FPAD-Web Series HMI

Quick Start Guide

Document Version: 02

Publication Date: 2026-08-11



Any textual descriptions, text formatting, illustrations, photographs, methods, and other content in this document, unless otherwise specified, are the property of Shanghai Flexem Technology Co. Ltd. (herein after referred to as "Flexem") and are protected by intellectual property and copyright laws. No individual or organization may reproduce or quote any part of this document in any way without the written authorization and permission of Flexem.

Any organization or individual authorized to use the content in this document should use it within the authorized scope and indicate the source as "Source: Flexem". Flexem reserves the right to pursue legal action against anyone who violates the above statement.

Except for the trademarks of Shanghai Flexem Technology Co. Ltd., other trademarks, product logos and product names appearing in this manual are owned by their respective rights holders.

Revision History

Date	Version	Description of changes
2025-10-14	01	Initial publication
2026-08-11	02	Added descriptions pertaining to maintenance and updates.

目 录

Preface ..... **I**

1 Product Overview **1**

1.1 Product Introduction 1

1.2 Product Appearance 1

2 Configure Device Startup Mode **2**

3 System Configuration **4**

3.1 Device Configuration 4

3.1.1 Hardware Configuration 4

3.1.2 System Configuration 5

3.1.3 Ethernet Configuration 6

3.1.4 Maintance & Update 7

3.2 Browser Configuration 8

3.3 Security Configuartion 9

3.3.1 Password Configuration 9

3.3.2 Service Configuration 10

4 Desktop Mode **12**

4.1 Enter System Configuration from Desktop Mode 12

4.2 Installing Third-Party Applications in Desktop Mode 13

Preface

Overview

Thank you for choosing Flexem product. This manual is designed to detail the fundamental configuration methods for the FPAD-Web series HMI, enabling users to rapidly deploy and use the product.

The content provided in this manual only serves as general guidance and does not guarantee coverage of all usage scenarios for all product models. Due to reasons such as version upgrades, different device models and configuration files, the content provided in the manual may not match the actual device interface used by the user. Please refer to the actual information displayed on the user's device interface. The manual will not provide a detailed explanation of the differences caused by the aforementioned situations.

For the purpose of functional introduction and configuration examples, the manual may use IP addresses, URLs, domain names, etc. Unless otherwise specified, the aforementioned content is for illustration only and does not represent any actual significance.

Target Reader

This document is primarily intended for readers who wish to learn the basic configuration of the FPAD-Web series HMI, including system administrators and operators. It is assumed that the reader has a fundamental understanding of the following topics:

- Basic network communication protocols, such as TCP/IP
- Web Fundamentals
- HMI operational principles

Format Convention

This manual follows the following content formatting conventions:

Content	Description
Bold	Bold represents the names and contents of various controls on the software interface. For example, "Select **Window/Current Window Properties** from the menu bar to enter the **Modify Window** page, and select the **Timer** tab."
/	When describing the operation steps on the software interface, slash is used to isolate the clicked objects(menu item, sub-menu, button, etc.). For example, “Select **Component/Switch/Bit Set** from the menu bar, and create a new bit set switch component”.

Content	Description
Italic	Variables, must be replaced by actual values accordingly. For example, “Enter ‘ftp://the IP of HMI’ in the browser address bar, and press Enter to enter the file directory interface of the HMI.”

This manual follows the icon formatting conventions below.

Icon	Description
	Tips, operation tips for users to solve problems.
	Description, supplementary and explanatory information for the main text.
	Caution, reminders for operation precautions, improper operation may cause potential device damage or data loss.
	Warning, the content following this icon requires special attention, otherwise it may result in personal injury.

Get Help

If you have any problem during use, please call the service hotline at 4008-033-022.

Please visit https://www.flexem.cn/download to obtain more documents.

Contact information

Address: 9th Floor of INNO Center Building A, No. 386 Guo’an Road, Yangpu District, Shanghai

Postcode: 200433

Website: https://www.flexem.cn

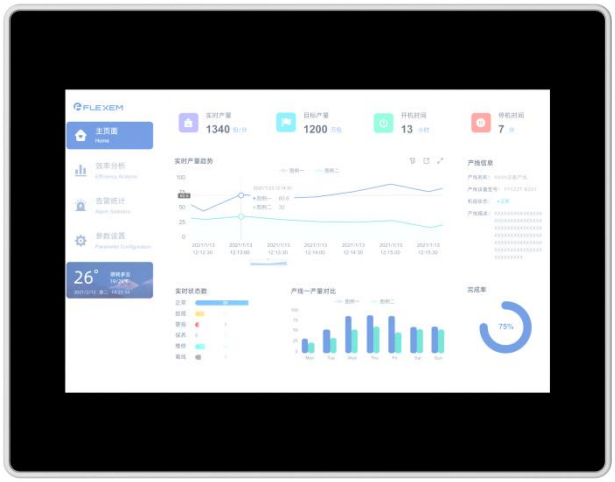
1 Product Overview

1.1 Product Introduction

The FPAD-Web Series HMI is an industrial human-machine interface device based on web technology. It utilizes an open operating system and supports three operational modes: Browser Mode, System Configuration Mode, and Desktop Mode. The device can function either as a standalone HMI or as a front-end display and interaction terminal for an industrial control system.

- In Browser Mode, the device can directly load designated web pages. It is commonly used for accessing cloud platforms, SCADA systems, or remote monitoring systems, enabling rapid deployment and convenient operation.
- In System Configuration Mode, users can centrally manage device parameters, network configuration, NTP time synchronization, and firmware updates, facilitating easy device initialization and maintenance.
- In Desktop Mode, the device provides a full Debian desktop environment, supporting a wider range of application operations and expansion scenarios.

