Digital VTH

(Version 4.2)

Quick Start Guide

V1.1.1

1.2.51.32.13629-000

Foreword

General

This document mainly introduces structure, installation process, debugging and verification process of digital VTH products.

Device Upgrade

Please don't cut off power supply during device upgrade. Power supply can be cut off only after the device has completed upgrade and has rebooted.

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Symbol	Note
DANGER	It indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
WARNING	It indicates a moderate or low level of potential danger which, if not avoided, could result in minor or moderate injury.
CAUTION	It indicates a potential risk that, if ignored, could result in damage to device, loss of data, degraded performance, or unpredictable results.
TIPS	It means that it can help you to solve some problems or save your time.
NOTE	It means the additional information, which is to emphasize or supplement.

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others, such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures, including but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

About the Guide

- The Guide is for reference only. If there is inconsistency between the Guide and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the Guide.
- The Guide would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper User's Manual, CD-ROM, QR code or our official website. If there is inconsistency between paper User's Manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Guide. Please contact the customer service for the latest program and supplementary documentation.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.

- Upgrade the reader software or try other mainstream reader software if the Guide (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the Guide are the properties of their respective owners.
- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation.

Important Safeguards and Warnings

The following description is the correct application method of the device. Please read the Guide carefully before use, in order to prevent danger and property loss. Strictly conform to the Guide during application and keep it properly after reading.

Operating Requirement

- Please don't place and install the device in an area exposed to direct sunlight or near heat generating device.
- Please don't install the device in a humid, dusty or fuliginous area.
- Please keep its horizontal installation, or install it at stable places, and prevent it from falling.
- Please don't drip or splash liquids onto the device; don't put on the device anything filled with liquids, in order to prevent liquids from flowing into the device.
- Please install the device at well-ventilated places; don't block its ventilation opening.
- Use the device only within rated input and output range.
- Please don't dismantle the device arbitrarily.

Power Requirement

- The product shall use electric wires (power wires) recommended by this area, which shall be used within its rated specification!
- Please use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, please refer to device labels.
- Appliance coupler is a disconnecting device. During normal use, please keep an angle that facilitates operation.

1 Product Structure

1.1 Front Panel

Different models of devices may have different front panel dimensions and key types, but keys or indicators with the same silkscreen or icon have the same function. Please refer to Table 1-1 for details.

Icon or Silkscreen	Name	Description
	SOS	Press this key to call the Call Center in case of emergency.
	Menu	Press this key to return to main menu.
	Call	● In case of incoming call, press this key to answer the call. ● During talk, press this key to hang up. ● During monitoring, press this key to speak to unit VTO, villa VTO and fence station. ● During speaking, press this key to exit speaking.
	Monitor	● In standby mode, press this key to monitor the main VTO. ● During monitoring, press this key to exit monitoring.
	Unlock	In case of incoming call, talk, monitoring and speaking of VTO, press this key to unlock corresponding VTO.
	Message indicator	If this indicator turns on, it represents that there are unread messages.
	Power indicator	If this indicator turns on in green, it represents normal power supply.
Network	Network indicator	● If this indicator turns on, it represents normal communication with VTO. ● If this indicator turns off, it represents abnormal communication with VTO.
DND	DND indicator	If this indicator turns on in green, it represents that DND function is enabled. For DND settings, please scan QR code on the front cover, and refer to the user's manual.

Table 1-1

1.2 Rear Panel Port

1.2.1 VTH5221 Series /VTH5241 Series

VTH5221 series and VTH5241 series have different port positions at the rear panel, but the same port provides the same function. Taking VTH5221 as an example, specific functions of ports are introduced, as shown in Figure 1-1.

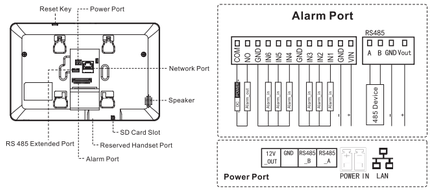

Figure 1-1

1.2.2 VTH5221E-H/VTH5221EW-H

Rear panel of VTH5221E-H/VTH5221EW-H is shown in Figure 1-2.

