Panasonic BUSINESS

HD Visual Communications System

KX-VC1300 KX-VC1600 KX-VC2000

KX-VC1000







Panasonic®

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Printed in Japan MG-HDCC031EN 1812NSP/PES----1

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HD Visual Communications System: https://panasonic.net/cns/psn/products/hdvc/

*This image shows the KX-VC2000

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

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

KX-VC2000

- Remote control included.
 HD Communication Camera, Boundary Omnidirectional Microphone and HDMI cable sold separately.
- Full-HD 1080/60p AV-QoS Control Multi Device
- USB Recording Recording Terminal *2

Triple Monitor

Dual Camera (Sub Camera)

- [Refer to "Activation Key" on page 17.]

 *2 The HDMI3 terminal can be used for a display or recording device.

 *3 An activation key (IKA-VCS02) is required.

 [Refer to "Activation Key" on page 17.]

Connection to

 \downarrow

equipment. It can connect via intranet or Internet, thus enabling multi-site

Multi Device Applicability

• 24-site Connection

 HD Visual Communication Mobile Cascade Mode Application NEW The HDVC System can connect a lot of sites without any optional

Multiple Sites

KX-VC1600

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



	Decording	ES	ESB
Dua	PC Contents	Dual Camera	Triple
Netwo	Sharing	(Sub Camera)	Monitor
Multi De	Wideband Stereo	AV-QoS	ull-HD
	Full Duplex Audio	Control	080/60p
Mod		711	

*1 An activation key (KX-VCS304) is required. Recording Device Mode Terminal *2

Multicast "

- [Refer to "Activation Key" on page 17.]
 The HDMI3 terminal can be used for a display or recording device.
 An activation key (IKA-VCS02) is required.
 [Refer to "Activation Key" on page 17.]

KX-VC1300





Multicast*1		USB Davice Mode	USB
	PC Contents	Dual Camera	Dual
	Sharing	(Sub Camera)	Monitor
Multi Device	Wideband Stereo	AV-QoS	Full-HD
	Full Duplex Audio	Control	1080/60p
Model	K		

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

ı			
5			
Model	Sites	-	Max.

PC Contents Sharing	Wideband Stereo Full Duplex Audio	L
	Multi Device	

- KX-VC1000



PC Contents Sharing	Wideband Stereo Full Duplex Audio Multi Devi	Point t Point Mode
Dual Camera PC Co (Sub Camera) Sh	AV-QoS Wideba	Total Control
Dual Dual onitor *2	AV Co	

*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.]

USB Recording

Device Mode

Multicast *3

- Product Line-up ---- p.14

p.4 p.5 p.6 p.7

Feature 2

Clear Communication



 \downarrow



 AV-QoS Control • Wideband Stereo Full Duplex Audio Full-HD 1080/60p p.8 p.8

> **Options** p.16

Manage Easy to Use /

 \downarrow functions help to make communication smooth and accurate function displays fine details in a close-up view. Various convenient The Triple Monitor function displays a PC document and the images of

 USB Recording NEW USB Device Mode NEW Contact List Transfer NEW p.10 p.11 p.12 p.12 p.13 p.13

Specifications

⁻ p.18

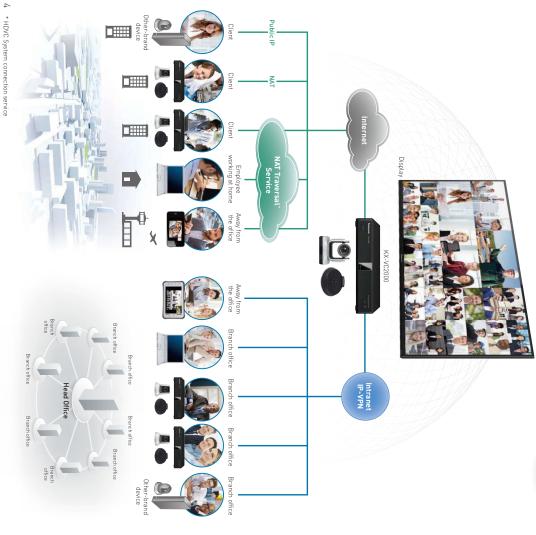
Connection to Multiple Sites

24-Site Connection (KX-VC2000)

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

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

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



Multi Device Applicability

Participation in videoconferences using mobile devices

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

Sites*

How to get HDVC Mobile

HDVC Mobile is required for participating in a videoconference using an iOS/AndroidTM mobile device or Windows PC. HDVC Mobile can be downloaded from the following URL https://panasonic.net/cns/psn/products/hdvc/product/mobile_android/index.html

