

# SONY®

Video Communication System

## PCS-TL33



Connect Your Vision

# IPELA™

Stunning video and audio brought to you by the "IPELA" series of visual communication products that encompass the three-pronged concept of "Reality," "Intelligence," and "Usability." "IPELA" is the identity symbolizing the Sony vision for the workplace of the future, connecting people, places, and information with reality that has never before been achieved. "IPELA" lets you share 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.

### Reality

- Excellent Video Quality (H.264)
- Superb Audio Quality (MPEG-4 AAC)
- Natural Sound (Built-in Echo Canceller)

### Intelligence

- Network Quality of Service (ARC, ARQ)
- Encryption Function (ITU-T H.235)

### Usability

- All-in-one Design
- Translucent Cascading Menu
- Mouse Operation
- Multitasking (VC/PC)
- KIOSK Mode (for Custom Solutions)

Real audiovisual communication over networks – this is business communication of the future, this is business communication brought to you today, this is "IPELA."

## *A Sleek, Personal, All-in-one Visual Communication System, the PCS-TL33 Doubles as a PC Display and is Easy to Operate With its Single-layer GUI and Supplied Mouse. An Ideal Choice – Either for Your Desktop or a Small Meeting Space.*

*As the quality of IP networks improves, business work styles are changing to include more effective use of communication tools such as videoconferencing systems. Joining the Sony IPELA family, the PCS-TL33 brings this new efficient work style to the personal level. From your desk with just a click of a mouse, the PCS-TL33 can connect you with people all over the world.*

*The PCS-TL33 is a network-ready visual communication system that allows you to instantly communicate over IP networks. This unit is ideal for use on individual desktops and can even be used in small meeting spaces or kiosks as required. The PCS-TL33 is an all-in-one visual communication system that includes a widescreen 17.1-inch\*1 WXGA LCD that doubles as a PC monitor, a built-in digital PTZ (Pan/Tilt/Zoom) camera, speakers, and a microphone in a single lightweight and slim body.*

*Thanks to its newly developed high-quality camera, the PCS-TL33 produces bright and clear images for your visual communication session. For ease of use, the PCS-TL33 has been designed with a variety of features such as a single-layer GUI, translucent cascading menus, and simple mouse operation. You can place a videoconference call quickly and simply by clicking on an icon for any of 30 people registered in your address book. What's more, you can upload your own picture files, or capture a still image from your videoconferencing counterpart via the PCS-TL33 itself. This image can then be registered as a picture icon in your address book for one-click dialing. In addition, by installing the optional PCSA-DSM1 Data Solution Module, the PCS-TL33 allows you to send and receive\*2 any kind of "presentation data" displayed on a PC to your videoconferencing counterpart. The PCS-TL33 also features a "KIOSK" mode\*3 for unattended custom installations. Other features include flexible display modes, a built-in echo canceller, QoS features, and an encryption function.*

*The PCS-TL33 enhances effective communication thanks to its high-quality audio and video. This enables you to pick up clearly on facial expressions, tone of voice, and body language – as if you were meeting face-to-face in the same room. The PCS-TL33 is an affordable visual communication system that's ideal for both personal business use and for customized endpoints in large-scale solutions.*

\*1 Viewable area, measured diagonally.

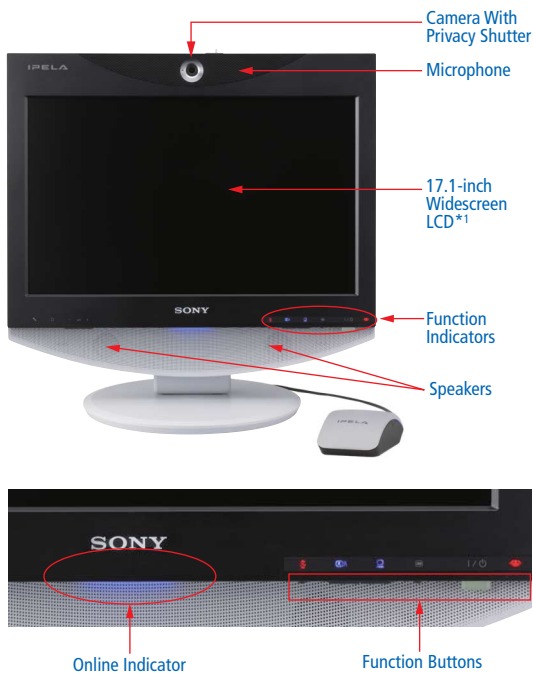
\*2 Sending "presentation data" requires the optional PCSA-DSM1 Data Solution Module (DSM) to be installed. The PCS-TL33 can receive presentation data without the DSM; however, it can receive data at a higher refresh rate with the DSM installed.