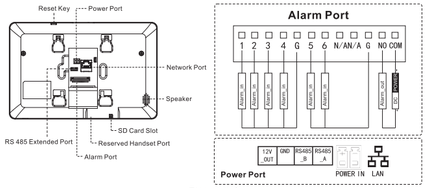

Figure 1-2

1.2.3 VTH15 Series Type A/Type B/Type CH

In VTH15 series, different types of digital VTH have different port positions, but the same port provides the same function. Taking VTH1550CH as an example, specific functions of ports are introduced, as shown in Figure 1-3.

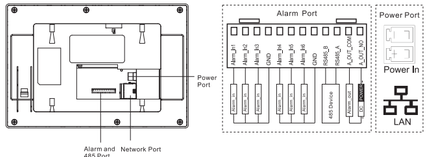

Figure 1-3

In VTH type A/type B series, different types of digital VTH have different port positions, but the same port provides the same function. Taking VTH1560B as an example, specific functions of ports are introduced, as shown in Figure 1-4.

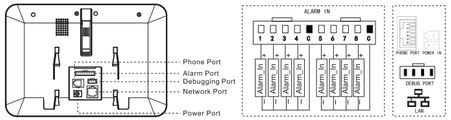

Figure 1-4

1.2.4 VTH5222CH/VTH5222CHW-2

Except different numbers of 2-wire port, VTH5222CH and VTH5222CHW-2 are the same in other aspects. VTH5222CH has 1 group of 2-wire port, while VTH1550CHW-2 has 3 groups of 2-wire port. VTH5222CH is shown in Figure 1-5.

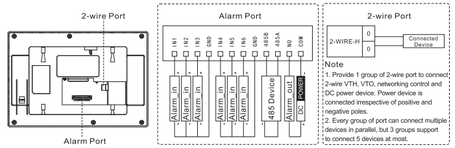

Figure 1-5

1.2.5 VTH1660CH

Its ports are described in Figure 1-6.

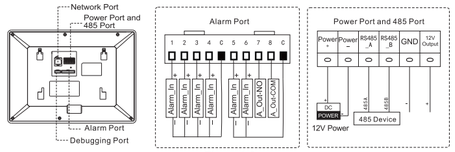

Figure 1-6

1.2.6 VTH2221A

Its ports are described in Figure 1-7.

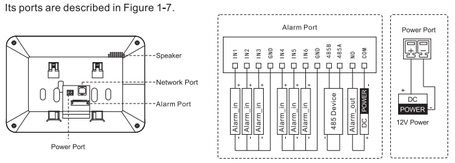

Figure 1-7

2 Installation and Debugging

2.1 Installation

- Don't install VTH in bad environment, such as condensation, high temperature, stained, dusty, chemically corrosive and direct sunshine environment.
- In case of abnormality after power on, please pull out network cable and cut off power supply at once. Power on after troubleshooting.
- Engineering installation and debugging shall be done by professional teams. Please don't dismantle or repair arbitrarily in case of device failure. Please contact after-sales department.
- It is suggested that installation height of device central point shall be 1.4cm~1.6cm above the ground.

2.1.1 Surface Installation

Directly install the device with a bracket onto a wall, which is suitable for all types of devices. Take "VTH1550CH" for example.

Step 1

Drill holes in the wall according to hole positions of the bracket.

Step 2

Fix installation bracket directly onto the wall with screws.

Step 3

Put the device into installation bracket from top down.

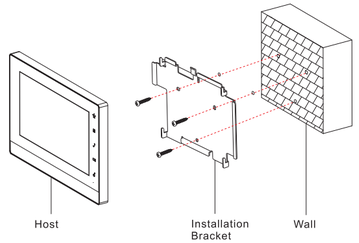

Figure 2-1

2.1.2 Installation with 86 Box

Install the device with 86 box, which is suitable for all types of devices. Take "VTH1560B/BW" for example.

Step 1

Embed 86 box into a wall at a proper height.

Step 2

Fix installation bracket onto 86 box with screws.

Step 3

Put the device into installation bracket from top down.

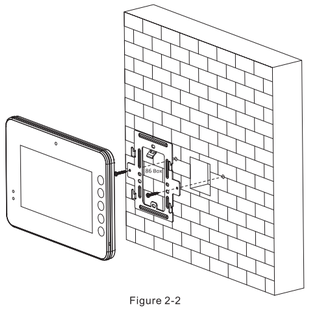

Figure 2-2

2.1.3 Desktop Installation with Bracket

Install the device with bracket on the desktop, which only applies to handset VTH. Take "VTH5221E-H" for example.

