7	8	9	10	11	12
Slot 1											
Model Name	LEX1851-1F			Transmission method	Switching						
S/N	241A147098			Flooding Mode	<input type="checkbox"/> Enable						
H/W Version	B1A			Adv-Eco Mode	<input type="checkbox"/> Enable						
S/W Version	v2.4										
Port Configuration											
Port 1: UTP				Port 2: SFP (not inserted)							
Active	<input checked="" type="checkbox"/> Enable			Active	<input checked="" type="checkbox"/> Enable						
LFP	<input type="checkbox"/> Forward to Port 2			LFP	<input type="checkbox"/> Forward to Port 1						
Speed configuration	100M Full			Speed configuration	1000BASE-X						
MDI/MDI-X	Auto			Link status	Down						
Link status	Down										
<input type="button" value="Apply"/>				<input type="button" value="Set to default"/>				<input type="button" value="Reboot"/>			

You can also access this page by clicking the line card on the front panel.

<CLI Command> show slot-inform

Empty Slot

If no line card is installed in the slot, the following screen will be displayed.



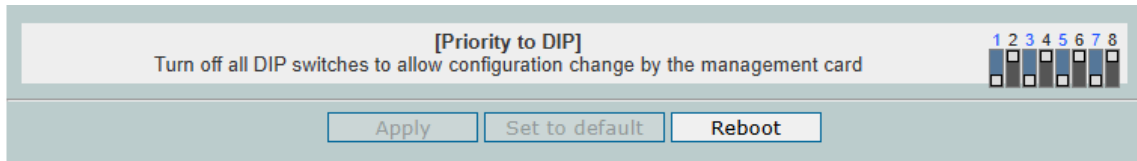
After installing the line card, you can display the slot information by clicking **[Reload]** at the top right of the main content.

DIP Priority Mode

The line card has eight DIP switches on its rear for configuration. If even one of these switches is set to ON (down), the settings via DIP switches take priority.

In DIP Priority Mode, configuration changes from the Management card cannot be applied.

In this case, the following message will be displayed at the bottom of the screen.



- Some line cards do not have DIP Switch Priority Mode. For those with older firmware (v2.1 of the LEX184x and LEX185x series), the DIP switch settings are always ignored when installed in a slot, and the card operates using the default settings or the settings stored internally.

3.7.2 Slot Configuration

This section describes the items displayed and configured in the upper part of the “Line Card Settings” page.

The line card’s device information and operational settings are shown.

Line card settings															
1	2	3	4	5	6	7	8	9	10	11	12				
Slot 1															
Model Name				LEX1851-1F				Transmission method				Switching			
S/N				241A147098				Flooding Mode				<input type="checkbox"/> Enable			
H/W Version				B1A				Adv-Eco Mode				<input type="checkbox"/> Enable			
S/W Version				v2.4											

The following items are displayed in the line card information.

Menu	Description	Example Value
Model Name	Model name	e.g., “LEX1851-1F”
S/N	Serial number	e.g., “127A147001”
H/W Version	Revision	e.g., “A1A”
S/W Version	Firmware version	e.g., “v2.2”
Transmission method	There are two types: Switching:Switching function Repeater:Repeater function	

The following items are displayed for line card operational settings.

For details on the behavior when configuring these settings, refer to “Section 3.7.4 Configuration and Operation Items.”

Menu	Description	Setting Value
Flooding Mode	Displayed only for line cards with the switching function	Enabled / Disabled
Adv-Eco Mode	Power-saving mode	Enabled / Disabled

```
<CLI Command> show slot-inform / device eco-mode / device
flooding-mode
```

3.7.3 Port Configuration

At the bottom of the page, information about the left and right communication ports of the line card is displayed in a table individually as Port 1 and Port 2.

Port Configuration	
Port 1: SFP	
Active	<input checked="" type="checkbox"/> Enable
LFP	<input type="checkbox"/> Forward to Port 2
Speed configuration	1000BASE-X
Loopback Test	<input type="checkbox"/> Enable
Link status	Down
SFP DDM support	No
SFP vendor	FXC Inc.
SFP model	MGB-LX
SFP S/N	8B25100206
Wavelength	1310 nm
Fiber type	SMF
Link length	10 km
Port 2: SFP	
Active	<input checked="" type="checkbox"/> Enable
LFP	<input type="checkbox"/> Forward to Port 1
Speed configuration	1000BASE-X
Loopback Test	<input type="checkbox"/> Enable
Link status	Down
SFP DDM support	Yes
SFP vendor	
SFP model	
SFP S/N	
Wavelength	1310 nm
Fiber type	SMF
Link length	10 km
SFP temperature	292.000°C
SFP Tx power	-7.366 dBm
SFP Rx power	-2.529 dBm

The following port types are displayed in the table.

Port Type	Description
UTP	Indicates UTP port.
SFP(not inserted)	It indicates a port that supports SFP installation. It shows the state where no SFP module is inserted.
SFP	It indicates a port that supports SFP installation. It shows the state where an SFP module is inserted.
Optical SC Single	It indicates SC single-fiber optical port.
Optical SC Dual	It indicates SC dual-fiber optical port.
Unknown optic	This may be displayed when using an older version of the line card in which the fiber port type cannot be identified.

Additionally, the front panel displays different port diagrams depending on the port type.

The items displaying port operational status and specifications vary by port type, as shown in the table below.

Menu	Description	Display by Port Type		
		UTP	SC Single SC Dual	SFP
Link Status	Up / Down	●	●	●
Connection Speed	Communication rate and duplex mode (full/half)	●	●	●
Optical Wavelength	[nm]		●	○
Supported Fiber	Type of optical fiber, e.g., MMF, SMF		●	○
Link Length	Fiber link distance [m/km]		●	○
SFP DDM Support	Whether the SFP has DDM functionality			○
SFP Vendor				○
SFPModel				○
SFP S/N				○
SFP Temperature	Internal temperature [°C]			◎
SFP Tx Power	Transmit optical power [dBm]			◎
SFP Rx Power	Receive optical power [dBm]			◎

- ...Always displayed
- ...Displayed only when an SFP is installed
- ◎ ...Displayed only when an SFP with DDM (Digital Diagnostic Monitoring) support

Similarly, the items displayed for port operational settings vary depending on the port type, as shown in the table below.

For details on the behavior when configuring these settings, refer to Section 3.7.4 “Description of Configuration Items”.

Menu	Description	Settings by Port Type		
		UTP	SC Single SC Dual	SFP
Port Enable		Enabled/ Disabled	Enabled/ Disabled	Enabled/ Disabled
LFP (Link-Down Forwarding)		Enabled/ Disabled	Enabled/ Disabled	Enabled/ Disabled
Communication Speed Settings		Auto-Nego 10M Half 10M Full 100M Half 100M Full 1000M Full	100BASE-FX 1000BASE-X (Only one of the two)	Auto 100BASE-FX 1000BASE-X
MDI / MDI-X	Displayed only for UTP ports	Auto MDI MDI-X		
FEF	Displayed only for line cards supporting 100M		Enabled/ Disabled	Enabled/ Disabled
Loopback Test	Displayed only for line cards with two SFP ports			Enabled/ Disabled

3.7.4 Description of Configuration Items

Logging in as an Admin user allows you to modify and operate the line card settings.

This section explains the operational settings and configurable items of the line card.

Since line card settings are stored internally on the line card itself, the settings will be retained even if the card is installed in a different slot. Because these settings are not normally saved on the main unit, inserting a different line card will require reconfiguration. By saving the settings to the main unit, reconfiguration can be avoided.

For details, refer to “3.12.2 Write memory”.

When the line card is in DIP Priority Mode, operational settings cannot be changed. To modify settings from the Management card, ensure that all DIP switches on the line card are set to OFF before installing the card.

Device Settings

Flooding Mode

[Setting Value] Enabled / Disabled

This setting is available only for line cards with the switching function.

For line cards using the switching transmission mode, the card normally (when Flooding Mode is disabled) learns MAC addresses and determines whether to forward frames received on one port to the other port based on the internal MAC address table.

When Flooding Mode is enabled, the MAC address learning function is disabled, and frames received on one port are always flooded (forwarded) to the other port.

```
<CLI Command> device flooding-mode
```

Advanced Eco Mode

[Setting Value] Enabled / Disabled

When enabled, some of the front-panel LEDs on the line card are turned off. Except for the PWR LED, the LEDs light up for 5 seconds only once every 3 minutes, and will turn on again only when there is a change in the communication status.

This allows for approximately a 10% reduction in power consumption.

<CLI Command> `device eco-mode`

Port Settings

Port Enable

[Setting Value] Enabled / Disabled (Port 1, Port 2)

When enabled, the port operates normally.

When disabled, the port stops functioning and communication is not possible.

```
<CLI Command> device active / fiber port-active /  
                fiber port-1 active / fiber port-2 active /  
                utp port-active
```

LFP (Link Fault Pass-through)

[Setting Value] Enabled / Disabled (Forward to Port 1, Forward to Port 2)

This setting configures LFP (Link Fault Pass-through).

When set to Forward to Port 2, if a link down occurs on Port 1, the output on Port 2 is disabled.

When set to Forward to Port 1, if a link down occurs on Port 2, the output on Port 1 is disabled.

By enabling LFP on both interconnected line cards, link-down detection at the connected terminals becomes possible.

```
<CLI Command> fiber lfp
```

Speed Configuration

[Setting Values (UTP)] Auto-Nego, 10M Half, 10M Full, 100M Half, 100M Full, 1000M Full

[Setting Values (Fiber)] Auto, 100BASE-FX, 1000BASE-X

Configures the port communication speed.

For UTP ports, the port operates according to the specifications defined for 10BASE-T, 100BASE-TX, or 1000BASE-T corresponding to the selected setting.

For fiber ports, this setting is available only on line cards equipped with two SFP ports. When the speed setting of one port is changed, the other port is automatically set to the same value.

```
<CLI Command> fiber speed / utp speed
```

MDI / MDI-X

[Setting Values] Auto, MDI, MDI-X

Configures the MDI mode of the UTP port. This function is available only on UTP ports.

When set to Auto, the port uses Auto MDI/MDI-X to automatically detect whether a straight-through or crossover cable is connected.

To fix the mode, change the setting to **MDI** or **MDI-X** as required.

<CLI Command> utp mdix

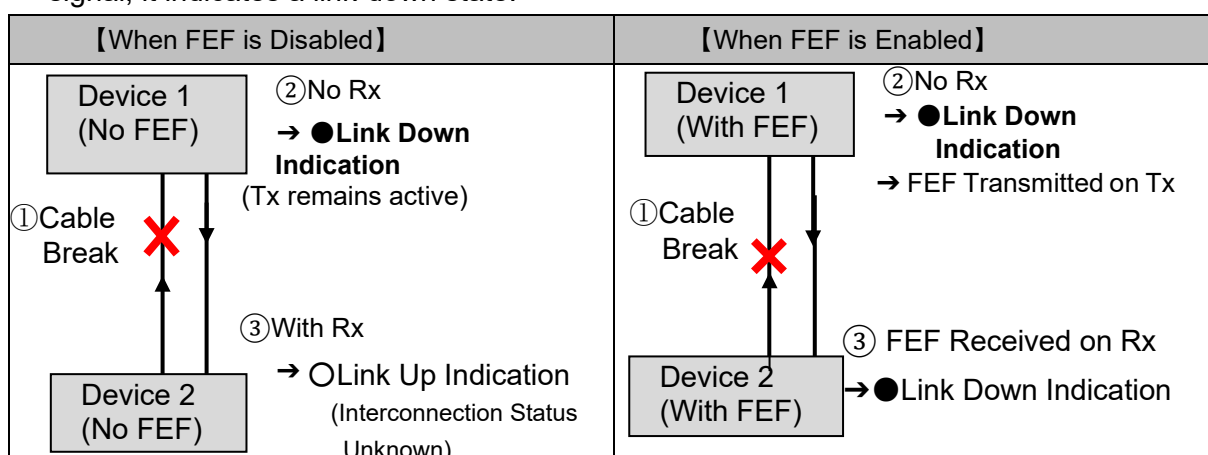
FEF

[Setting Values] Enabled / Disabled

Configures the Far End Fault (FEF) transmission and detection function. This feature is available only on fiber ports of modules that support 100BASE-FX.

In a typical 100BASE-FX connection, a link-up state is indicated whenever the received optical power is sufficient. Therefore, even if the transmit optical path is disconnected, it is not possible to determine whether communication with the peer line card is actually established.

When FEF is enabled on both connected devices, a FEF signal is transmitted if the received optical power at the fiber port is low. If the peer device receives this FEF signal, it indicates a link-down state.



For 1000BASE-X modules, the establishment of mutual communication can be determined through auto-negotiation; therefore, the FEF function is not available.

<CLI Command> fiber fef

Loopback Test

[Setting] Enabled / Disabled (Port 1, Port 2)

Performs a loopback test on the fiber port. This function can only be configured on line cards with two SFP ports.

When the loopback test function is enabled, the Rx signal of the specified SFP port is directly transmitted back as the Tx signal.

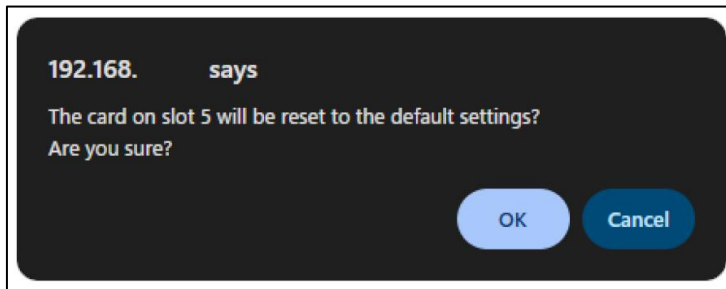
```
<CLI Command> fiber port-1 loop-back-test /  
                fiber port-2 loop-back-test
```

Line Card Operation

Set to default

Restores the settings saved inside the line card to the factory default state.

Clicking [**Set to default**] at the bottom of the page will display the following dialog.



