

Portero IP/SIP con video IP65

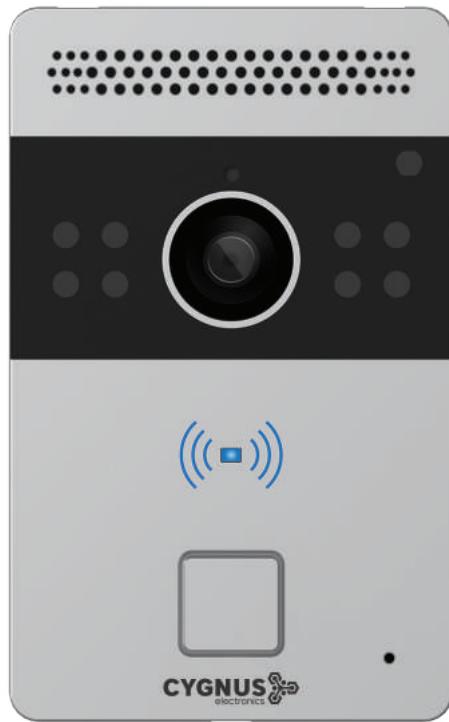
# VTX-100

Ideal para uso en oficinas, consultorios y hogares fácil de instalar y configurar

## Descripción

El moderno Interfono con vídeo IP/SIP **VTX-100**, es la perfecta elección para la vida cotidiana, haciendo más segura su entrada, controlando quien llega, utilizando una comunicación bidireccional confirmando de manera verbal y visual su identidad, dando absoluta seguridad y una mayor tranquilidad.

SIP   ONVIF   POE   RFID   RS485



## Escenarios de aplicación

- ✓ Dispositivo para ingreso a edificios, hogares, apartamentos, oficinas privadas, con la función de control de acceso.
- ✓ Funcionamiento bajo IP-PBX en el sitio o alojada y modo P2P.
- ✓ Entrada de sitio remoto a través de internet.

## Especificaciones

### Generales

- ↳ Cámara incorporada de 3 Mpx con IR
- ↳ Ángulo de visión 120°
- ↳ Calidad de audio y vídeo Premium
- ↳ Botón de llamada rápida
- ↳ Cámara operativa permanentemente (Monitoreo)
- ↳ 2 salidas a relé para aperturas de puertas/barreras
- ↳ Control de acceso por tarjeta ID y accionamientos remotos
- ↳ Integración con plataformas basadas en SIP (Centrales IP)
- ↳ Aplicación móvil: Audio/video de llamada y control de relé
- ↳ SIP / ONVIF / RS485/ PoE / IP65

### Características SIP

- ↳ SIP v1 (RFC2543), SIP v2 (RFC3261)
- ↳ Línea: 2 Cuentas SIP

**► Características de entrada**

- Lector de tarjetas RFID: 13.56MHz y 125kHz
- Relés controlados individualmente por tonos DTMF

**Características de audio**

- Micrófono incorporado con clasificación IP67
- Altavoz 2W con clasificación IP66
- Códec: G.711a, G.711μ, G.722, G.729
- Calidad de voz: 7kHz
- Cancelación acústica de eco (CAE) en modo manos libres (tiempo de cola de 96ms)
- Detección de actividad de voz
- Generador de ruido Confort
- Ajuste del tiempo máximo de llamada

**Características de vídeo**

- Ángulo de visión: 120°
- Resolución: hasta 720p
- Velocidad de transferencia de imagen: 720p @ 30fps máx.
- Modo nocturno con iluminación Leds IR de alta intensidad
- Auto balance automático de colores y luces
- Sensor de luz interno: Iluminación de imagen durante horas oscuras
- Compatible con dispositivos de tercera parte, ej: NVRs
- Códice: H.264
- Soporta RTSP y ONVIF

**Características de red**

- 1 Puerto RJ45 Ethernet 10/100 Mbps
- Configuración IP: estática / DHCP
- 802.1Q VLAN / 802.1x
- NTP para ajustes de horario por red

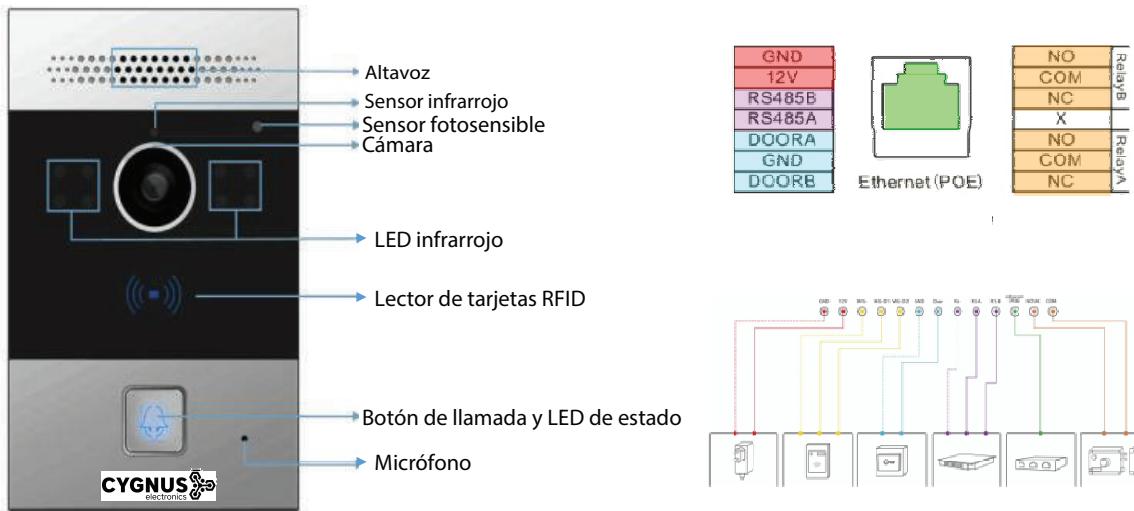
**Características de gestión y operación**

- Auto-provisioning via FTP/TFTP/HTTP/HTTPS/PnP/DHCP
- Gestión a través de web server TCP/IP
- Protocolos soportados: IPv4, DNS, NTP, RTSP, RTP, TCP, UDP, ICMP, ARP, TR69, SNMP
- Backup de configuración para exportar e importar
- Actualización de firmware