1.2 Product Appearance



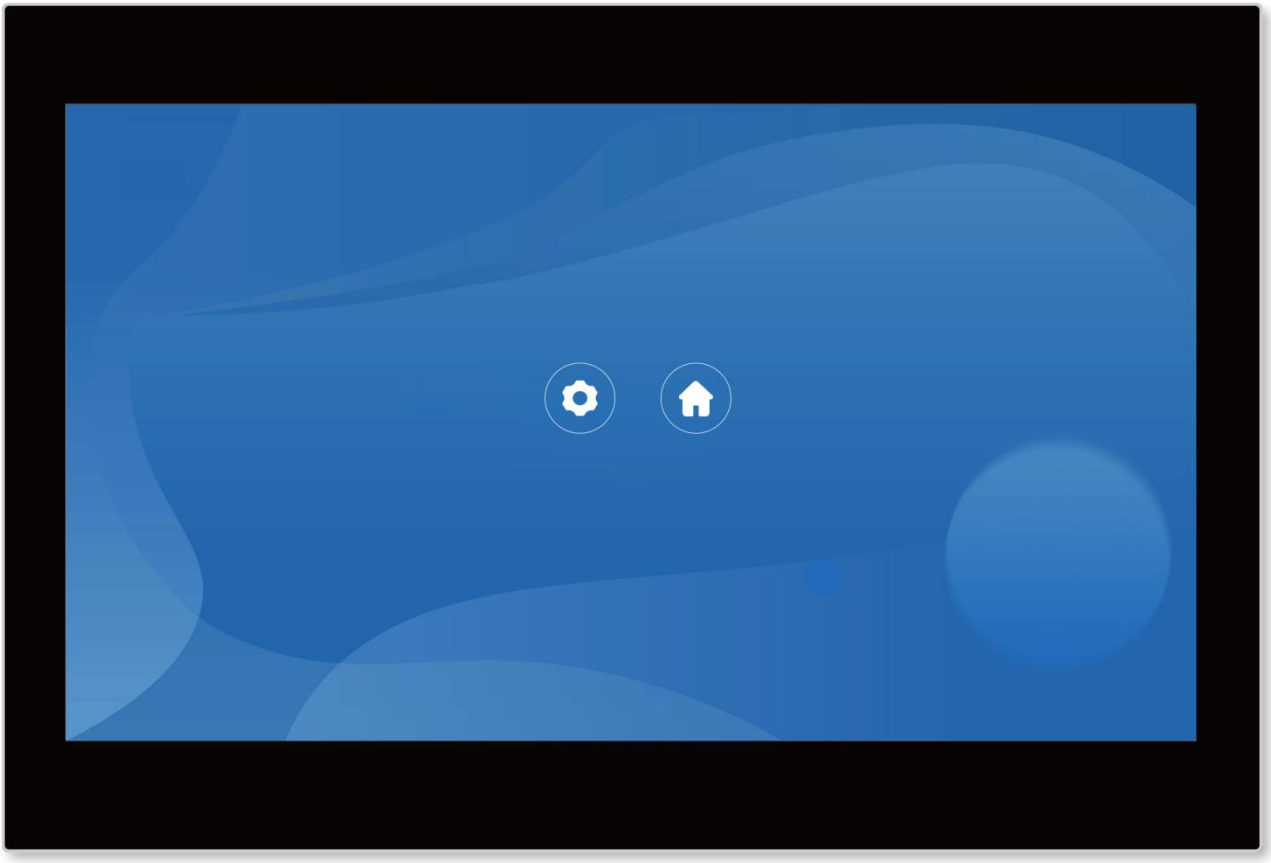


2 Configure Device Startup Mode

The FPAD-WEB Series HMI can be configured to boot in three different modes, allowing users to choose the most suitable one for their particular use case.

To configure device startup mode, follow these steps:

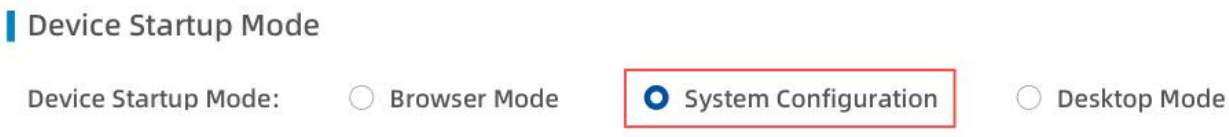
Step 1. Power on the device and wait for approximately 3-5 seconds. The boot screen will appear as shown in the figure below.



Step 2. Click  icon, enter **System Configuration** interface.

Step 3. Select Device Startup Mode.

- System Configuration（Default）



After selecting this mode, the system will start up directly into the configuration page. This is

intended for setting up the device when first used. Once you have finished, you have the option to switch to a different mode based on your needs.

- Browser Mode



After startup, you will be taken directly to your pre-configured browser homepage. This is designed for instantly launching your monitoring system or web application. If you need to change any settings, simply long-press on the screen to be taken to the system configuration interface.

- Desktop Mode



After booting, you will see the Debian 11 desktop environment. It offers a familiar Linux desktop experience, enabling you to run many applications. To perform further configuration, click the " Startup Page " icon on the desktop to open the System Configuration page. This mode is suitable for users who require more advanced operating system functionality, such as file management, debugging, or running local programs.