\*3 For more information, please contact your local Sony dealer.

# FEATURES

## Transportable All-in-one Design

The PCS-TL33 is an all-in-one visual communication system that combines a built-in high-quality camera, widescreen 17.1-inch WXGA LCD, speakers, and a microphone in one compact and sleek body that can even double as a PC display. The unit incorporates a privacy shutter that can be closed if you prefer not to be seen when a call comes through. Also the PCS-TL33 has a height-adjustment and swivel mechanism so that it can be adjusted for optimal viewing comfort. And because the unit meets VESA standards for mounting on a bracket, it can be installed in a way that maximizes desktop workspace. In addition, the PCS-TL33 is easy to transport because it is equipped with a handle and is relatively light in weight.



## Easy Setup/Built-in Network Interface

With a built-in Ethernet interface, the PCS-TL33 can be configured by simply plugging it into a LAN and making a few quick settings on its intuitive setup menu. The PCS-TL33 supports data-transfer rates of up to 2 Mb/s over IP networks (H.323), making high-quality visual communication possible.

## Simple Menu Structure/Easy Operation With a Mouse

The PCS-TL33 was thoughtfully designed with an intuitive GUI, utilizing translucent cascading menus and displaying all menu items on one layer. The PCS-TL33 can be controlled via the supplied mouse, which can be connected to the unit directly. The mouse can also be used to control the unit and a PC simultaneously by connecting a separate cable between the PCS-TL33 and the PC. For ease of use, text messages are displayed at the bottom of the screen as a guide. And the intuitive icons make it quick and easy to change display layouts, capture images, and place calls.

## User-friendly One-click Dialing

A convenient feature of the PCS-TL33 is one-click dialing, which allows you to easily connect to any of your listed contacts with just a click on the screen. By pre-programming your contact information, picture icons and contact names will appear at the left side of the main menu. Up to 30 contacts for one-click dialing can be flagged from a maximum of 500 registered contacts.



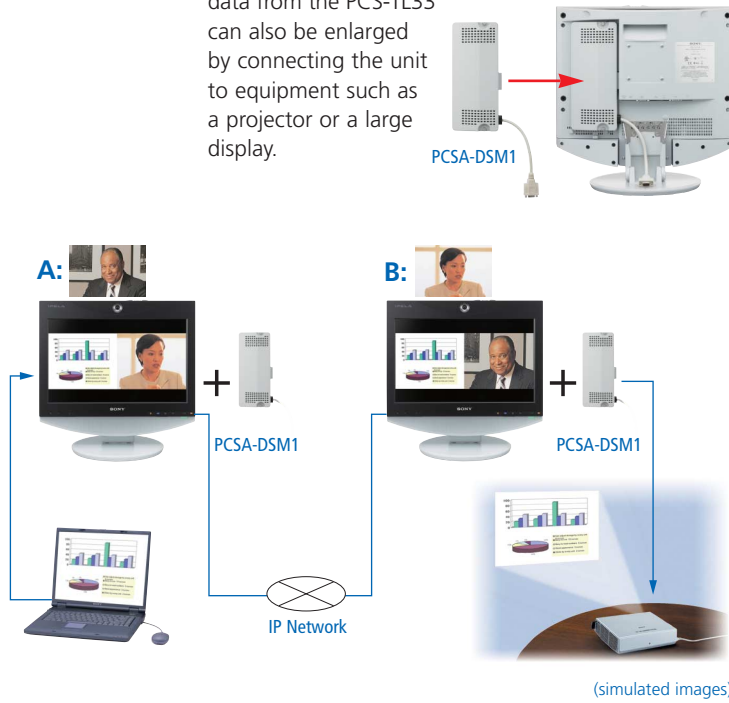
(simulated images)

## Multitasking (Simultaneous Videoconferencing/PC)

With the PCS-TL33, you can continue to work on your PC even while you are on a videoconference call. This convenient feature is ideal for business people who want to increase their productivity.

