SIP Intercom System

Door Phone DSP9323

User Manual

Thank you for using our DSPPA public address system. Please read this User Manual carefully to make better use of this equipment.

Guangzhou DSPPA Audio Co., Ltd.

http://www.DSPPA.com

http://www.dsppatech.com

Safety Notices

1. Please use the specified power adapter. If you need to use the power adapter provided by other manufacturers under special circumstances, please make sure that the voltage and current provided is in accordance with the requirements of this product, meanwhile, please use the safety certificated products, otherwise may cause fire or get an electric shock.
2. When using this product, please do not damage the power cord either by forcefully twist it, stretch pull, banding or put it under heavy pressure or between items, otherwise it may cause damage to the power cord, lead to fire or get an electric shock.
3. Before using, please confirm that the temperature and environment is humidity suitable for the product to work. (Move the product from air conditioning room to natural temperature, which may cause this product surface or internal components produce condense water vapor, please open power use it after waiting for this product is natural drying).
4. Please do not let non-technical staff to remove or repair. Improper repair may cause electric shock, fire, malfunction, etc. It will lead to injury accident or cause damage to your product.
5. Do not use fingers, pins, wire, other metal objects or foreign body into the vents and gaps. It may cause current through the metal or foreign body, which may even cause electric shock or injury accident. If any foreign body or objection falls into the product please stop using.
6. Please do not discard the packing bags or store in places where children could reach, if children trap his head with it, may cause nose and mouth blocked, and even lead to suffocation.
7. Please use this product with normal usage and operating, in bad posture for a long time to use this product may affect your health.
8. Please read the above safety notices before installing or using this phone. They are crucial for the safe and reliable operation of the device.

Content

I. Product introduction

DSP9323 door phone is a full digital network door phone, with its core part adopts mature VoIP solution (Broadcom chip), stable and reliable performance, hands-free adopting digital full-duplex mode, voice loud and clear, generous appearance, solid durable, easy for installation, comfortable keypad and low power consumption.

DSP9323 door phone supports entrance guard control, voice intercom, ID card and keypad remote to open the door.

1. Appearance of the product

2. Description

Buttons and icons	Description	Function
	Numeric keyboard	Input password to open the door or to call.
	programmable keys	Can be set to a variety of functions, in order to meet the needs of different occasions
	induction zone	RFID induction area
	Lock Status	Door unlocking: On Door locking: Off
	Call/Ring status	Standby: Off Calls: On Ringing: Blink with 1s
	Network/SIP Registration	Network error: Blink with 1s Network running: Off Registration failed: Blink with 3s Registration succeeded: On

II. Start Using

Before you start to use the equipment, please make the following installation.

1. Confirm the connection

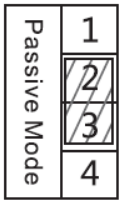
Confirm whether the equipment of the power cord, network cable, electric lock control line connection and the boot-up is normal. (Check the network state of light)

1) Power, Electric Lock, Indoor switch port

Door phone the power supply ways: 12v/DC or POE.

CN7						
1	**2**	**3**	**4**	**5**	**6**	**7**
+12V	VSS	NC	COM	NO	S_IN	S_OUT
12V 1A/DC		Electric-lock switch			Indoor switch	

2) Driving mode of electric-lock(Default in active mode)



Jumper in passive mode

Jumper in active mode

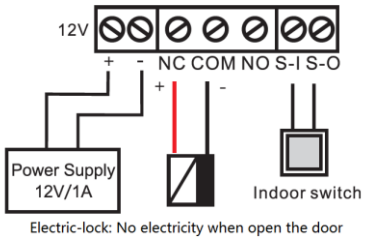
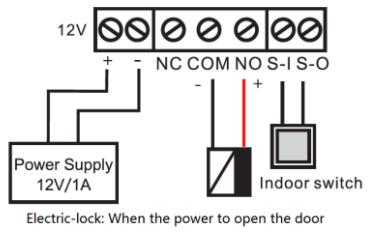
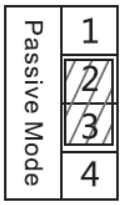
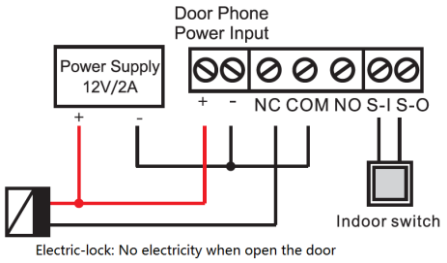
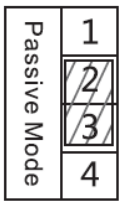
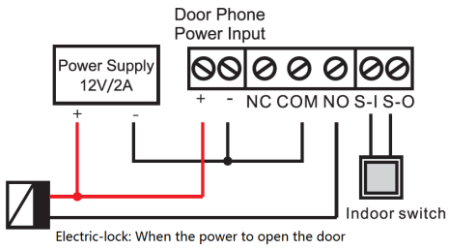
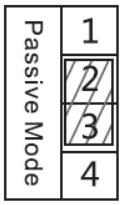
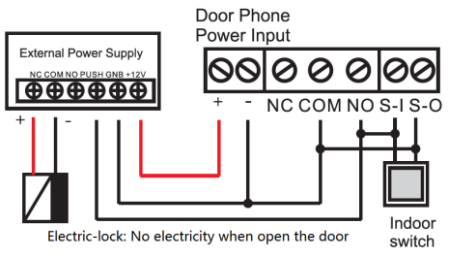
【Note】 device is in active mode, it can drive 12V/700mA switch output maximum, to which a standard electric-lock or another compatible electrical appliance can be connected.

- When using the active mode, it is 12V DC in output.
- When using the passive mode, output is short control (normally open mode or normally close mode).

3) Wiring instructions

- NO: Normally Open Contact.
- COM: Common Contact.
- NC: Normally Close Contact.

Driving Mode		**Electric lock**		**Jumper port**	**Connections**
Active	**Passive**	**No electricity when open**	**When the power to open**		

√					
√			√		
	√	√			
	√		√		
	√	√			

2. Quick Setting

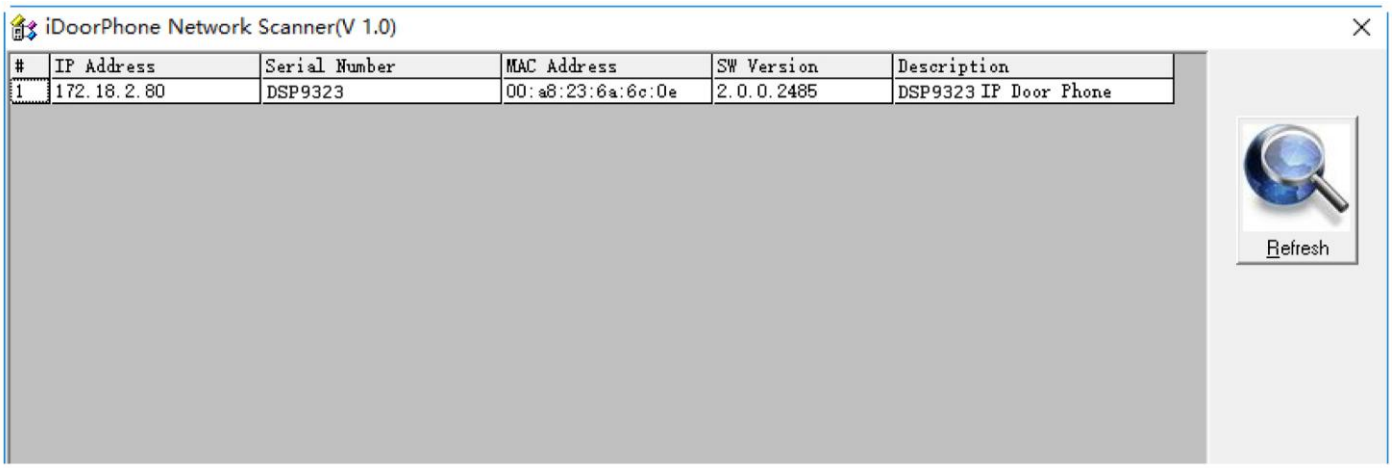
The product provides a complete function and parameter setting. Users may need to have the network and SIP protocol knowledge to understand the meaning represented by all parameters. In order to let equipment users enjoy the high quality of voice service and low cost advantage brought by the device immediately, here we list some basic but compulsory setting options in this section to let users know how to operate without understanding such complex SIP protocols.

In prior to this step, please make sure your broadband Internet online can be normal operated, and complete the connection of the network hardware. The product factory default network mode is DHCP. Thus, only connect equipment with DHCP network environment that network can be automatically connected.

- Press and hold “#” key for 3 seconds and the door phone will report the IP address by voice, or use the

"iDoorPhoneNetworkScanner.exe" software to find the IP address of the device.

- **Note:** when power on, 30s waiting is needed for device running.
- Log on to the WEB device configuration.
- In a Line page configuration service account, user name, parameters that are required for server address register.
- You can set DSS key in the Function key page.
- You can set Door Phone parameters in the Webpage (EGS Setting-> Features).



III. Basic operation

1. Answer a call

When a call comes in, the device will answer automatically. If you cancel auto answer feature and set auto answer time, you will hear the bell ring at the set time and the device will auto answer after a timeout.

2. Call

Configure shortcut key as hot key and setup a number, then press shortcut key can call the configured number.

3. End call

Enable Release key hang up to end call.

4. Open the door operation

Through the following seven ways to open the door:

1) Input password on the keyboard to open the door.
2) Access to call the owner and the owner enter the remote password to open the door.
3) Owner/other equipment call the access control and enter the access code to open the door. (access code should be included in the list of access configuration, and enable for remote calls to open the door)
4) Swipe the RFID cards to open the door.
5) By means of indoor switch to open the door.

6) Private access code to open the door.

Enable for local authentication, and set private access code. Input the access code directly under standby mode to open the door. In this way, the door log will record corresponding card number and user name.

7) Active URL control command to open the door.

URL is “http://user:pwd@host/cgi-bin/ConfigManApp.com?key=F_LOCK&code=openCode”

a. User and pwd is Web the user name and password.

b. “openCode” is the remote control code to open the door.

Example: “http://admin:admin@172.18.3.25/cgi-bin/ConfigManApp.com?key=*”

If access code is input correctly, the device will play sirens sound to prompt access control and the remote user, while input error by low-frequency short chirp.

Password input successfully followed by high-frequency sirens sound, while input error is followed by high-frequency short chirp.

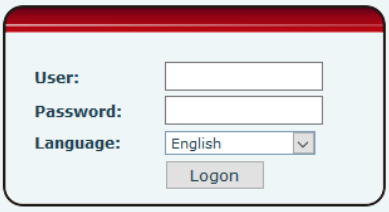
When door has been opened, the device will play sirens sound to prompt.

IV. Page settings

1. Browser configuration

When the device and your computer are successfully connected to the network, enter the IP address of the device on the browser as http://xxx.xxx.xxx.xxx/ and you can see the login interface of the web page management.

Enter the user name and password and click the [logon] button to enter the settings screen.



2. Password Configuration

There are two levels of access: root level and general level. A user with root level access can browse and set all configuration parameters, while a user with general level can set all configuration parameters except server parameters for SIP.

- Default user with general level: The default is not set, are free to add.

- Default user with root level:
  - User name: admin
  - Password: admin

3. Configuration via WEB

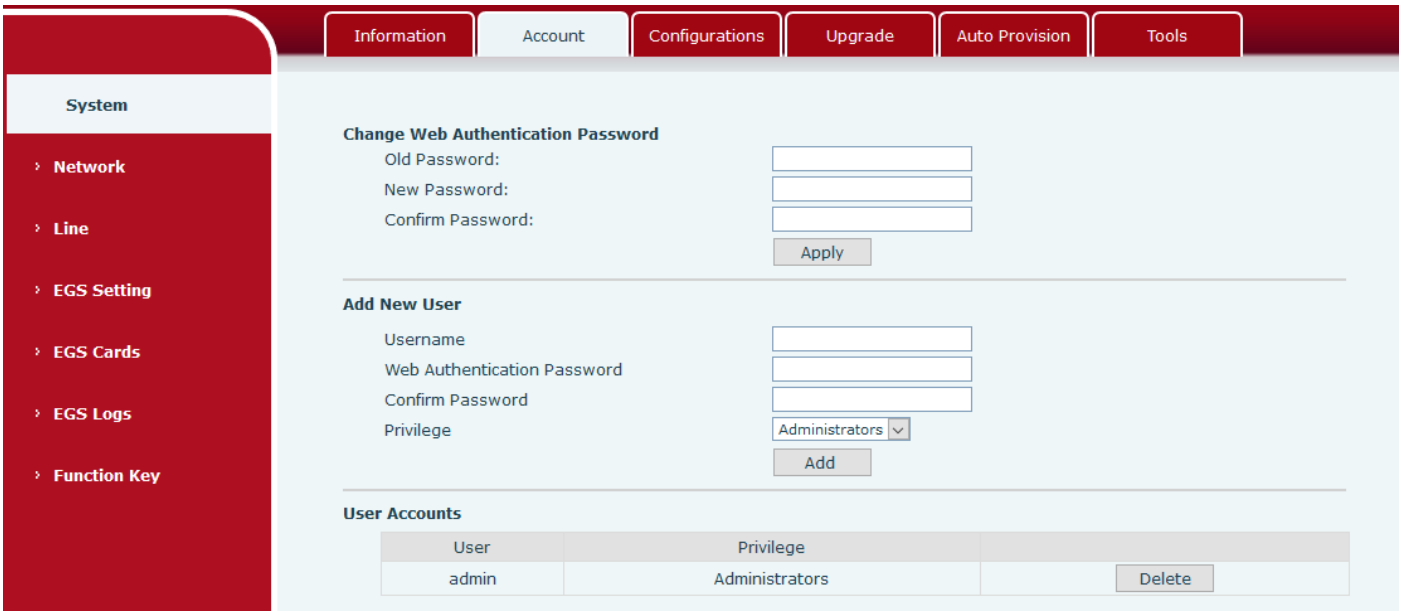
(1) System

a) Information

Information	
Field Name	**Explanation**
System Information	Display equipment model, hardware version, software version, uptime, Last uptime and MEMinfo.
Network	Shows the configuration information for WAN port, including connection mode of WAN port (Static, DHCP, PPPoE), MAC address, IP address of WAN port.
SIP Accounts	Shows the phone numbers and registration status for the 2 SIP LINES.

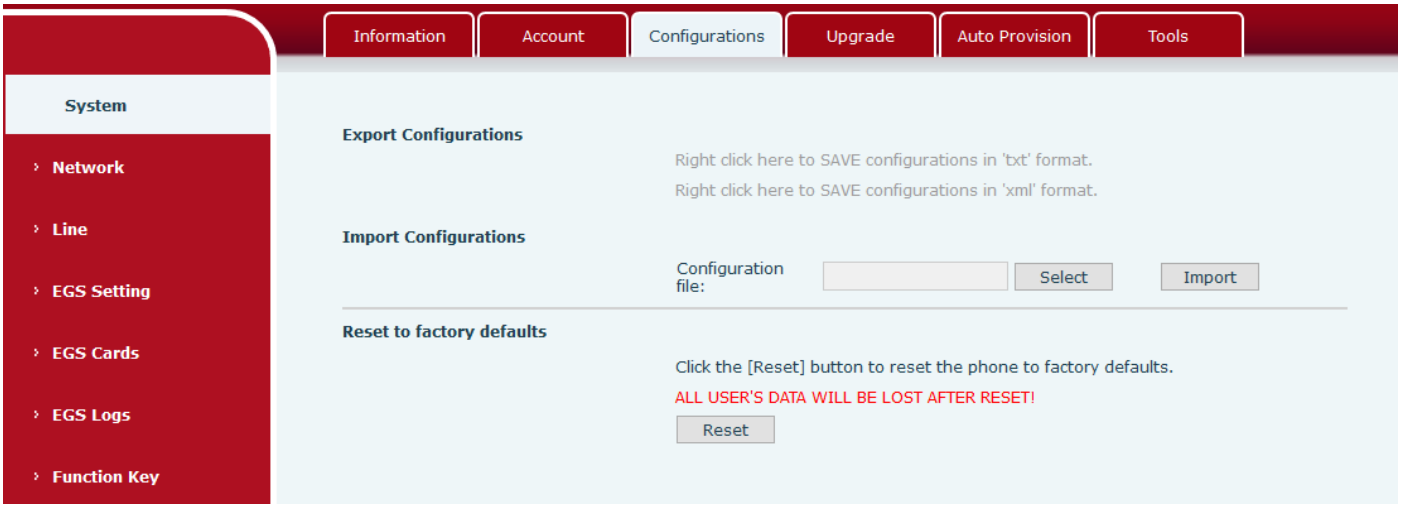
b) Account

Through this page, user can add or remove users depends on their needs and can modify existing user permission.



