

## PCS-G60D

Visual communications system



### Overview

#### **The PCS-G60D is a compact and affordable videoconferencing system, with consistent high resolution video and clear stereo audio**

This powerful videoconferencing system features consistent high quality video and audio and can be used with up to ten conference sites. It is stylish and compact, easy to set up and to operate and can be used to display both video and presentation data from your PC.

#### **High quality pictures and superb audio**

With H.264 high profile support, the PCS-G60D achieves higher picture quality at a lower bandwidth rate and clear and natural stereo sound using the MPEG-4 AAC compression format. Enhanced Intelligent QoS Functions ensure stable, secure communication.

#### **Supports up to ten videoconferencing sites**

Using optional MCU software, the PCS-G60D can be configured to communicate between six videoconferencing sites, which can be cascaded to support up to 10 simultaneous sites.

#### **Send data from your PC**

With support for the ITU-T H.239 standard, this system can send video and presentation data from your PC display to all participants in your videoconference.

## Features

### **High picture quality, even with low bandwidth**

With H.264 High Profile support, This system achieves higher picture quality at a lower bandwidth rate than PCS-G50/G70 Series systems. Furthermore, the PCS-G60D receives up to 720p resolution video.

### **Superb audio quality**

The PCS-G60D produces clear and natural stereo sound, using the MPEG-4 AAC compression format. With a built-in stereo echo canceller, which eliminates the annoying echo often heard with other systems, communication sounds far more natural.

### **Multi-point conferencing at up to ten sites**

Using optional PCSA-MCG80 MCU software, the PCS-G60D can be configured to communicate simultaneously with up to 5 remote videoconferencing sites (6 sites in total), using an IP (H.323 protocol) connection. Moreover, two PCS-G60D units – each installed with optional MCU software – can be cascaded with an IP connection to support a maximum of 10 simultaneous sites.

### **Advanced data sharing**

With support for the ITU-T H.239 (video and presentation data) standard, the PCS-G60D can send your PC display to all participants in your videoconference. Presentation data can be transferred at frame rates as high as 30 fps, so they appear natural and smooth even when they include animation effects or video from your PC. This presentation data can also be projected, or shown on a sub display, using the RGB output.

### **Stable, secure videoconferencing**

When you conduct your videoconference over a network, a common concern is how to maintain video and audio quality through constantly changing network performance. The PCS-G60D incorporates QoS functions for fast and consistent data throughput during the transmission of video signals, by adapting to any changes in network condition, and correcting any packet

loss.

### **Annotate shared data**

For effective communication, the PCS-G60D offers a useful video annotation function. Conference participants can clearly point out specific parts of shared data, including live images and presentation data, simply by writing on a tablet. This function helps to minimise the time and effort required to communicate, enabling everyone to deliver clear, strong messages.

### **Simple set up and easy operation**

The PCS-G60D has been meticulously designed with an intuitive GUI, which includes a simple layer structure with translucent cascading menus. This provides simple functionality – users find it very easy to operate the entire videoconferencing system, including the camera.

### **One touch dialling**

For user convenience, the PCS-G60D adopts an RF Remote Commander unit which you do not have to point directly towards the system. What’s more, the PCS-G60D has a convenient One-touch Dialling feature, which allows you to easily connect to any of your registered contacts just by pushing the function button on the RF Remote Commander unit that corresponds to a thumbnail image on the GUI.

## Specifications

### Camera

Image Sensor	1/4-type color CCD
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Image Sensor (Number of Effective Pixels)	380,000 pixels
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S/N Ratio	50 dB
Brightness Control	Auto/Manual
Zoom Ratio	x 40 zoom (x 10 optical zoom, x 4 with digital zoom)
Focusing System	Auto/Manual
Horizontal Viewing Angle	6.6 to 65 degrees
Focal Length	f=3.1 to 31 mm
F-Number	F1.8 to F2.9
Minimum Object Distance	100 mm (At WIDE end)
Pan/Tilt Angle	Pan $\pm 100^\circ$ /Tilt $\pm 25^\circ$
Preset Position	100 positions
Power Supply	Supplied from Codec Unit
Other Features	Auto Gain Control, Auto White Balance, Backlight Compensation, VISCA output to the 2nd camera