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



Screen Layout

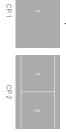
Select layout suitable with videoconference types

CP13, CP15, CP16, CP20, CP21, CP24, CP25, or CP28 Or you can choose from CP1, CP2, CP4, CP6, CP8, CP9, CP10, changes automatically according to the number of connection sites according to the type of videoconference held. The screen layout on the right.). The most suitable screen layout can be selected with a high voice level in a large window (CP 1 in the layouts shown a screen layout to show all participating sites or to display the site screen layout from a variety of options. For instance, you can select The HDVC System comes with a function that lets you choose a

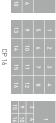
* For Discussion mode, designated sites can be displayed at the preset screen positions.

Layout example





CP 6



CP 10

CP 20

CP 25

CP 28

Main display switching

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

Fixed main display position

Voice activation 1



the main display. Set the designated site as



to the main display. Automatically allocate the loudest site

Voice activation 2



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

Fixed desired display positions

pre-assigned. All display position can be flexibly

^{*} Profile setting is required beforehand.

Connection to Multiple Sites

Cascade Mode Application (KX-VC2000)

Increase the number of attendees without expanding the existing facilities NEW

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

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

organizations or large group companies, who frequently hold group representative conferences and distribute it to all attendees. 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

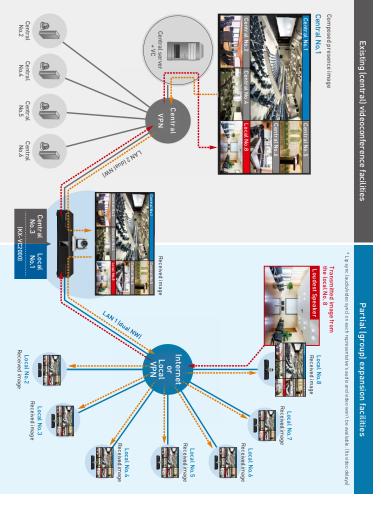
This is also useful for large-scale remote learning or training facilities, such as educational institutes or service oriented companies.

This application also helps to reduce additional investments in the central server and network operation costs.

Application Example

group without expanding the central server or central network. By introducing the KX-VC 2000 Cascade mode at Central Group No. 3, you can expand HDVC attendees partially in the No. 3

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



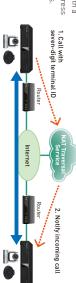
* Screen layout depends on Central No.1.

NAT Traversal Service

Network service for connecting your company to other sites

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

For details, please refer to the following web site. https://panasonic.net/cns/psn/products/hdvc/nat/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



How to select Activation Key

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



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



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

This is suitable when connecting from outside the office [when on the road, from home, etc.]



* See details of "Activation Key" on page 17.

Device (As of December 2018)

HDVC Mobile for Windows

CPU		CPU: Core i5 [4 threads] or faster. Memory: 26B or over
05*1		Windows 7 / Windows 8 / Windows 8.1 / Windows 10
Display Resolution		1366 x 768 or over
Peripheral devices	Camera*2	Logicool (Logitech): C920t Logicool (Logitech): BCC950 ConferenceCam Microsoft: LifeCam Studio / Cinema PC built-in camera
	Headset*3	Logicool: USB Headset H340, ELECOM: HS-EP02USV
	Speaker /	Speaker / Panasonic: KX-NT700N, NTT-AT: R-TALK 800PC,
	Microphone	Microphone YAMAHA: PJP-20UR

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

HDVC Mobile for iOS

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

CPU Cortex-A9 or over NEON supported		
	CPU	us h

https://panasonic.net/cns/psn/products/hdvc/product/mobile_android/index.html Please check the HDVC Mobile website for the latest information

- For communication using a provider service, the communication speed may be limited by the packet amount. For deaths, please contact your provider.

 For communications using a provider service, the packet treatmission amount may increase due to sending motion mages. Be sure to other the contract with your provider.

 Communication may not be possible, or the quality may drop due to the provider's network.
- The 30 bandedth may be insufficient for HD/C Mobile, making it unusable.
 HD/C Mobile communication may not be possible due to the device features. Communication may not may also not be possible due to tethering.
 Log of HD/C Mobile requires a bandwidth of 256 kbps or higher folders. 0/GA (Android**)/WAC2p (Windows), audio. 6,722 monaural) for the transmission/feetploin of video and audio data.