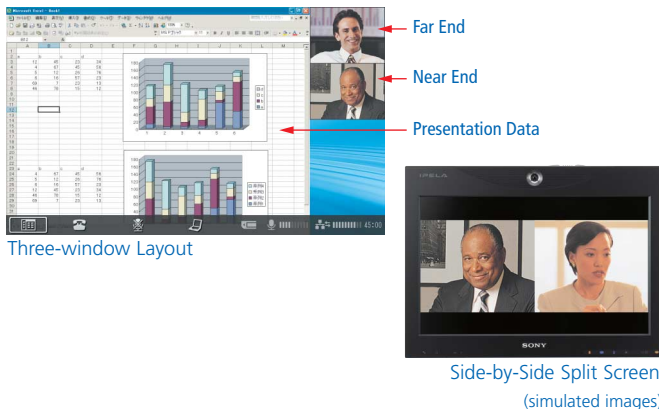
## Data-sharing Capabilities

When using the optional PCSA-DSM1 Data Solution Module, which is neatly integrated into the rear of the unit, the PCS-TL33 is capable of sending or receiving<sup>\*2</sup> any image that can be displayed on a PC (presentation data) in native XGA resolution during a videoconference. And because the PCSA-DSM1 is equipped with an RGB OUT connector, presentation data from the PCS-TL33 can also be enlarged by connecting the unit to equipment such as a projector or a large display.



## Multiple Display Modes

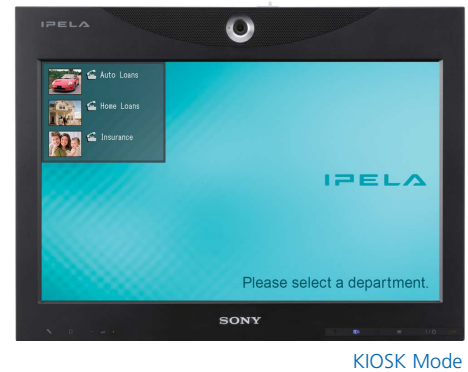
The PCS-TL33 has multiple display modes such as Full Screen, Picture-in-Picture, or Picture-and-Picture (including a side-by-side split screen). What's more, a convenient three-window layout mode is available, which displays presentation data on the left side of the screen while displaying videoconferencing images in two small windows on the right side of the screen. Any of these flexible display modes 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.



## KIOSK Mode

The PCS-TL33 has a convenient KIOSK mode<sup>\*3</sup> that can be used to provide unattended services for applications such as remote consulting or customized distance learning. This mode not only provides a user-friendly interface for customers, but is also a delight for system integrators because it is both easy to configure and flexible. For example, up to 30 locations<sup>\*4</sup> can be preset and customized thumbnail images can be designed.

<sup>\*4</sup> Thirty different locations (six icons on five tabs) can be preset. Up to six icons can be displayed on the screen at one time.



## Excellent Video Quality

The PCS-TL33 complies with the ITU-T H.264 video codec, in addition to previous versions of ITU-T videoconferencing codecs to maintain compatibility with legacy systems. ITU-T H.264 is the latest video standard that offers high picture quality at a much lower bit rate than the H.263 standard.

## Superb Sound (Advanced Echo Canceller/Dual-integrated Speakers)

Clear and natural-sounding audio is produced with the PCS-TL33 as it supports MPEG-4 AAC (Advanced Audio Coding) at 14 kHz. Boasting an advanced echo canceller and dual-integrated speakers, the PCS-TL33 enables clear and natural sound with minimum distortion during your videoconference.

## Private Phonebook on Memory Stick Media

If multiple users choose to use a single PCS-TL33, each user can store their personal contact information on **Memory Stick™** media cards. After inserting the Memory Stick media into the PCS-TL33, the unit automatically recognizes and activates the private phonebook, thereby eliminating the need to re-enter contact information to place a call.