3 System Configuration

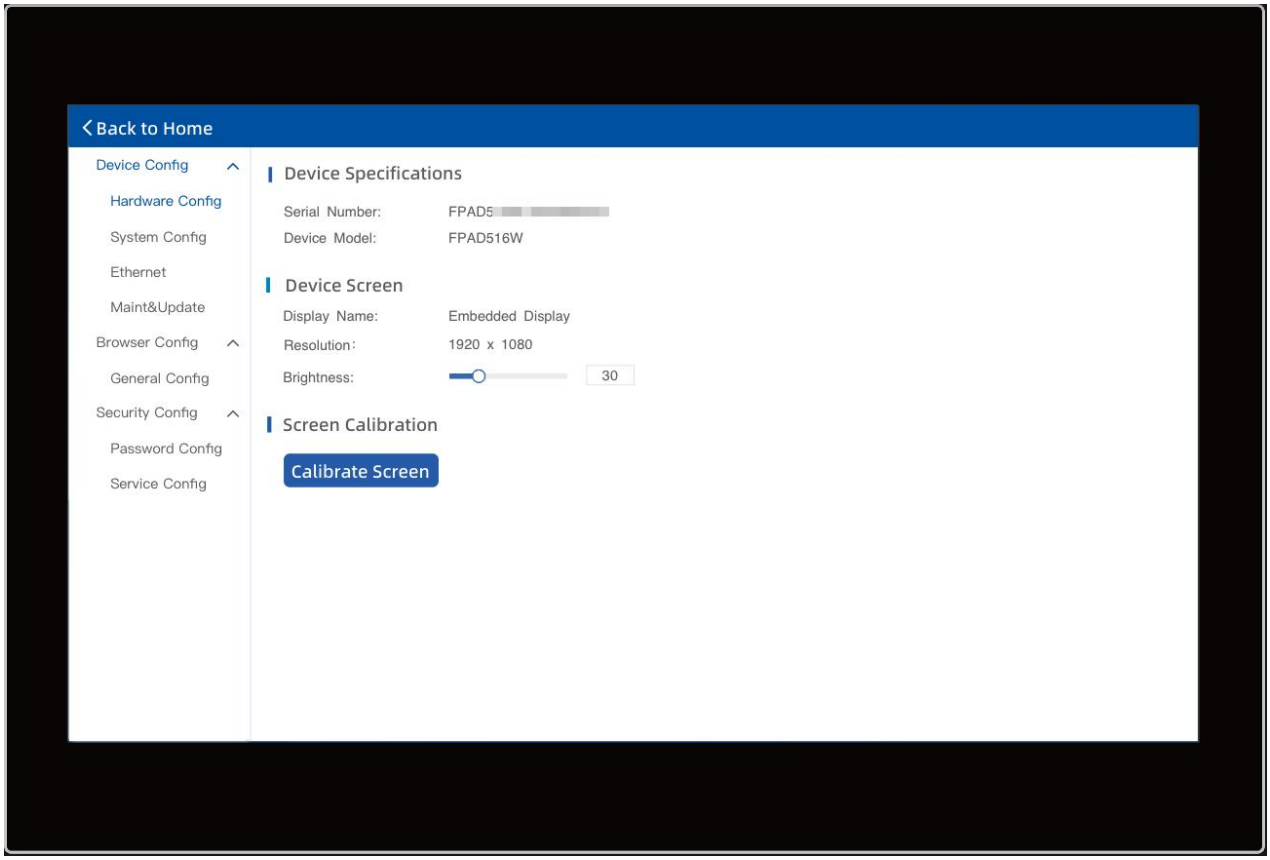
The System Configuration interface allows users to configure the basic settings of the FPAD-Web series HMI. Its functions are organized into three areas: Device Configuration, Browser Configuration, and Security Configuration.

3.1 Device Configuration

3.1.1 Hardware Configuration

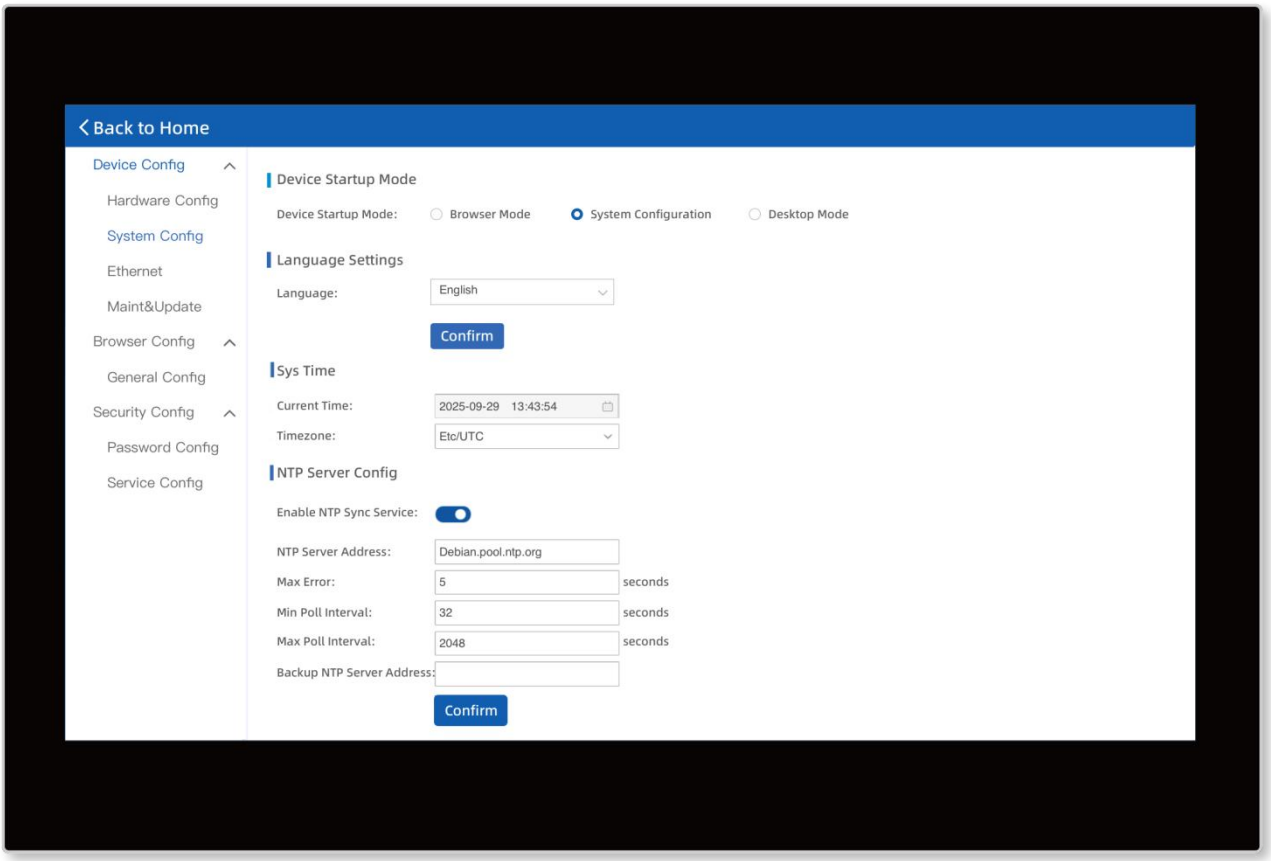
In the left navigation bar, select **Device Configuration / Hardware Configuration**. You will enter the hardware configuration interface, where you can view and set parameters specific to your device.

