Describes the latest firmware specifications.

■PRODUCT DRAWING

- Microphone
- Camera
- LED for night illumination
- Door release indicator (green)
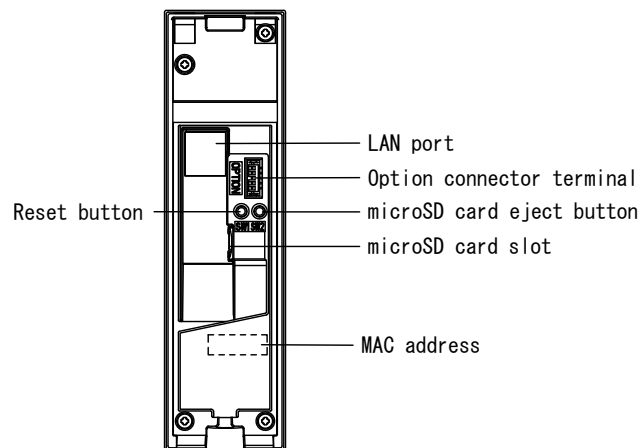- Communication indicator (orange)
- Call indicator (green)
- Speaker
- Contactless call sensor
- Sensor OFF indicator (red)
- Call button
- Status indicator (orange/blue)
  Bell and surrounding ring illuminated by ambient light.
- Moisture drainage hole

175(6-7/8″)

48(1-7/8″)

Unit

Mounting frame

3(1/8″)   34(1-5/16″)

●MOUNTING

Unit center

153(6-1/32″)

30(1-3/16″)

Unit center

GL=1,500(4′11)
(Max. 1,850(6′2″))

ø30(1-3/16″)

28(1-7/64″)

<Back view>
Behind the Mounting frame

- LAN port
- Option connector terminal
- microSD card eject button
- microSD card slot
- MAC address

Reset button

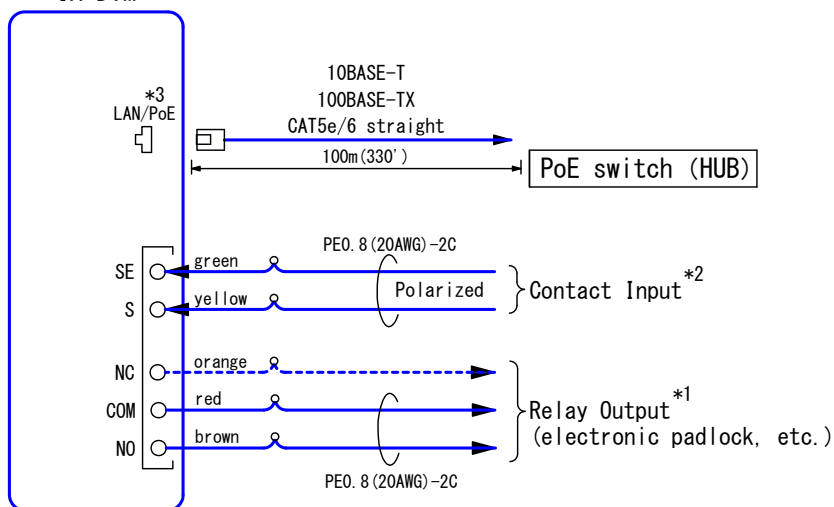| DESCRIPTION VIDEO DOOR STATION	FIG. NAME PRODUCT DRAWING		UNIT mm	DATE 19 August, 2021
MODEL NO. IX-DVM	FIG. NO. I25783-1-7	PAGE 1/7	REVISION 1	**AIPHONE**

