Tonmind IP Horn Speaker

SIP-S26H

User Manual



Xiamen Tonmind Technologies Co., Ltd.

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1. Introduction

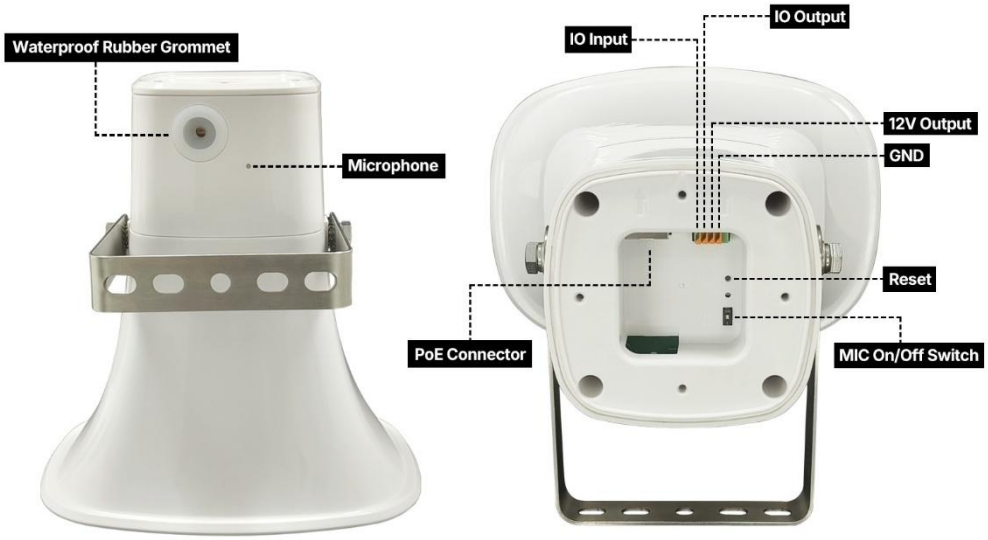
Tonmind SIP-S26H is a 15W IP Horn Speaker with a built-in microphone, designed for public address, emergency broadcasting, security monitoring, and two-way intercom applications. It supports standard SIP and ONVIF protocols, enabling seamless integration with IP PBX, VoIP, VMS, NVR, and CCTV systems. The speaker supports PoE (IEEE 802.3af/at), allowing power and data transmission through a single Ethernet cable. Its durable ASA housing with an IP66 waterproof rating makes it suitable for outdoor applications such as schools, factories, warehouses, parking lots, and public areas.

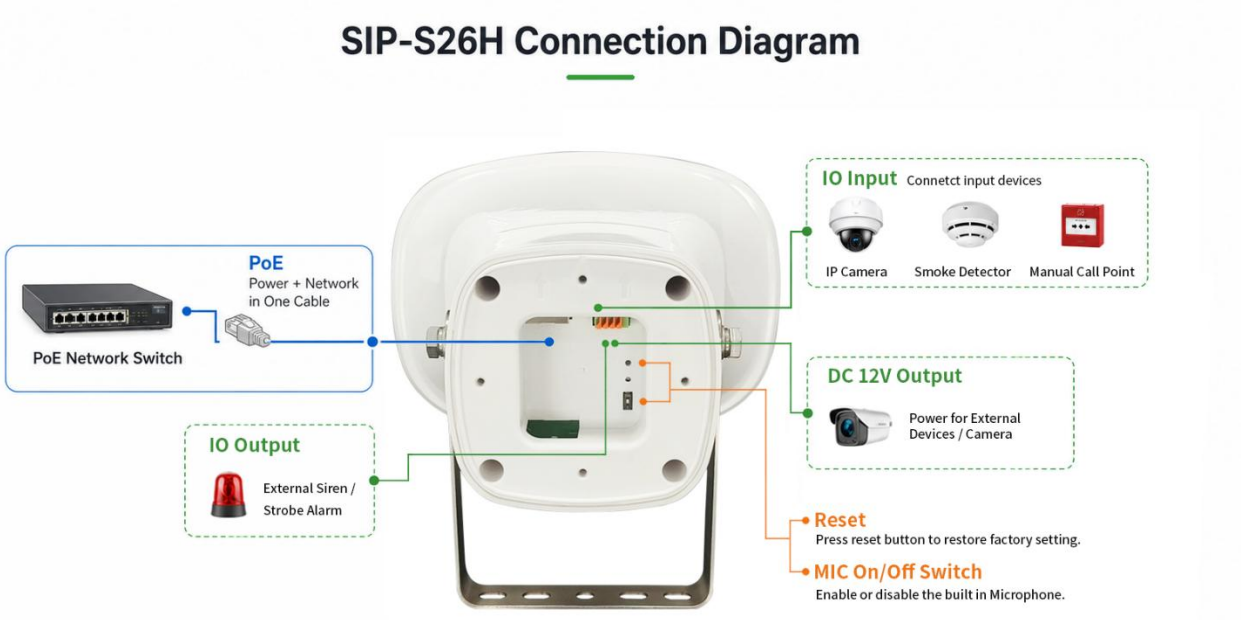
SIP-S26H supports RTP Multicast, scheduled broadcasting, pre-recorded messages, real-time voice recording, local audio storage, and HTTP API for flexible integration. The built-in microphone enables two-way communication and audio monitoring, with a dedicated switch for microphone control. It features one IO input for connecting alarm sensors or other external devices, one IO output for triggering external equipment, and a DC 12V output for powering compatible devices. With support for OPUS 48kHz audio and web-based configuration, SIP-S26H provides a flexible solution for IP paging, alarm integration, and security communication systems.



2. Interface Specification

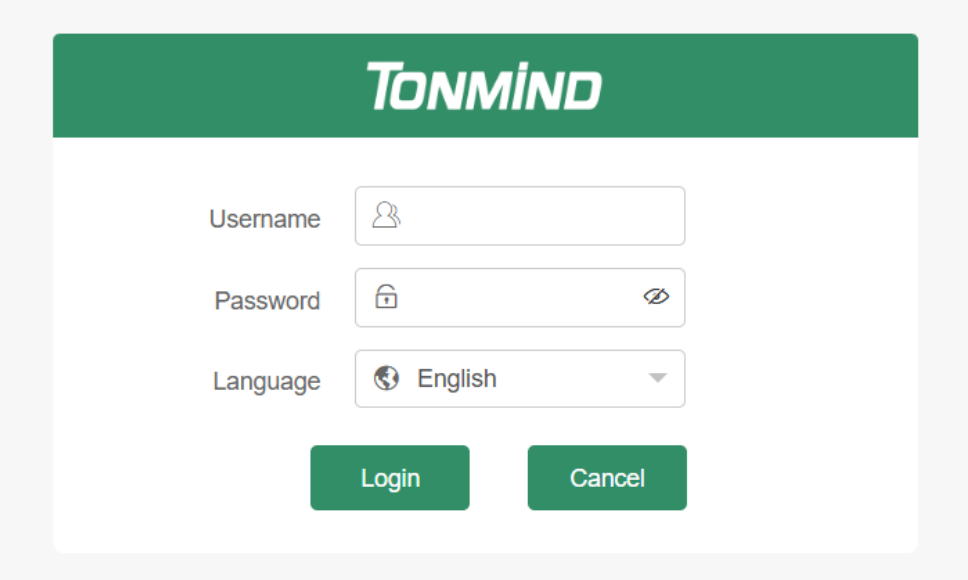
SIP-S26H features multiple built-in interfaces for flexible device integration. The RJ45 Ethernet port supports PoE for network connectivity and power supply. The IO Input connects to external alarm sensors or buttons, while the IO Output controls external devices such as warning lights. The DC 12V Output provides power to compatible external devices. It also includes a Reset Button for restoring factory settings and a MIC Control Switch for enabling or disabling the built-in microphone.





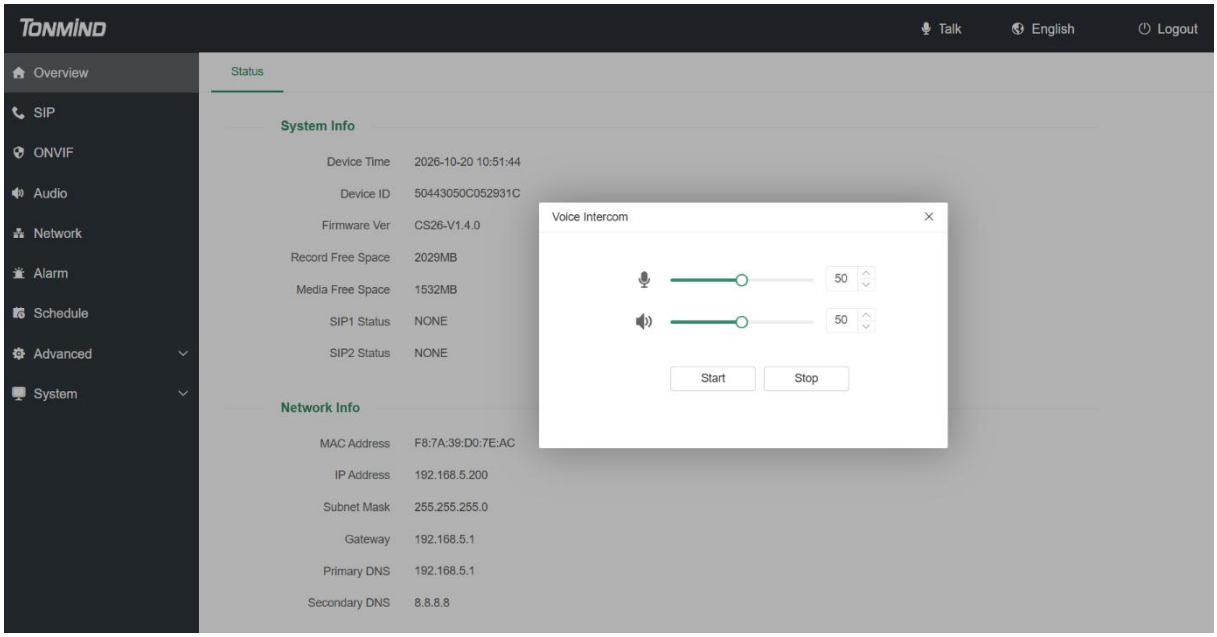
3. Web Configuration

Web configuration includes complete function setting, after the device and PC are connected to a same network, type the device's IP address in a web browser, the default IP address is 192.168.5.200, then log in with defaulted username and password as below.
Username: admin
Password: tm1234



3.1 Overview

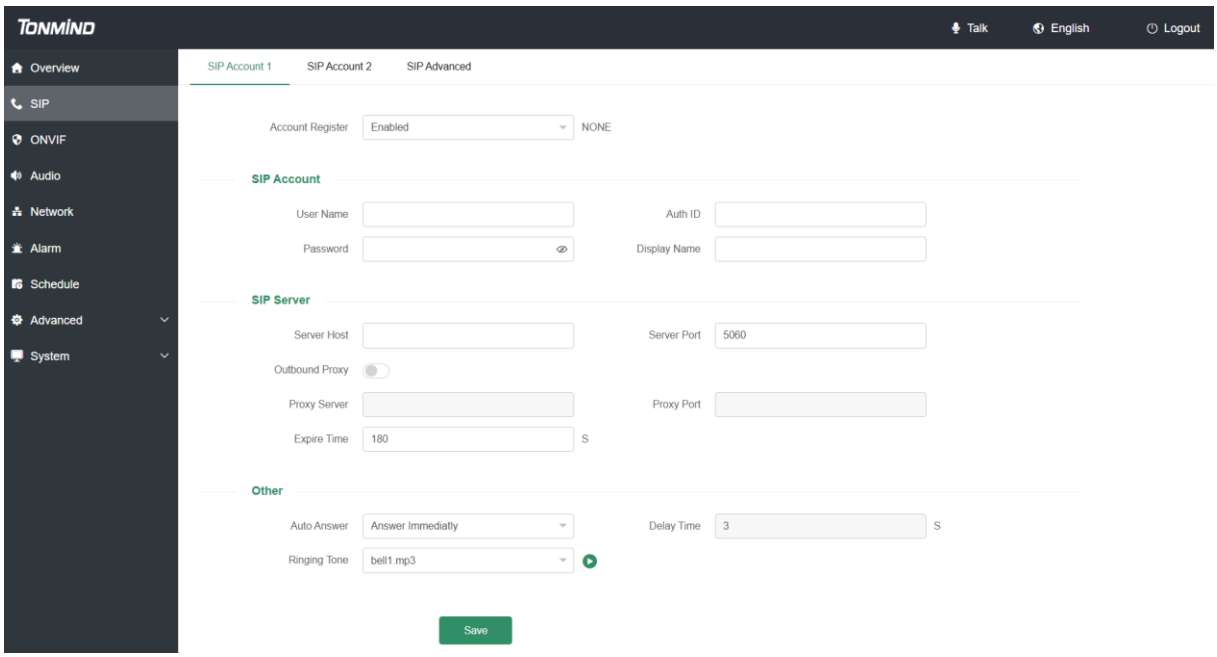
The device status page displays the device time, firmware version, available storage space, SIP account status, and network information including MAC address, IP address, subnet mask, and gateway.
Web Calling Support: Click the microphone logo in the top right corner. You will be redirected to an HTTPS page. Click again on the new page to initiate the call.



