

PCS-HG90 OUTLINE

The PCS-HG90 marks the start of a new era in visual communications. It provides true high definition, 2-way communication in real-time between up to 4 sites with the built-in MCU. The PCS-HG90 supports H.264 over standard IP networks up to 8 Mbps delivering high definition video resolution 1280 x 720 at 30P and 60P in combination with superb wideband stereo sound, enabling applications far beyond conventional videoconferencing.

Hospitals can connect multiple facilities via PCS-HG90, which enables surgeons in remote locations to view operating room procedures, consult with colleagues or conduct virtual lectures and training seminars. Educational institutions can use the system's distance learning capabilities to link campuses and reach more students at the same time. Organisations that require fast review of material or client approvals, such as advertising and design agencies, can also employ the technology to transmit high-resolution data and receive feedback immediately. Manufacturing facilities can also share product mock-ups or design 'comps' among several locations for simultaneous review. The PCS-HG90 makes efficient use of the bandwidth and offers a low-delay connection between different sites. This makes the PCS-HG90 suitable for broadcasters of live coverage, interviews and remote reporting in HD video quality with high quality audio.

The professional audio and video interfaces of the PCS-HG90 deliver full compatibility with professional A/V equipment, accepting analogue or digital signals, from SD to HD including PC signals. The optional camera PCSA-CHG90 can be used with the PCS-HG90 to provide high-definition video and PTZ functionality.

An unparalleled mix of enhanced and intelligent QoS (Quality of Service) functions ensures that the quality of the connection is maintained even under fluctuating network conditions. To prevent eavesdropping on your content by a third party, the system supports 128-bit AES encryption compliant with the ITU-T H.235 standard.

The PCS-HG90 delivers unsurpassed quality of the highest standards and is the perfect match for customers who cannot or will not compromise in quality. For anyone who wants true colour reproduction, real detail, full size in real-time there is only one answer: the new Sony PCS-HG90.



FEATURES

High-Definition Visual Communication The PCS-HG90 supports the H.264 HD video protocol with a compression rate of 1280 x 720 at 30P or 60P, and a network video transfer bandwidth of up to 8 Mbps using the H.323 standard for communication.

Wideband Stereo Audio The PCS-HG90 delivers MPEG-4 AAC wideband stereo audio with stereo echo cancelling capabilities.

Professional A/V Interfaces The PCS-HG90 provides an extensive range of professional audio and video interfaces including HD-SDI, component, RGB, S-video and XLR to meet all the needs for professional users.

Multipoint Connections Up to 4 sites can be connected simultaneously in one communication session delivering HD video images at a maximum bandwidth of 2.5 Mbps per site. Users can select either 'voice-activation' or 'broadcast' mode with optional site name display.

Security To prevent eavesdropping on your content by a third party, the system supports 128-bit AES encryption. (Compliant with the ITU-T H.235 standard.)

Enhanced Intelligent QoS (Quality of Service) The following intelligent Quality of Service functions are used to ensure the best quality under changing network conditions: "Forward Error Correction" (FEC), "Real-time Automatic Repeat Request" (ARQ) and "Adaptive Rate Control". The PCS-HG90 applies individual QoS techniques such as transmission delay and packet loss rate depending on the specific network conditions.

FEATURES

- True High Definition Images
- Superb Sound Quality
- Built-in Multi-point Conferencing
- Professional A/V Interfaces
- Enhanced Intelligent QoS (Quality of Service) Functions for HD Video
- Advanced Encryption Standard (AES)

PCS-HG90 HD Visual Communication System



PCS-HG90 SPECIFICATIONS

PCS-HG90 (HD VIDEO CODEC)

VIDEO	
Standard	H.264
Compression	1280 x 720p at 60 frames/s, 1280 x 720p at 30 frames/s
Formats	1280 x 720p at 30 frames/s
Bit rate	512 kb/s to 8 Mb/s (8192kb/s) in H.323 (Incl. audio)
Input format	1080 x 60i, 1080 x 50i, 720 x 60p, 480 x 60i, 576 x 50i, XGA (1024 x 768)
Output format	1080 x 60i, 1080 x 50i, 720 x 60p

