

# SONY



IPELA

INTEGRATED VISUAL COMMUNICATION

PCS-1P  
Multimedia  
Videoconferencing System

[www.sonybiz.net/vc](http://www.sonybiz.net/vc)





Stunning video and audio brought to you by "IPELA" fashions the novel reality for the modern businessperson. Sharing ideas and dreams as if you are collocated when your counterpart is half-way around the world, experiencing images as if you are actually there, this is "IPELA". Real audiovisual communication over networks – this is business communication of the future, brought to you today. This is "IPELA".



## Crisp and clear audio with sparkling video quality.

Today, many organisations are facing the same challenges. Gaining competitive edge, increasing efficiency and improving profitability is balanced by the need to manage travel budgets and other overheads more effectively.

That's why corporate companies, educational establishments, scientific institutions and medical practitioners are using videoconferencing to improve their internal as well as external communications – bringing people together to share ideas and make decisions, wherever they are in the world.

The Sony PCS-1P videoconference system offers everything you need to bring the benefits of high quality video, audio and data conferencing to your organisation.

Elegantly designed and small enough to fit on your desk, the PCS-1P is equally at home in meeting rooms of any size, right up to the largest boardroom. Quick and easy to set up, the PCS-1P plugs into your standard office network, ISDN network or connects to the Internet to deliver all the advantages of audio, video and data conferencing without requiring special cabling or difficult configuration.

The intuitive on screen menu of the PCS-1P makes setting up a conference call as easy as making a normal telephone call; calls to five other parties can be launched instantly from one phonebook entry.

Better still, as your needs grow, it's easy to upgrade the PCS-1P to handle "multipoint" conferences with up to five other participants over IP and ISDN networks simultaneously.

Sparkling picture quality is matched by clear, crisp audio that's the best in its class, making every conference more immediate, personal and productive.

Connect two PCs or notebooks and you can share presentation documents and images as well as voice and video, or hook up a digital whiteboard and communicate your ideas with sketches and handwritten notes that everybody can see and share. Best of all, the PCS-1P is fully compatible with other videoconferencing systems, so it's easy to integrate into your existing IT and networked communications infrastructure.

**The Sony PCS-1P – it's the most natural, effective way to help you communicate more effectively... whatever your business is.**



## FEATURES

### ■ Share your Ideas Easily

Nothing persuades like the power of the visual image, and any conference can become even more productive with the addition of presentations, documents, pictures and diagrams. With the PCS-1P, it's easy to share presentations and documents created on your PC, or add hand-written notes from a digital whiteboard – it's like giving a presentation to everybody in the same room. The PCS-1P offers two special data sharing features to help get your point across more effectively:

### ■ Standards-based data sharing from your PC

#### Present information from your PC instantly

The new generation of multimedia videoconferencing systems from Sony facilitates sharing of high-resolution data from the PC at the touch of a button - irrespective of the number of participants, while retaining full industry-wide interoperability. High resolution XGA display quality ensures that Microsoft® PowerPoint®, Word and Excel files can be viewed with superb clarity, making it easier to read even the smallest on-screen characters. Up to two PCs or notebooks can be connected simultaneously, allowing presenters to switch seamlessly between PCs and transmit screen images at the touch of a button. With two monitors connected, one screen can display data presentations while the other displays video and audio of the presenter. Larger images can be displayed by connection to an external data projector, television or plasma screen.

Up to five separate microphones can be connected to ensure that every voice in the room is heard clearly.

#### Use your existing whiteboard

Further improving the natural interactivity of a face-to-face meeting, an optional Mimio Xi™ connected to the PCS-1P turns your existing whiteboard into a digital one, allowing handwritten notes, drawings and diagrams to be displayed in real time. Notes and other annotations can also be captured by the PCS-1P and stored to Memory Stick™ for sharing, storage or wider distribution.

### ■ Bring the World into your Conference

With the unique optional multipoint functionality you can bring up to 6 international locations into one meeting instantly, via IP, ISDN or both networks at the same time. You can even expand the number of locations to an amazing 10 sites, without using an expensive external multipoint solution, just by cascading a second PCS-1P. All participants can be seen on one TV monitor in the unique Sony 5+1 continuous presence mode, while the high resolution data or whiteboard drawings are projected via the second monitor or projector. The high bandwidth of 384 Kbps per site in such a multipoint conference provides excellent audio and video quality.

Even when participants are not near any video-conferencing system they can join the conference: up to 5 participants can join in via their mobile or fixed telephone just as easily.

