RH2288H V3 Server LCD V100R003

User Guide

Issue	03
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About This Document

Purpose

This document describes the functions, installation position, and operations of the liquid crystal display (LCD) on servers.

Intended Audience

This document is intended for:

- Field maintenance engineers
- System maintenance engineers

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol Conventions

Symbol	Description
 DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 NOTICE	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.

Symbol	Description
NOTE	Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

Change History

Issue	Date	Description
03	2018-04-24	The issue is the third official release. Modified **4 Viewing the Statuses and Alarms of Components**.
02	2014-12-24	The issue is the second official release. Changed the name of the document.
01	2014-08-25	This issue is the first official release.

Contents

1 Functions

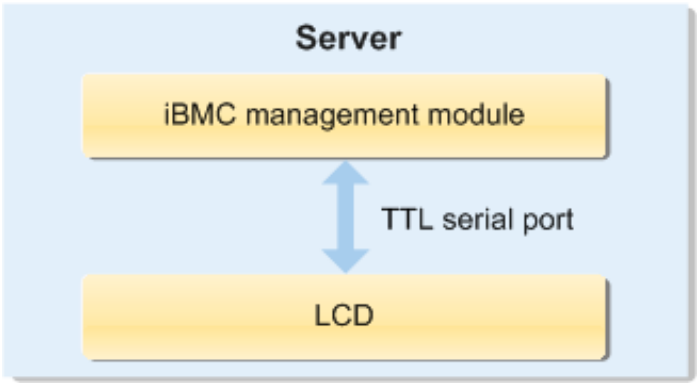
Function

A liquid crystal display (LCD) displays the installation status and running status of server components and enables users to set the IP address of the iBMC management network port on the server.

The LCD and the server iBMC management module (iBMC for short) form an LCD subsystem. It directly obtains device information from iBMC. The LCD subsystem does not store device data.

Figure 1-1 shows the working principle of the LCD subsystem.

Figure 1-1 Working principle

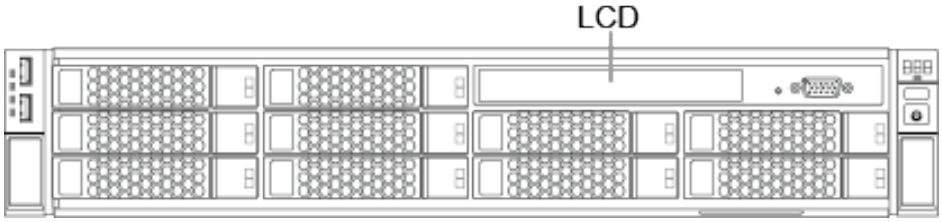


The LCD runs on the iBMC. It is used to query the device status and alarms.

Installation Position

The LCD is installed on the top right side of the front server panel, as shown in **Figure 1-2**.

Figure 1-2 Installation instruction



LCD Screen

Figure 1-3 shows the LCD screen.

Figure 1-3 LCD screen

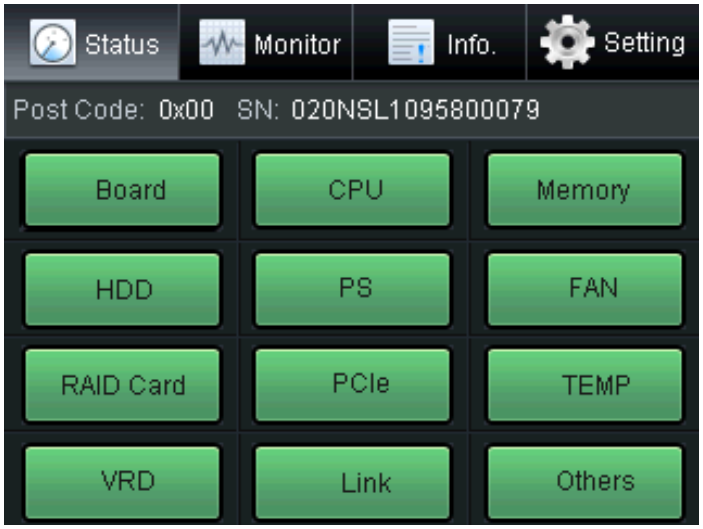


Table 1-1 describes the functions of each tab on the LCD screen.