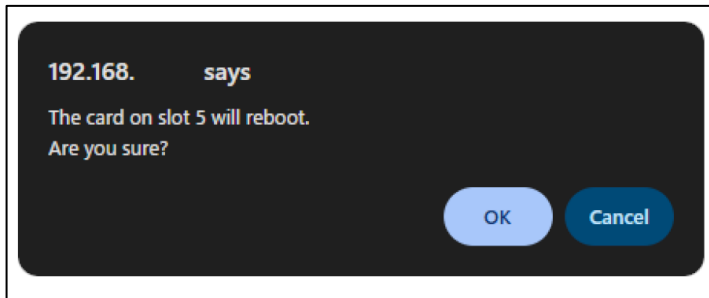
Clicking [**OK**] button will overwrite the settings with the following default values for each type of line card.

Menu	Default setting value		
	UTP-Fiber Type	SFP-SFP Type	SFP-SFP Type (10G)
Flooding Mode	Disabled	(None)	(None)
Adv-Eco Mode	Disabled	Disabled	Disabled
Active	Both Ports: Enabled	Both Ports: Enabled	Both Ports: Enabled
LFP (Link Fault Pass-through)	Both Ports: Disabled	Both Ports: Disabled	Both Ports: Disabled
Speed configuration	UTP: Auto-Nego Fiber: (Not Configurable)	1000M	10G
MDI / MDI-X	Auto	(None)	(None)
FEF	Enable	(None)	(None)
Loopback	(None)	Disabled	Disabled

```
<CLI Command> reset (slot-if mode)
```

Reboot

Clicking **[Reboot]** at the bottom of the page will display the following dialog.



Clicking **[OK]** will reboot the line card. The operational settings will be retained after the Reboot.

```
<CLI Command> reboot (slot-if mode)
```

3.8 Hardware Monitor

Management card is equipped with hardware monitors such as voltage sensors, fan rotation sensors, and temperature sensors, allowing these values to be monitored in real time.

Clicking “**Monitor**” on the menu bar will display the following screen.

Monitor			
H/W Monitor	Alarm LED	Syslog dump	Syslog setting
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div>			
Power modules			
	Power module Slot #1	Power module Slot #2	Regulator on board
Type	--	DC	-
Voltage	0.000 V	5.016 V	3.330 V
Status	(Empty)	Insert / OK	Insert / OK
Temperature			
	Left	Center	Right
Temperature	29.7 °C	32.2 °C	32.7 °C
Fan modules			
	Fan #1	Fan #2	
RPM	8925 RPM (OK)	8985 RPM (OK)	

The items to be displayed are described below.

Item	Description	
Power Supply Unit	Type	For each Power Supply Unit #1 and #2, either “DC” or “AC”.
	Voltage	The voltage value [V] of Power Supply Unit #1, #2, and the internal regulator
	Status:	If not installed, display “(Empty)”. If installed, display “Insert” and evaluate the voltage as follows: Power Supply #1, #2: “OK” if within 5 V ± 5%; otherwise “NG” Regulator: “OK” if within 3.3 V ± 5%; otherwise “NG”
Internal Temperature	The temperatures of the three sensors located on the backplane inside the chassis (left, right, and center). If the temperature reaches 80 °C or higher, “Overheat” is displayed.	
Fan Unit	The rotational speeds of Fan #1 and #2. If the speed is 500 RPM or below, “NG” is displayed; otherwise, “OK”.	

<CLI Command> hardware-monitor

3.9 Alarm LED

In this system, the chassis is equipped with three alarm LEDs (**Critical**, **Major**, **Minor**), and Management card has two alarm LEDs (**ALM1**, **ALM2**).

By logging in as an Admin user, you can change the conditions under which these LEDs light up.

3.9.1 How to configure the alarm LED

The alarm settings can be changed using the following steps.

- (1) Clicking “Alarm LED” on the menu bar will display the following screen.

Monitor				
H/W Monitor	Alarm LED	Syslog dump	Syslog setting	
Alarm LED status				
Chassis LED			Management Card Alarm LED	
Critical	Major	Minor	ALM1	ALM2
OFF	OFF	OFF	OFF	OFF
Alarm LED Settings				
Event	Chassis LED		Management Card Alarm	
1. Power #1 failure	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
2. Power #2 failure	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
3. Fan 1 failure	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
4. Fan 2 failure	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
5. Overheat	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
6. UTP Link Down (on any line card)	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
7. Fiber Link Down (on any line card)	Disable		<input type="checkbox"/> ALM1	<input type="checkbox"/> ALM2
Apply				

- (2) When configuring the chassis alarm, select the level for each of the seven event conditions from the dropdown menu below.

Level setting	Description
Critical	Assignment to Critical Alarm LED
Major	Assignment to Major Alarm LED
Minor	Assignment to Minor Alarm LED
Disabled	No Assignment

- (3) When configuring Management card alarm, select the event conditions that trigger the LED by using the checkboxes.
- (4) Clicking the **[Apply]** button will apply all changes to the settings of the five alarm LEDs.

<CLI Command> alarm-chassis-led / alarm-nmc-led

3.9.2 Alarm Specification

Each alarm can detect the following seven types of events.

The detection thresholds for these events are the same as those described in Section 3.8 “Hardware Monitor”.

Event Condition Name	Description
1. Power #1 failure	Lights up when the voltage is outside the range of 5 V ± 5%.
2. Power #2 failure	
3. Fan 1 failure	Lights up when the rotation speed falls below 500 RPM.
4. Fan 2 failure	
5. Overheat	Lights up when the temperature at any of the three locations on the backboard inside the chassis (left, right, or center) reaches 80°C or higher.
6. UTP Link Down (on any line card)	Lights up when any UTP port on any line card installed in the slot occurs a link down.
7. Fiber Link Down (on any line card)	Lights up when any fiber port on any line card installed in the slot occurs a link down. (For SFP-SFP modules, lights up when any one port occurs a link down.)

In addition, the setting methods for the Management card and chassis alarms are different as follows:

Alarm type	Method
Chassis LEDs Minor/Major/Critical	A method of setting the level of each event condition. When one of the conditions is met, the LED of that level lights up.
Management Card LEDs ALM #1/#2	A method of selecting the event condition that the LED lights up. LED lights up when one of the conditions is met.

- ☞ All settings are reset after a system Reboot.
To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

3.10 Syslog

Syslog is a function that retains records of the system's operating status as log messages.

In general, Syslog classifies logs by specifying a Facility and a Severity for each log message corresponding to events that occur during system operation.

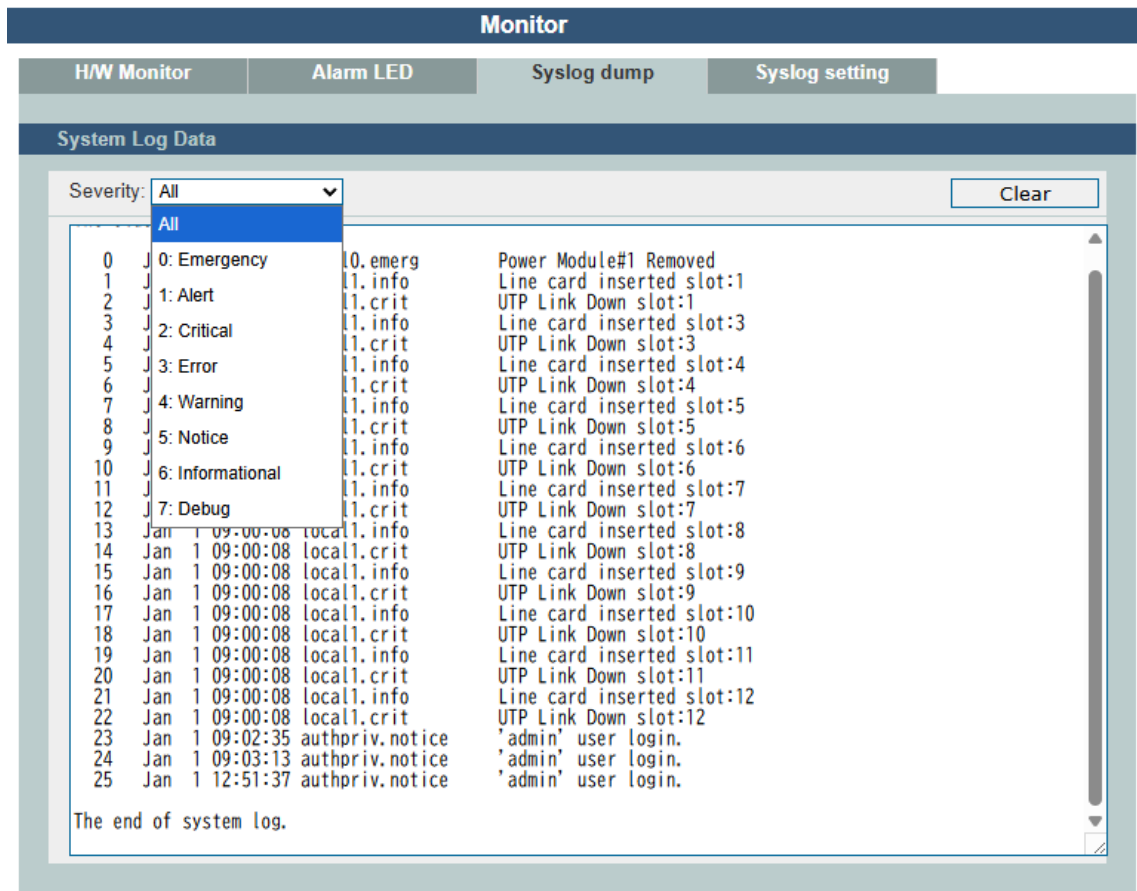
Values from 0 to 23 are assigned to Facility, and values from 0 to 7 are assigned to Severity, each having the meanings shown in the table below.

Facility (Log Type)	Severity Level
0: kern (Kernel messages)	7: Debug (Debug)
1: user (User-level messages)	6: Info (Information)
2: mail (Mail system)	5: Notice (Important)
3: daemon (System daemons)	4: Warn (Warning)
4: auth (Authentication messages)	3: Error (Error condition)
5: syslog (Internal messages of the Syslog daemon)	2: Critical (Critical condition)
6: lpr (Line printer system)	1: Alert (Requires immediate action)
7: news (Network news system)	0: Emerg (System unstable condition)
8: uucp (UUCP system)	
9: clock (Clock daemon)	
10: authpriv (Authentication messages)	
11: ftp (FTP daemon)	
12: NTP (NTP subsystem)	
13: log audit	
14: log alert	
15: cron (Cron daemon)	
16: local0 (Local use 0)	
17: local1 (Local use 1)	
18: local2 (Local use 2)	
19: local3 (Local use 3)	
20: local4 (Local use 4)	
21: local5 (Local use 5)	
22: local6 (Local use 6)	
23: local7 (Local use 7)	

Management card records log messages to Syslog when predefined system events occur. The Facility and Severity of each log message can be specified individually for each event. In addition, Log messages can also be sent to an external remote host via the network.

3.10.1 Syslog dump

Clicking “Syslog dump” on the menu bar will display the most recently recorded Syslog events.



By selecting a “Severity” from the dropdown menu, you can display logs filtered by each Severity level.

Clicking the [Clear] button will erase all logs.

All logs are also cleared upon system reboot.

```
<CLI Command> show syslog / show syslog level / clear syslog
```

3.10.2 Syslog setting

Management card allows Syslog log messages to be forwarded to external remote hosts over the network.

Up to eight remote hosts can be registered.

By logging in as the Admin user, you can configure forwarding to external remote hosts. The procedure is described below.

- (1) Clicking “**Syslog settings**” on the menu bar will display the following screen.

Syslog Server Settings			
Activation: <input type="text" value="Disable"/>			
No.	IP : Port	No.	IP : Port
01	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>	05	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>
02	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>	06	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>
03	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>	07	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>
04	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>	08	<input type="text" value="0.0.0.0"/> : <input type="text" value="514"/>

- (2) Enter the IP address and port number (514/UDP or any port between 1024 and 65535/UDP) in the “Server ID: Port Number” field for the desired No.
- (3) Enable the “Server Forwarding” option.
- (4) Click [**Apply**] button at the bottom of the page to apply the settings
 - ☞ All settings are reset after a system reboot.
To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

```
<CLI Command> show syslog-server / syslog-server /  
                syslog-server id /no syslog-server id
```

3.10.3 Syslog event

Management card can record Syslog messages for the 17 types of events shown in the table below, and you can specify the Severity and Facility for each event. The conditions for detecting each event are the same as those described in Section 3.8 “Hardware Monitor,” Section 3.9 “Alarm LEDs,” and Section 3.11.4 “Trap Event Settings.”

The procedure for setting up Syslog events is shown below.

Event	Facility	Severity
01. Power removed	0: kern (Kernel messages)	Warning
02. Power inserted	1: user (User-level messages)	Warning
03. Power voltage failed	2: mail (Mail system)	Warning
04. Fan unit failed	3: daemon (System daemons)	Warning
05. Fan unit recovered	4: auth (Security/authorization messages)	Warning
06. UTP link down	5: syslog (Messages generated internally by syslogd)	Warning
07. UTP link up	6: lpr (Line printer subsystem)	Warning
08. Fiber link down	7: news (Network news subsystem)	Warning
09. Fiber link up	8: uucp (UUCP subsystem)	Warning
10. SFP removed	9: Clock daemon	Warning
11. SFP inserted	10: authpriv (Security/authorization messages)	Warning
12. Line card removed	11: ftp (FTP daemon)	Warning
13. Line card inserted	12: NTP subsystem	Warning
14. Alarm config change	13: Log audit	Warning
15. Login	14: Log alert	Warning
16. Login Error	15: cron (Clock daemon)	Warning
17. Logout	16: local0 (Local use 0)	Warning
	17: local1 (Local use 1)	Warning
	18: local2 (Local use 2)	Warning
	19: local3 (Local use 3)	Warning
	10: authpriv (Security/authorization messages)	5: Notice

Apply

- (1) Clicking “Syslog Settings” on the menu bar will display the following screen. For each event, select the Facility and Severity from the dropdown menus. Please refer to the table below for the facility and severity of Syslog event names.
- (2) Click [Apply] button at the bottom of the page to apply the settings.
 - ☞ All settings are reset after a system reboot. To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory” .)

