alhua
TECHNOLOGY

EACH

EASY DEPLOYMENT, INFINITE CONNECTION

Dahua 2-Wire Hybrid Video Intercom System

Extensibility   Accessibility   Convenience   HD Video

INTRODUCTION

The Dahua Video Intercom has been dedicated to the overseas video intercom industry for more than 10 years. At present, our products has covered more than 150 countries around the world, with single-point project delivery experience in 20,000+ households. Each of Dahua's video intercom products is invested in the R&D team's determination of persistent innovation, overcoming technological barriers in order to reinvent the way visitors and residents communicate and to offer each user with reliable security and great convenience.

10+
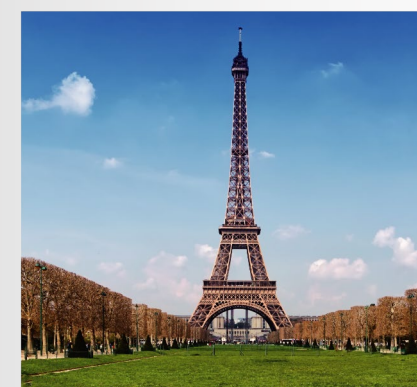Years Overseas
Business Experience

150+
Countries

1,000+
Engineers

20,000+
Households Single-point
Project Delivery Experience

France

Germany

Spain

Italy

United Kingdom

DAHUA 2-WIRE HYBRID VIDEO INTERCOM SYSTEM

Dahua 2-Wire Hybrid Video Intercom System

uphold the Extensibility, Accessibility, Convenience and HD video concepts of EACH series, providing an ideal solution for the upgrade of video intercom systems in villa or apartment scenes. On the basis of reusing existing wiring, it provides users with a high-quality intercom experience, simplifies system installation, management, and maintenance to the maximum extent, supports remote intercom, and makes video intercom easier for residents' lives.

Villa & Apartment

Simplify the upgrading and installation of video intercom systems in old residences:

· Reuse original wiring， reduce labor costs.
· Easy configuration, lower technical threshold.

PLUG & PLAY

During the installation period of the devices, the installer only needs to dial the DIP switch， connect the devices and power them on to realize basic intercom and unlocking functions.

DIP Switches are used to determine the room number, main or extension indoor monitor, and volume (apartment system).

In the apartment system, the call permissions of the device can be centrally managed through the DIP switch on the controller, which facilitates multi-building management and better protects the privacy of residents.
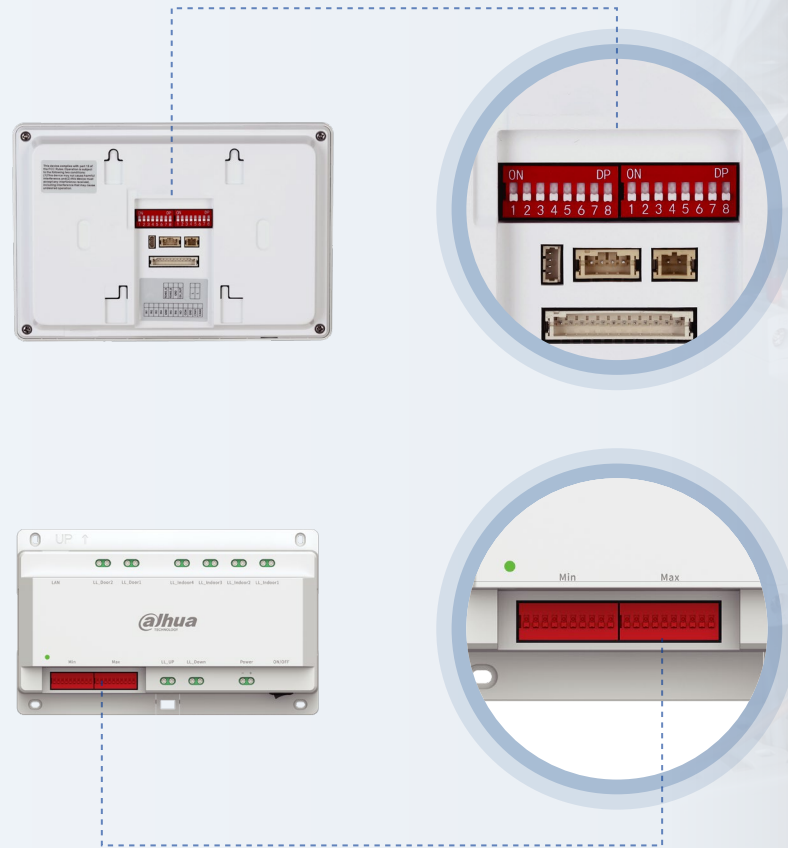
CENTRALIZED MANAGEMENT