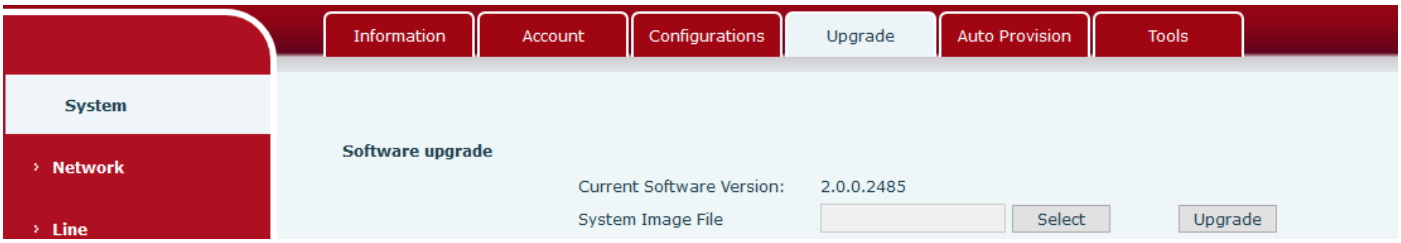
Account	
Field Name	**Explanation**
Change Web Authentication Password	
You Can modify the login password to the account	
Add New User	
You can add new user	
User Accounts	
Show the existing user information	

c) Configurations



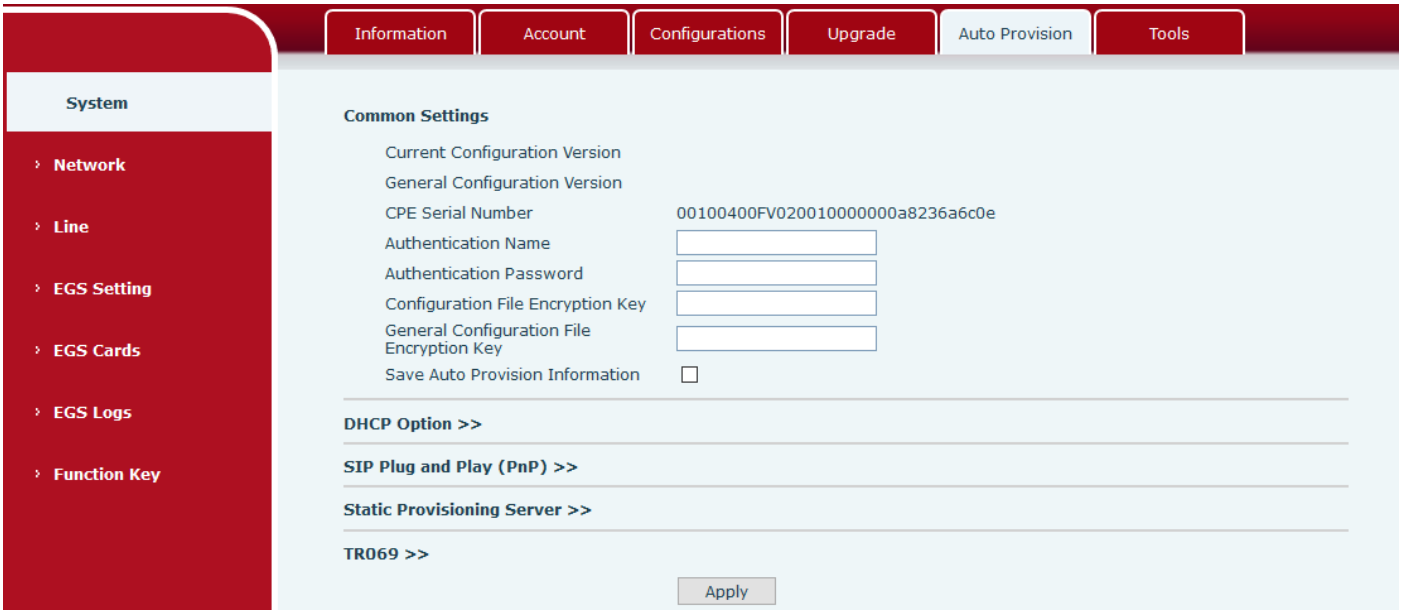
Configurations	
Field Name	**Explanation**
Export Configurations	Save the equipment configuration to a txt or xml file. Please note to Right click on the choice and then choose “Save Link As.”
Import Configurations	Browse to the config file, and press Update to load it to the equipment.
Reset to factory defaults	This will restore factory default and remove all configuration information.

d) Upgrade



Upgrade	
Field Name	**Explanation**
Software upgrade	
Browse to the firmware, and press Update to load it to the equipment.	

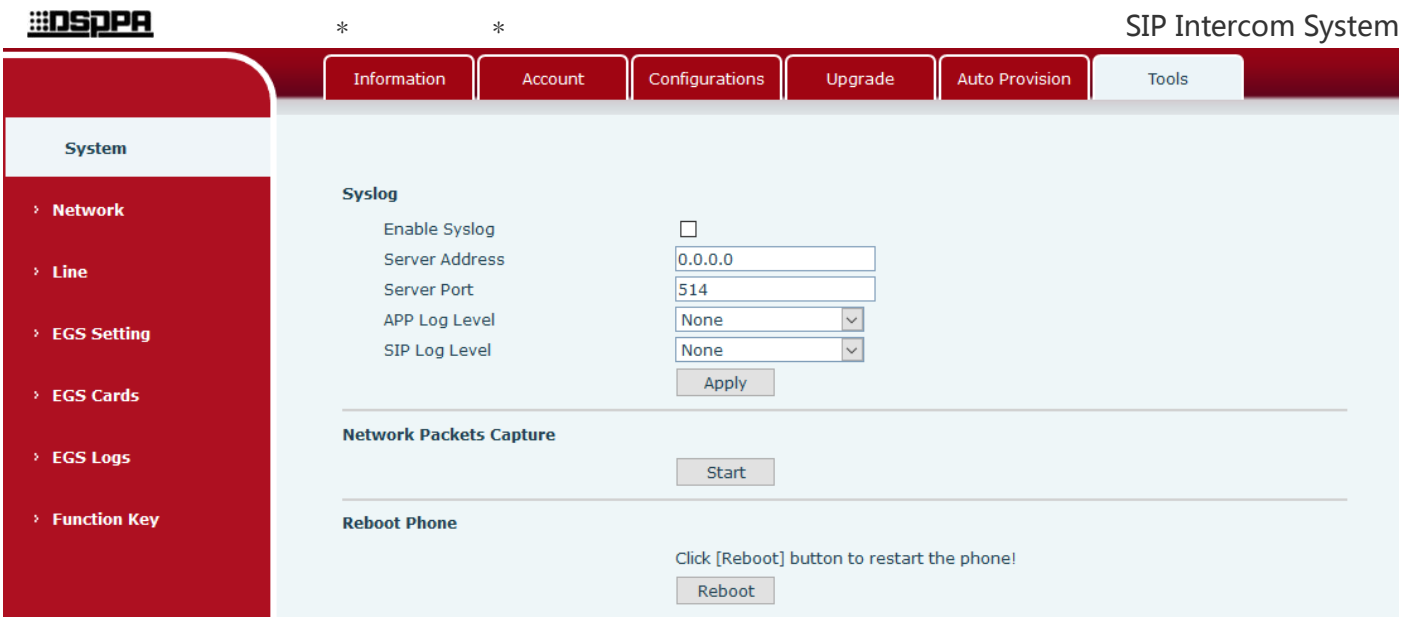
e) Auto Provision



Auto Provision	
Field Name	**Explanation**
Common Settings	
Current Configuration Version	Show the current config file's version. If the version of configuration downloaded is higher than this, the configuration will be upgraded. If the endpoints confirm the configuration by the Digest method, the configuration will not be upgraded unless it differs from the current configuration
General Configuration Version	Show the common config file's version. If the configuration downloaded and this configuration is the same, the auto provision will stop. If the endpoints confirm the configuration by the Digest method, the configuration will not be upgraded unless it differs from the current configuration.
CPE Serial Number	Serial number of the equipment
Authentication Name	Username for configuration server. Used for FTP/HTTP/HTTPS. If this is blank the phone will use anonymous
Authentication Password	Password for configuration server. Used for FTP/HTTP/HTTPS.
Configuration File Encryption Key	Encryption key for the configuration file
General Configuration File Encryption Key	Encryption key for common configuration file
Save Auto Provision Information	Save the auto provision username and password in the phone until the server url changes
DHCP Option	

Option Value	The equipment supports configuration from Option 43, Option 66, or a Custom DHCP option. It may also be disabled.
Custom Option Value	Custom option number. Must be from 128 to 254.
SIP Plug and Play (PnP)	
Enable SIP PnP	If this is enabled, the equipment will send SIP SUBSCRIBE messages to a multicast address when it boots up. Any SIP server understanding that message will reply with a SIP NOTIFY message containing the Auto Provisioning Server URL where the phones can request their configuration.
Server Address	PnP Server Address
Server Port	PnP Server Port
Transportation Protocol	PnP Transfer protocol – UDP or TCP
Update Interval	Interval time for querying PnP server. Default is 1 hour.
Static Provisioning Server	
Server Address	Set FTP/TFTP/HTTP server IP address for auto update. The address can be an IP address or Domain name with subdirectory.
Configuration File Name	Specify configuration file name. The equipment will use its MAC ID as the config file name if this is blank.
Protocol Type	Specify the Protocol type FTP, TFTP or HTTP.
Update Interval	Specify the update interval time. Default is 1 hour.
Update Mode	1. Disable – no update 2. Update after reboot – update only after reboot. 3. Update at time interval – update at periodic update interval
TR069	
Enable TR069	Enable/Disable TR069 configuration
ACS Server Type	Select Common or CTC ACS Server Type.
ACS Server URL	ACS Server URL.
ACS User	User name for ACS.
ACS Password	ACS Password.
TR069 Auto Login	Enable/Disable TR069 Auto Login.
INFORM Sending Period	Time between transmissions of "Inform" Unit is seconds.

f) Tools



Syslog is a protocol used to record log messages using a client/server mechanism. The Syslog server receives the messages from clients, and classifies them based on priority and type. Then these messages will be written into a log by rules which the administrator has configured.

There are 8 levels of debug information.

Level 0: emergency; System is unusable. This is the highest debug info level.

Level 1: alert; Action must be taken immediately.

Level 2: critical; System is probably working incorrectly.

Level 3: error; System may not work correctly.

Level 4: warning; System may work correctly but needs attention.

Level 5: notice; It is the normal but significant condition.

Level 6: Informational; It is the normal daily messages.

Level 7: debug; Debug messages normally used by system designer. This level can only be displayed via telnet.

Tools	
Field Name	**Explanation**
Syslog	
Enable Syslog	Enable or disable system log.
Server Address	System log server IP address.
Server Port	System log server port.
APP Log Level	Set the level of APP log.
SIP Log Level	Set the level of SIP log.
Network Packets Capture	
Capture a packet stream from the equipment. This is normally used to troubleshoot problems.	
Reboot Phone	
Some configuration modifications require a reboot to become effective. Clicking the Reboot button will lead to reboot immediately. Note: Be sure to save the configuration before rebooting.	

(2) Network

a) Basic

Field Name	Explanation
Network Status	
IP	The current IP address of the equipment
Subnet mask	The current Subnet Mask
Default gateway	The current Gateway IP address
MAC	The MAC address of the equipment
MAC Timestamp	Get the MAC address of time.
Settings	
Select the appropriate network mode. The equipment supports three network modes:	
Static IP	Network parameters must be entered manually and will not change. All parameters are provided by the ISP.
DHCP	Network parameters are provided automatically by a DHCP server.
PPPoE	Account and Password must be input manually. These are provided by your ISP.
If Static IP is chosen, the screen below will appear. Enter values provided by the ISP.	
DNS Server Configured by	Select the Configured mode of the DNS Server.
Primary DNS Server	Enter the server address of the Primary DNS.
Secondary DNS Server	Enter the server address of the Secondary DNS.
After entering the new settings, click the APPLY button. The equipment will save the new settings and apply them. If a new IP address was entered for the equipment, it must be used to login to the phone after clicking the APPLY button.	

b) Advanced

The equipment supports 802.1Q/P protocol and DiffServ configuration. VLAN function can support the different VLAN ID mode of processing in the WAN port and LAN port.

- Chart 1 shows a network switch with no VLAN. Any broadcast frames will be transmitted to all other ports. For example, frames broadcast from Port 1 will be sent to Ports 2, 3, and 4.

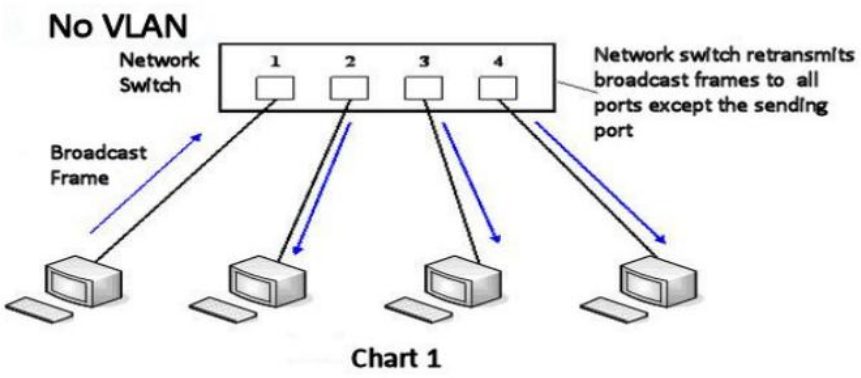


Chart 1

- Chart 2 shows an example with two VLANs indicated by red and blue. In this example, frames broadcast from Port 1 will only go to Port 2 since Ports 3 and 4 are in a different VLAN. VLANs can be used to divide a network by restricting the transmission of broadcast frames.

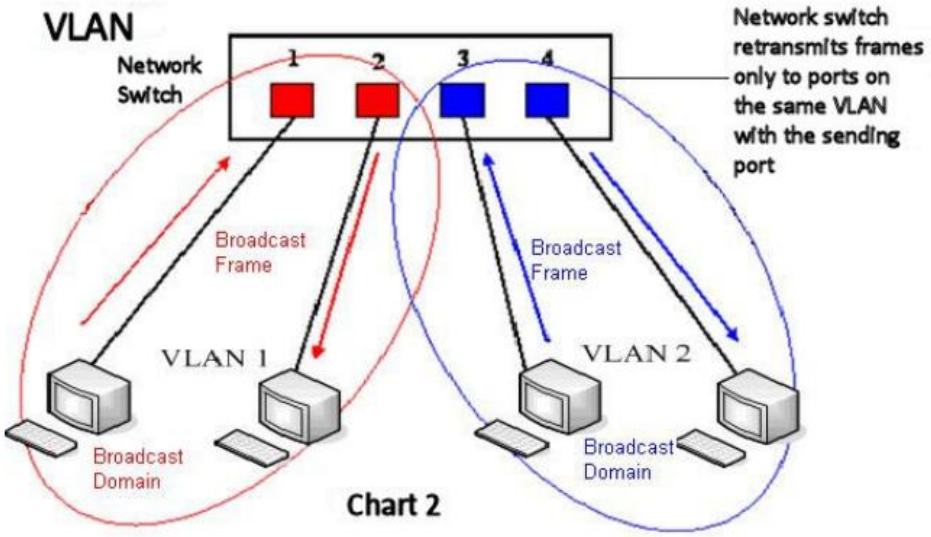
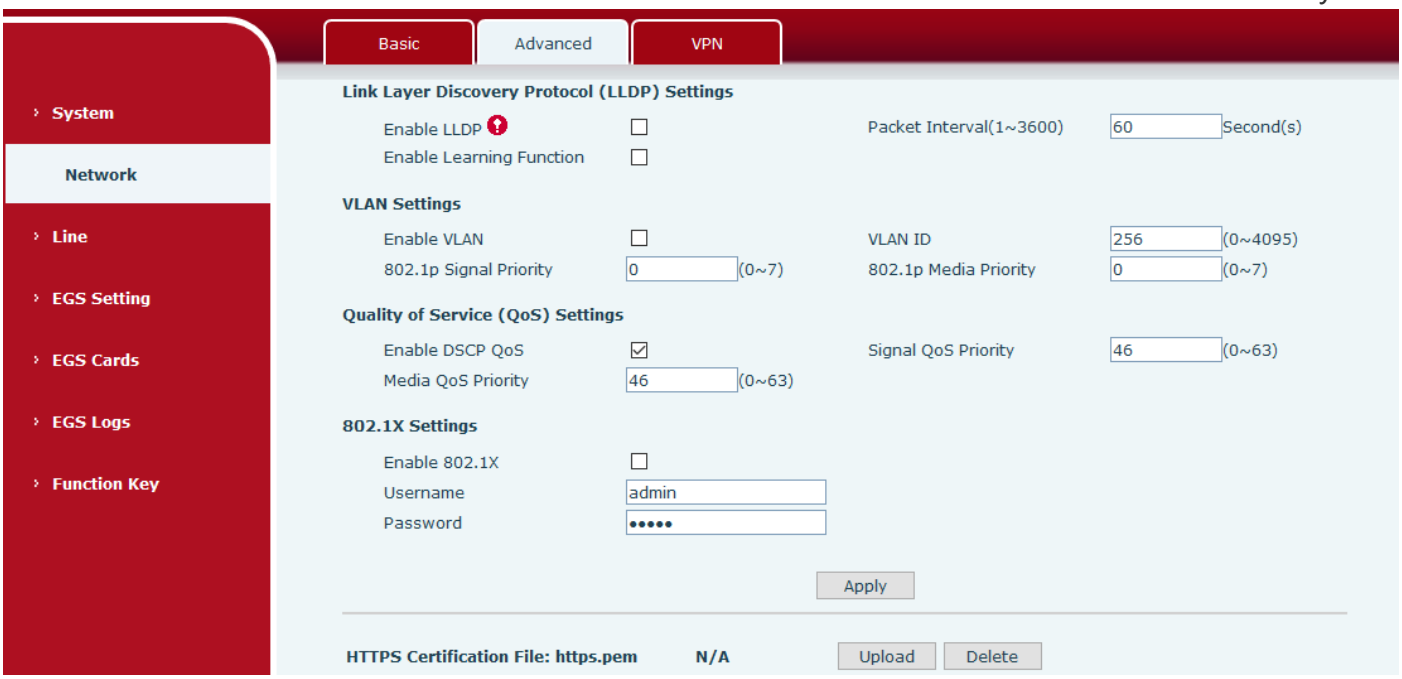


