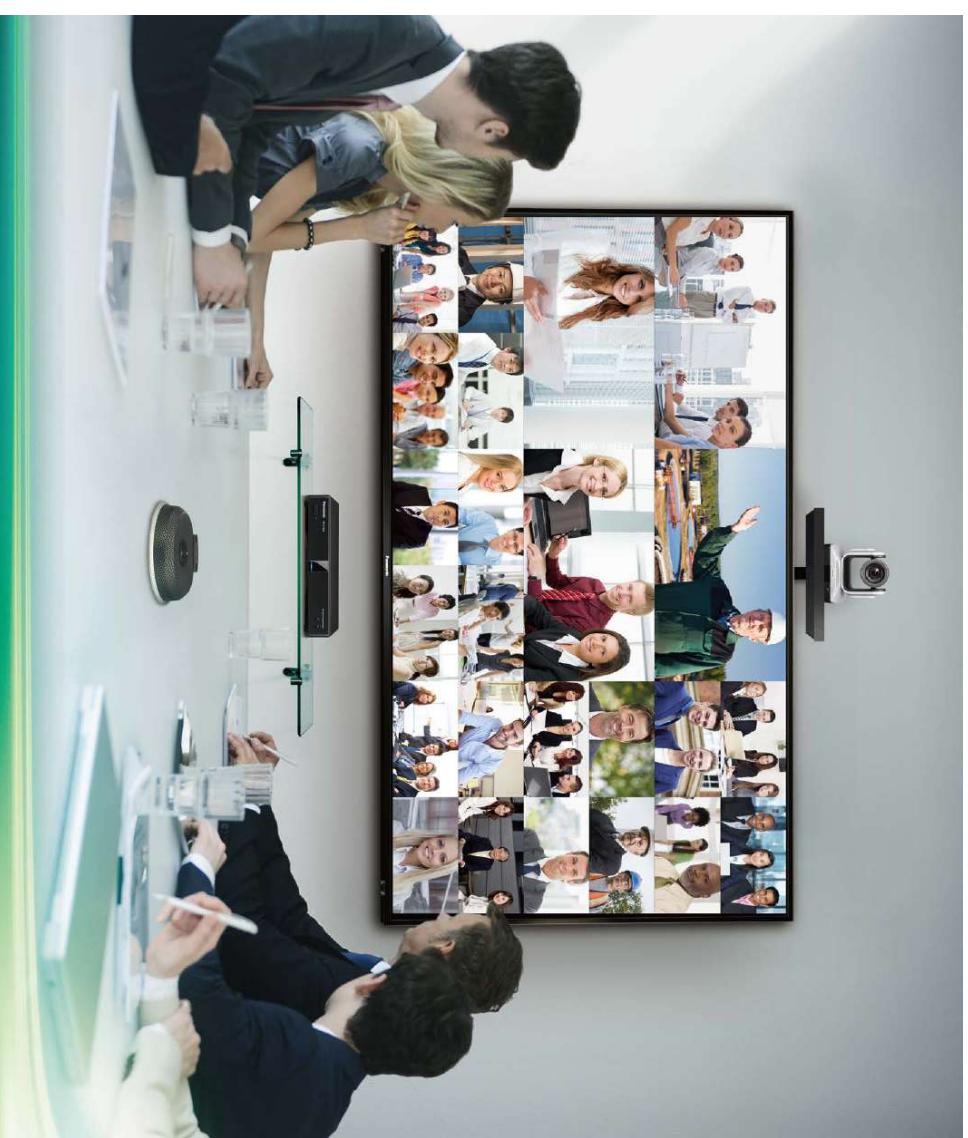


# Panasonic

BUSINESS

## HD Visual Communications System

KX-VC2000  
KX-VC1600  
KX-VC1300  
KX-VC1000



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### Important

- Safety/Precaution: carefully read the operating instructions and installation manual before using this product.

- All Display pictures are simulated.
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HD Visual Communications System: <https://panasonic.net/cns/psn/products/hdvc/>

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\*This image shows the KX-VC2000

# Connects multiple sites to allow for flexible, stress-free videoconferences for all participants.

The new HD Visual Communications (HDVC)\* System connects to multiple sites for videoconferences with minimum initial costs. You can also use a mobile device to take part in a videoconference from a location away from your company. The HDVC System realizes effective visual communication without restrictions on time or place. It flexibly responds to a wide range of communication needs in various fields, such as education, manufacturing, healthcare, finance and sales.

\* HD Visual Communications System is abbreviated as HDVC hereafter.

## KX-VC2000

- Remote control included.
- HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



Max. 24 Sites Model\*

Full-HD 1080/60p	AV-005 Control	Wideband Stereo Full Duplex Audio	Multi Device
Triple Monitor	Dual Camera (Sub Camera)	PC Contents Sharing	Dual Network
USB Recording	USB Device Mode	Recording Terminal <sup>2</sup>	Multicast <sup>3</sup>

\*1 An activation key (KX-VCS305) is required. (Refer to "Activation Key" on page 17.)  
 \*2 The HDMI terminal can be used for a display or recording device.  
 \*3 An activation key (KX-VCS302) is required. (Refer to "Activation Key" on page 17.)

## KX-VC1600

- Remote control included.
- HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



Max. 10 Sites Model\*

Full-HD 1080/60p	AV-005 Control	Wideband Stereo Full Duplex Audio	Multi Device
Triple Monitor	Dual Camera (Sub Camera)	PC Contents Sharing	Dual Network
USB Recording	USB Device Mode	Recording Terminal <sup>2</sup>	Multicast <sup>3</sup>

\*1 An activation key (KX-VCS304) is required. (Refer to "Activation Key" on page 17.)  
 \*2 The HDMI terminal can be used for a display or recording device.  
 \*3 An activation key (KX-VCS302) is required. (Refer to "Activation Key" on page 17.)

## KX-VC1300

- Remote control included.
- HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



Max. 4 Sites Model

Full-HD 1080/60p	AV-005 Control	Wideband Stereo Full Duplex Audio	Multi Device
Dual Monitor	Dual Camera (Sub Camera)	PC Contents Sharing	
USB Recording	USB Device Mode		Multicast <sup>1</sup>

\*1 An activation key (KX-VCS302) is required. (Refer to "Activation Key" on page 17.)

