

## PCS-XG80S

HD visual communications system, CODEC only



### Overview

#### **The PCS-XG80S is a powerful, affordable and compact HD videoconferencing system with a stylish design**

This powerful, yet easy to use visual communication system achieves 1080i video quality and life-like sound. The PCS-XG80S HD is ideal for videoconferencing at all level of business, as well as for distance learning.

#### **Superb, consistent picture and sound performance**

The exceptional HD video quality of the PCS-XG80 takes your visual communications to the next level. What's more, the HD camera of the PCS-XG80 adopts the 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 videoconferences with “real communication” as if you were talking in the same room.

#### **Easy to set up and user friendly**

With an intuitive Graphical User Interface (GUI), the system makes videoconferencing easier than ever before. Moreover, the PCS-XG80 offers a number of other features for user convenience, such as one-touch dialling for starting a videoconference, an HDMI interface allowing a single cable connection between the codec and display, an embedded MCU for multi-point

connections and a new RF Remote Commander unit. It also integrates seamlessly with SD set-ups.

## **Effective data sharing**

Presentation data can be transferred at a frame rate as high as 30fps, which makes it possible to present animations during a videoconference. Moreover, by using the video annotation function, you can clearly point out specific parts of an image by writing on a tablet.

## Features

### **Stunning HD images**

The PCS-XG80 adopts the H.264 video codec to bring you smooth and natural high-definition (HD) images at a resolution of 1920 x 1080 pixels. Stunning HD video enhances your videoconferencing with life-like images. What's more, the unit can be operated at 720p, 60 frames per second, to produce natural video for effective communication.

### **BrightFace technology (PCSA CXG80)**

The PCS-XG80 has a dedicated HD camera (PCSA-CXG80) that adopts the Sony BrightFace technology. This technology optimises 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 conditions.

### **Superb audio quality**

The PCS-XG80 produces clear and natural stereo sound, using the MPEG-4 AAC compression format. And because the unit has a built-in stereo echo canceller, which helps to eliminate the annoying echo often heard with other systems, communication sounds far more natural.

## **Multipoint conferencing at up to 10 sites**

Using optional MCU software, the PCS-XG80 can be configured to communicate with up to five remote videoconferencing sites (six sites total) simultaneously, using either an IP (H.323 or SIP protocol) or ISDN (H.320 protocol) connection. It can also support videoconferences in which the connections are a combination of IP and ISDN by using a bridging function. Moreover, two PCS-XG80 units – each installed with the optional MCU software – can be cascaded with an IP connection to support a maximum of ten sites.

## **Advanced data sharing**

With support for the ITU-T H.239 standard, the PCS-XG80 can send both 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 30fps, providing natural and smooth presentations even when using animation effects or showing videos from your PC. This presentation data can be shown from either a projector or a sub display using the RGB output.

## **Continuous-presence mode with voice activated switching**

The PCS-XG80 supports both four-screen and six-screen continuous-presence modes in 720p HD format, which provides clear images even on the smaller sub screens. When using voice activated switching in continuous-presence mode, the far-end site that is actively speaking is displayed on the largest of the six sub screens. In addition, voice activated switching is available.

## **Stable and secure videoconferencing**

To handle the transmission of large amounts of HD video data while maintaining high-quality and stable communication over an IP network, the PCS-XG80 incorporates advanced QoS functions. These functions work by adapting to any changes in the network condition and correcting any packet loss. Secure

videoconferencing over a network is possible because the PCS-XG80 supports 128-bit AES encryption. The system's encryption complies with the ITU-T H.233/H.234/H.235 standards, which allows encrypted communication with other compliant systems.

### **Multiple display layout**

The PCS-XG80 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.

### **Simple setup and easy operation**

The PCS-XG80 was thoughtfully designed with an intuitive GUI, utilising translucent cascading menus. The simple layer structure and easy functionality allow you to operate the videoconferencing system, including the camera, much easier than ever before. The PCS-XG80 is also backward compatible with legacy SD systems, so you can seamlessly integrate the system to your existing standard-definition videoconferencing environment.

### **Compact and stylish design**

The PCS-XG80 fits neatly into boardrooms, medium- and small sized meeting rooms, and even classrooms. And because the compact and powerful HD videoconferencing system is incredibly light in weight at approximately 4 lb 14 oz (2.2kg), system integrators will find it easy to install.

## Specifications

### Key Features

Up to 6 sites (H.320/H.323) with optional software PCSA-MCG80.  
7 to 10 sites (H.320/H.323) requires

Multipoint Capability      two PCS-XA80 units with optional software PCSA-MCG80 using cascaded connection.

Data Sharing                      PC images up to SXGA resolution is supported. \*1  
Video annotation function is available.