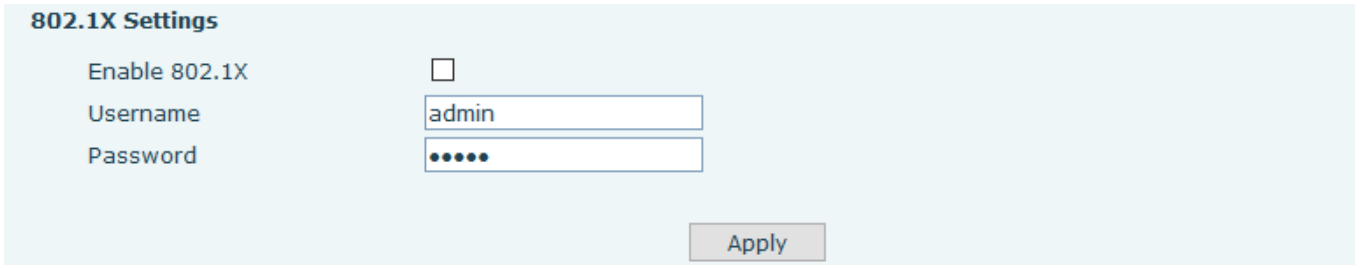
Chart 2

Note: In practice, VLANs are distinguished by the use of VLAN IDs.



Advanced	
Field Name	**Explanation**
Link Layer Discovery Protocol (LLDP) Settings	
Enable LLDP	Enable or Disable Link Layer Discovery Protocol (LLDP)
Enable Learning Function	Enables the telephone to synchronize its VLAN data with the Network Switch. The telephone will automatically synchronize DSCP, 802.1p, and VLAN ID values even if these values differ from those provided by the LLDP server.
Packet Interval(1~3600)	The time interval for sending LLDP Packets
VLAN Settings	
Enable VLAN	Enable or Disable WAN Port VLAN
VLAN ID	Specify the value of the VLAN ID. Range is 0-4095
802.1p Signal Priority	Specify the value of the signal 802.1p priority. Range is 0-7
802.1p Media Priority	Specify the value of the voice 802.1p priority. Range is 0-7
Quality of Service (QoS) Settings	
Enable DSCP QoS	Enable or Disable Differentiated Services Code Point (DSCP)
Media QoS Priority	Specify the value of the Media DSCP in decimal
Signal QoS Priority	Specify the value of the Signal DSCP in decimal

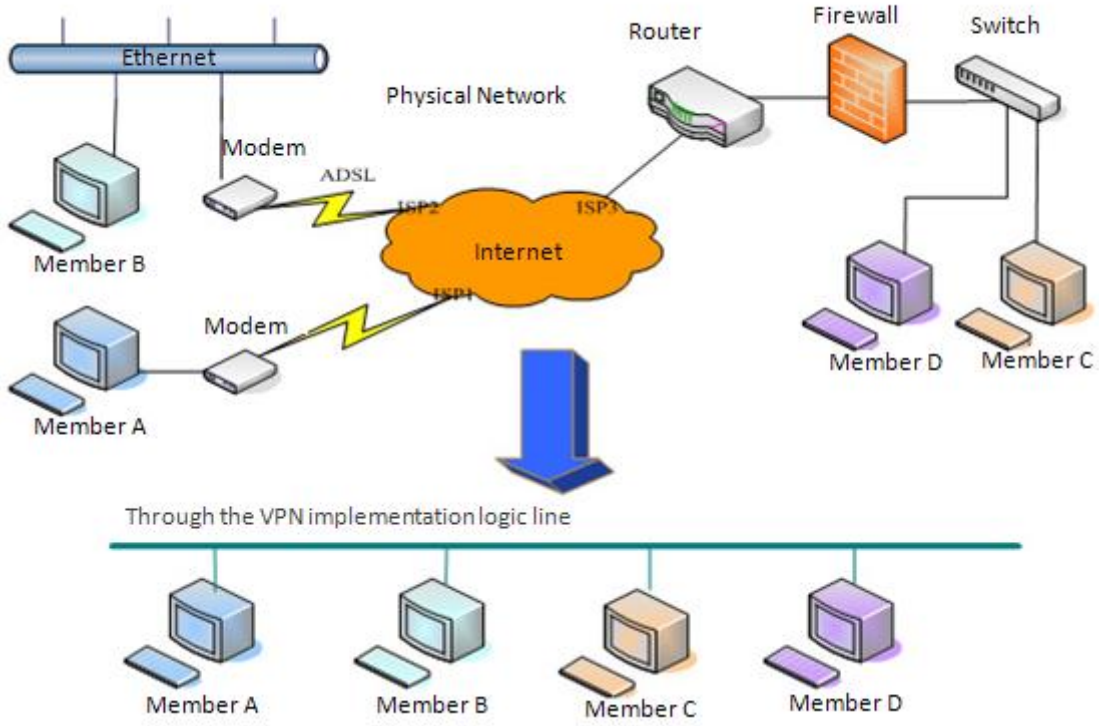
802.1X Settings

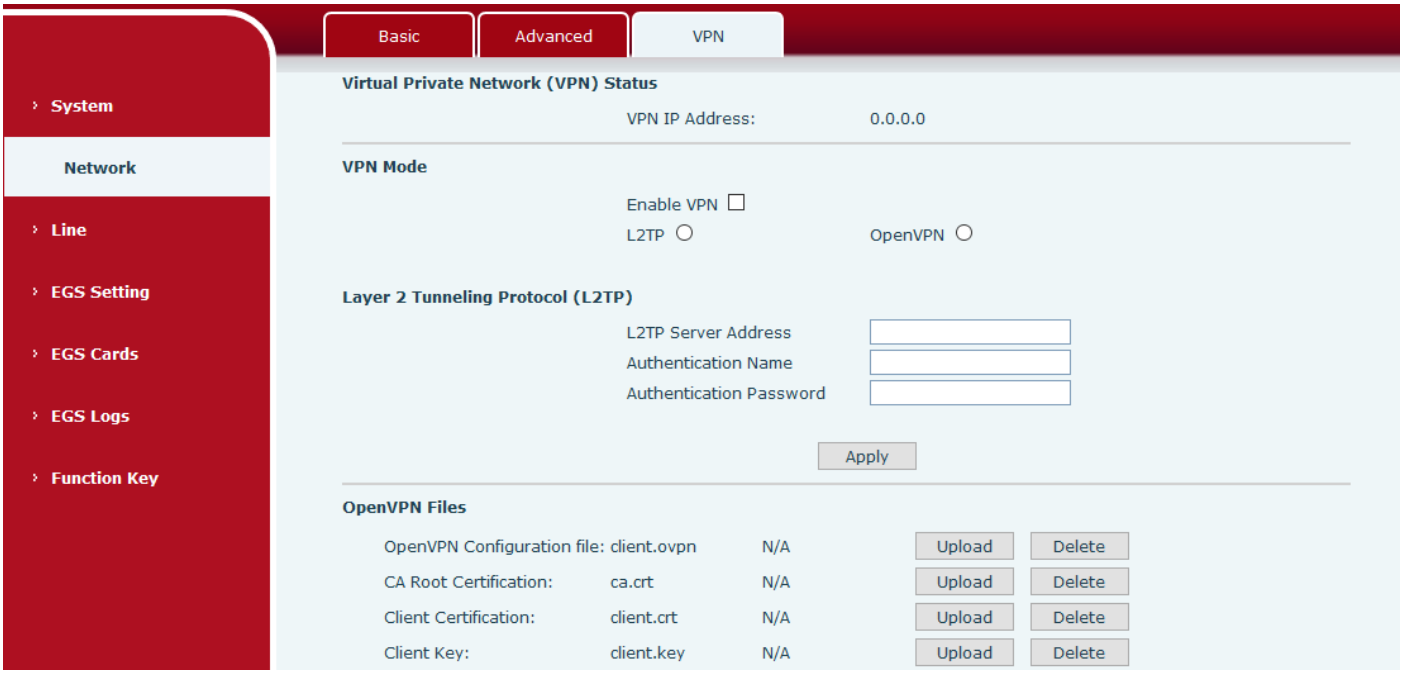


Enable 802.1X	Enable or Disable 812.1X
Username	802.1X user account
Password	802.1X password
HTTPS Certification File	
Upload or delete HTTPS Certification File	

c) VPN

The device supports remote connection via VPN. It supports both Layer 2 Tunneling Protocol (L2TP) and OpenVPN protocol. This allows users at remote locations on the public network to make secure connections to local networks.



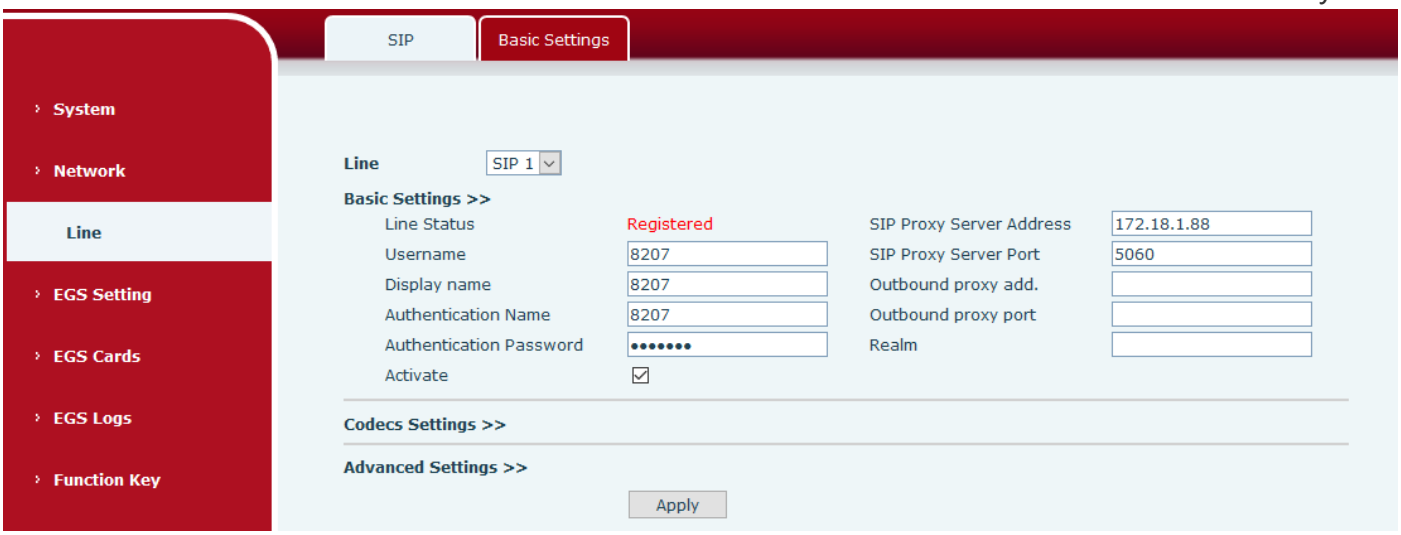


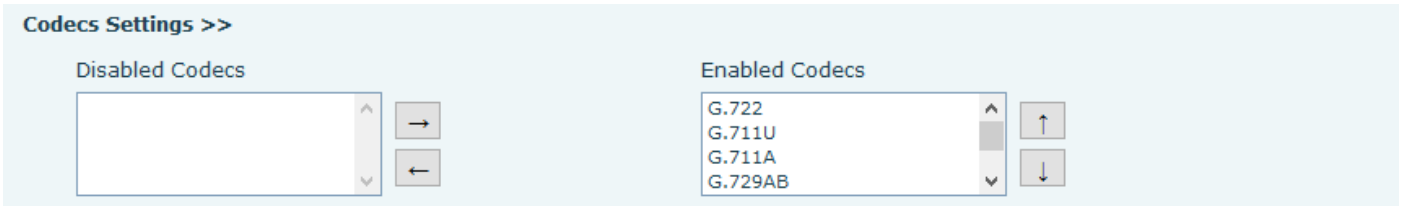
Field Name	Explanation
VPN IP Address	Shows the current VPN IP address.
VPN Mode	
Enable VPN	Enable/Disable VPN.
L2TP	Select Layer 2 Tunneling Protocol
OpenVPN	Select OpenVPN Protocol. (Only one protocol may be activated. After the selection is made, the configuration should be saved and the phone be rebooted.)
Layer 2 Tunneling Protocol (L2TP)	
L2TP Server Address	Set VPN L2TP Server IP address.
Authentication Name	Set User Name access to VPN L2TP Server.
Authentication Password	Set Password access to VPN L2TP Server.
Open VPN Files	
Upload or delete Open VPN Certification Files	