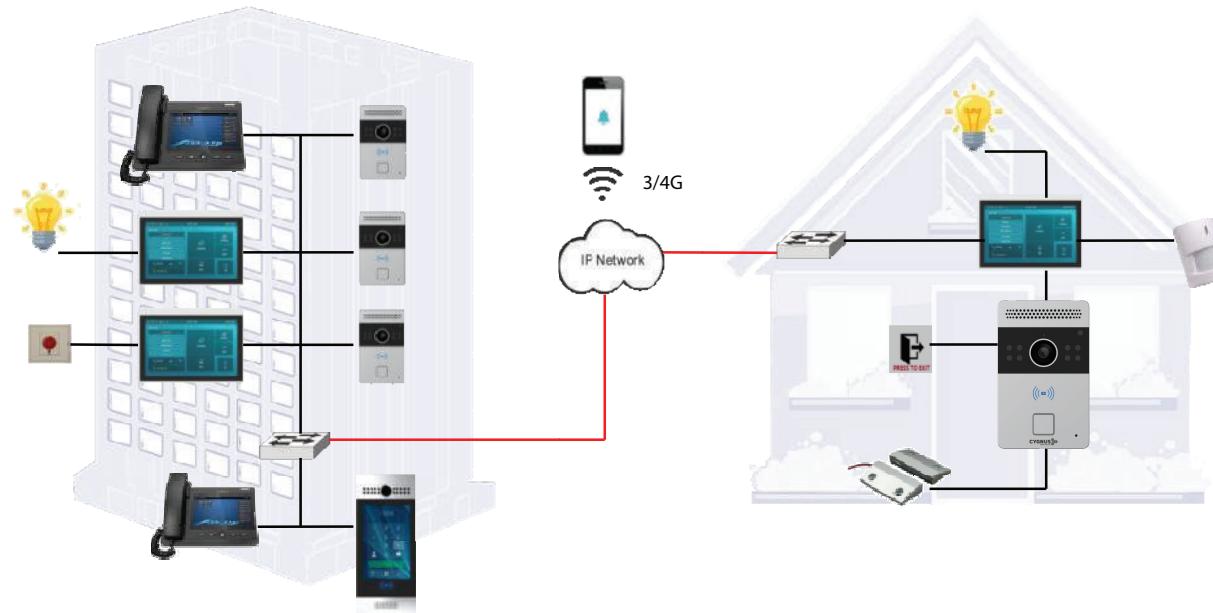
**Características físicas**

- Cámara 3 Mega píxeles, iluminación automática Sensor IR
- Botón de llamada rápida DSS
- G-sensor para alarma de sabotaje (Tamper)
- Relé de salida: 2
- Puerto RS485
- Consumo de energía: entrada 12V DC, <12W (o PoE habilitado)
- Material del cuerpo: Aleación de Zinc
- Instalación: Montaje empotrado o superficial en pared
- Dimensiones: 90x145x58mm / 102x161.5x73mm
- Certificaciones industriales: IP65, IK06

## Especificaciones y conexión



## Aplicaciones en multivivienda y unifamiliar



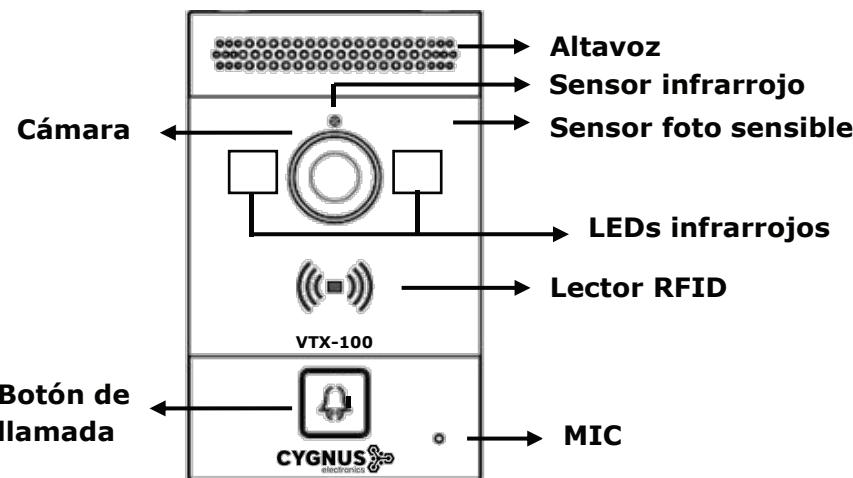
## **Lista de compatibilidad**



Para más información sobre Cygnus Electronics visite: [www.cygnus.la](http://www.cygnus.la) – Cygnus Electronics y su respectivo logo son marcas registradas de Cygnus Electronics y /o sus afiliados en la Argentina y otros países. Cualquier marca de terceros mencionada es propiedad de sus respectivos dueños.

# Guía de inicio rápido

## Descripción



**Ethernet (POE)**: Conector Ethernet (POE) puede proporcionar conexión de red y de alimentación.

**12V / GND**: Terminal de alimentación externa si POE no está disponible.

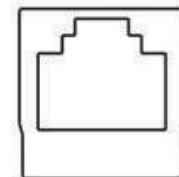
**WG\_D0 / 1**: Terminal Wiegand para control de acceso Wiegand.

**RS485A / B**: Terminal RS485, automatización.

**DOOR A / B / C**: terminal de entrada de señal de activación (por ejemplo, presione el botón interior para abrir el relé).

**Relé A/B/C**: Terminal de control de relé.  
(NO / COM / NC)

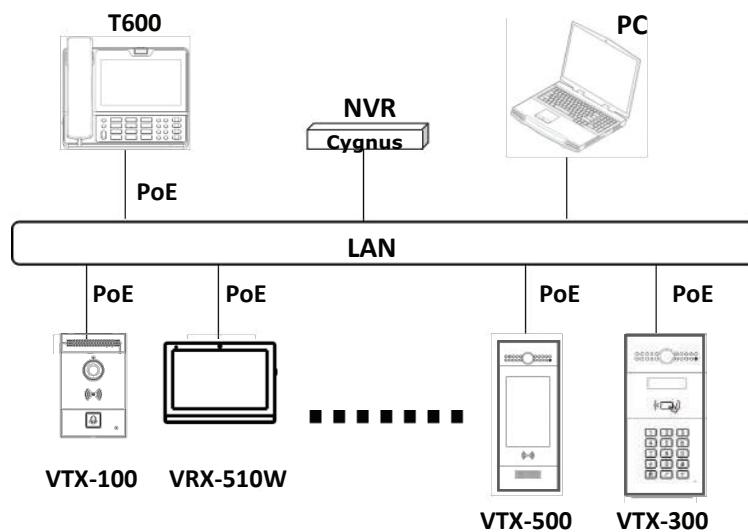
|        |
|--------|
| GND    |
| 12V    |
| RS485B |
| RS485A |
| DOORA  |
| GND    |
| DOORB  |



Ethernet (POE)

|     |        |
|-----|--------|
| NO  | RelayB |
| COM |        |
| NC  | X      |
| X   |        |
| NO  | RelayA |
| COM |        |
| NC  |        |

## Escenario de aplicación



## Configuración

**1. Anuncio de la dirección IP**: Mientras el dispositivo inicia, mantenga presionado el botón de llamada, luego de unos segundos entrara en modo de anuncio de IP reproduciéndola en voz. **VTX-100 utiliza DHCP por defecto**.

**2. Interfaz web**: para acceder a la configuración web escribiremos la dirección IP en un navegador de nuestra PC, la cual estará conectada la misma red que el dispositivo. **Usuario: admin / Contraseña: admin**.

**3. Registro de la cuenta**: en la interfaz de usuario web, vaya a la ruta: **Cuenta -> Básico** para registrar la cuenta y completar la información correspondiente. (Por favor, consulte el manual del usuario para más información)

## Llamada rápida

Ingresando a la configuración web (**Configuración 2**), vaya a **Intercomunicador -> Básico**.

-> Configuraremos en los casilleros correspondientes la **dirección IP o extensión SIP** del destinatario. Soporta 8 números simultáneos.