Syslog event name	Description	Default Value	
		Facility	Severity
01. Power removed	Issued when any power supply unit is removed.	16: local0	0: Emergency
02. Power inserted	Issued when any power supply unit is installed.	16: local0	6: Info
03. Power voltage failed	Issued when the voltage of any power supply unit goes outside 5 V \pm 5%.	16: local0	0: Emergency
04. Fan unit failed	Issued when the fan speed drops below 500 RPM.	16: local0	0: Emergency
05. Fan unit recovered	Issued when the fan speed exceeds 500 RPM.	16: local0	6: Info
06. UTP Port Link Down	Issued when any UTP port on any installed line card goes down.	17: local1	2: Critical
07. UTP Port Link Up	Issued when any UTP port on any line card comes up.	17: local1	6: Info
08. Fiber Port Link Down	Issued when any fiber (SFP) port on any line card goes down.	17: local1	2: Critical
09. Fiber Port Link Up	Issued when any fiber (SFP) port on any line card comes up.	17: local1	6: Info
10. SFP Removed	Issued when an SFP module is removed from any line card.	17: local1	2: Critical
11. SFP Installed	Issued when an SFP module is installed in any line card.	17: local1	6: Info
12. Line Card Removed	Issued when a line card is removed from any slot.	17: local1	2: Critical
13. Line Card Installed	Issued when a line card is installed in any slot.	17: local1	6: Info
14. Alarm config change	Issued when the alarm LED settings are changed.	10: authpriv	4: Warning
15. Login	Issued when logging in via CLI or Web browser.	10: authpriv	5: Notice
16. Login Error	Issued when a login error occurs via CLI or Web browser.	10: authpriv	5: Notice
17. Logout	Issued when logging out via CLI or Web browser.	10: authpriv	5: Notice

<CLI Command> show syslog item / syslog-item

3.11 SNMP system

SNMP (Simple Network Management Protocol) is a communication protocol used for managing devices on a network. It is generally used for monitoring and configuring network devices or computers over a network.

Management card is equipped with an agent that supports SNMP versions 1 and 2c, allowing for status monitoring and configuration changes.

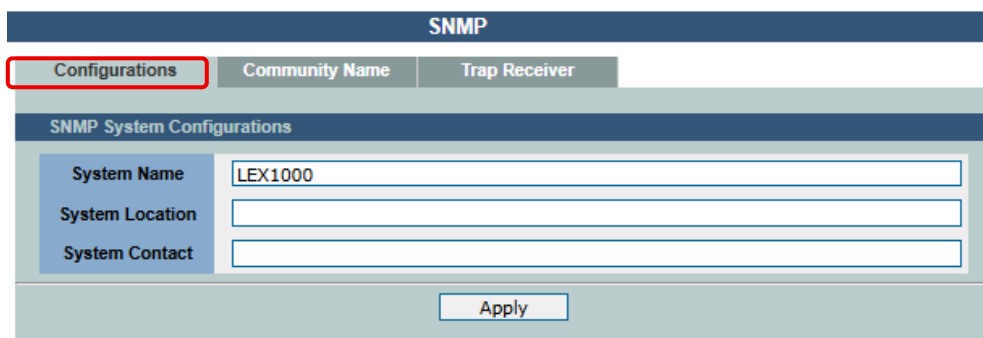
By using SNMP-compatible network management software on an SNMP manager, you can access this information. Access rights are configured via the community name.

To monitor the status of management items or make configuration changes from an SNMP manager, a separate private MIB definition file is required.

For a list of private MIB objects, please refer to Appendix “**A.1 Private MIB List**”. SNMP settings and operations can be performed by logging in as the Admin user.

3.11.1 Configurations

Clicking “**Configurations**” on the menu bar will display the following screen.



The screenshot shows a web interface for SNMP configurations. At the top, there is a dark blue header with the text "SNMP". Below the header, there are three tabs: "Configurations" (which is highlighted with a red border), "Community Name", and "Trap Receiver". The main content area is titled "SNMP System Configurations" and contains three input fields: "System Name" (with the value "LEX1000"), "System Location", and "System Contact". Below these fields is an "Apply" button.

By logging in as the Admin user, you can configure the following items. After entering the values, Click [**Apply**] button to update the settings.

Menu	Description
System Name (sysName)	Up to 64 alphanumeric characters or the symbols “_” (underscore), “-” (hyphen), “.” (period), “,” (comma), and “@” (at sign) can be used. The value set here is reflected in the MIB object sysName . At the same time, the host name and CLI prompt are also set to the same string.
System Location (sysLocation)	Up to 64 alphanumeric characters or the symbols “_” (underscore), “-” (hyphen), “.” (period), “,” (comma), and “@” (at sign) can be used. The value set here is reflected in the MIB object sysLocation .
System Contact (sysContact)	Up to 64 alphanumeric characters or the symbols “_” (underscore), “-” (hyphen), “.” (period), “,” (comma), and “@” (at sign) can be used. The value set here is reflected in the MIB object sysContact .

- ☞ All settings are reset after a system reboot. To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

```
<CLI Command>show snmp / snmp system-name /  
                snmp system-location / snmp system-contact /  
                no snmp system-name /  
                no snmp system-location /  
                no snmp system-contact
```

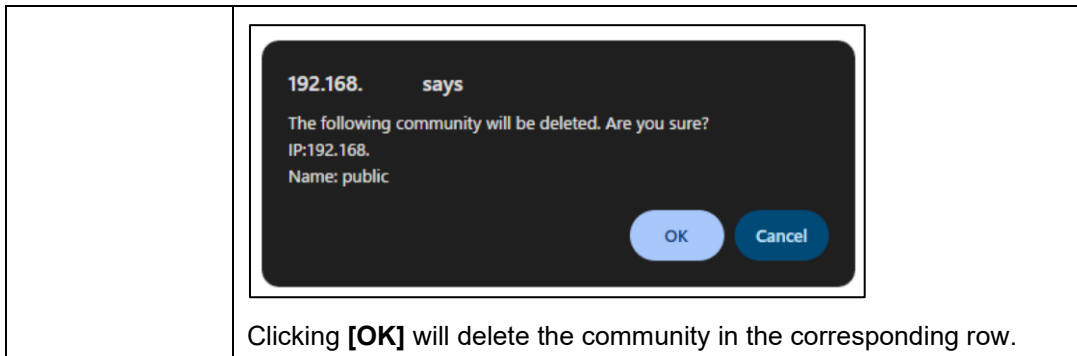
3.11.2 Community Name

In SNMP management, setting up a community for authentication is required. Management card allows you to configure up to eight community names. All community names used by the trap manager must also be registered here.

Clicking “Community Name” on the menu bar will display the following screen.

SNMP				
Configurations Community Name Trap Receiver				
SNMP Community Name Lists				
No.	IP Address / Prefix	Community String	Rights	Action
*	0.0.0.0/32	public	Read-Only	Apply
1	192.168. .120	TestFXC	Read/Write	Delete

Menu	Description
No.	Clicking the number link makes the corresponding row editable.
IP Address / Prefix	Register the IP address to which the SNMP community belongs. You can enter either a single address or a network address (e.g., 192.168.1.0/24). If the network address is invalid, a warning will be displayed, and the address will be converted and set using the prefix length as a mask.
Community String	Up to 64 alphanumeric characters or the symbols “_” (underscore), “-” (hyphen), and “.” (period) can be used.
Rights	Select one of the following from the dropdown menu: Read-Only: Access is limited to reading only. The SNMP manager can only retrieve MIB objects. Read/Write: Access allows both reading and writing. The SNMP manager can retrieve and modify MIB objects.
Action ([Apply])	Clicking the button registers the Community IP, Community Name, and Access Rights entered in the top row. If a community with the same IP and name already exists, the Access Rights of that community will be updated. A maximum of 8 communities can be registered.
Action ([Delete])	Clicking the button will display the following dialog.



- ☞ All settings are reset after a system reboot. To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

```
<CLI Command>show snmp / snmp community /  
no snmp community
```

3.11.3 Trap Receiver

Management card can send traps when specific event conditions occur. To enable this function, you must specify the trap manager that will receive the traps.

Clicking “Trap Receiver” on the menu bar will display the following screen.

By logging in as the Admin user, you can perform the following operations in each form shown within the “**SNMP Trap Manager List.**”

Menu	Description
No.	Clicking the number link makes the corresponding row editable.
IP Address	The IP address of the trap manager.
Port	The TCP/IP port number of the trap manager (1024–65535). If left blank, it will be set to 162/UDP (well-known port).
Version	Select either SNMP version v1 or v2c from the dropdown menu.
Community String	Enter the community name to which the trap manager belongs. This must be registered in advance following the procedure described in section 3.11.2.
Action ([Apply])	Clicking this button adds a trap manager using the IP Address, Port, Version, and Community Name entered in the top row. If a trap manager with the same IP address is already registered, the

	<p>Port and Version of the existing row will be updated.</p> <p>Up to 8 trap managers can be registered.</p>
<p>Action ([Delete])</p>	<p>Clicking the button will display the following dialog.</p> <div data-bbox="518 416 1125 640" style="border: 1px solid black; padding: 10px; background-color: #333; color: #fff; text-align: center;"> <p>192.168. says</p> <p>The following receiver will be deleted. Are you sure?</p> <p>IP:192.168.</p> <p>OK Cancel</p> </div> <p>Clicking [OK] will delete the trap manager in the corresponding row.</p>

- ☞ All settings are reset after a system reboot. To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

3.11.4 Trap Notification Settings (Trap event)

Management card provides 20 event conditions that can be used to generate traps, and you can individually specify whether or not to issue a trap for each condition.

The detection conditions for each event are the same as those described in Section 3.8 “Hardware Monitor,” Section 3.9 “Alarm LEDs,” and Section 3.10.3 “Syslog event.”

No.	Trap Event Name	Description
1	Power 1 removed	Issued when the power module is removed from power slot #1.
2	Power 1 inserted	Issued when the power module is installed in power slot #1.
3	Power 2 removed	Issued when the power module is removed from power slot #2.
4	Power 2 inserted	Issued when the power module is installed in power slot #2.
5	Power 1 voltage failed	Issued when the voltage of power unit #1 deviates from $5\text{ V} \pm 5\%$.
6	Power 2 voltage failed	Issued when the voltage of power unit #2 deviates from $5\text{ V} \pm 5\%$.
7	Fan unit failed	Issued when the rotation speed drops to 500 RPM or below.
8	Fan unit recovered	Issued when the rotation speed rises above 500 RPM.
9	UTP link down	Issued when any installed line card's UTP port goes link-down.
10	UTP link up	Issued when any installed line card's UTP port goes link-up.
11	Fiber link down	Issued when any line card's fiber (SFP) port goes link-down.
12	Fiber link up	Issued when any line card's fiber (SFP) port goes link-up.
13	SFP removed	Issued when an SFP module is removed from any line card.
14	SFP inserted	Issued when an SFP module is installed in any line card.
15	Line card removed	Issued when a line card is removed from any slot.

16	Line card inserted	Issued when a line card is installed in any slot.
17	Alarm config change	Issued when the Alarm LED settings are modified.
18	Login	Issued when logging in via CLI or Web browser.
19	Login Error	Issued when a login error occurs via CLI or Web browser.
20	Logout	Issued when logging out via CLI or Web browser.

You can select these items using the following procedure:

- (1) Click “ Trap Receiver” on the menu bar.
- (2) In the “SNMP Trap Receiver Lists” section, select the checkboxes for the event conditions for which you want traps to be generated.

The screenshot shows the SNMP configuration interface. At the top, there is a dark blue header with the text "SNMP". Below this, there are three tabs: "Configurations", "Community Name", and "Trap Receiver", with the "Trap Receiver" tab highlighted in red. The main content area is divided into two sections. The first section, "SNMP Trap Receiver Lists", contains a table with the following columns: "No.", "IP Address", "Port", "Version", "Community String", and "Action". The table has one row with the following values: "1", "0.0.0.0", "162", "v2c", "public", and "Apply". The second section, "SNMP Notification Settings", contains a list of 20 notification events, each with a checkbox. The first checkbox, "01. Power 1 removed", is checked. The other checkboxes are unchecked. The events are: 01. Power 1 removed, 02. Power 1 inserted, 03. Power 2 removed, 04. Power 2 inserted, 05. Power 1 voltage failed, 06. Power 2 voltage failed, 07. Fan unit failed, 08. Fan unit recovered, 09. UTP link down, 10. UTP link up, 11. Fiber link down, 12. Fiber link up, 13. SFP removed, 14. SFP inserted, 15. Line card removed, 16. Line card inserted, 17. Alarm config change, 18. Login, 19. Login Error, 20. Logout. At the bottom right of this section, there is a "Select All" checkbox and an "Apply" button.

- (3) Click [Apply] button to apply the settings.

☞ All settings are reset after a system reboot. To retain the settings after a reboot, they must be saved (see “3.12.2 Write memory”).

```
<CLI Command> show snmp trap-config / snmp trap-id
```

3.12 Configuration manager

This section describes how to manage the configuration settings stored in the unit.

3.12.1 list of configuration values

Clicking "Configuration Manager" on the menu bar will display the following screen.

The screenshot displays the Configuration Manager interface. At the top, there is a "Maintenance" header with three tabs: "Configuration manager" (highlighted with a red box), "Firmware", and "Reboot". Below the tabs, a "Show:" dropdown menu is set to "running-config", with a list of options: "running-config", "slot-config", and "startup-config". The main area shows a list of configuration commands in a monospaced font, including hostnames, interfaces, IP addresses, and SNMP settings. At the bottom, there are two sections: "Save" and "Load". The "Save" section has options for "Write memory" (selected) and "Upload an external file", and a "Contents" section with "Including slot-config" (unchecked). The "Load" section has options for "Reload default config" (selected) and "Download from an external file", and a "Contents" section with "Including IP change" (checked). A "Load" button is visible at the bottom right of the "Load" section.

The list of configuration values is displayed in a syntax that can be entered via CLI commands.

The list is shown in the table below, and you can select the menu using the dropdown box labeled "Show."

Menu	Description
running-config	Displays the current configuration values. If they have not been saved to non-volatile memory, they will be lost upon reboot.
slot-config	Displays the current configuration values related to the line card.
startup-config	Displays the configuration values that will be applied at reboot. By performing the Write memory described in the next section, these values will match the current configuration.

