

The PCS-G50 videoconferencing system is a combination of advanced audio and video technologies to provide a visual communication tool for all businesses, small or large and at a very affordable price.

High-Quality Video/High-Speed Network Connection

The PCS-G50 provides excellent picture quality over both ISDN (H.320) and IP (H.323) networks and fully supports the latest non-proprietary ITU-T H.264 video codec standard for maximum customer confidence and flexibility. When video encoding is in accordance with the H.263 protocol, the PCS-G50 supports the 4CIF format at a maximum frame rate of 30 fps, and when in H.264 protocol, it supports the interlaced SIF format at 60 fields per second. It can also achieve a maximum bandwidth of 4 Mbps with an IP connection, and up to 1.5 Mbps with an ISDN connection using an optional PCSA-PRI ISDN unit.

Memory Stick® Media Support

Private phone books can be created and stored on Memory Stick media. Simply insert the Memory Stick media into the PCS-G50 and automatically the unit recognizes and activates the private phone book, eliminating the need to re-enter contact information to place a call.

Memory Stick media has a number of other uses, such as storing captured images, PC-generated data, and digital whiteboard drawings. The media can also be used for capturing audio and video during a videoconference to keep a record of what was conveyed during a conference, and for installing and updating software.



QoS (Quality of Service) Enhancement Functions

When holding a videoconference over a network, a common concern is how to maintain video and audio quality when the performance of the network is changing. The PCS-G50 provides three advanced functions to enhance QoS over a network: Forward Error Correction (FEC), Adaptive Rate Control (ARC) and Real-time Auto Repeat Request (ARQ).

Secure Videoconferencing - Advanced Encryption Standard (AES)

Secure videoconferencing over a network is possible because the PCS-G50 supports AES 128-bit encryption. The PCS-G50 offers two encryption modes with an IP connection, one that complies with the ITU-T H.235 standard, which allows encrypted communication with other H.235 compliant systems, and another that is Sony proprietary, which is ideal when connecting to other PCS Series systems and offers higher security. When either of these encryption modes is active, video, audio, and graphics are encrypted for the duration of the videoconference.

Other Key Features of the PCS-G50

Other key features include multi-point videoconferencing at up to 10 sites using optional MCU software, Site-Name display which can display anything from company or branch names to geographical locations on a monitor, allowing videoconferencing participants to keep track of all parties, Flexible Display patterns at all sites, Easy-To-Use Remote Commander Unit/Intuitive GUI and a very stylish design that can fit even the classiest of conference rooms.



IPELA™

Sony IPELA products embrace the concepts of Reality, Usability, and Intelligence, enabling real audiovisual communication over IP networks.

The PCS-G50 – The Business Tool for Visual Communications with the utmost Flexibility at a very affordable price for today's businesses.

Videoconferencing systems continue to evolve as we enter a new era of visual communication. Sony's IPELA brand of videoconferencing equipment is leading this evolution by staying ahead of the latest technological trends in videoconferencing and developing systems that meet our customers' demands. The mid-range PCS-G50 video communication system is vital to move ahead in today's business, and with this feature-rich system, not only will your visual communications be effective, it will be affordable.

PCS-G50 Features

High-Quality Video/High-Speed Network Connection: The PCS-G50 provides excellent picture quality over both ISDN (H.320) and IP (H.323) networks and fully supports the latest non-proprietary ITU-T H.264 video codec standard for maximum customer confidence and flexibility.

Superb Sound: The PCS-G50 reproduces clear and natural-sounding audio using MPEG-4 AAC (Advanced Audio Coding) at 14KHz.

Multi-Point Videoconferencing at up to 10 Sites: Using optional MCU software, the PCS-G50 can be configured to communicate with up to 5 remote videoconferencing sites (6 sites total) simultaneously using either an IP (H.323 protocol) or ISDN (H.320 protocol) connection.

Site-Name Display: During multi-point videoconferences, it can be difficult to keep track of all of the participants; however, with the PCS-G50 site-name display function, this is no longer the case.