Table 1-1 Tab function

Tab	Function
Status tab	Displays the status of port 80, serial number, component status, and component alarms of the server.
Monitor tab	Displays the current power of the server, CPU temperature, and inlet temperature.
Info. tab	Displays the IP address and Media Access Control (MAC) address of the iBMC management network port, MAC addresses of host network ports, device serial numbers, asset information, and firmware version.
Setting tab	Sets the IP address of the iBMC management network port.

Icon Description

Table 1-2 describes the LCD subsystem icons and their meanings.

Table 1-2 Icon meaning

Icon	Description
	Indicates that the server is operating properly and that no alarm is generated.
	Indicates that a minor alarm is generated. A minor alarm is generated for a fault that does not have major impact on the system. The minor alarm requires prompt corrective measures to prevent more serious faults.
	Indicates that a major alarm is generated. A major alarm is generated for the fault that may affect normal running of the system or interrupt services.
	Indicates that a critical alarm is generated. A critical alarm indicates the fault that may power off a device, and even interrupt the system services. Therefore, immediate corrective measures for critical alarms are required.
	Indicates that the component cannot be scanned.
	Indicates that the component is working properly.
	Indicates that a minor alarm is generated on the component.
	Indicates that a major alarm is generated on the component.
	Indicates that a critical alarm is generated on the component.
	Indicates that the component is not installed.
	Page down
	Back

Icon	Description
	Page up
	Indicates the delete key on the soft keyboard.

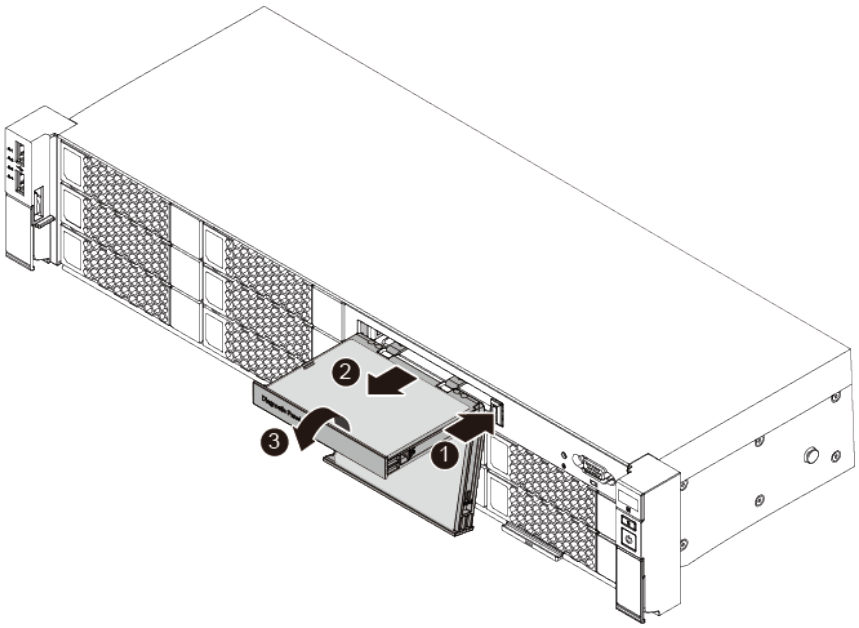
2 Opening the LCD

Procedure

Step 1 Locate the LCD installation position on the top right-hand corner of the front server panel.

Step 2 Press the spring on the LCD. See step (1) in **Figure 2-1**.