Habilitaremos la llamada directa IP, en **Teléfono -> Características de llamada** -> Direct IP -> Habilitar.

| Push Button |               |             |             |             |
|-------------|---------------|-------------|-------------|-------------|
| Key         | Number1 / 5   | Number2 / 6 | Number3 / 7 | Number4 / 8 |
| Push Button | 192.168.1.100 |             |             |             |
|             |               |             |             |             |
|             |               |             |             |             |

|           |           |
|-----------|-----------|
| Direct IP | Enabled ▾ |
|-----------|-----------|

## Alta de tarjetas RFID

Ingresando a la configuración web (**Configuración 2**), vaya a **Intercomunicador -> Configuración de tarjeta**.

| Card Setting          |  |   |   |  |
|-----------------------|--|---|---|--|
| Card Status           |  |   |   |  |
| Card Status           | Card Issuing ▾                             | Apply                                   |   |  |
| <b>IC Key DoorNum</b> | RelayA <input checked="" type="checkbox"/> | RelayB <input type="checkbox"/>         | RelayC <input type="checkbox"/>         |  |
| <b>IC Key Day</b>     | Mon <input checked="" type="checkbox"/>    | Tue <input checked="" type="checkbox"/> | Wed <input checked="" type="checkbox"/> | Thur <input checked="" type="checkbox"/> |
|                       | Fri <input checked="" type="checkbox"/>    | Sat <input checked="" type="checkbox"/> | Sun <input checked="" type="checkbox"/> | Check All <input type="checkbox"/>       |
| <b>IC Key Time</b>    | 00 : 01 - 23 : 59                          |   |   |  |
| <b>IC Key Tags</b>    | Allowed                                    |   |   |  |
| <b>IC Key Name</b>    | Santiago                                   |   |   |  |
| <b>IC Key Code</b>    | 4BD75B20                                   | Obtain                                  | Edit                                    |  |
| Door Card Management  |  |   |   |  |
| <b>Index</b>          | <b>Name</b>                                | <b>Code</b>                             | <b>Relay</b>                            |  |
| 1                     | Santiago                                   | 4BD75B20                                | 1 <input checked="" type="checkbox"/>   |  |
| 2                     |  |   | <input type="checkbox"/>                |  |
| 3                     |  |   | <input type="checkbox"/>                |  |
| 4                     |  |   | <input type="checkbox"/>                |  |
| 5                     |  |   | <input type="checkbox"/>                |  |
| 6                     |  |   | <input type="checkbox"/>                |  |
| 7                     |  |   | <input type="checkbox"/>                |  |
| 8                     |  |   | <input type="checkbox"/>                |  |
| 9                     |  |   | <input type="checkbox"/>                |  |
| 10                    |  |   | <input type="checkbox"/>                |  |
| Page                  | 1 ▾  | Prev                                    | Next                                    |  |
|                       |  | Delete                                  | Delete All                              |  |

## Cambiamos el estado de tarjeta de Normal a ISSUING->

1. Luego seleccionamos el relé que deseamos controlar.
2. Los días de la semana y horarios en los que tendrá habilitada la apertura ese usuario.
3. Marcamos la frecuencia en que va a trabajar.
4. Damos un nombre de identificación.
5. Copiamos el código u obtenemos deslizando la tarjeta.
6. Por último presionamos **Add**. Tarjeta guardada!

**Importante:** Luego del procedimiento de alta, volver el estado de tarjeta a Normal.

## Configuración de relé

-> **ID de relé:** VTX-100 admite dos relés, el usuario puede configurarlos respectivamente.

**Tipo de relé:** Por defecto significa que NC y COM están normalmente cerrados, mientras que el estado Invertir significa que NC y COM están normalmente abiertos.

**Retraso del relé:** para configurar la duración del relé abierto. Pasado este tiempo, el relé se cerraría de nuevo.

**Estado del relé:** Mientras se dispara el relé, el estado cambia cuando COM se conecta a NC, el estado es Bajo.

| Relay                   |               |               |  |
|-------------------------|---------------|---------------|--|
| <b>Relay ID</b>         | RelayA        | RelayB        |  |
| <b>Relay Type</b>       | Default state | Default state |  |
| <b>Relay Delay(sec)</b> | 3             | 3             |  |
| <b>DTMF Option</b>      | 1 Digit DTMF  |               |  |
| <b>DTMF</b>             | 0             | 0             |  |
| <b>Multiple DTMF</b>    |               |               |  |
| <b>Relay Status</b>     | RelayA: Low   | RelayB: Low   |  |

**Nota:** el relé opera un interruptor y no entrega energía, por lo que el usuario debe preparar el adaptador de energía para los dispositivos externos que se conectan al relé.

Para más información vea su manual y hoja de datos en:

[www.cygnus.la/manuales/cy-vtx-100.pdf](http://www.cygnus.la/manuales/cy-vtx-100.pdf)

[www.cygnus.la/hojasdedatos/cy-vtx-100.pdf](http://www.cygnus.la/hojasdedatos/cy-vtx-100.pdf)

# User Manual VTX-100



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## 2. Daily Use

### 2.1. Making a Call

Press the call button to call out the predefined number or IP address and if LED turns green, it means the call has been answered.

### 2.2. Receiving a Call

Users can use IP phone or indoor monitor to call VTX and VTX will answer it automatically by default. If auto answer is disabled, pressing call button to answer the incoming call.

| LED Status |           | Description            |
|------------|-----------|------------------------|
| Blue       | Always on | Normal status          |
|            | Flashing  | Calling                |
| Red        | Flashing  | Network is unavailable |
| Green      | Always on | Talking on a call      |
|            | Flashing  | Receiving a call       |
| Pink       | Flashing  | Upgrading              |

## 2.3. Unlock

### 2.3.1. Unlock by RF Card

Place the predefined user cards in RFID card reader to unlock.

Under normal conditions, VTX will announce “The door is now opened”. Both 13.56MHz and 125KHz RFID cards are supported on VTX.

### 2.3.2. Unlock by DTMF Codes

Users can press the predefined DTMF code from an answer unit to remotely unlock the door during the call. Users will also hear “The door is now opened.”

## 3. Basic Features

### 3.1. Access the website setting

#### 3.1.1. IP Announcement

While VTX starts up normally, hold the call button for several seconds after the Status LED turns blue, voice system will enter IP announcement mode. In IP announcement mode, the IP address will be announced periodically and “IP 0.0.0.0” would be announced if no IP address is gained. Press Call Button again to quit the announcement mode.

#### 3.1.2. Access the device website

Open a web browser, and access the corresponding IP address. Enter the default user name and password to login. The default administrator's user name and password are shown as below:

The image shows a login interface with the following elements:

- User Name:** A text input field.
- Password:** A text input field.
- Remember Username/Password:** A checkbox labeled "Remember Username/Password".
- Login:** A blue rectangular button labeled "Login".

Figure 3.1.2 Access the device website

User Name: **admin**

Password: **admin**

**Note:** The recommended browser is Google Chrome.

## 3.2. Password Modification

### 3.2.1. Modify the web password

Go to **Security - Basic** to modify password for webpage.

To modify password for “admin” or “user” account.

The screenshot shows a configuration interface titled "Web Password Modify". It includes four input fields: "User Name" with the value "admin", "Current Password" (empty), "New Password" (empty), and "Confirm Password" (empty). There is also a dropdown menu next to "User Name".

Figure 3.2.1 Modify the web password

## 3.3. Phone Configuration

### 3.3.1. Language

Go to **Phone - Time/Lang** to select language for webpage.