Step 1

With two M3×6 cross recessed countersunk head screws, tighten the metal bracket onto the top two nuts of desktop bracket.

Step 2

Please connect wire by reference to Figure 1-2.

Step 3

After wiring, guide the wire through wire outlet in the rear or at the bottom of desktop bracket.

Step 4

Put the handset VTH along slot at the top of metal bracket, and install it into the bracket.

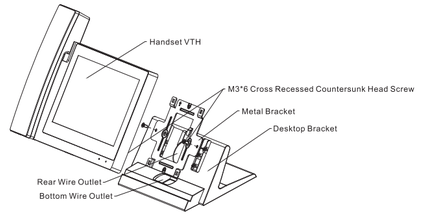

Figure 2-3

2.2 Debugging

Carry out debugging to ensure that the device can realize basic network access, call and monitoring functions after installation. Before debugging, please check whether the following work has been completed.

- Check whether there is short circuit or open circuit. Power on the device only after the circuit is confirmed to be normal.
- IP and no. of every VTO and VTH have been planned.
- Ensure deployment position of SIP server.
- Please scan QR code on the cover for details.

Set VTO info and VTH info at WEB interface of every VTO, set VTH info, network info and VTO info on every VTH, and thus realize video intercom function.

2.2.1 VTO Settings

For the first time, please initialize and modify login password.

Please ensure that default IP addresses of PC and VTO are in the same network segment. Default IP address of VTO is 192.168.1.110.

Step 1

Power on the device, and enter default IP address of VTO at the address bar of PC browser. The system displays "Device Init" interface, as shown in Figure 2-4.

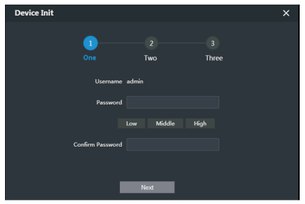

Figure 2-4

Step 2

According to interface prompt, enter "Password" and "Confirm Password", and click "Next". Select "Email" and enter your Email address. This Email address is used to reset the password, so it is recommended that it should be set.

Step 3

Enter default address in the browser to login WEB interface.

Default username is admin. Password is the new one set during initialization.

Step 4

Select "Network Setting > Basic".

The system displays "TCP/IP" interface, as shown in Figure 2-5.

Figure 2-5

Step 5

Enter the planned "IP Address", "Subnet Mask" and "Gateway", and click "OK".

After modification is completed, VTO reboots automatically, while the following two cases occur at WEB interface.

- If PC is in the planned network segment, WEB interface jumps to new IP login interface automatically.
- If PC is not in the planned network segment, login will be failed. Please add PC to the planned network segment and login WEB interface again.

Step 6

Login WEB interface again; select “Local Setting > Basic”.

The system displays “Device Properties” interface, as shown in Figure 2-6.

Figure 2-6

1) Select system type as “TCP/IP”.

2) Click “OK” to save the settings.

Reboot the device manually, or wait for auto reboot and put the settings into effect.

Step 7

Login WEB interface again; select “Network Setting > SIP Server”.

The system displays “SIP Server” interface, as shown in Figure 2-7.

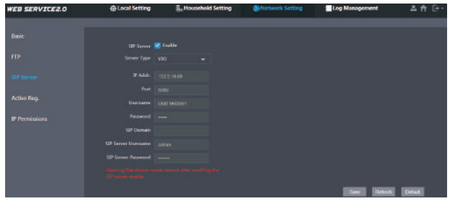

Figure 2-7

1) Select server type.

◇ When this VTO or another VTO works as SIP server, select “Server Type” to be “VTO”. It applies to a scenario where there is only one unit.

◇ When the platform (Express/DSS) works as SIP server, select “Server Type” to be “Express /DSS”. It applies to a scenario where there are multiple buildings or multiple units.

2) Set VTO number and click “OK” to save config.

- When the platform works as SIP server, if it is necessary to set “Building No.” and “Building Unit No.”, please enable “Support Building” and “Support Unit” and set them.
- After VTO is set to be SIP server and configured, group call function will appear at the interface. To realize group call, please select “Enable” after the group call.