## KX-VC1000

- Remote control included.
- HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



Point to Point Model\*

Full-HD 1080/60p	AV-005 Control	Wideband Stereo Full Duplex Audio	Multi Device
Dual Monitor <sup>2</sup>	Dual Camera (Sub Camera)	PC Contents Sharing	
USB Recording	USB Device Mode		Multicast <sup>3</sup>

\*1 An activation key (KX-VCS314) is required. (Refer to "Activation Key" on page 17.)  
 \*2 An activation key (KX-VCS402) is required.  
 \*3 An activation key (KX-VCS302) is required. (Refer to "Activation Key" on page 17.)

[ Feature 1 ]  
**Connection to Multiple Sites** → The HDVC System can connect a lot of sites without any optional equipment. It can connect via intranet or Internet, thus enabling multi-site videoconferencing with a client or with people in distant locations via mobile devices.

[ Feature 2 ]  
**Clear Communication** → The HDVC System incorporates Panasonic's high-quality image and sound technologies cultivated in the development of various AV products over the years. The system conveys facial expressions and nuances of voices to facilitate discussions and remote lectures.

[ Feature 3 ]  
**Easy to Use / Manage** → The Triple Monitor function displays a PC document and the images of distant sites and the home location on three monitors. The sub camera function displays fine details in a close-up view. Various convenient functions help to make communication smooth and accurate.

- 24-site Connection ..... p.4
- Multi Device Applicability ..... p.5
- Cascade Mode Application **NEW** ..... p.6
- NAT Traversal Service ..... p.7
- HD Visual Communication Mobile ..... p.7

- Full-HD 1080/60p ..... p.8
- Wideband Stereo Full Duplex Audio ..... p.8
- AV-005 Control ..... p.9

- Triple Monitor ..... p.10
- Camera Control ..... p.11
- USB Device Mode **NEW** ..... p.12
- USB Recording **NEW** ..... p.12
- Contact List Transfer **NEW** ..... p.13
- Web Console **NEW** ..... p.13

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# Connection to Multiple Sites

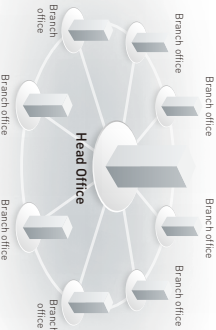
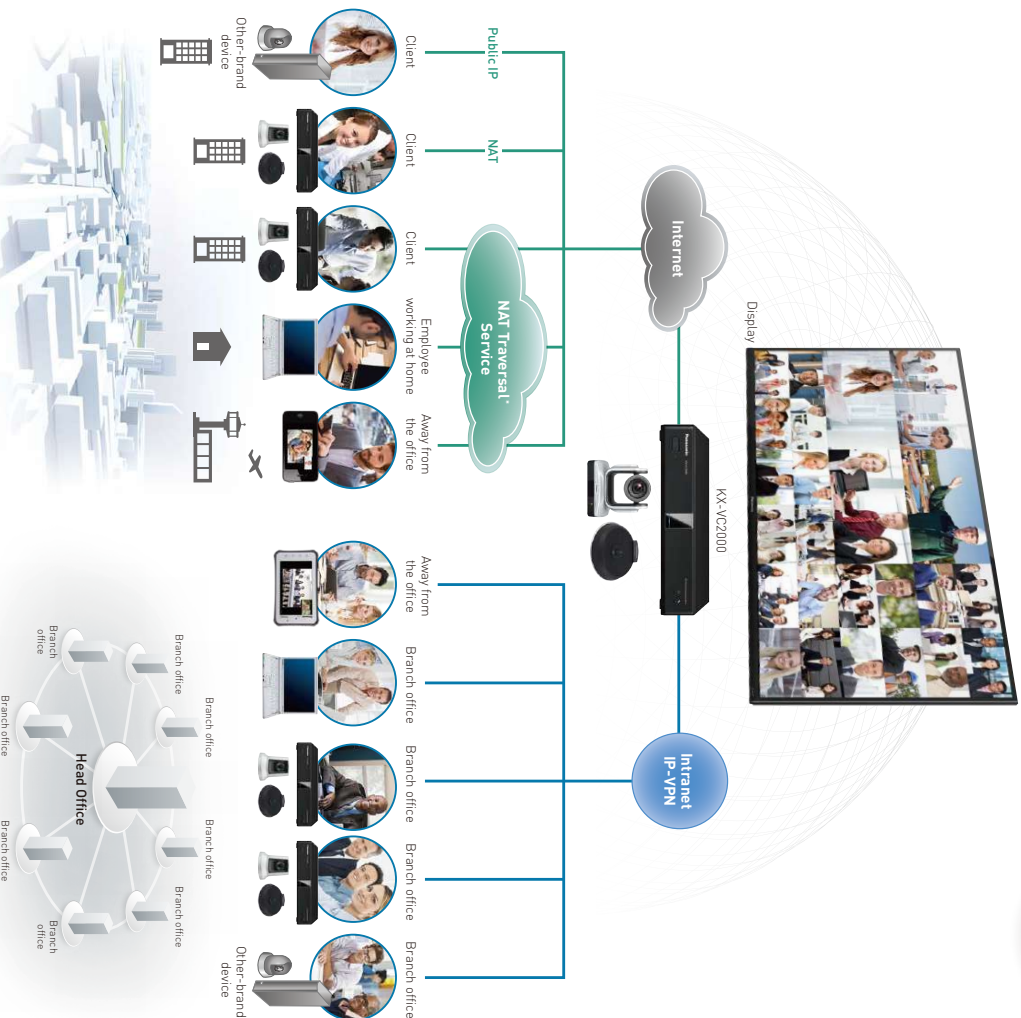
24-Site Connection (KX-VC2000)

## Multi-site videoconference with people at up to 24 locations\*1

The HDVC System lets you hold a multi-site videoconference with people at up to 24 sites\*1 without requiring the purchase of expensive MCUs (Multi-point Connection Units). When combined with Panasonic's NAT Traversal Service or HD Visual Communication Mobile application, which enables the use of mobile devices for participating in a videoconference, you can have effective visual communication without restrictions on time or place.

\*1. An activation key (KX-VCS305) must be purchased. (Refer to "Activation Key" on page 17.)