Lip Synchronization          AUTO/OFF

Mic Off Function                ON/OFF

Streaming/Recording Feature      Audio: 64 kbps  
Video: 0 kbps to 512 kbps (5-step)

## Video

Maximum Frame Rate              60 fps  
H.264 - 720p  
30 fps  
H.261 - QCIF, CIF  
H.263 - QCIF, CIF  
H.264 - QCIF, CIF, 4CIF, wCIF, w432p, w4CIF  
10 fps  
H.263 - 4CIF

Communication Protocol Standards      H.261, H.263, H.263+, H.263++, H.264, H.264 High profile, MPEG-4

SP@L3

Resolution	4:3 - QCIF (176 x 144), CIF (352 x 288), 4CIF (704 x 576) 16:9 - wCIF/w288p (512 x 288), w432p (768 x 432), w4CIF (1024 x 576), 720p (1280 x 720)
Bit Rate	64 kbps to 10,240 kbps *2
Screen Layout	Full Screen, PinP, PandP, SideBySide

## Audio

Bandwidth and Coding	MPEG-4 AAC Stereo: 22 kHz at 192 kbps (IP only) MPEG-4 AAC Mono: 14 kHz at 48 kbps, 64 kbps, 96 kbps MPEG-4 AAC Mono: 22 kHz at 64 kbps, 96 kbps (IP only) G.711: 3.4 kHz at 56 kbps, 64 kbps G.722: 7.0 kHz at 48 kbps, 56 kbps, 64 kbps G.728: 3.4 kHz at 16 kbps
Other Features	Stereo echo-cancelling (ON/OFF), Auto Gain Control, Noise Reduction

## Network

Protocols	TCP/IP, UDP/IP, DHCP, DNS, HTTP, TELNET, SSH, SNMP, NTP, ARP, RTP/RTCP
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QoS (Quality of Service)	Adaptive FEC (Forward Error Correction), Real-time ARQ (Auto Repeat reQuest), ARC (Adaptive Rate Control), IP Precedence, DiffServe
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Other Network Features	Packet reordering, TCP/UDP port setting, NAT, PPPoE, UDP shaping, Encryption, Auto gatekeeper discovery, UPnP *3, URI Dialing, IPv6
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## Interface

Video Input	AUX video inputs (S-Video x 1, Y/Pb/Pr x 1, RGB x 1)
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Video Output	HDMI x 1, RGB x 1
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Control Input	RS-232C x 1
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Audio Input	External analog microphone input Mini-jack (Plug in power) x 2 (L/R) EC-Mic Input x 2 (PCSA-A7) Audio Input (MIC/AUX) x 2 (Phono)
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	jack, stereo)
Audio Output	HDMI (video, audio) x 1, Line Output (Phono jack, stereo) x 1, REC Output (Phono jack, stereo) x 1
Network Port	10BASE-T/100BASE-TX x 2, ISDN Unit Interface x 1
Memory Stick Slots	1
Maintenance Interface	RS-232C x 1
Others	Tablet Interface x 1

## Standard

Communication Protocol Standards	ITU-T H.320, H.323 *4 , IETF SIP
ITU-T (excluding audio/video standards)	H.231, H.241 H.242, H.243, H.245, H.350, H.460.18, H.460.19
IETF	RFC2190, RFC3016, RFC3047, RFC3261, RFC3264, RFC3550, RFC3984, RFC4573, RFC4587, RFC4629, RFC4856, RFC4628, RFC5168



Encryption	H.233, H.234, H.235 ver.3
Far End Camera Control	H.224, H.281
Frame Format	H.221, BONDING, H.225.0
Dual Stream	H.239 (video and presentation data)

## General

Power Requirements	DC 19.5 V (AC Adapter : AC 100 V to 240 V, 50/60 Hz)
Power Consumption	40 W (the codec only)
Power Consumption (Standby)	10 W (the codec only)
Operating Temperature	5°C to 35°C 41°F to 95°F
Storage Temperature	-20°C to +60°C -4°F to +140°F
Operating Humidity	20% to 80% (no condensation)
Storage Humidity	20% to 80% (no condensation)

Codec:  
Approx. 282 x 56 x 244mm

<p>Dimensions (W x H x D) *5</p>	<p>(excluding protrusions) Approx. 11 1/8 x 2 1/4 x 9 5/8 inches (excluding protrusions) Camera unit: Approx. 115 x 49.2 x 29.3 mm (excluding protrusions and arm) Approx. 4 5/8 x 1 15/16 x 1 3/16 inches (excluding protrusions and arm)</p>
<p>Mass</p>	<p>Codec: Approx. 2.2 kg Approx. 4 lb 14 oz Camera unit: Approx. 0.5 kg Approx. 1lb 2 oz</p>
<p>Supplied Accessories</p>	<p>PCSA-CXG55 HD camera (1) PCS-A1 microphones (2) AC adaptor (1) Power cord (1) HDMI cable (3m) (1) RF Remote Commander Unit (1) Batteries for Remote Commander unit (2) CD-ROM (Operating instructions, Before using this unit, Quick connection guide) (1) Before using this unit (1) Installation Guide (1)</p>

Quick connection guide/Remote commander guide (1)  
Important notice regarding software (1)  
Warranty booklet (1)  
Adhesive disc for suction cup (for HD camera) (1)  
Operating instructions for HD camera (1)

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## Notes

### Note

[\*1] It requires the optional data solution software PCSA-DSG80 to send video and presentation data simultaneously.

[\*2] Maximum speed is 4 Mbps when the connected point does not use the PCS-XG80/XA80.

[\*3] It is unavailable depending on the model.

[\*4] Interoperable with other manufacturer's endpoint which is compliant to H.323/H.320. It does not mean that all connections are guaranteed.

[\*5] The values for dimensions are approximate.

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## Gallery