AUDIO	
Bandwidth and coding	MPEG4 AAC Stereo: 44 kHz (Aux In) / 22 kHz (Mic In) at 192 kb/s (Fs = 96 kHz) MPEG4 AAC Mono: 44 kHz (Aux In) / 22 kHz (Mic In) at 96 kb/s (Fs = 96 kHz) G.711: 3.4 kHz at 56 kb/s, 64 kb/s G.722: 7.0 kHz at 48 kb/s, 56kb/s, 64kb/s G.728: 3.4 kHz at 16 kb/s
Echo Cancellation	Stereo Echo-canceling supported for audio frequency up to 22 kHz Noise Suppressor included Automatic Gain Control included

SCREEN LAYOUT	
Full screen, Picture-in-Picture, Picture-and-Picture including Side-by-Side split screen	

ITU-T STANDARDS (EXCLUDES AUDIO/VIDEO STANDARDS)	
H.323, H.225, H.281, H.245, H.350	

NETWORK PROTOCOLS	
TELNET (Server), HTTP (Server), FTP (Server), SNMP (Agent), DNS (Client), DHCP (Client), RTP/RTCP, TCP/UDP, ARP	

CONTROL PORT	
LAN (Ethernet), RS-232C	

MULTIPOINT CAPABILITIES	
Internal MCU	Up to 4 sites of video and audio with an IP connection Full Screen Display only (Broadcast or Voice Activated Mode)

MISCELLANEOUS	
Lip Sync.	Manual On/Off

SECURITY	
H.235 AES Encryption	

NETWORK FEATURES	
QoS (Quality of Service)	Adaptive FEC (Forward Error Correction), Real-time ARQ (Auto Repeat reQuest), ARC (Adaptive Rate Control)
Others Network Features	SNMP, NAT, UDP Shaping, TCP/UDP Port Setting Support, Auto Gatekeeper Discovery

CAMERA CONTROL	
Pan, tilt, zoom, brightness, backlight control Camera control through remote commander, GUI, Telnet and Web interface 6 camera pre-set positions can be stored per camera	

PCS-HG90P INTERFACES	
Video Input	HD-SDI x1, Main (HD Camera/HD Video Player) HD-SDI x1, Sub (HD Camera/HD Video Player) Y/Pb/Pr x1, Sub (HD Camera/HD Video Player) S-Video x1, Sub (SD Camera/SD Video Player) RGB (D-sub 15) x1, Sub (PC: XGA)
Video Output	HD-SDI x1, Main (Far Video) Y/Pb/Pr x1, Sub (Far Video) Y/Pb/Pr x1, Sub (Near Video)
Audio Input	XLR x2 (L/R) Main (Line Level, to Audui Mixer) XLR x2 (L/R), Aux1 (Line Level, to Audio Mixer) RCA x2 (L/R), Aux2 (Line Level, to VCR, DVD, etc) Plug-in-power x2 (L/R), PCSA-A1, A3 (Mic Level) Dedicated Digital x2, PCSA-A7P4

Audio Output	XLR x2 (L/R), Main (Far, Line Level) XLR x2 (L/R), Mix (Far+Near for Rec, Line Level) RCA x2 (L/R), Mix (Far, Line Level) RCA x2 (L/R), Mix (Far+Near for Rec, Line Level)
Network	10Base-T/100Base-TX x 1
Control	Wired SIRCS In x1 for Remote Commander Unit, RS-232C x1 D-Sub 9pin
Memory Stick	Memory Stick Slot x 1