Clear Communication

Full-HD 1080/60p

Conveys even facial expressions and gestures

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

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





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

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





KX-VC1600 / KX-VC1300) (Supported by the KX-VC2000 / Omnidirectional Microphone High-quality Boundary

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





Boundary Omnidirectional Microphone KX-VCA001 (Sold separately)



AV-QoS Control

Stress-free conference

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



Comparison of communication quality with congested network connection

Without AV-QoS

With AV-QoS



Frequent image and sound disruptions

AV-QoS - Panasonic original rate control technology

How AV-QoS works

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 on network traffic The rate control accurately estimates the congestion of the connection whose available bandwidth fluctuates depending

Heavy traffic Bandwidth is exceeded at match traffic condition. Heavy traffic --- Packet loss

High followability during bandwidth variations

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

Transmit a package exceeding the bandwidth Competitor company Competitor company B

* The diagram is a conceptual diagram that depicts the changes of the packet

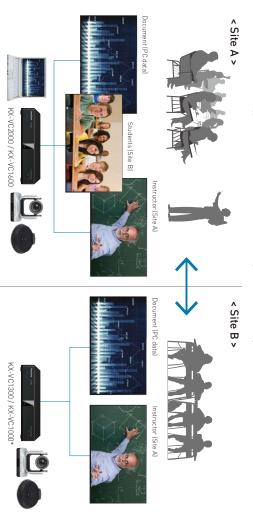
Easy to Use / Manage

Triple Monitor (KX-VC2000 / KX-VC1600)

Accurate communication of information

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

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



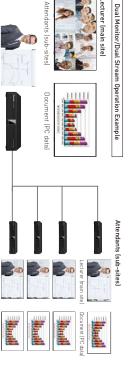
* An activation key (KX-VCS402) must be purchased

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

multiple sites, and the attendants can display reference materials and the image of the lecturer on The lecturer can proceed with the lecture while watching the conditions of the people attending at 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.



0

Camera Control

Intuitive operation

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



Automatically control the power supply

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

- 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

ower ON - Startup

♣ Green flashing l
→ Green light 0

Red light

Power ON LED

Green light

Green light

Power ON/OFF and Status Indicators Power ON LED Status LED



Shutting down

Green flashing light

Working hours mode Weekday mode

Operation example

This setting automatically turns the power ON at 9 AM every morning, and automatically turns the power OFF at 7 PM every night.

ON OFF

	OFF	Sun	This setting automatically turns the power ON at 6 AM every Monday, and automatically turns the power OFF at midnight every Saturday.
٠. ۲		- M	ng auto y Mono F at mi
-		- Tue	matica lay, anı dnight
		Wed	ally tun d autor every
	N N	-뒫	ns the matical Saturd
		- 37	power ly turn ay.
12 AM	OFF	Sat	ON at s the
	H		

	_	_						ı
Light OFF	Light OFF	Blue light	Blue flashing light	Light OFF	Status LED	6 AM	OFF	- Mon
Press and hold the power button	Press once the power button on remote control.	1	Press and hold the power button on main unit/remote control.	-	Operation	12 AM	ON OFF	lue wed inu Fri Sat

* 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

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

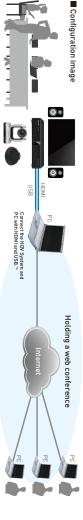
the conferencing efficiency worsens because the other party's face becomes When participating in a web conference and several people gather at a single PC become difficult to use. difficult to see, the audio becomes difficult to hear, and reference materials



the peripherals of HDVC unit! Web conferences become comfortable with

not only a specified web conference, the range is not limited connected, the number of connection points, and the locations. Since it is Select a video conference or web conference depending on the parties being system is ideal for web conferences with a number of participants. conferences.*2 Because the HDVC speaker and display can also be used, the connected to the web conference PC to enable high-definition web The HDVC System can be used as the camera/microphone USB device*





The rinage puality and audio quality ony depending on the Internet connection condition. *2 PCP Perhyberal KL (IPCX-22501) is equired for the HDVC System. Refer to the Activation Key information on page 17.

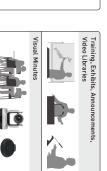
*The rinage quality and audio quality ony depending on the Internet connection with opinion and produce of the Internet Connection of the

USB Recording

Simply recording videoconferences and sharing to other sites NEW

record" images and sounds from your own site and easily start recording using the remote control. The recorded data can be played" on a Videoconferences can be recorded onto a USB memory stick connected to the HDVC System. In addition to recording a remote site, you can 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

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

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

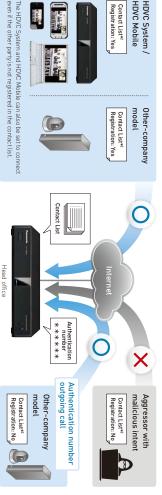


■ Example: When a branch office uses the head office's contact list.