Flexible Display Patterns at all Sites: In addition to conventional patterns of display – such as showing the far-end site on a full screen or displaying near-end and far-end sites in picture-in-picture mode – a variety of other display patterns are available with the PCS-G50.

Memory Stick recording: Audiovisual (A/V) Recording to Memory Stick® Media. Capturing audio and video during a videoconference is important to keep a record of what was conveyed during a conference. With the PCS-G50, audio and video displayed on the main monitor can be recorded* directly to Memory Stick® media in MPEG-4 format and can be played back on any PC using QuickTime® media player.

Data-Sharing Capabilities/Digital Whiteboard Support: Data originated on your PC can be shared with your videoconferencing counterparts, making communication even more effective.

Built-in Streaming Function: To broadcast* your videoconferences to a large audience, i.e. with educational lectures or live corporate speeches, the PCS-G50 features a built-in streaming function that allows remote users to log on from any PC using an Internet browser.**

VIDEO

Signal system	PCS-G50: NTSC
Standards	H.261 (Annex D), H.263 (Annex D,F), H.263+ (Annex J), H.263++ (Annex U,W), H.264, MPEG-4 SP@L3, H.239 Video and Presentation Data Support***
Resolution	QCIF (128 x 96, reception only), QCIF (176 x 144), CIF (352 x 288), 4CIF (704 x 576, H.263 only), Interlaced SIF (H.263, H.264 only)
Frame rate	Max. 30 frames/s (H.261, H.263, H.263+, H.263++, H.264, and MPEG-4 SP@L3) Interlaced SIF Mode (PCS-G50: 60 fields/s)
Bit rate	Up to 4 Mb/s in H.323 (Incl. audio)**** Up to 2 Mb/s in H.320 (Incl. audio) when configured with the PCSA-PRI Up to 768 Kb/s in H.320 (Incl. audio) when configured with the PCSA-B768S Up to 384 Kb/s in H.320 (Incl. audio) when configured with the PCSA-B384S

AUDIO

Bandwidth and coding	G.711: 3.4 kHz at 56/64 Kb/s G.722: 7.0 kHz at 48/56/64 Kb/s G.722.1: 7.0 kHz at 24/32 Kb/s (H.323) G.728: 3.4 kHz at 16 Kb/s G.723.1: 3.4 kHz at 5.3/6.3 Kb/s (H.323) G.729: 3.4 kHz at 8 Kb/s (H.323) MPEG-4 AAC (mono) 14 kHz at 64/96 Kb/s (H.323) at 48 Kb/s (H.320)
Echo cancellation	Noise Suppressor included, Automatic Gain Control included

GRAPHICS

XGA	1024 pixels x 768 lines (H.263), with PCSA-DSB1S
4CIF	704 pixels x 576 lines (H.261 Annex D and H.263)

PICTURE IN PICTURE

Sub screen size	4.3" (256 x 192), One of four corners
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ITU-T STANDARDS (EXCLUDES AUDIO/VIDEO STANDARDS)

H.320, H.323
H.221
Bonding
H.281 FECC
H.225.0
H.239
H.233, H.234, H.235
H.242
H.243
H.245
T.120

NETWORK PROTOCOLS

TELNET (Server), HTTP (Server), FTP (Server), SNMP (Agent), DNS (Client), DHCP (Client), RTP/RTCP, TCP/UDP, ARP, SIP
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MULTIPOINT CAPABILITIES

Up to 6 sites (H.320/H.323)*****
Up to 10 sites (H.320/H.323)*****

LIP SYNCHRONIZATION

Manual On/Off

SECURITY

H.233, H.234, H.235
Sony Proprietary AES Encryption, Password Protection

NETWORK FEATURES

GoS (Quality of Service)	ARC (Adaptive Rate Control), FEC (Forward Error Correction), Real-time ARQ (Auto Repeat reQuest), IP Precedence, DiffServ
NAT	Network Address Translation
FireWall	Port setting for TCP/UDP
UPnP	Universal Plug and Play