In the apartment system, advanced management functions can be realized through the web page of the controller. It supports batch issuance of personnel permissions , issuance of cards and fingerprints through a USB card reader, door station upgrade and other functions, making management simpler.
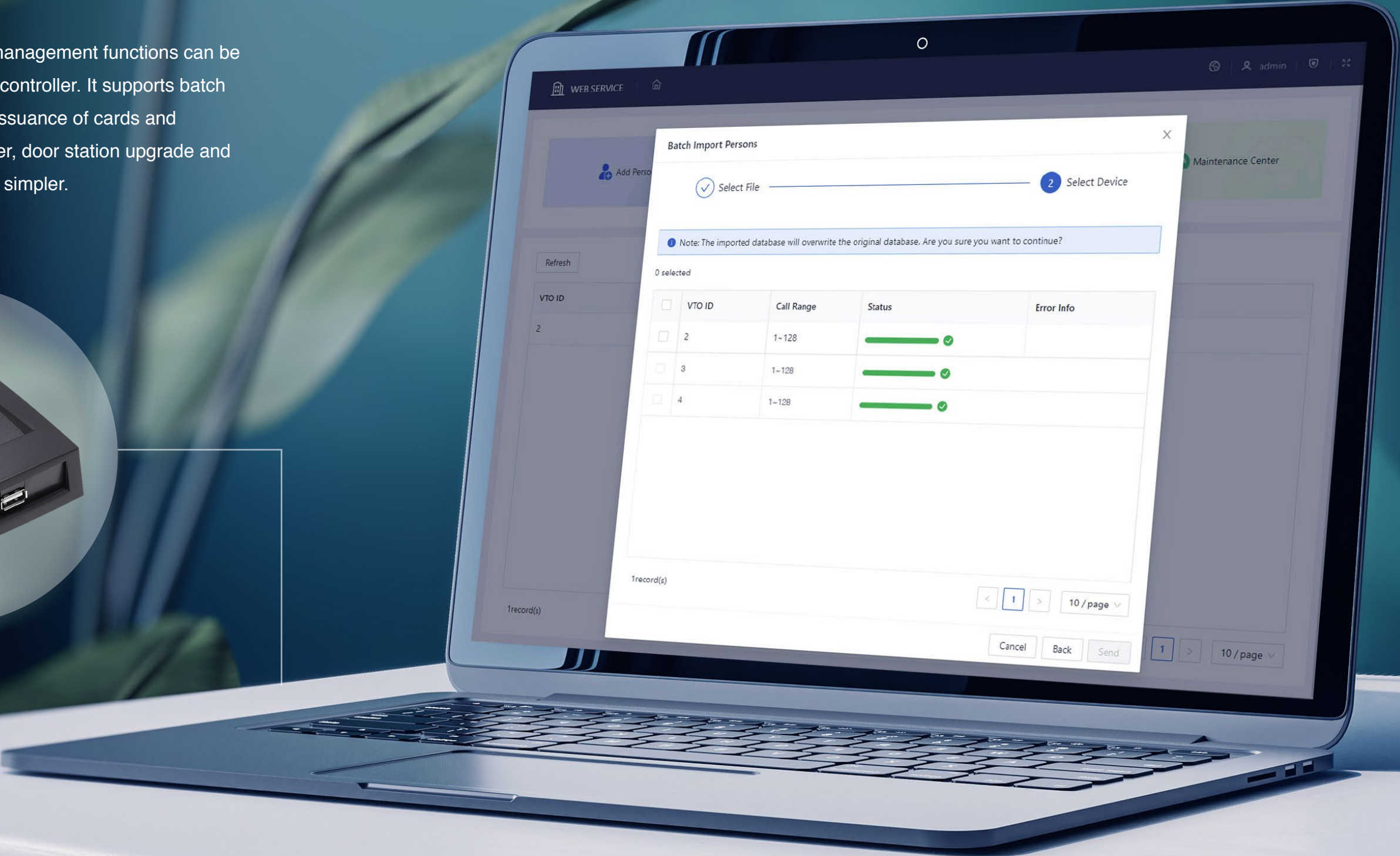
# EXCELLENT INTERCOM EXPERIENCE

Dahua's 2-Wire Hybrid Video Intercom System provides 2MP, wide-angle view, and high-quality video intercom experience. It also supports a group call function. When a visitor calls, all the indoor monitors inside the house will light up at the same time, allowing the resident to answer the call with one click anytime and anywhere.
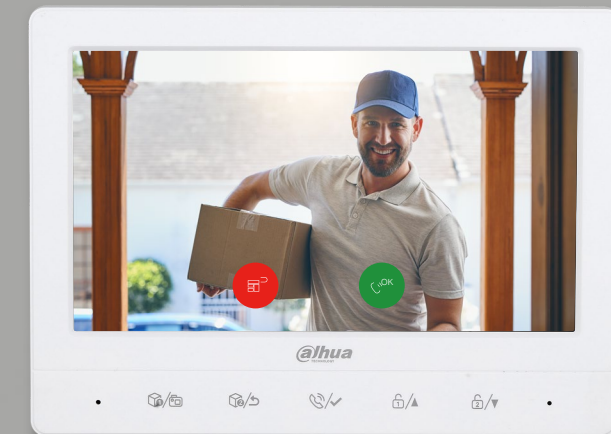
CAMERAS &
ALARM INTEGRATION

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In the Dahua's 2-Wire Hybrid Video Intercom System, all the indoor monitors support access to HDCVI cameras. The models with Wi-Fi function also support wireless IPC and alarm input/output devices integration to realize local management of multiple systems on the indoor monitor.
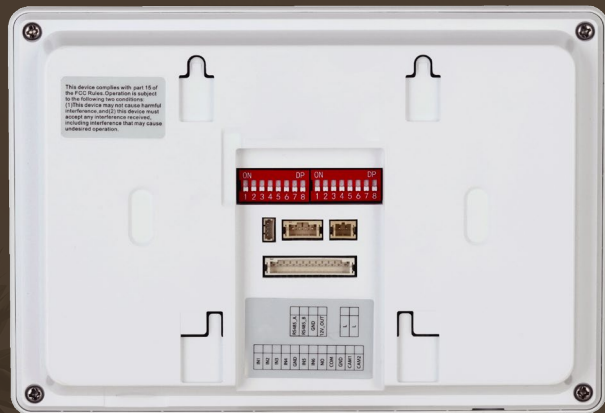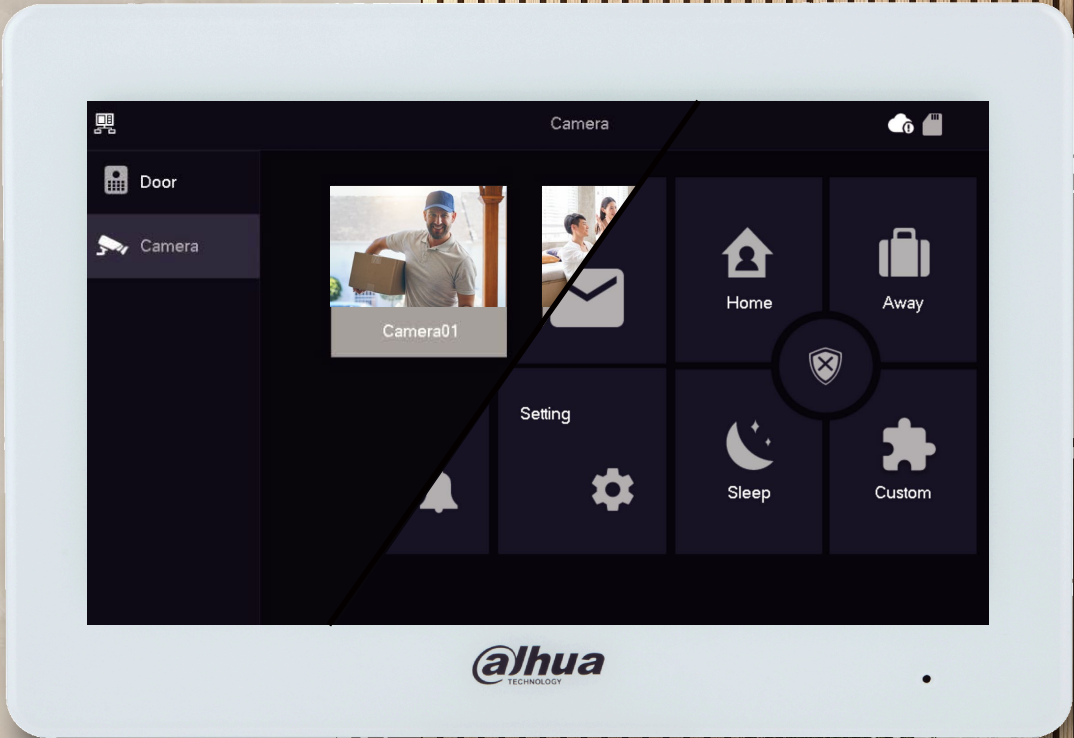