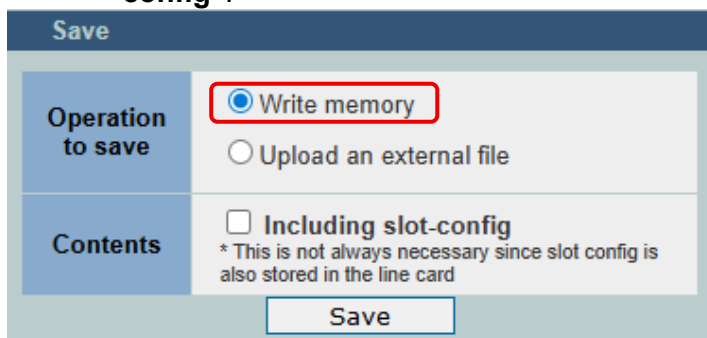
<CLI Command>show running-config / show slot-config /
show startup-config

3.12.2 Write memory

When the configuration values of Management card are changed, those operating settings will be lost if Management card is rebooted due to a power outage or any other reason. If you want the same configuration values to be applied at the next startup, you need to save the settings to the non-volatile memory built into Management card.

Follow the steps below to save Management card configuration values to its built-in non-volatile memory.

- (1) Click “Configuration manager” on the menu bar.
- (2) In the “Save” section, select “Write memory” under “Operation to save”.
 - ☞ If you also want to save the slot configuration, check “**Including slot-config**”.



Save	
Operation to save	<input checked="" type="radio"/> Write memory <input type="radio"/> Upload an external file
Contents	<input type="checkbox"/> Including slot-config <small>* This is not always necessary since slot config is also stored in the line card</small>
<input type="button" value="Save"/>	

- (3) Clicking the “Save” button saves the settings to non-volatile memory and displays the startup-config.

```
<CLI Command> write memory [with slot]
```

☞ About “Including slot-config”

Normally, slot-related settings are stored internally within the inserted line card itself, so it is not necessary to save them. However, if you save with “Including slot-config” checked, the settings are stored in Management card and applied to the Line Cards each time Management card starts up.

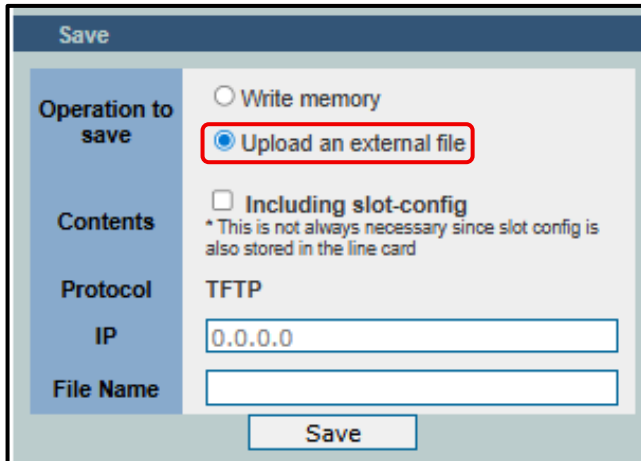
By inserting a different line card into the slot and rebooting Management card, the settings are carried over to the new line card without having to configure it again.

This feature corresponds to each slot number, so if the card is moved to a different slot or removed from the slot, the settings will not be applied and an error will occur during startup configuration (recorded in the syslog). Similarly, if the type of line card is different, commands that are not supported on that model may result in errors.

3.12.3 Upload an external file

You can save Management card running-config (current configuration values) to an external remote host using the following procedure.

- (1) Click “Configuration manager” on the menu bar to display the following screen.



The screenshot shows a 'Save' dialog box with the following fields and options:

- Operation to save:** Radio buttons for 'Write memory' and 'Upload an external file'. The 'Upload an external file' option is selected and highlighted with a red box.
- Contents:** A checkbox for 'Including slot-config' is unchecked. Below it, a note states: '* This is not always necessary since slot config is also stored in the line card'.
- Protocol:** A dropdown menu is set to 'TFTP'.
- IP:** A text input field contains '0.0.0.0'.
- File Name:** An empty text input field.
- Save:** A button at the bottom center.

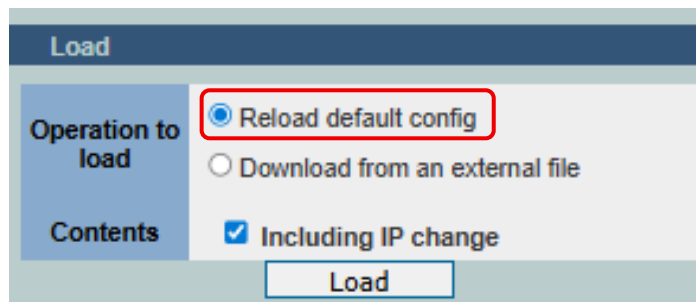
- (2) In the “Operation to save” field, select “Upload an external file”.
☞ To include slot settings, check the “**Including slot-config**”.
- (3) Enter the IP address of the remote host where the settings will be saved in IP (the FTP server on the remote host must be running).
- (4) Enter the full path and file name you want to save on the remote host in File Name.
- (5) When you Click [Save] button, the file will be transferred to the remote host using the file name you entered.

<CLI Command> archive upload-config [with slot]

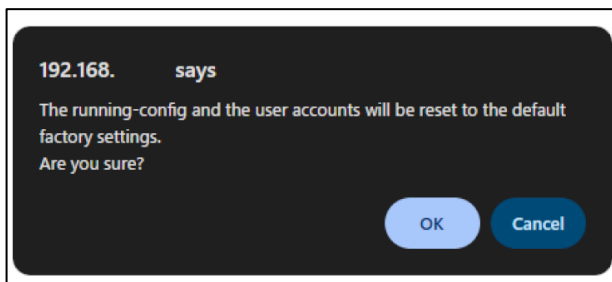
3.12.4 Reload default config

You can restore the current configuration to the factory default settings by following the steps below.

- (1) “Configuration manager” on the menu bar.
- (2) In the “Operation to Load” field select “Reload default config”.



- (3) To restore the IP address to the factory default value as well, check “Including IP change” (please note that if the current IP address differs from the factory default setting, access may become unavailable immediately after the setting is applied).
- (4) When you Click “Load” button, a confirmation dialog will appear.



- (5) Click **[OK]** to restore the factory default settings, and the running-config will be displayed.
- (6) To save the settings internally, please perform the procedure described in “Section 3.12.2 Write memory”.

```
<CLI Command> reload default
```

The factory default settings are shown below.

Menu	Default Value (factory default settings)
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.254
User Account	User Name : admin Password : admin
Hostname	LEX1000
Time Settings	2014/1/1 09:00:00(JST+9:00)
Alarm Settings	All Disabled
SNMP Settings	All Disable
Syslog Settings	As shown in "3.10.3 Syslog event"
CLI Auto Logout	never

3.12.5 Download from an external file

A configuration file can be loaded from a remote host outside Management card and apply its contents.

A configuration file written in CLI command syntax should be prepared in advance.

<Example of a Configuration File>

```
hostname LEX1000
alarm-chassis-led chassis-power-1 critical
alarm-chassis-led chassis-overheat major
time auto-receive-time enable
time timezone operator + hour 09 min 00 JST
time ntp-server 210.173.160.27
interface eth0
ip address 192.168.1.101/24
ip address default-gateway 192.168.1.1
!
```

You can apply an external configuration file to the system by following the steps below.

- (1) Click “Configuration manager” from the menu bar.
- (2) In the “Operation to Load” field, select “Download from external file (archive download-config).”

Load	
Operation to load	<input type="radio"/> Reload default config <input checked="" type="radio"/> Download from an external file
Contents	<input checked="" type="checkbox"/> Including IP change
Protocol	<input checked="" type="radio"/> HTTP <input type="radio"/> TFTP <input type="radio"/> FTP
File	<input type="button" value="Choose File"/> No file chosen
<input type="button" value="Load"/>	

☞ To restore the IP address to the factory default value as well, check “Including IP change” (please note that if the current IP address differs from the factory default setting, access may become unavailable immediately after the setting is applied).

- (3) From the “Protocol” field, select the transfer protocol to use with the remote host: TFTP, HTTP, or FTP.

For the transfer protocols used with the remote host, refer to the information below.

1) **【When “HTTP” is selected】**

Select the file containing the system’s configuration using “Choose File.”

2) **【When “TFTP” or “FTP” is selected】**

In the “IP” field, enter the IP address of the remote host running the TFTP or FTP server.

In the “File Name” field, enter the full path of the file containing Management card configuration.

For the “TFTP” and “FTP” configuration screens, refer to the screens below.

【When “TFTP” is selected】

The screenshot shows a web interface titled "Load" with the following fields and options:

Operation to load	<input type="radio"/> Reload default config <input checked="" type="radio"/> Download from an external file
Contents	<input checked="" type="checkbox"/> Including IP change
Protocol	<input type="radio"/> HTTP <input checked="" type="radio"/> TFTP <input type="radio"/> FTP
IP	<input type="text" value="0.0.0.0"/>
File Name	<input type="text"/>
<input type="button" value="Load"/>	

【When “FTP” is selected】

When “FTP” is selected, you must also enter the username and password for the FTP account on the remote host.

The screenshot shows a web interface titled "Load" with the following fields and options:

Operation to load	<input type="radio"/> Reload default config <input checked="" type="radio"/> Download from an external file
Contents	<input checked="" type="checkbox"/> Including IP change
Protocol	<input type="radio"/> HTTP <input type="radio"/> TFTP <input checked="" type="radio"/> FTP
IP	<input type="text" value="0.0.0.0"/>
File Name	<input type="text"/>
User Name	<input type="text" value="anonymous"/>
Password	<input type="text"/>
<input type="button" value="Load"/>	

- (4) Click “Load” button.
- (5) When the confirmation dialog appears, Click [OK] button to apply the settings from the specified file.
- (6) To save the settings, perform the procedure in Section 3.12.2 “Write memory”.

<CLI Command> archive download-config

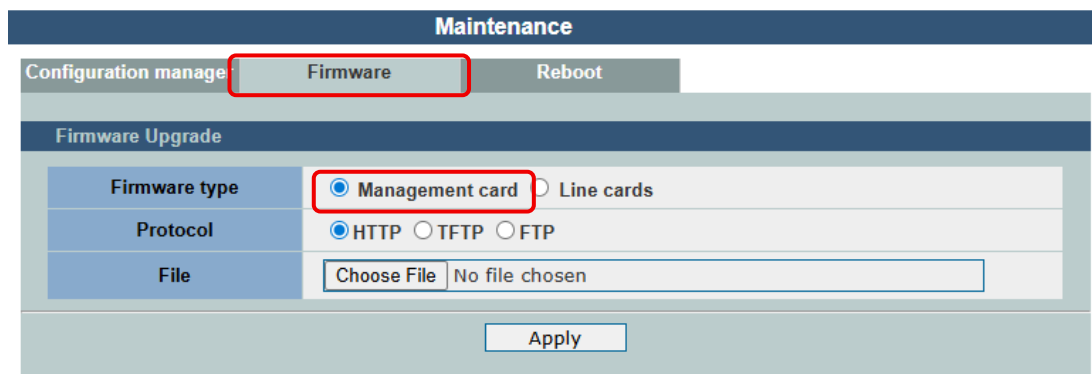
3.13 Firmware Upgrade

3.13.1 Management card

By logging in as an Admin user, you can update the firmware of Management card.

The procedure is described below.

- (1) Click “Firmware Upgrade” from the menu bar



The screenshot shows a web interface for firmware upgrade. At the top, there is a 'Maintenance' header with three tabs: 'Configuration manage', 'Firmware', and 'Reboot'. The 'Firmware' tab is selected and highlighted with a red box. Below the tabs is a 'Firmware Upgrade' section. It contains three rows of configuration options: 'Firmware type' with radio buttons for 'Management card' (selected) and 'Line cards'; 'Protocol' with radio buttons for 'HTTP' (selected), 'TFTP', and 'FTP'; and 'File' with a 'Choose File' button and the text 'No file chosen'. An 'Apply' button is located at the bottom right of the form.

- (2) In the “Firmware type” field, select the “Management card” radio button.
- (3) In the “Protocol” field, select the transfer protocol for the remote host from “TFTP”, “HTTP”, or “FTP”.

For the transfer protocols used with the remote host, refer to the information below.

- 1) **【When “HTTP” is selected】:**

Select the firmware file using "Choose File."

- 【When “TFTP” or “FTP” is selected】:**

Enter the IP address of the remote host running the TFTP or FTP server in the “Server IP” field, and enter the full path of the firmware file in the “File Name” field.

For the “TFTP” and “FTP” configuration screens, refer to the screens below.

【When “TFTP” is selected】

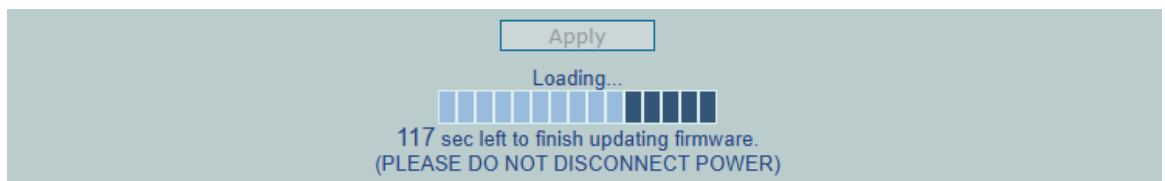
The screenshot shows the 'Maintenance' section with the 'Firmware' tab selected. Under 'Firmware Upgrade', the 'Firmware type' is 'Management card' and the 'Protocol' is 'TFTP'. The 'IP' field contains '0.0.0.0' and the 'File Name' field is empty. An 'Apply' button is at the bottom.

【When “FTP” is selected】

When “FTP” is selected, also enter the User Name and Password of the FTP account on the remote host.

The screenshot shows the 'Maintenance' section with the 'Firmware' tab selected. Under 'Firmware Upgrade', the 'Firmware type' is 'Management card' and the 'Protocol' is 'FTP'. The 'IP' field contains '0.0.0.0', and the 'File Name', 'User Name', and 'Password' fields are empty. An 'Apply' button is at the bottom.

- (4) Click “Apply” button.
- (5) After a 120-second countdown, the Firmware Upgrade will be completed when the login screen is displayed.



⚠ Caution: Do not power off Management card during firmware upgrade.

- ☞ When updating the firmware of Management card, be extremely careful, as unexpected power interruptions may cause damage. In the event that the unit fails to start, it will need to be sent to the manufacturer for recovery. Since the system will be rebooted during the process, make sure to save any unsaved configuration values beforehand.
- ☞ After the settings have been successfully completed, the following dialog will be displayed.