3.2 SIP

3.2.1 SIP Account

Each SIP-S26H supports two SIP accounts. Enter the SIP server and extension information into the corresponding fields and save the configuration, then check the registration status to confirm whether the account has successfully registered.



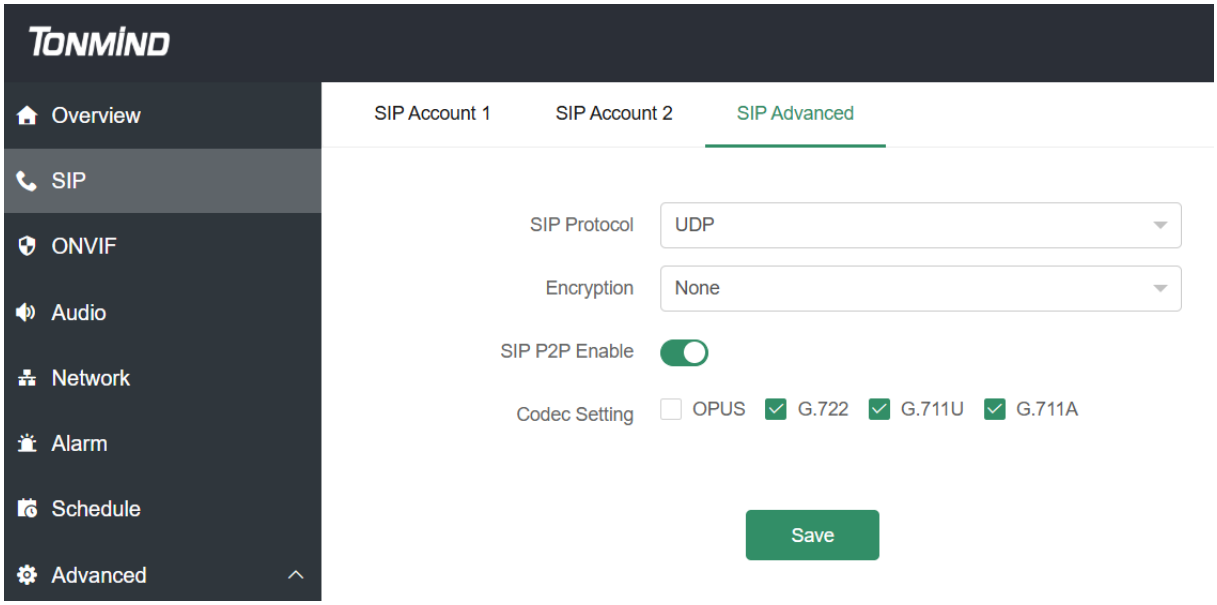
User Name	User account, provided by SIP server.
Auth ID	SIP service subscriber's ID used for authentication.
Password	Account password provided by SIP server.
Display Name	SIP service subscriber's name.
Server Host	SIP server address.
Server Port	SIP port, default to be 5060.
Outbound Proxy	It is used to process signals and help data streams to go through firewall or NAT if there have.
Expire Time	Set the expire time of registered account information.
Auto Answer	Answer immediately and answer delay when a calling income.
Ringing Tone	5 system ringtones and users upload media files.

3.2.2 SIP Advanced

On the SIP Advanced page, users can configure the SIP transport protocol, audio encryption, SIP P2P mode, and audio codecs.

- SIP Protocol: Select UDP, TCP, or TLS.
- Encryption: Enable SRTP for secure audio transmission.
- SIP P2P Enable: Allows devices on the same local network to communicate directly without a SIP server.
- Enter the target device's SIP address, for example: sip:192.168.5.200.
- Codec Setting: Select the required audio codecs, including OPUS, G.722, G.711U, and G.711A.

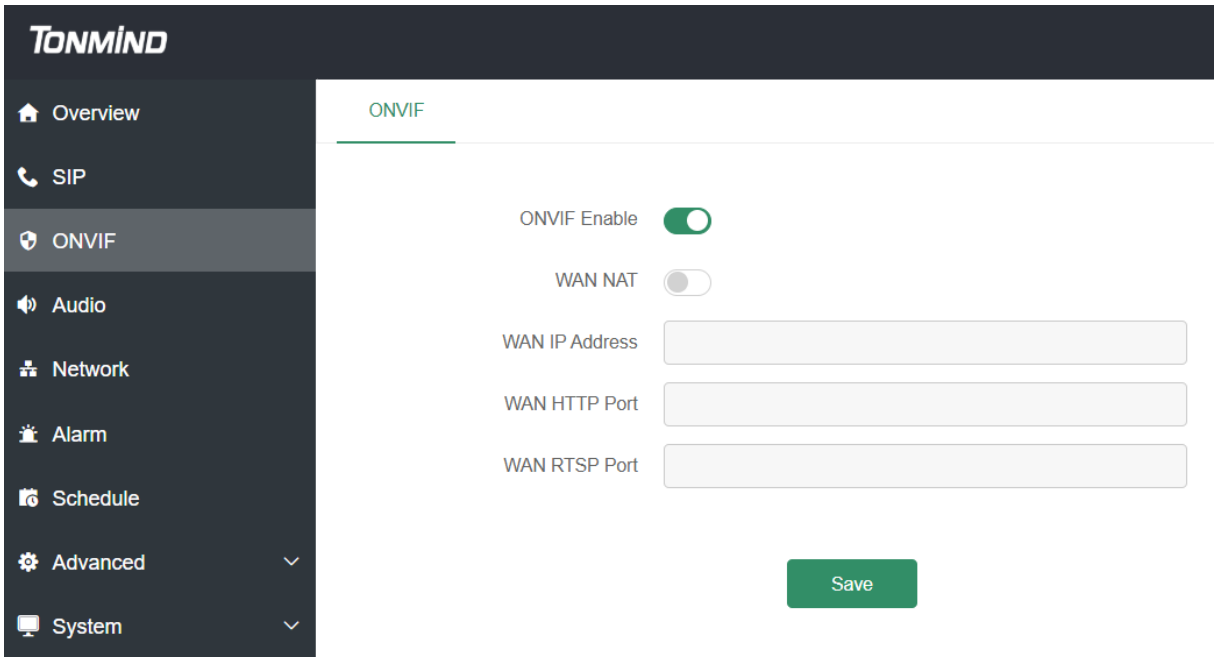
Click Save to apply the settings.



3.3 ONVIF

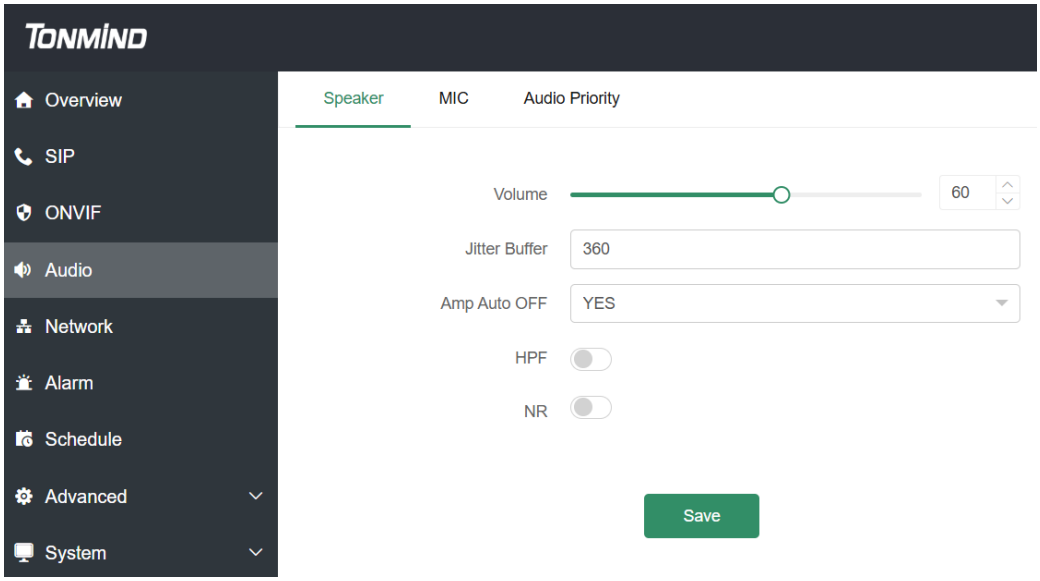
● Enable ONVIF to allow the device to be discovered by ONVIF VMS systems. The ONVIF username and password are the same as the IP Speaker login credentials.

● For WAN NAT, configure port forwarding on the router to ensure proper communication between the server and the public internet. Then enable WAN NAT on the speaker web page and enter the IP address, HTTP Port, and RTSP Port.



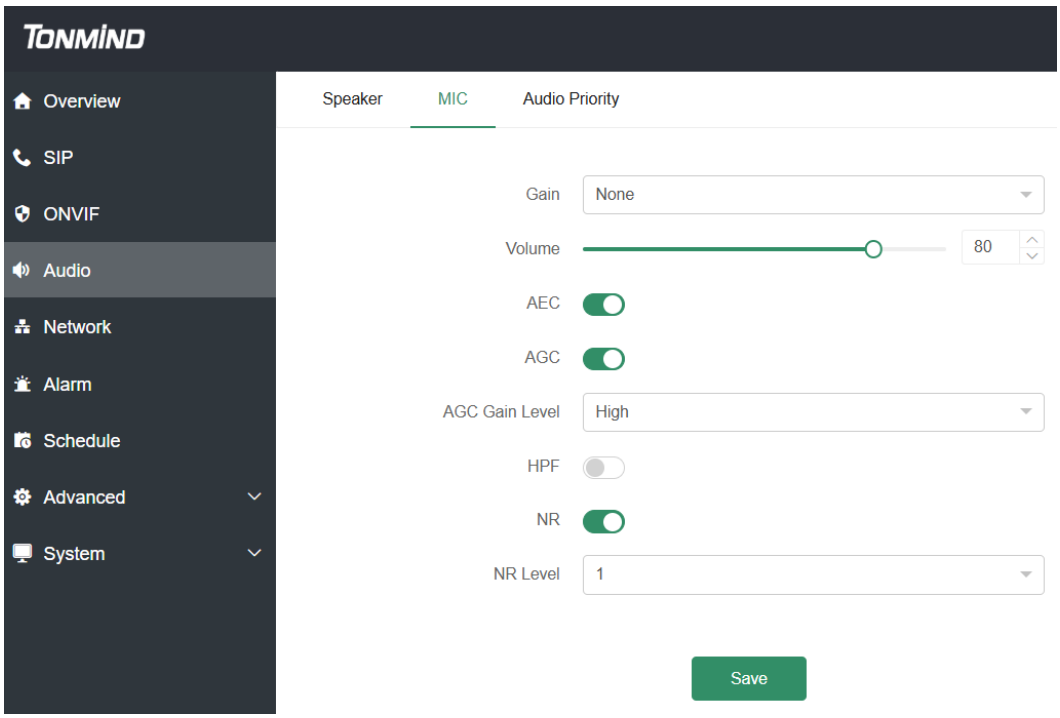
3.4 Audio

3.4.1 Speaker



- Volume: Adjust the speaker output volume.
- Amp Auto OFF: Default setting is “YES”. When the speaker is not playing audio, the built-in amplifier will automatically turn off to reduce power consumption.
- Jitter Buffer: Improves audio playback stability under network transmission.
- HPF: High Pass Filter. Filters frequencies below 150Hz to improve audio clarity.
- NR: Noise Reduction. Reduces background noise from the audio input to improve sound quality when enabled. The function is processed by the built-in audio chip.

