



# **EM53 User Manual**

05/06/2015

# Content

<b>1. Overview.....</b>	<b>3</b>
1.1. Introduction.....	3
1.2. Features.....	4
<b>2. Installation.....</b>	<b>5</b>
2.1. Check package contents.....	5
2.2. Connection diagram.....	5
<b>3. Configuration.....</b>	<b>6</b>
3.1. Expansion module selection.....	8
3.2. Backlight Setting.....	8
3.3. Ext Key Configuration.....	10
<b>4. Software update.....</b>	<b>14</b>
<b>5. Troubleshooting.....</b>	<b>15</b>

# ***1. Overview***

## **1.1. Introduction**



EM53 is an Expansion Module for SP-R59P, EM53 with large graphic LCD display. 22 programmable keys and 22 dual-color LEDs, and can be programmed to various features include BLF, BLF List, Speed Dial, Hot Desking, Record, XML Browser, Account, Call forward, Pickup, Intercom, DTMF, etc.

## **1.2. Features**

### **➤ Highlights**

- **4.3" 272x480 Graphical LCD with Backlight, 4-bit Grayscale**
- **Powered by Akuvox IP Phone SP-R59P**
- **22 Keys and 22 dual-color LEDs**

### **➤ Features**

- Different icons for each function
- Multi-Language Support
- Programmable keys for BLF, BLF List, Speed Dial, Hot Desking, Record, XML Browser, Account, Call forward, Pickup, Intercom, DTMF, etc
- Firmware Upgradable
- Powered by Akuvox IP phone SP-R59P

### **➤ Physical Features**

- 22 physical keys each with a dual-color LED
- 4.3" 272x480 Graphical LCD with Backlight, 4-bit Grayscale
- 2 RJ12(6P6C) ports for data in and out
- AC Power Adapter: Input: AC 100-240V; Output: DC 5V/1A