<CLI Command> archive download-fw

3.13.2 Line cards

By logging in as an Admin user, you can update the firmware of the installed line cards.

- (1) In the “Firmware Type” field, select the “Line Card” radio button.

The screenshot shows the 'Maintenance' section with the 'Firmware' tab selected. Under 'Firmware Upgrade', the 'Firmware type' is set to 'Line cards'. The 'Slot ID' section includes checkboxes for slots 1 through 12 and a 'Select All' checkbox. The 'Protocol' is set to 'HTTP'. The 'File' field contains a 'Choose File' button and the text 'No file chosen'. An 'Apply' button is located at the bottom of the form.

- (2) In the “Slot ID” field, check and select the slot number(s) where the line card(s) to be updated are installed (multiple selections allowed).
 - ☞ If you want to update the firmware of all line cards, please check “**Select All.**”
- (3) From the “Protocol” field, select the transfer protocol to use with the remote host: TFTP, HTTP, or FTP.

For the transfer protocols used with the remote host, refer to the information below.

- 1) **When “HTTP” is selected**

Select the file containing the system’s configuration using “Select File.”

- 2) **When “TFTP” or “FTP” is selected**

In the "Server IP" field, enter the IP address of the remote host where the TFTP or FTP server is running, and in the "File Name" field, enter the full path of the firmware file. If "FTP" is selected, you must also enter the "User Name" and "Password" for the FTP account on the remote host.

- When “TFTP” is selected**

Maintenance

Configuration manager Firmware Reboot

Firmware Upgrade

Firmware type	<input type="radio"/> Management card <input checked="" type="radio"/> Line cards
Slot ID	<input type="checkbox"/> 1 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> 7 <input type="checkbox"/> 9 <input type="checkbox"/> 11 <input type="checkbox"/> Select All <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 10 <input type="checkbox"/> 12
Protocol	<input type="radio"/> HTTP <input checked="" type="radio"/> TFTP <input type="radio"/> FTP
IP	<input type="text" value="0.0.0.0"/>
File Name	<input type="text"/>

【When “FTP” is selected】

Maintenance

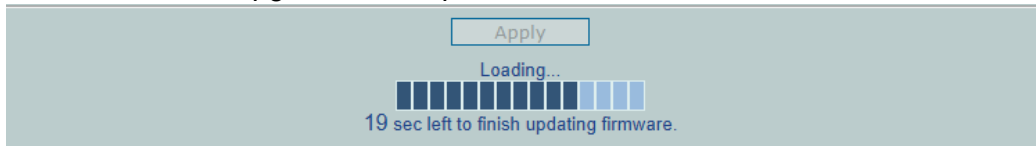
Configuration manager Firmware Reboot

Firmware Upgrade

Firmware type	<input type="radio"/> Management card <input checked="" type="radio"/> Line cards
Slot ID	<input type="checkbox"/> 1 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> 7 <input type="checkbox"/> 9 <input type="checkbox"/> 11 <input type="checkbox"/> Select All <input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 10 <input type="checkbox"/> 12
Protocol	<input type="radio"/> HTTP <input type="radio"/> TFTP <input checked="" type="radio"/> FTP
IP	<input type="text" value="0.0.0.0"/>
File Name	<input type="text"/>
User Name	<input type="text"/>
Password	<input type="text"/>

When “FTP” is selected, you must also enter the username and password for the FTP account on the remote host.

- (4) Click “Apply” button. An indicator, as shown below, will appear and the firmware transfer/upgrade will be performed.



- (5) After the settings have been successfully completed, the following dialog will be displayed.



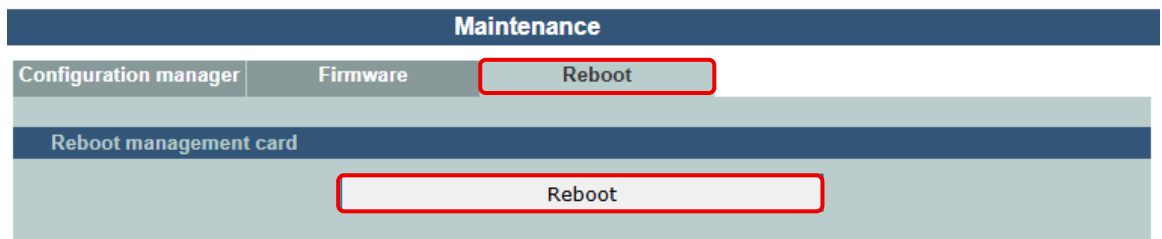
<CLI Command> archive download-slot-fw

3.14 System Reboot

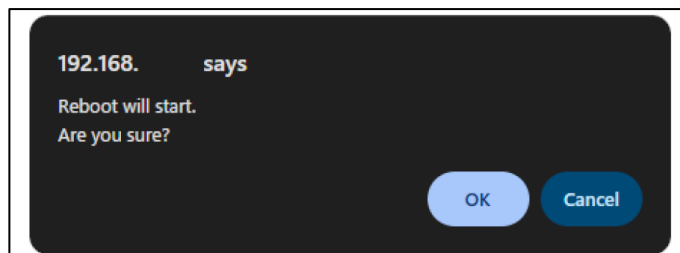
By logging in as an Admin user, you can reboot Management card from a Web browser.

The procedure is described below.

- (1) Click “Reboot” from the menu bar, and the following screen will be displayed.

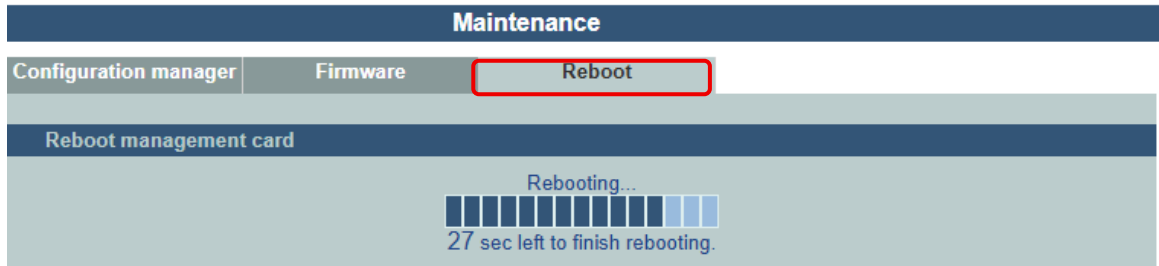


- (2) Click “Reboot” button.
- (3) The following confirmation dialog will appear, so click [OK] button.



- (4) An indicator will appear, and the reboot will begin.
- (5) After a 30-second countdown, the unit will proceed to the login screen, indicating that the reboot is complete.

- (6) The system reboots after the indicator appears. Startup is complete when the “Login” screen appears after 30 seconds.



the values from the last saved configuration.
If you want to retain the settings after the reboot, be sure to save them beforehand (see Section 3.12.2 “Write memory”).

4 Command line interface

4.1 How to use the CLI

Management card is equipped with a CLI for management. It can be used for management via the console port or via Telnet from the network.

4.1.1 Console connection

For the way to connect to the console port, please refer to “2.1 Mechanical Assembly”

To change the setting and monitor the status, please refer to “2.2.1 Logging in to Privileged mode” and enable Privileged mode.

4.1.2 Telnet connection

It is possible to manage from the remote host via Telnet over the network.

- (1) For Telnet connection, IP address must be set in advance on both the remote host side and Management card side. Refer to “2.2.2 IP address setting” for how to set the IP of Management card.
- (2) Insert the LAN cable into the Ethernet port of Management card and connect it under the specified network.
- (3) If you specify the IP address of Management card from the Telnet terminal software of the remote host and connect it, The page shifts to the system login screen .
- (4) To change settings or monitor the status, please refer to “2.2.1 Logging in to Privileged mode” and enable Privileged mode.

4.2 Command input

4.2.1 How to display help on command

When "?" is entered, all commands and arguments available in the current mode are displayed.

```
LEX1000# ?
configure      Enters the config mode.
disable        Turns off privileged mode command.
exit           Exits current mode and down to previous mode.
hardware-monitor Displays current hardware monitor information
list           Prints command list.
ping           Sends echo request messages.
show           Show the current status & configuration.
telnet         Opens a telnet connection.
```

To display command arguments, enter a space after the command and then enter "?".

For example, entering "show?" displays the subcommands and argument list that can be used in the "show" command.

```
LEX1000#configure terminal
LEX1000(config)# ?
  add                Assign a new user account.
  alarm-chassis-led  Chassis' Alarm LED config.
  alarm-nmc-led      NMC Alarm LED config.
  archive            Archive manage archive files.
  clear              Clears functions.
  cli                Config the CLI timeout settings.
  delete             Remove a user account.
  end                End current mode and down to root mode.
  exit              Exits current mode and down to previous mode.
  hostname           Sets the system's network name.
```

If you enter "?" Immediately after a part of the keyword, all keywords starting from the input string are displayed. For example, if you type "s?", All keywords starting with "s" are displayed as shown below.

```
LEX1000(config)#interface eth0
LEX1000(config-if)#?
  end                End current mode and down to root mode.
  exit              Exits current mode and down to previous mode.
  ip                 Configures IP address.
  list              Prints command list.
  show              Display the interface status and configuration.
```

4.2.2 abbreviation and Completion of Commands

The CLI allows you to omit commands. For example, the command "configure terminal" is also recognized as "co te". However, if the omitted string becomes more than one command candidate, it will be a syntax error.

Console example

```
LEX1000#co te
LEX1000(config)#cl syslog
% Command incomplete.
(* Because the two commands clear and cli cannot be distinguished in sys in the above command)
```

Also, if you type the Tab key while typing a command, the rest of the command will be supplemented, and if there are multiple suggestions, a list of suggestions will appear in the bottom row.

For example, when entering the "configure" command, if you type "con" and enter the Tab key, all commands will be entered as "configure", and if you enter the Tab key again, "terminal" will be entered.

If you type "alarm" and type Tab, the string "alarm-" will be supplemented with a list of additional suggested commands.

Console example

```
LEX1000#con <Tab>
LEX1000#configure <Tab>
LEX1000#configure terminal
LEX1000(config)#alarm <Tab>
alarm-chassis-led  alarm-nmc-led
```

(* In fact, the first three lines are displayed as one line)

4.2.3 Command mode

The CLI divides each command into multiple modes, and the commands available for each mode are different.

The command mode has the following hierarchy:

Command mode	Feature Overview
Root mode (Privileged mode)	Various status displays
config mode	View and Change System Setting
config-if mode	View and change Ethernet port settings
config-slot mode	View and Changing Slot Settings

When you log in to Root Mode (Privileged Mode), the prompt symbol is displayed as "#".

Typing "?" will display a list of all commands available in Root Mode (Privileged Mode).

```
LEX1000# ?
configure      Enters the config mode.
disable        Turns off privileged mode command.
exit           Exits current mode and down to previous mode.
hardware-monitor Displays current hardware monitor information
list          Prints command list.
ping           Sends echo request messages.
show          Show the current status & configuration.
telnet        Opens a telnet connection.
```

Now, when you run the command "configure terminal", you will be taken into config mode and the prompt will say "(config)".

"?" As you type, you will see a list of all the commands available in config mode.

```
LEX1000#configure terminal
LEX1000(config)# ?
add            Assign a new user account.
alarm-chassis-led Chassis' Alarm LED config.
alarm-nmc-led  NMC Alarm LED config.
archive       Archive manage archive files.
clear         Clears functions.
cli           Config the CLI timeout settings.
delete        Remove a user account.
end           End current mode and down to root mode.
exit          Exits current mode and down to previous mode.
hostname      Sets the system's network name.
(omitted)
```

Furthermore, if you run the command "interface eth0", you will enter config-if mode and the prompt will display "(config-if)".

"?" As you type, you will see a list of all the commands available in config-if mode.

```
LEX1000(config)#interface eth0
LEX1000(config-if)#?
end                End current mode and down to root mode.
exit               Exits current mode and down to previous mode.
ip                 Configures IP address.
list               Prints command list.
show               Display the interface status and configuration.
```

Running the "end" command will return you to Root mode.

You can also return to the default config mode by executing the "exit" command.

4.3 Command Reference

This section describes the functions and usage of all CLI commands on Management card.

Each command is categorized by purpose, but some are duplicated in multiple sections. If the command requires an argument, the "Syntax" section indicates how to write it.

The meaning of the symbol "syntax" is shown in the table below.

Format	substance
<Input Value>	Indicates that you want to specify an appropriate setting value that is not optional
{A B}	Indicates that you want to specify either a string of A or B (an argument that cannot be dispensed with if not enclosed in [])
[Input Value]	Indicates that it is an optional argument
Args (a..b)	Integer values greater than a and less than b with argument meanings
Args (a..b C)	An integer between a and b, inclusive, or string C.

4.3.1 CLI Operations

enable

Migrate to Privileged (Management) Mode and enable monitoring for each device. You will be prompted to enter a user account.

```
— syntax —  
enable
```

- Command Mode: Root Mode

disable

Log out of Privileged Mode and disable monitoring for each device.

```
— syntax —  
disable
```

- Command Mode: Root Mode (Privileged Mode)

configure terminal

Entering config mode.

```
— syntax —  
configure terminal
```

- Command Mode: Root Mode (Privileged Mode)

interface eth0

Entering config-if mode.

```
— syntax —  
interface eth0
```

- Command Mode: config mode

slot-id

Entering config-slot mode.

```
— syntax —  
slot-id <slot-number (1..12) >
```

slot-number The slot number of the linecard.

For the chassis arrangement, refer to Section 1.2.1

- Command Mode: config mode

end

Exit the current mode and return to Root mode.

```
— syntax —  
end
```

- Command Mode: config mode, config-if mode, config-slot mode

exit

Exit the current mode and return to the previous one.

Also, in Root mode, it exits the CLI.

```
— syntax —  
exit
```

- Command Mode: All Modes

list

Provides a list of commands that can be used in the mode.

```
— syntax —  
list
```

- Command Mode: All Modes

history

View command input history.

```
 syntax  
 history
```

- Command Mode: All Modes
 - ☞ This command does not appear in the command list generated by the "list" command.

show console-log

View command input history.

This command has the same functionality as the "history" command, but is available only in Root Mode.