The screenshot shows a configuration interface titled "Web Language". It features a single dropdown menu labeled "Type" with the value "English".

Figure 3.3.1 Language

### 3.3.2. Network Setting

Go to **Network - Basic**, dynamically or statically to obtain address.

#### 3.3.2.1. DHCP

VTX uses DHCP by default, it will get IP address, Subnet Mask, Default Gateway and DNS server address from DHCP server automatically.

#### 3.3.2.2. Static IP

If selected, you could manually set IP address, Subnet Mask, Default Gateway and DNS server. The figure 3.3.2.2 shows static IP setting.

The screenshot shows a configuration interface titled "LAN Port". It includes two radio button options: "DHCP" (selected) and "Static IP". Below these are five input fields: "IP Address" (192.168.1.100), "Subnet Mask" (255.255.255.0), "Default Gateway" (192.168.1.1), "LAN DNS1" (8.8.8.8), and "LAN DNS2" (empty).

Figure 3.3.2.1 DHCP mode

The screenshot shows a configuration interface titled "LAN Port". It includes two radio button options: "DHCP" (unchecked) and "Static IP" (selected). Below these are five input fields: "IP Address" (192.168.1.104), "Subnet Mask" (255.255.255.0), "Default Gateway" (192.168.1.1), "LAN DNS1" (192.168.1.1), and "LAN DNS2" (192.168.1.1).

Figure 3.3.2.2 Static IP mode

### 3.3.3. Sound

Go to **Phone - Voice** to configure volume and upload tone file.

**Mic Volume:** To configure microphone volume.

**Speaker Volume:** To configure speaker volume.

**Open Door Warning:** Disable it, and users will not hear the prompt voice when the door is opened.

**IP Announcement:** To configure the valid time when IP Announcement is available and the loop time of IP Announcement.

**RingBack Upload:** To upload the ring back tone by users themselves.

**Opendoor Tone Upload:** To upload the opendoor tone by users themselves.

The screenshot shows a configuration interface for sound settings. It includes the following sections:

- Mic Volume:** A slider for microphone volume ranging from 1 to 15, currently set to 8.
- Speaker Volume:** A slider for speaker volume ranging from 1 to 15, currently set to 8.
- Open Door Warning:** A dropdown menu set to "Enabled".
- IP Announcement:** Settings for active time (0 to 180) and loop times (1 to 10).
- RingBack Upload:** A file upload section with a "Choose File" button, currently showing "No file chosen". It includes "Upload", "Delete", and "Export" buttons. Below it, text specifies: "File Format: wav, size: < 200KB, samplerate: 16000, Bits: 16".
- Opendoor Tone Upload:** A file upload section with a "Choose File" button, currently showing "No file chosen". It includes "Upload", "Delete", and "Export" buttons. Below it, text specifies: "File Format: wav, size: < 200KB, samplerate: 16000, Bits: 16".

Figure 3.3.3 Sound

## 3.4. Intercom Call

### 3.4.1. Direct IP Call

Go to **Phone - Call Feature** to enable the direct IP call for door phones first.

Then, go to **Intercom - Basic** to configure the IP address of the destination(E.g. IP address 192.168.1.100). It supports up to 8 lines simultaneously.

After all, press the push button to make direct IP call.



Figure 3.4.1-1 Direct IP call

| Push Button |               |             |             |             |
|-------------|---------------|-------------|-------------|-------------|
| Key         | Number1 / 5   | Number2 / 6 | Number3 / 7 | Number4 / 8 |
| Push Button | 192.168.1.100 |             |             |             |
|             |               |             |             |             |

Figure 3.4.1-2 Push Button Number

### 3.4.2. SIP Call

SIP calls which use SIP numbers to make or receive calls should be supported by SIP server. Users need to register accounts and fill SIP feature parameters before using it.

Go to **Account - Basic** to configure SIP account and SIP server for door phones first.

### 3.4.2.1. SIP Account

**Status:** To display register result.

**Account:** To switch the account to be configured. VTX supports 2 SIP accounts.

**Account Active:** To enable the account, it is disabled by default.

**Display Label:** To configure label displayed on the phone's LCD screen.

**Display Name:** To configure name sent to the other call party for displaying.

**Register Name:** To enter extension number which users want and the number is allocated by SIP server.

**User Name:** To enter user name of the extension.

**Password:** To enter password for the extension.

| SIP Account    |                |
|----------------|----------------|
| Status         | Registered     |
| Account        | Account 1      |
| Account Active | Enabled        |
| Display Label  | Front Door_R20 |
| Display Name   | Front Door     |
| Register Name  | 508100038      |
| User Name      | 508100038      |
| Password       | *****          |

Figure 3.4.2.1 SIP account

### 3.4.2.2. SIP Server 1&2

**Server IP 1:** To enter SIP server's IP address or URL.

**Server IP 2:** To display and configure secondary SIP server settings. This is for redundancy, if registering to primary SIP server fails, the phone will go to secondary SIP server for registering.

**Registration Period:** The registration will expire after registration period, the phone will re-register automatically within registration period.

Figure 3.4.2.2 SIP server 1&2

### 3.4.2.3. Outbound Proxy Server

An outbound proxy server is used to receive all initiating request messages and route them to the designated SIP server.

Figure 3.4.2.3 Outbound proxy server

### 3.4.2.4. Transport Type

To display and configure transport type for SIP message.

There are 4 transport types in total.

- UDP: UDP is an unreliable but very efficient transport layer protocol.
- TCP: Reliable but less-efficient transport layer protocol.
- TLS: Secured and reliable transport layer protocol.
- DNS-SRV: DNS record for specifying the location of services.

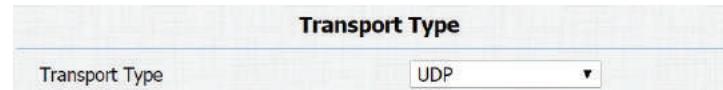


Figure 3.4.2.4 Transport type

### 3.4.2.5. NAT

To display and configure NAT settings.

- STUN: Short for session traversal utilities for NAT, a solution to solve NAT issues.

**Note:** By default, NAT is disabled.

After all, press the push button to make direct IP call.

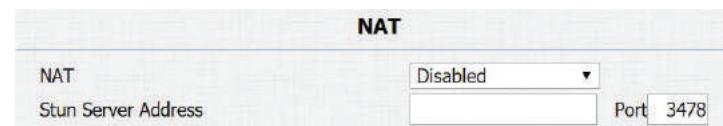


Figure 3.4.2.5 NAT

### 3.4.3. Auto Answer

Go to **Account - Advanced** to enable auto answer feature for SIP calls.



Figure 3.4.3-1 Auto answer for sip calls



Figure 3.4.3-2 Auto answer for direct IP calls

Go to **Phone - Call Feature** to enable auto answer feature for direct IP calls.

**Auto Answer Delay:** To configure delay time before an incoming call is automatically answered.

**Auto Answer Mode:** To set video or audio mode for auto answer by default.

Then incoming calls will be answered automatically.



Figure 3.4.3-3 Auto answer options' parameters

#### 3.4.4. Web Call

Go to **Intercom - Basic** to dial out or answer incoming calls from website.



Figure 3.4.4 Web call

#### 3.4.5. No Answer Call

Go to **Intercom - Basic** to configure.