CAMERA UNIT

Image device	1/4 type CCD
Horizontal resolution	NTSC: 470 TV lines
Focal length	3.1 to 31 mm (F1.8 to 2.9)
Focus	Auto/Manual
IRIS	Auto
Zoom ratio	x10 Optical zoom (x40 with digital zoom)
Pan angle	-100° to +100° (Max. 300°/sec)
Tilt angle	-25° to +25° (Max. 125°/sec)
Preset	Up to 6 positions
S/N	More than 50 dB
Others	Back light compensation, Auto white balance

REMOTE COMMANDER UNIT

Format	Wireless SIRCS
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INTERFACES (COMMUNICATION TERMINAL)

Video	D-Sub 15-pin Dedicated Camera I/F x1 S-video or Composite input x1 (switchable with conversion connector) S-video output x2 (for main/sub monitor) Composite output (AUX) RGB output
Audio	Line input RCA AUX input RCA (bypass echo cancellor) External analog microphone input, Mini-jack (Plug in power) x2 External digital microphone input x2 Line output RCA x2 (one mixed output)
Network	10Base-T/100Base-TX External ISDN Unit I/F
Control	SIRCS IR Out x2 Wired SIRCS In (Control-S) RS-232C

DSB I/F	Dedicated D-Sub 15
RGB I/F	RGB output
Memory Stick Media	Memory Stick® slot
Digital whiteboard	Dedicated connector

INTERFACES (CAMERA UNIT)

Video	IR for DS150
Terminal	Dedicated 23-pin
AUX camera	8-pin Mini-DIN

GENERAL

Operating temperature	5 °C to 35 °C
Operating humidity	30% to 70%
Storage temperature	-20 °C to +55 °C
Storage humidity	25% to 75%
Power Requirements	PCS-G50: AC 120 V, 50/60 Hz
Power Consumption	DC 19.5 V, 5 A
Communication Terminal Dimensions (W x H x D)	16 5/8 x 2 5/8 x 10 inches (420 x 66 x 254 mm), excluding projections
Camera Unit Dimensions (W x H x D)	5 1/4 x 5 5/8 x 5 1/8 inches (131 x 141 x 130 mm), excluding projections
Remote Commander Unit Dimensions (W x H x D)	1 7/8 x 1 3/4 x 7 3/4 inches (47 x 43 x 195 mm), excluding projections
Communication Terminal Weight	10 lbs 2 oz (4.6 kg)
Camera Unit Weight	2 lbs 3 oz (1.0 kg)
Remote Commander Unit Weight	6.3 oz (180 g), incl. batteries

SYSTEM COMPONENTS AND SUPPLIED ACCESSORIES

Communication Terminal	Operation Guide
Camera Unit (includes dedicated 3 m camera cable)	Quick Connection Guide
Remote Commander Unit	Cable Connection Guide
AC Adaptor/Power Cord	Worldwide Warranty Booklet
Omnidirectional Microphone	Audio Cable (1.0 m)
IR Repeater x2	S-Video Cable (1.5 m)
Manganese Battery for Remote Commander Unit x2	Mini DIN 7-pin to RCA Conversion Connector
Operation Manual CD-ROM (Japanese, English, French, Spanish, Italian, German, Portuguese, Simplified Chinese)	

Sony Electronics Inc.
1 Sony Drive
Park Ridge, NJ 07656
www.sony.com/conferencesolutions

* AV recording is not supported when AES is active. Also presentation data cannot be recorded.
** Recommended system requirements: Microsoft Windows® XP, Microsoft Internet Explorer® 6.0 or higher, and QuickTime® 6.0 or higher.
*** The optional PCSA-DSB1S Data Solution Box is required to send presentation data.
**** When the H.261 video standard is used, up to 2 Mb/s is supported.
***** Requires optional MCU software. IP/ISDN Bridging is possible.
***** Requires optional MCU software. Connections between base units must be IP (H.323). IP/ISDN Bridging is possible.

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