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■SPECIFICATIONS

Power source	Power-over-Ethernet(IEEE 802.3af/at Class 0)
Current consumption	Power-over-Ethernet 　Standby: 40mA/Standby with 24/7 recording: 66mA 　Max: 95mA
Type of communication	Hands-free: automatic voice switching
Camera	1/3.8-type color CMOS, 1280 x 720(Approx. 0.9 million pixels), Wide dinamic range
Minimum illumination	5 lux
LAN	Ethernet(10BASE-T, 100BASE-TX)　Auto MDI/MDI-X-compatible
Audio codec	G.711(μ-law, A-law), G.722
Video codec	H.264/AVC, Motion JPEG
Protocol	IPv4, IPv6, TCP, UDP, SIP, HTTP, HTTPS, RTSP, RTP, RTCP, IGMP, MLD, SMTP, SFTP, DHCP, NTP, DNS
Encryption method	TLS1.2
Packet delivery	Unicast, Multicast
Number of called stations	20 stations
Operating ambient temperature	−40 − +60℃ (−40 − +140° F)
Mounting	Wall-mounted
Material	Unit: die-cast aluminum Mounting frame: Fire retardant ABS resin
Unit color	Unit: Silver　Mounting frame: Black
Weight	IX-DVM: Approx. 350g (0.78 lbs)
IP rating	IP54
IK rating	IK07
Remarks	ONVIF Profile S support This product incorporates a Class 1 laser. Laser emissions conform with IEC 60825-1:2014. **CLASS 1 LASER PRODUCT** Laser output must not be amplified by any means whatsoever; never use an optical element for the purpose of convergence of the laser beam. Do not disassemble or modify the station. 【Information of employed laser diode】 Wavelength: 940 nm (Typ.) (Invisible laser radiation) Beam divergence: 16° (FWHM) Pulse time: 2 x 10^{-9} sec Cycle: 20 x 10^{-9} sec Energy output: 1.8057 x 10^{-2} mW

■WIRING DIAGRAM

Video door station
IX-DVM

*3
LAN/PoE

10BASE-T
100BASE-TX
CAT5e/6 straight
100m(330')

PoE switch (HUB)

SE — green — PE0.8(20AWG)-2C
S — yellow — Polarized } Contact Input *2

NC — orange
COM — red } Relay Output *1
NO — brown (electronic padlock, etc.)

PE0.8(20AWG)-2C

*1. Relay Output Specifications

| Output method	Form C dry contact(N/O or N/C)
Voltage between terminals	24V AC, 1A(resistive load) 24V DC, 1A(resistive load) Minimum overload(AC/DC): 100mV, 0.1mA

*2. Contact Input Specifications

| Input method	Programmable dry contact(N/O or N/C)
	Level detection method
Detection time	100msec – 600sec by setting
Contact resistance	Make: 700Ω or less Break: 3kΩ or more
Terminal short-circuit current	20mA or less
Voltage between terminals	5.5V DC or less(between open terminals) If the device sending out alarms to contact points has polarity, connect with the polarity of S (+) and SE (−).

*3. IEEE802.3af

| DESCRIPTION VIDEO DOOR STATION	FIG. NAME WIRING DIAGRAM		UNIT mm	DATE 19 August, 2021
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■RESTRICTIONS

- A PoE-compatible switch must be used as the switch (hub) for station connection.
- Video door station's ONVIF video system can only be accessed by one 3rd party product at a time. Multiple simultaneous connections not possible.
- A computer is required to make system settings.
  IX system can be configured in one of the two methods, "IX Support Tool" application or Web browser. Once the system has been configured through a browser, the settings cannot be transferred to IX Support Tool. The IX Support Tool is recommended for system settings management.
- Do not cover the moisture escape holes with caulking seals.
- While updating the System settings, stations unavailable.
- Avoid installing This station in the following locations;

SKY NO
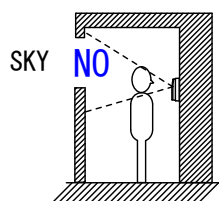
At the entrance where background is sky in upper floors of Condominiums, etc.

WHITE WALL

NO
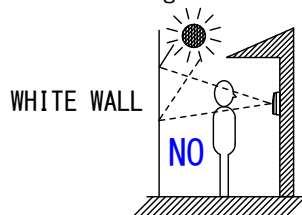
The background of the standing caller's is white wall.

NO
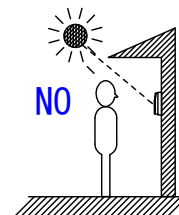
Where the standing location is strongly sunlit.

- In order to audio or video record, the following microSD memory card (market goods) compliant with SD standard is necessary.

Standard	Capacity	File System	Speed Classes
SDHC	4GB up to 32GB	FAT32	C10

- Select a microSD memory card that suits the usage environment such as temperature.
- Equipment might become hot depending on settings and usage environment, but this does not indicate a malfunction.
- Accumulation of rainwater, frost, snow, dust, or the like on the contactless call sensor, or other usage-environment conditions, might result in failed or faulty calls.
- Due to the future required changes to network communication functionality etc. may not be possible to respond by updating the firmware of the station and it may not operate properly.