## QoS (Quality of Service)

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-TL33 provides two advanced functions to enhance QoS over a network:

### Adaptive Rate Control (ARC)

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

### Auto Repeat reQuest (Real-time ARQ Function)

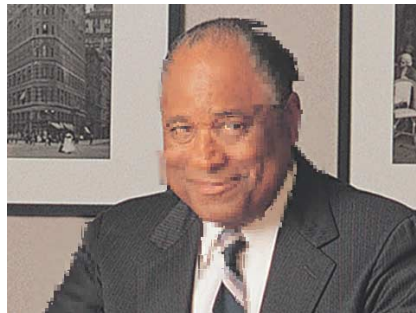
The Real-time ARQ™ function recovers lost IP packets. This is performed by buffering the packets at the encoder and resending any that are lost. This function helps maintain the audio and video quality, and helps prevent picture collapse even under high network traffic conditions.

## Secure Videoconferencing

Secure videoconferencing over a network is possible because the PCS-TL33 supports 128-bit encryption. The PCS-TL33 offers two encryption modes: one complies with the ITU-T H.235 standard, which allows encrypted communication with other H.235-compliant systems, and the other is a Sony proprietary mode, 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.

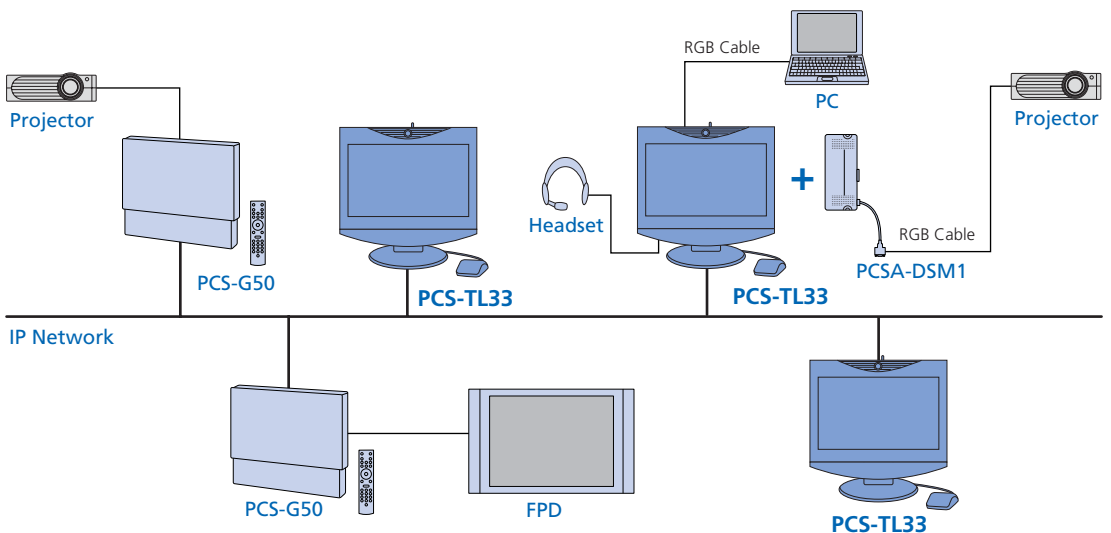


With QoS



Without QoS  
(simulated images)