Figure 2-1 Opening an LCD



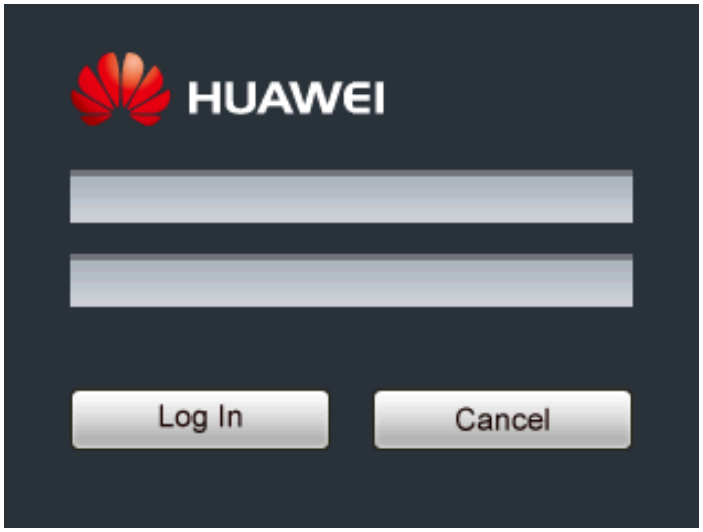
Step 3 Pull the LCD out of the server completely (until the spindle appears). See step (2) in **Figure 2-1**.

Step 4 Rotate the LCD into a position for better viewing. See step (3) in **Figure 2-1**.

Step 5 Tap any place on the LCD screen using your fingernail or a touch pen.

The LCD is activated, and a login screen shown in **Figure 2-2** is displayed.

Figure 2-2 LCD login screen



Step 6 Enter the iBMC user name and password, and tap **Log In**.

NOTE

- The soft keyboard is displayed when you tap the text box. Enter the user name in the first text box and the password in the second text box.
- You can tap **Cancel** to clear the settings.

The **Status** tab is displayed, as shown in **Figure 2-3**.

Figure 2-3 Status tab

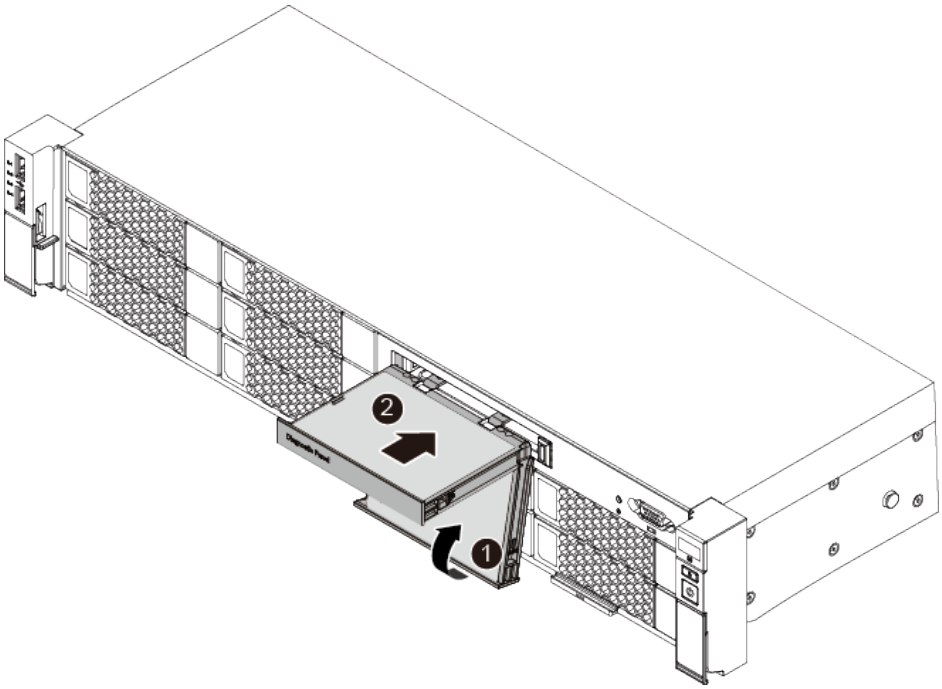
----End

3 Closing the LCD

Procedure

Step 1 Rotate the LCD so that it is parallel to the server. See step (1) **Figure 3-1**.