Step 8

Select “Network Setting > SIP Server”.

The system displays “SIP Server” interface, as shown in Figure 2–8.

Figure 2-8

- **This VTO works as SIP server.**
  Select “SIP Server Enable”, and click “OK” to save config. The VTO reboots automatically.
- **Another VTO or platform works as SIP server.**
  Set parameters by reference to Table 2-1 and click “OK”. The VTO reboots automatically.

Parameter	Description
IP Address	IP address of SIP server.
Port	● It is 5060 by default when another VTO works as SIP server. ● It is 5080 by default when the platform works as SIP server.
Username/Password	Use default value.
SIP Domain	● It shall be VDP when another VTO works as SIP server. ● It can be null or keep default value when the platform works as SIP server.
Login Username/ Password	Username and password to login SIP server.

Table 2-1

- VTO settings have been completed if the platform or another VTO works as SIP server.
- If this VTO works as SIP server, “Device Manager” appears in the left parameter tab. Please add VTO and VTH by reference to “Step 9” and “Step 10”.

Step 9

(Optional) Login WEB interface again; select “Household Setting > VTO No. Management”.

The system displays “VTO No. Management” interface, as shown in Figure 2–9.

Figure 2-9

Click “Add”, set outdoor station parameters by reference to Table 2-2 and click “OK”. Repeat this step to add other outdoor stations in the group.

Parameter	Description
VTO No.	VTO number.
Register Password	Signaling interactive use in SIP system. Adopt default value.
Build No.	Number of the building where VTO is located.
Unit No.	Number of the unit where VTO is located.
IP Address	IP address of VTO.
Username/Password	Username and password to login WEB interface of this VTO.

Table 2-2

Step 10

(Optional) Select “Household Setting > Room No. Management”.

The system displays “Room No. Management” interface, as shown in Figure 2-10.

When there are master VTH and extension, both shall be added.

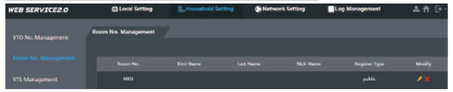

Figure 2-10

Click “Modify”, set VTH parameters by reference to Table 2-3 and click “OK”. Repeat these steps to add other VTH in the group.

Parameter	Description
Family Name	Set VTH username and nickname, in order to distinguish.
First Name	
Nick Name	
Room No.	Set VTH room number. ● VTH room number consists of 1 ~ 6 numbers, which may include number and “#”. It shall be consistent with room number configured at VTH. ● When there are master VTH and extensions, to realize group call function, master VTH short no. shall end with “#0”, whereas extension VTH short no. shall end with #1, #2 and #3. For example, if master VTH is 101#0, extensions will be 101#1, 101#2...
Register Type	Signaling interactive use in SIP system. Adopt default value.
Register Password	

Table 2-3

2.2.2 VTH Settings

2.2.2.1 Initialization

For the first time, please initialize the password and bind Email. Password is used to enter project setting interface, while Email is used to retrieve your password when you forget it.

Step 1

Power on the device.

The system displays “Welcome” and enters “Initialization” interface, as shown in Figure 2-11.

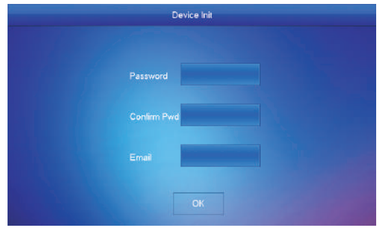

Figure 2-11

Step 2

Enter “Password”, “Confirm Pwd” and “Email”. Press [OK].

Step 3

Press [Setting] for more than 6 seconds, enter the password set during initialization, and click [OK].

Step 4

Click [Network].

The system displays “Network” interface, as shown in Figure 2-12 or Figure 2-13.

IP addresses of VTH and VTO shall be in the same network segment. Otherwise, VTH will fail to obtain VTO info after configuration.

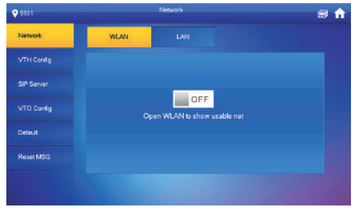

Figure 2-12

Figure 2-13

- **LAN**
  Enter “Local IP”, “Subnet Mask” and “Gateway”, press [OK]. Or press OFF to enable DHCP function and obtain IP info automatically.