Wireless Cameras   HDCVI Cameras   Alarm Input/Output Devices

REMOTE CONTROL

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The indoor monitor in 2-Wire Hybrid Video Intercom System can be quickly added to the DMSS app through Wi-Fi. After that, residents can remotely answer, unlock, monitor, arm/disarm and use other mobile control functions on the app anytime, anywhere.
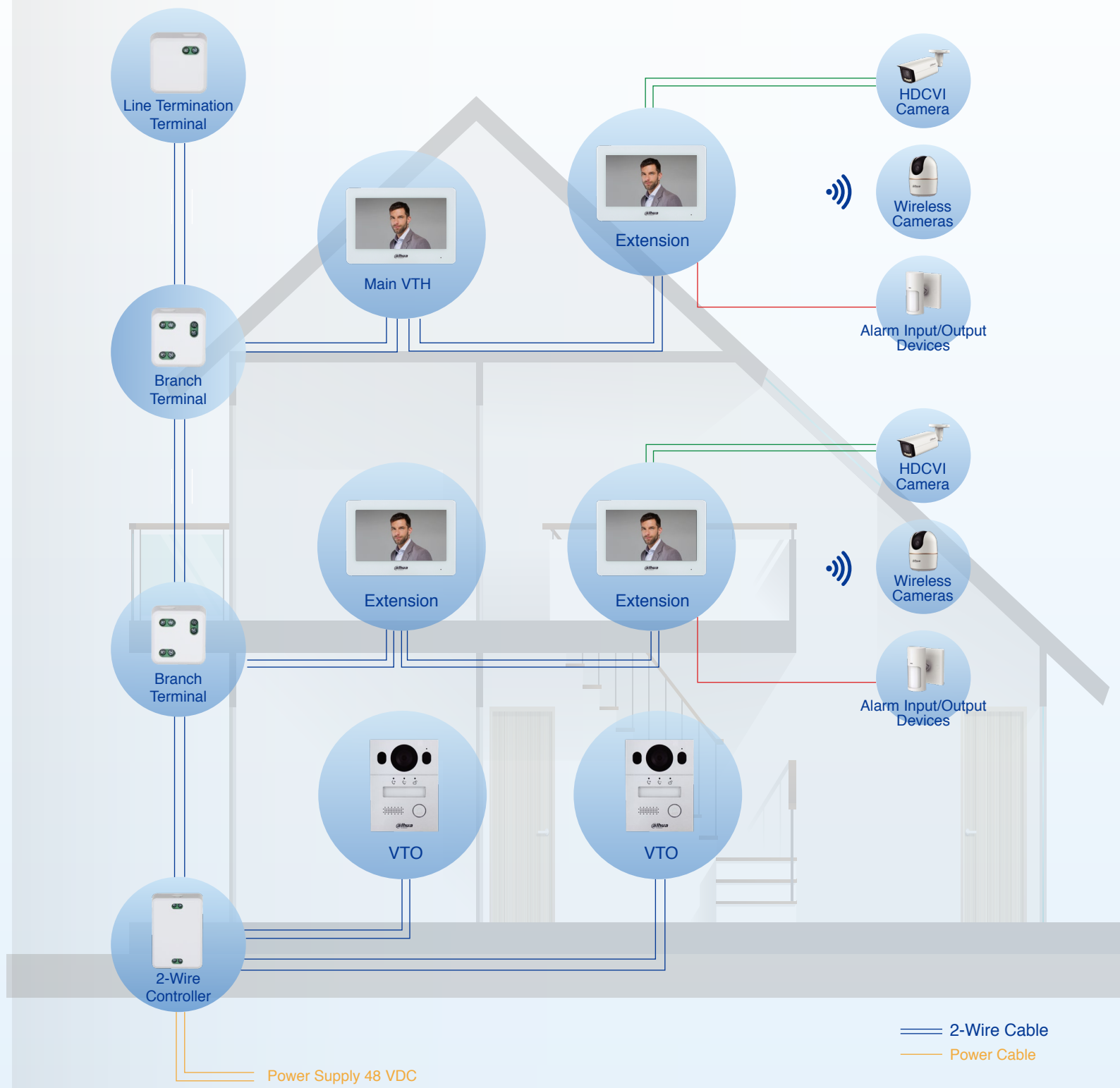
VILLA SYSTEM TOPOLOGIES

• The system is power by 2-wire controller.