Figure 3-1 Closing an LCD



Step 2 Push the LCD into the server. See step (2) in **Figure 3-1**.

NOTE

If you do not perform any operations on the LCD screen within 5 minutes, the LCD will automatically hibernate.

----End

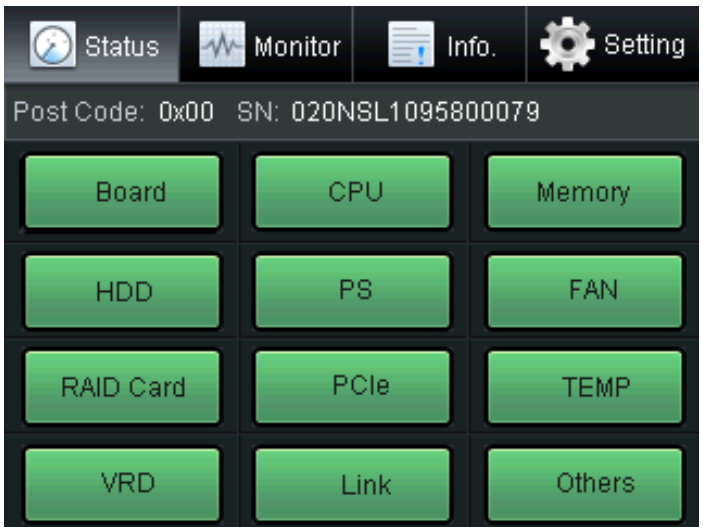
4 Viewing the Statuses and Alarms of Components

Procedure

Step 1 On the LCD screen, tap the **Status** tab.

The **Status** tab is displayed, as shown in **Figure 4-1**.

Figure 4-1 Status tab



NOTE

- **Post Code** indicates the status of server port 80.
- **SN** indicates the serial number of the server.

Components are classified into different categories on the **Status** tab. Tap any component category to enter the component information tab and view the statuses of all components in this category.

Step 2 Choose a component category as required and view the status information.

NOTE

- The status and alarm severity for components are indicated by icons of different colors. For details, see **Icon Description** in **1 Functions**.
- For details about component alarm handling, see the ***Huawei Rack Server iBMC Alarm Handling***.

- Boards and daughter cards
  a. Tap **Board**.
     The **Board** tab is displayed.
  b. View the statuses and alarms of boards and daughter cards.
- CPUs
  a. Tap **CPU**.
     The **CPU** tab is displayed.
  b. View the statuses and alarms of CPUs.
- Memory
  a. Tap **Memory**.
     The **Memory** tab is displayed.
  b. View the statuses and alarms of DIMMs.
  c. The memory card **R1 DIMMs** is used as an example. When you tap **R1 DIMMs**, the **R1 DIMMs** tab is displayed.
  d. View the statuses and alarms of each DIMM on the memory card.
- Hard disks
  a. Tap **HDD**.
     The **HDD** tab is displayed.
  b. View the statuses and alarms of hard disks.
- Power supply units (PSUs)
  a. Tap **PS**.
     The **PS** tab is displayed.
  b. View the statuses and alarms of PSUs.
- Fans
  a. Tap **FAN**.
     The **FAN** tab is displayed.
  b. View the statuses and alarms of fans.
- Redundant Array of Independent Disks (RAID) controller cards.
  a. Tap **RAID Card**.
     The **RAID Card** tab is displayed.
  b. View the statuses and alarms of RAID controller cards.
- PCIe cards
  a. Tap **PCIe**.
     The **PCIe** tab is displayed.
  b. View the statuses and alarms of PCIe cards.
- Temperatures of each server component

a. Tap **TEMP**.

