PCS-XG55
PCS-XG55S
HD Visual Communication Systems

click: sony.com/conferencesolutions
Powerful and Compact
PCS-XG55 HD Visual Communication System Brings You New Business Communication Style

Sony, a leader in the AV industry, introduces a powerful new addition to its high-definition (HD) visual communication lineup, the PCS-XG55. Powerful, affordable, and compact, the PCS-XG55 achieves 720p HD video quality with a maximum frame rate of 60 fps, making your style of everyday business communication more effective, productive, and comfortable.

What’s more, the HD camera of the PCS-XG55 adopts Sony-developed BrightFace™ technology, which produces clear images even when used in rooms with less-than-ideal lighting conditions. The unit also features clear and natural sounding stereo audio, allowing you to hold stress-free videoconferences with “real communication” as if you were talking in the same room.

To make videoconferencing a powerful mainstream business communication tool, the PCS-XG55 has been designed to be extremely user-friendly. With an intuitive Graphical User Interface (GUI) that employs a simple layer structure and translucent cascading menus, the system makes videoconferencing easier. Moreover, the PCS-XG55 offers a number of other features for user convenience, such as a one-touch dialing feature for starting a videoconference, an HDMI interface allowing a single cable connection between the codec and display, and stress-free operation using the RF Remote Commander® unit. You can also enhance the quality of your videoconferences with effective data sharing (video and presentation data from a PC) because the PCS-XG55 complies with the ITU-T H.239 standard*1. Presentation data can be transferred at a frame rate as high as 30 fps, which makes it possible to present animations during a videoconference. Moreover, by using the video annotation function*2 of the PCS-XG55, you can clearly point out specific parts of an image by writing on a tablet. With these outstanding data-sharing tools, you can now minimize misunderstandings during your videoconference.

With excellent HD video quality in a stylish and compact design, the PCS-XG55 takes your visual communications to the next level.

*1 Requires optional software.
*2 Requires an optional third-party pen tablet.
Stunning 720p High-definition (HD) Images

The PCS-XG55 adopts the H.264 video codec, which enables efficient transmission of high-quality images at up to 60 fps in a high-definition resolution of 1280 x 720 pixels. Stunning HD video enhances your videoconferencing with lifelike images for effective communication.

Superb Audio Quality

The PCS-XG55 produces clear and natural stereo sound, using the MPEG-4 AAC compression format. Since the unit has a built-in stereo echo canceller, which virtually eliminates the annoying echo often heard with other systems, communication sounds far more natural.

ITU-T H.239 Support - Presentation Data Transferred at 30 fps*1

With support for the ITU-T H.239 (video and presentation data) standard, the PCS-XG55 can send both the video and presentation data displayed on your PC to videoconferencing counterparts for more effective communication. Presentation data can be transferred at frame rates as high as 30 fps*1, providing natural and smooth presentations even when using animation effects or showing videos from your PC. This presentation data can also be shown either from a projector or a sub display, using the RGB output.

*1 Requires optional software. These functions are available except when using the 720/60p video formats.

BrightFace Technology (PCS-CXG80)

The PCS-XG55 has a dedicated HD camera (the PCSA-CXG80) that adopts Sony’s unique BrightFace technology. This technology optimizes the brightness of each pixel to highlight shadows, while subduing areas of the image that are too bright, allowing operation in less-than-ideal lighting conditions. BrightFace technology can provide clear images even in dimly lit rooms, for example when using a projector, or in rooms with poor backlighting.
Stable and Secure Videoconferencing

Enhanced Intelligent QoS Functions to Achieve Stable Transmission

To handle the transmission of large amounts of HD video data, while maintaining high-quality and stable communication over an IP network, the PCS-XG55 incorporates the following advanced Quality of Service (QoS) functions:

• Adaptive FEC (Forward Error Correction)
• Real-time ARQ (Automatic Repeat reQuest)
• ARC (Adaptive Rate Control)

These functions work in harmony for fast and consistent data throughput during the transmission of video signals, by adapting to any changes in the network condition and correcting any packet loss. For more information on the intelligent QoS mechanism, please refer to the Technical Note insert.

Advanced Encryption Standard (AES) for High Security

Secure videoconferencing over a network is possible because the PCS-XG55 supports 128-bit AES encryption. The system’s encryption complies with the ITU-T H.233/H.234/H.235 standards, which allow encrypted communication with other compliant systems. When the encryption mode is active, video, audio, and presentation data are encrypted for the duration of the videoconference.

Technical Note – Intelligent QoS Functions

Sony has implemented a number of QoS functions in all of its currently available visual communication systems. However, conventional QoS methods used with SD systems are inadequate when handling large amounts of data associated with high-definition (HD) video. Therefore, Sony has designed and implemented enhanced intelligent QoS functions in its HD visual communication systems.

Two major improvements have been made on the previous methods. First, the system intelligently allocates the amount of ARQ, FEC, and video data based on the bandwidth available, which is determined by the ARC function. Second, FEC is performed with larger FEC blocks and the number of parity packets are adjusted as required. This combination is both efficient and effective for transmitting large amounts of data over IP networks to help maintain high picture quality.
Usability

Video Annotation Function*2

For effective communication, the PCS-XG55 offers a useful video annotation function. Conference participants can clearly point out specific parts of shared data, including live images and presentation data, by simply writing on a tablet. This function can help you minimize time and effort in your communications, enabling you to deliver a clear, strong message.

*2 Requires an optional third-party pen tablet.