• The number of indoor monitors and door stations does not exceed 6 (no specific equipment restrictions).

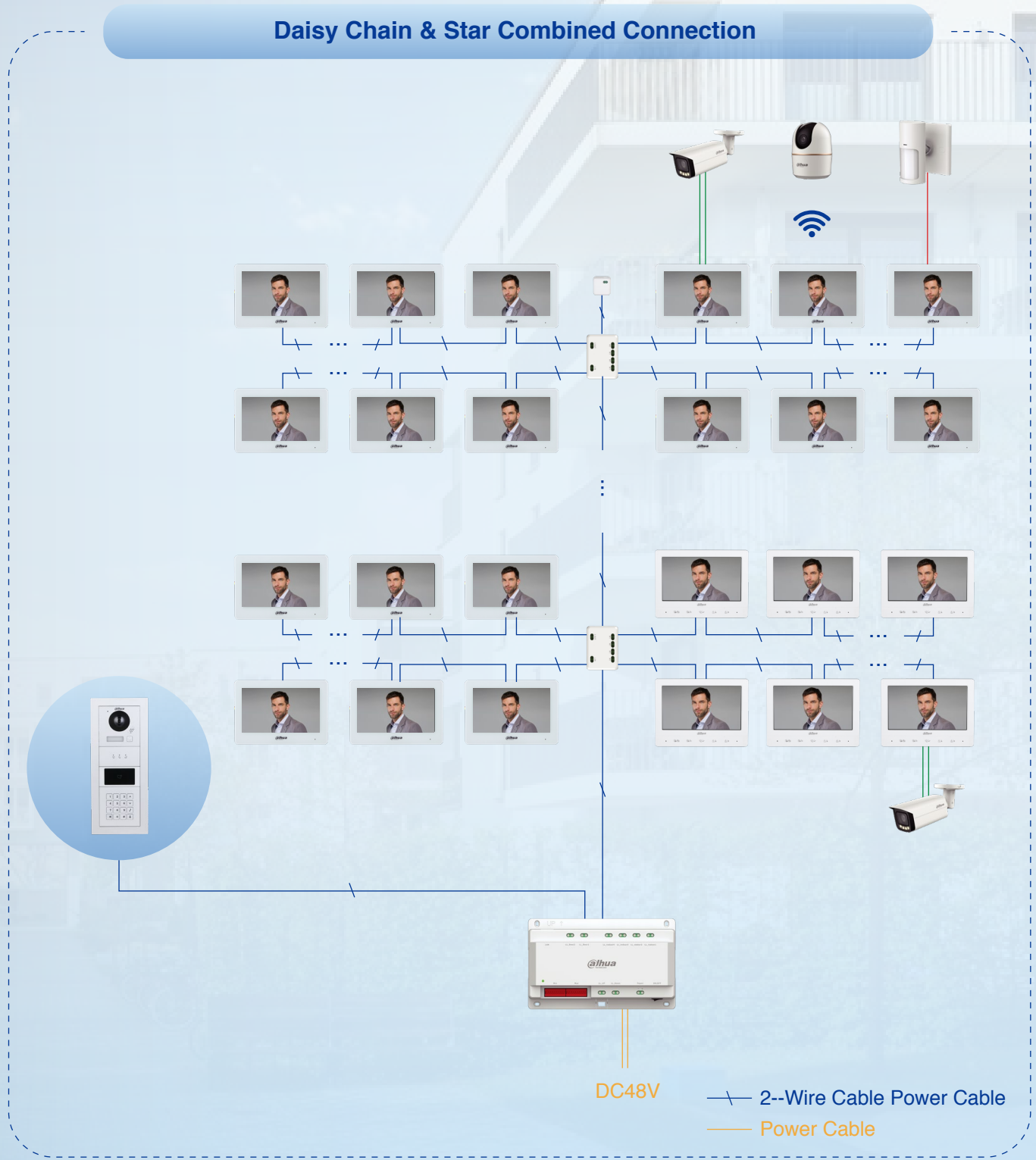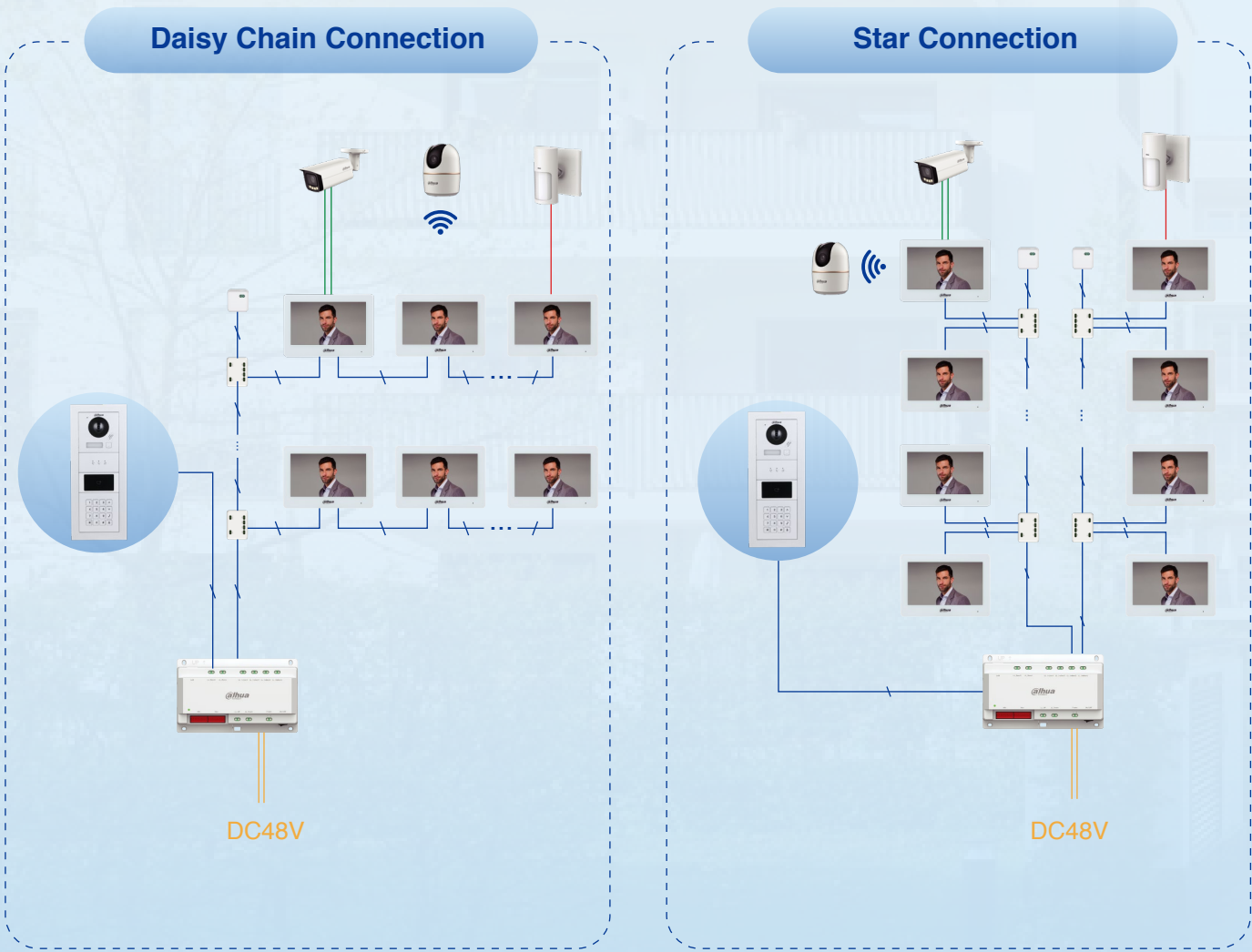## 1 Door Station + 1 Indoor Monitor (Supports No Branch Terminal Connection)