The **TEMP** tab is displayed.

b. View the alarms for the temperature status of each server component.

If the component temperature is normal, the following message is displayed on the **TEMP** tab:

Device in health state.

NOTE

Tap **>** to expand the information area to view details about the alarm.

- Voltage alarms of the mainboard, hard disk backplane, riser cards, memory card, and real-time clock (RTC) battery

a. Tap **VRD**.

The **VRD** tab is displayed.

NOTE

VRD is an abbreviation for **Voltage Regulator Down**.

b. View the voltage alarms of the components.

If the component voltage is normal, the following message is displayed on the **VRD** tab:

Device in health state.

NOTE

Tap **>** to expand the information area to view details about the alarm.

- Connection statuses of internal cables in the server

a. Tap **Link**.

The **Link** tab is displayed.

b. View the connection statuses of the cables.

If the cables are connected properly, the following message is displayed on the **Link** tab:

Device in health state.

NOTE

Tap **>** to expand the information area to view details about the alarm.

- Other components

a. Tap **Others**.

The **Others** tab is displayed.

b. View alarms of other components.

If the components are operating properly, the following message is displayed on the **Others** tab:

Device in health state.

NOTE

Tap **>** to expand the information area to view details about the alarm.

----End

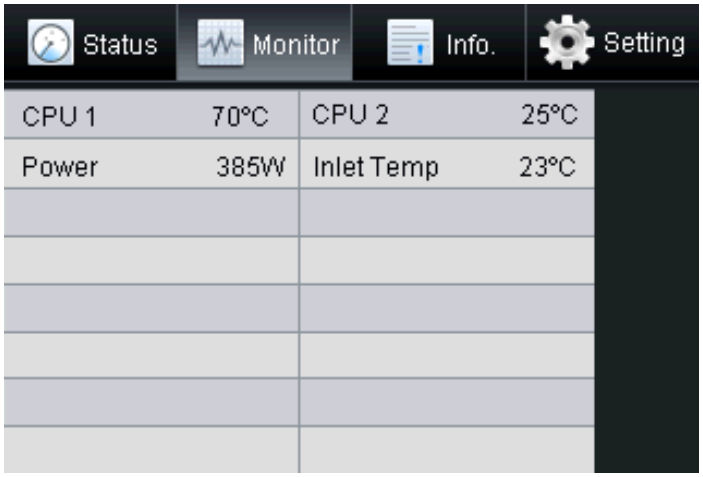
5 Viewing Component Temperatures

Procedure

Step 1 On the liquid crystal display (LCD), tap the **Monitor** tab.

The **Monitor** screen is displayed, as shown in **5 Viewing Component Temperatures**.

Figure 5-1 Monitor



CPU 1	Indicates the operating temperature of CPU 1	CPU 2	Indicates the operating temperature of CPU 2
Power	Indicates the operating power of the server	Inlet Temp	Indicates the air inlet temperature

Step 2 View the component temperatures and the server power.

----End

6 Viewing Server Information

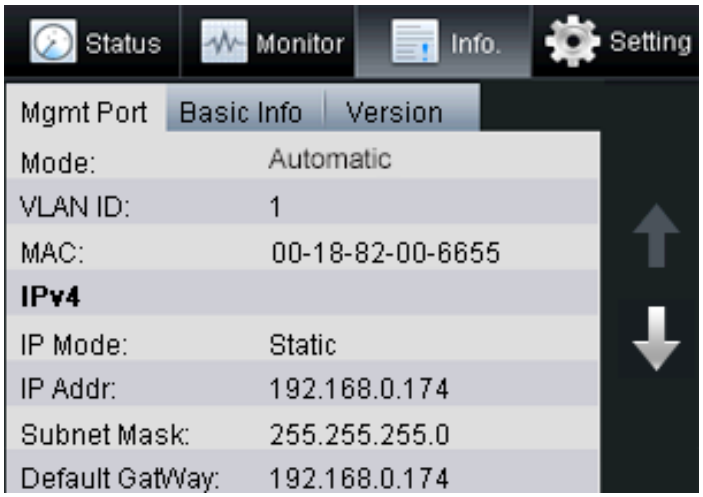
Procedure

Enter the Info. tab.