Max  
**24**  
Sites\*1



## Multi Device Applicability Participation in videoconferences using mobile devices

You can join a videoconference from a location outside of the office, while you are on the go, or from your home using a Windows/OS/Android™ mobile device. The HDVC System provides effective visual communication without restrictions on time or place.

### How to get HDVC Mobile

HDVC Mobile is required for participating in a videoconference using an iOS/Android™ mobile device or Windows. PC. HDVC Mobile can be downloaded from the following URL: [https://panasonic.net/ssi/gpn/product/linevc/product/mobile\\_android/index.html](https://panasonic.net/ssi/gpn/product/linevc/product/mobile_android/index.html)

\* An Activation Key is required to use the software. For details, see page 17.

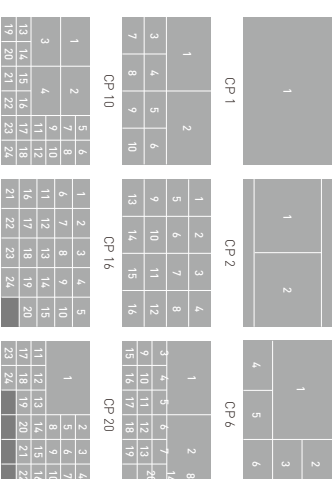


## Screen layout Select layout suitable with videoconference types

The HDVC System comes with a function that lets you choose a screen layout from a variety of options. For instance, you can select a screen layout to show all participating sites or to display the site with a high voice level in a large window (CP1 in the layouts shown on the right). The most suitable screen layout can be selected according to the type of videoconference held. The screen layout changes automatically according to the number of connection sites. Or you can choose from CP1, CP2, CP4, CP6, CP8, CP9, CP10, CP13, CP15, CP16, CP20, CP21, CP24, CP25, or CP28.

\* For Discussion mode, designated sites can be displayed at the preset screen positions.

### Layout example



## Main display switching

The main display position can be pre-set based on conference operation method. Main display can be easily switched with number buttons on the remote control.

### Fixed main display position



Set the designated site as the main display.

\* Profile setting is required beforehand.

### Voice activation 1



Automatically allocate the loudest site to the main display.

### Voice activation 2



The local site is set to the main display, and automatically allocate the loudest site next to the main display.

### Fixed desired display positions



All display position can be flexibly pre-assigned.

# Connection to Multiple Sites

Cascade Mode Application (KX-VC2000)

## Increase the number of attendees without expanding the existing facilities NEW

The newly added KX-VC2000 Cascade mode application makes it possible to expand partial videoconference groups under a particular videoconference unit without adding or expanding the existing central server or central network infrastructure. This allows a group representative to join the central videoconference meeting and share it with all attendees in the partial group.

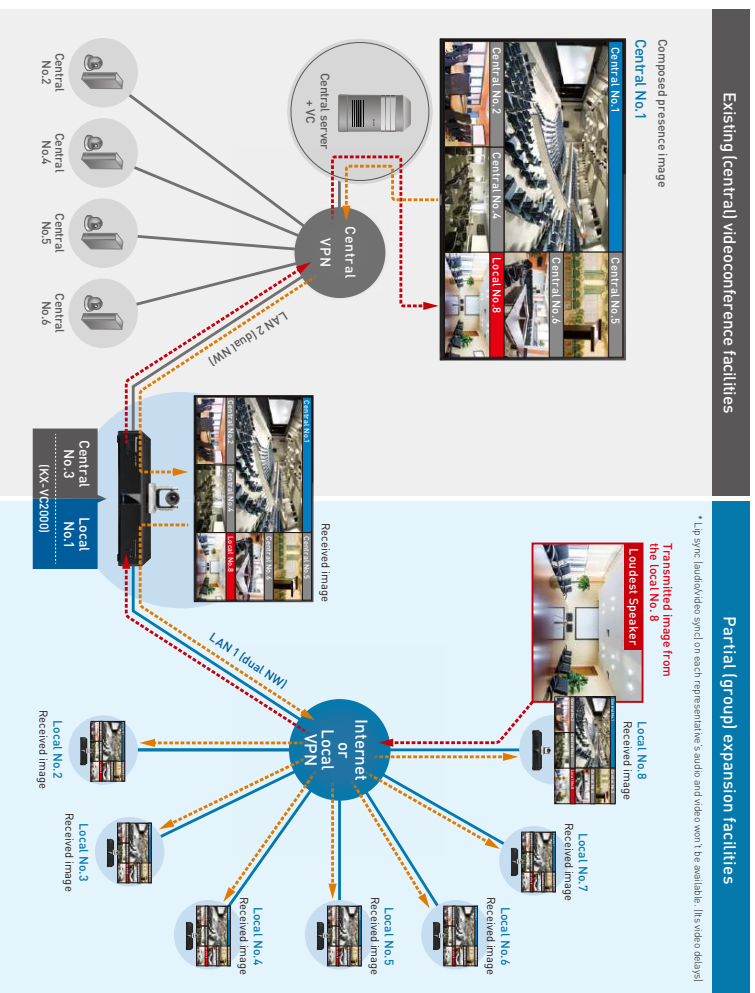
Utilizing the KX-VC2000 as a hub between central and partial groups, it is also possible to deploy a separate network in the partial group. This eliminates concentrated access to a particular network or server and achieves distributed access.

In addition, with the new Cascade mode, it becomes possible to configure more than 24 sites of the HDVC videoconference system without an external server or MCU. This Cascade mode application is beneficial for relatively large organizations, such as governmental organizations or large group companies, who frequently hold group representative conferences and distribute it to all attendees. This is also useful for large-scale remote learning or training facilities, such as educational institutes or service oriented companies. This application also helps to reduce additional investments in the central server and network operation costs.

### Application Example

By introducing the KX-VC2000 Cascade mode at Central Group No. 3, you can expand HDVC attendees partially in the No. 3 group without expanding the central server or central network.

The KX-VC2000 automatically selects the loudest speaker of the group as a representative presenter (local No. 8 image in the figure below), and transmits his/her voice and image to the central facility, while receiving the central server composed presence image and distributing it to all of the partial group attendees.