### ■ Excellent Video Quality

The PCS-1P supports the H.264 video coding standard delivering sparkling video quality during conferences. The PCS-1P can connect to IP networks using the ITU-T H.323 standard at up to 2 Mb/s and 30 frames/s. By connecting the optional PCSA-B768S ISDN unit, it is possible to connect to ISDN networks using the ITU-T H.320 standard up to 768 Kb/s.



## ■ Outstanding Audio Quality

Audio quality is a vital part of any video conference meeting and the success of any meeting greatly depends on it. The PCS-1P therefore supports MPEG4 14 kHz wideband audio to provide crisp and clear sound quality. Furthermore, the built-in echo canceller capabilities of the PCS-1P and the available microphone options ensure that the PCS-1P can be used for a variety of room installations.

## ■ Scalable, Flexible Design

The PCS-1P offers a highly scalable, flexible video-conferencing solution to suit the needs of any organisation, from desktop users and smaller meeting rooms right up to large boardrooms. The main Communication Terminal measures a compact 258 x 54 x 171 mm (WxHxD), and can be sited separately from the Camera Unit to ensure greater flexibility in installation and configuration. The Communication Terminal and Camera Unit are together small enough to be positioned on top of a television or video monitor. Alternatively, both units can be mounted on a dedicated camera stand (PCS-STP1) or integrated separately into a meeting room.

## ■ Security

The PCS-1P supports both ITU-T standards-based encryption and Sony proprietary encryption that provides additional security with encrypted key exchange, to safeguard audio, video and data against unauthorised interception, ensuring that confidential information remains secure throughout the conference.

## ■ Ensuring Quality on your Network

Maintaining consistent picture and audio quality levels is a common concern when running videoconferences over the Internet and data networks. The PCS-1P offers advanced functions to enhance Quality Of Service and provide a more satisfying, reliable and productive videoconference:

### Adaptive Rate Control

The adaptive rate control function varies the bit rate of transmitted audio and video data corresponding to changing network conditions, selecting the most appropriate frame rate at a particular instant. Video bit rates are automatically lowered when network traffic becomes congested, and increased when network performance increases to deliver the best possible conferencing quality at all times.

### ARQ (Auto Repeat reQuest)

The ARQ function maintains picture quality by buffering and re-sending lost data packets to improve audio and video performance even when network conditions are less than optimal.

## ■ Memory Stick Support

### User benefits:

- **Easy data sharing:**

During a videoconference, by using the Memory Stick SlideShow, images that are received can be saved on a Memory Stick to be reviewed later.

- **Private PhoneBook function:**

Users can store their own private phonebook on a Memory Stick. A selected phonebook entry can also be configured for automatic dial-up when the Memory Stick is inserted into the PCS-1P.

- **Installation and upgrading:**

A videoconferencing system can be installed and upgraded straight from the Memory Stick. Multiple installations can be done by simply copying and pasting the system settings and PhoneBook to another PCS-1P or PCS-11P.

- **Information retrieval:**

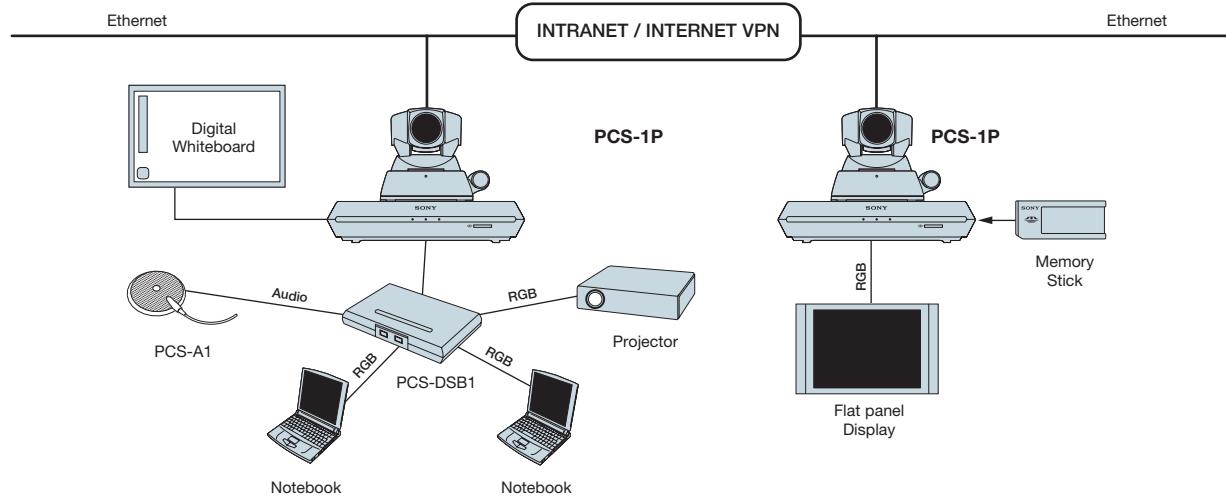
Call log files from the PCS-1P can be saved to a Memory Stick, providing all the relevant information about the system usage: the username, time of usage, bandwidth used, etc, thus facilitating invoicing for your company.