DESCRIPTION	FIG. NAME		UNIT	DATE
VIDEO DOOR STATION	RESTRICTIONS		mm	19 August, 2021
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■RESTRICTIONS ABOUT THE NETWORK

- When connecting via the Internet (global IP networks), VPN Service is necessary.
- We do not recommend using a wireless communication such as wireless LAN as it may not operate correctly due to security issues or communication speed delays.
- For IPv4 Address with DHCP, due to the architecture of the IX system, DHCP configuration is only recommended for network environments utilizing managed (static) IP address leasing.
- For stateless IPv6 Address, do not change the prefix of the device so that it cannot transmit Router Advertisement (RA).
- For IPv6 Address with DHCP, due to the architecture of the IX system, DHCP configuration is only recommended for network environments utilizing managed (static) IP address leasing.
  The DUID of the device: 00030001 + MAC address
- Depending on the network environment and computer, prior arrangements and setup operations involving the network administrator might be necessary.
- Depending on the network environment, operation delay might occur.
- Depending on the network environment or other factors, audio or video dropout, delays, lower frame rates, or other loss of correct operation might occur.
- The protocols used by this system must be supported.
- The network bandwidth required by each device when communicating are as follows.
    G.711・G.722 : 64kbps x 2(in communication), 64kbps x stations(on page)
    H.264 : 32kbps − up to 2048kbps(When communicating with 3rd party product supporting ONVIF, 32kbps to 8192kbps)
- IPv4 and IPv6 cannot be mixed in the same system.
- When using multicasting for video, or audio, use in an environment that does not reject IGMPv3 or MLDv2.

■FUNCTIONS

- Calling
  Contactless Call: A call can also be placed by holding a hand over the contactless call sensor.
  Group Call: Make an outgoing call to all stations that belong to the selected group.
  Contact input call: Make an outgoing call to all stations that belong to the selected Contact input call group.
- Answer function
  Answering a call: When incoming a call or page, answering with Call button and Contactless call sensor. (Requires setup.)
- Audio or video recording function
  Audio or video recording: Record audio and video to a microSD card at the start of or during a call.
  Audio or video playback: Play an audio or video recording saved to a microSD card on a computer.
- Paging
  Incoming a page.
- Option Input
  The following functions can be assigned to each inputs.
  Calling: Group Call
  Answer operation: Answer a call and page by option input.
  Relay Latch Reset: Reset the "Latch Output" in operation.
  API: Send API command by option input.
- Relay Output
  The following functions can be assigned to each of the two relay outputs.
  Status output: Make a relay output in status of Outgoing a call/Communication.
  Door Release: Trigger a relay output when receiving an unlocking instruction.
  Option Relay Control: Trigger a relay output when receiving making an relay output instruction from another station.

DESCRIPTION	FIG. NAME		UNIT	DATE	
VIDEO DOOR STATION	RESTRICTIONS/FUNCTIONS		mm	19 August, 2021	
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● Others

　IP-PBX integration: IX System can integrate with IP-PBX.
　　　　　　　　　　　Make, receive, transfer calls, answer visitors, and release doors.
　　　　　　　　　　　＊ Some countries have local restrictions on connecting to a PBX.
　　　　　　　　　　　　Please refer to our website to check the countries where PBX connection
　　　　　　　　　　　　is allowed.
　　　　　　　　　　　　https://www.aiphone.net/support/software-documents/ix/documents.html
　Send emails: Emails can be sent to pre-registered email addresses when triggering events
　　　　　　　　occur.
　Transmitting video through ONVIF: View Video from Door Station camera with a 3rd party
　　　　　　　　　　　　　　　　　　product supporting the ONVIF specification.
　Chime: Play message data following a preset schedule.

● Indicators

Name	Status *1	Description
Status indicator	Orange flashing	Booting
		Device error, startup error
		Communication failure
		Updating Firmware
		Mounting/unmounting microSD card
		Initializing
	Blue light	Standby
	Blue flashing	Call destination busy
		Incoming call
		Incoming paging
		When being monitored (Depends on setting)
Call indicator	Green flashing	Outgoing calling
Communication indicator	Orange light	In communication
Door release indicator	Green flashing	Door releasing *2
Sensor OFF indicator	Red light	Contactless call sensor not available

*1. The flashing pattern varies depending on the state of video door station.
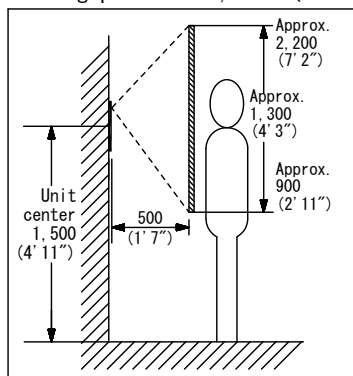*2. This flashes when the electrical lock connected to this station is released.
　　If the door release timeout is set to 3 seconds or less, it will flash at a 3 second interval.