**No Answer Call:** If enabled, VTX will call to No Answer Call1 and No Answer Call2 in sequence automatically when push button call is not answered over timeout(30s by default).



Figure 3.4.5- No Answer Call

## 3.5. Security

### 3.5.1. Live view

Go to **Intercom - Live Stream** to check the real-time video from VTX.

In addition, user also can check the real-time picture via URL:  
**http://IP\_address:8080/picture.jpg**.

### 3.5.2. RTSP

VTX supports RTSP stream, go to **Intercom - RTSP** to enable or disable RTSP server. The URL for RTSP stream is:

**rtsp://IP\_address/live/ch00\_0**.



Figure 3.5.1 Live view



Figure 3.5.2 RTSP

### 3.5.3. Onvif

VTX supports ONVIF protocol, which means VTX camera can be searched by other devices, like NVR, which supports ONVIF protocol as well.

Go to **Intercom - ONVIF** to configure ONVIF Mode and its username and password.

Switching ONVIF Mode to Undiscoverable means that User must program ONVIF's URL manually.

The ONVIF's URL is:

`http://IP_address:8090/onvif/device_service`.

## 3.6. Access Control

### 3.6.1. Relay

Go to **Intercom - Relay** to configure relay settings.

There are three terminals of relay: NO, NC and COM. NO stands

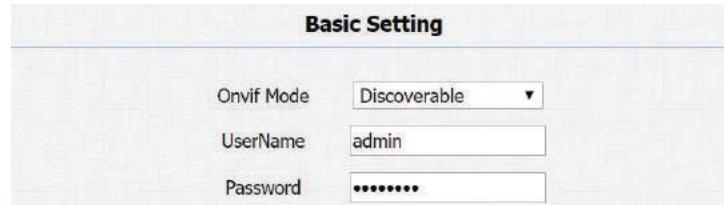


Figure 3.5.3 ONVIF

for normally open contact while NC stands for normally closed contact.

**Relay ID:** VTX supports two relays, user can configure them respectively.

**Relay Type:** Default state means NC and COM are normally closed, while Invert state means NC and COM are normally opened.

**Relay Delay:** To configure the duration of opened relay. Over the value, the relay would be closed again.

**Relay Status:** While the relay is triggered, the statuses will be switched. When COM connects to NC, the status is Low.

**Note:** Relay operates a switch and does not deliver power, so user should prepare power adapter for external devices which connects to relay.

### 3.6.2. Unlock via DTMF code

Users can press the predefined DTMF code from an answer unit to remotely unlock the door during the call. Users will also hear “The

The screenshot shows a configuration interface titled 'Relay'. It includes fields for 'Relay ID' (set to 'RelayA' and 'RelayB'), 'Relay Type' (both set to 'Default state'), 'Relay Delay(sec)' (set to 3 for both), 'DTMF Option' (set to '1 Digit DTMF'), 'DTMF' (set to 0 for both), and 'Multiple DTMF' (empty). Below the form, the 'Relay Status' is shown as 'RelayA: Low' and 'RelayB: Low'.

Figure 3.6.1 Relay

door is now opened."

Go to **Intercom - Relay** to configure DTMF code parameters.

**DTMF Option:** To select digit of DTMF code, VTX support maximum 4 digits DTMF code.

**DTMF&Multiple DTMF:** To configure DTMF code for remote unlocking.

### 3.6.3. Unlock via RF Card(Optional)

Go to **Intercom - Card setting** setting to manage card access system.

#### Import/Export Card Data

VTX supports import or export the card data file, which is convenient for administrator to deal with a large number of cards.

The maximum card data file is 200K which is around 500 cards.

**Note:** Please consult administrator for the .xml format RFID cards template file.

#### Obtain and Add Card



Figure 3.6.3-1 Import/Export Card Data

- Switch card status to “Card Issuing” and click “Apply;”
- Place card on the card reader area and click “Obtain;”
- Name card, choose which door users want to open and the valid day and time;
- Click “Add” to add it into list.

Valid card information will be shown in the list. Administrator could delete one card’s access permission or empty all the list.

**Note:** Remember to set Card Status back to “Normal” after adding cards.

### 3.6.4. Unlock via HTTP command

Users can use a URL to remote unlock the door.

Go to **Intercom - Relay** to configure.

**Switch:** Enable this function. Disable by default.

**UserName&Password:** Users can setup the username and password for HTTP unlock.

**URL format:**

The screenshot shows a software interface titled 'Card Status'. At the top, there's a dropdown menu labeled 'Card Status' with 'Card Issuing' selected, and a button labeled 'Apply'. Below this is a section titled 'Card Setting' with fields for 'IC Key DoorNum' (set to 1), 'IC Key Name' (set to 'Courier'), and 'IC Key Code' (set to 'FFB59828'). There are also 'Obtain' and 'Add' buttons. The main area is titled 'Door Card Management' and contains a table with 10 rows. The first row has data: Index 1, Name Courier, Code FFB59828, and Relay 1. All other rows from 2 to 10 are empty. At the bottom of the table are buttons for 'Page 1', 'Prev', 'Next', 'Delete', and 'Delete All'.

Figure 3.6.3-2 RFID cards in website

The screenshot shows a software interface titled 'Open Relay via HTTP'. It has three input fields: 'Switch' (set to 'Disabled'), 'UserName' (empty), and 'Password' (represented by a series of dots). There is also a small checkbox at the top right of the form.

Figure 3.6.4 Unlock via HTTP command

**http://IP\_address/cgi/do?action=OpenDoor&UserName=&Pasword=&DoorNum=1.**

### 3.6.5. Unlock via Exit Button

Go to **Intercom - Input** to configure input settings.

VTX supports two input triggers “Input A/B(DOOR A/B).”

**Input Service:** To enable or disable input trigger service.

**Trigger Option:** To choose open circuit trigger or closed circuit trigger. “Low” means that connection between door terminal and GND is closed, while “High” means the connection is opened.

**Door status:** To show the status of input signal.

| Input A           |   |
|-------------------|---|
| Input Service     | Disabled  |
| Trigger Option    | Low   |
| Action to execute | FTP <input type="checkbox"/> Email <input type="checkbox"/> Sip Call <input type="checkbox"/> HTTP <input type="checkbox"/> |
| Http URL:         | [Empty]   |
| Open Relay        | None  |
| Door Status       | DoorA: High   |

Figure 3.6.5 Unlock via exit button

### 3.7. Reboot

Go to **Upgrade - Basic**, users can reboot the phone.

|        |        |
|--------|--------|
| Reboot | Submit |
|--------|--------|

Figure 3.7 Reboot

### 3.8. Reset

Go to **Upgrade - Basic**, user can reset the phone to factory settings.



Figure 3.8 Reset in website

## 4. Advanced Features

### 4.1. Phone Configuration

#### 4.1.1. LED

Go to **Intercom - LED Setting** to configure the LED status.

To setup the LED lighting mode.

**State:** There is five states: Normal, Offline, Calling, Talking and Receiving.

**Color Off:** The default status is OFF.

**Color On:** It can support three color: Red,Green,Blue.

**Blink Mode:** To setup the different blink frequency.

**LED Control:**

Use Http URL to remote control the LED status.