- **Device Specifications:** Shows the device serial number and model, allowing for easy device management and streamlined technical support acquisition.
- **Device Screen:** Shows the display and resolution information. You can adjust the screen brightness using a slider, allowing you to optimize it for your environment's lighting.
- **Screen Calibration:** If you find your touch isn't aligning with what's on screen, you can recalibrate it here for perfect accuracy. Simply tap **Calibrate Screen** and just follow the instructions to touch the specified points



3.1.2 System Configuration

System Configuration allows for the setup of the device's basic operating environment, covering the startup mode, language, time and time zone, and network time synchronization method. Proper configuration of these parameters enables users to tailor the device's operational mode to field conditions, guarantee a linguistically appropriate interface, ensure precise timekeeping, and streamline future management and operation.



Pleae refer to the table below for detailed configuration methods.

Parameter	Descripiton
Device Startup Mode	◆ System Conifguration： This mode is designed for debugging and initial deployment, providing immediate access to the System Configuration interface right after boot. ◆ Browser Mode: After booting, your device is set to launch automatically into a specified browser page. The webpage URL is configured in the Browser Configuration menu(for details, please refer to Browser Configuration). This mode is perfect for directly launching your monitoring platform or a specific web app. Changes to the settings apply instantly—no need to restart. To get to your page, simply click **Back to Home** in the top-left corner and then tap the icon. ◆ Desktop Mode: After startup, you will see the full Debian 11 desktop. This gives you a standard computer Operating System interface where you can install and run your own applications.

Parameter	Descripiton
Language Settings	Choose your preferred system language (Chinese or English) and click **Confirm**. The change will take effect after you restart the device.
Current Time	You can manually set the date and time.
Timezone	Please refer to the actual geographical location.
Enable NTP Sync Service	When enabled, this function synchronizes the HMI's system time with that of the NTP server. This feature is particularly critical for applications requiring strict timestamp alignment, such as production line data upload, building monitoring log recording, cloud platform integration, and coordinated operation of multiple devices.
NTP Server Address	The IP address or domain name of the NTP server.
Max Distance	The acceptable maximum time error, with a default value of 60 seconds.
Min Poll Interval	This defines the shortest permitted time interval (in seconds) between requests sent from the NTP client to the server. The configured value must be a power of two, such as 32.
Max Poll Interval	This defines the longest allowed time interval (in seconds) between requests sent from the NTP client to the server. The configured value must be a power of two, such as 2048.
Backup NTP Server Address	When the primary NTP server is unavailable, a secondary NTP server can be used to synchronize the system time. Both IP addresses and domain names are supported.