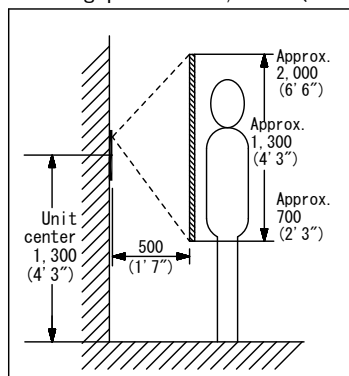## ■IMAGING RANGE AND MOUNTING LOCATION

　The camera range as illustrated is only an approximate indication and may vary according to
　the environment. When Wide View and Fisheye Lens Correction is set "Enable".
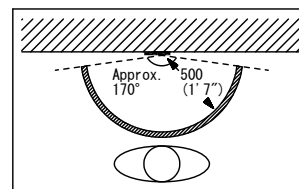
Vertical
Mounting position 1,500mm(4'11")　　Mounting position 1,300mm(4'3")

Horizontal

◆ An area over a range of approx. 170° in
　a 500mm(1'7") radius from the camera
　is displayed. (The display range is a
　rough estimation and may change due to
　the installation environment and the
　specification of the monitor.)

DESCRIPTION	FIG. NAME		UNIT	DATE
VIDEO DOOR STATION	FUNCTIONS/ IMAGING RANGE AND MOUNTING LOCATION		mm	19 August, 2021
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■SETTING

- WEB settings
  Configure using a PC
  WEB settings cannot be used in the expanded system.
  System requirements

Network	Ethernet(10BASE-T, 100BASE-TX)
Web browser	Microsoft Edge / Internet Explorer 10.0, 11.0 / Mozilla Firefox 59, 60(TLS1.2 enabled)

- Using the "IX Support Tool" application
  Install the application on a PC and use to create the setting file for all stations.
  Refer to "■IX SUPPORT TOOL"

■IX SUPPORT TOOL

- System requirements

OS	Windows 7 Professional, Windows 7 Enterprise, Windows 7 Ultimate Windows 8, Windows 8 pro, Windows 8 Enterprise Windows 8.1, Windows 8.1 pro, Windows 8.1 Enterprise Windows 10 Home, Windows 10 pro, Windows 10 Enterprise Windows 10 Education
CPU	32 bit (x86) processor or 64 bit (x64) processor of 1 GHz or higher
Memory	4 GB RAM or higher
Screen resolution	1280x768 or greater

- Functions
  - Settings(Table View)···All stations in the system can be configured from the Settings window.
  - Settings(Station View)···Configure each station in the system individually.
  - Setting File Download···Store the Settings File
  - Setting File Upload···Upload the Settings File
  - Station Search···Search the stations in IX System connected in the network to show the list.
  - Station Replacement···This feature to replace a station.
  - Restore System Settings···If the setting file is lost, the setting file can be restored.
  - Update Firmware···Update the firmware for the station.

- Restrictions
  - If the station was configured or modified using the web interface, the setting file cannot be downloaded using the IX Support Tool.

■IX SUPERVISION TOOL

Install the application on a PC and use to Line supervision and devicw check for stations.

- System requirements

OS	Windows 7 Professional, Windows 7 Enterprise, Windows 7 Ultimate Windows 8, Windows 8 pro, Windows 8 Enterprise Windows 8.1, Windows 8.1 pro, Windows 8.1 Enterprise Windows 10 Home, Windows 10 pro, Windows 10 Enterprise Windows 10 Education
CPU	32 bit (x86) processor or 64 bit (x64) processor of 1 GHz or higher
Memory	4 GB RAM or higher
Screen resolution	1280x768 or greater

- Functions
  - Line Supervision···By checking the response to a ping, this feature confirms that the station is properly connected to the network.
  - Device Check···This function checks whether stations are operating normally or malfunctioning.
  - Download Video and Audio···To download recordings of the Stations.

DESCRIPTION	FIG. NAME		UNIT	DATE
VIDEO DOOR STATION	SETTING/IX SUPPORT TOOL/ IX SUPERVISION TOOL		mm	19 August, 2021
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