

PCS-TL50

Visual Communications System

SONY

IPELA
VISUAL COMMUNICATIONS



THE NEW WAY OF BUSINESS™

IPELA

IPELA is Sony's vision of the ultimate workplace, designed to revolutionize the way business communicates over global IP networks. Utilizing Sony's line of high quality, IP-ready videoconferencing and monitoring products, communication is delivered in high-resolution images and naturally clear audio – with a quality never before achieved.



Imagine a world in which you can sit at your desk working at your PC when suddenly, instead of the phone ringing, a window pops up on your PC display and instantly you are on a videoconference call. This world of modern visual communication is no longer imaginary with the new Sony PCS-TL50 Visual Communications System.

The all-in-one PCS-TL50 Visual Communications System is ideal for executive offices, SOHOs, and small offices/meeting spaces. It's very easy to install, because everything is built-in, and preprogramming the unit is also very simple with the supplied Remote Commander® unit and intuitive GUI. Moreover, the unit's user-friendly design makes placing and receiving calls as easy as pressing a button – even easier than making a phone call.

*Boasting a large 20-inch*¹ wide-screen display that doubles as a PC monitor, multitasking is made easy. There are several layout options available, including multiple screens and Picture-and-Picture, which can be used to display the other party while you continue to work on another PC application. By multitasking in this way, productivity can be increased twofold. What's more, the data-sharing function makes it possible to send and receive*² any kind of data that can be displayed on a PC.*

With all of these features and more, the sleek, stylish, and sophisticated PCS-TL50 will make a great addition to your office or small meeting spaces. Increased productivity and improved visual communications, including executive decision-making is all possible with the PCS-TL50.

^{*1} Viewable area measured diagonally.

^{*2} Sending data requires the optional PCSA-DSB1S Data Solution Box (DSB); however, the DSB is not required for receiving data.

FEATURES

All-In-One Design

Unlike typical videoconference systems, the PCS-TL50 has everything you need built into a single package that can double as a PC monitor. Its bright 20-inch (viewable area measured diagonally) wide display can properly present images in both 15:9 and 4:3 aspect ratios. The unit also has a built-in digital PTZ (Pan/Tilt/Zoom) camera that is used to precisely capture images, and a privacy shutter that can be closed at times when you prefer not to receive videoconference calls. In addition, built-in speakers and microphones provide high audio quality during videoconferences.

Easy Setup and Use

Built-in Network Interface/Optional ISDN Connection

With a built-in Ethernet interface, the PCS-TL50 can be configured by simply plugging it into a LAN and making a few quick settings on an intuitive setup menu. The PCS-TL50 supports data-transfer rates of up to 2 Mb/s, making high-quality visual communications possible.

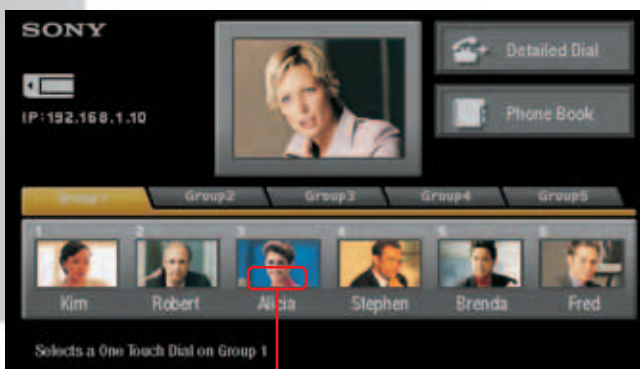
An optional PCSA-B768S or PCSA-B384S ISDN Unit (network adapter) is available for videoconferences over ISDN networks; these units support data-transfer rates over ISDN lines at up to 768 Kb/s or 384 Kb/s, respectively.

User-Friendly Remote Commander Unit/Intuitive GUI

The PCS-TL50 is thoughtfully designed with an intuitive GUI and a user-friendly Remote Commander unit. Displaying only required information, the menus are intuitive and easy to navigate; in addition, text messages are displayed at the bottom of the screen as a guide. Buttons on the Remote Commander unit are cleanly situated for ease of use. And one-touch operation makes it quick and simple to change display layouts, capture images, and place calls.

One-Touch Dialing

A unique feature of the PCS-TL50 is one-touch dialing, which allows you to easily connect to any of your listed contacts with the touch of a button. By preprogramming your contact information, picture icons and contact names will appear at the bottom of the main menu. Calls are placed by pressing the button on the Remote Commander unit that corresponds to the picture icon. Up to 30 contacts in the phone book can be flagged for one-touch dialing.



Memory Stick™ Media for Private Phonebook

If multiple users choose to use a single PCS-TL50, each user can store their personal contact information on a Memory Stick media card. After inserting the Memory Stick media into the PCS-TL50, the unit automatically recognizes and activates the private phonebook, thereby eliminating the need to re-enter contact information to place a call.