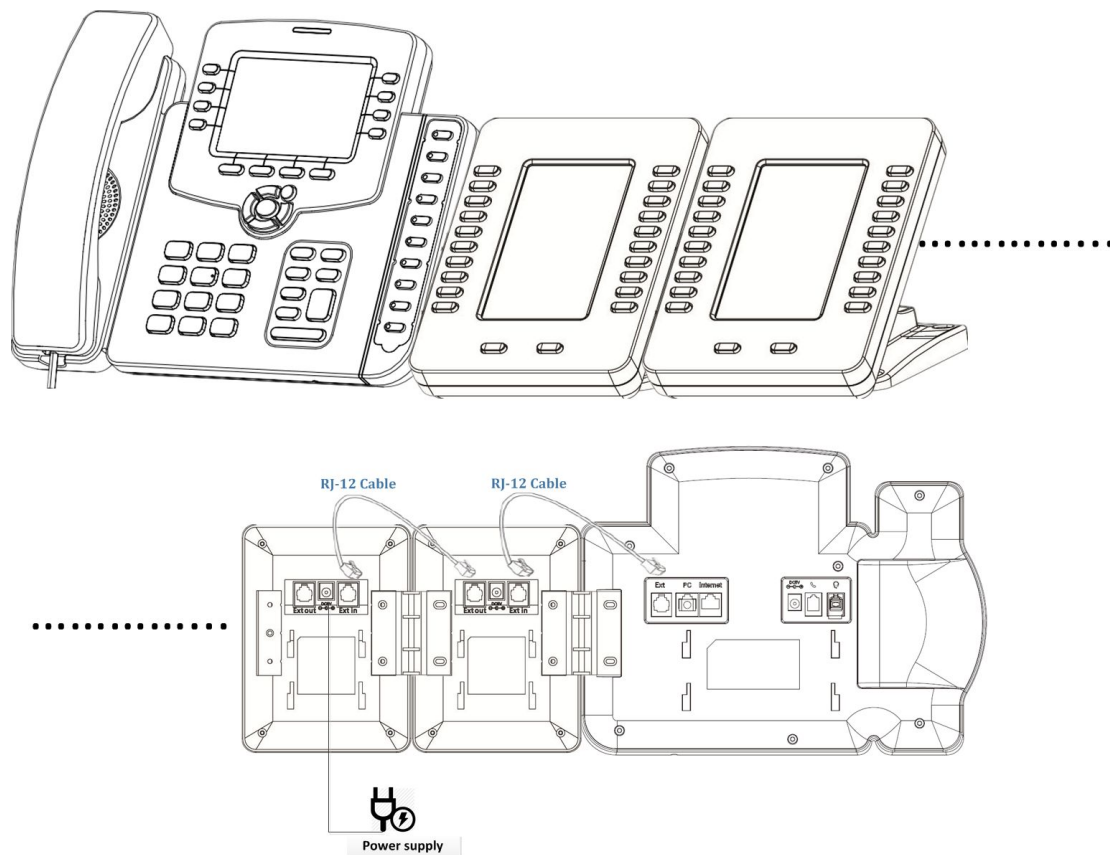
## 2. Installation

### 2.1. Check package contents

Please refer to the package list below to check the completeness of package

Name	Quantity
EM53 unit	1
User Guide	1
RJ-12 Cable	1
Jointbar	1
Stand	1
Screws	4

### 2.2. Connection diagram

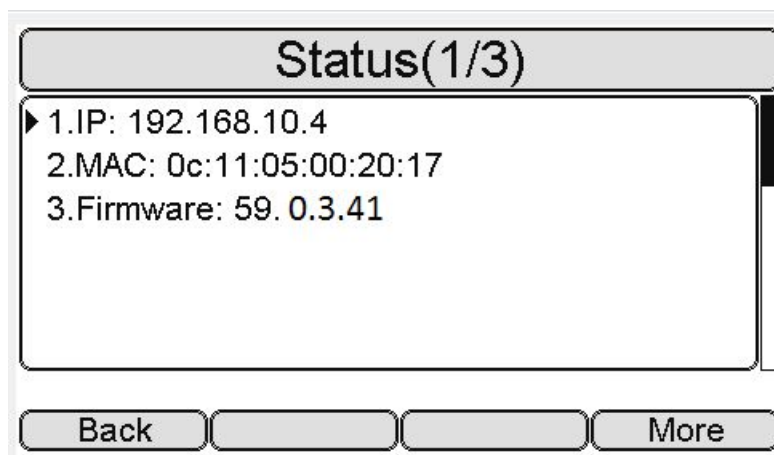


### 3. Configuration

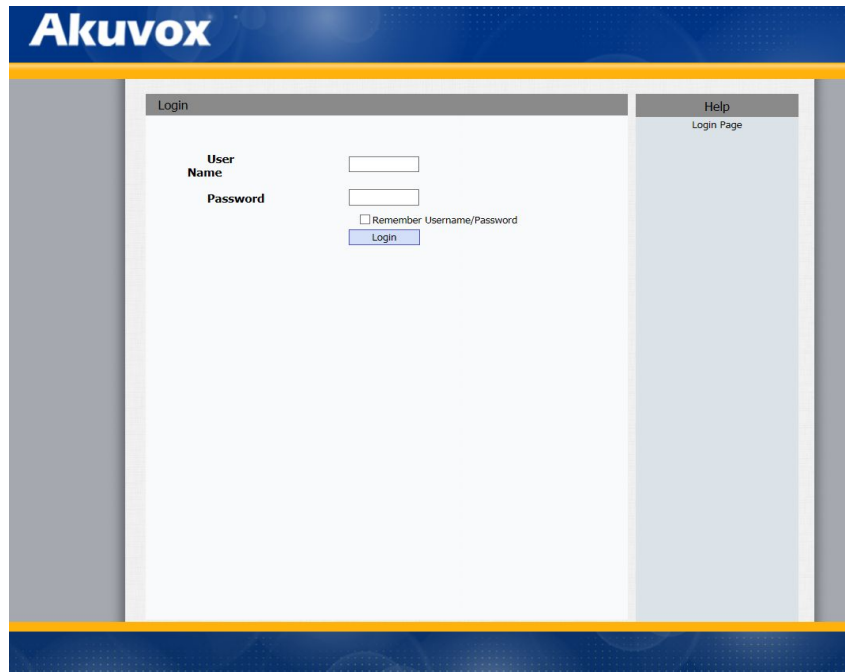
The EM53 expansion module supports 20 DSS Ext keys. The only way to configure the Ext keys is to access to the web interface of the sip phone. To login the web interface, you should obtain the IP address of the IP phone in advance. Press the OK key when the phone is idle after connecting to the network, and the phone will display the IP address and some other status. Enter the IP address in the IE or other web browser on your PC, the default username and password are both admin and admin.

**Note:** Ensure EM53 is connected to SP-R59P successfully via the RJ12 cable.

- Press the OK key when the phone is idle after connecting to the network.



- Type the IP address : <http://192.168.10.4> on IE, input default User Name and Password: admin/admin to login the web interface.



- Go to the path: Phone->Ext Key to see the configuration of each Ext key. Allow user to assign specific feature to the designated Ext key. For Ext key, the available feature list: DND, Menu, MSG, Status, Book, Fwd, PickUp, Group PickUp, Intercom, Speed Dial, History, Favorites, Redial, Account, ACD, BLF, BLFList, Call Return, Hot Desking, Record, XML Browser, DTMF.