Whitelist

Whitelist for rejecting unexpected malicious calls | Compatible modes: IP mode | SIP, H.323], NATT-aversal mode.

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



^{*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 iss HDVC System in Head Office.

Web Console

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

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

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



KX-VC2000

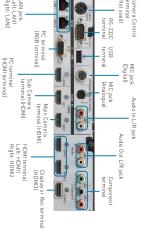
- Remote control included.
- Microphone and HDMI cable sold separately. HD Communication Camera, Boundary Omnidirectional



- 24-Site*1 Connection
- Full-HD 1080/60p
- AV-QoS Control
- Wideband Stereo Full Duplex Audio
- Multi Device
- Triple Monitor
- Dual Camera (Sub Camera)
- Dual Network PC Contents Sharing
- USB Recording USB Device Mode
- Multicast*3 Recording Terminal*2

- *1 An activation key (IX-VCS305) is required.
 [Refer to "Activation Key" on page 17.]
 *2 The HDM3 terminal can be used for a display or recording device.
 *3 An activation key (IX-VCS307) 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.



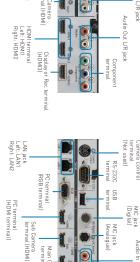
- 10-Site*1 Connection
- Full-HD 1080/60p
- AV-QoS Control
- Wideband Stereo Full Duplex Audio
- Multi Device
- Triple Monitor
- PC Contents Sharing

Dual Camera (Sub Camera)

- Dual Network
- USB Device Mode USB Recording
- Recording Terminal*2
- Multicast*3
- *1 An activation key (KX-VCS30A) is required.
 [Refer to "Activation Key" on page 17.]
 *2 The HDMG 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.)

[Rear Panel View]



KX-VC1300

- * Remote control included.
- HD Communication Camera, Boundary Omnidirectional



- 4-Site Connection
- Full-HD 1080/60p
- AV-QoS Control

- Multi Device

- PC Contents Sharing
- USB Recording

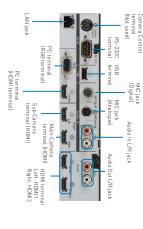
- Microphone and HDMI cable sold separately.



- Wideband Stereo Full Duplex Audio
- Dual Monitor
- Dual Camera (Sub Camera)

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

[Rear Panel View]



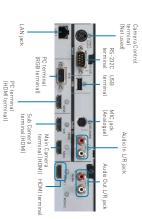
KX-VC1000

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



- Point to Point*1 Connection
- Full-HD 1080/60p
- AV-QoS Control
- Wideband Stereo Full Duplex Audio Multi Device
- Dual Monitor*2
- Dual Camera (Sub Camera)
- PC Contents Sharing
- USB Recording
- USB Device Mode
- *1 An activation key (KX-VCS314) is required Multicast*3
- (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.)

[Rear Panel View]



- 1 Please ask your nearest dealer about other-brand devices that can be connected.
 2 Please ask your nearest dealer about MCLs that can be connected.
 3 The aptional Advisation Key (MX-VXSSB) lets you sepand the KX-VXSDB) can be connected.
 4 Please ask your to be a control, Refer to "Architation Key" on page 17.1
 5 The aptional Advisation Key (MX-VXSSB) all ets you sepand the KX-VXSBB training the properties of the propertie

Point to Point*5 Full HD 1080/60p

Yes

Yes

Yes Yes

Yes [1-4 unit] Yes (1-4 unit) Yes (1-4 unit)

o o

Yes (1 unit) Yes (1 unit) Yes (1 unit) Yes (1 unit)

Full HD 1080/60p Full HD 1080/60p Full HD 1080/60p **Function Comparison List**

Maximum Conference Sites

Other-brand Device Connection*1

MCU eroperability*2 Yes

Boundary Omnidirectional Microphone (KX-VCA001)

Boundary Omnidirectional Microphone (KX-VCA002)

Yes Yes

163

■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









[HDMI cable sold separately]

Operation through remote control Pan/tilt function • 3x optical zoom/4x digital zoom

GP-VD131 Full-HD



[10 to 40 m²] Presets positions: 12

*Requires Ceiling Mount Bracket [KX-VCZ170] sold separately.