Step 1 On the liquid crystal display (LCD), tap the **Info.** tab.

The **Info.** tab is displayed, as shown in **6 Viewing Server Information**.

Figure 6-1 Info. tab



Mgmt Port	Displays the IP information of the iBMC management network port.
Basic Info	Displays the MAC addresses of host network ports, device serial numbers, and asset information.
Version	Displays the firmware version.

----End

View the IP address of the management network port.

Step 1 Tap the **Mgmt Port** tab.

The **Mgmt Port** tab is displayed, as shown in **6 Viewing Server Information**.

Step 2 View the IP address of the management network port.

The **Mgmt Port** tab displays the mode, VLAN ID, MAC address, IPv4 address, and IPv6 address of the management network port.

----End

View basic information

Step 1 Tap the **Basic Info** tab.

The **Basic Info** tab is displayed, as shown in **6 Viewing Server Information**.

Figure 6-2 Basic Info tab

Step 2 View the MAC addresses of host network ports, device serial numbers, and asset information.

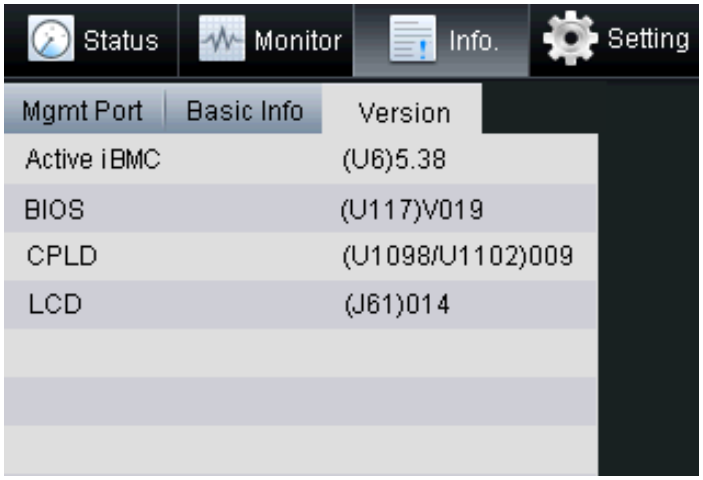
----End

View the firmware version.

Step 1 Tap the **Version** tab.

The **Version** tab is displayed, as shown in **Figure 6-3**.

Figure 6-3 Version



Step 2 View the firmware version.

The **Version** tab displays the following firmware:

- **Active iBMC**: indicates the iBMC.
- **BIOS**: indicates the Basic Input/Output System (BIOS).
- **CPLD**: indicates the Complex Programmable Logical Device (CPLD).
- **LCD**: indicates the LCD.

----End

7 Setting the IP Address for the Management Network Port

You must set the IP address for the management network port on the server.

This IP address can be a dynamic or static IP address.

- The dynamic IP address is controlled by the Dynamic Host Configuration Protocol (DHCP). After the DHCP function is enabled, the IP address of the management network port is obtained automatically.
- The static IP address is set manually.

The following types of switching between operations are supported:

- Switching between the single-system and dual-system modes in single-system mode
- Switching between the single-system and dual-system modes and switching between the master and slave DVD/VGA/USB in dual-system mode

Impact on the System:

- Changing the IP address will result in the disconnection of Web and CLP from the iBMC.
- This operation does not affect services running on the server.

Table 7-1 lists the data to obtained before this operation.