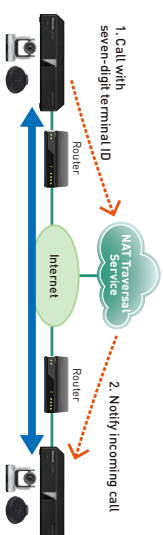


\* Lip sync: Audio/video signal on each representative's audio and video won't be available. (Its video delay)

## NAT Traversal Service Network service for connecting your company to other sites

NAT Traversal Service lets you connect to another party with a seven-digit terminal ID even when the other party's IP address has changed by using a network with a dynamic IP address.

For details, please refer to the following web site.  
<https://panasonic.net/csp/psr/product/shk/hdvc/nat/traversal/index.html>



## HD Visual Communication Mobile Mobile application for joining remote videoconference

Use of HDVC Mobile, an application developed exclusively for the HDVC System, lets you take part in a videoconference from a business trip destination using a tablet, smartphone or PC. Dual Stream reception is also supported, and the screen can display an easy-to-see image of documents.



## How to select Activation Key

The HDVC Mobile System requires the "HD Visual Communication Mobile" application to be installed in a mobile device, and an Activation Key (available for a fee). You can select from three methods combining the number of HDVC Mobile devices and connection methods.

### Case 1 Registering the Activation Key in the HDVC System (for IP model)



### Case 2 Registering the Activation Key in the mobile device (for IP model)



### Case 3 Registering the Activation Key in the HDVC System and mobile device (for NAT Traversal mode)



## Device (as of December 2018)

HDVC Mobile for Windows	
CPU	Core i5 or above
OS	Windows 7 / Windows 8 / Windows 8.1 / Windows 10
Display Resolution	1366 x 768 or over
Camera*	Logitech (Logitech: e920, Logitech (Logitech): BC093) ConferenceCam UltraSlim / UltraCam Share / Chrome PC built-in camera
Peripheral devices	Headset** / Panasonic KX-N700N, N71-FAT-RALX-800PC, Speaker / Panasonic YAMAKA P2P-20UR

\*1 Windows 8 / Modern UI is not supported. Windows 10: Tablet mode is not supported.  
\*2 720p supported. \*3 USB type

### HDVC Mobile for iOS

CPU	Apple A5 or over
OS	iOS 7.0 - 11.4 (iPhone, iPad, iPod mini are available, iPod touch is unavailable).

### HDVC Mobile for Android

CPU	Coreex-A9 or over / NEON supported
OS	Android 4.0 -

Please check the HDVC Mobile website for the latest information.  
<https://panasonic.net/csp/psr/product/shk/hdvc/mobile/android/index.html>

\* For communication using a provider service, the communication speed may be limited by the packet amount. For details, please contact your provider. Transmission amount may increase due to sending transmission logs in parallel to the cloud. Be aware that the amount of data sent to the cloud may be large. Be aware that the quality may drop due to the provider's network specifications. Try a free, trial 3-month Activation Key in advance.  
\* The 3G bandwidth may be insufficient for HDVC Mobile, making it unusable.  
\* HDVC Mobile communication may not be possible due to the device features. Communication Use of HDVC Mobile requires a bandwidth of 256 kbps or higher. Video: OGA (Android/iOS/W42p (Windows), audio: G-222 (monaural) for the transmission/reception of video and audio data.

# Clear Communication

Full-HD 1080/60p

## Conveys even facial expressions and gestures

The HDVC System delivers high-resolution Full-HD 1080/60p images. Displayed images are as clear as Full-HD display images and allow for effective visual communication. The HDVC System shows even small changes in facial expressions for high-quality communication. HD Images can be displayed with a bandwidth of 256 kbps or higher.\*1\*2

\*1 A device setting change is required. \*2 The frame rate depends on the network environment.



SD

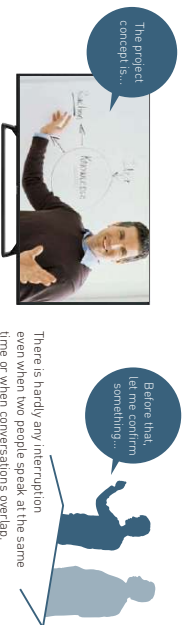


Full-HD

Even changes in facial expressions can be seen clearly, and gestures, actions and quick motions appear smoothly.

## Wideband Stereo Full Duplex Audio Easy to hear even when two people talk simultaneously

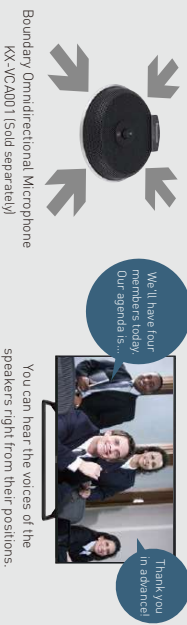
Full-duplex audio in wideband stereo allows high-quality sound to fill the room with clarity. A unique Echo Canceller prevents echoes and howling, and there are hardly any delays or interruptions even when two people speak at the same time. You can enjoy smooth, natural conversations as if you were all in the same room.



## High-quality Boundary Omnidirectional Microphone

(Supported by the KX-VC2300 / KX-VC1600 / KX-VC1300)

The HDVC System has four compact built-in microphones. A direction recognition function reflects the direction and position of the speaker's voice to the listener's side speakers.



## AV-QoS Control Stress-free conference

Packet losses for the HDVC System and HDVC Mobile are prevented by the rate control (AV-QoS), and lost packets are restored by the combined use of the forward error correction and automatic repeat request control. Even if the bandwidth decreases after communication starts, clear communication is maintained according to the communication line condition. Up to 256 kbps of images and sounds can be transmitted per site. Connection without disrupting the image or interrupting the sound is possible even with a low bandwidth.