- Command Mode: Root Mode

4.3.2 System

show hostname

Displays the hostname (CLI prompt/SNMP system name).

```
— syntax —  
show hostname
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “SNMP system” - “Configurations-System Name”

hostname

Set the hostname (CLI prompt/SNMP system name).

```
— syntax —  
hostname <hostname>
```

hostname Up to 64 alphanumeric characters, underscores (_),
hyphens (-), periods (.), comma (,), and at signs (@) are
allowed

- Command Mode: config mode
- Default value : LEX1000
- Web page: “SNMP system” - “Configurations”
 - ☞ This command works the same as "snmp system-name".

show model

Displays System .

— syntax —
show model

- Command Mode: Root Mode
- Web page: “System“ - “Info“

Console example

```
LEX1000>show model
Vendor      : FXC Inc.
Product     : LEX1000
MAC Addr    : 00:17:2e:xx:xx:xx
Serial#     : 14AA203xxx
H/W Version: V1.0
Boot Code   : 1000-081-1.0.0.S0
Firmware    : 1000-081-1.0.2.S2
Built Date  : Fri Mar 01 00:00:00 CST 2013
```

cli auto-logout

Set the wait time for the CLI to automatically terminate the session.

— syntax —
cli auto-logout < Logout-Timeout {1..100|never}>

Logout-Timeout 1-100[min]
 never: No auto-logout

- Default value : never
- Command Mode: config mode

reboot

Reboots the system of the Management card.

— syntax —
reboot

- Command Mode: config mode
- Web page: “System Reboot“ - “Reboot“
 - ☞ The system loads the internal configuration file upon reboot. Therefore, you must execute the "write memory" command if you wish to retain the applied settings after restarting.

4.3.3 IP Interface

show interface eth0

Displays the Ethernet port settings.

```
— syntax —  
show interface [eth0]
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “SNMP system” - “Configurations”

Console example

```
LEX1000#show interface eth0  
eth0      Link encap:Ethernet  HWaddr 00:17:2e:xx:xx:xx  
          inet addr:192.168.11.1  Bcast:192.168.11.255  Mask:255.255.255.0  
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
          RX packets:337251 errors:0 dropped:0 overruns:0 frame:0  
          TX packets:18707 errors:0 dropped:0 overruns:0 carrier:0  
          collisions:0 txqueuelen:1000  
          RX bytes:37727111 (35.9 MiB)  TX bytes:5782293 (5.5 MiB)  
  
Default gateway: 192.168.1.254  
LEX1000#
```

show (config-if mode)

Displays the Ethernet port settings.

```
— syntax —  
show
```

This command is equivalent to the show interface eth0 command in Root Mode.

- Command Mode: config-if mode

ip address

Set the IP address subnet mask for the system

```
ip address <IP-Address>/<Prefix-Length (1..32)>
```

IP-Address Decimal notation with IPv4 dots
(e.g. 192.168.1.101)

Prefix Length Subnet Mask Prefix Length (1-32)

- Command Mode: config-if mode
- Web page: “SNMP system” - “Configurations”
- Default value : 192.168.1.1/24

ip address default-gateway

Set the default gateway for the system

```
ip address default-gateway <IP-Address>
```

IP-Address Decimal notation with IPv4 dots
(e.g., 192.168.1.101)

- Command Mode: config-if mode
- Web page: “SNMP system” - “Configurations”
- Default value : 192.168.1.254

ping

Sends ICMP echoes to external devices

— syntax —
`ping <IP-Address>`

IP-Address Decimal notation with IPv4 dots
(e.g., 192.168.1.101)

- Command Mode: Root Mode
 - ☞ To interrupt or terminate, type [Ctrl] + [C] from the keyboard

telnet

Access the external telnet server

— syntax —
`telnet <IP-Address>`

IP-Address Decimal notation with IPv4 dots
(e.g., 192.168.1.101)

- Command Mode: Root Mode (Privileged Mode)
 - ☞ To interrupt the connection, type a remote exit command such as "exit" or use the keyboard combination [Ctrl]+[C] or [Ctrl]+' followed by 'e'.

4.3.4 Time setting

show time

Displays the system time and time settings of the machine

```
syntax  
show time
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: "System" - "Time Settings"

time

Manually set the time of the system time on Management card.

```
syntax  
time <hour(0..23)>: <minutes(0..59)>: <seconds (0..59)>
```

- ☞ Command Mode: config mode
- ☞ Web page: "System" - "Time Settings"
- ☞ Enter the time in a 24-hour system.

Console example

```
LEX1000(config)#time 23:34:45  
Successfully.
```

time date

Manually set the date of the system time on Management card

```
— syntax —  
time date <year(2000..2037)>/<month(1..12)>/<day(1..31)>
```

- Command Mode: config mode
- Web page: “System” – “Time Settings”

Console example

```
LEX1000(config)#time date 2013/01/23  
Successfully.
```

time ntp-server

Set the IP address of the NTP server.

```
— syntax —  
time ntp-server <IP-Address>
```

IP-Address Decimal notation with IPv4 dots
 (e.g., 192.168.1.101)

- Command Mode: config mode
- Web page: “System” – “Time Settings”

no time ntp-server

Disable NTP Server settings

```
— syntax —  
no time ntp-server
```

- Command Mode: config mode
- Web page: “System” – “Time Settings”

time timezone

Set time zone

```
— syntax —  
time timezone operator {-|+} hour <hour> min <minutes> [country-name]
```

hour · minutes Enter the parameter as the difference from UTC (GMT).
For Japan, enter "time timezone operator + hour 9 min 0".

country-name Country name (3 letters) (e.g. JST)

- Command Mode: config mode
- Web page: "System" – "Time Settings"

time sync-ntp-server

Synchronize with the configured NTP server

```
— syntax —  
time sync-ntp-server
```

- Command Mode: config mode
- Web page: "System" - "Time Settings"

time auto-receive-time

Enables or disables synchronization with the configured NTP server.

```
— syntax —  
time auto-receive-time {enable|disable}
```

- Command Mode: config mode
- Web page: "System" - "Time Settings"

show uptime

Displays the time since the management system was started

This value is reflected as the value of the MIB object sysUptime.

```
— syntax —  
show uptime
```

- Command Mode: Root Mode

4.3.5 User Account

show user account

View current user accounts

```
— syntax —  
show user account
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “System” - “User Account”

add user

Add a user account

```
— syntax —  
add user <user-name> <password> {normal|admin}
```

user-name Up to 32 alphanumeric characters are allowed, including underscores (`_`), hyphens (`-`), periods (`.`), commas (`,`), and at signs (`@`).

password Up to 32 alphanumeric characters are allowed, including underscores (`_`), hyphens (`-`), periods (`.`), commas (`,`), and at signs (`@`).

authority Normal: Status monitoring only (cannot be migrated to config mode)
Admin: Allows you to monitor status and change settings

- Command Mode: config mode
- Web page: “System” - “User Account”
- ☞ If the username already exists, the password and permissions are updated (overwritten).

delete user

Delete a user account

```
  syntax  
delete user <user-name>
```

user-name Currently registered username However, if the admin user has only one registration, You can't delete that user

- Command Mode: config mode
- Web page: "System" - "User Account"

4.3.6 Slot Settings

show slot-inform

Displays the settings, status of the linecard installed in each slot.

syntax

```
show slot-inform [slot-number (1..12)]
```

slot-number Slot numbers for the installed linecard.(For the chassis arrangement, refer to Section 1.2.1)
If omitted, all slots are displayed.

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Line card“ - “Line card Settings“

Console example

```
LEX1000#show slot-inform 1-7
===== Slot #01 =====
===== (DIP configuration) =====
Model Name:    LEX1542-15
S/N:          143A35A901
H/W version:   A0A
S/W version:   v1.1beta1
Device active: <Enable>
Adv-Eco Mode: <Disable>
LFP:          <both>

[Port 1: UTP]
  Active:      <Enable>
  Speed config: <Auto-Nego>
  MDI/MDI-X:  <MDI>
  Link status: Down

[Port 2: Optical SC Dual]
  Active:      <Enable>
  Speed config: 100BASE-FX (No options)
  FEF:        <Enable>
  Link status: Down
  Wavelength: 1310 nm
  Fiber type:  SMF
  Link length: 15 km

===== Slot #02 =====
Model Name:    LEX1851-1F
S/N:          122A147007
H/W version:   A2A
S/W version:   v2.2
Device active: <Enable>
Flooding Mode: <Disable>
: (omitted)
===== Slot #07 =====
```

```
Model Name:    LEX1821-2F
S/N:          148A360354
H/W version:  A0A
S/W version:  v1.0beta5
Device active: <Disable>
Adv-Eco Mode: <Enable>
LFP:         <Disable>

[Port 1: SFP]
Active:       <Enable>
Speed config: <1000BASE-X>
Loopback test: <Off>
Link status:  Down
SFP DDM:     Unsupported
SFP vendor:   SIGMA-LINKS
SFP model:    SL4114A-2102
SFP S/N:     E030401881
Wavelength:   0 nm
Fiber type:   MMF (62.5um & 50um)
Link length:  550 m

[Port 2: SFP]
Active:       <Enable>
Speed config: <1000BASE-X>
Loopback test: <Off>
Link status:  Down
SFP DDM:     Unsupported
SFP vendor:   APAC Opto
SFP model:    LS48-C3U-TC-N55
SFP S/N:     7308849013
Wavelength:   1550 nm
Fiber type:   SMF
Link length:  70 km
```

slot-id

Enter the setting mode for each slot.

```
slot-id <slot-number (1..12)>
```

slot-number Slot numbers for the installed linecard.(For the chassis arrangement, refer to Section 1.2.1)

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”

show (config-slot mode)

Displays the configuration and status of the linecards installed in each slot.

This command is similar to the show slot-inform command in Root Mode (Privileged Mode), but limits the display to the currently referenced slot number.

```
show
```

- Command Mode : config-slot mode
- Web page: “Line card“ - “Line card Settings“

device active

Enables or disables the operation of the line card itself.

— syntax —
device active {enable|disable}

- Command Mode: config-slot mode

device eco-mode

Enable or disable Advanced Eco mode.

— syntax —
device eco-mode {enable|disable}

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”
 - ☞ For details on Advanced Eco Mode, refer to Section 3.7.4.

device lfp

Enable or disable LFP.

```
— syntax —  
device lfp  
{disable|enable|1to2|2to1|utp-to-fiber|fiber-to-utp|both}
```

LFP	disable	Disable the LFP function.
	enable, both	Disables the output of the second port when a link down event occurs on either of the two ports.
	1to2, utp-to-fiber	Disables the output of the fiber port when a UTP link down event occurs. (For SFP dual-port line cards, disables the output of SFP Port 2 when a link down event occurs on SFP Port 1.)
	2to1, fiber-to-utp	Disables the output of the UTP port when a fiber link down event occurs. (For SFP dual-port line cards, disables the output of SFP Port 1 when a link down event occurs on SFP Port 2.)

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”
 - ☞ For details on LFP, refer to Section 3.7.4.

device flooding-mode

Enable or disable flooding mode.

```
— syntax —  
device flooding-mode {enable|disable}
```

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”
 - ☞ For details on flooding-mode, refer to Section 3.7.4.
 - ☞ This function is supported only on switch-type line cards. If executed on a repeater-type line card, an "Unsupported function" error will occur.

utp port-active

Enable or disable UTP Port.

```
syntax  
utp port-active {enable|disable}
```

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ If executed on a dual SFP port type line card, an "Unsupported function" error will occur.

utp mdix

Set MDI mode for UTP ports

```
syntax  
utp mdix {auto|mdi|mdi-x}
```

MDI Settings auto: Auto MDI / MDI-X
 mdi : MDI fixed
 mdi-x: MDI-X fixed

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ If executed on a dual SFP port type line card, an "Unsupported function" error will occur.

utp speed

Set the transfer speed of the UTP port

```
— syntax —  
utp speed {10-full|10-half|100-full|100-half|1000-full|auto}
```

speed	10-ful	10M Full Duplex Fixed Setup
	10-half	10M Half-Duplex Fixed Setup
	100-full	100M Full Duplex Fixed Setup
	100-half	100M Half-Duplex Fixed Setup
	1000-full	1000M Full Duplex Fixed Setup
	auto	Auto-negotiation settings

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”
 - ☞ If executed on a dual SFP port type line card, an "Unsupported function" error will occur.

fiber port-active / fiber port-1 active / fiber port-2 active

Enable or disable Fiber Port.

```
— syntax —  
fiber port-active {enable|disable}  
fiber port-1 active {enable|disable}  
fiber port-2 active {enable|disable}
```

- Command Mode: config-slot mode
- Web page: “Line card” - “Line card Settings”
 - ☞ The fiber port-1 active and fiber port-2 active commands are supported only on dual SFP port type linecards. If executed on other line cards, an "Unsupported function" error will occur.
 - ☞ On dual SFP port type line cards, the fiber port-active command allows simultaneous enabling or disabling of both ports.

fiber speed

Set the transfer speed of the Fiber port

```
syntax  
fiber speed {auto|100m|1000m|10g}
```

speed	auto	auto
	100m	100BASE-FX
	1000m	1000BASE-X
	10g	10GBASE-R

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ For details on fiber speed, refer to Section 3.7.4
 - ☞ This function is supported only on dual SFP port type linecards. If executed on other linecards, an "Unsupported function" error will occur.

fiber fef

Enable or disable FEF (Far-End Fault) notification function

```
syntax  
fiber fef {enable|disable}
```

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ For details on FEF, refer to Section 3.7.4
 - ☞ This function is supported only on line cards that have a fiber speed of up to 100 Mbps. If executed on other types (which support communication speeds of Gigabit or higher), an "Unsupported function" error will occur.

fiber port-1 loop-back-test / fiber port-2 loop-back-test

Fiber Port Loopback Test (Start/Stop)

```
syntax  
fiber port-1 loop-back-test {on|off}  
fiber port-2 loop-back-test {on|off}
```

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ This function is supported only on dual SFP port type line cards. If executed on other line cards, an "Unsupported function" error will occur.

reset default

Set the linecard to the default setting.

```
syntax  
reset default
```

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"
 - ☞ For details on the line card's default settings, refer to Section 3.7.4.

reboot

Reboot the linecard.

```
syntax  
reboot
```

- Command Mode: config-slot mode
- Web page: "Line card" - "Line card Settings"