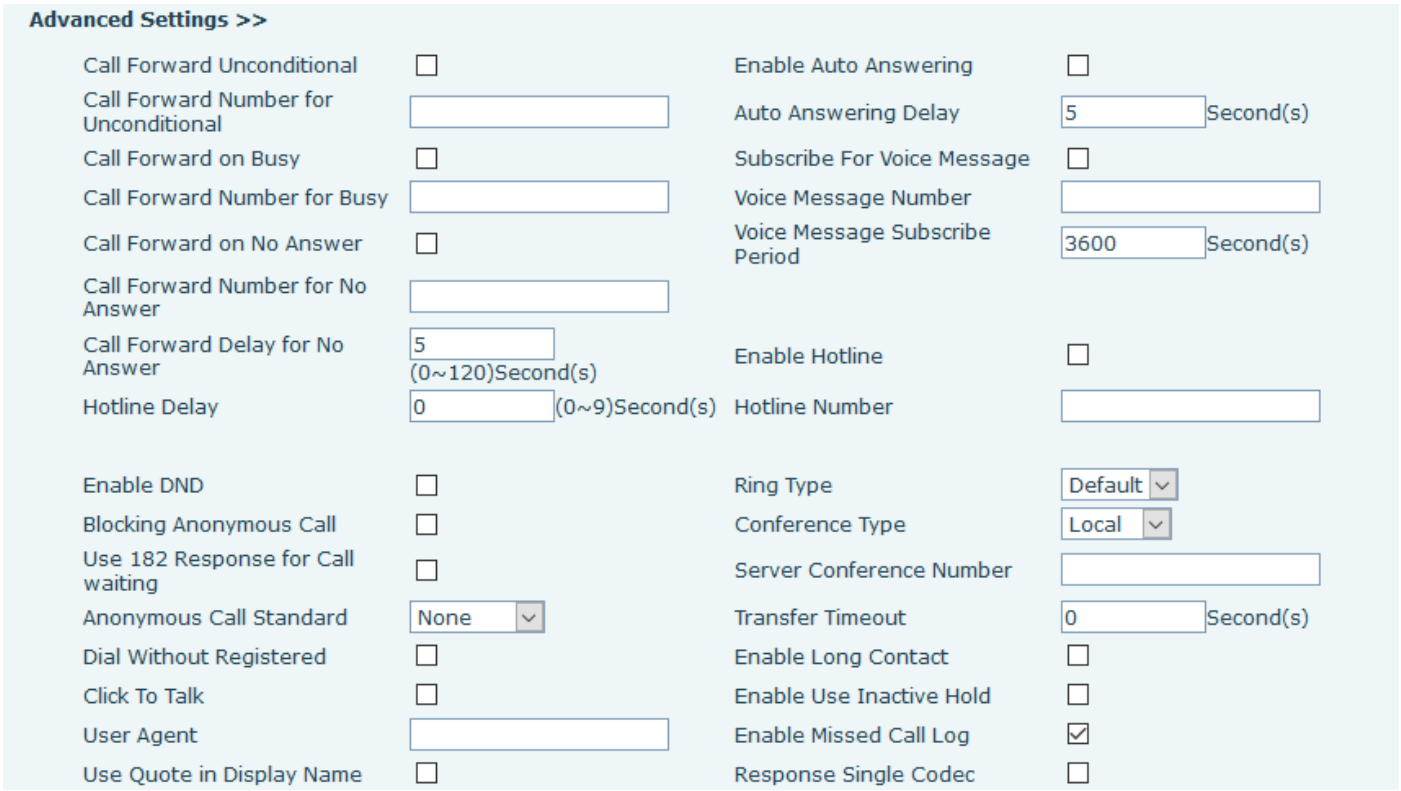
(3) Line

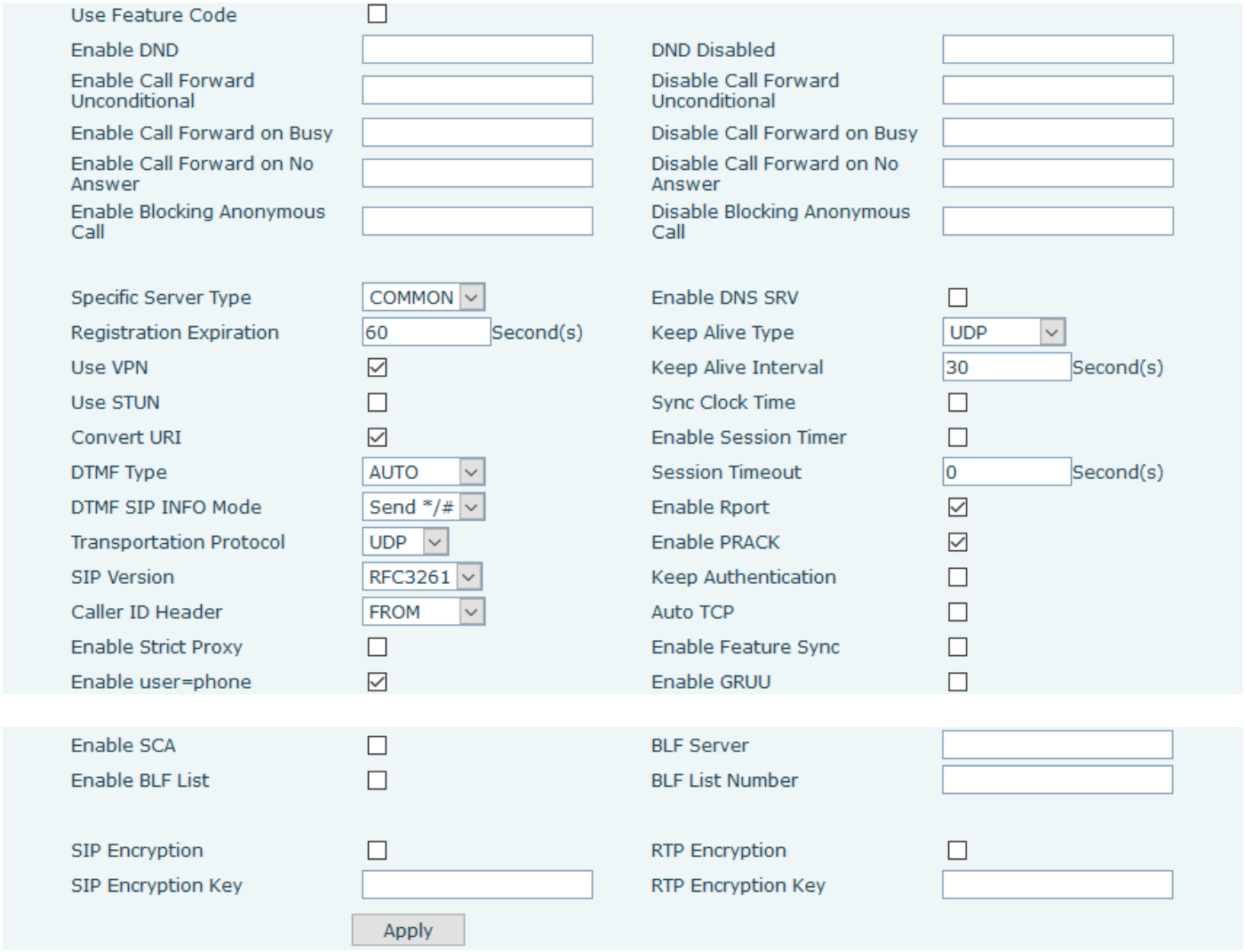
a) SIP

Configure a SIP server on this page.


SIP
Basic Settings
System
Network
Line
EGS Setting
EGS Cards
EGS Logs
Function Key
Line
SIP 1
Basic Settings >>
Line Status
Registered
Username
8207
Display name
8207
Authentication Name
8207
Authentication Password
Activate
SIP Proxy Server Address
172.18.1.88
SIP Proxy Server Port
5060
Outbound proxy add.
Outbound proxy port
Realm
Codecs Settings >>
Advanced Settings >>
Apply


Codecs Settings >>
Disabled Codecs
Enabled Codecs
G.722
G.711U
G.711A
G.729AB


Advanced Settings >>
Call Forward Unconditional
Call Forward Number for Unconditional
Call Forward on Busy
Call Forward Number for Busy
Call Forward on No Answer
Call Forward Number for No Answer
Call Forward Delay for No Answer
5
(0~120)Second(s)
Hotline Delay
0
(0~9)Second(s)
Enable DND
Blocking Anonymous Call
Use 182 Response for Call waiting
Anonymous Call Standard
None
Dial Without Registered
Click To Talk
User Agent
Use Quote in Display Name
Enable Auto Answering
Auto Answering Delay
5
Second(s)
Subscribe For Voice Message
Voice Message Number
Voice Message Subscribe Period
3600
Second(s)
Enable Hotline
Hotline Number
Ring Type
Default
Conference Type
Local
Server Conference Number
Transfer Timeout
0
Second(s)
Enable Long Contact
Enable Use Inactive Hold
Enable Missed Call Log
Response Single Codec



SIP	
Field Name	**Explanation**
Basic Settings (Choose the SIP line to configured)	
Line Status	Display the current line status at page loading. To get the up to date line status, user has to refresh the page manually.
Username	Enter the username of the service account.
Display name	Enter the display name to be sent in a call request.
Authentication Name	Enter the authentication name of the service account
Authentication Password	Enter the authentication password of the service account
Activate	Whether the service of the line should be activated
SIP Proxy Server Address	Enter the IP or FQDN address of the SIP proxy server
SIP Proxy Server Port	Enter the SIP proxy server port, default is 5060
Outbound proxy address	Enter the IP or FQDN address of outbound proxy server provided by the service provider
Outbound proxy port	Enter the outbound proxy port, default is 5060

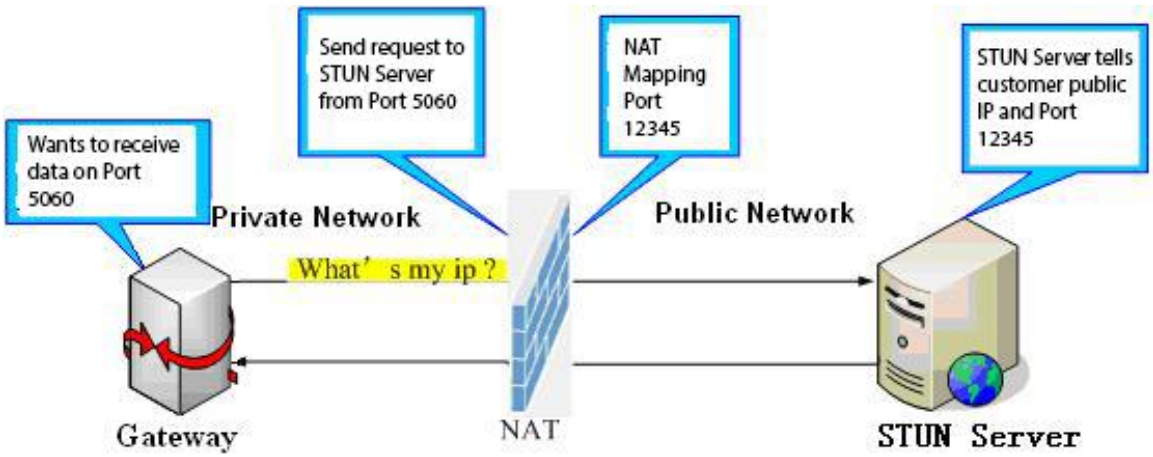
Realm	Enter the SIP domain if requested by the service provider
Codecs Settings	
Set the priority and availability of the codecs by adding or remove them from the list.	
Advanced Settings	
Call Forward Unconditional	Enable unconditional call forward, all incoming calls will be forwarded to the number specified in the next field
Call Forward Number for Unconditional	Set the number of unconditional call forward
Call Forward on Busy	Enable call forward on busy, when the phone is busy, any incoming call will be forwarded to the number specified in the next field
Call Forward Number for Busy	Set the number of call forward on busy
Call Forward on No Answer	Enable call forward on no answer, when an incoming call is not answered within the configured delay time, the call will be forwarded to the number specified in the next field
Call Forward Number for No Answer	Set the number of call forward on no answer
Call Forward Delay for No Answer	Set the delay time of not answered call before being forwarded
Hotline Delay	Set the delay for hotline before the system automatically dialed it
Enable Auto Answering	Enable auto-answering, the incoming calls will be answered automatically after the delay time
Auto Answering Delay	Set the delay for incoming call before the system automatically answered it
Subscribe For Voice Message	Enable the device to subscribe a voice message waiting notification, if enabled, the device will receive notification from the server if there is voice message waiting on the server
Voice Message Number	Set the number for retrieving voice message
Voice Message Subscribe Period	Set the interval of voice message notification subscription
Enable Hotline	Enable hotline configuration, the device will dial to the specific number immediately at audio channel opened by off-hook handset or turn on hands-free speaker or headphone
Hotline Number	Set the hotline dialing number
Enable DND	Enable Do-not-disturb, any incoming call to this line will be rejected automatically
Blocking Anonymous Call	Reject any incoming call without presenting caller ID
Use 182 Response for Call waiting	Set the device to use 182 response code at call waiting response
Anonymous Call Standard	Set the standard to be used for anonymous

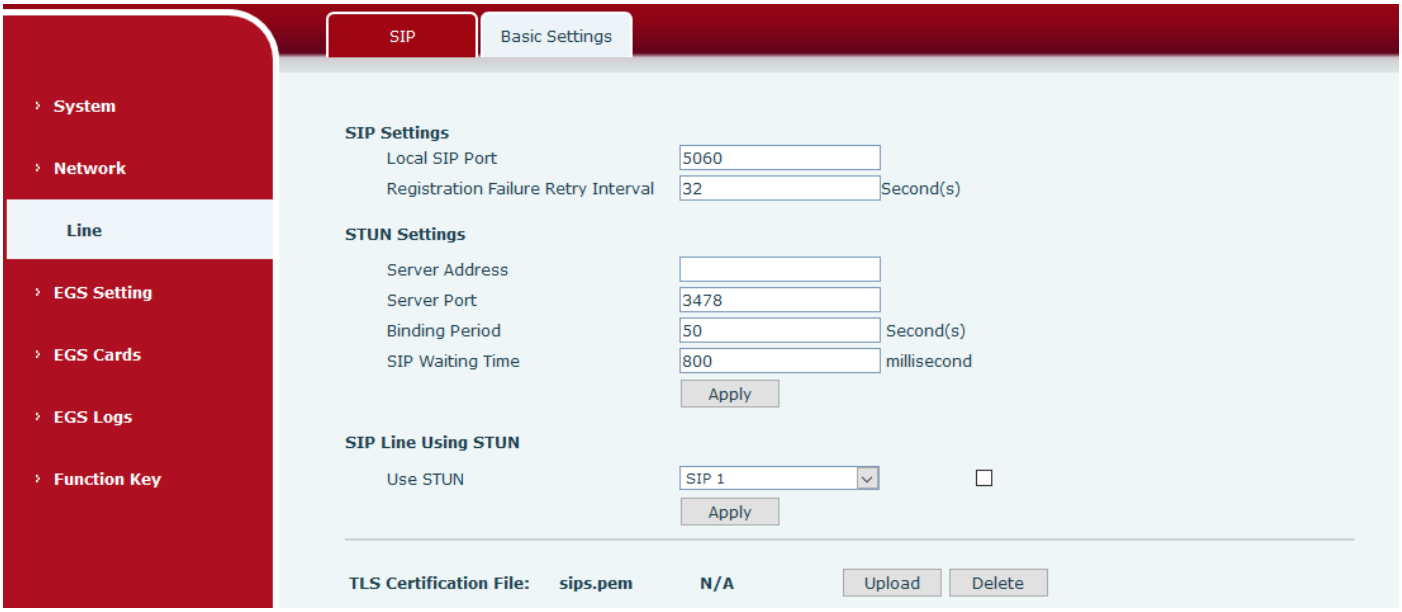
Dial Without Registered	Set call out by proxy without registration
Click To Talk	Set Click To Talk
User Agent	Set the user agent, the default is Model with Software Version.
Use Quote in Display Name	Whether to add quote in display name
Ring Type	Set the ring tone type for the line
Conference Type	Set the type of call conference, Local=set up call conference by the device itself, maximum supports two remote parties, Server=set up call conference by dialing to a conference room on the server
Server Conference Number	Set the conference room number when conference type is set to be Server
Transfer Timeout	Set the timeout of call transfer process
Enable Long Contact	Allow more parameters in contact field per RFC 3840
Enable Missed Call Log	If enabled, the phone will save missed calls into the call history record.
Response Single Codec	If setting enabled, the device will use single codec in response to an incoming call request
Use Feature Code	When this setting is enabled, the features in this section will not be handled by the device itself but by the server instead. In order to control the enabling of the features, the device will send feature code to the server by dialing the number specified in each feature code field.
Specific Server Type	Set the line to collaborate with specific server type
Registration Expiration	Set the SIP expiration interval
Use VPN	Set the line to use VPN restrict route
Use STUN	Set the line to use STUN for NAT traversal
Convert URI	Convert not digit and alphabet characters to %hh hex code
DTMF Type	Set the DTMF type to be used for the line
DTMF SIP INFO Mode	Set the SIP INFO mode to send '*' and '#' or '10' and '11'
Transportation Protocol	Set the line to use TCP or UDP for SIP transmission
SIP Version	Set the SIP version
Caller ID Header	Set the Caller ID Header
Enable Strict Proxy	Enables the use of strict routing. When the phone receives packets from the server, it will use the source IP address, not the address in via field.
Enable user=phone	Sets user=phone in SIP messages.
Enable SCA	Enable/Disable SCA (Shared Call Appearance)
Enable BLF List	Enable/Disable BLF List
Enable DNS SRV	Set the line to use DNS SRV which will resolve the FQDN in proxy server into a service list
Keep Alive Type	Set the line to use dummy UDP or SIP OPTION packet to keep NAT pinhole opened
Keep Alive Interval	Set the keep alive packet transmitting interval

Enable Session Timer	Set the line to enable call ending by session timer refreshment. The call session will be ended if there is not new session timer event update received after the timeout period
Session Timeout	Set the session timer timeout period
Enable Rport	Set the line to add rport in SIP headers
Enable PRACK	Set the line to support PRACK SIP message
Keep Authentication	Keep the authentication parameters from previous authentication
Auto TCP	Using TCP protocol to guarantee usability of transport for SIP messages above 1500 bytes
Enable Feature Sync	Feature Sycn with server
Enable GRUU	Support Globally Routable User-Agent URI (GRUU)
BLF Server	The registered server will receive the subscription package from ordinary application of BLF phone. Please enter the BLF server, if the sever does not support subscription package, the registered server and subscription server will be separated.
BLF List Number	BLF List allows one BLF key to monitor the status of a group. Multiple BLF lists are supported.
SIP Encryption	Enable SIP encryption such that SIP transmission will be encrypted
SIP Encryption Key	Set the pass phrase for SIP encryption
RTP Encryption	Enable RTP encryption such that RTP transmission will be encrypted
RTP Encryption Key	Set the pass phrase for RTP encryption

b) Basic Settings

STUN – Simple Traversal of UDP through NAT –A STUN server allows a phone in a private network to know its public IP and port as well as the type of NAT being used. The equipment can then use this information to register itself to a SIP server so that it can make and receive calls while in a private network.