## Comparison of communication quality with congested network connection



Without AV-QoS



With AV-QoS

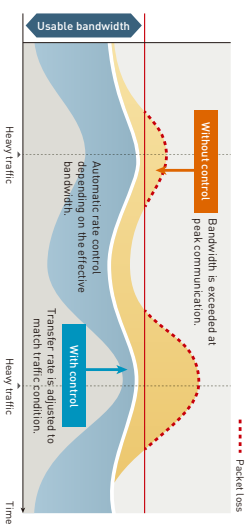
Frequent image and sound disruptions

Minimum image and sound disruptions

## AV-QoS - Panasonic original rate control technology

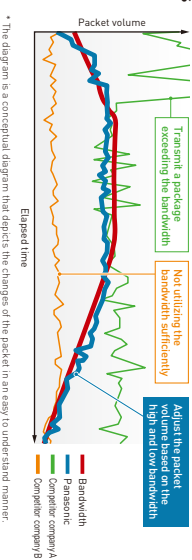
### How AV-QoS works

The rate control accurately estimates the congestion of the network, and controls the amount of data to be transferred to prevent packet losses. It suppresses image disruptions and audio interruptions even when using an Internet connection whose available bandwidth fluctuates depending on network traffic.



### High followability during bandwidth variations

The HDVC System finely controls the package volume based on constantly changing bandwidths for network bandwidth fluctuation of user traffic with the rate control, and continuously follows up in accordance with bandwidth variations. By suppressing the generation of packet losses, a stable connection environment can be achieved.



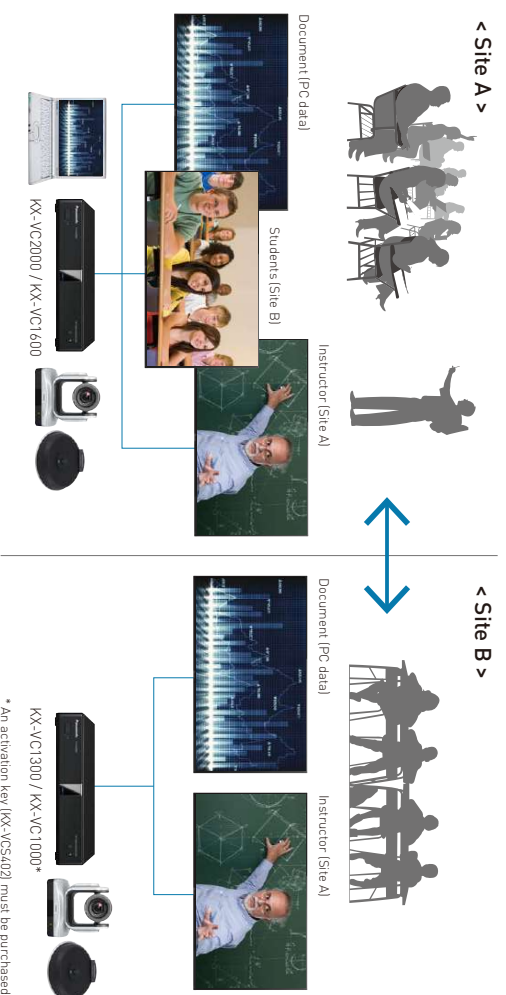
# Easy to Use / Manage

Triple Monitor (KX-VC2000 / KX-VC1600)

## Accurate communication of information

The HDVC System supports H.239/BFCP dual streaming to simultaneously transmit the home location image and a PC document image and to simultaneously receive the image of a distant site and a PC document image. The KX-VC2000 / KX-VC1600 features a Triple Monitor Function\*, which can display a PC document, the image of a distant site and the image of the home location separately on three monitors. Display of a PC document on a large screen facilitates understanding and provides effective visual communication.

\* The KX-VC1300 / KX-VC1000 supports Dual Monitor. For KX-VC1000, an Activation Key (KX-VCS402) is necessary to use 2 monitors.



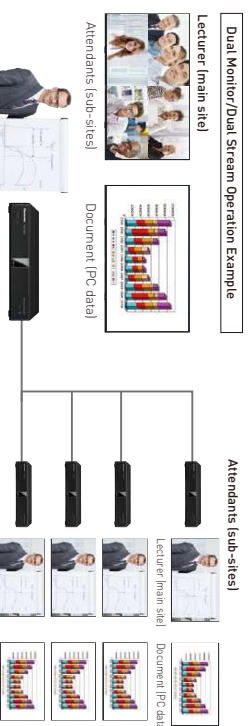
\* An activation key (KX-VCS402) must be purchased.

## Easy-to-understand remote lectures and seminars are conducted at multiple sites

The lecturer can proceed with the lecture while watching the conditions of the people attending at multiple sites, and the attendants can display reference materials and the image of the lecturer on separate screens. The easy-to-see screens make it easier to understand the content of the lecture.

### ■ Presentation Mode

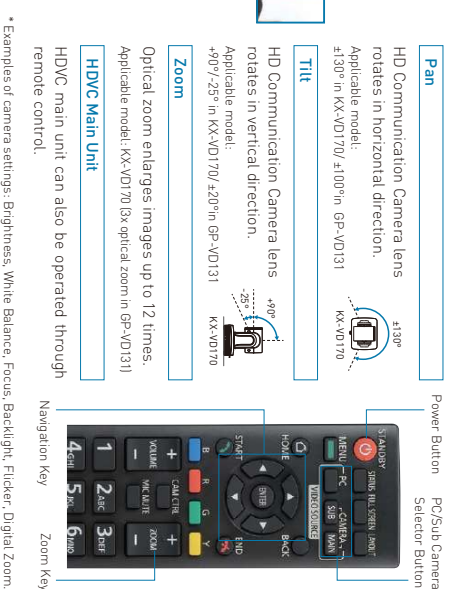
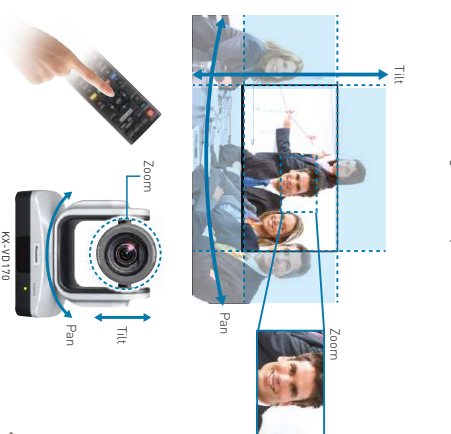
This mode is suited to lectures where the main site displays composite images of the sub-sites, and the sub-sites display only the main site image.



Camera Control

## Intuitive operation

The remote control of the HDVC System lets you control the pan, tilt, zoom operations and camera settings\* of dedicated cameras mounted at your office and a distant site. A PC and sub camera can be easily switched with a single press of the button. The remote control features a user-friendly button layout just like that on a TV remote control, thus allowing intuitive operation.