Simple Setup and Easy Operation

Intuitive GUI - Simple Layer Structure / Translucent Cascading Menus

The PCS-XG55 was thoughtfully designed with an intuitive GUI, utilizing translucent cascading menus. The simple layer structure and easy functionality allow you to operate the videoconferencing system, including the camera, much more easily.

“One-touch Dialing” With the RF Remote Commander Unit

For user convenience, the PCS-XG55 adopts an RF Remote Commander unit which you do not have to point directly towards the system. What’s more, the PCS-XG55 has a convenient one-touch dialing feature, which allows you to easily connect to any of your registered contacts by just pushing a function button on the RF Remote Commander unit that corresponds to a thumbnail image on the GUI. Up to four contacts for one-touch dialing can be shown on the home menu from a maximum of 1,000 registered contacts.

Multiple Display Layout

The PCS-XG55 has multiple display layouts such as Full Screen, Picture-in-Picture, Picture-and-Picture, and a Side-by-Side split screen. Any of these flexible display patterns can be selected so that both videoconferencing images and presentation data can be displayed in a manner that is effective and pleasing to the eye.

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Videoconferencing for Our Environment

You can help reduce CO2 emissions and support our environment by using videoconferences in lieu of business travel. Sony HD visual communication systems can make you feel as if you are communicating in the same room. Stay in touch, travel less, and save our earth. Sony has an answer.

Single Cable Connection With HDMI

With the supplied HDMI cable, the PCS-XG55 can be connected to an HDMI-equipped display. This single cable transmits both audio and video, allowing the codec and display to be neatly and quickly wired.

Backward Compatibility With SD Systems

Since the PCS-XG55 is backward compatible with legacy SD systems, you can seamlessly integrate the system into your existing standard-definition videoconferencing environment. This enables you to migrate from SD to HD at your own pace, with minimal upfront investment.

Compact and Stylish Design Suitable for a Variety of Meeting Rooms

With its compact and stylish design, the PCS-XG55 fits neatly into boardrooms, medium- and small-sized meeting rooms, and even classrooms. Since the compact and powerful HD videoconferencing system is incredibly light in weight at approximately 4 lb 3 oz (2.0 kg), system integrators find it easy to install.

Other Features

• Memory Stick® media recording - video/presentation data (including annotations) and audio can be recorded for later review
• Presentation data can be sent as a single stream by selecting the RGB input
• Built-in streaming function for multicasting to large audiences
• Support for IPv6
• Support for H.460 Firewall Traversal
• Up to 100 camera preset positions can be stored, each with a thumbnail image for easy recall

Peripheral Equipment

PCS-XG80 HD Visual Communication System
PCSA-CXG80 1/3-Type CMOS HD Camera (PCSA-DG80 is supplied with the PCS-XG55.)
EVI-HD1 1/3-Type CMOS HD Camera
BRC-H700 1/3-Type 3CCD HD Camera
BRC-Z700 1/4-Type 3CMOS HD Camera

Optional Accessories

PCS-A1 Omnidirectional Microphone (One PCS-A1 mic is supplied with the PCS-XG55.)
PCSA-A3 Unidirectional Microphone
PCSA-DSG80 HD Data Solution Software (for H.239 video and presentation data)
PCSA-B768S ISDN IF Box 768Kbps
PCSA-B384S ISDN IF Box 384Kbps
Sample System Configurations

System configuration when using PCS-XG80 systems as parents

HD Videoconferencing

Connector Panels

Dimensions

PCS-XG55S

PCSA-CXG80

Unit: inches (mm)
**Specifications**

### HD Codec Unit

**PC-XG55S**

<table>
<thead>
<tr>
<th>Video</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication protocol standards</td>
<td>H.261, H.263, H.264, H.264+</td>
</tr>
<tr>
<td>Compression standard</td>
<td>H.264, H.265, H.265+ (FIP only)</td>
</tr>
<tr>
<td>Resolution</td>
<td>4:3 - QCIF (176 x 144), CIF (352 x 288), 4CIF (704 x 576)</td>
</tr>
<tr>
<td>Maximum frame rate</td>
<td>Max. 60fps: H.264 - 720p</td>
</tr>
<tr>
<td>Bit rate</td>
<td>Max. 10fps: H.265 - 4096 x 2160</td>
</tr>
<tr>
<td>Audio</td>
<td>1.8 - 22 kHz, 1.8 - 4 kHz, 1.8 - 6 kHz, 1.8 - 8 kHz, 1.8 - 12 kHz, 1.8 - 16 kHz</td>
</tr>
<tr>
<td>Echo cancellation</td>
<td>Voice echo-canceling supported</td>
</tr>
</tbody>
</table>

### HD Camera Unit

**PCSA-CXG80**

<table>
<thead>
<tr>
<th>Video</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Image Device</td>
<td>1/3-type CMOS</td>
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<tr>
<td>Effective Picture Elements</td>
<td>Approx. 2 Megapixels (16:9)</td>
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<tr>
<td>Focus</td>
<td>Auto/Manual, Auto/Manual</td>
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<tr>
<td>Horizontal Image Angle</td>
<td>Approx. 8 (T) to 70° (W)</td>
</tr>
<tr>
<td>Zoom Ratio</td>
<td>10 optical zoom</td>
</tr>
</tbody>
</table>

### Package Configuration

**PC-XG55** | **PC-XG55S**
---|---
HD Codec Unit | No | No
HD Camera Unit (PCSA-CXG80) | | |
Omnidirectional Microphone (PCS-A1 x 1) | | |

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*PC images up to ISGA resolution is supported. It requires the optional HD data solution software PCSA-D5G80 to send video and presentation data simultaneously.