  If the device has WLAN function, please click “WLAN” tab to set it.
- **WLAN**
  1)Press OFF to enable Wi-Fi function.
  The system displays available Wi-Fi list, as shown in Figure 2-14.

Figure 2-14

2) Connect Wi-Fi.

The system has 2 access ways as follows.

◇ At “WLAN” interface, select Wi-Fi, click “Wireless IP” tab to enter “Local IP”, “Subnet Mask” and “Gateway”, and press [OK].

◇ At “WLAN” interface, select Wi-Fi, click “Wireless IP” tab, press OFF to enable DHCP function and obtain IP info automatically.

To obtain IP info with DHCP function, use a router with DHCP function.

Step 5

Press [VTH Config].

The system displays “VTH Config” interface, as shown in Figure 2-15.

Figure 2-15

- Be used as a master VTH.
  Enter “Room No.” (such as 9901 or 101#0) and press “OK” to save.
  - “Room no.” shall be the same with “VTH Short No.”, which is set when adding VTH at WEB interface. Otherwise, it will fail to connect VTO.
  - In case of extension VTH, room no. shall end with #0. Otherwise, it will fail to connect VTO.
- Be used as an extension VTH.

1) Press [Master] and switch to “Extension”.

2) Enter “Room No.” (such as 101#1) and “Master IP” (IP address of master VTH). “Master Name” and “Master Pwd” are the user name and password of master VTH. Default user name is admin, and the password is the one set during device initialization.

3) Press [OK] to save settings.

Step 6

Press [SIP Server].

The system displays “SIP Server” interface, as shown in Figure 2-16.

Figure 2-16

1) Set parameters of SIP server by reference to Table 2-4.

Parameter	Description
Server IP	● When the platform works as SIP server, server IP is IP address of the platform. ● When VTO works as SIP server, server IP is IP address of the VTO.
Network Port	● When the platform works as SIP server, network port is 5080. ● When VTO works as SIP server, network port is 5060.
User Name	Use default value.
Register Pwd	
Domain	Registration domain of SIP server, which can be null. When VTO works as SIP server, registration domain of SIP server shall be VDP.
User Name	User name and password to login SIP server.
Login Pwd	

Table 2-4

2) Set “Enable Status” to be ON.

Enable SIP server function.

3) Press [OK] to save settings.

Step 7

Press [VTO Config].

The system displays “VTO Config” interface, as shown in Figure 2-17.

Figure 2-17

Step 8

Add VTO or fence station.

- Add main VTO.
  1) Enter “Main VTO Name”, “VTO IP Address”, “User Name” and “Password”.
  2) Switch the “Enable Status” to be ON.

  “User Name” and “Password” shall be consistent with WEB login user name and password of VTO. Otherwise, it will fail to connect.
- Add sub VTO or fence station.
  1) Enter “Sub VTO/Fence Station Name”, “Sub VTO/Fence Station IP address”, “User Name” and “Password”.
  2) Switch the “Enable Status” to be ON.

  Press < / > to turn page and add more sub VTO/fence stations.

2.3 Debugging Verification

2.3.1 VTO Calls VTH

Dial VTH room no. (such as 101) at VTO, and thus call VTH. VTH pops up monitoring image and operating keys, as shown in Figure 2-18. It represents successful debugging.

The following figure means that SD card has been inserted into VTH. If SD card is not inserted, recording and snapshot icons are gray.

Figure 2-18

2.3.2 VTH Monitors VTO

VTH is able to monitor VTO, fence station or IPC. Take “VTO” for example.

Select “Monitor > Door”, as shown in Figure 2-19. Select the VTO to enter monitoring image, as shown in Figure 2-20.

The following figure means that SD card has been inserted into VTH. If SD card is not inserted, recording and snapshot icons are gray.

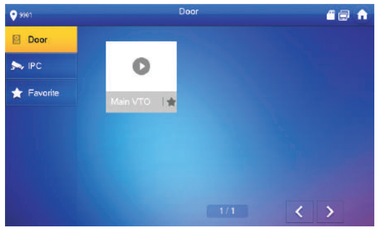

Figure 2-19

Figure 2-20