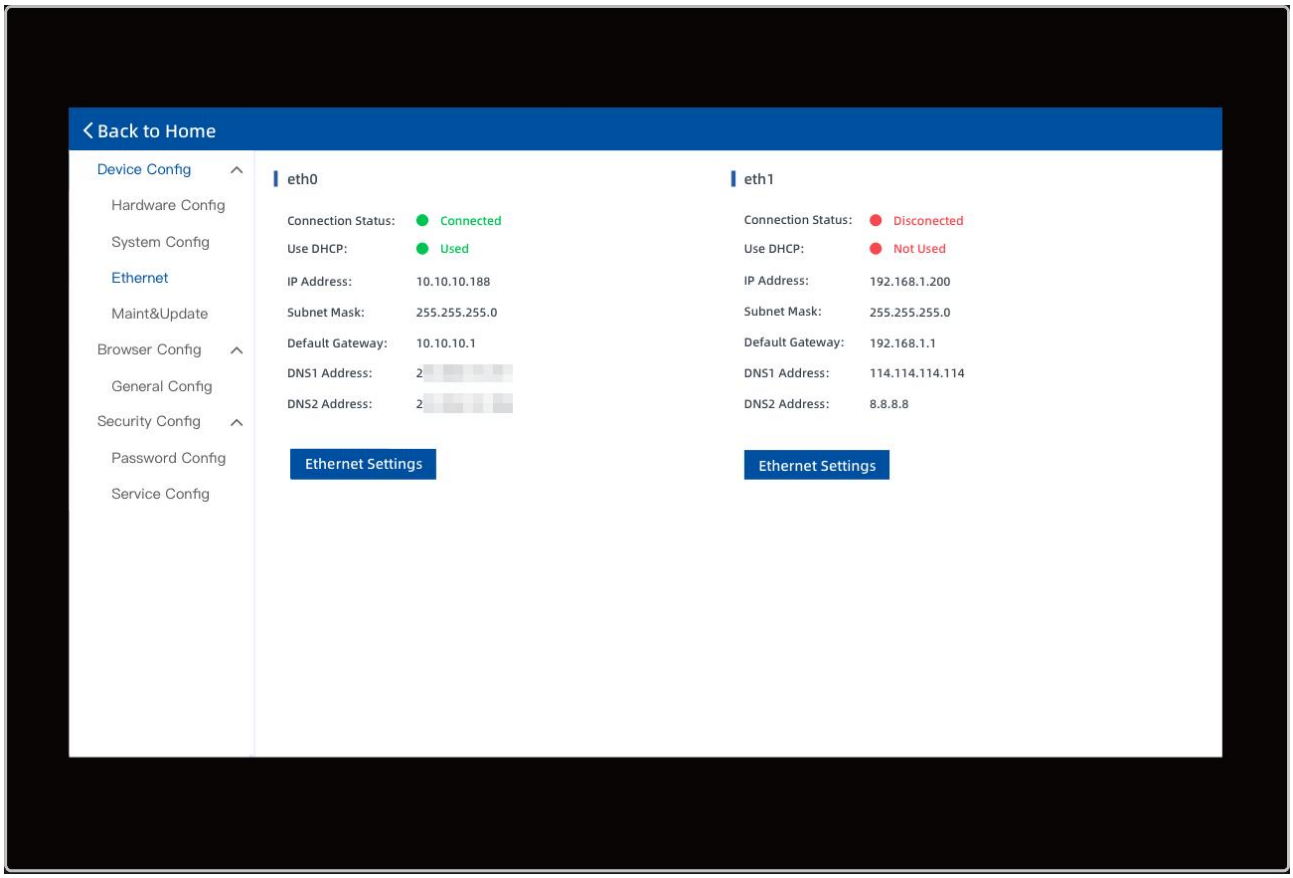
3.1.3 Ethernet Configuration

Ethernet configuration is used to manage the network connection parameters of the device. The system supports two interfaces: Ethernet 0 and Ethernet 1. Users can view the current network status in the interface, including information such as IP address, subnet mask, and gateway.

When connecting to a local area network or industrial network, relevant parameters can be modified according to the on-site network plan, and the changes will take effect immediately after saving. With proper Ethernet configuration, the device can stably establish communication with host computer systems, servers, or cloud platforms, ensuring the reliability and real-time performance of data transmission.

The procedure is as follows:

In the left navigation bar, select **Device Configuration / Ethernet**, choose **Ethernet 0** or **Ethernet 1**, click **Ethernet Settings**, modify the relevant parameters, and then click **Save**.



Please refer to the table for detailed configuration methods.

Parameter	Description
IP Address	The IP address of the Ethernet card shall be determined based on the actual situation.
Subnet Mask	It is used to separate the network portion and the host portion of an IP address. For example, 255.255.255.0.
Default Gateway	The default gateway of the device must be on the same network segment as the device's IP address.
DNS1 Address	The IP address of the primary DNS server shall be determined based on the actual situation.
DNS2 Address	The IP address of the backup DNS server shall be determined based on the actual situation.