3.4.2 MIC



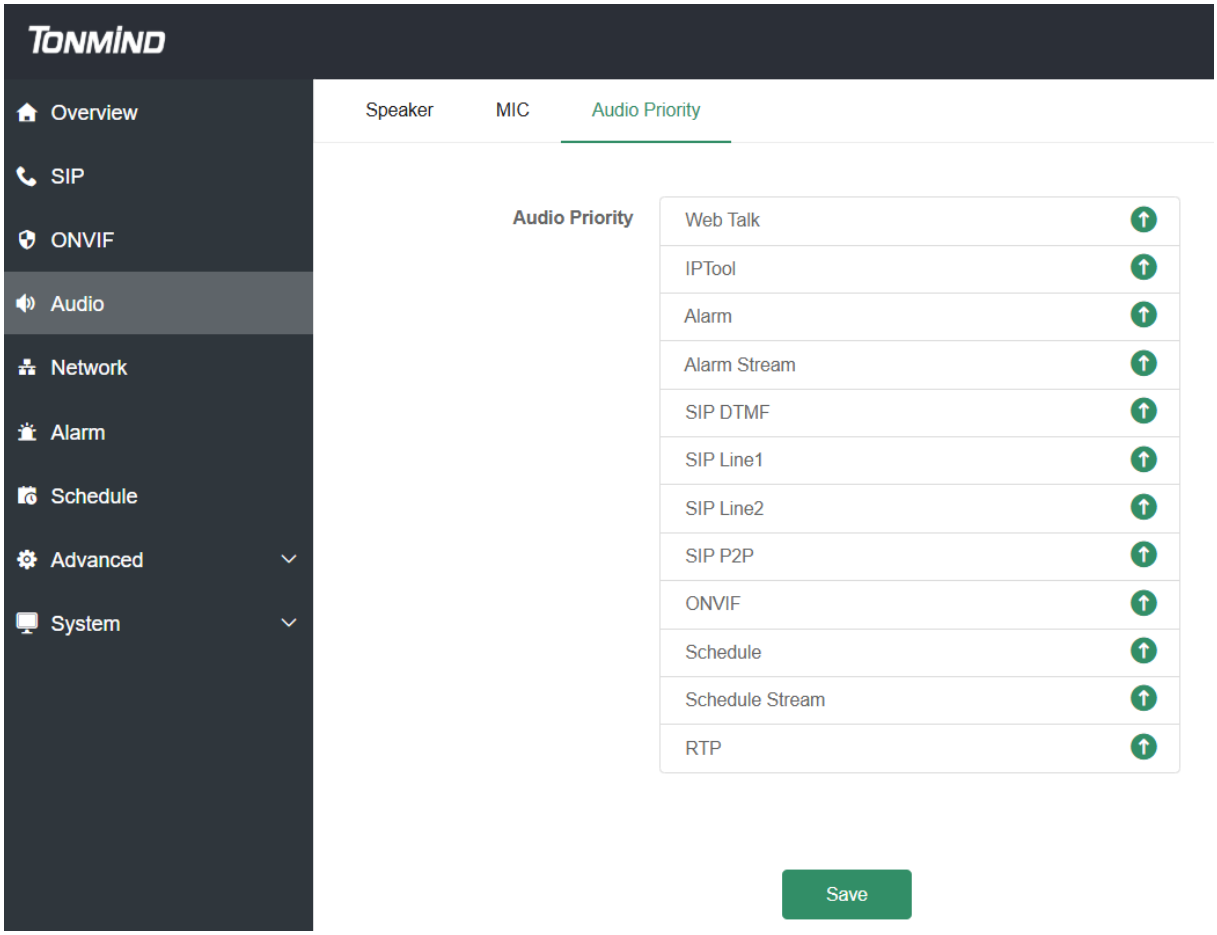
- Gain: Four levels (None, Low, Middle, High) for different input sensitivity.
- Volume: Adjusts microphone output volume.
- AEC (Acoustic Echo Cancellation): Reduces echo during communication.
- AGC (Automatic Gain Control): Automatically adjusts mic gain for stable audio levels.
- AGC Gain Level: Sets AGC strength (High, Middle, Low).
- HPF (High Pass Filter): Filters low-frequency noise below 150 Hz.
- NR (Noise Reduction): Reduces ambient noise from mic input. Three levels (0, 1, 2).

3.4.3 Audio Priority

On the Audio Priority page, users can set the priority order of different audio sources. Click the up arrow beside an audio source to move it to a higher priority.

A higher-priority audio source will interrupt a lower-priority source. For example, when SIP is placed above RTP, an incoming SIP call will interrupt RTP multicast playback. After the SIP call ends, RTP playback will resume automatically.

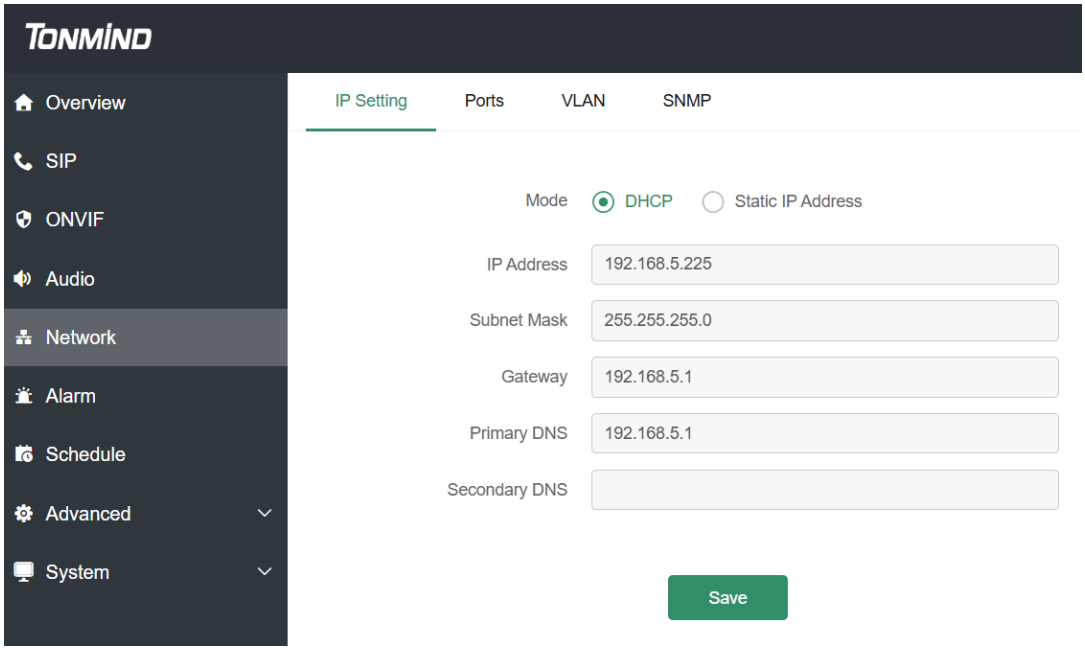
Click Save to apply the settings.



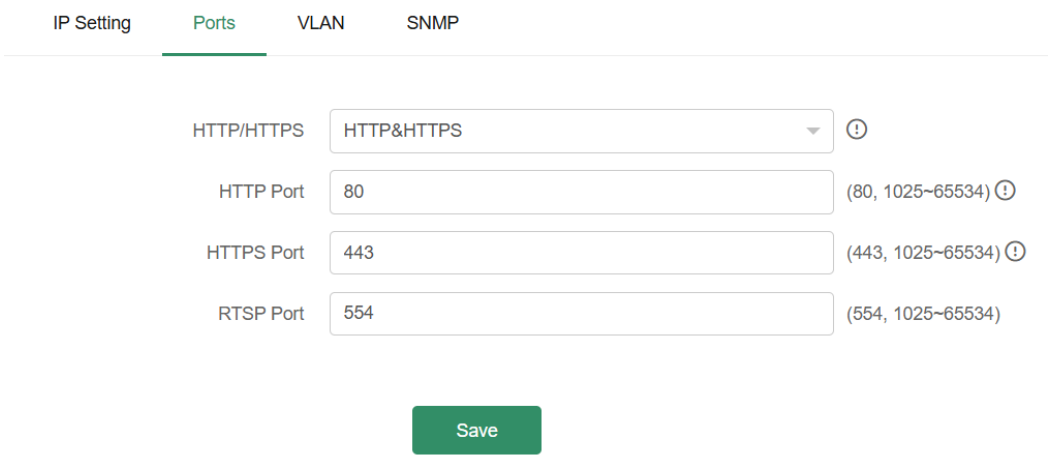
3.5 Network

IP Setting: Select DHCP or Static IP Address.

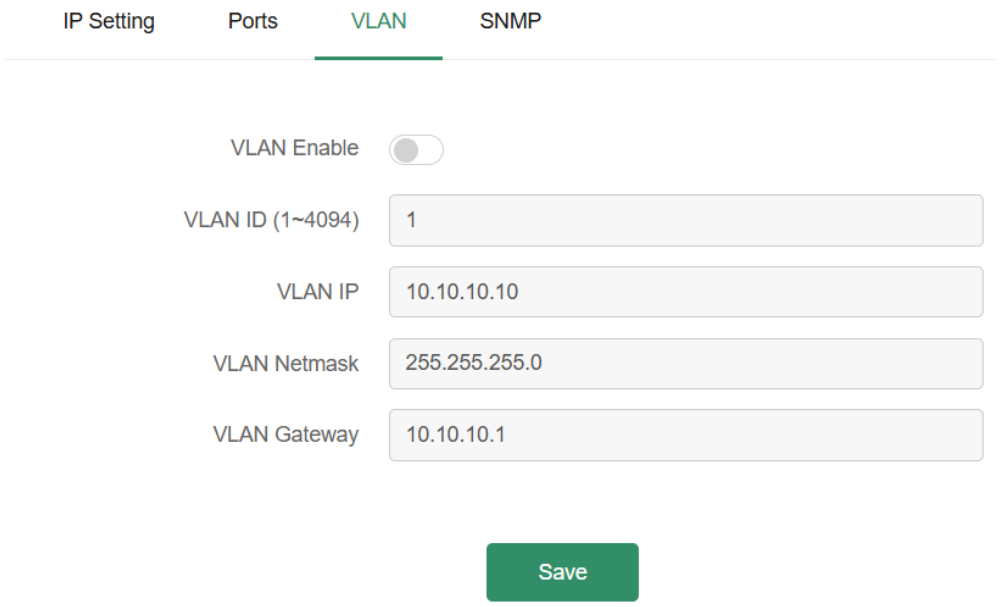
- DHCP: The IP address is automatically assigned by a DHCP server.
- Static IP Address: Manually configure the IP Address, Subnet Mask, Gateway, Primary DNS, and Secondary DNS as required.



Ports: Configure the HTTP, HTTPS and RTSP port numbers.



VLAN: Enable "VLAN Enable" to configure the VLAN ID, VLAN IP, VLAN Netmask, and VLAN Gateway.

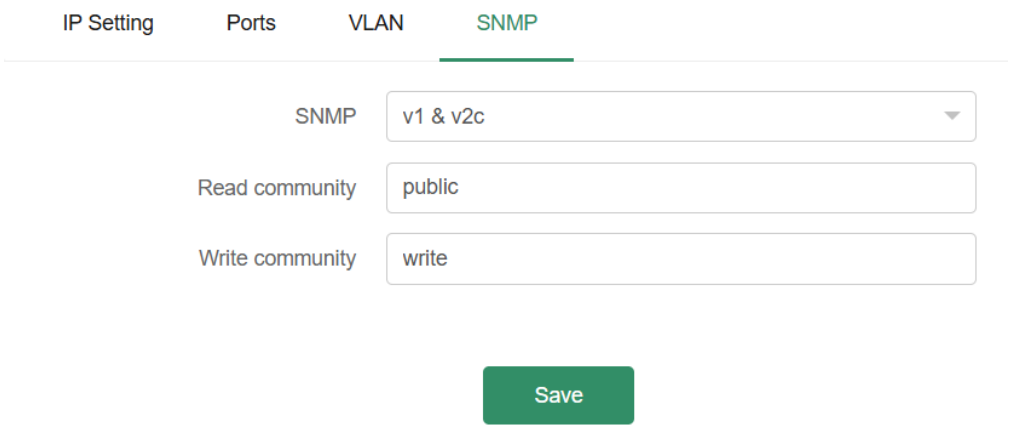


SNMP: SNMP (Simple Network Management Protocol) allows network administrators to remotely monitor and manage SIP-S26H through SNMP-compatible network management systems.

