KX-VC600/VC300
HD Visual Communications System
Take Your Meetings to the Next Level with an HD Visual Communications System from Panasonic

Real-time collaboration in stunning HD
A Panasonic HD Visual Communications System lets you simulate and reap the benefits of face-to-face interaction without the exorbitant costs and carbon footprint associated with business travel.

With HDVC you can closely inspect a CAD drawing of a newly-milled machine part by your factory, observe and oversee delicate vascular surgery from across the country or train your global sales force—just as if you were physically present. Using only a standard Internet connection, you’ll experience crystal-clear HD video combined with full-duplex sound that lets you capture the nuances of facial expression, tone of voice and body language—crucial towards developing a level of trust and rapport otherwise afforded only by a meeting in person.

Easy Connection and Operation
With Panasonic HDVC, you can one-touch connect with the desired party using the remote control or select using the address book. The connection status of the network and peripheral devices is conveniently displayed on the screen.

1080i Full HD Video
As a premier developer of HD video technologies, Panasonic delivers a dazzling level of realism that bridges oceans by seamlessly bringing your clients and associates together.

360º HD Audio
360º Full-Duplex Audio combined with our Echo Canceller feature lets parties on both sides of the conference talk at once—just as you would in a face-to-face meeting. Voices are clear no matter where in the room the person speaking might be situated.

Stable Connection
Our original A/V-QoS technology helps prevent image and sound disruptions on both intranet and internet connections.

Computer/Sub Camera Connection
By connecting a PC or sub camera, you can show the other party your computer screen or images from an additional camera—perfect for adding slideshows, movies or other images to the meeting. While the other party is watching your visual aid, you can be watching them to gauge reactions.

MCU Interoperability
Designed for maximum flexibility, Panasonic HDVC can be integrated into an existing video conferencing system with the use of a multipoint control unit (MCU).
**Industry Applications**

**Healthcare**

With HDVC, doctors in urban locations can demonstrate new surgical techniques to other doctors or students in more remote locations without costly, time-consuming travel. Physicians can consult with one another in real time across continents and can provide diagnostic assistance by getting a detailed look at x-rays, charts or patients themselves, saving time and money. Medical students can participate in interactive training sessions with experts a continent away. 360° Full-Duplex Audio means participants on both sides of the conference are clearly heard.

**Manufacturing**

Engineers who would otherwise travel to factories to inspect machinery, collaborate on new product designs or train workers can now get a detailed look at blueprints or finely-machined parts, demonstrate assembly methods or conduct quality control seminars without leaving the home office. Sales managers can conduct detailed training sessions with multiple branch offices at once. HR departments can interview candidates and see their expressions and body language rather than conduct just a phone interview. Onerous travel expenses are instead rerouted to the bottom line while wasted travel time is eliminated.

**Education**

Engage and empower students like never before with an HD Visual Communications System. Experts and prominent lecturers who would otherwise be unavailable due to time and travel constraints can now be brought into the “virtual classroom.” HD video lets a renowned paleontologist show students across the country a close-up view of the bone-crushing jaws of a Tyrannosaurus rex. Students at satellite college campuses can attend lectures by top professors stationed at the main campus. Notes on a blackboard and other visual aids are seen clearly. Crisp HD audio keeps everyone engaged as no question goes unheard.

**Configuration Example**

[Diagram showing setup of HD Video Camera 1, HD Video Camera 2, Internet, HDTVs, Boundary Microphone, Computer, and Microphone Cable connections between Home Office and Overseas Factory.]
Camera Security Adaptor KX-VCA001*  
Analog Boundary Microphone KX-VCA002*  
Activation Key Card for KX-VC300 KX-VCS301 for 4-site connectability*  
KX-VCS401 for Full HD compatibility*  
*Sold separately

Video Camera  
HD Camcorder

HD Integrated Camera AW-HE50H

Display  
Full-HD Plasma/ LCD Display

HDMI cables are required for connection to the camera, TV, etc.