■Boundary Omnidirectional Microphone

- [Cable lapprox. 8.5 m] included]
 A high-grade microphone with a direction recognition function that detects the direction of the speaker's voice



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

KX-VCA002

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

For use in setting up the HDVC System in a place where the cable provided with the KX-VCA001

cannot reach.

Connect the extension cable directly to the HDVC System.

Connection is not possible with the cable that comes included with KX-VCA001.

KX-VCAEX01 Extension Cable for the KX-VCA001



(Boundary Omnidirectional Microphone KX-VCA001) Allows flexible system setup according to the number of connection sites and the size of room.

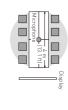
< Sound collecting ranges of microphones >

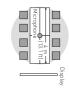


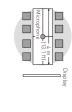


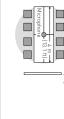
Omnidirectional Microphone x 1

Up to 40 m² (Up to 10 people)







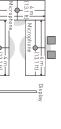




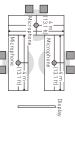
Omnidirectional Microphone x 2

Boundary

Up to 80 m² (Up to 20 people)

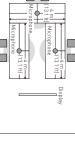


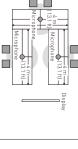
Up to 120 m² (Up to 30 people)



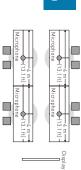
Omnidirectional

Microphone x 3









6

■Activation Key

For HD Visual Communications Unit

KX-VCZ501	KX-VCS402	KX-VCS351	KX-VCS352	KX-VCS314	KX-VCS304	KX-VCS305	KX-VCS302	Model No.
PC Peripheral kit	HDMI for KX-VC1000 Dual Monitor	Mabile Connection	Mabile Connection for KX-YC2000	4 Point Built-in MCU for KX-VC1000	4 Point Built-in MCU for KX-VC1600	4 Point Built-in MCU for KX-VC2000	Multicast	Product Name
KX-VC2000 / KX-VC1600 / KX-VC1300 / KX-VC1000	KX-VC1000	KX-VC1600 / KX-VC1300 / KX-VC1000	KX-VC 2000	KX-VC1000	KX-VC1600	KX-VC 2000	KX-VC2000 / KX-VC1600 / KX-VC1300 / KX-VC1000	Target Model
Enables the USB Device Mode feature.	Enables HDMI2 output. [HDMI Dual Monitor]	Connects to a mobile device in IP Mode.	Connects to a mobile device in IP Mode.	Can establish connections with a maximum of 4 parties.	Enables the feature for making multiple-party video conference calls with 10 parties, rather than the default maximum of 6 parties.	Enables the feature for making multiple-party video conference calls with 24 parties, rather than the default maximum of 16 parties.	Enables the multicast lone-way transmission feature.	Detail

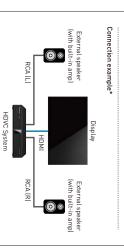
For NAT Traversal Service

KX-VC5751X KX-VC5753X For an Android Th KX-VC5711W AN iOS Terminal KX-VC5713W	KX-VCS781 F	KX-VCS701 F KX-VCS703 C	Model No.
For an Android™ and an iOS Terminal	For a Windows Terminal	For the HD Visual Communications System	Туре
5 Mobile Activation Keys - 1 Year [5 keys] 5 Mobile Activation Keys - 3 Years [5 keys] Mobile Activation Key - 1 Year Mobile Activation Key - 1 Year	Mobile Activation Key - 1 Year for Windows Mobile Activation Key - 3 Years for Windows	NAT Traversal Service Activation Key - 1 Year NAT Traversal Service Activation Key - 3 Years	Detail

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



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

-Boundary Omnidirectional Microphone

Display Stand Installation Examples



^{*} 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 Omnidrectional Microphone. The capacity varies when using another microphone.