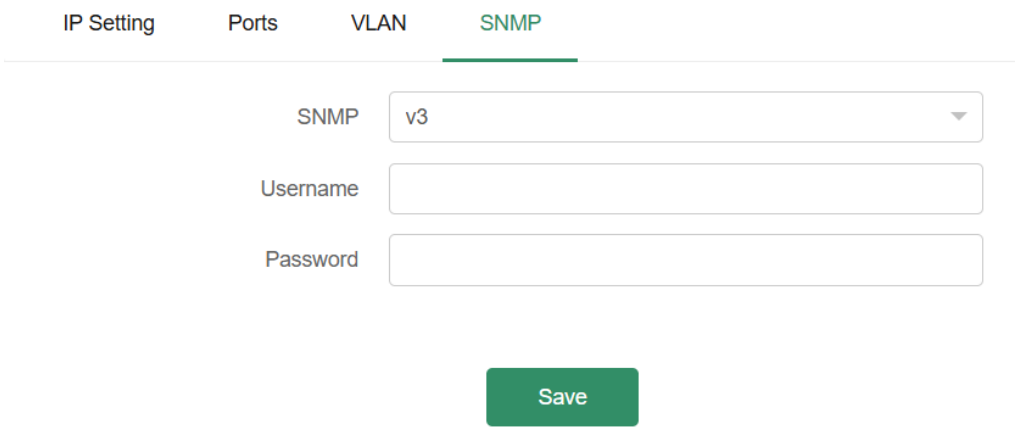
SIP-S26H supports three SNMP options:

OFF: Disable the SNMP function.

v1 & v2c: Enable SNMP v1/v2c and configure the Read Community and Write Community strings for access authentication.



v3: Enable SNMP v3 with enhanced security. Enter the Username and Password for authenticated access.



Select the desired SNMP version, configure the corresponding parameters, and click Save to apply the settings.

3.6 Alarm

The Alarm page allows users to configure different trigger events and corresponding actions for SIP-S26H. It includes three types of settings: Alarm, SIP-1/SIP-2, and DTMF-1/DTMF-2.

Alarm: Configure actions triggered by the device's IO Input interface.

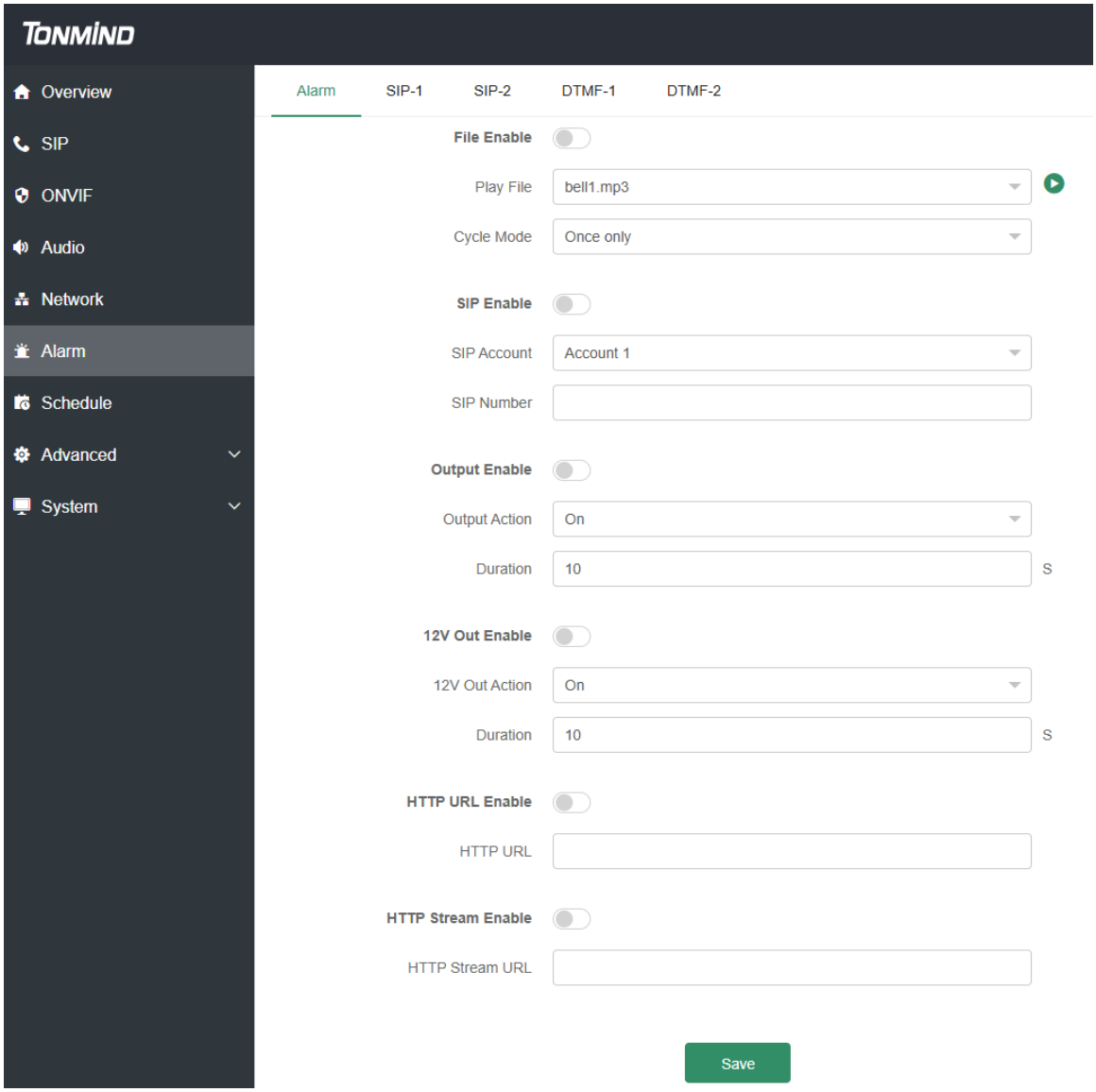
SIP-1/SIP-2: Configure actions triggered by SIP call events.

DTMF-1/DTMF-2: Configure actions triggered by predefined DTMF codes received during a SIP call.

Multiple actions can be enabled simultaneously for each trigger event.

3.6.1 Alarm

The Alarm page allows users to configure actions when the SIP-S26H IO Input interface is triggered. Users can enable one or multiple actions, including File Enable, SIP Enable, Output Enable, 12V Out Enable, HTTP URL Enable, and HTTP Stream Enable.



1. File Enable

Enable this option to play a preset audio file when the IO Input is triggered.

● Play File: Select one of the five built-in bell sounds or an audio file uploaded and stored on the IP Speaker.

● Cycle Mode: Select the playback mode: Once only, Multiple times, Duration, or Loop.

When the IO Input is triggered, the speaker plays the selected audio file according to the configured playback mode.

2. SIP Enable

Enable this option to automatically initiate a SIP call when the IO Input is triggered.

● SIP Account: Select Account 1 or Account 2.

● SIP Number: Enter the destination SIP number to be called.

When the IO Input is triggered, SIP-S26H automatically calls the configured SIP number using the selected SIP account.

3. Output Enable

Enable this option to control the IO Output interface when the IO Input is triggered.

● Output Action: Select On or Off.

● Duration: Set the action duration in seconds.

The IO Output performs the configured action for the specified duration.

4. 12V Out Enable

Enable this option to control the built-in DC 12V Output interface when the IO Input is triggered.

● 12V Out Action: Select On or Off.

● Duration: Set the action duration in seconds.

The DC 12V Output performs the configured action for the specified duration.

5. HTTP URL Enable

Enable this option and enter the desired HTTP URL. When the IO Input is triggered, SIP-S26H sends a request to the configured HTTP URL.

For reference HTTP URL commands, go to Advanced > HTTP API.

6. HTTP Stream Enable

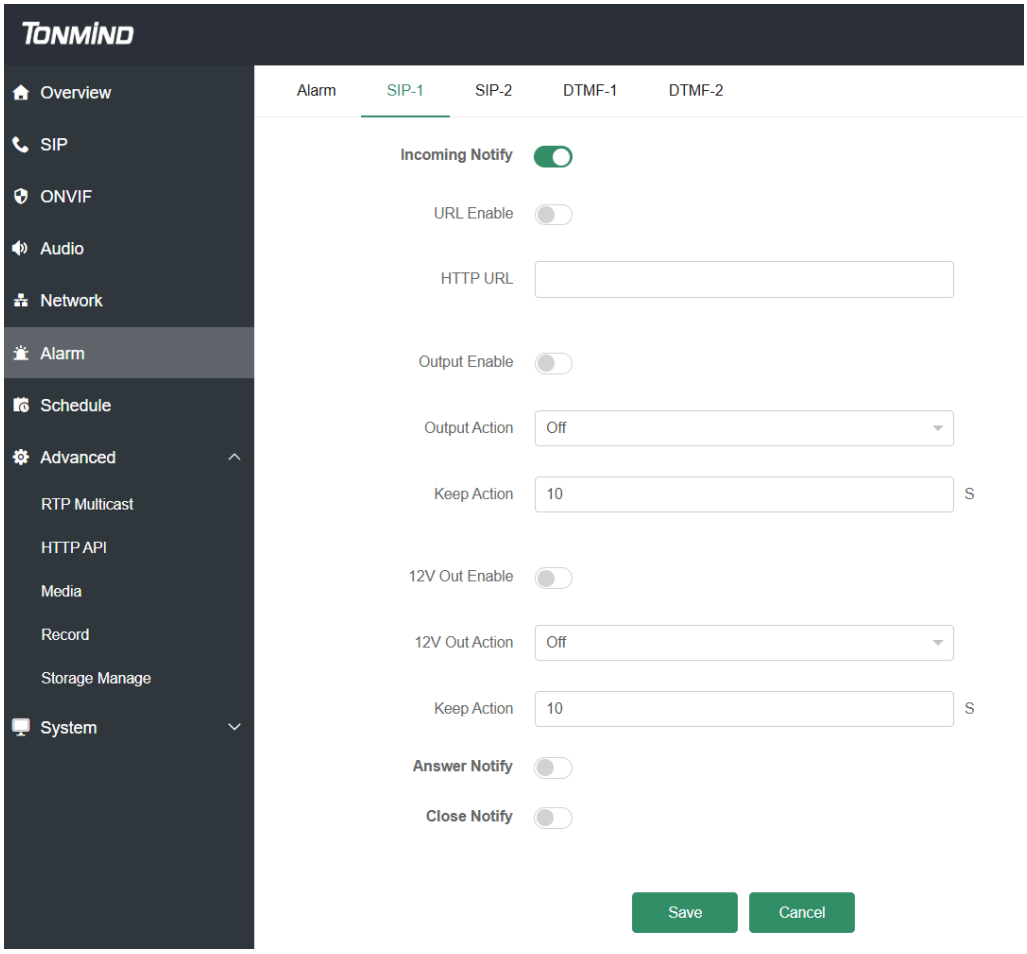
Enable this option and enter the HTTP Stream URL, such as http://listen.livestreamingservice.com/181-greatoldies_128k.mp3

When the IO Input is triggered, SIP-S26H accesses the configured HTTP audio stream for playback.

After completing the configuration, click Save to apply the settings.

3.6.2 SIP

The SIP-1 and SIP-2 pages allow users to configure actions triggered by SIP call events. Each SIP account can be configured independently.



Three SIP call events are supported:

● Incoming Notify: Trigger an action when an incoming SIP call is received.

● Answer Notify: Trigger an action when the SIP call is answered.

● Close Notify: Trigger an action when the SIP call is ended.