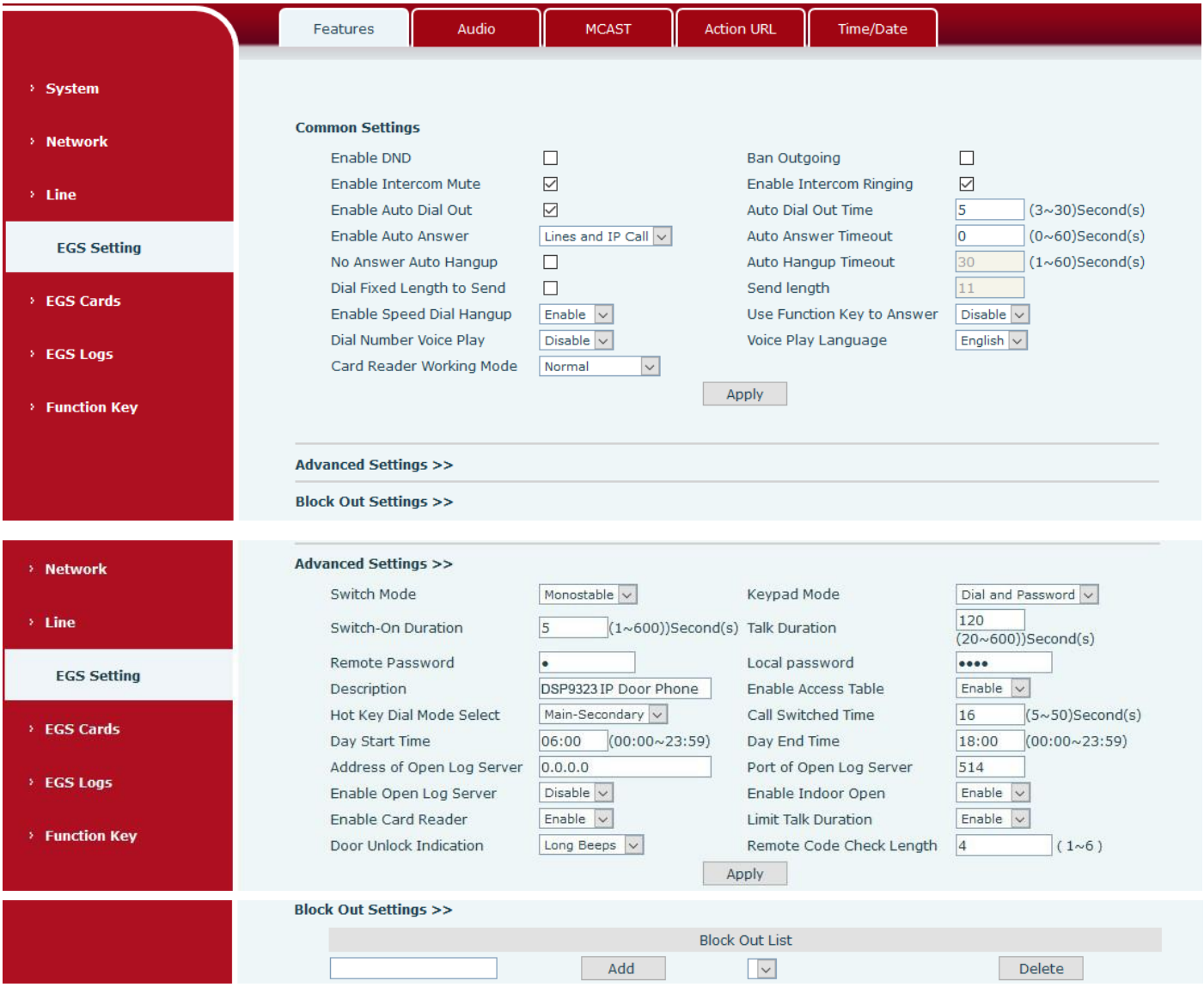




Basic Settings	
Field Name	**Explanation**
SIP Settings	
Local SIP Port	Set the local SIP port used to send/receive SIP messages.
Registration Failure Retry Interval	Set the retry interval of SIP REGISTRATION when registration failed.
STUN Settings	
Server Address	STUN Server IP address
Server Port	STUN Server Port – Default is 3478.
Binding Period	STUN blinding period – STUN packets are sent at this interval to keep the NAT mapping active.
SIP Waiting Time	Waiting time for SIP. This will vary depending on the network.
SIP Line Using STUN(SIP1 or SIP2)	
Use STUN	Enable/Disable STUN on the selected line.
TLS Certification File	
Upload or delete the TLS certification file used for encrypted SIP transmission.	
Note: the SIP STUN is used to achieve the SIP penetration of NAT, is the realization of a service, when the equipment configuration of the STUN server IP and port (usually the default is 3478), and select the Use Stun SIP server, the use of NAT equipment to achieve penetration.	

(4) EGS Setting

a) Features



Features	
Field Name	**Explanation**
Common Settings	
Enable DND	DND might be disabled phone for all SIP lines, or line for SIP individually. But the outgoing calls will not be affected
Ban Outgoing	If enabled, no outgoing calls can be made.
Enable Intercom Mute	If enabled, mutes incoming calls during an intercom call.
Enable Intercom Ringing	If enabled, plays intercom ring tone to alert to an intercom call.
Enable Auto Dial Out	Enable Auto Dial Out
Auto Dial Out Time	Set Auto Dial Out Time
Enable Auto Answer	Enable Auto Answer function
Auto Answer Timeout	Set Auto Answer Timeout
No Answer Auto Hangup	Enable automatically hang up when no answer
Auto Hangup Timeout	Configuration in a set time, automatically hang up when no answer

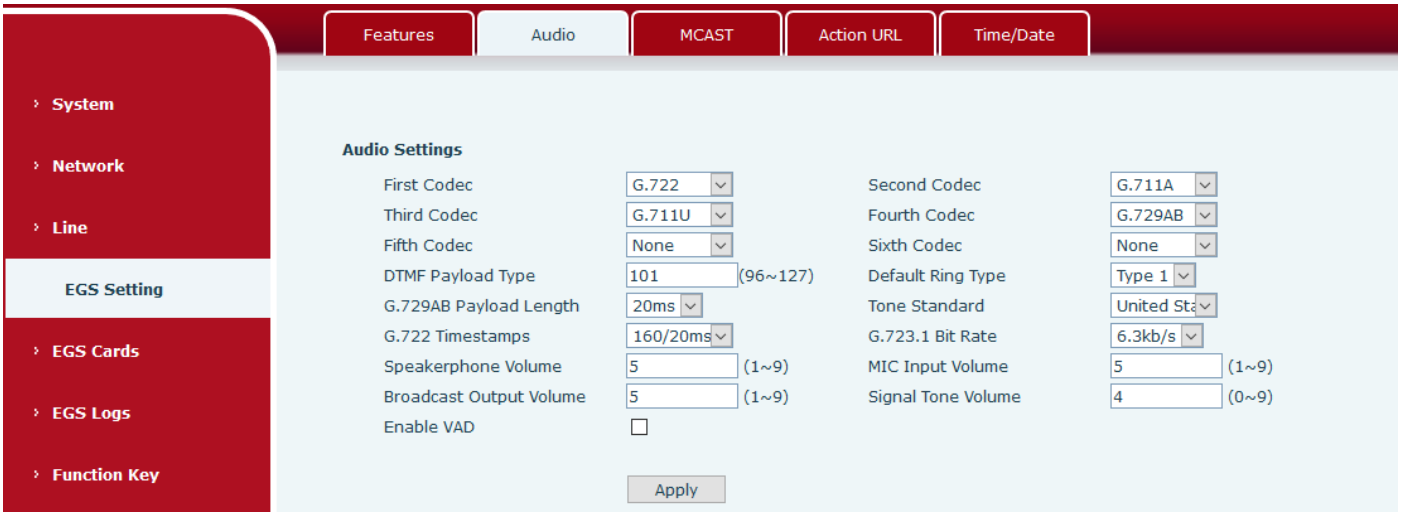
Dial Fixed Length to Send	Enable or disable dial fixed length to send.
Send length	The number will be sent to the server after the specified numbers of digits are dialed.
Enable Speed Dial Hangup	Enable Speed Dial Hand Up function
Use Function Key to Answer	Configure whether to enable the function keys, is disabled by default.
Dial Number Voice Play	Configuration Open / Close Dial Number Voice Play
Voice Play Language	Set language of the voice prompt
Card Reader Working Mode	Set ID card stats: Normal: This is the work mode, after the slot card can to open the door. Card Issuing: This is the issuing mode, after the slot card can to add ID cards. Card Revoking: This is the revoking mode, after the slot card can to delete ID cards.

Field Name	**Explanation**
Advanced Settings	
Switch Mode	Monostable: there is only one fixed action status for door unlocking. Bistable: there are two actions and statuses, door unlocking and door locking. Each action might be triggered and changed to the other status. After changed, the status would be kept. Initial Value is Monostable
Keypad Mode	Password+dialing: password input is default. Dialing mode is as below if you want. Only password: password input only, dialing would be forbidden. Only dialing: dial input only, * Key to enter the dial, the # key to hang up. Initial Value is Password and dialing.
Switch-On Duration	Door unlocking time for Monostable mode only. If the time is up, the door would be locked automatically. Initial Value is 5 seconds.
Talk Duration	The call will be ended automatically when time up. Initial Value is 120 seconds
Remote Password	Remote door unlocking password. Initial Value is “*”.
Local password	Local door unlocking password via keypad, the default password length is 4. Initial Value is “6789”.
Description	Device description displayed on IP scanning tool software. Initial Value is “DSP9323 IP Door Phone”.
Enable Access Table	Enable Access Table: enter <Access Code> for opening door during calls. Disable Access Table: enter <Remote Password> for opening door during calls. Default Enable.

Hot Key Dial Mode Select	<Primary /Secondary>mode allow system to call primary extension first, if there were no answer, it would cancel the call and then call secondary extension automatically. <Day/Night>mode allow system to check the calling time is belong to Day or Night time, and then decide to call the number 1 or number 2 automatically. Users just press speed dial key once.
Call Switched Time	The period between hot key dialing to the first and second number. Initial Value is 16 seconds.
Day Start Time	The start time of the Day When you select<Day/Night>mode.
Day End Time	The end time of the day When you select <Day/Night>mode.
Address of Open Log Server	Log server address(IP or domain name)
Port of Open Log Server	Log server port (0-65535) , Initial Value is 514.
Enable Open Log Server	Enable or disable to connect with log server
Enable Indoor Open	Enable or disable to use indoor switch to unlock the door.
Enable Card Reader	Enable or disable card reader for RFID cards.
Limit Talk Duration	If enabled, calls would be forced ended after talking time is up.
Door Unlock Indication	Indication tone for door unlocked. There are 3 type of tone: silent/short beeps/long beeps.
Remote Code Check Length	The remote access code length would be restricted with it. If the input access code length is matched with it, system would check it immediately. Initial Value is 4.
Block Out Settings	
Add or Delete Blocked numbers – Enter the prefix of numbers which should not be dialed by the phone. For example, if 001 is entered, the phone will not dial any numbers beginning with 001. X and x are wildcards which match single digits. For example, if 4xxx or 4XXX is entered, the phone will not dial any 4 digit numbers beginning with 4. It will dial numbers beginning with 4 which are longer or shorter than 4 digits.	

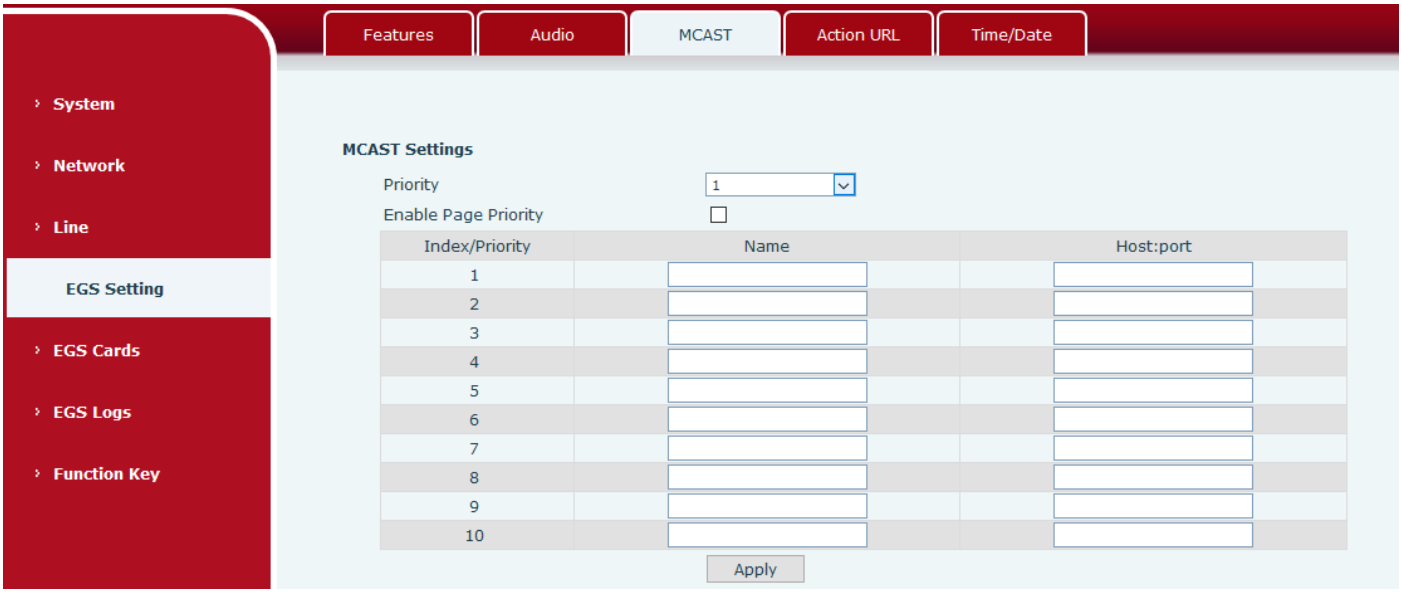
b) Audio

This page configures audio parameters such as voice codec, speak volume, mic volume and ringer volume.



Audio Setting	
Field Name	**Explanation**
First Codec	The first codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB
Second Codec	The second codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
Third Codec	The third codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
Fourth Codec	The forth codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
DTMF Payload Type	The RTP Payload type that indicates DTMF. Default is 101
Default Ring Type	Ring Sound – There are 9 standard types and 3 User types.
G.729AB Payload Length	G.729AB Payload Length – Adjusts from 10 – 60 mSec.
Tone Standard	Configure tone standard area.
G.722 Timestamps	Choices are 160/20ms or 320/20ms.
G.723.1 Bit Rate	Choices are 5.3kb/s or 6.3kb/s.
Speakerphone Volume	Set the speaker calls the volume level.
MIC Input Volume	Set the MIC calls the volume level.
Broadcast Output Volume	Set the broadcast the output volume level.
Signal Tone Volume	Set the audio signal the output volume level.
Enable VAD	Enable or disable Voice Activity Detection (VAD). If VAD is enabled, G729 Payload length cannot be set greater than 20 mSec.

c) MCAST



It is easy and convenient to use multicast function to send notice to each member of the multicast via setting the multicast key on the device and sending multicast RTP stream to pre-configured multicast address. By configuring monitoring multicast address on the device, monitor and play the RTP stream which sent by the multicast address.

MCAST Settings

Equipment can be set up to monitor up to 10 different multicast addresses, used to receive the multicast RTP stream sent by the multicast address.

Here are the ways to change equipment receiving multicast RTP stream processing mode in the Web interface: set the ordinary priority and enable page priority.

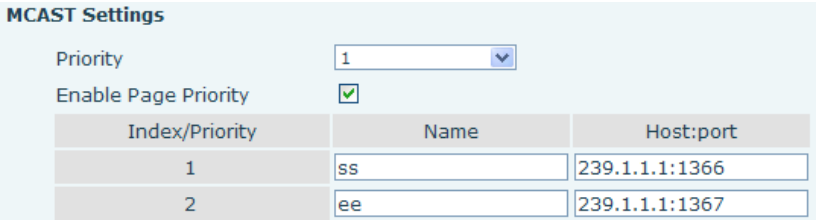
- Priority:

In the drop-down box to choose priority of ordinary calls the priority, if the priority of the incoming flows of multicast RTP, lower precedence than the current common calls, device will automatically ignore the group RTP stream. If the priority of the incoming flow of multicast RTP is higher than the current common calls priority, device will automatically receive the group RTP stream, and keep the current common calls in state. You can also choose to disable in the receiving threshold drop-down box, the device will automatically ignore all local network multicast RTP stream.