**Http format:**

`http://PhoneIP/fcgi/do?action=LedAction&State=1&Color=1&`

**Mode=2500**

| LED Status |           |          |            |
|------------|-----------|----------|------------|
| State      | Color Off | Color On | Blink Mode |
| NORMAL     | OFF       | Blue     | Always On  |
| OFFLINE    | OFF       | Red      | 2500/2500  |
| CALLING    | OFF       | Blue     | 2500/2500  |
| TALKING    | OFF       | Green    | Always On  |
| RECEIVING  | OFF       | Green    | 2500/2500  |

Figure 4.1.1-1 LED

| LED Control |          |
|-------------|----------|
| LED Control | Disabled |

Figure 4.1.1-2 LED

Status: 1=Idle; 2=OffLine; 3=Calling; 4=Talking; 5=Receiving;

Color: 1=Green; 2=Blue; 3=Red; Mode: 0=Always On;

1=Always Off; 500/1000/1500/2000/25000/3000

## 4.1.2. IR LED

Go to **Intercom - Advanced** to configure.

**Photoresistor:** The setting is for night vision, when the surrounding of VTX is very dark, infrared LED will turn on and VTX will turn to night mode.

Photoresistor value relates to light intensity and larger value means that light intensity is smaller.

Users can configure the upper and lower bound and when photoresistor value is larger than upper bound, infrared LED will turn on. As contrast, when photoresistor value is smaller than lower bound, infrared LED will turn off and device turns to normal mode.



Figure 4.1.2 IR LED

## 4.2. Intercom

### 4.2.1. Call Time Related

Go to **Intercom - Basic** to configure.

**Max Call Time:** To configure the max call time.

**Dial In Time:** To configure the max incoming dial time, available when auto answer is disabled.

**Dial Out Time:** To configure the max no answer call time.

| Max Call Time |                  |
|---------------|------------------|
| Max Call Time | 5 (2~120Minutes) |
| Max Dial Time |                  |
| Dial In Time  | 60 (30~120Sec)   |
| Dial Out Time | 60 (30~120Sec)   |

Figure 4.2.1 Call time related

### 4.2.2. Return Code When Refuse

Go to **Phone - Call Feature** to configure.

**Return Code When Refuse:** Allows users to assign specific code as return code to SIP server when an incoming call is rejected.

| Others                  |                |
|-------------------------|----------------|
| Return Code When Refuse | 486(Busy Here) |

Figure 4.2.2 Return code when refuse

### 4.2.3. Sip Call Related

Go to **Account - Advanced** to configure the SIP call related.

**Max Local SIP Port:** To configure maximum local SIP port for designated SIP account.

**Min Local SIP Port:** To configure minimum local SIP port for designated SIP account.

**Caller ID Header:** To choose Caller ID Header format.

**Anonymous Call:** If enabled, VTX will block its information when calling out.

**Anonymous Call Rejection:** If enabled, calls who block their information will be screened out.

**Missed Call Log:** If enabled, any missed call will be recorded into call log.

**Prevent Hacking:** If enabled, it will prevent SIP message from hacking.

#### 4.2.4. Codec

Go to **Account - Advanced** to configure SIP call related codec.

**Sip Account:** To choose which account to configure.

The screenshot shows a configuration interface titled 'Call'. It contains several settings with dropdown menus and input fields:

| Setting                  | Value    | Description  |
|--------------------------|----------|--------------|
| Max Local SIP Port       | 5062     | (1024~65535) |
| Min Local SIP Port       | 5062     | (1024~65535) |
| Caller ID Header         | FROM     |              |
| Auto Answer              | Enabled  |              |
| Anonymous Call           | Disabled |              |
| Anonymous Call Rejection | Disabled |              |
| Missed Call Log          | Enabled  |              |
| Prevent SIP Hacking      | Disabled |              |

Figure 4.2.3 SIP call related

**Audio Codec:** VTX supports four audio codecs: PCMA, PCMU, G729, G722. Different audio codecs require different bandwidth, users can enable/disable them according to different network environment.

**Note: Bandwidth consumption and sample rates are as below:**

| Codec | Bandwidth | Sample Rates |
|-------|-----------|--------------|
| PCMA  | 64kbit/s  | 8kHz         |
| PCMU  | 64kbit/s  | 8kHz         |
| G729  | 8kbit/s   | 8kHz         |
| G722  | 64kbit/s  | 16kHz        |

**Video Codec:** VTX supports H.264 standard, which provides better video quality at substantially lower bit rates than previous standards.

**Codec Resolution:** VTX supports four resolutions: QCIF, CIF, VGA, 4CIF and 720P.

**Codec Bitrate:** To configure bit rates of video stream.

**Codec Payload:** To configure RTP audio video profile.

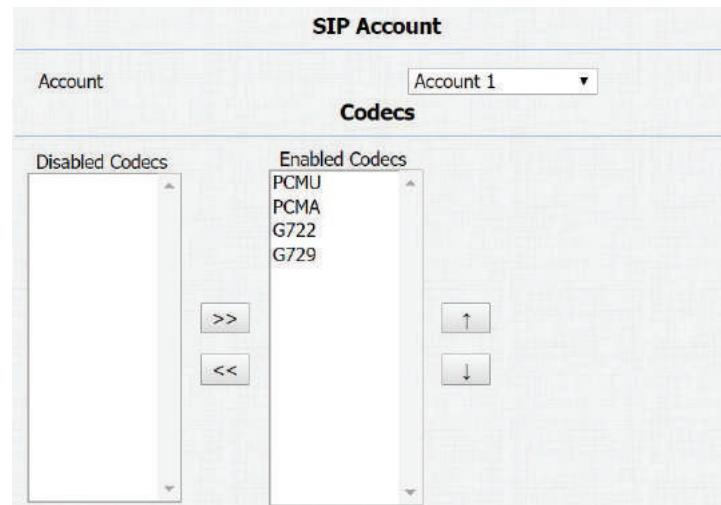


Figure 4.2.4-1 SIP call related codec

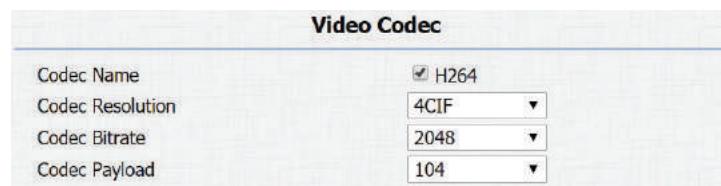


Figure 4.2.4-2 Video codec setting



Figure 4.2.4-2 Multicast related codec

**Multicast codec :** Go to **Phone - Call Feature** to configure multicast related codec.

#### 4.2.5. Session Timer

Go to **Account - Advanced** to configure.

If enabled, the on going call will be disconnected automatically once the session expired unless it's been refreshed by UAC or UAS.

| Session Timer     |                 |
|-------------------|-----------------|
| Active            | Disabled        |
| Session Expire    | 1800 (90~7200s) |
| Session Refresher | UAC             |

Figure 4.2.5 Session timer

#### 4.2.6. Encryption

Go to the path **Account - Advanced** If enabled, voice will be encrypted.

| Encryption             |          |
|------------------------|----------|
| Voice Encryption(SRTP) | Disabled |

Figure 4.2.6 Encryption

#### 4.2.7. NAT

Go to **Account - Advanced** to display NAT related settings.