For each SIP event, users can enable one or multiple actions:

● URL Enable: Enter an HTTP URL to send a request when the selected SIP event occurs.

● Output Enable: Set the IO Output action to On or Off and configure the action duration in seconds using Keep Action.

● 12V Out Enable: Set the DC 12V Output action to On or Off and configure the action duration in seconds using Keep Action.

Enable the required SIP event notifications, configure the corresponding actions, and click Save to apply the settings.

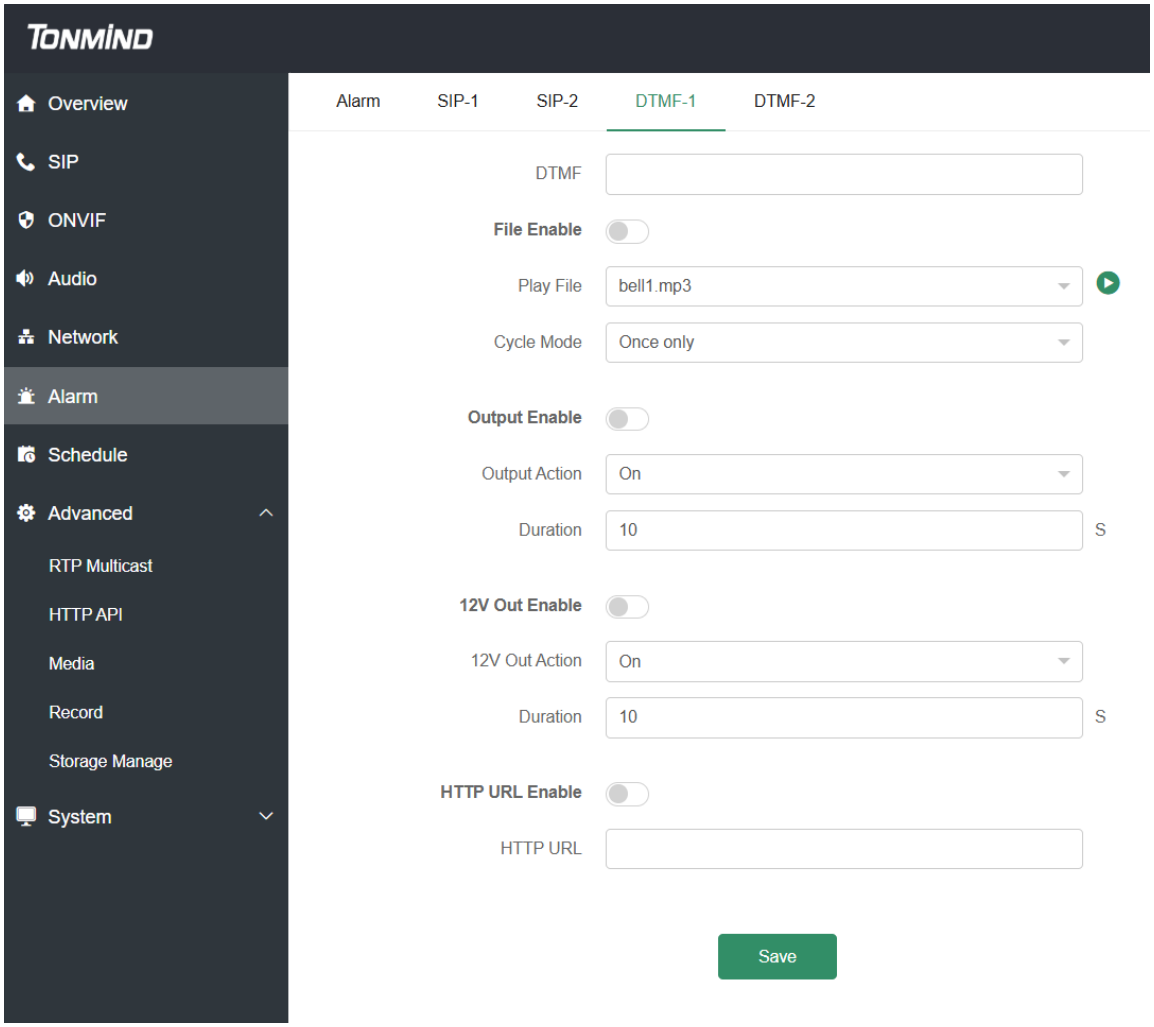
3.6.3 DTMF

The DTMF function allows SIP-S26H to execute preset actions when it receives a configured DTMF (Dual-Tone Multi-Frequency) code during a SIP call, such as from an IP Phone or softphone.

Two independent DTMF configurations, DTMF-1 and DTMF-2, are available. Users can assign different DTMF codes and actions to each configuration.

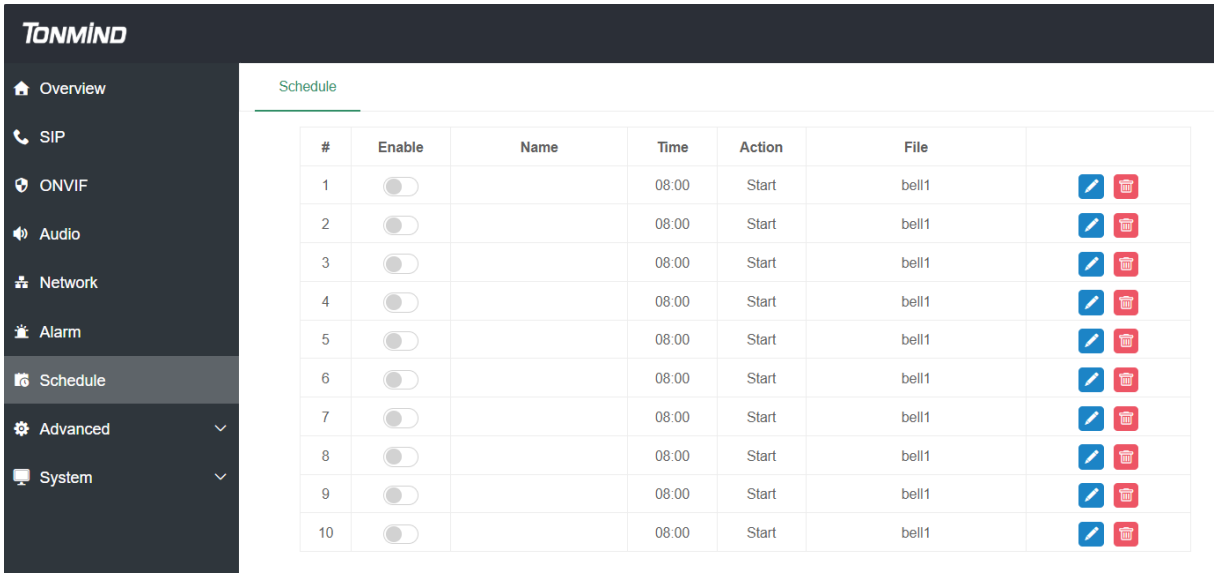
DTMF: Enter the DTMF code used to trigger the configured actions.

The following actions are supported: File Enable, Output Enable, 12V Out Enable, HTTP URL Enable. Users can enable one or multiple actions simultaneously.



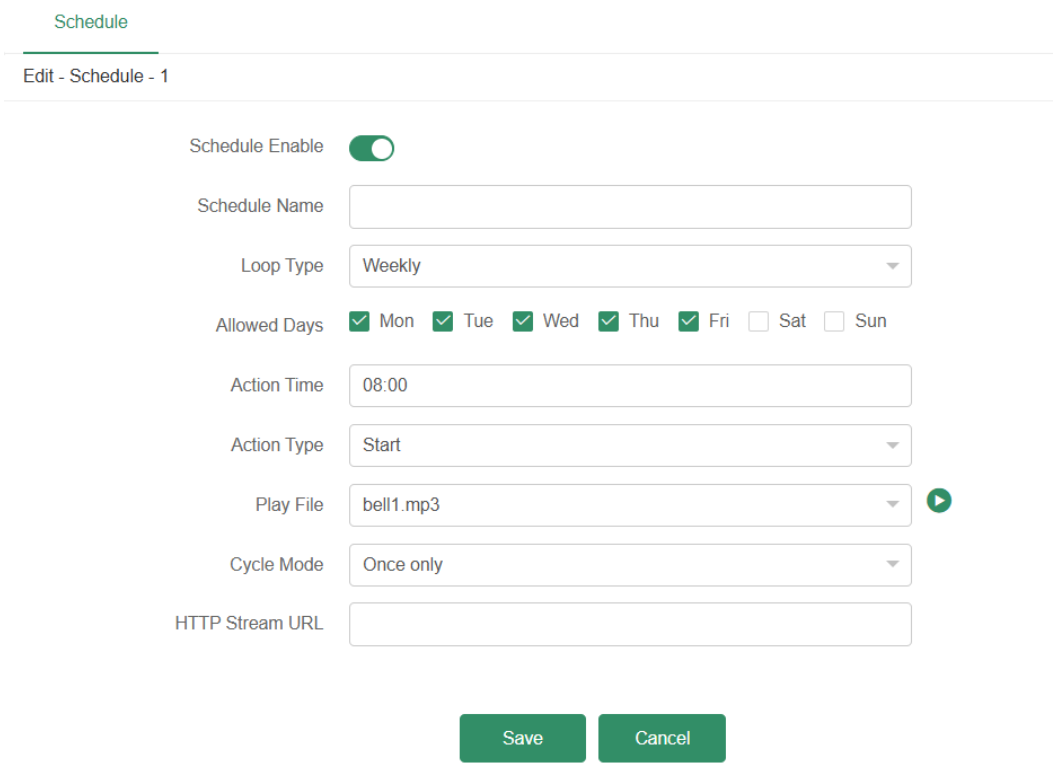
3.7 Schedule

The Schedule section allows you to create and manage up to 10 schedules, and select which ones to enable as needed.



Click the  to enter the schedule configuration page:

- Schedule Enable: Enable or disable the schedule.
- Schedule Name: Enter a name for the schedule.
- Loop Type: Three modes are available:
  - Once Only: Set Start Date and End Date.
  - Daily: Repeat every day.
  - Weekly: Select the days of the week for the schedule to take effect.



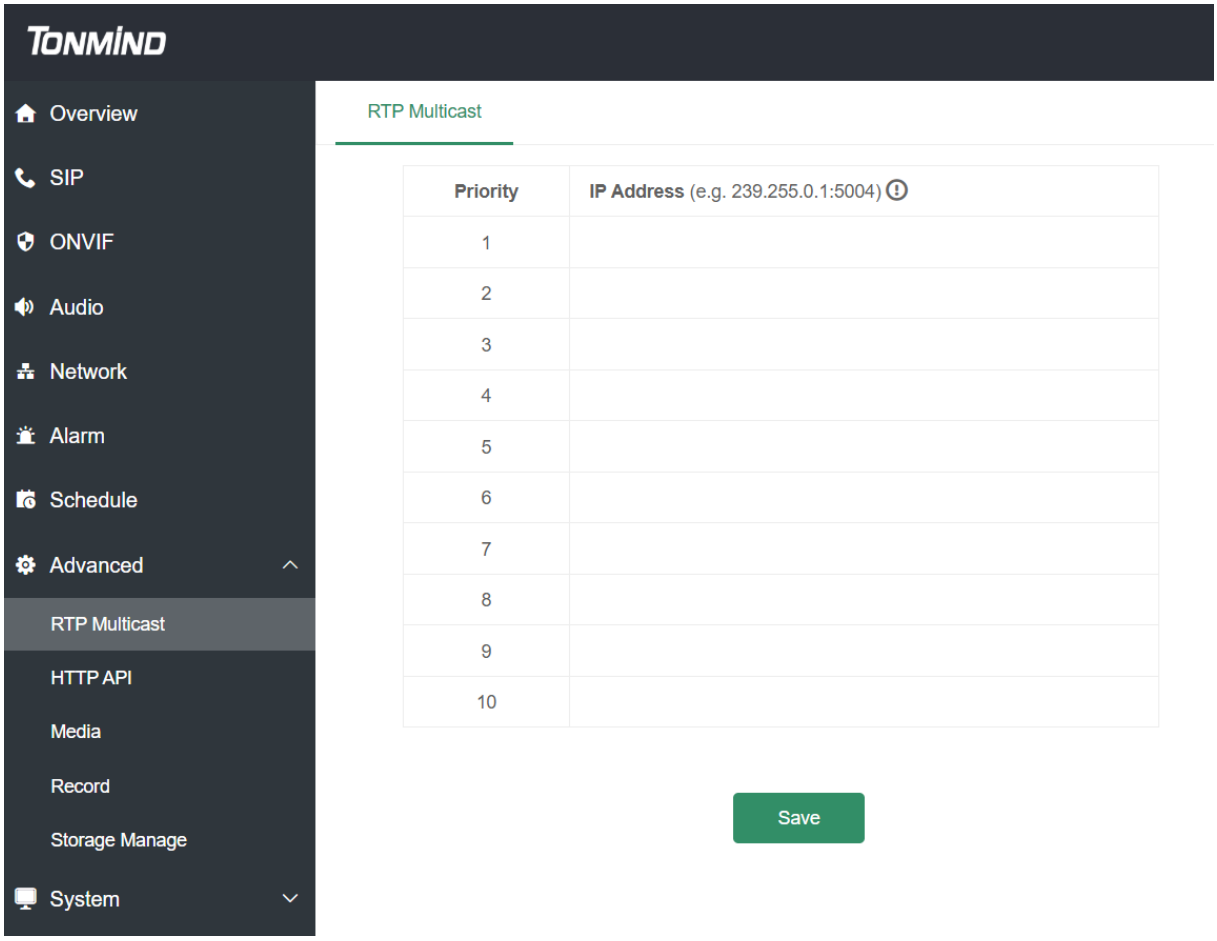
- Action Time: Set the schedule start time.
- Action Type: Select Start or Stop.
- Play File: Select a media file stored in the device.
- Cycle Mode: Available modes: Once Only, Multiple Times, Duration, and Infinite.
- HTTP Stream: Enter an HTTP stream URL to play during the schedule, such as http://listen.livestreamingservice.com/181-greatoldies_128k.mp3