## Key Features

Internal MCU Up to 6 sites

Multipoint Capability	(H.323)/up to 4 sites (H.320) with optional software PCSA-MCG80 Internal MCU Up to 10 sites (H.323) requires two PCS-G60D units with optional software PCSA-MCG80 Using Cascaded Connection
Data Sharing	PC images up to SXGA resolution is supported. 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	30 fps H.264 - 720p * H.261 - QCIF, CIF H.263 - QCIF, CIF H.264 - QCIF, CIF, 4CIF, wCIF, w432p *, w4CIF * * Receive only
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	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	QCIF (176 x 144), CIF (352 x 288), 4CIF (704 x 576), wCIF/w288p (512 x 288), w432p * (768 x 432), w4CIF * (1024 x 576), 720p * (1280 x 720) *Receive only
Bit Rate	64 kbps to 4,096 kbps
Screen Layout	Full Screen, PinP, PandP, SideBySide

## Audio

Bandwidth and Coding	Point-to-point connection 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
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Multipoint connection  
 G.711: 3.4 kHz at 56 kb/s, 64 kb/s  
 G.722: 7.0 kHz at 48 kb/s, 56 kb/s,  
 64 kb/s

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

QoS (Quality of Service) Adaptive FEC (Forward Error  
 Correction), Real-time ARQ (Auto  
 Repeat reQuest),  
 ARC (Adaptive Rate Control), IP  
 Precedence, DiffServe

Other Network Features Packet reordering, TCP/UDP port  
 setting, NAT, PPPoE, UDP shaping,  
 Encryption, Auto gatekeeper  
 discovery, UPnP \*1, URI  
 Dialing, IPv6

## Interface

AUX video inputs(Y/Pb/Pr x 1, RGB

Video Input	x 1)
Video Output	HDMI x 1, RGB x 1
Control Input	RS-232C x 1
Audio Input	External analog microphone input Mini-jack (Plug in power) x 2 (L/R) Audio Input (MIC/AUX) x 1 (RCA pin, stereo)
Audio Output	HDMI (video, audio) x 1, Line Output (RCA pin, stereo) x 1, REC Output (RCA pin, stereo) x 1
Network Port	10BASE-T/100BASE-TX x 1, 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 *2 , 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 to 240 V, 50/60 Hz)
Power Consumption	40W (the codec only) 10W (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)
Dimensions (W x H x D) *[3]	<p>Codec: Approx. 282 x 56 x 244 mm (excluding protrusions) Approx. 11 1/8 x 2 1/4 x 9 5/8 inches (excluding protrusions)</p> <p>Camera unit: Approx. 130 x 138.5 x 130mm (excluding protrusions) Approx. 5 1/8 x 5 1/2 x 5 1/8 mm (excluding protrusions)</p>
Mass	<p>Codec: Approx. 2 kg Approx. 4 lb 7 oz</p> <p>Camera unit: Approx. 1 kg Approx. 2lb 3 oz</p>
	<p>Camera Unit (1) PCS-A1 microphone (1) AC adapter (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</p>

Supplied Accessories	<p>connection guide) (1)</p> <p>Before using this unit (1)</p> <p>Installation Guide (1)</p> <p>Important notice regarding software (1)</p> <p>Warranty booklet (1)</p> <p>Camera cable (3m) (1)</p> <p>Hook-and-loop pads for camera (3)</p> <p>Operating instructions for camera (1)</p> <p>VISCA conversion cable (0.15m) (1)</p>
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## Notes

Note	<p>[*1] It is unavailable depending on the model.</p> <p>[*2] Interoperable with other manufacturer's endpoint which is compliant to H.323/H.320. It does not mean that all connections are guaranteed.</p> <p>[*3] The values for dimensions are approximate.</p>
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## Gallery