HDCVI Camera

Wireless Cameras

Main VTH

Alarm Input/Output Devices

2-Wire Controller

VTO

Power Supply 48 VDC
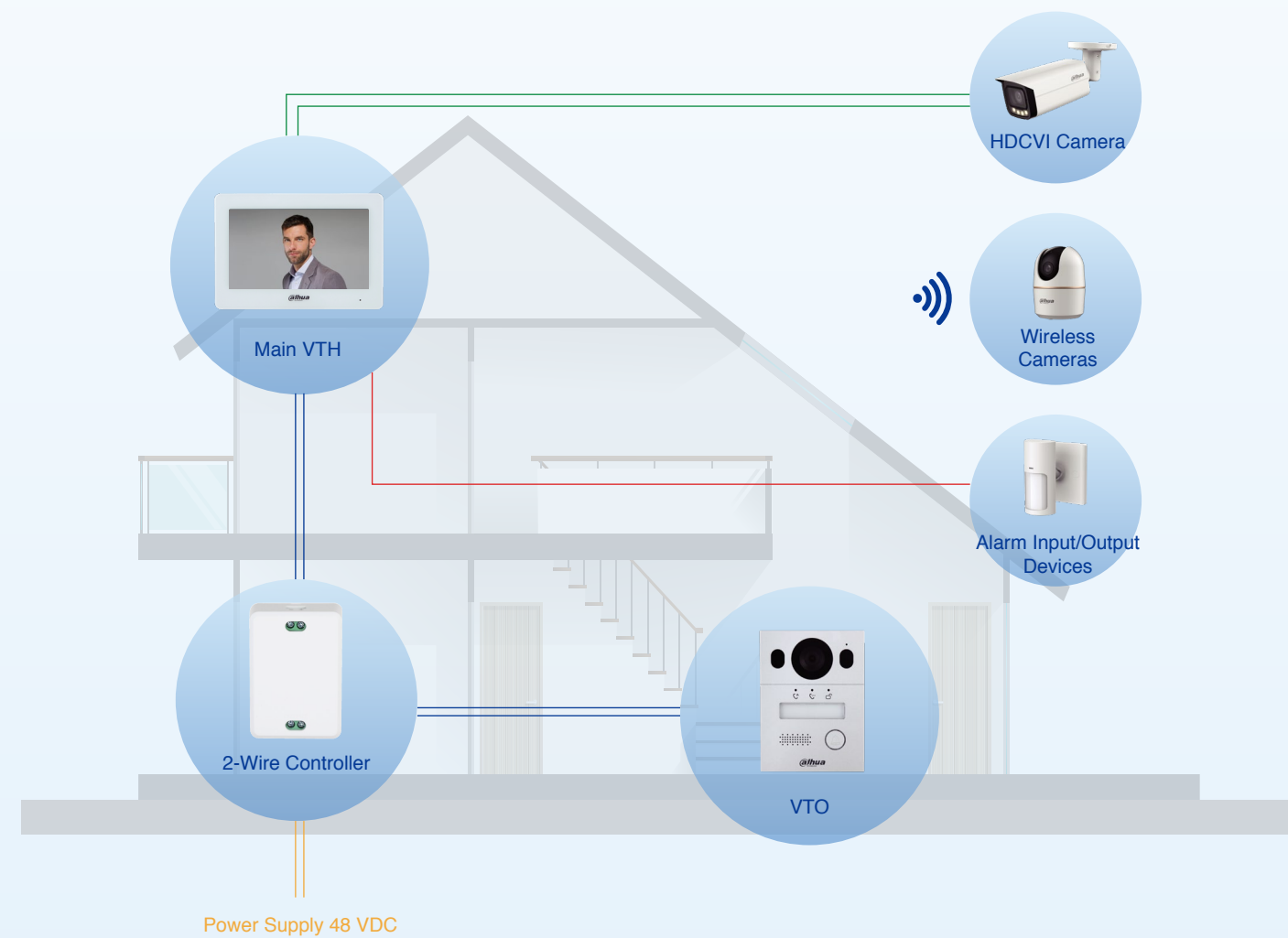
2 Door Stations + 4 Indoor Monitors

Line Termination Terminal

HDCVI Camera

Wireless Cameras

Extension

Main VTH

Alarm Input/Output Devices

Branch Terminal

HDCVI Camera

Wireless Cameras

Extension

Extension

Branch Terminal

Alarm Input/Output Devices

VTO

VTO

2-Wire Controller

Power Supply 48 VDC

2-Wire Cable

Power Cable

APARTMENT SYSTEM TOPOLOGIES

Single Building Scenario

• Max 100 indoor monitors without Wi-Fi or 22 indoor monitors with Wi-Fi for each controller.