\* Examples of camera settings: Brightness, White Balance, Focus, Backlight, Flicker, Digital Zoom.

## Automatically control the power supply

In addition to operating the power button of the main unit and remote control operation, the HDVC System power can be automatically turned ON or OFF with the settings of the HDVC System. Automatic operation makes possible by turning the power OFF during the night or turning the power ON during weekdays. It is also possible to externally control the unit through the serial interface (RS-232C terminal).

\* When power is supplied to the main unit of the HDVC System from the AC adaptor, the system enters standby status.  
\* The HDVC System can be turned ON/OFF using the Power Switch on the main unit or on the remote control.

### Power ON/OFF and Status Indicators



- Operation example



Status	Power ON LED	Status LED	Operation
Power supplied from AC adaptor	Red light	Light OFF	-
Power ON - Startup	Green flashing light → Green light ON	Blue (flashing) light	Press and hold the power button on main unit/remote control.
Communicating	Green light	Blue light	-
Screen standby	Green light	Light OFF	Press once the power button on remote control.
Shutting down	Green flashing light	Light OFF	Press and hold the power button on main unit/remote control.

\* If the main power switch has turned off due to a power outage or by manual operation (example, disconnection of extension cord), the HDVC System starts up in the previous status (Ready or Stand-by) next time power is supplied.

# Easy to Use / Manage

USB Device Mode

Web conferences become easier to use **NEW**

## What is the difference between a "single participant" and "multiple participants?"

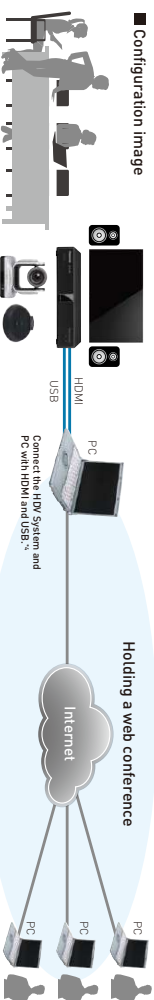
When participating in a web conference and several people gather at a single PC, the conferencing efficiency worsens because the other party's face becomes difficult to see, the audio becomes difficult to hear, and reference materials become difficult to use.



## Web conferences become comfortable with the peripherals of HDVC unit!

The HDVC System can be used as the camera/microphone USB device\*1 connected to the web conference PC to enable high-definition web conferences.\*2 Because the HDVC speaker and display can also be used, the system is ideal for web conferences with a number of participants.

Select a video conference or web conference depending on the parties being connected, the number of connection points, and the locations. Since it is not only a specified web conference, the range is not limited.

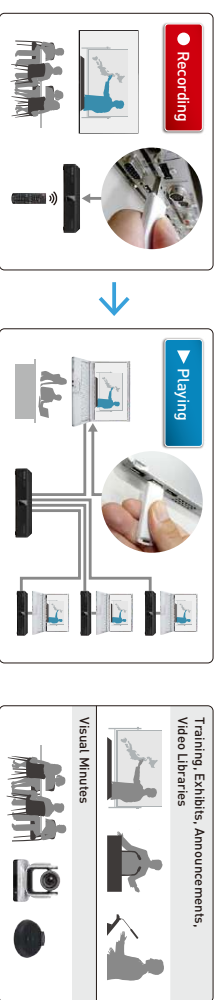


\*1 The image quality and audio quality vary depending on the Internet connection condition. \*2 PC Peripheral Kit (KK-VZ2911) is required for the HDVC System. Refer to the Activation Key information on page 17.  
\*3 For information on external speakers, refer to the section on "Using the System with Optimal Sound Quality" on page 17. \*4 The HDVC System and PC can be connected with the PC Peripheral Kit (KK-VZ2911), the enclosed dedicated USB Conversion Cable (30 cm), or a commercially available USB cable type A-B.

## USB Recording

Simply recording videoconferences and sharing to other sites **NEW**

Videoconferences can be recorded onto a USB memory stick connected to the HDVC System. In addition to recording a remote site, you can record\*1 images and sounds from your own site and easily start recording using the remote control. The recorded data can be played\*2 on a personal computer, and can be easily shared among multiple sites via the HDVC System. Recording is also possible without holding a videoconference with a remote site. It can be used as visual minutes of meeting.

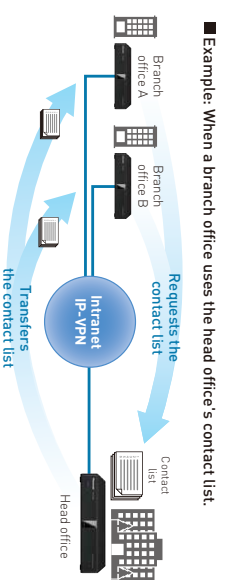


Contact List Transfer

Centrally manage the contact list **NEW**

The HDVC System contact list of a specific site can be transferred to the HDVC System of another site through the network. This makes it possible to centrally manage the contact list of the HDVC System and improves the efficiency of operational management.

\* This function is available when using an Intranet/VPN. The updating of the contact list is not an incremental update, and consists of overwriting all contacts.

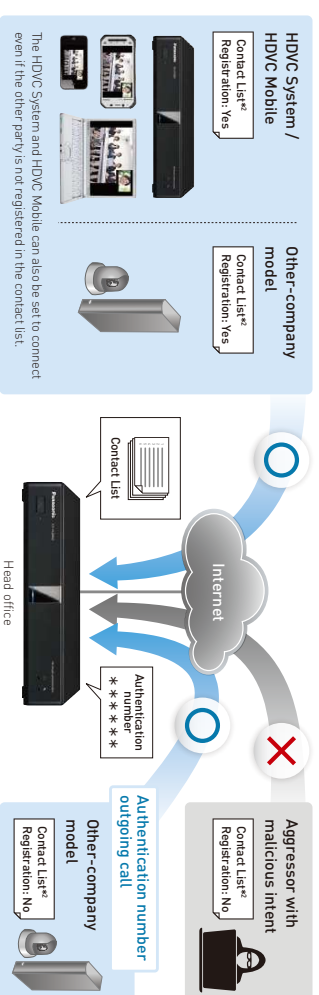


## Whitelist

Whitelist for rejecting unexpected malicious calls

[Compatible models: IP mode (SIP, H.323), NAT Traversal mode.]