Data-Sharing Capabilities

Data originated on your PC can be shared with your videoconferencing counterparts, making visual communications even more effective. Any image that can be displayed on a PC can be sent or received² in native XGA resolution, allowing all parties to share data during a videoconference.

Picture-in-Picture/Picture-and-Picture

With the choice of Picture-in-Picture or Picture-and-Picture (split screen) layout options, both near- and far-end video and/or data can be displayed in a manner that is pleasing to the eye.



Picture-in-Picture



Picture-and-Picture

Multitasking (Simultaneous Videoconference/PC)

With the PCS-TL50, you can continue to work on your PC even while you are on a videoconference call. This unique feature is ideal for busy executives who want to increase their productivity.

Excellent Video Quality

The PCS-TL50 complies with the ITU H.264 video codec in addition to previous versions of ITU videoconferencing codecs to maintain compatibility with legacy systems. ITU H.264 is the latest standard that offers high-picture quality at a much lower bit rate than the H.263 standard.

Superb Sound

Clear and natural-sounding audio is produced with the PCS-TL50 as it supports MPEG-4 AAC (Advanced Audio Coding) at 14 kHz.³ Boasting dual-integrated speakers and microphones, and a built-in echo canceller, audio quality is much higher than conventional speakerphone systems. Also, a microphone jack and a headphone jack are available for external microphone or headset use.

³ MPEG-4 AAC is available with a peer-to-peer connection only.

Memory Stick Media Support

Not only does the PCS-TL50 support Memory Stick media for storing and retrieving private phonebooks, but it also supports the media for a number of other uses, including storing and receiving still images, capturing videoconference images, and installing optional software.

Secure Visual Communications – Advanced Encryption Standard (AES)

Secure visual communications over a network is possible because the PCS-TL50 supports AES. When a videoconference is initiated with the AES feature active, video, audio, and graphics are encrypted for the duration of the call.

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-TL50 provides two advanced functions to enhance QoS over a network:

Adaptive Rate Control

The adaptive rate control function automatically varies the audio and video bit transfer rate to meet changing network conditions. It also selects the most appropriate frame rates, which helps prevent audio and video breakup.

Real-time Auto Repeat Request (ARQ)

The Real-time ARQ function recovers lost IP packets. This is performed by buffering the packets at the encoder and resending any that are lost. This feature helps maintain the audio and video quality, and helps prevent picture collapse even under high network traffic conditions.

Transportable

The all-in-one PCS-TL50 is equipped with a handle and has a relatively light weight of 22 lbs (10 kg), making it very portable and easy to move from one room to another.

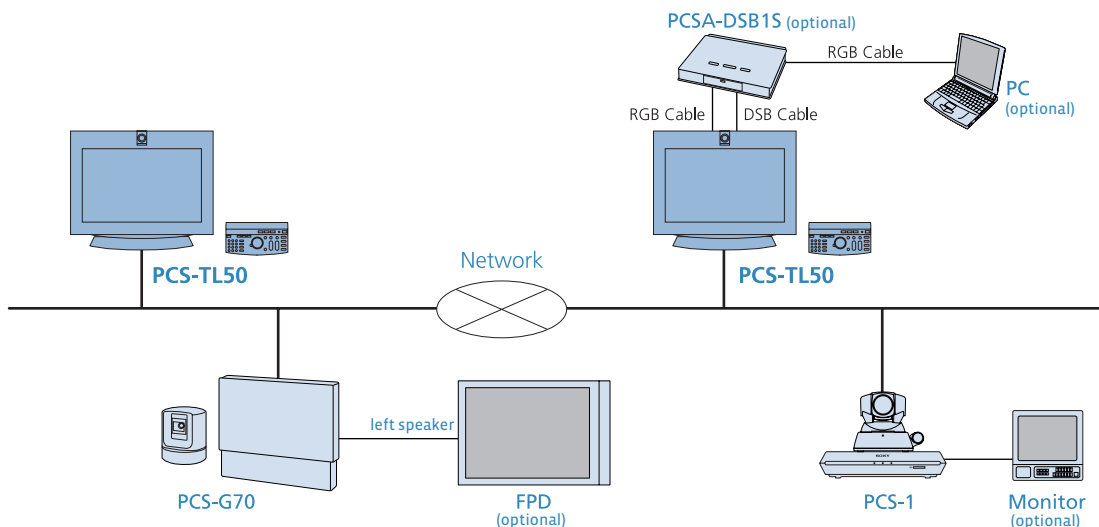
Multi-point Videoconferencing at up to 10 Sites^{*4}

Using optional MCU software, the PCS-TL50 can be configured to communicate with up to 5 videoconferencing sites simultaneously using either an IP (H.323 protocol) or ISDN (H.320 protocol) connection. It can also support videoconferences in which the connections are a combination of IP and ISDN using a unique bridging function. Moreover, two PCS-TL50 units - each installed with the optional MCU (H.323) software - can be cascaded with an IP connection to support a maximum of 10 sites. And of course, the PCS-TL50 allows users to expand from a peer-to-peer videoconference to a multi-point videoconference by simply dialing up new connections.^{*5}

^{*4} The following video and audio standards are supported with multi-point videoconferencing: H.261, H.263, G.711, G.722, and G.728.