4.3.7 Alarm LED Settings

show alarm led

Displays the settings and status of the machine's alarm LED.

```
— syntax —  
show alarm led
```

- Command Mode: config mode
- Web page: “Monitoring” - “Alarm LED”

Console example

```
LEX1000#show alarm led  
Alarm Status:  
[Chassis] Cri: OFF / Maj: OFF / Min: OFF  
[NMC] ALM#1: OFF / ALM#2: OFF  
  
Alarm LED Configurations:  
  
Event                Chassis LED  ALM1 LED  ALM2 LED  
-----  
1. Chassis-Power-1   Disable      Disable   Disable  
2. Chassis-Power-2   Disable      Disable   Disable  
3. Chassis-FAN-1     Disable      Disable   Disable  
4. Chassis-FAN-2     Disable      Disable   Disable  
5. Chassis-Overheat  Disable      Disable   Disable  
6. Local-UTP-Link-Down Disable      Disable   Disable  
7. Local-Fiber-Link-Down Disable      Disable   Disable
```

- ☞ The chassis alarm LED warning levels are as follows:
- cri: Assignment to Critical Alarm LED
 - maj: Assignment to Critical Alarm LED
 - min: Assignment to Critical Alarm LED

alarm-chassis-led

Set the alarm LED on the chassis.

syntax

```
alarm-chassis-led <event condition> {critical|major|minor|none}
```

Event	Specify one of the following strings:
	chassis-power-1: Power Supply Unit #1 Failure
	chassis-power-2: Power Supply Unit #2 Failure
	chassis-fan-1: Fan #1 Failure
	chassis-fan-2: Fan #2 Failure
	chassis-overheat: Temperature Failure
	local-utp-link-down: UTP Port Link Down Event
	local-fiber-link-down: Fiber Port Link Down Event
LED	Specify one of the following strings:
	cri: Critical (major alarm) LED
	maj: Major (medium alarm) LED
	min: Minor (minor alarm) LED
	none: No assignment

- Command Mode: config mode
- Web page: "Monitoring" - "Alarm LED"
 - ☞ Since event conditions are set in three levels, an event condition cannot be assigned to multiple LEDs. Please note that this setting method differs from that of the Management card's Alarm LED.
 - ☞ Multiple event conditions can be applied to a single LED. In this case, the LED will light up if any one of the applied conditions is met.

alarm-nmc-led

Set the alarm LED on the Management card

syntax

```
alarm-nmc-led <LED-number (1..2)> < alarmitem > {enable|disable}
```

LED-number Specify whether to assign to the LED ALM#1 or ALM#2.

alarmitem Specify one of the following strings:

chassis-power-1:	Power Supply Unit #1 Failure
chassis-power-2:	Power Supply Unit #2 Failure
chassis-fan-1:	Fan #1 Failure
chassis-fan-2:	Fan #2 Failure
chassis-overheat:	Temperature Failure
local-utp-link-down:	UTP Port Link Down Event
local-fiber-link-down:	Fiber Port Link Down Event

- Command Mode: config mode
- Web page: “Monitoring” - “Alarm LED”

☞ This function allows you to select the event conditions required for the LED to light up. Please note that this setting method differs from that of the chassis Alarm LED.

☞

Multiple event conditions can be applied to a single LED. In this case, the LED will light up if any one of the applied conditions is met.

4.3.8 System Monitor

hardware-monitor

Display current hardware monitor information.

```
— syntax —  
hardware-monitor
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Monitoring” - “Hardware Monitor”

Console example

```
LEX1000#hardware-monitor  
-----  
Power Module      Status      Type  
Module #1         Insert     AC  
Module #2         Insert     AC  
-----  
Temperature (C)   Value      Status  
Left              32.5      Normal  
Center            34.3      Normal  
Right             30.0      Normal  
-----  
Voltage (V)       Value      Status  
Power-Module-#1   5.063     OK  
Power-Module-#2   0.078     NG  
board             3.270     OK  
-----  
Fan (RPM)         Value      Status  
Fan-#1            7336     OK  
Fan-#2            7479     OK
```

For details on the displayed items, refer to Section 3.8.

show system-info

Display CPU load and memory information.

```
 syntax  
show system-info
```

- Command Mode: Root Mode

Console example

```
LEX1000#show system-info  
CLI auto logout: 100 minute.  
CPU loading: 73.85% total:74.11%  
Memory info: total 127068 KB, free 119648 KB, usage 5.84%
```

4.3.9 Syslog Settings

show syslog

Display Syslog .

```
— syntax —  
show syslog
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Monitoring” - “Syslog Dump”

show syslog level

Display syslog by level.

```
— syntax —  
show syslog level <Severity(0..7)>
```

Severity The ID value of the Severity to be displayed.
 See section 3.10.1 Syslog dump

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Monitoring” - “Syslog Dump”

show syslog item

Displays the Syslog item settings.

— syntax —

```
show syslog item
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Monitoring” - “Syslog Setting” - “Log Item Settings”

Console example

```
LEX1000#show syslog item
Item                               Facility      Severity
-----
01: Power removed                  16:Local_0    0:Emerg
02: Power inserted                  16:Local_0    6:Info
03: Power failed                    16:Local_0    0:Emerg
04: Fan unit failed                 16:Local_0    0:Emerg
05: Fan unit recovered              16:Local_0    6:Info
06: Utp link down                   17:Local_1    2:Criti
07: Utp link up                     17:Local_1    6:Info
08: Fiber link down                 17:Local_1    2:Criti
09: Fiber link up                   17:Local_1    6:Info
10: Sfp removed                     17:Local_1    2:Criti
11: Sfp inserted                    17:Local_1    6:Info
12: Line card removed               17:Local_1    2:Criti
13: Line card inserted              17:Local_1    6:Info
14: Alarm config change             10:authpriv   4:Warning
15: Login                           10:authpriv   5:Notice
16: Login error                     10:authpriv   5:Notice
17: Logout                           10:authpriv   5:Notice
```

show syslog server

Display server configuration of Syslog.

— syntax —

```
show syslog server
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Monitoring” - “Syslog Setting” - “Syslog Server Settings”

syslog-item

Configure the Syslog items.

```
— syntax —  
syslog-item id <event-number (1..17)> facility <(0..23)> severity  
<(0..7)>
```

event-number	1:Power removed 2:Power inserted 3: Power voltage failed 4:Fan unit failed 5:Fan unit recovered 6:UTP link down 7:UTP link up 8:Fiber link down 9:Fiber link up	10:SFP removed 11: SFP inserted 12:Line card removed 13 Line card inserted 14:Alarm config change 15:Login 16:Login Error 17: Logout
--------------	---	---

facility Specify a value between 0 and 23.
For a list of facilities, see section 3.10.1 Syslog Settings.

severity Specify a value from 0 to 7.
For a list of servers, see Section 3.10.1 Syslog Settings.

- Command Mode: config mode
- Web page: “Monitoring” - “Syslog Setting” - “Log Item Settings”
- For the Default value, refer to Section 3.10.3.

syslog-server

Set Syslog server setting to Enable/Disable.

```
— syntax —  
syslog-server {enable|disable}
```

- Command Mode: config mode
- Web page: “Monitoring” - “Syslog Setting” - “Syslog Server Settings” - “Activation”

syslog-server id

Set the Syslog server IP.

```
syntax  
syslog-server id <server-id(1..8)> ip <IP-Address> port <port-number{default|(1024..65535)}>
```

server-id You can specify up to 8 Syslog servers.

IP-Address Decimal notation with IPv4 dots (e.g., 192.168.1.101)

port-number The UDP port number of the Syslog server.
If you specify "default", 514 (well-known port) is set.

- Command Mode: config mode
- Web page: "Monitoring" - "Syslog Setting" - "Syslog Server Settings"

no syslog-server id

Delete the registered Syslog server IP.

```
syntax  
no syslog-server id <server-id (1..8)>
```

server-id Registered server number

- Command Mode: config mode
- Web page: "Monitoring" - "Syslog Setting" - "Syslog Server Settings"

clear syslog

Clear syslog

```
syntax  
clear syslog
```

- Command Mode: config mode
- Web page: "Monitoring" - "Syslog Dump"

4.3.10 SNMP Settings

show snmp

List the SNMP settings

```
— syntax —  
show snmp
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “SNMP” - “SNMP system” /
“SNMP” - “SNMP community” /
“SNMP” - “SNMP trap receiver”

Console example

```
LEX1000#show snmp  
  
System Name      : LEX1000  
System Location: FXC, Inc.  
System Contact  : Tokyo_Komagata  
  
Community Name:  
IP Address      Mask                Rights          Community String  
-----  
192.168.11.0    255.255.255.0    Read-Only      anonymous01  
192.168.21.0    255.255.255.0    Read/Write     public  
192.168.31.0    255.255.255.0    Read-Only      anonymous02  
  
Trap Receiver:  
IP Address      Version          Community String  
-----  
192.168.11.201  2                anonymous01  
192.168.21.101  1                public  
  
LEX1000#
```

For details on the displayed items, refer to Section エラー! 参照元が見つかりませ
ん。

show snmp trap-config

Lists SNMP trap item settings

```
— syntax —  
show snmp
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: "SNMP" - "SNMP system" /
"SNMP" - "SNMP community" /
"SNMP" - "SNMP trap receiver"

snmp community

Configure SNMP community.

```
— syntax —  
snmp community <community-name> {rw|ro} trusted-host <IP-Address>/<  
prefix-length>
```

community-name Up to 64 alphanumeric characters, underscores (_), hyphens (-), periods (.), and at signs (@) are allowed.

access permission

- ro: Read-only access. The SNMP manager can obtain MIB objects
- rw: Read/write access. The SNMP manager can obtain and change MIB objects.

**IP-Address/
prefix-length** The Network address of the SNMP community and Enter a prefix length.
Example) 192.168.1.0/24
If you manage it with one IP address, the prefix length should be 32.

- Command Mode: config mode
- Web page: "SNMP" - "SNMP community"
- The system internally stores up to 8 hosts.
- If an entry with a matching IP Address/Prefix Length and Community Name already exists, the access permissions will be updated (overwritten).

no snmp community

Delete SNMP community

```
no snmp community <community-name>{rw|ro} trusted-host<IP-Address>
```

☞ The format of each parameter is the same as above.

- Command Mode: config mode
- Web page: "SNMP" - "SNMP community"

snmp trap-receiver

Set SNMP trap server

```
snmp trap-receiver <IP-Address>  
port <port-number{default|1024..65535}> {v1|v2c} [community-name]
```

IP-Address	Decimal notation with IPv4 dots (e.g., 192.168.1.101)
port-number	Trap server TCP/IP port number. If you specify "default", 162 (well-known port) will be set.
Version	v1: SNMPv1 v2c: SNMPv2c
community-name	Registered community name. (See the snmp community command.) If omitted, the community name is set to "public".

- Command Mode: config mode
- Web page: "SNMP" - "SNMP trap receiver"
- ☞ The system internally stores up to 8 hosts.
If an entry with a matching IP Address already exists, the Port Number and SNMP Version will be updated (overwritten).

no snmp trap-receiver

Delete SNMP trap server.

```
no snmp trap-receiver <IP-Address>
```

- IP-Address Registered trap server IP
- Command Mode: config mode
 - Web page: "SNMP" - "SNMP trap receiver"

snmp trap-id

Set SNMP trap items to Enable/Disable.

```
snmp trap-id <trap-item-number (1..20)|all> {enable|disable}
```

- trap-item-number The following numbers are assigned to each trap event. You can also specify individual events separated by commas, such as "1,3,5", or ranges separated by hyphens, such as "1-6".
- 1: power1Removed
 - 2: power1Inserted
 - 3: power2Removed
 - 4: power2Inserted
 - 5: power1VoltageFail
 - 6: power2VoltageFail
 - 7: fanRemoved
 - 8: fanInserted
 - 9: utpLinkDown
 - 10: utpLinkUp
 - 11: fiberLinkDown
 - 12: fiberLinUp
 - 13: sfpRemoved
 - 14: sfpInserted
 - 15: lineCardRemoved
 - 16: lineCardInserted
 - 17: alarmConfigChange
 - 18: login
 - 19: loginError
 - 20: logout
- Command Mode: config mode
 - Web page: "SNMP" - "SNMP trap receiver"

snmp system-name

Set host name/SNMP system name.

The value set here is reflected as the value of sysName of the MIB object.

```
syntax
snmp system-name < system-name >
```

system-name Up to 64 alphanumeric characters, underscores (_), hyphens (-), periods (.), and at signs (@) are allowed

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"
- Default value : LEX1000
- ☞ It has the same function as the hostname command.

no snmp system-name

Set the hostname and SNMP system name to the default value of "LEX1000".

```
syntax
no snmp system-name
```

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"
- ☞ The hostname (CLI prompt display) is also set at the same time

snmp system-location

Set the location of Management card.

The value set here is reflected as the value of sysLocation of the MIB object

```
syntax
snmp system-location < system-location >
```

system-location Up to 64 alphanumeric characters, underscores (_), hyphens (-), periods (.), and at signs (@) are allowed

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"

no snmp system-location

Delete the location of Management card you have set

```
no snmp system-location
```

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"

snmp system-contact

Set up an admin contact

The value you set here will be reflected as the value of the sysContact on the MIB object.

```
snmp system-contact < system-contact >
```

system-contact Up to 64 alphanumeric characters, underscores (_), hyphens (-), periods (.), and at signs (@) are allowed

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"

no snmp system-contact

Delete the admin contact of Management card you have set

```
no snmp system-contact
```

- Command Mode: config mode
- Web page: "SNMP" - "SNMP system"

4.3.11 Configuration File Operation

show running-config

Displays the currently running configuration of the Management card.

```
— syntax —  
show running-config
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Maintenance” - “Configuration manager”

Console example

```
LEX1000#show running-config  
!  
cli auto-logout never  
hostname LEX1000  
!  
interface eth0  
ip address 192.168.11.193/24  
ip address default-gateway 192.168.11.1  
!  
no snmp system-contact  
no snmp system-location  
snmp system-name LEX1000  
snmp trap-id 1 disable  
snmp trap-id 2 disable  
: (omitted)  
snmp trap-id 20 disable  
!  
syslog-item id 1 facility 16 severity 0  
: (omitted)  
syslog-item id 17 facility 10 severity 5  
syslog-server disable  
no syslog-server id 1  
: (omitted)  
no syslog-server id 8  
!  
time auto-receive-time disable  
no time ntp-server  
time timezone operator + hour 9 min 0 JST  
!
```

- ☞ : (omitted) is not actually displayed.
- ☞ "!" is used to migrate from config-if mode or config-slot mode to config mode, and records a comment. (The comment must start with a space and end with a non-space character.)

show startup-config

Displays the configuration of the Management card that will be applied upon reboot.

— syntax —

```
show startup-config
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Maintenance” - “Configuration manager”
 - ☞ The contents saved after executing the write memory command are equivalent to the output of show running-config.
 - ☞ The contents saved after executing the write memory with slot command are equivalent to the combined output of show running-config and show slot-config.

show slot-config

Displays the configuration commands for all linecards installed in each slot.

```
— syntax —  
show slot-config
```

- Command Mode: Root Mode (Privileged Mode)
- Web page: “Maintenance” - “Configuration manager”

Console example

```
LEX1000#show slot-config  
slot-id 1  
device active enable  
device eco-mode disable  
device lfp enable  
fiber fef enable  
fiber port-active enable  
utp port-active enable  
utp mdix mdi  
utp speed auto  
!  
slot-id 2  
: (omitted)  
!  
slot-id 12  
device active enable  
device eco-mode disable  
device flooding-mode enable  
device lfp disable  
fiber port-active enable  
utp port-active enable  
utp mdix auto  
utp speed auto  
!
```

☞ : (omitted) is not actually displayed.