**Akuvox**

LogOut

► Status  
► Account  
► Network  
► Phone  
    Time/Lang  
    Preference  
    Call Feature  
    Voice  
    Key/Display  
    **Ext Key**  
    Ringtones  
    Tones  
    Dial Plan  
    Action URL  
► PhoneBook  
► Upgrade  
► Security

**Ext Key**

Upload

Firmware Version  
Expansion Module   
Backlight Intensity   
Backlight Time

Key	Type	Label	Value	Account	Extension
Key 1	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 2	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 3	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 4	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 5	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 6	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 7	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 8	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 9	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 10	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 11	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 12	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 13	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 14	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 15	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 16	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 17	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 18	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 19	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>
Key 20	N/A	<input type="text"/>	<input type="text"/>	Account 1	<input type="text"/>

**Help**

**Note :**  
Max length of characters for input box:  
255: Broadsoft Phonebook server address  
127: Remote Phonebook URL & AUTOP Manual Update Server URL  
63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**

### 3.1. Expansion module selection

Several expansion modules can be chained together to connect to a SP-R59P IP phone, so that you can have many more Ext keys to use at the same time.

Up to six expansion modules can be daisy-chained to a single SP-R59P IP phone. Before configuring the Ext keys, you should choose the right expansion module first.

- Go to the path: Phone->Ext Key->Expansion Module;
- Choose the designated expansion module;
- Press Submit to accept the changes.



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LogOut

► Status  
► Account  
► Network  
► Phone  
    Time/Lang  
    Preference  
    Call Feature  
    Voice  
    Key/Display  
    **Ext Key**  
    Ringtones  
    Tones  
    Dial Plan  
    Action URL  
► PhoneBook  
► Upgrade  
► Security

**Ext Key**

Upload  浏览...  
Submit Cancel

Firmware Version  
Expansion Module **1**  
Backlight Intensity **3**  
Backlight Time **20**

Key	Type	Label	Value	Account	Extension
Key 1	N/A			Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

Submit Cancel

**Help**

**Note :**  
Max length of characters for input box:  
255: Broadsoft Phonebook server address  
127: Remote Phonebook URL & AUTOP Manual Update Server URL  
63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**  
Submit Cancel

## 3.2. Backlight Setting

### Backlight level

Set the screen backlight level of the expansion module. There are five levels of the backlight intensity, default is level 3.

- Go to the path: Phone->Ext Key->Backlight Intensity;
- Choose the backlight level;
- Press Submit to accept the changes.

**Akuvox** LogOut

▶ Status  
 ▶ Account  
 ▶ Network  
 ▶ Phone  
   Time/Lang  
   Preference  
   Call Feature  
   Voice  
   Key/Display  
   **Ext Key**  
   Ringtones  
   Tones  
   Dial Plan  
   Action URL  
 ▶ PhoneBook  
 ▶ Upgrade  
 ▶ Security

**Ext Key**

Upload 浏览...

Firmware Version

Expansion Module

**Backlight Intensity**

Backlight Time

Key	Type	Label	Value	Account	Extension
Key 1	N/A			Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

**Help**

**Note :**  
 Max length of characters for input box:  
 255: Broadsoft Phonebook server address  
 127: Remote Phonebook URL & AUTOP Manual Update Server URL  
 63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**

## Backlight Duration

Set the duration of backlight of the expansion module. Default value is 20s.

- Go to the path: Phone->Ext Key->Backlight Time;
- Choose the backlight time;
- Press Submit to accept the changes.

**Akuvox** LogOut

► Status  
► Account  
► Network  
▼ Phone  
    Time/Lang  
    Preference  
    Call Feature  
    Voice  
    Key/Display  
    **Ext Key**  
    Ringtones  
    Tones  
    Dial Plan  
    Action URL  
► PhoneBook  
► Upgrade  
► Security

### Ext Key

Upload  浏览...

Firmware Version   
Expansion Module   
Backlight Intensity   
Backlight Time

Key	Type	Label	Value	Account	Extension
Key 1	N/A			Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

**Help**

**Note :**  
Max length of characters for input box:  
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127: Remote Phonebook URL & AUTOP Manual Update Server URL  
63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**

### 3.3. Ext Key Configuration

- Go to the path: Phone->Ext Key->key;
- Choose the function of each Ext key in the drop-down menu;
- Fill in the value of each item: "Label"、"Value"、"Account"、"Extension" (Not all of items are necessary for each function);
- Press Submit to accept the changes.

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Logout

- ▶ Status
- ▶ Account
- ▶ Network
- ▶ Phone
  - Time/Lang
  - Preference
  - Call Feature
  - Voice
  - Key/Display
  - Ext Key**
  - Ringtones
  - Tones
  - Dial Plan
  - Action URL
- ▶ PhoneBook
- ▶ Upgrade
- ▶ Security

**Ext Key**

Upload
浏览...