^{*5} When adding a new endpoint on the same network (IP or ISDN), the system will default to the lowest resolution video standard of all endpoints.

SAMPLE SYSTEM CONFIGURATION



OPTIONAL ACCESSORIES



PCSA-DSB1S
Data Solution Box



*PCSA-B768S shown

PCSA-B768S
6BRI ISDN Unit

PCSA-B384S
3BRI ISDN Unit



*PCSA-A1 shown

PCSA-A1
Omnidirectional Microphone

PCSA-A3
Unidirectional Microphone



PCS-323M1
H.323 MCU Software

PCS-320M1
H.320 MCU Software

SPECIFICATIONS

PCS-TL50	
Video	
Standards	H.261, H.263, H.263+, H.263++, H.264, H.263 Interlaced SIF, MPEG-4 SP@L3
Resolution	QCIF (176 x 144), CIF (352 x 288)
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)
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)
Integrated Display	
LCD	20" Widescreen TFT (viewable area measured diagonally)
Aspect ratio	15:9
Resolution	1280 x 768 (WXGA)
Brightness	400 Cd/m ² (max.)
Response	Less than 15 ms
Contrast ratio	500:1
Viewing angle	Greater than 160°
Colors	16.7 million
Graphics	
XGA	1024 pixels x 768 lines (H.263), with PCSA-DSB1S
4CIF	704 pixels x 576 lines (H.261 Annex D, H.263)
Picture-in-Picture	
Sub screen size	4.3** (256 x 192), One of four corners
Picture-and-Picture (1)	
Main screen size	17.3** (1024 x 768)
Sub screen size	4.3" (256 x 192), Located at upper-right corner of display
Picture-and-Picture (2)	
Main/Sub screen size	10.8** (640 x 480), Side-by-side
ITU-T Standards (excludes audio/video standards)	
	H.320, H.323, H.221, Bonding, H.281 FECC H.225.0, H.245, T.120, H.239, H.233, H.234, H.235
Network Protocols	
	TELNET (Server), HTTP (Server), FTP (Server), SNMP (Agent) DNS (Client), DHCP (Client), RTP/RTCP, TCP/UDP
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

*(Viewable area measured diagonally)

Network Features	
QoS (Quality of Service)	ARC (Adaptive Rate Control), Real-time ARQ (Auto Repeat reQuest) IP Precedence, DiffServe
NAT	Network address Translation
UPnP	Universal Plug and Play
TCP/UDP	Port settings for Firewall Auto Gatekeeper Discovery
Integrated Camera	
Image device	1/3 type CCD
Horizontal resolution	450 TV lines
Focal length	4.0 mm (F2.0)
Focus	Pan Focus
IRIS	Auto (Digital AGC)
Zoom ratio	x2 (Digital zoom)
Pan angle	-35° to +35° (Digital)
Tilt angle	-26° to +26° (Digital)
Presets	Up to 6 positions
S/N	48 dB
Others	Back light compensation, Auto white balance
Integrated Microphones	
Frequency response	15 kHz Unidirectional x 2
Integrated Speakers	
Output	3 W x 2
Remote Commander® Unit	
Format	Wireless SIRCS
Interface	
Video (for offline use only)	Composite input, RGB input, D-Sub 15
Audio	External microphone input (Plug in power) External headphone output (mini-jack)
Audio (for offline use only)	Line input (Stereo), RCA x 2, Line input (Stereo), mini-jack
Network	10Base-T/100Base-TX, External ISDN Unit I/F
DSB I/F	Dedicated D-Sub 15
Memory Stick Media	Memory Stick slot
General	
Operating temperature	5 °C to 35 °C
Operating humidity	20% to 80%
Storage temperature	-20 °C to +60 °C
Storage humidity	20% to 80%
Power Requirements	AC 120 V (UC), AC 220 V to 240 V (CE), 50/60 Hz
Power Consumption	DC 19.5 V, 7.7 A
Main Unit Dimensions (W x H x D)	20 7/8 x 17 5/8 x 4 3/8 inches (528 x 445 x 110 mm), excl. projections
Remote Commander Dimensions (W x H x D)	6 5/8 x 3/4 x 3 1/2 inches (167.4 x 19 x 87.3 mm), excl. projections
Main Unit Weight	22 lbs 1 oz (10 kg)
Remote Commander Unit Weight	6.3 oz (180 g)
Supplied Accessories	
	PCS-RTL50 Remote Commander Unit PCS-AC19V8 AC Adaptor Manganese Battery for Remote Commander Unit x2 Operation Guide Quick Operation Guide Operation Manual CD-ROM Worldwide Warranty Card

* 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.

SONY®

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