## SAMPLE SYSTEM CONFIGURATION



## OPTIONAL ACCESSORIES



**PCSA-DSM1**  
Data Solution Module



**PCS-A1**  
Omnidirectional Microphone



**PCSA-A3**  
Unidirectional Microphone

## SPECIFICATIONS

PCS-TL33	
<b>Video</b>	
Standards	H.261, H.263, H.263+, H.263++, H.264, MPEG-4 SP@L3
Resolution	QCIF (176 x 144), CIF (352 x 288)
Frame rate	15 or 30 frames/s
Bit rate	Up to 2048 kb/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.728: 3.4 kHz at 16 kb/s G.729: 3.4 kHz at 8 kb/s MPEG4 AAC (mono) 14 kHz at 64/96 kb/s
Echo cancellation	Built-in noise suppressor
<b>Integrated Display</b>	
LCD	17.1-inch Widescreen*
Resolution	1280 x 768 (WXGA)
Response	13 ms
Contrast ratio	600:1
Horizontal viewing angle	176°
Colors	16.7 million
<b>Graphics</b>	
XGA	1024 pixels x 768 lines (H.263), with PCSA-DSM1
4CIF	704 pixels x 576 lines (H.261 Annex D, H.263)
<b>Screen Layout</b>	
Full screen**	17.1-inch Full-screen (1280 x 768) display
Picture-in-Picture	Sub screen size (256 x 192), One of four corners
Picture-and-Picture (1)**	Main screen size (1024 x 768) Sub screen size (256 x 192), Located at upper right-corner of display
Picture-and-Picture (2)	Main/Sub screen size (640 x 480), Side-by-Side Split Screen
<b>ITU-T Standards (excludes audio/video standards)</b>	
	H.323, H.225, H.281 FECC, H.245, H.239, H.235, H.460.18, H.460.19, H.350
<b>Network Protocols</b>	
	TELNET (Server), HTTP (Server), FTP (Server), SNMP (Agent) DNS (Client), DHCP (Client), RTP/RTCP, TCP/UDP, ARP
<b>Control Port</b>	
	LAN (Telnet), RS-232C
<b>Lip Synchronization</b>	
	Manual On/Off
<b>Security</b>	
	H.235 Sony Proprietary AES Encryption, Password Protection
<b>Network Features</b>	
QoS (Quality of Service)	ARC (Adaptive Rate Control), Real-time ARQ (Auto Repeat reQuest), IP Precedence, DiffServ
NAT	Network Address Translation
UPnP	Universal Plug and Play

<b>Integrated Camera</b>	
Image device	1/3.8-type CMOS
Total number of pixels	Approx. 1.33 million pixels
Number of effective pixels	Approx. 1.28 million pixels
Picture Format	4CIF
Focal length	2.1 mm (F2.4)
Focus	Pan Focus
Zoom ratio	x 3 (Digital)
Horizontal viewing angle	Approx. 87°
Presets	Up to 6 points
Others	Backlight compensation, Auto white balance
<b>Integrated Microphone</b>	
Frequency range	14 kHz, Narrow-angle directional microphone
<b>Integrated Speakers</b>	
Output	3 W x 2
<b>Interface</b>	
Video	RGB input, mini D-Sub 15-pin x 1
Audio	External microphone input (mini-jack, plug in power) x 1 External headphone output (stereo mini-jack) x 1
Network	10Base-T/100Base-TX x 1
Memory Stick I/F	Memory Stick slot x 1***
PCSA-DSM1 Interface	Dedicated connector x 1
RS-232C	D-sub 9-pin x 1
<b>General</b>	
Operating temperature	5 °C to 35 °C (41 °F to 94 °F)
Operating humidity	20% to 80%
Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)
Power Requirements	AC 100 to 240 V, 50/60 Hz
Power Consumption	DC 19.5 V, 6.15 A
Dimensions (W x H x D)	424 x 376 x 95.5 mm (16 3/4 x 14 7/8 x 3 7/8 inches), excl. stand 424 x 419 x 258 mm (16 3/4 x 16 1/2 x 10 1/4 inches), incl. stand
Mass	Approx. 8 kg (17 lb 10 oz)
<b>Supplied Accessories</b>	
	VGP-AC19V15 (AC Adaptor) PCS-RMU1 (Optical Mouse) Quick Start Guide Operation Manual CD-ROM Worldwide Warranty Booklet Power Cord
<b>PCSA-DSM1****</b>	
Interfaces (input/output)	Dedicated connector x 1, RGB output D-sub 15-pin x 1
Dimensions (W x H x D)	107 x 250 x 34 mm (4 1/4 x 9 7/8 x 1 3/8 inches), excl. projections
Mass	550 g (1 lb 3 oz)

\* Viewable area, measured diagonally.

\*\* If the PC Display Button is pressed, presentation data is displayed in the main screen (1024 x 768), and videoconferencing images are displayed in two sub screens (256 x 192 each) at the upper right-corner of the display (three-window layout mode).

\*\*\* Supports:  
Memory Stick, Memory Stick PRO™ (2GB or less), Memory Stick Duo™ with adaptor, Memory Stick PRO Duo™ with adaptor, MagicGate™ Memory Stick/MagicGate Memory Stick Duo with adaptor containing files without content protection technology.

\*\*\*\* The optional PCSA-DSM1 Data Solution Module fits into the rear of the PCS-TL33.

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