Specifications

<table>
<thead>
<tr>
<th>Main Unit KX-VC600 / KX-VC300</th>
<th>KX-VC600</th>
<th>KX-VC300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication protocol</td>
<td>IP</td>
<td>IP</td>
</tr>
<tr>
<td>Communication rate (Max to min)**</td>
<td>512 kbps to 9 Mbps</td>
<td>1 Mbps to 1 Mbps</td>
</tr>
<tr>
<td>Communication with 2 locations connected</td>
<td>1 Mbps to 1 Mbps</td>
<td></td>
</tr>
<tr>
<td>Communication with 3 locations connected*</td>
<td>1 Mbps to 1 Mbps</td>
<td></td>
</tr>
<tr>
<td>Communication with 6 locations connected*</td>
<td>1 Mbps to 1 Mbps</td>
<td></td>
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</tbody>
</table>
| Bandwidth (For different levels of resolution) | 3 Mbps minimum** for 1080i*  
1.5 Mbps minimum** for 720p  
0.75 Mbps minimum** for 4SIF |
| Video codec | ITU-T H.264 high profile level 4.0 (9 pixels per macroblock)  
ITU-T H.264 baseline profile level 3.1  
For connections to MCU and non-Panasonic video conference systems |
| Video input | HDMI 1 (main video camera)  
HDMI 2 (sub video camera)  
VGA 1 (PC)  
VGA 2 (sub video camera) |
| Resolution | 1080i (image only)  
1080i (image only)  
1080i (image only)  
XGA, SVGA, VGA |
| Video output | HDMI (display)  
Component video output |
| Resolution | 1080i  
1080i |
| Audio codec | MPES-4 AAC-LD (LATM format), 0.725 | MPES-4 AAC-LD (LATM format), 0.725 |
| Audio input | Boundary microphone  
Stereo mini-jack (audio input)  
RCA pin jack (audio input)  
Stereo mini-jack (audio input)  
RCA pin jack (audio input) |
| Optional Digital Boundary Microphone KX-VCA01 (Up to 4 microphones)  
Optional Analog Boundary Microphone KX-VCA02 (1 microphone only)  
Diameter 0.1 in. (3.5 mm)  
Available devices: headset  
Input is the microphone level. Either the Boundary Microphone terminal or the microphone connector is active, but not both  
RCA pin jack (audio input) Maximum line input level: 1.2 Vrms  
Available devices: stand microphone (via microphone amplifier), audio mixer etc.  
Echo canceller enabled  
Both enabled when using a Boundary Microphone and RCA microphone together.  
Diameter 0.1 in. (3.5 mm)  
Available devices: headset  
Output is the headphone. Either the RCA terminal or the headphone connector is active, but not both  
RCA pin jack (audio input) Maximum line input level: 1.2 Vrms  
Available devices: stand microphone (via microphone amplifier), audio mixer etc.  
Echo canceller enabled  
Both enabled when using a Boundary Microphone and RCA microphone together.  
For connecting to a display (with speaker)  
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For connecting to a display (with speaker) |
| Maximum conference points | 4 | 2* |
| Alternative video sources | PC (VGA terminal), sub-video camera (sub-HDMI video only)  
Component (video output) |
| Enrocement method | RES-320 (Microphone)  
Full-duplex 10BASE-TX only |
| Network | PLUS(LAN) |
| Control (serial) | RS-232C  
For connecting to a computer for maintenance (use a straight cable) D-Sub 9 pin (male) |
| Dimensions (W x H x D) | Approx. 12 in. x 2.4 in. x 9 in. / 320 mm x 60 mm x 230 mm |
| Weight | Approx. 4.4 lb / 2 kg |
| Voltage and Frequency | AC 100-240 V, 50/60 Hz |
| Power consumption | Maximum: approx. 39 W  
Maximum: approx. 23 W |
| Operating temperature | 32 °F to 104 °F / 0 °C to 40 °C |
| Operating humidity | 10 % to 90 % (non-condensing)  
10 % to 90 % (non-condensing) |
| Boundary Microphone (sold separately) | KX-VCA005  
KX-VCA06 | KX-VCA005  
KX-VCA06 |
| Standard pickup range | Approx. 6.5 ft. (radius), 360° / 2 m (radius), 360°  
Approx. 6.5 ft. (radius), 360° / 2 m (radius), 360° |
| Maximum pickup range | Approx. 9.8 ft. (radius), 360° / 3 m (radius), 360°  
Approx. 6.5 ft. (radius), 360° / 2 m (radius), 360° |
| Pickup method | Stereo (automatic left/right channel setting, with 1 unit connected)  
Monoaural (with 2 to 4 units connected)**  
Stereo (for stereo sound pickup) |
| Microphone unit | Unidirectional ECM microphone parts x 4  
Unidirectional ECM microphone parts x 2 |
| Number of connections | Maximum 4 microphones  
Maximum 1 microphone |
| Bandwidth | Approx. 23 ft. / 7 m |
| Maximum input sound pressure | 110 dBspl |
| Sampling frequency | 48 kHz |
| Delay time | 1 ms or less*** |
| Number of terminals for microphone connection | 2 |
| Mute button | Spring-return Push Switch |
| LED | Red: The microphone is muted; Green: The microphone is transmitting; Change: The microphone is starting up (flashes for approx. 1 second). OFF: The microphone is not transmitting |
| Dimensions | Approx. 4.4 in. (height) x 2.2 in. (width) x 3.7 in. (depth) / 112 mm x 56 mm x 94 mm  
Approx. 8.5 in. (height) x 4.7 in. (width) x 7.9 in. (depth) / 216 mm x 120 mm x 201 mm |
| Cable length | Approx. 28.9 ft. / 8.8 m |
| Power input | Supplied from main unit via proprietary cable |
| Weight | Approx. 0.6 lb / 280 g |
| Operating temperature | 32 °F to 104 °F / 0 °C to 40 °C |
| Operating humidity | 10 % to 90 % (non-condensing) |

*1 This optional Activation Key Card lets you expand the KX-VC300 system for connection of up to 4 locations.  
*2 This value is for reference purposes only. The actual value may vary depending on the image and communication conditions.  
*3 This optional Activation Key Card lets you upgrade the maximum resolution of the KX-VC300 system to 1080i.  
*4 Some restrictions apply when 3 or 4 locations are connected. For details, please consult with your local dealer.  
*5 This optional Activation Key Card lets you expand the KX-VC300 system for connection of up to 4 locations.  
*6 This indicates the microphone performance, and not the actual delay time when it is connected.  
*7 The optional Activation Key Card lets you expand the KX-VC300 system for connection of up to 4 locations.  
*8 This value is for reference purposes only. The actual value may vary depending on the image and communication conditions.  
*9 This optional Activation Key Card lets you upgrade the maximum resolution of the KX-VC300 system to 1080i.  
*10 Only available with a Straight cable.  
*11 With a microphone accessory, the microphone position may be limited to 2 locations.  
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*13 This optional Activation Key Card lets you expand the KX-VC300 system for connection of up to 4 locations.  
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HDMI cables are required for connection to the camera, TV, etc.

Panasonic System Networks Company of America

Home & Business Communications

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Design and specifications are subject to change without notice.

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