**UDP Keep Alive message:** If enabled, IP phone will send UDP keep-alive message periodically to router to keep NAT port alive.

| NAT                     |            |
|-------------------------|------------|
| UDP Keep Alive Messages | Disabled   |
| UDP Alive Msg Interval  | 30 (5~60s) |
| RPort                   | Disabled   |

Figure 4.2.7 NAT

**UDP Alive Msg Interval:** Keep alive message interval.

**Rport:** Remote port, if enabled, it will add remote port into outgoing SIP message for designated account.

#### 4.2.8. User Agent

Go to **Account - Advanced** to configure. One can customize user agent field in the SIP message. If user agent is set to specific value, users can see the information from PCAP. If user agent is blank, by default, users can see the company name “Cygnus”, model number and firmware version from PCAP.

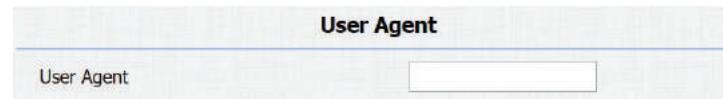


Figure 4.2.8 User Agent

## 4.3. Access Control

### 4.3.1. Web Relay

VTX supports extra web relay.

Go to **Phone - WebRelay** to configure.

**Type:** Connect web relay and choose the type.

**IP Address:** Enter web relay IP address.

**User Name:** It is an authentication for connecting web relay.

**Password:** It is an authentication for connecting web relay.

**Web Relay Action:** Web relay action is used to trigger the web relay. The action URL is provided by web relay vendor.

**Web Relay Key:** If the DTMF keys are same with the local relay, the web relay will be open with local relay. But if there are different, the web relay is invalid.

**Web Relay Extension:** The web relay can only receive the DTMF signal from the corresponding extension number.

The screenshot shows a configuration page titled 'WebRelay'. It has four input fields: 'Type' set to 'ControlByWeb', 'IP Address' set to '192.168.1.2', 'UserName' (empty), and 'Password' (empty).

Figure 4.3.1-1 Web relay

| Web Relay Action Setting |                        |               |                     |
|--------------------------|------------------------|---------------|---------------------|
| Action ID                | Web Relay Action       | Web Relay Key | Web Relay Extension |
| Action ID 01             | state.xml?relayState=2 | 1             | 192.168.1.99        |
| Action ID 02             |                        |               |                     |
| Action ID 03             |                        |               |                     |
| Action ID 04             |                        |               |                     |
| Action ID 05             |                        |               |                     |
| Action ID 06             |                        |               |                     |
| Action ID 07             |                        |               |                     |
| Action ID 08             |                        |               |                     |
| Action ID 09             |                        |               |                     |
| Action ID 10             |                        |               |                     |

Figure 4.3.1-2 Web relay action settings

**Note:** Users can modify username and password in web relay website.

## 4.4. Security

### 4.4.1. Anti-alarm

Go to **Intercom - Advanced** to configure.

**Tamper Alarm:** VTX integrates internal gravity sensor for the own security, and after enabling tamper alarm, if the gravity of VTX changes dramatically, the phone will alarm. Gravity sensor threshold stands for sensitivity of sensor.

### 4.4.2. Motion

VTX supports motion detection, go to **Intercom - Motion** to configure detection parameter.

**Motion Detection:** To enable or disable Motion Detection.

| Tamper Alarm             |            |
|--------------------------|------------|
| Tamper Alarm             | Disabled   |
| Gravity Sensor Threshold | 32 (0~127) |

Figure 4.4.1 Anti-alarm

| Motion Detection Options |                |
|--------------------------|----------------|
| Motion Detection         | Enabled        |
| Motion Delay             | 20 (0~120 Sec) |

| Motion Detect Time Setting         |                                     |    |   |    |   |    |
|------------------------------------|-------------------------------------|----|---|----|---|----|
| Mon                                | <input checked="" type="checkbox"/> |    |   |    |   |    |
| Tue                                | <input checked="" type="checkbox"/> |    |   |    |   |    |
| Wed                                | <input checked="" type="checkbox"/> |    |   |    |   |    |
| Thur                               | <input checked="" type="checkbox"/> |    |   |    |   |    |
| Fri                                | <input checked="" type="checkbox"/> |    |   |    |   |    |
| Sat                                | <input type="checkbox"/>            |    |   |    |   |    |
| Sun                                | <input type="checkbox"/>            |    |   |    |   |    |
| Check All <input type="checkbox"/> |                                     |    |   |    |   |    |
| 00                                 | :                                   | 00 | - | 23 | : | 59 |

Figure 4.4.2 Motion

**Motion Delay:** To configure minimum time gap between two snapshot.

**Motion Detect Time Setting:** To make Motion Detect Time for a whole week.

### 4.4.3. Action

VTX supports to send notifications, snapshots via email and ftp transfer method, or calls via sip call method, when trigger specific actions.

#### 4.4.3.1. Action Parameters

Go to **Intercom - Action** to set action receiver.

##### Email Notification

**Sender's email address:** To configure email address of sender.

**Receiver's email address:** To configure email address of receiver.

**SMTP server address:** To configure SMTP server address of sender.

| Email Notification       |                   |
|--------------------------|-------------------|
| Sender's email address   | info@cygnus.la    |
| Email SendName           | Cygnus            |
| Receiver's email address | info@cygnus.la    |
| Email RecvName           | Cygnus            |
| SMTP server address      | smtp.email.qq.com |
| SMTP user name           | Cygnus            |
| SMTP password            | *****             |
| Email subject            | test              |
| Email content            | test1             |

Figure 4.4.3.1-1 Email notification parameters

**SMTP user name:** To configure user name of SMTP service (usually it is same with sender's email address).

**SMTP password:** To configure password of SMTP service (usually it is the same with the password of sender's email).

**Email subject:** To configure subject of email.

**Email content:** To configure content of email.

**Email Test:** To test whether email notification is available.

### FTP Notification

**FTP Server:** To configure URL of FTP server.

**FTP User Name:** To configure user name of FTP server.

**FTP Password:** To configure password of FTP server.

**FTP Test:** To test whether FTP notification is available.

### SIP Notification

**SIP Call Number:** To configure sip call number.

**SIP Call Name:** To configure display name of VTX.

Three specific actions which will be triggered on VTX :

| FTP Notification                        |               |
|---|---------------|
| FTP Server                              | 192.168.1.155 |
| FTP User Name                           | admin         |
| FTP Password                            | *****         |
| <input type="button" value="FTP Test"/> |               |

Figure 4.4.3.1-2 FTP notification parameters

| SIP Call Notification |            |
|-----------------------|------------|
| SIP Call Number       | 5101100010 |
| SIP Caller Name       | Judy       |

Figure 4.4.3.1-3 SIP call notification parameters

#### 4.4.3.2. Pushbutton Action

Go to **Intercom - Basic** to configure.

**Action to execute:** To choose suitable way to receive message or snapshot when dialing out.

**HTTP URL:** If you choose HTTP mode, enter the URL format:

**http://http server IP address/any information.**

The screenshot shows a configuration window titled "PushButton Action". Under the heading "Action to execute", there are four options: "FTP" (unchecked), "Email" (unchecked), "Http URL" (unchecked), and "Sip Call" (unchecked). Below this is a text input field labeled "Http URL:" which is currently empty.