• Max 2 door stations for each controller.

• All devices in the system are powered by 1 power supply.

• The branch terminal has 4 ports for indoor monitor connection, each port can connect a maximum of 10 indoor monitors.
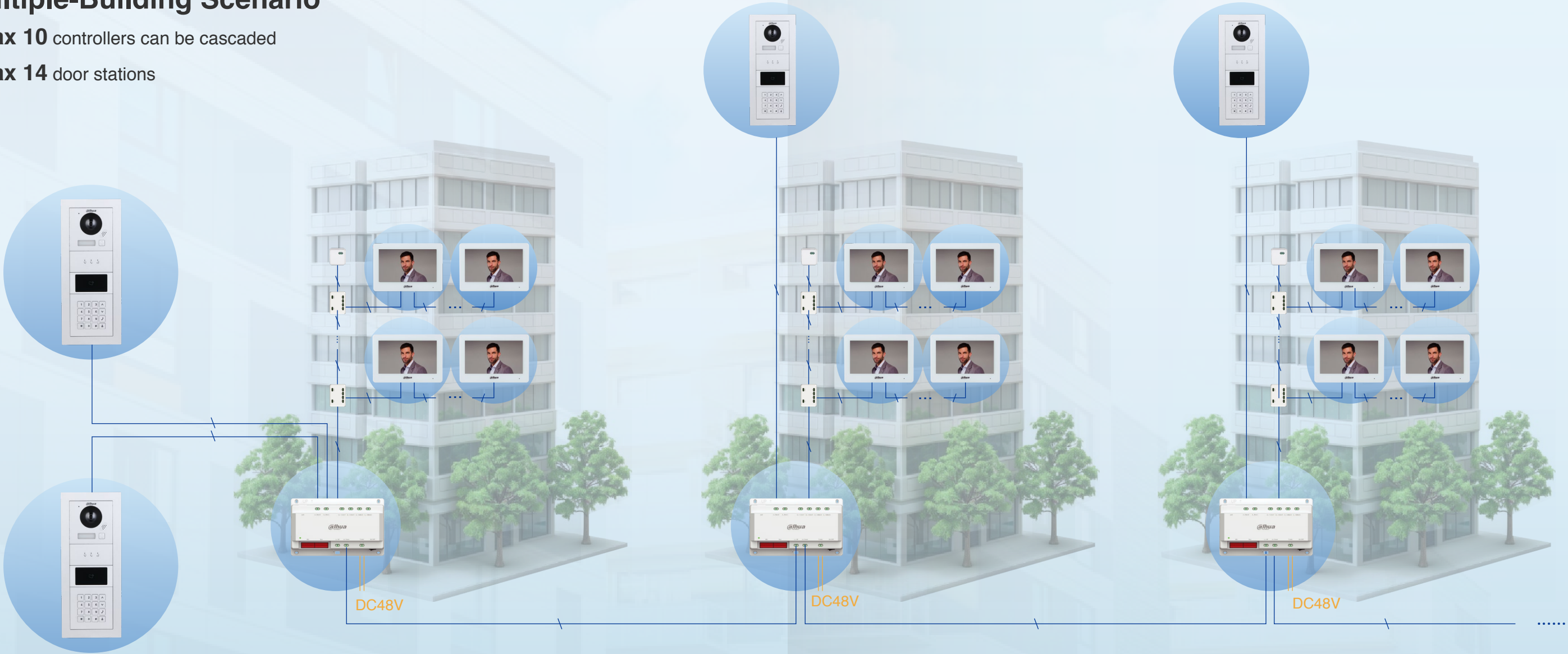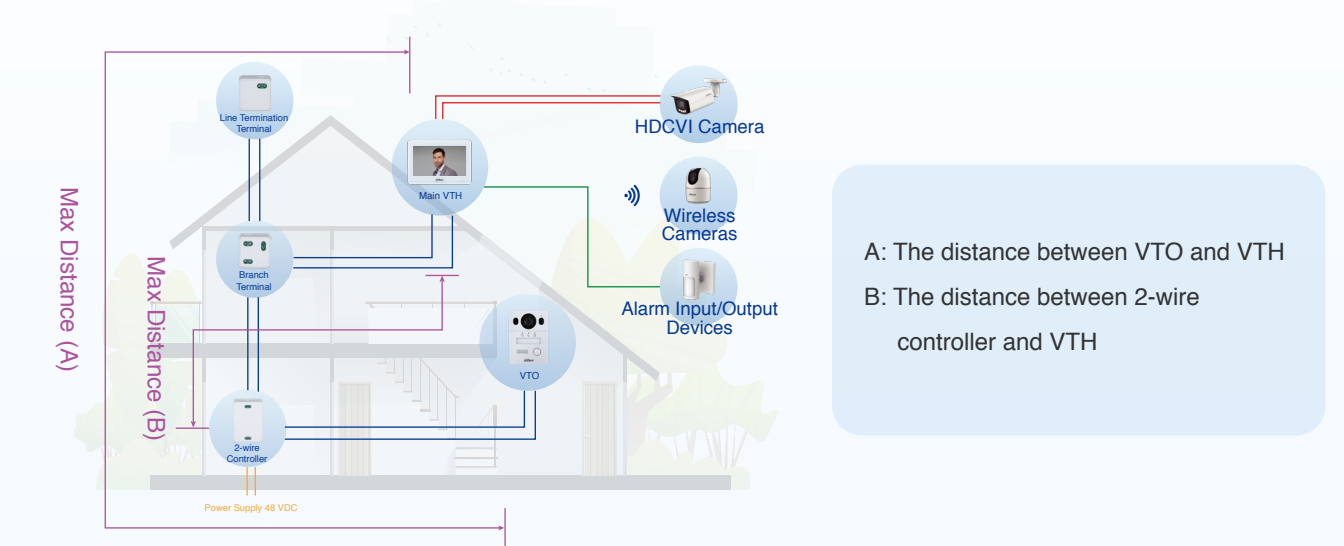
Daisy Chain Connection