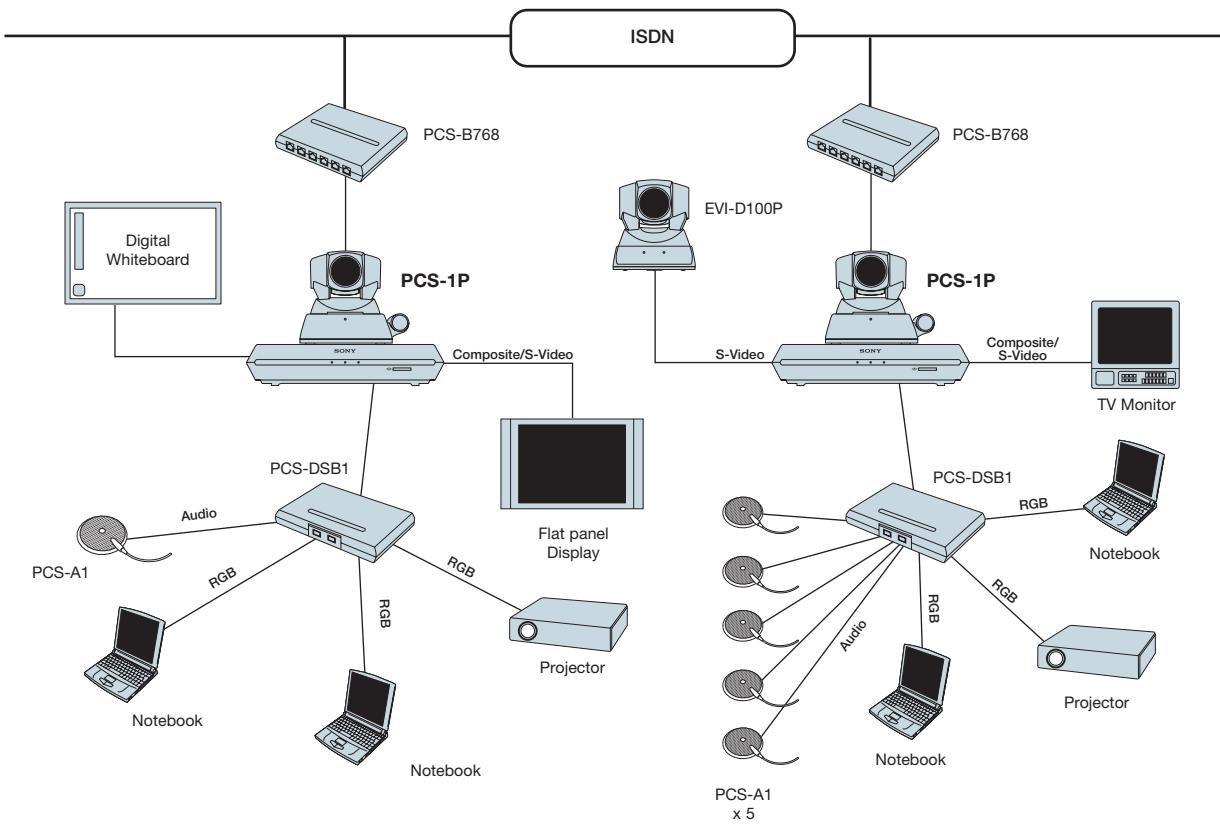
Memory Stick

## System Configuration Examples

A videoconference via a network using a single projector or flat panel display in “Picture in Picture” mode



A videoconference via an ISDN line using a projector and either a flat panel display or TV monitor