Submit Cancel

Firmware Version  
 Expansion Module 1  
 Backlight Intensity 3  
 Backlight Time 20

Key	Type	Label	Value	Account	Extension
Key 1	N/A			Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

Submit Cancel

**Help**

**Note :**  
 Max length of characters for input box:  
 255: Broadsoft Phonebook server address  
 127: Remote Phonebook URL & AUTOP Manual Update Server URL  
 63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**  
Submit Cancel

**For Example:**

## DND

- Go to the path: Phone->Ext Key->key;
- Choose DND function of each Ext key in the drop-down menu;
- Fill in the value of Label, such as: Do not disturb;
- Press Submit to accept the changes.

Akuvox
Logout

- ▶ Status
- ▶ Account
- ▶ Network
- ▼ Phone
  - Time/Lang
  - Preference
  - Call Feature
  - Voice
  - Key/Display
  - Ext Key**
  - Ringtones
  - Tones
  - Dial Plan
  - Action URL
- ▶ PhoneBook
- ▶ Upgrade
- ▶ Security

**Ext Key**

Upload

浏览...

Firmware Version 1

Expansion Module 3

Backlight Intensity 20

Backlight Time 20

Key	Type	Label	Value	Account	Extension
Key 1	DND	Do not disturb		Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

**Help**

**Note :**  
 Max length of characters for input box:  
 255: Broadsoft Phonebook server address  
 127: Remote Phonebook URL & AUTOP Manual Update Server URL  
 63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**

## BLF(Busy Field Lamp)

- Go to the path: Phone->Ext Key->key;
- Choose BLF function of each Ext key in the drop-down menu;
- Fill in the value of each item, such as: Label->Pick up; Value->1005; Extension->\*; Account->Account1;
- Press Submit to accept the changes.

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Logout

Status

Account

Network

Phone

Time/Lang

Preference

Call Feature

Voice

Key/Display

Ext Key

Ringtones

Tones

Dial Plan

Action URL

PhoneBook

Upgrade

Security

Ext Key

Upload

浏览...

Submit

Cancel

Firmware Version

Expansion Module

1

Backlight Intensity

3

Backlight Time

20

Key	Type	Label	Value	Account	Extension
Key 1	BLF	pick up	1005	Account 1	**
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

Submit

Cancel

Help

Note :

Max length of characters for input box:  
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127: Remote Phonebook URL & AUTOP Manual Update Server URL  
63: The rest of input boxes

Warning :

Field Description :

Submit Shortcut

Submit

Cancel

14

## 4. Software update

To select an upgrade rom file from local side, then press Submit to access the upgrading.

**Note:** Please make sure it's in right file format for right model.

**Akuvox**

LogOut

► Status  
► Account  
► Network  
▼ Phone  
Time/Lang  
Preference  
Call Feature  
Voice  
Key/Display  
**Ext Key**  
Ringtones  
Tones  
Dial Plan  
Action URL  
► PhoneBook  
► Upgrade  
► Security

**Ext Key**

Upload  浏览...

Firmware Version  
Expansion Module 1  
Backlight Intensity 3  
Backlight Time 20

Key	Type	Label	Value	Account	Extension
Key 1	N/A			Account 1	
Key 2	N/A			Account 1	
Key 3	N/A			Account 1	
Key 4	N/A			Account 1	
Key 5	N/A			Account 1	
Key 6	N/A			Account 1	
Key 7	N/A			Account 1	
Key 8	N/A			Account 1	
Key 9	N/A			Account 1	
Key 10	N/A			Account 1	
Key 11	N/A			Account 1	
Key 12	N/A			Account 1	
Key 13	N/A			Account 1	
Key 14	N/A			Account 1	
Key 15	N/A			Account 1	
Key 16	N/A			Account 1	
Key 17	N/A			Account 1	
Key 18	N/A			Account 1	
Key 19	N/A			Account 1	
Key 20	N/A			Account 1	

**Help**

**Note :**  
Max length of characters for input box:  
255: Broadsoft Phonebook server address  
127: Remote Phonebook URL & AUTOP Manual Update Server URL  
63: The rest of input boxes

**Warning :**

**Field Description :**

**Submit Shortcut**

## ***5. Troubleshooting***

### **Issue 1: The EM53 LCD is blank**

- If more than two expansion modules are connected to a SP-R59P IP phone, ensure that at least one expansion module is plugged into a functional adapter.

### **Issue 2: The EM53 LCD is back**

- Check the backlight level of expansion module on the web interface, choose a comfortable backlight level for usage.

### **Issue 3: Cannot access the web interface**

- Check the connection between the PC port of the device and the network port of the computer. Make sure it is fine.
- Check whether the IP address of the device is correct.
- If it is LAN, please make sure there is no IP address collision with other devices on the network.

**For more information about the configuration, please refer to SP-R59P IP Phone User Guide.**