Star Connection

Daisy Chain & Star Combined Connection

DC48V

DC48V

DC48V

2--Wire Cable Power Cable

Power Cable

APARTMENT SYSTEM TOPOLOGIES

Multiple-Building Scenario

· **Max 10** controllers can be cascaded

· **Max 14** door stations

DC48V

DC48V

DC48V

WIRING DISTANCE OF VILLA SYSTEMS

A: The distance between VTO and VTH

B: The distance between 2-wire controller and VTH

Cable Type	AWG	Max A	Max B	Max Number of Terminals
RVV (2* 0.5 mm²)	20	180m	100m	6
RVV (2* 1.5 mm²)	15	180m	100m	6
RVVP (2* 0.5 mm²)	20	150m	100m	6
Network Multi Pair	24	200m	100m	6
Network Cat5e Single Pair	24	100m	35m	6
Network Cat5e Single Pair	24	100m	50m	4
Telephone Wire	24	20m	20m	2

WIRING DISTANCE OF APARTMENT SYSTEM

A: The Distance between the 2-wire controller and the VTH

B: The Distance between the cascading 2-wire controllers

C: The Distance between the 2-wire controller and the VTO
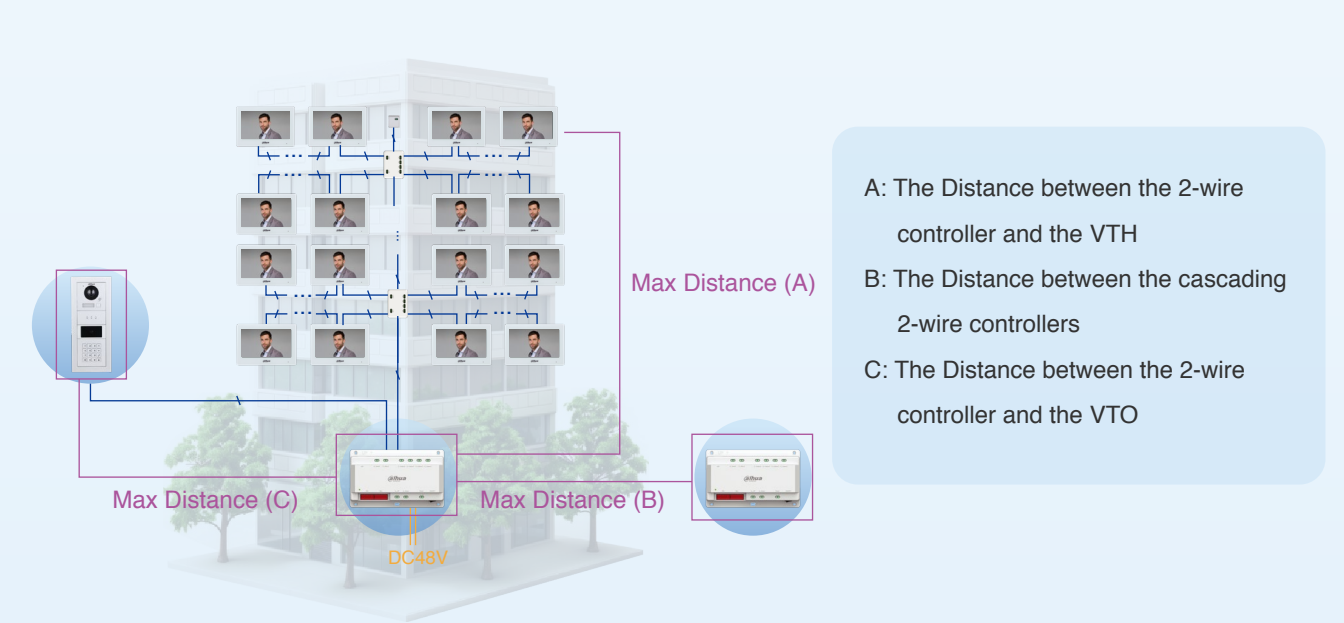
Network Capacity for Indoor Monitor (Each Controller)

Cable Type	Cable Specification	AWG	Device Type	A=0m~25m	A=26m~50m	A=51m~75m	A=76m~100m
Regular Cable	RVV 2 × 1.5 mm²	AWG 15	With Wi-Fi	22	22	22	17
			Without Wi-Fi	100	100	100	100
	RVV 2 × 1 mm²	AWG 17	With Wi-Fi	22	22	18	13
			Without Wi-Fi	100	100	100	100
	RVV 2 × 0.5 mm²	AWG 20	With Wi-Fi	22	17	11	8
			Without Wi-Fi	100	100	91	68
Network Cable	Double-pair Network Cable	AWG 21	With Wi-Fi	22	14	9	7
			Without Wi-Fi	100	100	75	56
	Single-pair Network Cable	AWG 24	With Wi-Fi	14	7	4	3
			Without Wi-Fi	100	56	37	28

Network Capacity for Cascading Controller

Cable Type	Cable Specification	AWG	B=0m~100 m
Regular Cable	RVV 2 × 1.5 mm²	AWG 15	8
	RVV 2 × 1 mm²	AWG 17	10
	RVV 2 × 0.5 mm²	AWG 20	10
Network Cable	Double-pair network cable	AWG 21	10
	Single-pair network cable	AWG 24	10

Network Capacity for Door Station (Each Controller)