3.8 Advanced

3.8.1 RTP Multicast

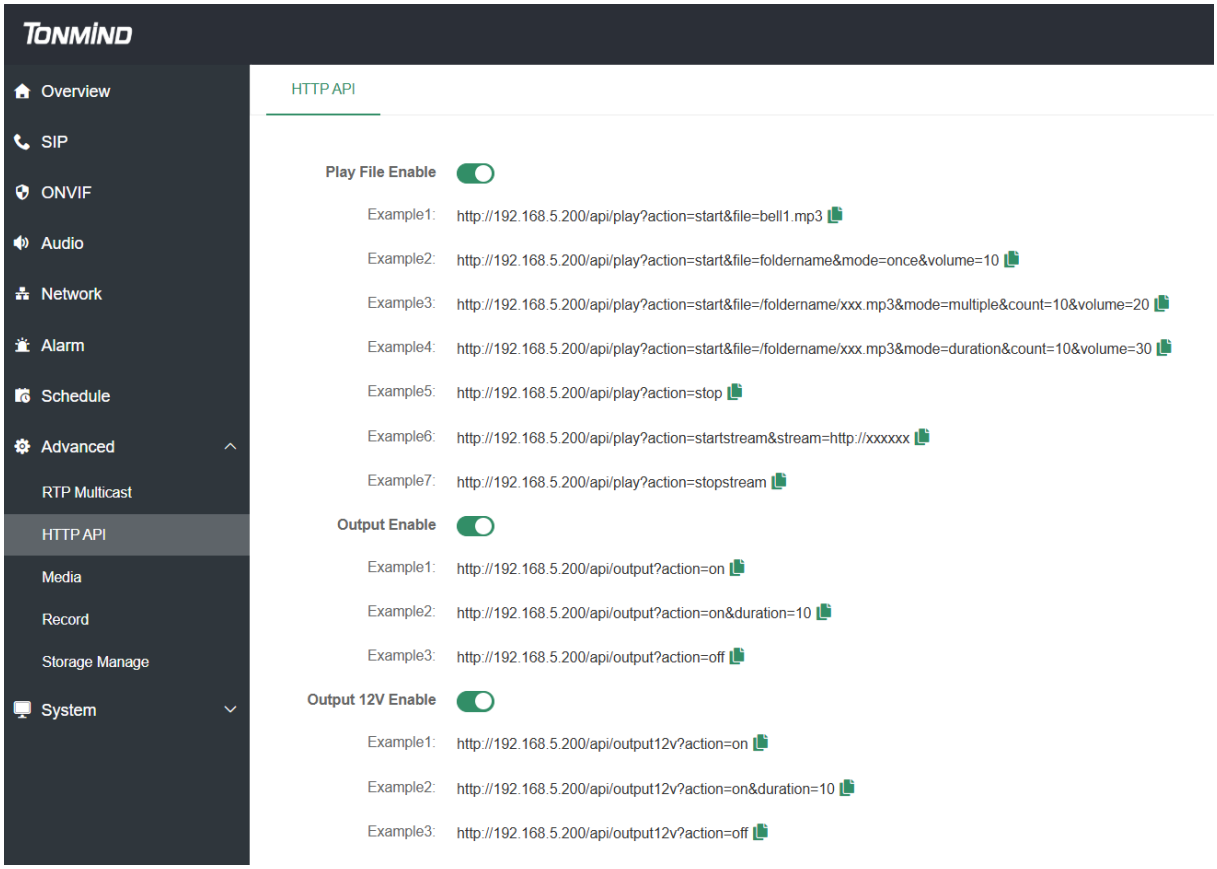
Support 10 RTP addresses, please note that: port numbers do not use continuous numbers when setting the same RTP addresses. Use discontinuous numbers. e.g.:
239.255.1.2:8000，239.255.0.1:8001，239.255.0.1:8002（×）
239.255.0.1:8000，239.255.0.1:8002，239.255.0.1:8004 (√)

- Multicast address range: 224.0.0.0-239.255.255.
- Ports range: 1024-65536



3.8.2 HTTP API

The HTTP API section allows you to enable and configure API control for the device. Click Enable to activate the HTTP API and view several usage examples.



3.8.3 Media

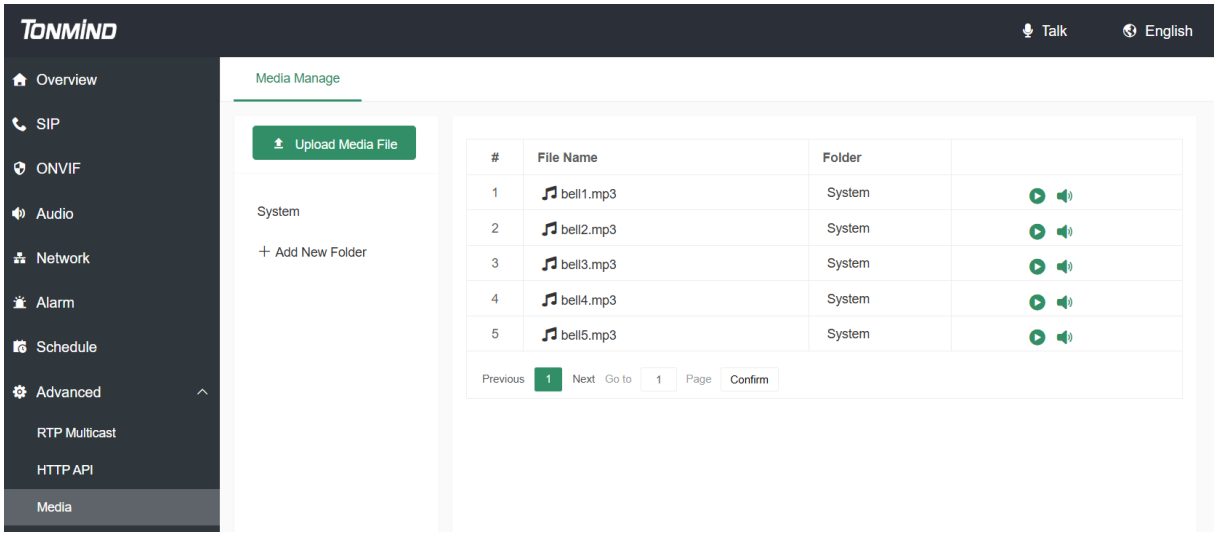
The Media Manage page allows users to upload, manage, and play audio files stored on SIP-S26H. By default, SIP-S26H includes five built-in bell sounds (bell1.mp3 to bell5.mp3) stored in the System folder.

● Upload Media File: Click to upload local audio files to the IP Speaker. Uploaded files are automatically saved in the default folder, or users can select a specific folder during upload.

● Add New Folder: Click to create custom folders for organizing audio files. Users can select the destination folder when uploading files.

● Play Audio: Click the Play button to preview an audio file.

Users can organize audio files into different folders for convenient management and playback.



3.8.4 Record

SIP-S26H models equipped with built-in eMMC storage support recording audio from both the speaker output and built-in microphone. Users can configure recording schedules, manage recording intervals, and play back or download recorded files.

3.8.4.1 Speaker Record

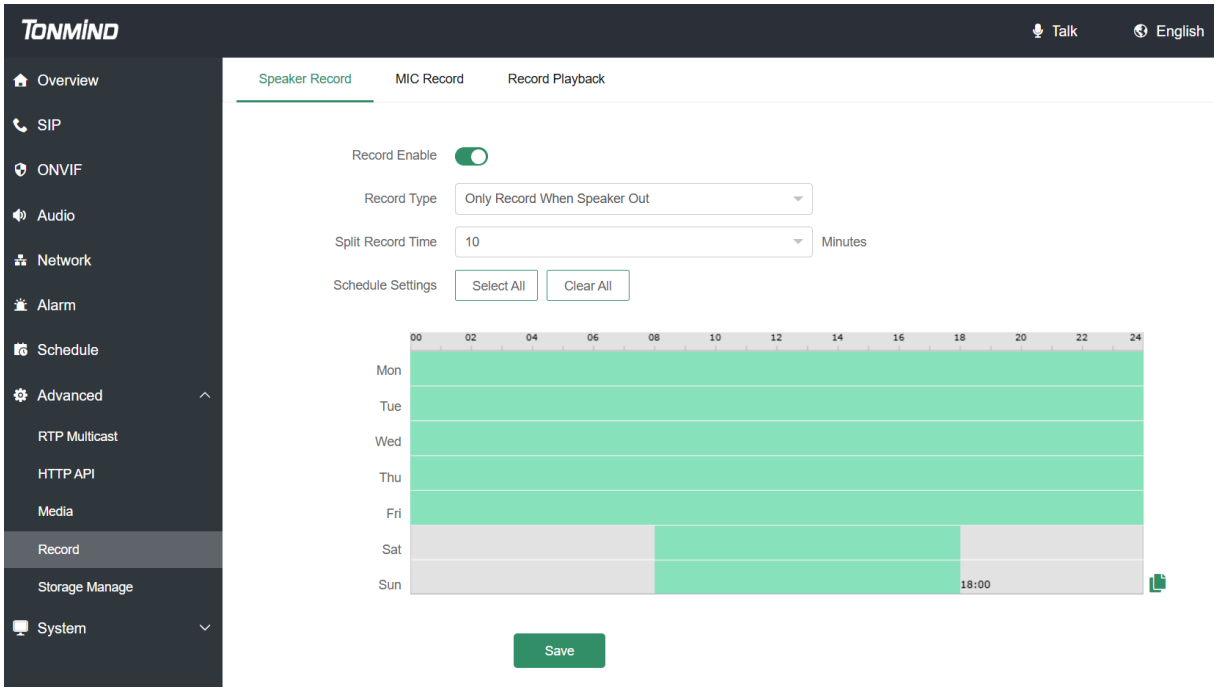
The Speaker Record function allows SIP-S26H to record audio played through the speaker during the configured schedule.

● Record Enable: Enable this option to record audio whenever the speaker plays sound during the scheduled period.

● Record Type: Select the desired speaker recording mode.

● Split Record Time: Set the recording file segment length to 1, 3, 5, or 10 minutes.

● Schedule Settings: Select the recording periods for each day of the week. Use Select All or Clear All to quickly adjust the schedule. Click the Copy icon to apply one day's schedule to other selected days. Click Save to apply the settings.