For information security purposes, in addition to encryption during videoconference calls, HDVC can protect against unexpected incoming access, such as wrong number calls or especially malicious calls. By utilizing a contact list and HDVC identification as a whitelist, HDVC can be set to accept calls only from those listed in its contact list or from Panasonic videoconference units with HDVC identification.\*1 In other words, any access from people who are not registered on the contact list or who are calling from non-HDVC units will be blocked.



\*1 The call permission function is not available for HDVC Mobile, since the HDVC Mobile does not support outgoing calls with an authentication number in global IP format.  
\*2 Contact list HDVC System in Head Office.

## Web Console

Control and operation of the HDVC System from a remote location **NEW**

Operations manager can control and operate the HDVC System via the Web Console without remote control.

\*1 The Web Console is a function intended for installers and operations managers.  
\*2 Examples of menu: System Information display, Virtual remote controller, Edit contact list, Outgoing call and End call



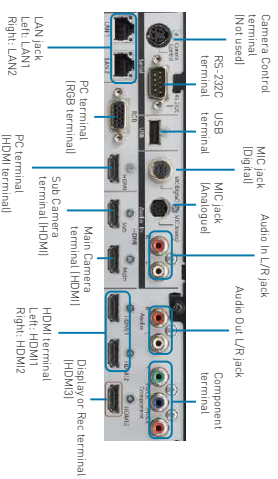
## KX-VC2000

- \* Remote control included.
- \* HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



- 24-Site\*<sup>1</sup> Connection
  - Full-HD 1080/60p
  - AV-QoS Control
  - Wideband Stereo Full Duplex Audio
  - Multi Device
  - Triple Monitor
  - Dual Camera (Sub Camera)
  - PC Contents Sharing
  - Dual Network
  - USB Recording
  - USB Device Mode
  - Recording Terminal\*<sup>2</sup>
  - Multicast\*<sup>3</sup>
- \*<sup>1</sup> An activation key [KX-VCS305] is required. [Refer to "Activation Key" on page 17.]
- \*<sup>2</sup> The HDMI3 terminal can be used for a display or recording device.
- \*<sup>3</sup> An activation key [KX-VCS302] is required. [Refer to "Activation Key" on page 17.]

### [ Rear Panel View ]



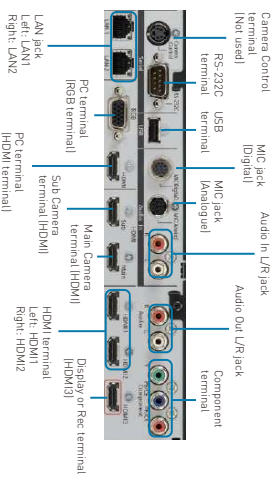
## KX-VC1600

- \* Remote control included.
- \* HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



- 10-Site\*<sup>1</sup> Connection
  - Full-HD 1080/60p
  - AV-QoS Control
  - Wideband Stereo Full Duplex Audio
  - Multi Device
  - Triple Monitor
  - Dual Camera (Sub Camera)
  - PC Contents Sharing
  - Dual Network
  - USB Recording
  - USB Device Mode
  - Recording Terminal\*<sup>2</sup>
  - Multicast\*<sup>3</sup>
- \*<sup>1</sup> An activation key [KX-VCS304] is required. [Refer to "Activation Key" on page 17.]
- \*<sup>2</sup> The HDMI3 terminal can be used for a display or recording device.
- \*<sup>3</sup> An activation key [KX-VCS302] is required. [Refer to "Activation Key" on page 17.]

### [ Rear Panel View ]



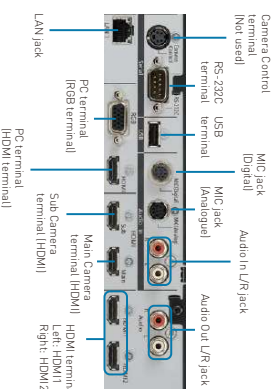
## KX-VC1300

- \* Remote control included.
- \* HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



- 4-Site Connection
  - Full-HD 1080/60p
  - AV-QoS Control
  - Wideband Stereo Full Duplex Audio
  - Multi Device
  - Dual Monitor
  - Dual Camera (Sub Camera)
  - PC Contents Sharing
  - USB Recording
  - USB Device Mode
  - Multicast\*<sup>1</sup>
- \*<sup>1</sup> An activation key [KX-VCS302] is required. [Refer to "Activation Key" on page 17.]

### [ Rear Panel View ]



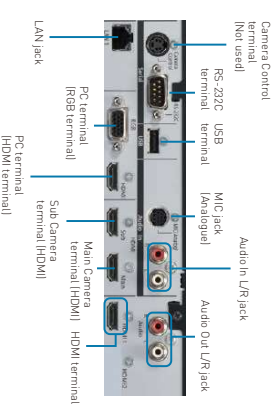
## KX-VC1000

- \* Remote control included.
- \* HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.



- Point to Point\*<sup>1</sup> Connection
  - Full-HD 1080/60p
  - AV-QoS Control
  - Wideband Stereo Full Duplex Audio
  - Multi Device
  - Dual Monitor\*<sup>2</sup>
  - Dual Camera (Sub Camera)
  - PC Contents Sharing
  - USB Recording
  - USB Device Mode
  - Multicast\*<sup>3</sup>
- \*<sup>1</sup> An activation key [KX-VCS314] is required. [Refer to "Activation Key" on page 17.]
- \*<sup>2</sup> An activation key [KX-VCS402] is required.
- \*<sup>3</sup> An activation key [KX-VCS302] is required. [Refer to "Activation Key" on page 17.]