Cable Type	Cable Specification	AWG	C=0m~25m	C=26m~50m	C=51m~75m	C=76m~100m
Regular Cable	RVV 2 × 1.5 mm²	AWG 15	2	2	2	2
	RVV 2 × 1 mm²	AWG 17	2	2	2	2
	RVV 2 × 0.5 mm²	AWG 20	2	2	2	2
Network Cable	Double-pair Network Cable	AWG 21	2	2	2	2
	Single-pair Network Cable	AWG 24	2	2	1	1

PRODUCTS OVERVIEW

· Door Station

Apartment

DHI-VTO4103F(B)
Main Model

DHI-VTO4103F(B)-1
Main Model

VTO4103F(B)-MK
Keyboard Module

VTO4103F(B)-MR(1)
Card Swiping Module (IC/ID)

VTO4103F(B)-ML
Indicator Module

VTO4103F(B)-MB5
Five-button Module

VTO4103F(B)-MB2
Two-button Module

VTO4103F(B)-MB1
One-button Module

VTO4103F(B)-MF
Fingerprint Module

VTO4103F(B)-MI
Info Module

VTO4103F(B)-MN
Blank Module

· CMOS low illumination 2MP HD colorful 160° fisheye camera.

· Modules enables great expandability.

· Supports surface and flush mount.

· IK07 and IP65 rated.

VTM127 VTM128 VTM56R6 VTM125 VTM24P3 VTM26R2 VTM27R3 VTM30R2

More than 20 types of brackets are available, suitable for different installation environments and module combinations.

Villa

VTO2023S
· 2 MP CMOS HDR Camera
· Issue cards and passwords
· IP65, IK08
· Keypad with Braille
· Supports leaving messages

VTO2003F
· 2 MP CMOS HDR Camera
· One-button call
· Supports leaving messages
· IP65, IK07

· Indoor Monitor

Wi-Fi Models

VTH2123GW (B)-W-S2
7" Indoor Monitor

VTH5123H-W-S2
7" Indoor Monitor
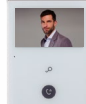
VTH5113H-W-S2
4.3" Indoor Monitor
Coming Soon

· User-friendly physical buttons for the elderly and children
· Integration of HDCVI cameras and alarm devices
· Wi-Fi connection and app management
· Complimentary branch terminal

Models Without Wi-Fi
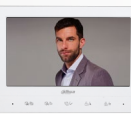
VTH1023J
7" Indoor Monitor
Coming Soon

VTH1013J
4.3" Indoor Monitor
Coming Soon

· High-definition user interface
· Cost-effective
· Group call function is supported
· Integration of HDCVI cameras

· KIT

KTX03

KTX02
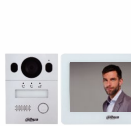
KTX01

· All-in-one design
· Plug & Play
· Digital experience
· App management

· Accessories

VTNC2113C

Controller for 2-Wire Hybrid Apartment System
· Wep page for system management and configuration
· Supports cascading 10 devices
· Supports guide rail mount
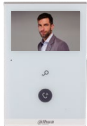
VTNC1003C
Controller for 2-Wire Hybrid Villa System

VTNA1043A
Branch Terminal

PRODUCTS SPECIFICATIONS

Models	Indoor Monitor with Wi-Fi			Indoor Monitor without Wi-Fi	
	VTH5123H-W-S2	VTH5113H-W-S2	VTH2123GW(B)-W-S2	VTH1023J	VTH1013J
Image		Coming Soon		Coming Soon	Coming Soon
Color	White	White	White, Black	White	White
Screen	7" TFT Capacitive Touchscreen	4.3" TFT Capacitive Touchscreen	7" TFT Capacitive Touchscreen	7.0" TFT Non Touchscreen	4.3" TFT Non Touchscreen
Wi-Fi	Supported	Supported	Supported	/	/
Resolution	1024× 600	480 × 272	1024× 600	1024× 600	480 × 272
Alarm Input	6	4	6	/	/
Alarm Output	1	1	1	/	/
RS485	1	1	1	/	/
Number of Extensions	Villa: 4 Apartment: 2	Villa: 4 Apartment: 2	Villa: 4 Apartment: 2	Villa: 4 Apartment: 2	Villa: 4 Apartment: 2
Material	PC + ABS	PC + ABS	PC + ABS	PC + ABS	ABS

Models	Apartment Door Station		Villa Door Station	
	VTO4103F(B)	VTO4103F(B)-1	VTO2023S	VTO2003F
Image				
Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Camera	1/2.5" 2 MP CMOS low illumination HD color fisheye camera	1/2.5" 2 MP CMOS low illumination HD color fisheye camera	1/2.8" 2 MP CMOS HDR Camera	1/2.8" 2 MP CMOS HDR Camera
WDR	Supported	Supported	Supported	Supported
Lock	2	2	2	2
Protection	IP65, IK07	IP65, IK07	IP65, IK08	IP65, IK07
Product Dimensions	100 mm × 100 mm × 47.35 mm	100 mm × 100 mm × 47.35 mm	205.8 mm × 85.3 mm × 46.5 mm	130 mm × 96 mm × 28.5 mm
Operating Temperature	−40 °C to +60 °C (−40 °F to +140°F)	−40 °C to +60 °C (−40 °F to +140°F)	−40 °C to +60 °C (−40 °F to +140°F)	−40 °C to +60 °C (−40 °F to +140°F)
Operating Humidity	10%–90%	10%–90%	10%–90%	10%–90%

Models	Controller for Apartment	Controller for Villa	Branch Terminal
	VTNC2113C	VTNC1003C	VTNA1043A
Image			
2-Wire Interface	8 (2 for cascading, 6 for door station and indoor station)	1	6 (2 for cascading, 4 for indoor station)
Cascade Restriction	10	/	/
Dimensions	117 mm × 191 mm × 38 mm	65.2 mm × 46.2 mm × 23.2 mm	46.3 mm × 65.3 mm × 23.1 mm

ENABLING A SMARTER SOCIETY AND BETTER LIVING

Ver. 1, Sept. 2024

DAHUA TECHNOLOGY

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