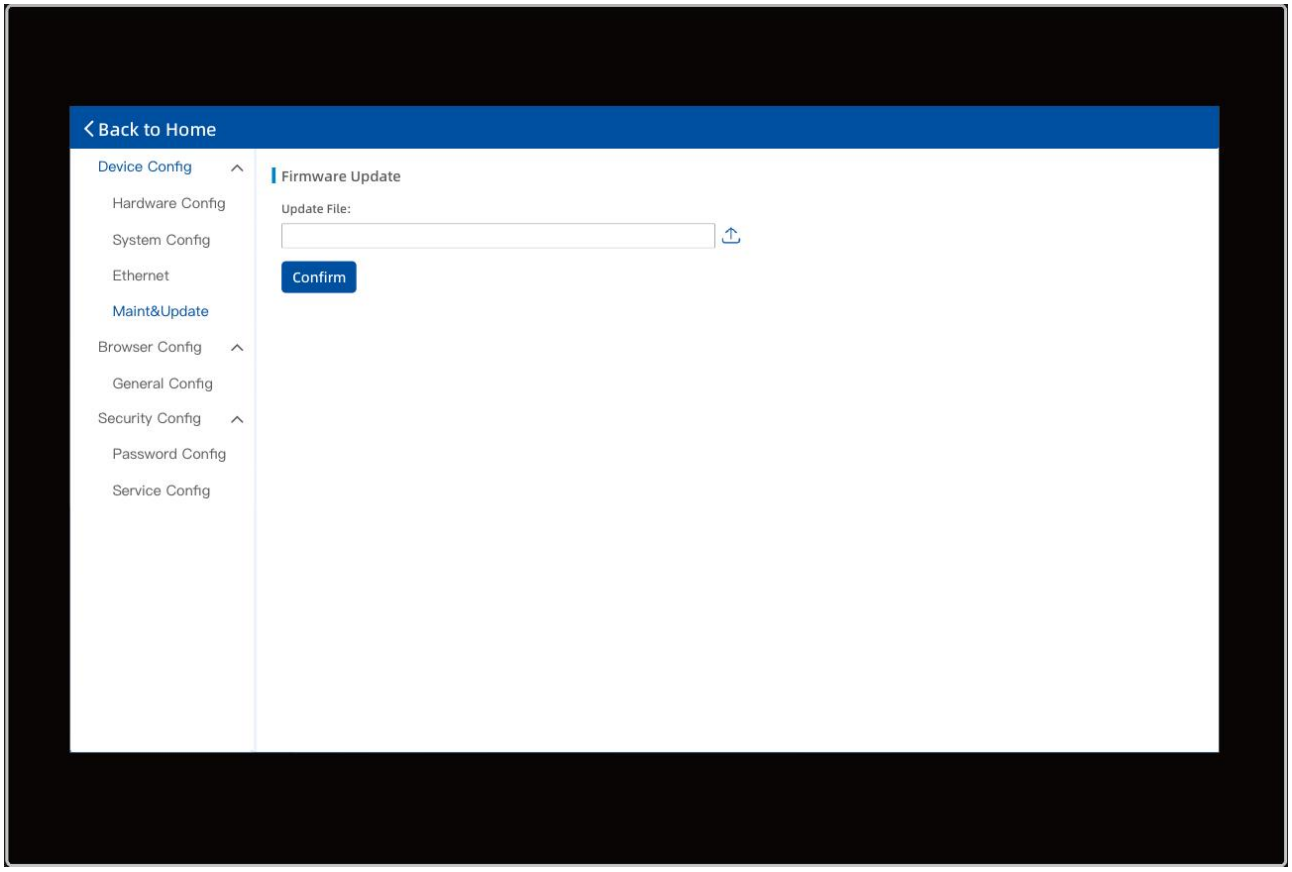
3.1.4 Maintance & Update

The maintenance and update function is primarily used to ensure the long-term stability and functional improvement of the device system. Users can perform firmware update operations in the interface by uploading

new firmware files to access system function enhancements and potential issue fixes. During the update process, it is essential to maintain a stable power supply and avoid sudden power interruptions or operational disruptions to prevent device damage or system abnormalities.

The procedure for updating the device firmware is as follows:

In the left navigation bar, select **Device Configuration / Maintenance & Update**, click the icon**,** select the firmware file(e.g., fpad-desktop_1.0.5_arm64.deb) in the pop-up dialog box, and click **Confirm**. Enter the password again (to prevent accidental operations) for secondary confirmation. Wait for the HMI to complete the firmware update. Once the update is finished, choose either **Restart Later or Restart Now**. The new firmware will take effect after the system restarts.



3.2 Browser Configuration

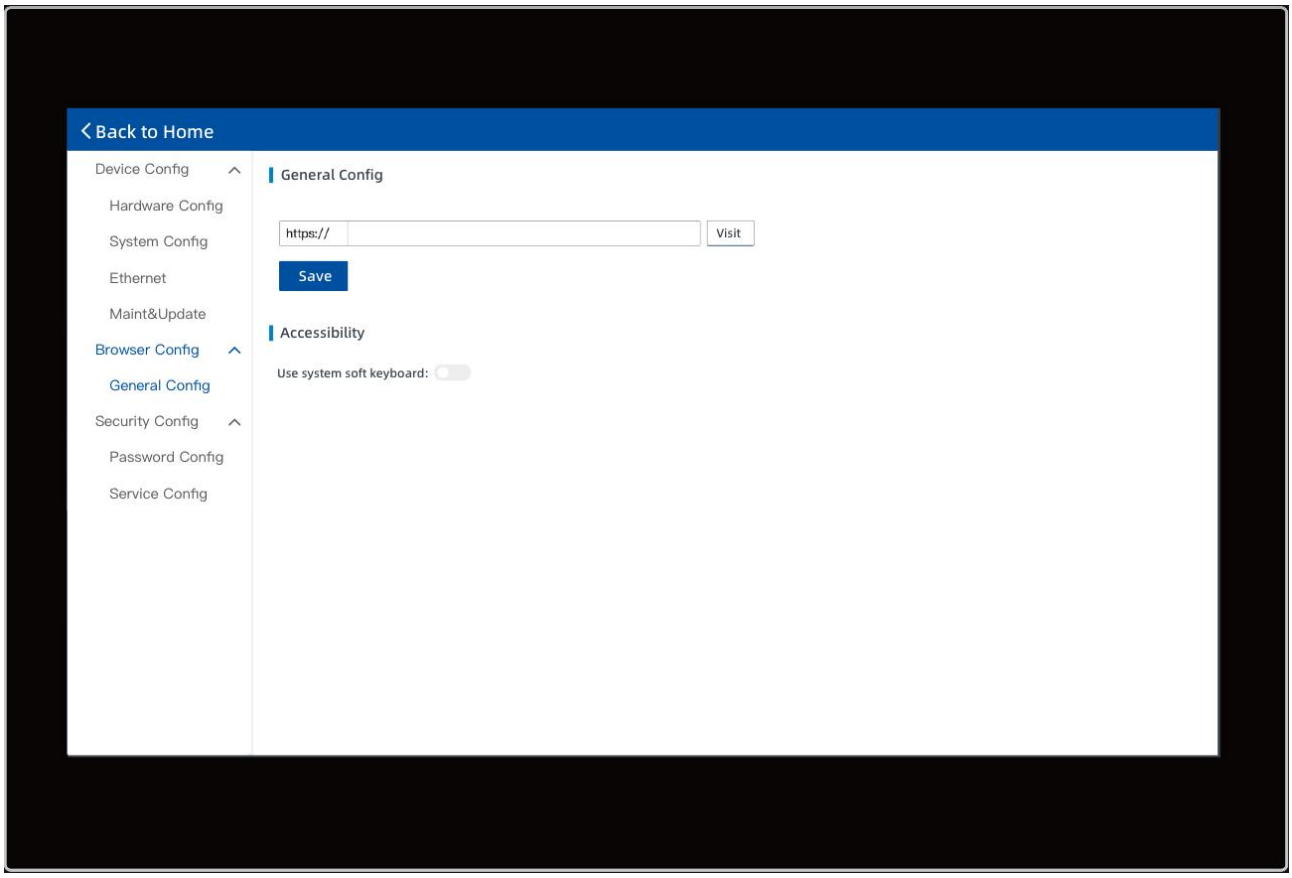
Browser configuration is used to manage the device's operating parameters in browser mode. Users can set the default homepage URL here. When the device is configured to start in browser mode, the system will automatically load this page after booting, typically used to directly display monitoring platforms, production management systems, or other web-based applications. By properly configuring the default homepage, users can quickly access the target system without manually entering a URL, thereby improving operational

efficiency.