- The options are as follows:
  - ✧ 1-10: To definite the priority of the common calls, 1 is the top level while 10 is the lowest
  - ✧ Disable: ignore all incoming multicast RTP stream
  - ✧ Enable the page priority:

    Page priority determines the device how to deal with the new receiving multicast RTP stream when it is in multicast session currently. When Page priority switch is enabled, the device will automatically ignore the low priority multicast RTP stream but receive top-level priority multicast RTP stream, and keep the current multicast session in state; If it is not enabled, the device will automatically ignore all receiving multicast RTP stream.

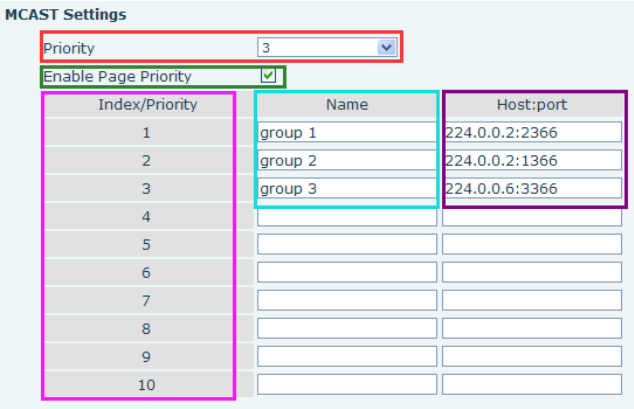
- Web Settings:



The multicast SS priority is higher than that of EE, which is the highest priority.

Note: when pressing the multicast key for multicast session, both multicast sender and receiver will beep.

Listener configuration



- **Blue part (name)**

"Group 1","Group 2" and "Group 3" are your setting monitoring multicast name.The group name will be displayed on the screen when you answer the multicast. If you have not set, the screen will display the IP: port directly.

- **Purple part (host: port)**

It is a set of addresses and ports to listen, separated by a colon.

- **Pink part (index / priority)**

Multicast is a sign of listening, but also the monitoring multicast priority. The smaller number refers to higher priority.

- **Red part (priority)**

It is the general call, non multicast call priority. The smaller number refers to high priority. The followings will explain how to use this option:

✧ The purpose of setting monitoring multicast "Group 1" or "Group 2" or "Group 3" launched a multicast call.

✧ All equipment has one or more common non multicast communication.

✧ When you set the Priority for the disable, multicast any level will not answer, multicast call is rejected.

✧ when you set the Priority to a value, only higher than the priority of multicast can come in, if you set the Priority is 3, group 2 and group 3 for priority level equal to 3 and less than 3 were rejected, 1 priority is 2 higher than ordinary call priority device can answer the multicast message at the same time, keep the hold the other call.

- **Green part (Enable Page priority)**

Set whether to open more priority is the priority of multicast, multicast is pink part number. Explain how to use:

✧ The purpose of setting monitoring multicast "group 1" or "3" set up listening "group of 1" or "3" multicast address multicast call.

✧ All equipment has been a path or multi-path multicast phone, such as listening to "multicast information group 2".

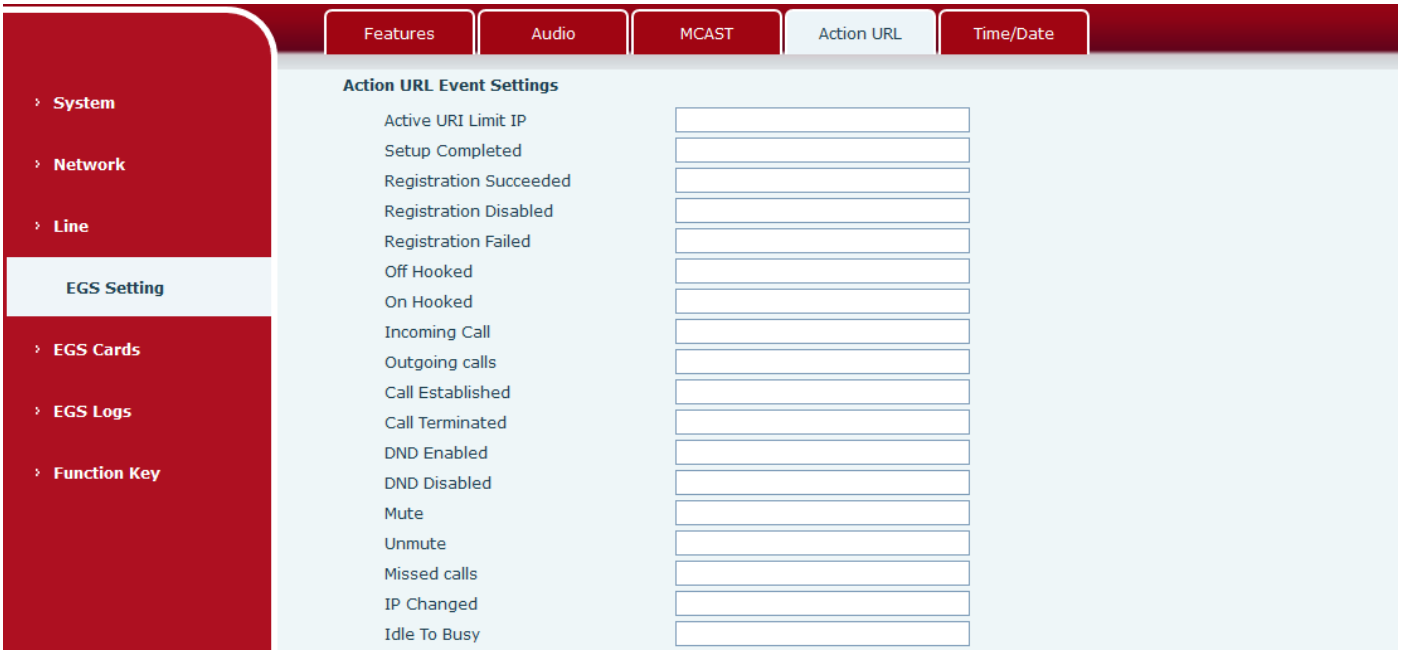
✧ If multicast is a new "group of 1", because "the priority group 1" is 2, higher than the current call "priority group 2" 3, so multicast call will can come in.

✧ If multicast is a new "group of 3", because "the priority group 3" is 4, lower than the current call "priority group 2" 3, "1" will listen to the equipment and maintain the "group of 2".

Multicast service

- **Send:** when configured ok, our key press shell on the corresponding equipment, equipment directly into the Talking interface, the premise is to ensure no current multicast call and 3-way of the case, the multicast can be established.
- **Lmonitor:** IP port and priority configuration monitoring device, when the call is initiated and incoming multicast, directly into the Talking interface equipment.

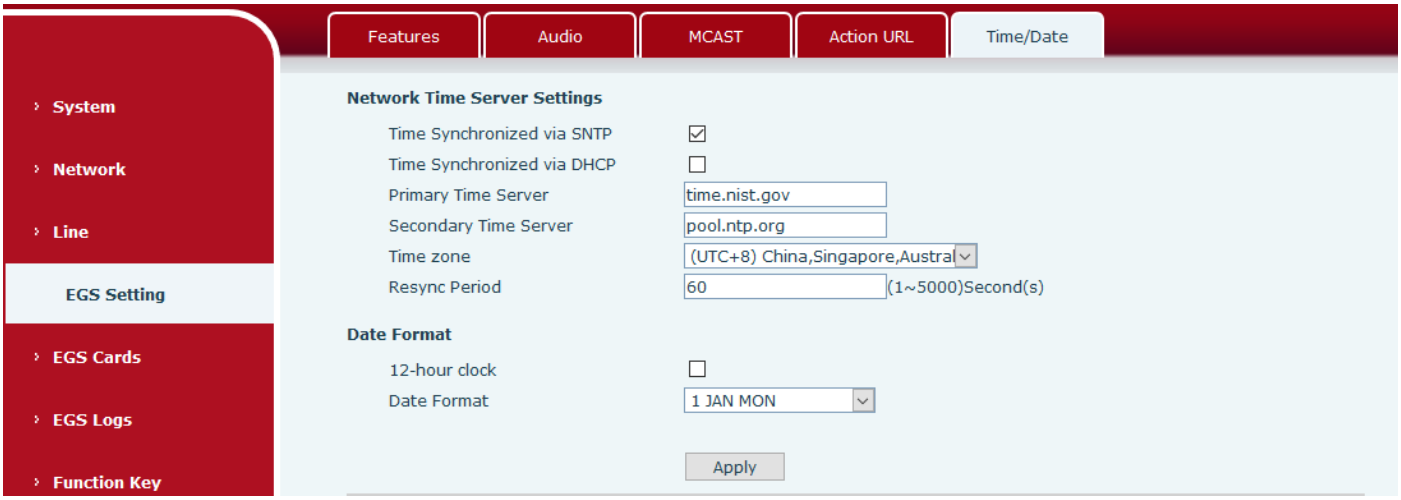
d) Action URL

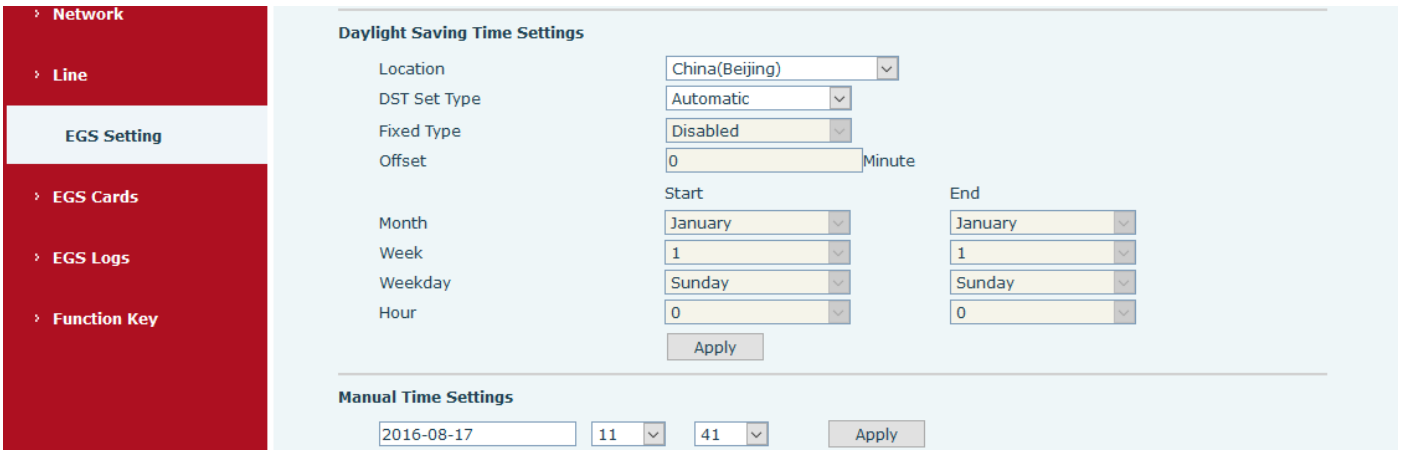


Action URL Event Settings
URL for various actions performed by the phone. These actions are recorded and sent as xml files to the

server. Sample format is http://InternalServer /FileName.xml

e) Time/Date



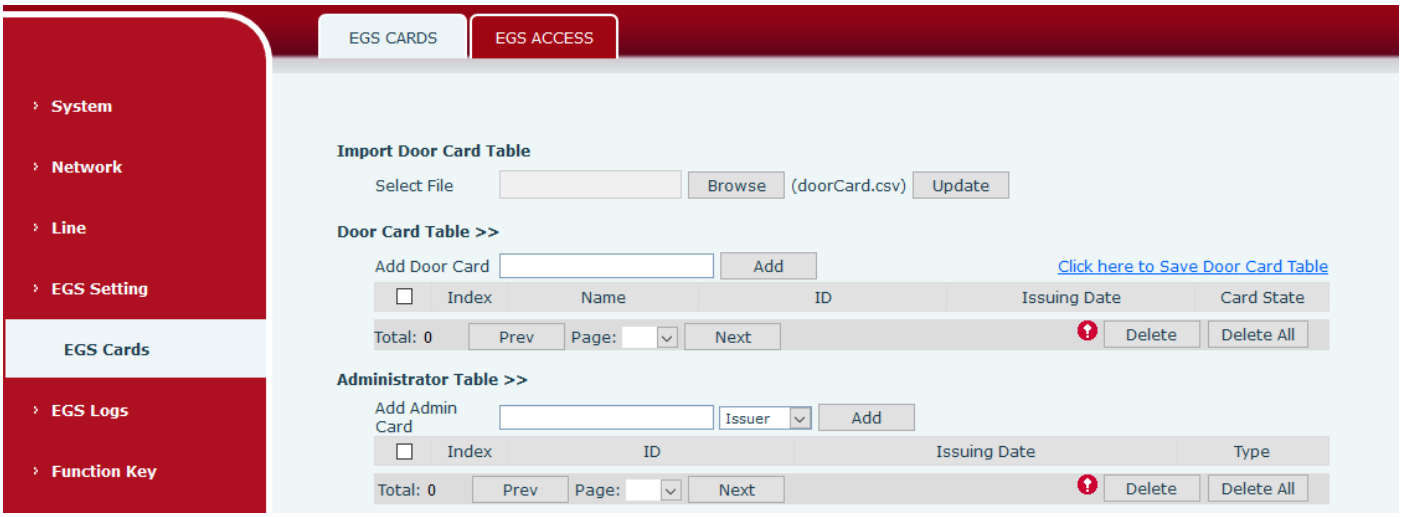


Time/Date	
Field Name	**Explanation**
Network Time Server Settings	
Time Synchronized via SNTP	Enable time-sync through SNTP protocol
Time Synchronized via DHCP	Enable time-sync through DHCP protocol
Primary Time Server	Set primary time server address
Secondary Time Server	Set secondary time server address, when primary server is not reachable, the device will try to connect to secondary time server to get time synchronization.
Time zone	Select the time zone

Resync Period	Time of re-synchronization with time server
Date Format	
12-hour clock	Set the time display in 12-hour mode
Date Format	Select the time/date display format
Daylight Saving Time Settings	
Location	Select the user's time zone specific area
DST Set Type	Select automatic DST according to the preset rules of DST, or the manually input rules
Offset	The DST offset time
Month Start	The DST start month
Week Start	The DST start week
Weekday Start	The DST start weekday
Hour Start	The DST start hour
Month End	The DST end month
Week End	The DST end week
Weekday End	The DST end weekday
Hour End	The DST end hour
Manual Time Settings	
The time set by hand, need to disable SNTP service first.	