### [ Rear Panel View ]



## Function Comparison List

	Maximum Conference Sites	Image Resolution	Monitor	Other-brand Device Connection*	MCU Interoperability**	Computer Connection	Boundary Omnidirectional (KX-VC1001)	Boundary Omnidirectional (KX-VC2000)
KX-VC2000	16 <sup>1</sup>	Full HD 1080/60p	3	Yes	Yes	Yes	Yes (1-4 unit)	Yes (1 unit)
KX-VC1600	6 <sup>2</sup>	Full HD 1080/60p	3	Yes	Yes	Yes	Yes (1-4 unit)	Yes (1 unit)
KX-VC1300	4	Full HD 1080/60p	2	Yes	Yes	Yes	Yes (1-4 unit)	Yes (1 unit)
KX-VC1000	Point to Point* <sup>3</sup>	Full HD 1080/60p	2 <sup>4</sup>	Yes	Yes	Yes	No	Yes (1 unit)

\*<sup>1</sup> Please ask your nearest dealer about other-brand devices that can be connected.

\*<sup>2</sup> Please ask your nearest dealer about MCUs that can be connected.

\*<sup>3</sup> The optional Activation Key [KX-VCS315] lets you expand the KX-VC2000's maximum conference sites to up to 24 locations. [Refer to "Activation Key" on page 17.]

\*<sup>4</sup> The optional Activation Key [KX-VCS314] expands the function to enable 4-site connection. [Refer to "Activation Key" on page 17.]

\*<sup>5</sup> The optional Activation Key [KX-VCS314] expands the function to enable 4-site connection. [Refer to "Activation Key" on page 17.]

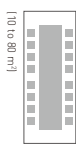
\*<sup>6</sup> An activation key [KX-VCS402] must be purchased. [Refer to "Activation Key" on page 17.]



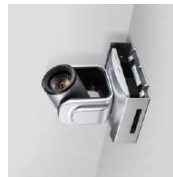
## HD Communication Camera

### KX-VD170 Full-HD

- HDMI cable sold separately
- 12x optical zoom/10x digital zoom
- Pan/Tilt function
- Presets positions: 12
- Operation through remote control



Requires Ceiling Mount Bracket (KX-VCZ70) sold separately.



### 6P-VD131 Full-HD

- HDMI cable sold separately
- 3x optical zoom/4x digital zoom
- Pan/Tilt function
- Presets positions: 12
- Operation through remote control



## Boundary Omnidirectional Microphone

### KX-VCA001

- Cable (approx. 8.5 m) included!
- A high-grade microphone with a direction recognition function that detects the direction of the speaker's voice



### KX-VCA002

- Cable (approx. 7 m) included!
- A compact, economical and high-grade stereo microphone



- Make sure that the microphone is placed with its connector facing the display.

### Extension Cable for the KX-VCA001

#### KX-VCAEX01

- For use in setting up the HDVC System in a corner! (see the extension cable provided with the KX-VCA001)
- Connect the extension cable directly to the HDVC System. Connection is not possible with the cable that comes included with KX-VCA001.
- Length: 20 m



## Allows flexible system setup according to the number of connection sites and the size of room.

### < Sound collecting ranges of microphones >

#### Up to 40 m² (Up to 10 people)



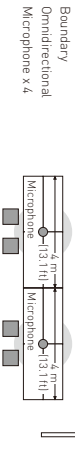
#### Up to 80 m² (Up to 20 people)



#### Up to 120 m² (Up to 30 people)



#### Up to 160 m² (Up to 40 people)



- This diagram is intended only as a layout example. It is not meant to show the maximum number of people that can be covered.
- This is the pick-up capacity when using the Boundary Omnidirectional Microphone. The capacity varies when using another microphone.

## Activation Key

### For HD Visual Communications Unit

Model No.	Product Name	Target Model	Detail
KX-VCS302	Multicast	KX-VC2000 / KX-VC1600 / KX-VC1500 / KX-VC1000	Enables the multicast (one-way transmission) feature.
KX-VCS305	4-Party Built-in MCU for KX-VC2000	KX-VC2000	Enables the feature for making multiple-party video conference calls with 4 parties, rather than the default maximum of 8 parties.
KX-VCS304	4-Party Built-in MCU for KX-VC1600	KX-VC1600	Enables the feature for making multiple-party video conference calls with 10 parties, rather than the default maximum of 8 parties.
KX-VCS314	4-Party Built-in MCU for KX-VC1000	KX-VC1000	Can establish connections with a maximum of 4 parties.
KX-VCS382	Mobile Connection for KX-VC2000	KX-VC2000	Connects to a mobile device in P Mode.
KX-VCS381	Mobile Connection	KX-VC1600 / KX-VC1300 / KX-VC1000	Connects to a mobile device in P Mode.
KX-VCS402	HDMI for KX-VC1000 Dual Monitor	KX-VC1000	Enables HDMI2 output. (HDMI Dual Monitor)
KX-VC2501	PC Peripheral kit	KX-VC2000 / KX-VC1600 / KX-VC1500 / KX-VC1000	Enables the USB Device Mode feature.

### For NAT Traversal Service

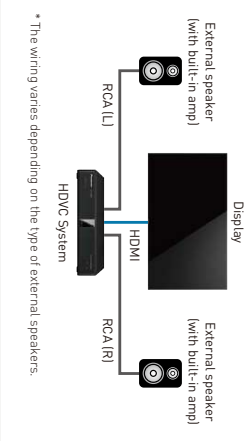
Model No.	Type	Detail
KX-VCS201	For the HD Visual Communications System	NAT Traversal Service Activation Key - 1 Year
KX-VCS202	For a Windows Terminal	NAT Traversal Service Activation Key - 3 Years
KX-VCS281	For a Windows Terminal	Mobile Activation Key - 1 Year for Windows
KX-VCS283	For a Windows Terminal	Mobile Activation Key - 3 Years for Windows
KX-VCS285	For an Android™ and an iOS Terminal	Mobile Activation Keys - 1 Year (5 Keys)
KX-VCS286	For an Android™ and an iOS Terminal	5 Mobile Activation Keys - 3 Years (5 Keys)
KX-VCS271W	For an Android™ and an iOS Terminal	Mobile Activation Key - 1 Year
KX-VCS273W	For an Android™ and an iOS Terminal	Mobile Activation Key - 3 Years

### For appropriate sound quality

The other party's voice might be difficult to hear depending on the room conditions, built-in speaker of display. In order to utilize videoconference with good sound, it is recommended to use external speakers.

For details, please contact your dealer.

#### Connection example\*



\* The wiring varies depending on the type of external speakers.

### Display Stand Installation Examples