Additionally, the browser configuration provides accessibility settings, allowing users to choose whether to enable the system's built-in soft keyboard. When no external keyboard is connected, enabling the soft keyboard facilitates the input of URLs, account information, or form content, which is particularly useful in touchscreen scenarios. If an external keyboard is already available on-site or frequent input is not required, this feature can be disabled to maximize the viewing area.

To configure these settings:

Navigate to **Browser Configuration / General Configuration** in the left navigation bar. Set the default homepage URL (HTTP/HTTPS protocol) and click **Save**. Use the toggle switch next to **Use System Soft Keyboard** to enable or disable this feature.



3.3 Security Configuartion

3.3.1 Password Configuration

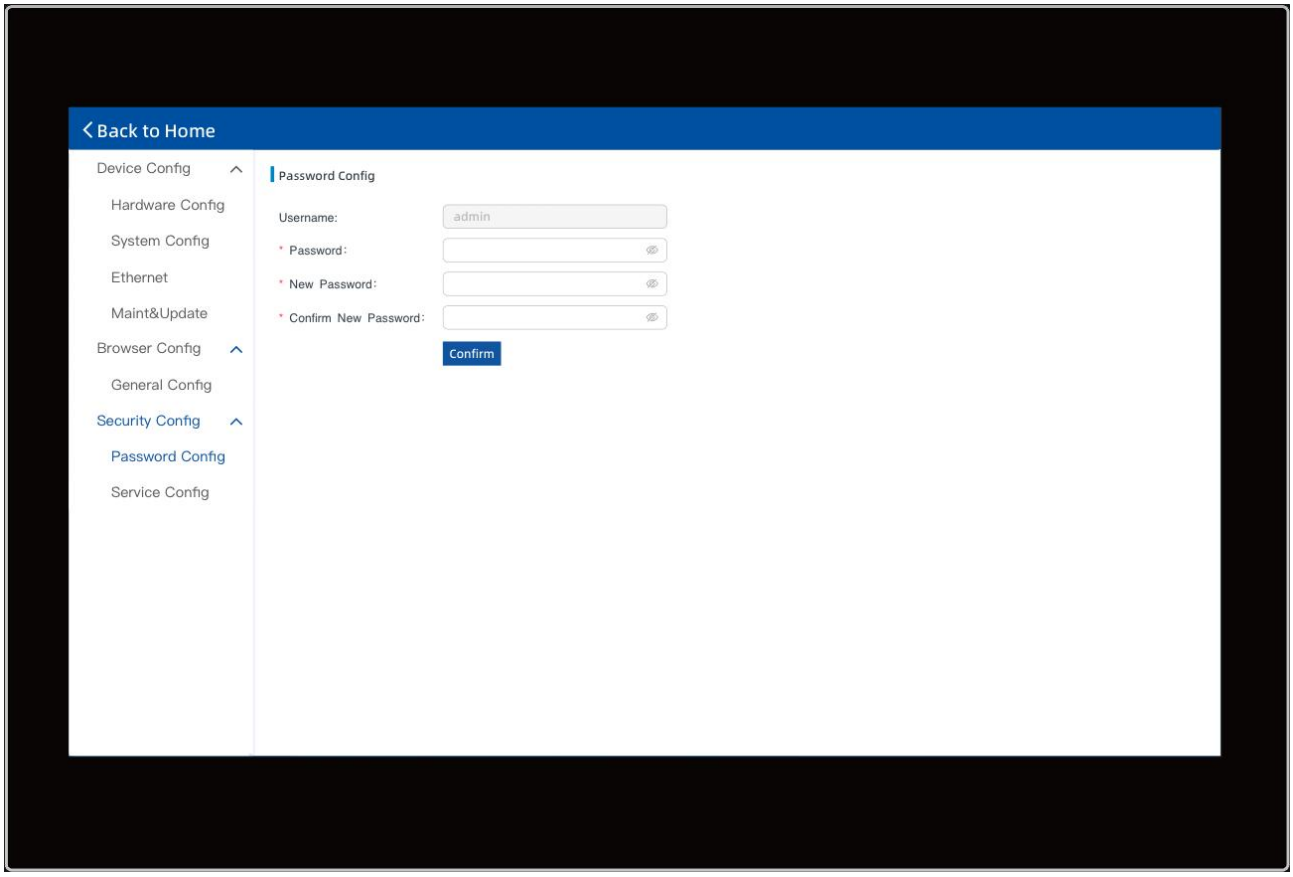
The security configuration is designed to safeguard system usage and prevent unauthorized personnel from altering device parameters or accessing system information. The system provides an account login function,

with a default username of "admin" that cannot be modified. The factory-set default password is "123456". Users should change this default password promptly upon first use to mitigate security risks.

When modifying the password, users must enter the new password and confirm it to ensure consistency. Once the modification is successful, the system immediately activates the new password. Thereafter, the updated password must be used to log in when accessing the system interface. Through proper password management, accidental misoperations or malicious tampering of configurations can be effectively prevented, ensuring both the operational stability of the device and the security of data in the field.

To modify your password:

Navigate to **Security Configuration / Password Configuration** in the left navigation bar. Enter your current password, then set and confirm your new password (Password is case-sensitive, supporting letters, numbers, and special characters) . Finally, click **Confirm** to complete the process.



3.3.2 Service Configuration

Service Configuration is used to manage the SSH (Secure Shell) service. On this interface, users can enable or disable the SSH service to achieve secure remote login and device management. By properly configuring the SSH service, users can perform flexible remote management while ensuring system security, enabling convenient maintenance operations when needed and reducing potential risks.