## Optional Accessories to further enhance your video communication

---



**PCSA-DSB1S**  
Data Solution Box



**PCSA-B384S**  
ISDN interface for 3 lines



**PCSA-B768S**  
ISDN interface for 6 lines



**PCS-A1**  
Microphone



**PCSA-A3**  
Microphone



**EVI-D100P**  
Communication Colour  
Video Camera



**PCS-STP1**  
Camera Stand



**PCS-323M1**  
H.323 MCU Software  
**PCS-320M1**  
H.320 MCU Software



**PCSA-SP1**  
SIP software option



**PCSA-SC1**  
CISCO skinny software option



# PCS-1P SPECIFICATIONS

<b>Video</b>	
Signal system	PAL
Standards	H.261, H.263, H.263+, H.263++, H.264, MPEG-4 SP@L3
Resolution	QCIF, CIF
Frame rate	Max. 30 frames/s
Bit rate	Up to 768 kb/s in H.320 (Incl. audio) Up to 2 Mb/s in H.323 (Incl. audio)
<b>Audio</b>	
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 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 48 kb/s
Echo cancellation	Reduction rate: 30 dB Echo path length: 340 ms (4 kHz and below) 110 ms (4 to 8 kHz) 56 ms (8 kHz and above) Noise suppressor included Automatic gain control included
<b>Graphics</b>	
XGA	1024 pixels x 768 lines (H.263)
4CIF	704 pixels x 576 lines (H.261 Annex D and H.263 Base)
<b>Picture in Picture</b>	
Sub screen size	1/9 (One of four corners)
<b>ITU-T Standards</b>	
	H.320 H.323 H.221 Bonding H.233 H.234 H.235 V3 H.239 H.281 FECC H.225.0 H.245 T.120
<b>Network Protocols</b>	
	TELNET (Server) HTTP (Server) FTP (Server), SNMP (Agent) PING DNS (Client) DHCP (Client), RTCP RTP TCP ARP
<b>Multipoint Capabilities</b>	
	Up to 6 sites (H.323) Up to 10 sites (H.323 / H.320)* Up to 6 sites (H.320)

\* Two PCS-1P units with PCS-323M1 installed must be used.

<b>Lip Synchronisation</b>	Manual On/Off
<b>Camera Unit</b>	
Image sensor	1/4 type CCD
Horizontal resolution	460 TV lines
Focal length	3.1 to 31 mm (F = 1.8 to 2.9)
Focus	Auto/Manual
IRIS	Auto
Horizontal view angle	6.6 to 65°
Zoom ratio	x10 (Optical zoom), x40 (Digital zoom)
Pan angle	-100 to +100° (Max. 300°/s)
Tilt angle	-25 to +25° (Max. 125°/s)
Preset	Up to 6 positions
S/N	More than 50 dB
Others	Back light shooting

<b>Remote Commander</b>	
Format	Wireless SIRCS
<b>Interfaces (Communication Terminal)</b>	
Video	S-video input x 1 Composite input x 1 S-video output x 2 Composite output x 1 RGB output x 1 IR for PCS-DS150P x 1
Audio	Line input (RCA) x 1 External microphone input (Plug in power) x 2 Line output (RCA) x 2 Internal microphone x 1
Graphics	RGB (XGA) output x 1
Network	10Base-T/100Base-TX x 1
Digital whiteboard	Dedicated connector x 1
Memory Stick	Memory Stick slot x 1
Control	RS-232C/VISCA (Mini-DIN 8-pin) for second camera x 1 SIRCS IR output for TV monitor x 2 IR for Remote Commander x 1

<b>Interfaces (Data Solution Box)</b>	
Audio I/F	Microphone input (Mini jack) x 5 Line output (Mini jack) to active speaker x 1 AUX input (RCA) x 1 AUX output (RCA) x 1
Graphics	RGB (XGA, SVGA, VGA) input x 2 RGB (XGA) output x 1

<b>Interfaces (ISDN Unit)</b>	
ISDN	BRI (Basic Rate Interface) x 6
<b>General</b>	
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 requirement	AC 220 V to 240 V, 50/60 Hz
Power consumption	DC 19.5 V, 3.5 A

<b>Dimensions and Weight</b>	
Communication Terminal (W x H x D)	258 x 54 x 171 mm, 1.3 kg (10 1/2 x 2 1/4 x 6 1/2 inches, 2 lb 14 oz)
Camera Unit (W x H x D)	147 x 130 x 138 mm, 1.1 kg (5 1/2 x 5 1/4 x 5 1/2 inches, 2 lb 7 oz)
Remote Commander (W x H x D)	50 x 24 x 197 mm, 0.14 kg (Incl. battery) (2 x 3 1/2 x 7 1/2 inches, 5 oz (Incl. battery))

<b>System Components and Supplied Accessories</b>	
Communication Terminal	
Camera Unit	
Remote Commander	
Camera Cable (0.25 m)	
AC Adaptor	
IR Repeater x 2	
Manganese Battery for Remote Commander x 2	
Velcro for Communication Terminal x 2	
Double-faced Tape for Camera Unit x 3	
Audio Cable (1.0 m)	
S-Video Cable (1.5 m)	
Operation Manual (Japanese, English, French, Spanish, Portuguese, Italian, German, Simplified Chinese)	
Warranty Card	