■ KX-VC2000 / KX-VC1600 / KX-VC1300 / KX-VC1000

ain Unit rrminal Method rage Compression Method udio Compression Method	XX-VCF4000 SIP, H.223 H.261 [mainstream only], H.263, H.263+, H.263++ Teception only], H.264 [High Profile, H.264 Baseline Profile 6.711 [μ-law, A-law (3.4 KHz®64 Kbps] 6.712 [7.0 KHz®66 Kbps] 6.712.1 [7.0 KHz®72 Kbps]	KX-VCI 600 (H.264 High Profile, H.264 Baseline Profile kbps] 6.722.1 7.0 kHz@32 kbps]	KX-A/C1300 SIP. H-323 H-261 Imanistream onlyl, H-263, H-263+, H-263++ reception onlyl, H-264 High Profile, H-264 Baseline Profile 6.771 µ-1aw, A-1aw [3.4 KH-2664 kbps] G-722 [7.0 KH-2664 kbps] G-722 1.7 a KH-2632 kbps]
ppression Method	G.771 µ-law, A-law (3.4 kHz@66 kbps) G.72217.0 kHz@64 kbps] G.722.1 [7.0 kHz@32 kbps] G.722.1 Annex C [14.0 kHz@68 kbps]24 kbps]	4 kbps G.722.1 [7.0 kHz@32 kbps s/24 kbps	6.711 µ-law, A-law (3.4 кНz%4 kbps)
	MPEG-4 AAC-LD Mono [7,0 kHz@32 kbps, 14,0 kHz@4 kbps, 22,0 kHz@96 kbps] MPEG-4 AAC-LD Stereo [14,0 kHz@64 kbps, 22.0 kHz@96 kbps]	#64 kbps, 22.0 kHz@96 kbps #64 kbps, 22.0 kHz@96 kbps 5, 22.0 kHz@96 kbps	MPEG-4 AAC-LD Mano [7.0 HHz@32 kbps. 12.0 HHz@45 kbps] MPEG-4 AAC-LD Stereo [14.0 HHz@64 kbps. 22.0 HHz@96 kbps]
No. of Channels	6,711/6,722/6,722,1/6,722,1 Annex C: 1 MPEG-4 AAC-LD Mono: 1/ MPEG-4 AAC-LD Stereo: 2	nex C: 1 \C-LDStereo: 2	G.711/G.722/G.722.1/G.722.1 Annex C; 1 MPEG-4 AAC-LD Mnno: 1/ MPEG-4 AAC-LD Stereo; 2
amote Camera Control Method	H.224, H.281 Zoom/Pan/Tilt/Preset	Preset)	H.224, H.281 [Zoom/Pan/Tilt/Preset
	3 Monitors		2 Monitors
No. of Applicable Resolution Frames	Main: Max. 1080p 30 frames/second, Sub: Max. 1080p 30 frames/second	1080p 30 frames/second	Main: Max. 1080p 30 frames/second, Sub: Max. 1080p 30 frames/second
her	SKIE JACS 120 BH, F1.233 JACS 120 BH	120 010	CNIT
ommunication Bandwidth	256 kbps to 24 Mbps	256 kbps to 18 Mbps	
leo Compatible Resolutions*1	176 × 144p, 352 × 240p, 352 × 288p, 512 × 288p, 440 × 480p, 704 × 480p, 704 × 576p, 768 × 432p, 800 × 600p 1024 × 768p, 1280 × 720p, 1280 × 768p, 1280 × 800p, 1920 × 1080p	x 480p, 704 x 576p, 768 x 432p, 800 x 600p x 800p, 1920 x 1080p	176 × 144p, 352 × 240p, 352 × 286p, 512 × 286p, 540 × 480p, 704 × 480p, 704 × 576p, 768 × 432p, 800 × 600p 1024 × 768p, 1280 × 720p, 1280 × 780p, 1280 × 800p, 1920 × 1080p
No. of Frames	Max. 60 frames/second [for H.264 1080p]	64 1080pl	Max. 60 frames/second (for H.264 1080p)
Screen Display	Full-screen, PinP, PwithP, Side by Side	by Side	Full-screen, PinP. PwithP. Side by Side
Jaro Video Input Camera ¹²	echo canceller, Auto gain control, Stationary noise reduction, Lip Synch, Equalizer, Mic mute HDMI main x 1, HDMI sub x 1	ion, Lip synch, Equalizer, Mic mute	Echo canceller, Auto gain control, Stationary noise reduction, Lip synch, Equalizer, Mic mute HDMI main x 1, HDMI sub x 1
PC PC	input comparitible resolutions: Izabu X izabi, IYZUX itabu, IYZUX itabup RGB x IIIMrid D-sub 15ph, IDMI x IZ RGB x IIIMrid D-sub 15ph, IDMI x IZ	MIX 10801, 1920 X 1080p	input companie resoution: 1280 x 720p, 1782 x 1080j, 1782 x 1080p
Video Output	HDMI x 2, HDMI x 1 [For own site/recording video] RCA x 1 [Component] Supported output resolutions: 1920 x 1080; 1920 x 1080p	eo RCA x 1 Component 80i, 1920 x 1080p	HDMI x 2 Supported output resolutions: 1920 x 1080i, 1920 x 1080p