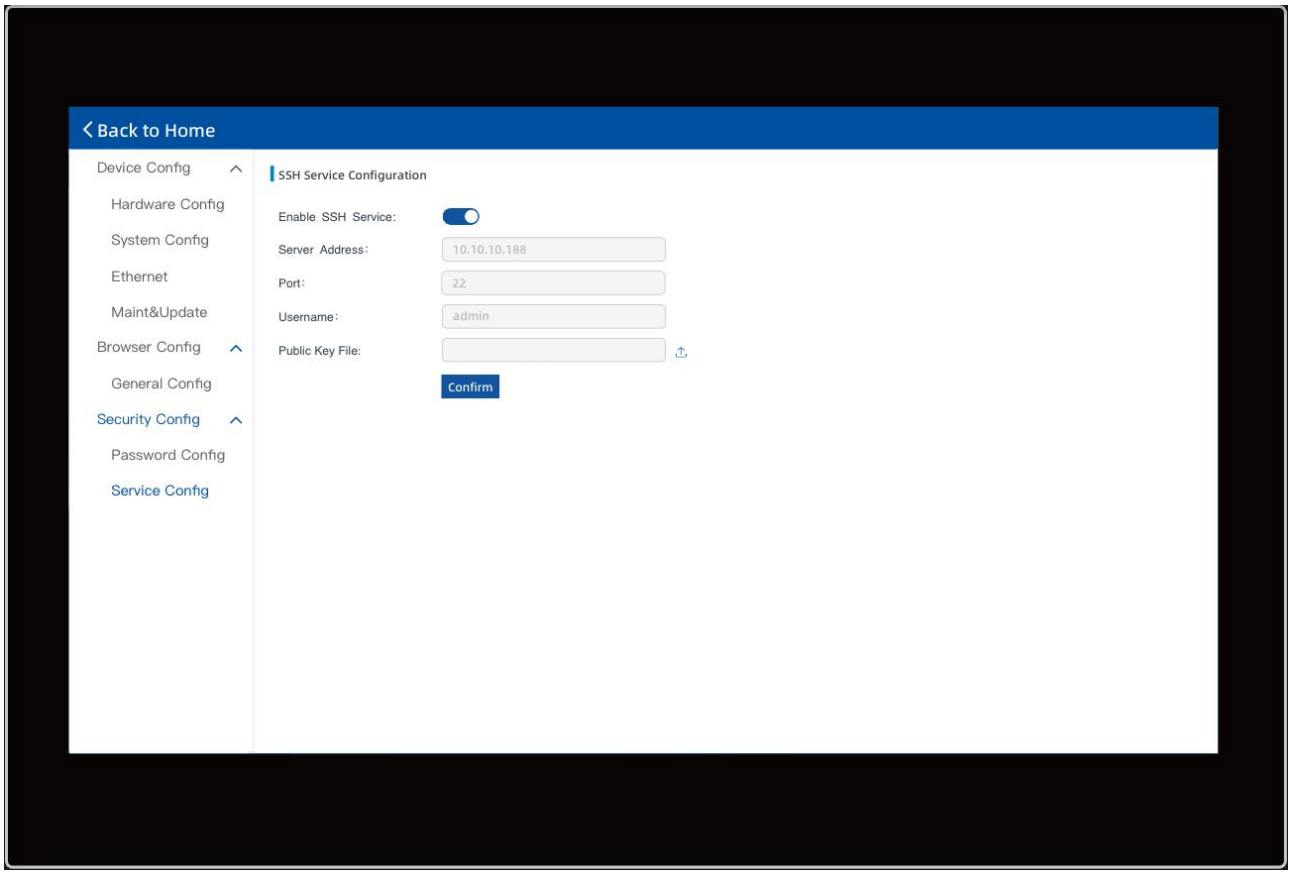
The procedure for enabling the SSH service is as follows:

Step 1. In the left navigation bar, select **Security Configuration / Service Configuration** to access the SSH service configuration interface.

Step 2. Toggle the switch next to **Enable SSH Service** to the ON position to enable the SSH service.

Step 3. Click the icon, submit your SSH public key file.

Step 4. Click **Confirm**.



4 Desktop Mode

The Desktop Mode is an open operating environment provided by the FPAD-Web series HMI. When the device is set to this mode, the system will automatically boot into the Debian 11 desktop. Within this environment, users can run a variety of applications, such as web browsers, terminals, debugging tools, or local control software.

This mode offers greater flexibility for users with some Linux experience, facilitating secondary development, system debugging, or extended applications like data interaction. The Desktop Mode is suitable for application scenarios that require higher system operation privileges or advanced functional extensions, such as device debugging, log viewing, file transfer, or local application development.

The FPAD-Web series HMI also supports connecting external **mice** and keyboards via USB ports, providing a more comprehensive desktop operation experience. This facilitates user tasks such as text input, file management, and system debugging. Meanwhile, users can still return to the system configuration interface through desktop shortcuts to perform routine device settings and maintenance.

4.1 Enter System Configuration from Desktop Mode

After setting the device startup mode to Desktop Mode and saving the changes in the system configuration interface, the device will enter the Debian 11 desktop environment upon the next reboot.



To return to the system configuration interface, double-click the 

icon on the desktop, then long-press the center area of the screen. The system will automatically redirect to the system configuration interface.

4.2 Installing Third-Party Applications in Desktop Mode

In Desktop mode, the system operates on a standard Debian 11 environment. Users can install third-party applications according to their needs by following the official Debian software installation guidelines.

For example, open the Terminal on the desktop and execute the following commands to install an application (e.g., curl):

sudo apt update

sudo apt install *curl*

```
sudo apt update
sudo apt install curl
```

(1) Command Description:

sudo apt update: Updates the system package list to ensure the latest version information is retrieved.

sudo apt install <*package_name*>*:* Installs the specified software package.

After installation, you can verify whether the software was installed successfully by execute command in the terminal (e.g., curl --version).

(2) Notes:

- It is recommended to install only software packages from Debian official repositories or other trusted sources.
- Avoid deleting or overwriting critical pre-installed system components.
- After installation, you can remove unnecessary software to free system resources using:

```
sudo apt remove <package_name>
```