3.8.4.2 MIC Record

The MIC Record function allows SIP-S26H to continuously record audio captured by its built-in microphone during the configured schedule.

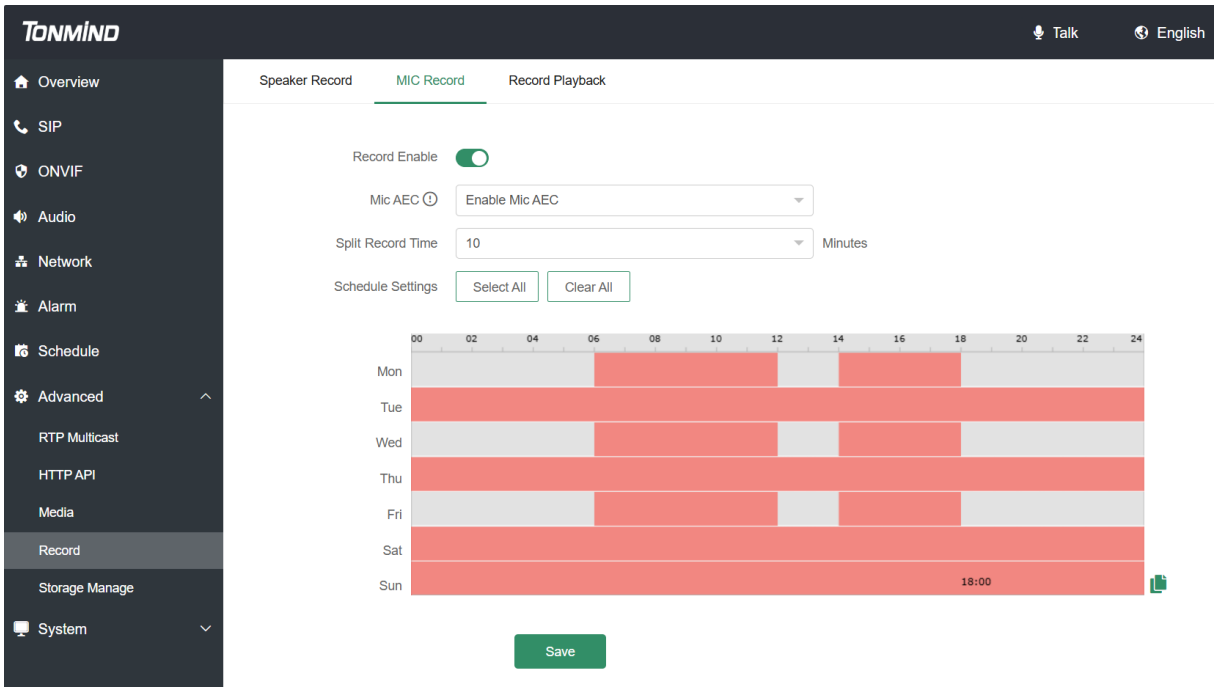
● Record Enable: Enable this option to activate microphone recording during the scheduled periods.

Mic AEC: Enable or disable Acoustic Echo Cancellation (AEC). When enabled, AEC is effective only during speaker output at an 8 kHz or 16 kHz sample rate, such as during SIP calls.

● Split Record Time: Set the recording file segment length to 1, 3, 5, or 10 minutes.

● Schedule Settings: Configure the recording periods and copy schedules to other days as described in Speaker Record.

Click Save to apply the settings.



3.8.4.3 Record Playback

The Record Playback page allows users to search, play back, and download recorded audio files.

Record Type: Select Speaker Out or Mic In to view the corresponding recordings.

● Date Selection: Select a date from the calendar. Dates containing recorded files are marked with a small dot.

● Timeline: Recorded periods are highlighted on the timeline. Click a recorded segment to select the desired recording.

● Playback: Click the Play button to play the available recording.

Download: Select a recorded segment on the timeline and click the Download icon to download the corresponding audio file.

The playback and download operations are the same for both Speaker Out and Mic In recordings.





3.8.5 Storage Manage

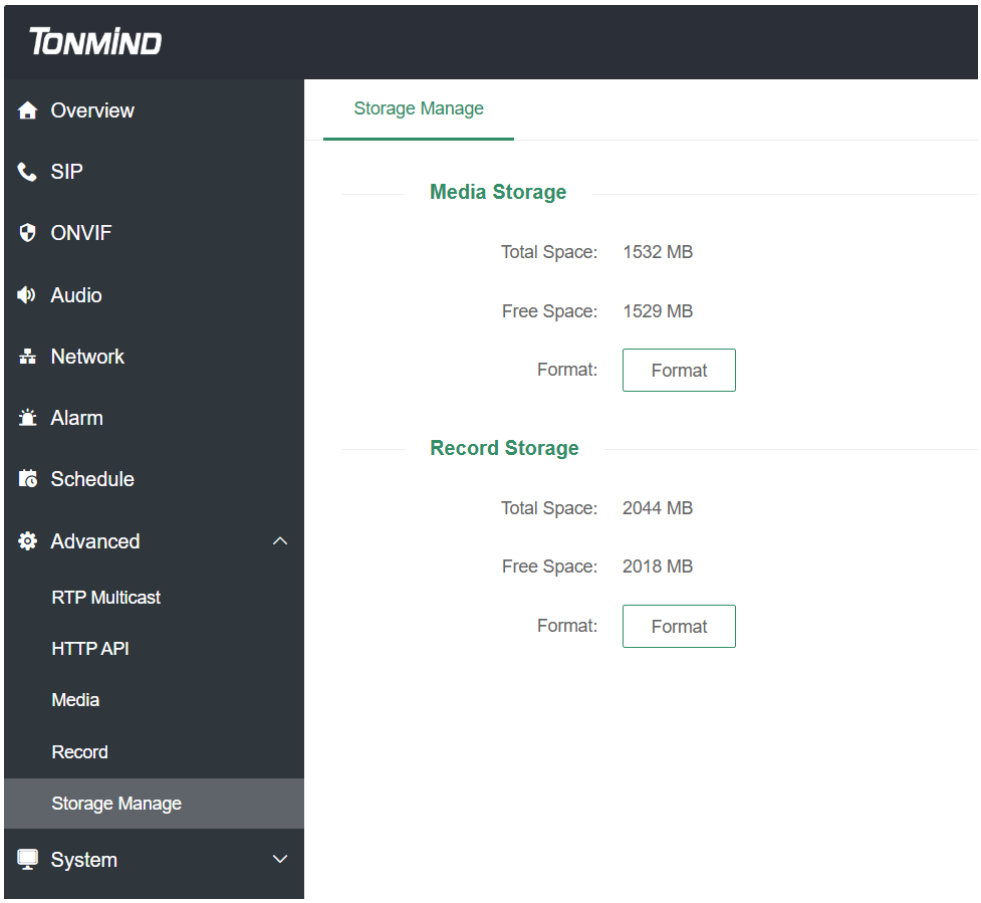
The Storage Manage page displays storage information for SIP-S26H, including Media Storage and Record Storage.

- Media Storage: Displays the total and available storage space for audio files.

Record Storage: Displays the total and available storage space for recorded audio files.

- Total Space: Shows the total storage capacity.
- Free Space: Shows the remaining available storage space.
- Format: Click the Format button to format the corresponding storage partition and erase its stored files.

Note: Formatting will permanently delete all files in the selected storage partition. Please back up important files before formatting.

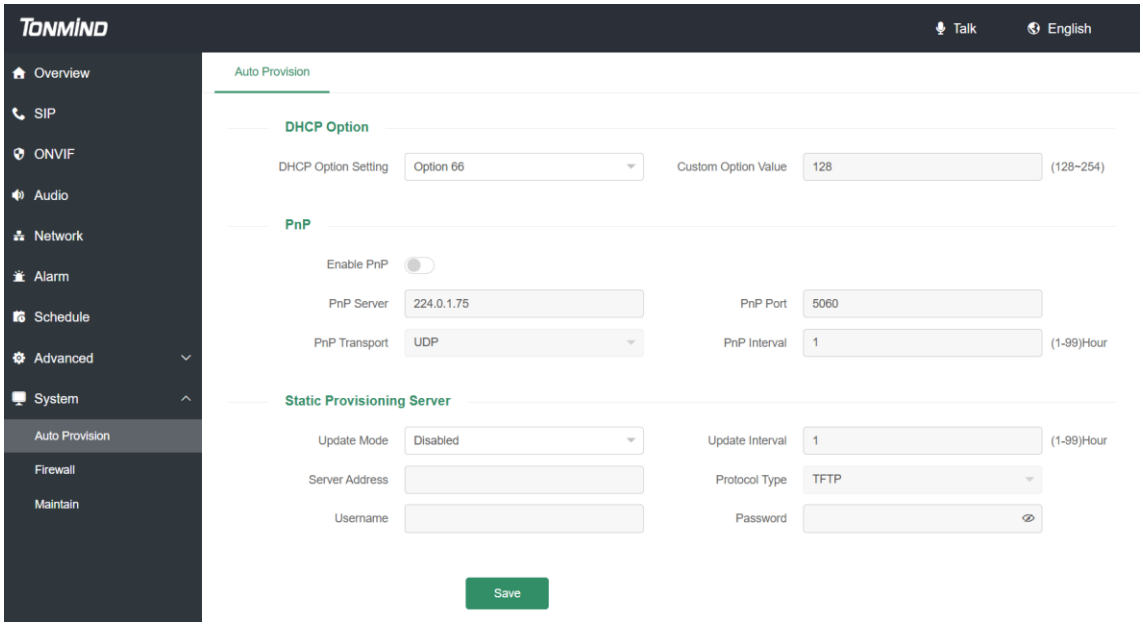


3.9 System

3.9.1 Auto Provision

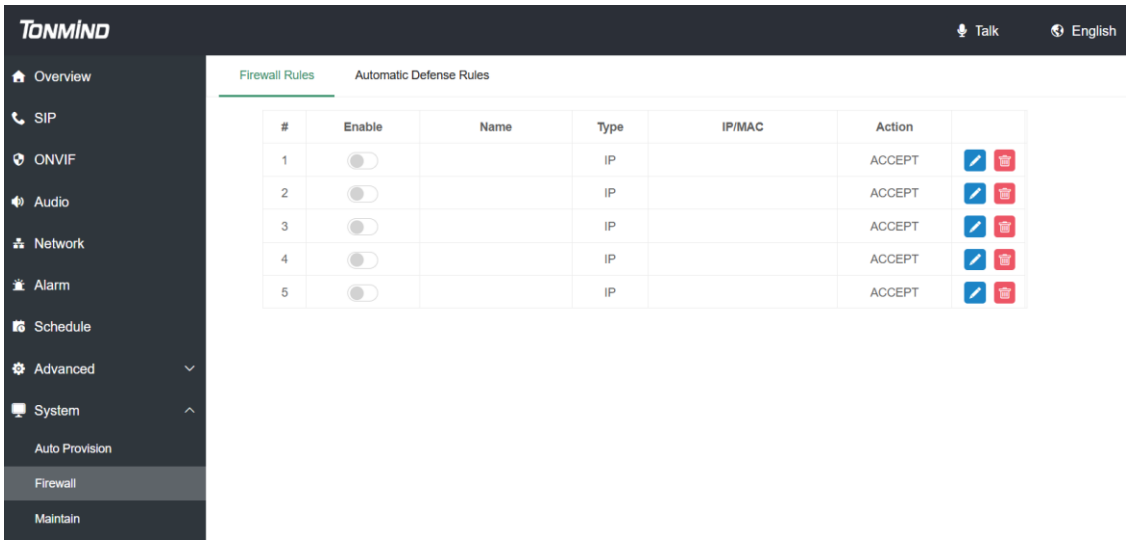
The Auto Provision section allows automatic device configuration based on MAC address. It supports third-party servers using DHCP, PnP, TFTP, FTP, and HTTP protocols.
There are three provisioning methods available:

- DHCP Option: Set up a DHCP server first, then select the option code (Option 66, Option 43, or Custom Option). Configure the path to the provisioning file and run the DHCP server.
- PnP (Plug and Play): Set up a PnP server, configure the provisioning file path, and run the PnP service for automatic device discovery and configuration.
- Static Provisioning Server: Supports TFTP, FTP, and HTTP protocols. Prepare the corresponding server, then configure the server address and file path for the provisioning file. If authentication is required, enter the username and password.