Figure 4.4.3.2 Pushbutton Action

#### 4.4.3.3. Motion Triggered Action

Go to **Intercom - Motion** to configure.

**Action to execute:** To choose which action to execute after triggering.

The screenshot shows a configuration window titled "Action to execute". Under the heading "Action to execute", there are four options: "FTP" (unchecked), "Email" (checked), "Sip Call" (unchecked), and "HTTP" (unchecked). Below this is a text input field labeled "Http URL:" which is empty. At the bottom, there is a dropdown menu labeled "SDMC Upload" with the option "Disabled" selected.

Figure 4.4.3.3 Motion triggered action

#### 4.4.3.4. Input Interface Triggered Action

Go to **Intercom - Input** to configure.

**Action to execute:** To choose which action to execute after triggering.

**Http URL:** To configure URL, if HTTP action is chosen.

**Action Delay:** To configure after how long to execute to send out notifications and trigger relay.

**Open relay:** To configure which relay to trigger.

Action to execute:  FTP  Email  Sip Call  HTTP  
Http URL:  
Action Delay: 0 (0~300 Sec)  
Open Relay: RelayA

Figure 4.4.3.4 Input interface triggered action

## 4.5. Upgrade

### 4.5.1. Web Upgrade

Go to **Upgrade - Basic** to do web upgrade.

**Upgrade:** Choose .rom firmware from your PC, then click “Submit” to update.

Firmware Version: 20.0.1.222  
Hardware Version: 20.0.0.0.0.0.0  
Upgrade  
Choose File: No File Chosen  
Submit Cancel

Figure 4.5.1 Web upgrade

### 4.5.2. Backup config file

Go to **Upgrade - Advanced** to backup the config file.

**Export Config File:** To export current config file.

**Others:** To export current config file (Encrypted) or import new config file.

Others  
Config File (.tgz/.conf/.cfg)  
Choose File: No file chosen  
Export (Encrypted)  
Import Cancel

Figure 4.5.2 Backup config file

## 4.6. Log

### 4.6.1. Call Log

Go to **Phone - Call Log**, users can see a list of call which have dialed, received or missed. And users can delete calls from list.

### 4.6.2. Door Log

Go to **Phone - Door Log**, users can see a list of door log which records card information and date.

| Call History |          |            |          |                |               |                                     |
|--------------|----------|------------|----------|----------------|---------------|-------------------------------------|
| Index        | Type     | Date       | Time     | Local Identity | Name          | Number                              |
| 1            | Received | 2018-09-30 | 08:28:46 | 0@192.168.35   | 192.168.35.68 | 192.168.35.6<br>8@192.168.35<br>.68 |
| 2            | Received | 2018-09-30 | 08:26:40 | 0@192.168.35   | 192.168.35.68 | 192.168.35.6<br>8@192.168.35<br>.68 |

Figure 4.6.1 Call log

| Door Log |         |          |      |            |          |        |
|----------|---------|----------|------|------------|----------|--------|
| Index    | Name    | Code     | Type | Date       | Time     | Status |
| 1        | Courier | FFB59828 | Card | 2018-09-30 | 10:49:19 | Failed |
| 2        | unKnown | 1FEDBA28 | Card | 2018-09-30 | 10:49:16 | Failed |
| 3        | Courier | FFB59828 | Card | 2018-09-30 | 10:49:09 | Failed |
| 4        |         |          |      |            |          |        |
| 5        |         |          |      |            |          |        |
| 6        |         |          |      |            |          |        |
| 7        |         |          |      |            |          |        |
| 8        |         |          |      |            |          |        |
| 9        |         |          |      |            |          |        |
| 10       |         |          |      |            |          |        |
| 11       |         |          |      |            |          |        |
| 12       |         |          |      |            |          |        |
| 13       |         |          |      |            |          |        |
| 14       |         |          |      |            |          |        |
| 15       |         |          |      |            |          |        |

Figure 4.6.2 Door log

### 4.6.3. System Log

Go to **Upgrade - Advanced** to configure system log level and export system log file.

**System log level:** From level 0 to 7. The higher level means the more specific system log is saved to a temporary file. It's level 3 by default.

**Export Log:** Click to export temporary system log file to local PC.

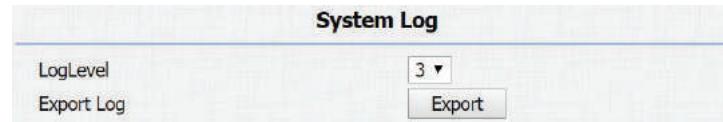


Figure 4.6.3 System log

### 4.6.4. PCAP

Go to **Upgrade - Advanced** to start, stop packets capturing or to export captured packet file.

**Start:** To start capturing all the packets file sent or received from phone.

**Stop:** To stop capturing packets.

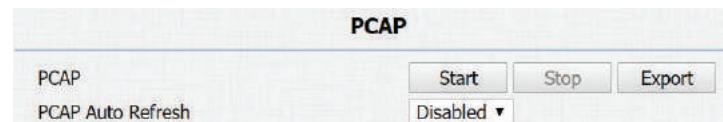


Figure 4.6.4 PCAP

## Abbreviations

**ACS:** Auto Configuration Server

**Auto:** Automatically

**AEC:** Configurable Acoustic and Line Echo Cancelers

**ACD:** Automatic Call Distribution

**Autop:** Automatical Provisioning

**AES:** Advanced Encryption Standard

**BLF:** Busy Lamp Field

**COM:** Common

**CPE:** Customer Premise Equipment

**CWMP:** CPE WAN Management Protocol

**DTMF:** Dual Tone Multi-Frequency

**DHCP:** Dynamic Host Configuration Protocol

**DNS:** Domain Name System

**DND:** Do Not Disturb

**DNS-SRV:** Service record in the Domain Name System

**FTP:** File Transfer Protocol

**GND:** Ground

**HTTP:** Hypertext Transfer Protocol

**HTTPS:** Hypertext Transfer Protocol Secure

**IP:** Internet Protocol

**ID:** Identification

**IR:** Infrared

**LCD:** Liquid Crystal Display

**LED:** Light Emitting Diode

**MAX:** Maximum

**POE:** Power Over Ethernet

**PCMA:** Pulse Code Modulation A-Law

**PCMU:** Pulse Code Modulation  $\mu$ -Law

**PCAP:** Packet Capture

**PNP:** Plug and Play

**RFID:** Radio Frequency Identification

**RTP:** Real-time Transport Protocol

**RTSP:** Real Time Streaming Protocol

**MPEG:** Moving Picture Experts Group

**MWI:** Message Waiting Indicator

**NO:** Normal Opened

**NC:** Normal Connected

**NTP:** Network Time Protocol

**NAT:** Network Address Translation

**NVR:** Network Video Recorder

**ONVIF:** Open Network Video Interface Forum

**SIP:** Session Initiation Protocol

**SNMP:** Simple Network Management Protocol

**STUN:** Session Traversal Utilities for NAT

**SNMP:** Simple Mail Transfer Protocol

**SDMC:** SIP Devices Management Center

**TR069:** Technical Report069

**TCP:** Transmission Control Protocol

**TLS:** Transport Layer Security

**TFTP:** Trivial File Transfer Protocol

**UDP:** User Datagram Protocol

**URL:** Uniform Resource Locator

**VLAN:** Virtual Local Area Network

**WG:** Wiegand

## Contact us

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