(5) EGS Cards

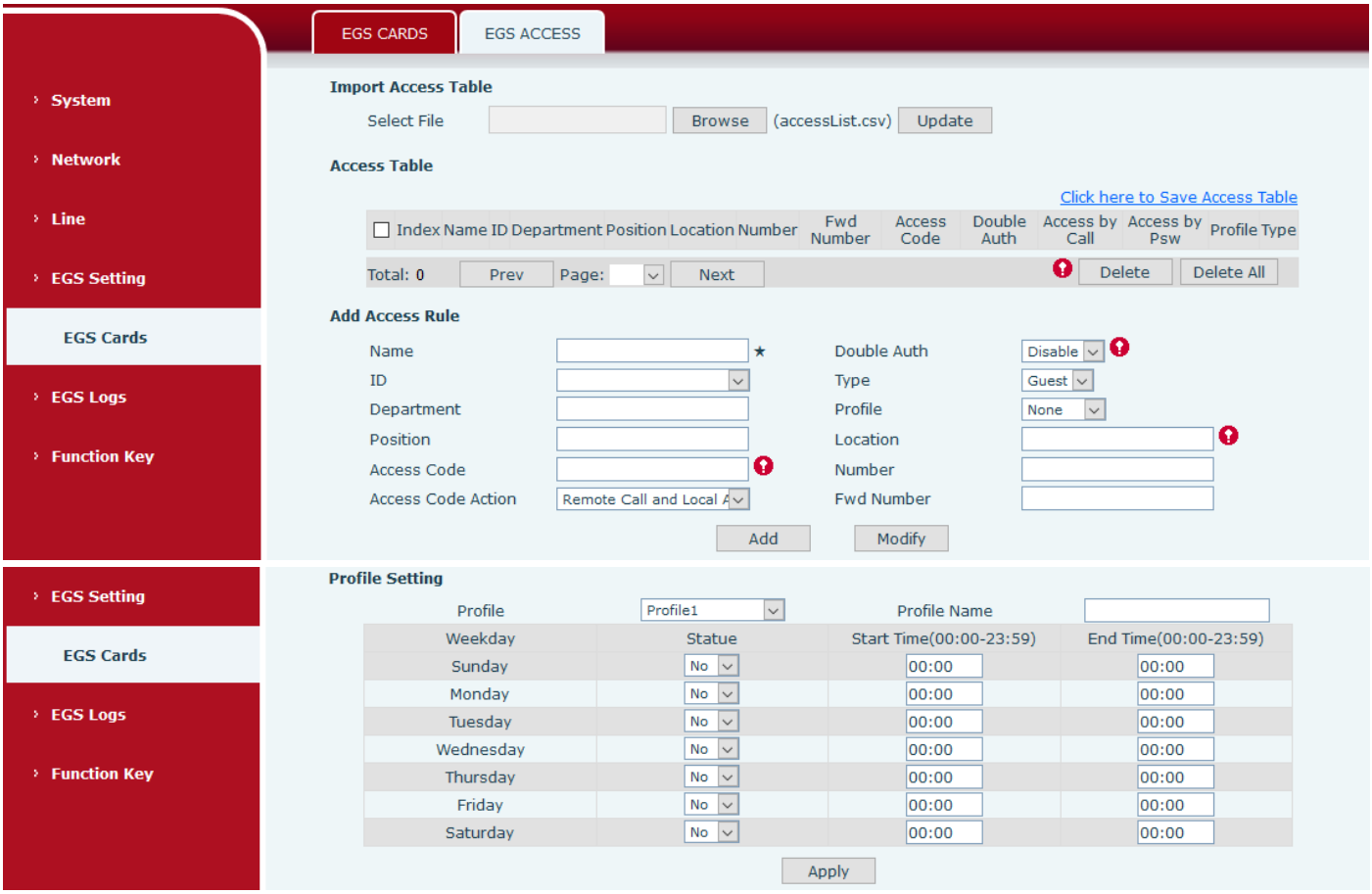
a) EGS Cards



EGS Cards	
Field Name	**Explanation**
Import Door Card Table	
Click the <Browse> to choose to import door card list file (doorCard.csv), click <Update> can be batch import.	
Door Card Table	
Add Door Card	The input RFID card numbers the top 10, for example, 0004111806, click <add>.
Click here to	Click here to Save Door Card Table Right-click it and select save target to your

Save Door Card Table	computer.
Name	The name of has been issuer cards.
ID	The card number of has been issuer cards. (Note: The card is not registered in the remote access list is unable to open the door.)
Issuing Date	The issuing date of has been issuer cards.
Card State	To have been issuer cards the state.
Delete	Click <Delete>, will delete the door card list within the selected ID cards.
Delete All	Click <Delete All>, to delete all door card lists.
Administrator Table	
Add Admin Card	The input RFID card numbers the top 10, for example, 0004111806, select admin card the type, click <add>.
Type: Issuer and Revoking. Entrance guard in normal state, brush card(issuing card) entrance guard into the issuing state, and then brush to add a card, the card is added to the database, add swipe again after card(issuing card) entrance guard returned to normal. Delete card operation and issuing card the same. Can release at most 10 cards, 500 copies of ordinary cards. Note: in the issuing state to delete brush card is invalid, and vice versa.	
The show admin card the ID, Date and Type.	
Delete	Click <Delete>, will delete the admin card list within the selected ID cards.
All Delete	Click <Delete All>, to delete all admin card lists.

b) EGS ACCESS



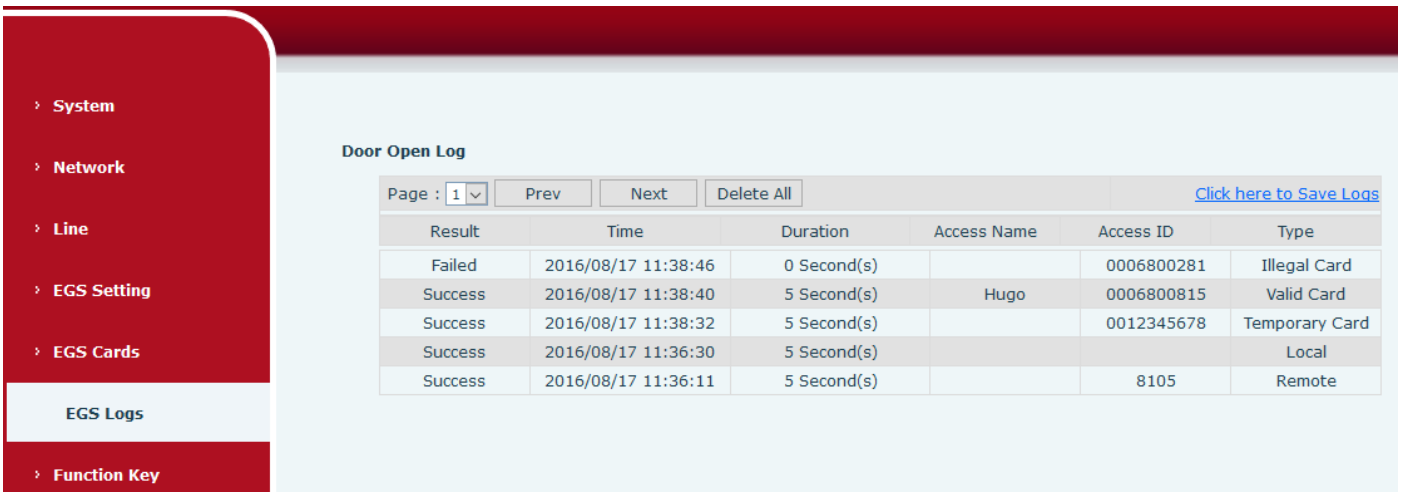
Field Name	Explanation
Import Access Table	
Click the <Browse> to choose to import remote access list file (access List.csv) and then click <Update> can be batch import remote access rule.	
Access Table	
According to entrance guard access rules have been added, can choose single or multiple rules on this list to delete operation.	
Add Access Rule	
Name	User name
ID	RFID card number
Department	Card holder's department
Position	Card holder's position
Access Code	1/ When the door phone has been answering the call from below <Phone Num> user, then the <Phone Num> user can input the access code by keypad to unlock the door remotely. 2/ The user's private password for local door unlocking by door phone's keypad.
Access Code Action	Select Access Code Action mode
Double Auth	When enabled, private password inputting and RFID reading must be matched simultaneously for door unlocking.
Type	Host: the door phone would answer all call automatically.

	Guest: the door phone would be ringing for incoming call, if the auto answer had been disabled.
Profile	Valid for user access rules (including RFID, access code, etc) within corresponding time section. If NONE is selected, it would be taken effect all day.
Location	Virtual extension number, used to make position call instead of real number. It might be taken with unit number, or room number.
Number	User Phone Number
Fwd Number	Call forwarding number when above Phone Num is unavailable.
Profile Setting	
Profile	There are 4 sections for time profile configuration
Profile Name	The name of profile to help administrator to remember the time definition
Statue	If it were yes, the time profile would be taken effect. Other time section not included in the profiles would not allow users to open door
Start Time	The start time of section
End Time	The end time of section

(6) EGS Logs

According to open event log, can record up to 1.5 w open event, after more than cover the old records.

Click here to Save Logs Right click on the links to select save target as the door log can export CSV format.

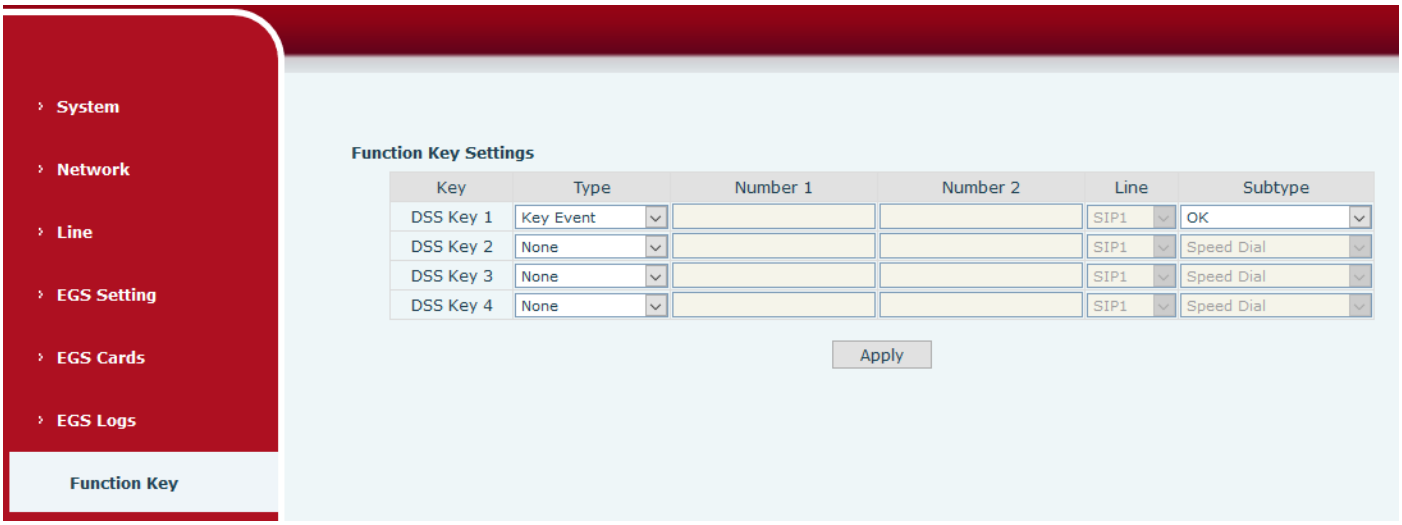


Field Name	Explanation
Door Open Log	
Result	Show the results of the open the door (Success or Failed)
Time	Open the door of time.
Duration	Duration of open the door.
Access Name	If is the open the door for slot card or remote, will display remote access the name.
Access ID	1. If open the door way to brush card shows card number 2. If the door way to open the door for the remote display the phone number of the door. 3. If open the door way to open the door for local, no display information.
Type	Open type: 1. local, 2. Remote, 3. Brush card (Temporary Card, Valid Card and Illegal

	Card). Note: there are three kinds of credit card feedback results. 1. Temporary Card (Only add the card number, without adding other rules) 2. Valid Card (Has been added access rules) 3. Illegal Card (Did not add information)

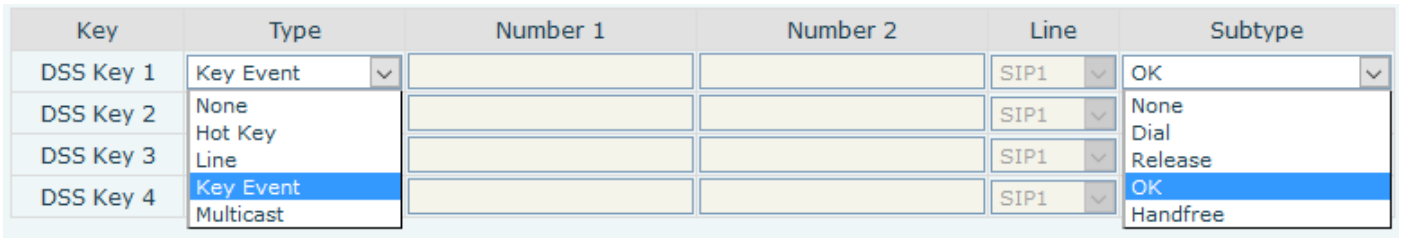
(7) Function Key

a) Function Key Settings



➢ Key Event

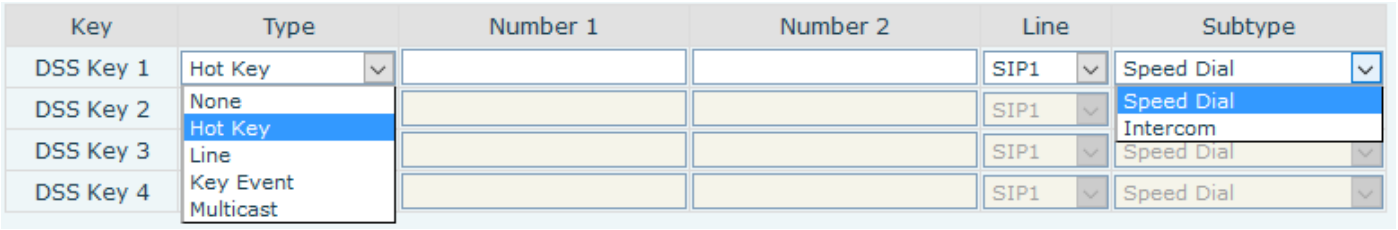
Set the key type to the Key Event.



Type	Subtype	Usage
Key Event	None	Not responding
	Dial	Dial function
	Release	Delete password input, Cancel dial input and End calls
	OK	Identify key
	Handfree	The hand-free key(with hook dial, hang up)

➢ Hot Key

Enter the phone number in the input box, when you press the shortcut key, equipment will dial set telephone number. This button can also be used to set the IP address, press the shortcut key IP direct dial call.

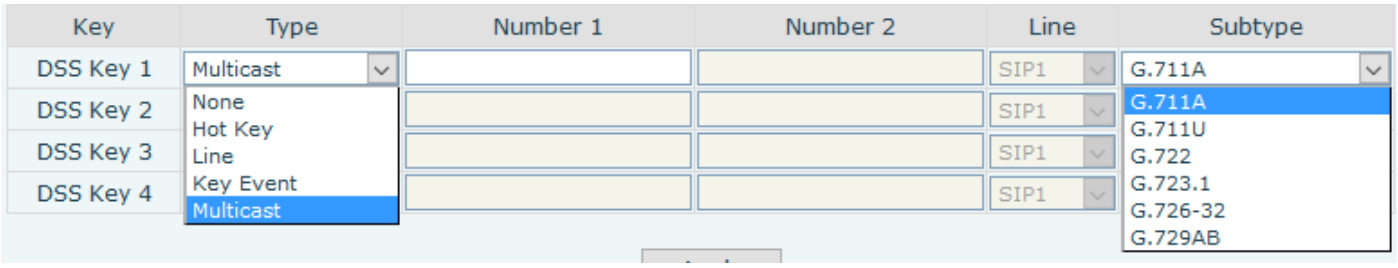


Type	Number	Line	Subtype	Usage
Hot Key	Fill the called party's SIP account or address	The SIP account corresponding lines	Speed Dial	In Speed dial mode, with Enable Speed Dial Hangup Enable can define whether this call is allowed to be hang up by re-press the speed dial
			Intercom	In Intercom mode, if the caller's IP phone support intercom feature, can realize auto answer

➢ Multicast

Multicast function is launched will voice messages sent to set the multicast address, all equipment to monitor the group multicast address can receive sponsors speech information, etc. Using multicast functionality can be simple and convenient to send notice to each member in the multicast.

Through the DSS Key configuration multicast calling WEB is as follows:



Type	Number	Subtype	Usage
Multicast	Set the host IP address and port number, the middle separated by a colon	G.711A	Narrowband speech coding (4Khz)
		G.711U	
		G.722	Wideband speech coding (7Khz)
		G.723.1	Narrowband speech coding (4Khz)
		G.726-32	
		G.729AB	

✧ operation mechanism

Device through the DSS Key configuration of multicast address and port and started coding; set by WEB to monitor the multicast address and port; device sends a multicast, listens to the address of the device can receive the multicast content.

✧ calling configuration

The call is already exists, and three party or initiated multicast communication, so it will not be able to launch a new multicast call.

V. Appendix

1. Technical parameters

Communication protocol		SIP 2.0(RFC-3261)
Main chipset		Broadcom
Keys	**DSS Key**	1(Stainless steel)
	Numeric keyboard	Support
Audio	**MIC**	1
	Speaker	3W/4Ω
	Volume control	Adjustable
	Full duplex speakerphone	Support (AEC)
Speech flow	**Protocols**	RTP
	Decoding	G.729、G.723、G.711、G.722、G.726
Ports	**Active Switched Output**	12V/700mA DC
	WAN	10/100BASE-TX s Auto-MDIX, RJ-45
RFID/IC card reader(relay)		EM4100 (125Khz) ---Standard configuration MIFARE One(13.56Mhz) ---Custom-made
Power supply mode		12V / 1A DC or PoE
PoE		PoE 802.3af (Class 3 - 6.49~12.95W)
Cables		CAT5 or better
Shell Material		Metal panel, ABS face-piece and back shell
Working temperature		-10℃ to 60℃

Working humidity	10% - 90%
Storage temperature	-40 ℃ to 70 ℃
Installation way	Wall mounted
External size	160 x 93 x 35mm
Package size	178 x 104 x 55mm
Gross weight	420g

2. Basic functions

- 2 SIP Lines
- PoE Enabled
- Full-duplex speakerphone (HF)
- Numeric keypad (Dial pad or Password input)
- Intelligent DSS Keys (Speed Dial/intercom etc)
- Wall mounted
- Integrated RFID Card reader
- 1 indoor switch interface
- 1 electric lock relay
- External power supply
- Door phone: call, password, RFID card, indoor switch
- Protection level: IP54， CE/FCC

3. Schematic diagram

VI. Other instructions

1. Open door modes

● Local control

1) Local Password

✧ Set <Local Password> (the password is "6789" by default) via DOOR PHONE\DOOR PHONE as above.