Aud io Input	Boundary Omnidirectional Microphone (Digital Interface Type) x 1 (KX-VCA001), Max. 4; Boundary Omnidirectional Microphone (Analoge) Interface Type) x 1 (KX-VCA002), Max. 1 HDMI, Sterce min-judg"-x 1 (8.5 mm) RCA** (Sterce) x 1	e Typel x 1 (KX-VCA001), Max. 4; toe1ypel x 1 (KX-VCA002), Max. 1 RCA ^x (Stereol x 1	Boundary Omnidirectional Microphone [Digital Interface Type] x 1 KX-VCA001], Max. 4; Boundary Omnidirectional Microphone [Analogue Interface Type] x 1 KX-VCA002], Max. 1 HDMI, 15 ereo min-ripug**x x 81.5 mmil RCA** Stereol x 1
Audio Output	HDMI*, Stereo mini-plug ³³⁷ x 1 [ø3.5 mm], RCA ³⁸ x 1 [Stereo]	, RCA ⁻⁹ x 1 (Stereo)	
Network	RJ45 x 2 [1000BASE-T/100BASE-TX Full Duplex]	RJ45 x 2 (100BASE-TX Full Duplex)	
Others	USB 2.0" x 1 [Host Mode, Device Mode], Camera Control Terminal x 1 [Not used]	ntrol Terminal x 1 [Not used]	USB 2.0° x 1 [Host Mode, Device Mode], Camera Control Terminal x 1 [Not used]
o. of Simultaneous Connection Sites	16 (Expandable up to 24)	6 (Expandable up to 10)	4
ontent Sharing	PC(RGB/HDMI), Sub-camera (HDMI sub)	DMI subi	PC[RGB/HDMI], Sub-camera [HDMI sub
5B Host Mode (USB Memory Device)	Updating Schware, Recording, Import (Contact List/Profile"*/Configuration Daul-Encryption Data/Startup screen/Multicast Tree List) Export (Contact List/Profile"*/Configuration Data/Encryption Data/MulticastTree List)	ing, ata/Startup screen/Multicast Tree List), yption Data/Multicast Tree List)	Updating Software Recording
5B Device Mode	USB Video Class: Version 1.0 USB Audio Class: Version 1.0	1.0 1.0	
etwork Protocol	TCP/IP¼, TCP/IP¼"', UDP/IP¼, UDP/IP¼"', DHCP, DNS, HTTP, HTTPS, TELNET, NTP	NS, HTTP, HTTPS, TELNET, NTP	TCP/IPv4, TCP/IPv6*", UDP/IPv4, UDP/IPv6*", DHCP, DNS, HTTP, HTTPS, TELNET, NTP
etwork Functions	Automatic Repeat Query IARQI, Forward Error Correction IFECI, Adaptive Rate Control IARCI, Reorder, Packet Shaping, Arbitrary Port Setting, NAT Compatibility, Encryption, IP Precedence/DiffServ Support	ve Rate Control IARCI, Reorder, Packet Shaping. IP Precedence/DiffServ Support	Automatic Repeat Query (ARQ), Forward Error Correction (FEC), Adaptive Rate Control (ARC), Reorder, Packet Shaping. Arbitrary Port Setting, NAT Compatibility, Encryption, IP Precedence/DiffServ Support
rternal Control	Via Web Browser, Control by HTTP CGI, TELNET, RS-232C	TELNET, RS-232C	Via Web Browser, Control by HTTP CGI, TELNET, RS-232C
onnection Modes	IP mode, NAT Traversal mode, IP mode / NAT Traversal mode	VAT Traversal mode	IP mode, NAT Traversal mode, IP mode / NAT Traversal mode
eight	Approx. 320 mm x approx. 270 mm x approx. 61 mm Approx. 3.4 kg (approx. 7.51b)	Approx. 320 mm x approx. 230 mm x approx. 61 mm Approx. 2.0 kg (approx. 4.4 lb)	Approx. 2.0 kg (approx. 4.4 lb)
ower Input	AC 100-240 V, -1.0 A, 50/60 Hz	AC 100-240 V,-1.4A, 50/60 Hz	
Proper Input	Max.: approx. 73 W, Standby: 0.6 W	Max.: approx. 45 W, Standby: 0.6 W	Max.: approx. 43 W, Standby: 0.6 W
perating Temperature	0 °C to 40 °C (32 °F to 104 °F)		
erating Humidity	10 % to 90 % (non-condensing)	singl	
lgeage	english, penniah, menah, panish, padah, nondaese, paparese, russiah, omirese, Alabia	e, Japanese, Russian, Cilliese, Alabic	English, perman, menan, panish, butch, rundase, zapanese, kussiah, cinnese, xi adic