GENERAL	
Operating temperature	5 to 35 °C (41 to 95 °F)
Operating humidity	20% to 80% (non condensing)
Storage temperature	-20 to 60 °C (-4 to 140 °F)
Storage humidity	20% to 80% (non condensing)
Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	1.8 A
Dimensions (W x H x D)	440 x 150 x 450 mm (17 3/8 x 6 x 17 3/4 inches), excl. projections (including feet)
Mass	Approx. 13 kg (28 lb 11 oz)

SYSTEM COMPONENTS	
PCS-HG90 HD Video Codec	
PCS-CG90 HD Video Camera	
PCS-RG1 Remote Commander	

SUPPLIED ACCESSORIES	
PCS-RG1 (Remote Commander Unit) x1, Remote Control Receiver x1, Power Cord x1, Manganese Battery for Remote Commander Unit x2, Operation Instructions CD-ROM x1, Operation Guide x1, Quick Connection Guide/Remote Control Guide x1, Connection Sheet x1, Worldwide Warranty Booklet x1	

PCSA-CHG90 (HD VIDEO CAMERA)

Image device	1/3-type IT CCD x3
Effective pixels	1440 pixel (Horizontal) x 1080 line (Vertical)
Focal length	4.5 to 54 mm (F1.6 to F2.8)
Focus	Auto / Manual
Iris	Auto / Manual (F1.6 to close)
Horizontal image angle	6.94° (tele) to 65.56° (wide)
Vertical image angle	4.48° (tele) to 40.44° (wide)
Zoom ratio	x12 optical zoom (x4 with digital zoom)
Pan angle/speed	+/-170° (Max 60° /sec)
Tilt angle/speed	-25° to +90° (Max 60° /sec)
S/N	50 dB or more
Video Out	HD-SDI x2 (BNC connector) Y/Pb/Pr x1 (15P D-sub connector) for service use
Control In	VISCA RS-232C x1 (8pin Mini DIN)
Control In/Out	VISCA RS-422 x1 (9pin connector)
Operating temperature	5 to 40 °C (41 to 104 °F)
Operating humidity	20% to 80% (non condensing)
Storage temperature	-20 to 60 °C (-4 to 140 °F)
Storage humidity	20% to 95% (non condensing)
Power requirements	DC 12V
Power consumption	Max. 29 W
Dimensions (Diameter x H)	208 x 267 mm (8 1/8 x 10 5/8 inches), excl. projections
Mass	Approx. 4.4 kg (9 lb 11 oz)
Others	Auto White Balance
Supplied accessories	AC Power Adaptor (MPA-AC1) x1, AC Power Code x1, Ceiling Bracket (A) x1, Ceiling Bracket (B) x1, Wire Rope x1, Wire Rope x1, Screws (+M3x8) x7, Screws (+M4x8) x1, RS-422 Connector Plug x1, VISCA Cable (3.0m) x1, BNC Cable (3.0m) x1, Operating Instructions x1, Worldwide Warranty Booklet x1

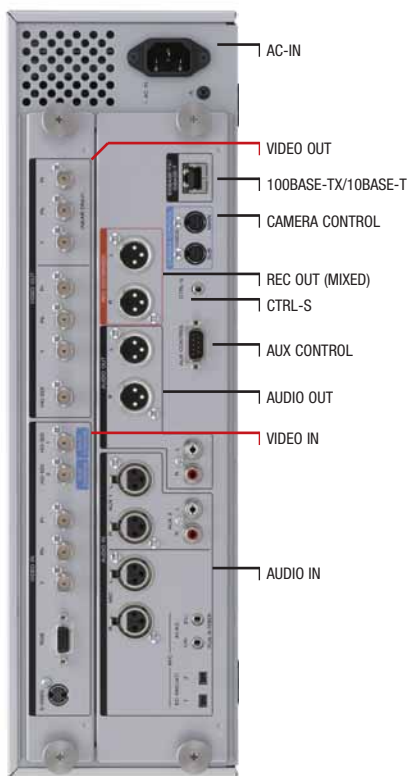
Dimensions Unit: mm (inches)



Camera Unit



Rear Panel



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