3.9.2 Firewall

The Firewall section provides two types of protection: Firewall Rules and Automatic Defense Rules.



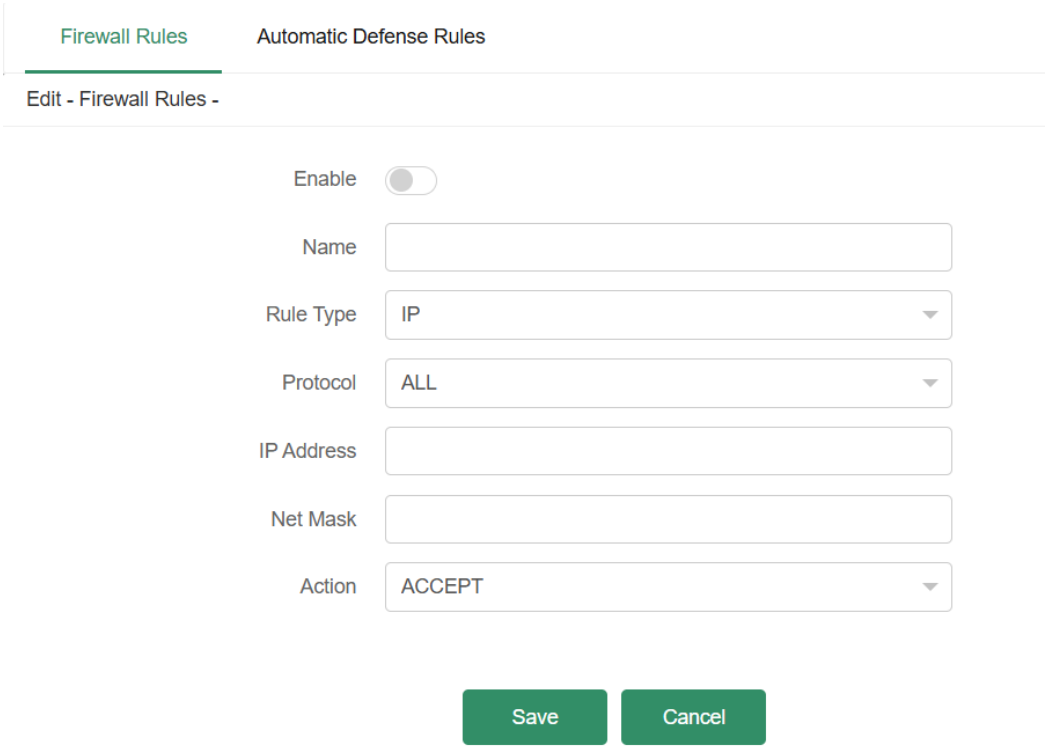
● Firewall Rules:

Name: Set a custom rule name.

Rule Type: Choose IP Address or MAC Address.

- IP Address: Select protocol (ALL, TCP, or UDP), then enter the IP Address and Netmask.
- MAC Address: Enter the MAC address directly.

Action: Choose ACCEPT or DROP.



● Automatic Defense Rules

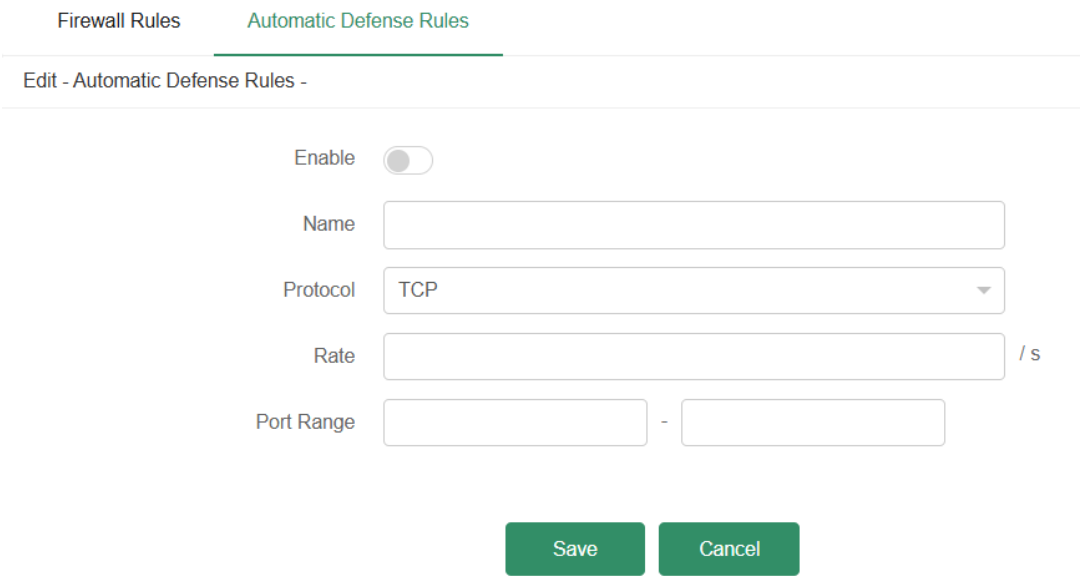
Used to automatically protect against abnormal traffic:

Name: Set a custom rule name.

Protocol: Select TCP, UDP, or ICMP.

Rate: Define the allowed request rate (per second).

Port Range: Set the applicable port range.



3.9.3 Maintain

The Maintain section includes Maintain, Password, and Date/Time settings for device management and system configuration.

● Maintain

Download Log File: Click Log to view and download device logs.

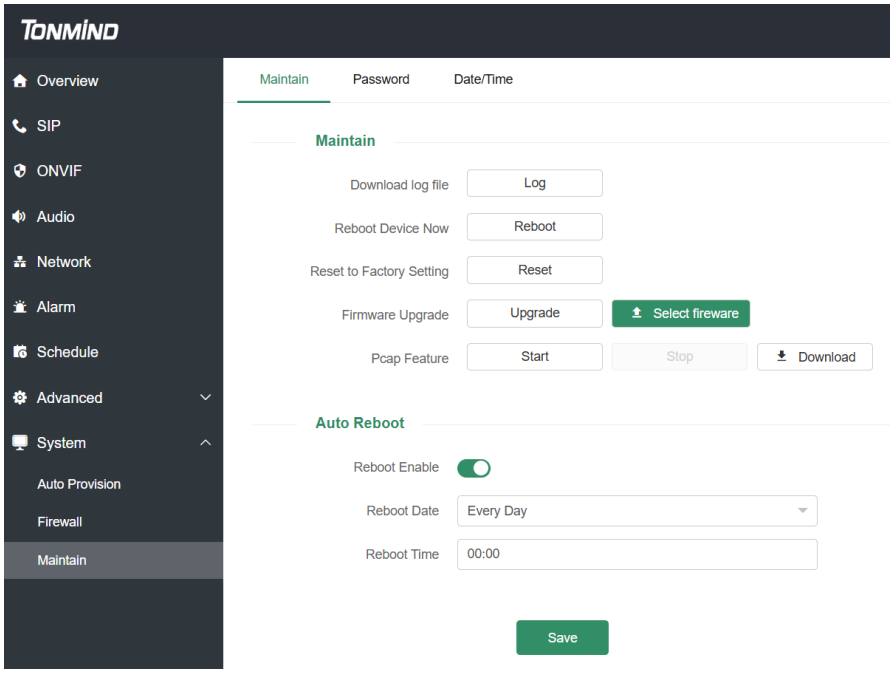
Reboot Device Now: Click Reboot to restart the device.

Reset to Factory Setting: Click Reset to restore factory defaults.

Firmware Upgrade: Click Select Firmware to choose the upgrade file, then click Upgrade to update the device firmware.

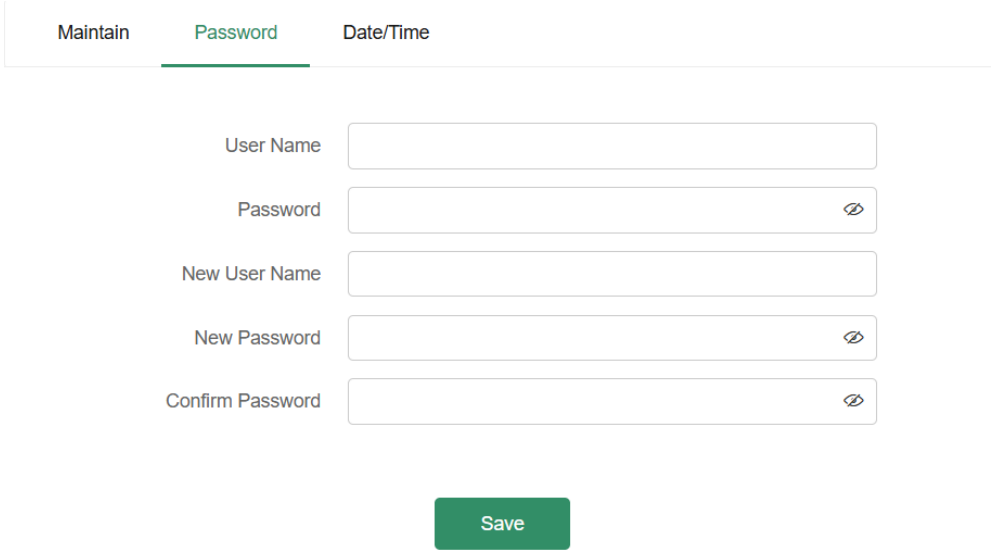
Pcap Feature: Used for packet capture. Click Start to begin, Stop to end, and Download to export the capture file.

Auto Reboot: Enable Reboot Enable, select Every Day or a specific day from Monday to Sunday, enter the desired Reboot Time, and click Save to apply the settings.



● Password

Set a new username and password. Save the configuration and log in again after changes take effect.

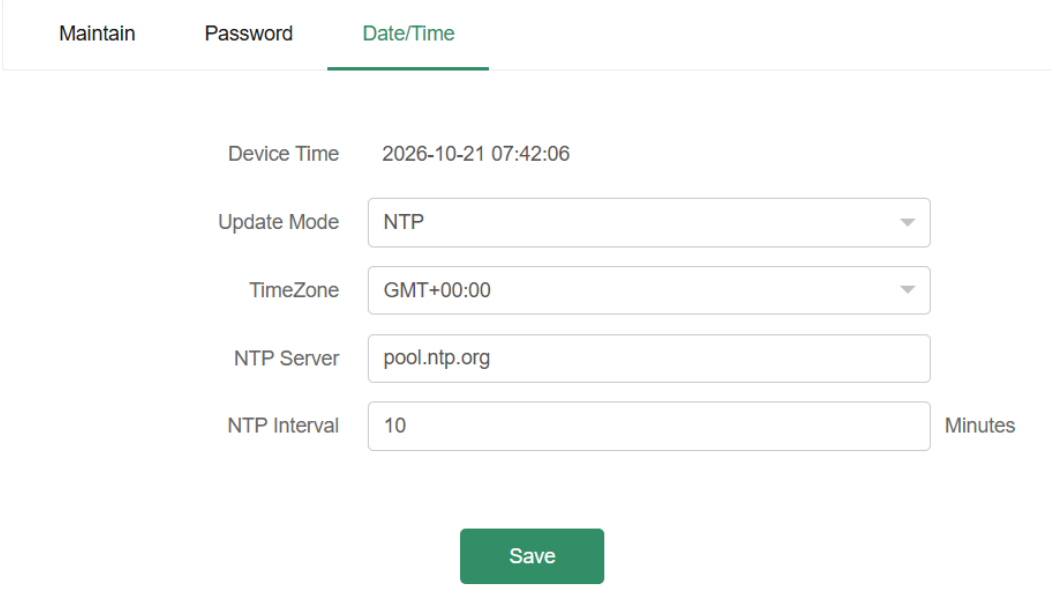


● Date/Time

Supports two time setting modes:

NTP: Synchronize time automatically with an NTP server.

Local Time: Sync with the local PC time.



4. IPTool Configuration

Besides Web configuration, IPTool provides a quick way to configure basic settings such as SIP account, volume, RTP Multicast, and firmware upgrade.

Please follow the steps below:

Download IPTool from: https://www.tonmind.com/category/downloads/5

Run IPTool, select the correct network from Network, then click Search to discover devices and configure settings.