When connected to a different brand's device or MCU [Multi-point Control Unit], connection conditions vary depending on the specifications of their devices or MCUs.

■ HD Communication Camera

HD Communication Camera	KX-VD170	GP-VD131
Effective Pixels	1920×1080p	1920×1080i, 1920×1080p
Pan / Tilt	Pan: ±130°, Tilt: +90°-25°	Pan: ±100°, Tilt: ±20°
Zoom loptical/digital	12x / 10x	3x/4x
Angle of view loptical zooml	Horizontal angle of view 72.5° [Wide end] - 4.3° [Tele end] Vertical angle of view 44.9° [Wide end] - 3.8° [Tele end]	Horizontal angle of view 85° (Wide end) - 30° [Tele end] Vertical angle of view 88.4° (Wide end) - 23.8° [Tele end]
	F1.8 [Wide end] - F2.8 [Tele end]	F1.2 (Wide end) - F2.0 [Tele end]
Presets	12 pos	12 positions
Connection Cable	HD	HDMI
Dimensions (width x depth x height)	Approx. 180 mm x approx. 145 mm x approx. 184 mm	Approx. 133 mm x approx. 127 mm x approx. 139 mm
Weight	Approx. 1.6 kg	Approx. 0.8 kg
Power Consumption	Power supply voltage: 12 VDC±10% with AC adaptor attached]	Power supply voltage: 16 VDC±10% [with AC adaptor attached]
	Consumption current: 1.2 A	Consumption current: 0.6 A
Operating Temperature	0°0 00 ot 0°0	0.40 °C
Operating Humidity	20 % to 90 % Inon-condensing)	on-condensing)

^{*1} With i.Zoom 2x.
*2 i.Zoom function maintains high-definition picture quality.

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■ Boundary Omnidirectional Microphone

Boundary Omnidirectional Microphone	KX-VCA001	KX-VCA002
Maximum Pickup Range	Approx. 4 m(radius)	Approx. 2 mlradius]
Pickup Method	Stereo / Monaural *1	Stereo / Monaural *2
Microphone Unit	Unidirectional ECM microphone parts x.4	Unidirectional ECM microphone parts x 2
	Maximum 4 microphones	Maximum 1 microphone
	110 dBspl	Bspl
Number of Terminals for Microphone Connection	2	1
Dimensions	Approx. 120 mm diameter x 27 mm	Approx. 75 mm/diameter) x 31 mm
Cable Length	Approx. 8.5 m	Approx. 7 m
Power Input	Supplied from main unit via proprietary cable	it via proprietary cable
Weight	Approx. 280 g	Approx. 80 g
	0°C to 40°C	40 °C
	10 % to 90 % non-condensing)	on-condensing)

*1 Usable by simply connecting a USB cable to the PC, without having to install a driver.

USB Device Mode

Extension Cable for KX-VCA001	KX-VCAEX01
Dimensions (diameter x length)	7 mmkable outer diameterl x 20 m
	1.3 kg
	0 °C to 40 °C
Operating Humidity	10 % to 90 % [non-condensing]

^{*!} Varies according to device settings and the status of the network. *2 HDGP is not supported. *3 For 3-conductor stereo mini-plugs only.

**Unbalanced, input impedance approx. 23 KI with a bias of approx. 0C 3/1 % Unbalanced, recommended drough value: -16 48P, impedance: approx. 100 KI

*6 Simultaneous voice autor output if enalth/HDMZ is not supported. *7 Unbalanced recommended load impedance: the Will Unbalanced unput if evel; approx. -25 48V, impedance approx. 400 KI

*6 Simultaneous voice autor output if eval.

*Plower supply capacity: 5 V500 mA *10 Available for the KG-VC1000 after KG-VCS014 expansion has been enabled. *11 Some features are not supported when using IP46.

[&]quot;It either of the following conditions is met, the output sent to the other partywill, be steres, otherwise, monarall:

The blandwidth is higher than approximately 1.8 Mbys in 2-barry videoconformer cell with the IMPC Unit using SP

The blandwidth is represented to Center stereor, or the bland position is set anatomatically with the KK-VDA001 connected to the unit
without the KX-VDA02 connected.

"It either of the following conditions is met, the output sent to the other party will be stereo, otherwise monatral:

The bandwidth is higher than approximately 1.8 Mbps in a 2-party videoconference call with the HDVC Unit using SP.

KX-VDA001 and KX-VDA002 are not believing used logarither.