✧ Input password via keypad and press the "#" key, then the door will be unlocked.

2) Private access code

✧ Set <Add Access Rule\Access Code> and enable local authentication.

✧ Input access code via keypad and press the "#" key, then the door will be unlocked.

● Remote control

1) Visitors call the owner

✧ Visitors can call the owner via position speed dial or phone number. (After setting the speed dial key, visitors can press it to call direct.)

✧ The owner answers the call and presses the "*" key to unlock the door for visitors.

2) Owner calls visitors

✧ Owner calls visitors via SIP phone.

✧ SIP door phone answers the call automatically.

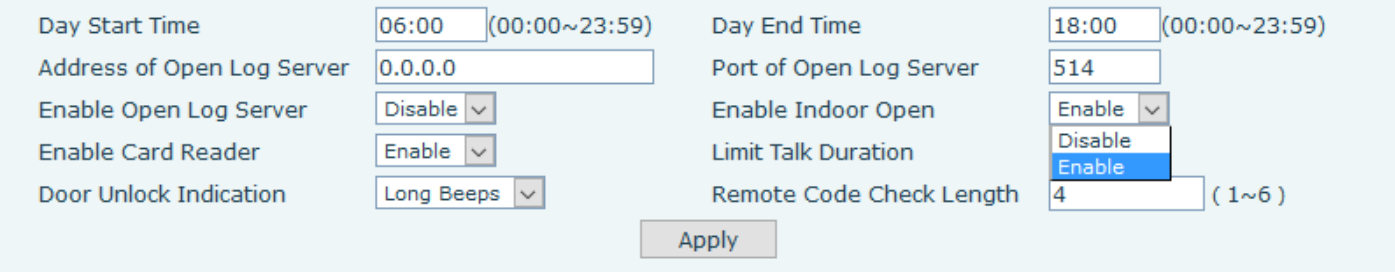
✧ Owner inputs corresponding <Access codes> via SIP phone keypad to unlock the door.

● Swiping cards

✧ Use pre-assigned RFID cards to unlock the door, by touching RFID area of the device.

● Indoor switch

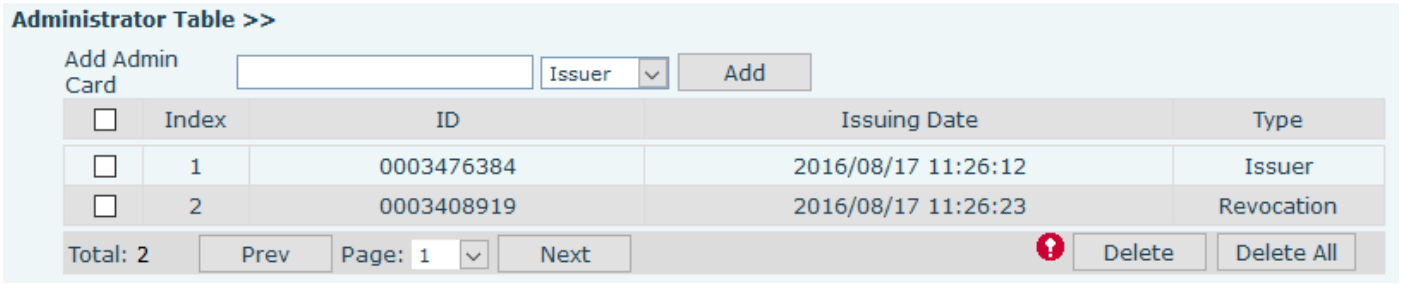
✧ Press indoor switch, which is installed and connected with the device, to unlock the door.



2. Management of card

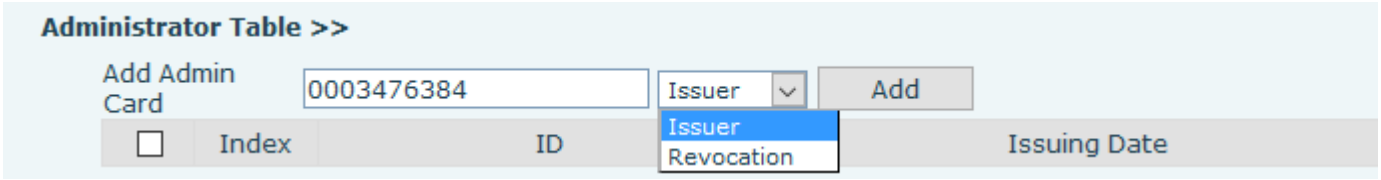
1) Administrator Table

<Issuer> and <Revocation>



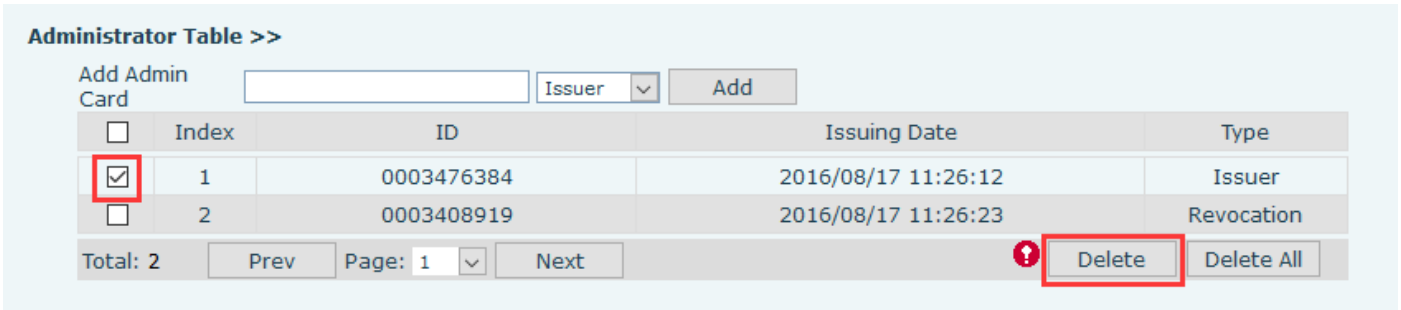
- **Add Administrator cards**

Input a card's ID, selected <Issuer> or <Revocation> in the types and Clicked <Add>, you can add administrator card.



- **Delete Administrator cards**

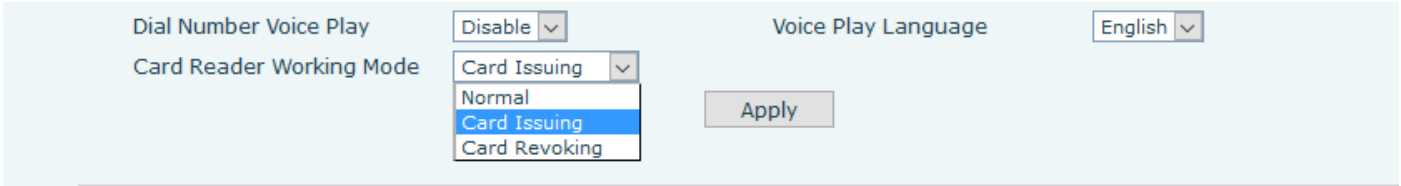
Select the admin card of need to delete, click <Delete>.



2) Add user cards

- **Method 1**: used to add cards for starters typically

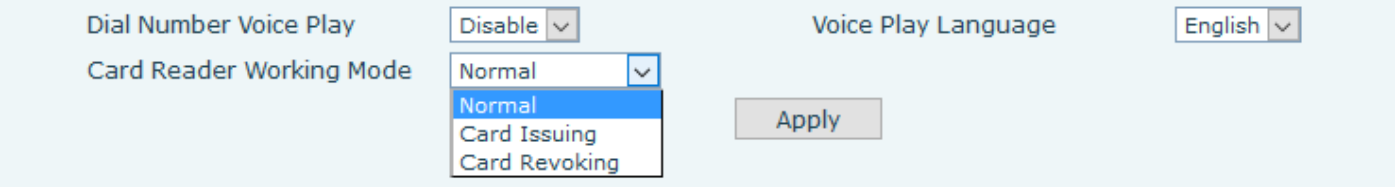
✧ In web page < EGS Setting →Features →Card Reader Working Mode > option, select <Card Issuing>.



✧ Click <Apply>, Card Reader would be entered the issuing status.

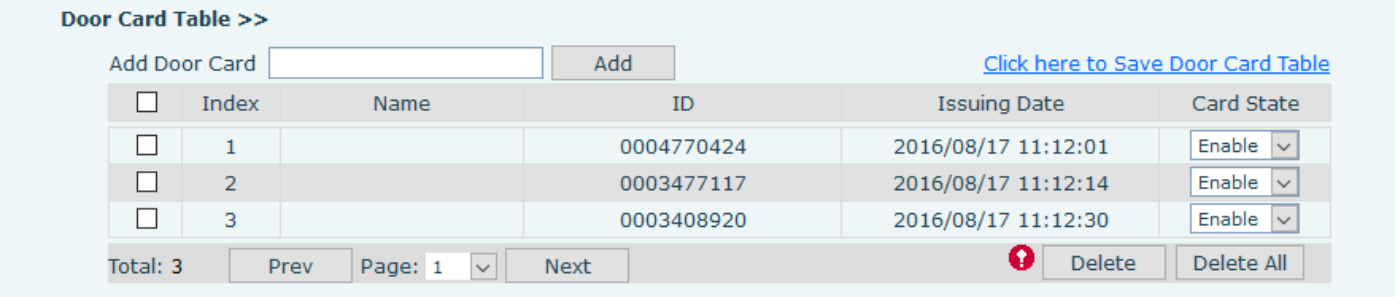
✧ Use new card to touch card reader induction area, and then you might hear the confirmed indication tone from the device. Repeat step can to add more cards.

✧ In web page < EGS Setting →Features →Card Reader Working Mode > option, select <Normal>.



✧ Click <Apply>, Card Reader would be back to the Normal status.

✧ The issuing records can be found from the door card table list.



- **Methods 2:** used to add cards for professionals

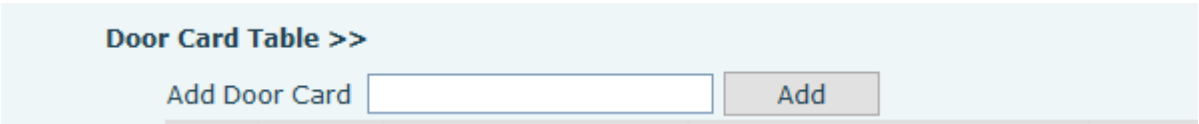
✧ Use <Issuer admin card> to touch card reader induction area, and it would be entered issuing card status.

✧ Use new card to touch card reader induction area, and you might hear the confirmed indication tone from the device. Repeat step 2 to add more cards.

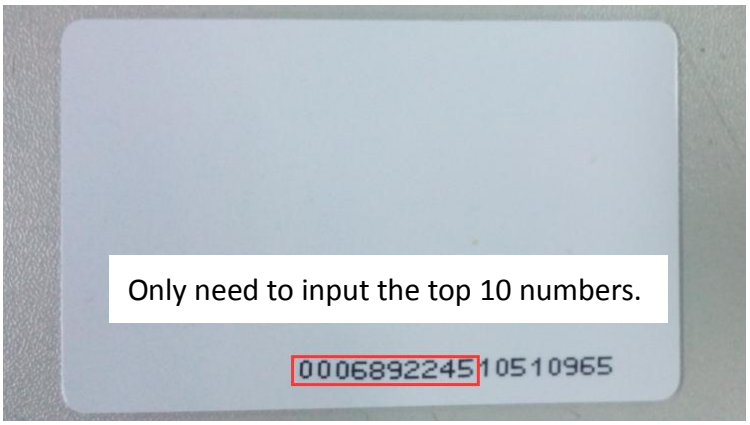
✧ Use <Issuer admin card> to touch card reader induction area again, it would be back to normal working status.

- **Method 3:** use to add few cards

✧ Input cards number in door card settings page, and then click <Add>.



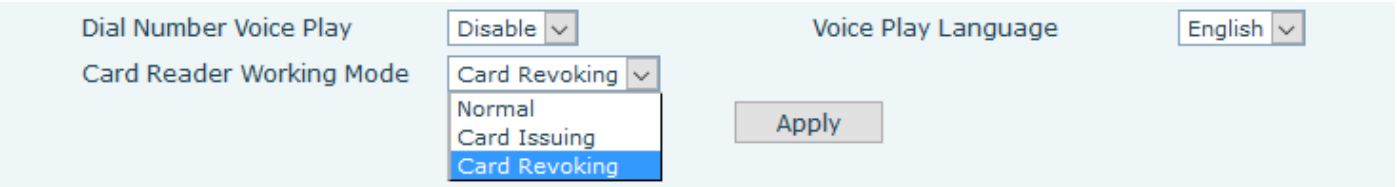
Note: you can also use the USB card reader connected with PC to get cards ID automatically.



3) Delete user cards

- **Method 1:** used to batch delete cards for starters.

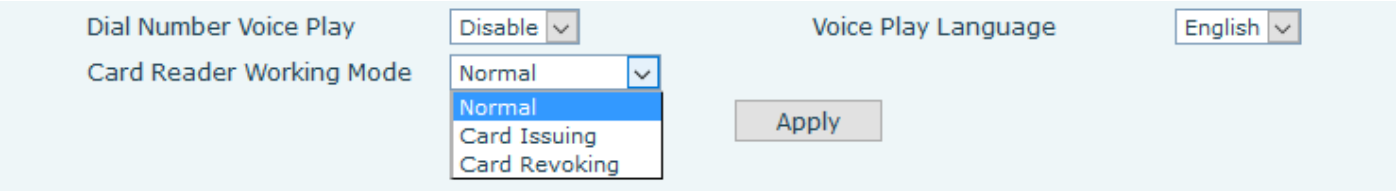
✧ In web page < EGS Setting →Features →Card Reader Working Mode > option, select <Card Revoking>.



✧ Click <Apply>, Card Reader would be entered the revoking status.

✧ Use card to touch card reader induction area, and you might hear the card reader confirmed indication tone. Repeat step can to delete more cards.

✧ In web page <EGS Setting →Features →Card Reader Working Mode >option, select <Normal>.



✧ Click <Apply>, Card Reader would be back to the Normal status.

- **Method 2**: used to batch add cards for intermediates.

✧ Use < Revocation admin card> to touch card reader induction area, and it would be entered revoking card status.

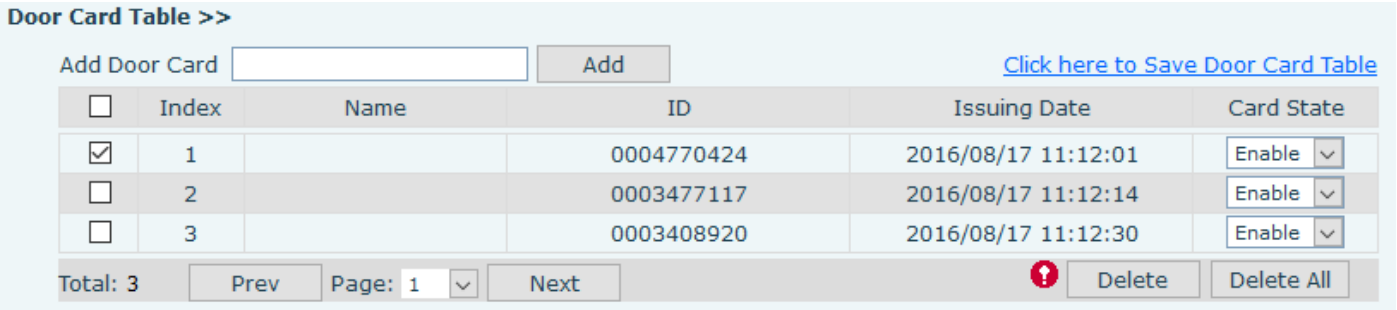
✧ Use the cards you want to delete from system, to touch card reader induction area, and you might hear the card reader confirmed indication tone. Repeat step 2 to delete cards.

✧ Use <Revocation admin card> to touch card reader induction area, and it would be back to card read only status.

- **Method 3**: use to bulk delete or partially delete card records

✧ In web page<EGS Cards →Door Card Table>select the card ID and then click <Delete>.

Note: If you click <Delete All>, system will delete all the ID card records.



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