☞ "!" is used to migrate from config-if mode or config-slot mode to config mode, and records a comment. (The comment must start with a space and end with a non-space character.)

write memory

The current operating settings and user accounts are saved to the internal configuration file

```
syntax  
write memory [with slot]
```

- Command Mode: config mode
- Web page: "Maintenance" - "Configuration manager"
 - ☞ The configuration settings within the Management card displayed by the show running-config and show user account commands will be saved.
 - ☞ Adding the "with slot" option saves all linecard configurations, and these settings are applied upon the next reboot. (For details, refer to Section 3.12.2, "Write memory")

archive download-config

Transfer the configuration file saved in the file to Management card and apply it

```
syntax  
archive download-config <URL>
```

URL Specify the remote host. The following protocols can be specified:

- **fttp**://<IP-Address>/<file-name>
- **ftp**://<user-name >:<password>@<IP-Address>/<file-name >
- **http**://<IP-Address>/<file-name >

- Command Mode: config mode
- Web page: "Maintenance" - "Configuration manager"
 - ☞ The settings displayed by the show running-config command will be applied.
If slot information is included, the line card configuration will also be applied.
 - ☞ If you want to keep the current IP address without resetting it to the default value, enter "n" or "no" at the next prompt.

```
Confirm to change IP setting?(yes/no)no
```

- ☞ If the loaded file contains a command syntax error, the system outputs an error message like the following (this example shows a command syntax error on lines 3 and 4).

```
Read command syntax error: non available command. line=3:'mistype  
example1'  
Read command syntax error: non available command. line=4:'mistype  
example2'
```

```
2 syntax error occured(no affected)
```

- The loaded configuration values will not be saved permanently.
To save the settings, you must execute the write memory [with slot] command afterward (For details, refer to Section 3.12.2, "Write memory").

archive upload-config

Retrieve the configuration file from the TFTP server.

```
syntax
archive upload-config [with slot] <URL>
```

URL The following format is represented
· **tftp://<IP-Address>/<file-name>**

- Command Mode: config mode
- Web page: "Maintenance" - "Configuration manager"
 - ☞ The current configuration status is transferred to a remote host as a configuration file.
 - ☞ The file includes the settings displayed by the show running-config command; user account settings are excluded from the transfer.
 - ☞ If the "with slot" option is added, the configuration file will also include the settings of all linecards inserted into the slots.
 - ☞ If any of the following transfer error messages are displayed when the command is executed, check the status of the TFTP server.
Note that no message is displayed upon successful completion.

tftp: server error: (2) Access violation	No access permission to the TFTP server.
tftp: server error: (3) Disk full or allocation exceeded.	Insufficient file space (or capacity) on the TFTP server.
tftp: server error: (6) File already exists.	The specified file already exists on the TFTP server.

reload default-config

Apply the settings in the default configuration file to the Management card.

```
syntax
reload default-config
```

- Command Mode: config mode
- Web page: "Maintenance" - "Configuration manager"
 - ☞ For details on default settings, refer to Section 3.12.4, "Reload default config."
 - ☞ If you want to keep the current IP address without resetting it to the default value, enter "n" or "no" at the next prompt.
 - ☞ The loaded default configuration values will not be saved permanently.
 - ☞ To ensure the settings are reflected on the next reboot, execute the write memory [with slot] command afterward to save them (For details, refer to Section 3.12.2, "Write memory").

4.3.12 Firmware Update

archive download-fw

Update the firmware of Management card via TFTP/FTP/HTTP server.

```
— syntax —  
archive download-fw <URL>
```

- URL The following formats are used depending on the protocol:
- **tftp://**<IP-Address>/<file-name>
 - **ftp://**<user-name>:<password>@<IP-Address>/<file-name>
 - **http://**<IP-Address>/<file-name>
- Command Mode: config mode
 - Web page: “Maintenance” - “Configuration manager”
- ☞ Ensure that the power is not interrupted during the firmware update. The system will restart after the firmware update. The configuration will revert to the last saved state (the state from the "write memory" command).

archive download-slot-fw

Update the firmware of the linecard mounted in the slot

```
— syntax —  
archive download-slot-fw slots <slot-number{all|1..12}> <URL>
```

- slot-number The slot number of the line card for which you want to update the firmware.
- Specifying "all" will update all slots.
- You can also specify individual slots separated by commas, such as "1,3,5", or ranges separated by hyphens, such as "1-6".
- The following formats are used depending on the protocol:
- URL · **tftp://**<IP-Address>/<file-name>
- **ftp://**<user-name>:<password>@<IP-Address>/<file-name>
 - **http://**<IP-Address>/<file-name>
- Command Mode: config mode
 - Web page: “Maintenance” - “Configuration manager”

Appendix

A.1. Private MIB List

Object: enterprise

OID (Instance)	Name	Description
.1.3.6.1.4.1	enterprise	
.1.3.6.1.4.1.25574	fxc	
.1.3.6.1.4.1.25574.50	lexSeries	
.1.3.6.1.4.1.25574.50.10	lex1k	

Object: mgmtCard

OID (Instance)	Name	Description
.1.3.6.1.4.1.25574.50.10.1	mgmtCard	
.1.3.6.1.4.1.25574.50.10.1.1	mgmtcardProperty	
.1.3.6.1.4.1.25574.50.10.1.1.1(.0)	mgmtcardName	Model name of the Management card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.1.2(.0)	mgmtcardSerialNo	Serial number for the Management card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.1.3(.0)	mgmtcardHWVer	Hardware version of the Management card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.1.4(.0)	mgmtcardFWVer	Firmware version of the Management card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.1.5(.0)	mgmtcardSaveCfg	Save configurations to flash. [Syntax] INTEGER{ Off(0), Execute(1), Execute-with-slot(2) } [Access] read-write
.1.3.6.1.4.1.25574.50.10.1.2	chassisStatus	
.1.3.6.1.4.1.25574.50.10.1.2.1(.0)	power1Type	Type of power unit #1. [Syntax] INTEGER{ Empty(0), AC(1), DC(2) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.2.2(.0)	power1Status	Status of power unit #1. [Syntax] INTEGER{ OK(0), NG(1) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.2.3(.0)	power2Type	Type of power unit #2. [Syntax] INTEGER{ Empty(0), AC(1), DC(2) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.2.4(.0)	power2Status	Status of power unit #2. [Syntax] INTEGER{ OK(0), NG(1) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.2.5(.0)	fan1RPM	Revolutions of the fan1 unit. [Syntax] Integer32 [Access] read-only
.1.3.6.1.4.1.25574.50.10.1.2.6(.0)	fan1Status	Status of the fan1 unit. [Syntax] INTEGER{ OK(0), NG(1) } [Access] read-only

.1.3.6.1.4.1.25574.50.10.1.2.7(.0)	fan2RPM	Revolutions of the fan2 unit. [Syntax] Integer32 [Access] read-only
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Object: lineCards

[Slot] represents the slot number.

OID (Instance)	Name	Description
.1.3.6.1.4.1.25574.50.10.10	lineCards	
.1.3.6.1.4.1.25574.50.10.10.1	cardPropertyTable	[Syntax] SEQUENCE OF CardPropertyEntrySeq [Access] not-accessible
.1.3.6.1.4.1.25574.50.10.10.1.1	cardPropertyEntry	[Syntax] CardPropertyEntrySeq [Access] not-accessible
.1.3.6.1.4.1.25574.50.10.10.1.1.1(.[Slot])	cardSlotIndex	Table index which stands for the slot number. [Syntax] INTEGER(1..12) [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.1.1.2(.[Slot])	cardName	Model name of the line card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.1.1.3(.[Slot])	cardSerialNo	Serial number for the line card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.1.1.4(.[Slot])	cardHWVer	Hardware version of the line card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.1.1.5(.[Slot])	cardFWVer	Firmware version of the line card. [Syntax] DisplayString [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.2	port1PropertyTable	[Syntax] SEQUENCE OF PortPropertyEntrySeq [Access] not-accessible
.1.3.6.1.4.1.25574.50.10.10.2.1	port1PropertyEntry	[Syntax] PortPropertyEntrySeq [Access] not-accessible
.1.3.6.1.4.1.25574.50.10.10.2.1.1(.[Slot])	port1SlotIndex	Table index which stands for the slot number. [Syntax] INTEGER(1..12) [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.2.1.2(.[Slot])	port1Type	[Syntax] INTEGER{ Unknown(0), UTP(1), Optical-SC-Single(2), Optical-SC-Dual(3), SFP(4) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.2.1.3(.[Slot])	port1Link	Status of the port1. [Syntax] INTEGER{ Down(0), Up(1) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.2.1.4(.[Slot])	port1Act	Activation of the port1. [Syntax] INTEGER{ Off(0), On(1) } [Access] read-write
.1.3.6.1.4.1.25574.50.10.10.2.1.5(.[Slot])	port1SpdConfig	Speed / duplex configuration of the port1. [Syntax] INTEGER{ Unknown(0), Auto(1), 1Gfull(2), 100Mfull(3), 100Mhalf(4), 10Mfull(5), 10Mhalf(6) } [Access] read-write
.1.3.6.1.4.1.25574.50.10.10.2.1.6(.[Slot])	port1SpdStatus	Speed / duplex status of the port1. [Syntax] INTEGER{ Unknown(0), Down(1), 1Gfull(2), 100Mfull(3), 100Mhalf(4), 10Mfull(5), 10Mhalf(6) } [Access] read-only
.1.3.6.1.4.1.25574.50.10.10.2.1.7(.[Slot])	port1MdiConfig	MDI configuration of the port1 (assumed as UTP). [Syntax] INTEGER{ Auto(0), MDI(1), MDI-X(2) } [Access] read-write
.1.3.6.1.4.1.25574.50.10.10.2.1.8(.[Slot])	port1FEF	FEF detection configuration of the port1 (assumed as 100M fiber). [Syntax] INTEGER{ Off(0), On(1) } [Access] read-write
.1.3.6.1.4.1.25574.50.10.10.2.1.9(.[Slot])	port1SfpInserted	This shows Yes if an SFP inserted to the port1. [Syntax] INTEGER{ No(0), Yes(1) } [Access] read-only

Notifications: lex1kTraps

OID (Instance)	Name	Description
.1.3.6.1.4.1.25574.50.10.1000	lex1kTraps	
.1.3.6.1.4.1.25574.50.10.1000.1	power1Removed	The power unit 1 is empty.
.1.3.6.1.4.1.25574.50.10.1000.2	power1Inserted	The power unit 1 is mounted.
.1.3.6.1.4.1.25574.50.10.1000.3	power2Removed	The power unit 2 is empty.
.1.3.6.1.4.1.25574.50.10.1000.4	power2Inserted	The power unit 2 is mounted.
.1.3.6.1.4.1.25574.50.10.1000.5	power1VoltageFailed	The power unit 1 is failed.
.1.3.6.1.4.1.25574.50.10.1000.6	power2VoltageFailed	The power unit 2 is failed.
.1.3.6.1.4.1.25574.50.10.1000.7	fanFailed	The fan unit is failed or empty.
.1.3.6.1.4.1.25574.50.10.1000.8	fanRecovered	The fan unit is mounted.
.1.3.6.1.4.1.25574.50.10.1000.9	utpLinkDown	Any UTP port occurs a link down.
.1.3.6.1.4.1.25574.50.10.1000.10	utpLinkUp	Any UTP port starts a link up.
.1.3.6.1.4.1.25574.50.10.1000.11	fiberLinkDown	Fiber port occurs a link down.
.1.3.6.1.4.1.25574.50.10.1000.12	fiber2LinkDown	Fiber on port 2 occurs a link down.
.1.3.6.1.4.1.25574.50.10.1000.13	fiberLinkUp	Fiber port starts a link up.
.1.3.6.1.4.1.25574.50.10.1000.14	fiber2LinkUp	Fiber on port 2 starts a link up.
.1.3.6.1.4.1.25574.50.10.1000.15	sfpRemoved	SFP is removed.
.1.3.6.1.4.1.25574.50.10.1000.16	sfp2Removed	SFP on port 2 is removed.
.1.3.6.1.4.1.25574.50.10.1000.17	sfpInserted	SFP is mounted.
.1.3.6.1.4.1.25574.50.10.1000.18	sfp2Inserted	SFP on port 2 is mounted.
.1.3.6.1.4.1.25574.50.10.1000.19	lineCardRemoved	Any of line cards is removed.
.1.3.6.1.4.1.25574.50.10.1000.20	lineCardInserted	Any of line cards is mounted.
.1.3.6.1.4.1.25574.50.10.1000.21	alarmConfigChange	The alarm configurations are changed.
.1.3.6.1.4.1.25574.50.10.1000.22	login	Logged in by someone.
.1.3.6.1.4.1.25574.50.10.1000.23	loginError	Log-in error occurs.
.1.3.6.1.4.1.25574.50.10.1000.24	logout	Logged out by someone.

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