Table 7-1 Required data

Category	Parameter	Description	Value Example
IP address Informa	**IPv4**		

Category	Parameter	Description	Value Example
tion of the management network port	DHCP	Indicates whether the DHCP function is enabled. **NOTE** You can set the static IP address of the management network port only after the **DHCP** function is disabled. Value: **ON** and **OFF** ●  means DHCP function is enabled. ●  means DHCP function is disabled. Setting method: ● Tap  to enable the DHCP function. ● Tap  to disable the DHCP function.	OFF
	IP Addr	Indicates the static IPv4 address of the management network port. Value: The IPv4 address is expressed in decimal format. The maximum length is 32 digits. Value rule: ● The value is divided into four sets. Each set has three decimal numbers. ● Each set is separated by period (.). ● The value ranges from 0 to 255. Setting method: use the soft keyboard.	192.168.30.126
	Subnet Mask	Indicates the subnet mask of the management network port. Setting method: use the soft keyboard.	255.255.255.250
	Default GateWay	Indicates the gateway address of the management network port. Setting method: use the soft keyboard.	192.168.30.1
	IPv6		

Category	Parameter	Description	Value Example
	DHCP	Indicates whether the DHCP function is enabled. **NOTE** You can set the static IP address of the management network port only after the **DHCP** function is disabled. Value: **ON** and **OFF** ●  means DHCP function is enabled. ●  means DHCP function is disabled. Setting method: ● Tap  to enable the DHCP function. ● Tap  to disable the DHCP function.	OFF
	IP Addr	Indicates the static IPv6 address of the management network port. Value: The IPv6 address is expressed in hexadecimal format. The maximum length is 128 characters. Value rule: ● The value is divided into eight sets. Each set has four hexadecimal numbers. ● Each set is separated by colon (**:**). ● The value ranges from 0 to 9 and a to f. Setting method: use the soft keyboard.	2001::1:174
	Prefix Length	Indicates the type of IPv6 address. The default value is **64**, indicating the subnet in the Local Area Network (LAN). Setting method: use the soft keyboard.	64
	Default GateWay	Indicates the gateway address of the management network port. Setting method: use the soft keyboard.	::

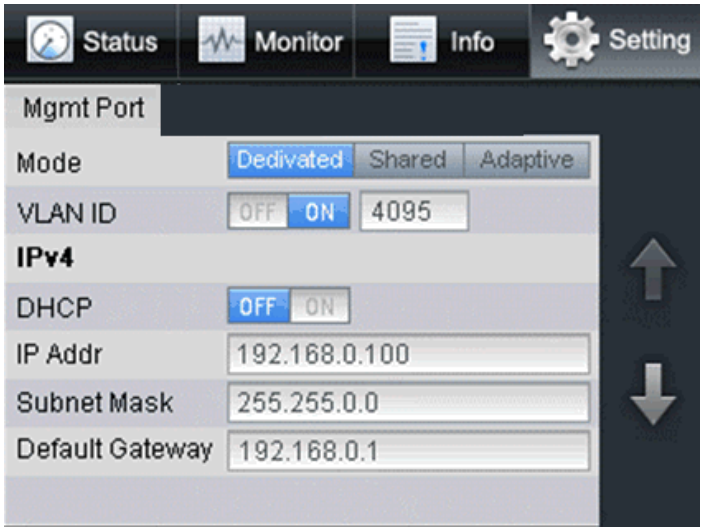
Procedure

Switch to the Setting screen.

1. On the liquid crystal display (LCD), click the **Setting** tab.

   The **Setting** screen is displayed, as shown in **Figure 7-1**.

Figure 7-1 Setting



   Set the IP address.

2. Click the **Mgmt Port** tab.

   The **Mgmt Port** screen is displayed, as shown in **Figure 7-1**.

3. Set the IP address of the management network port based on the parameter information described in **Table 7-1**.

NOTE

The soft keyboard is displayed after you click the text box. You can use the soft keyboard to set the IP address or click **Cancel** to return to the **Mgmt Port** screen.**Figure 7-1**