



DCS5000 Series Digital Paperless Multimedia System



Discussion



Simultaneous
Interpretation



Voting



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Technical Specifications

Frequency Response	20 Hz ~ 20 kHz (-3 dB @ nominal)
Total Harmonic Distortion (THD)	< 0.05%
Channel Crosstalk	> 85 dB
Signal to Noise Ratio (S/N)	> 96 dBA
Dynamic Range	> 94 dB
Power to Delegate Units	PoE (48 VDC), max. 150W
Interface	
Discussion Units / Expander:	2 x RJ45
RS-485 / RS-232:	9-pin D-Sub (M) external control & (F) camera control
RS-485 Keyboard:	1 x 3-pin Phoenix Screw Terminals
Ethernet:	1 x RJ45
Audio Input:	1 x RCA, 1 x XLR
Audio Output:	1 x RCA, 1 x XLR, 6 x Phoenix Screw Terminals
Digital Audio Interface :	2 x RJ45
Headphone :	1 x 3.5mm phone socket
Recording Interface :	1 x USB
Power Requirements	110~240VAC, 50/60 Hz; 12W (Idle) / 150W max.
Operating Temperature	0°C ~ 40°C;
Operating Humidity	Humidity 10~85% (Non-Condensing)
Dimensions (WxHxD)	483 x 44 x 260 mm
Weight	3 kg

DCS5064P-CC

Fully Digital Network Conference Controller with DSP

- ❖ Simple and intuitive function key design, self-explanatory and immediate use out of the box.
- ❖ AUDIO-LINK™ digital ring network technology to provide bandwidth management of 64 simultaneous audio channels in all-digital signal transmission and processing.
- ❖ One CAT5e network cable transmits 64 channels of audio and data control.
- ❖ High fidelity sound quality, lossless audio transmission technology, 48K audio sampling frequency, 20 Hz ~ 20 kHz frequency response.
- ❖ User selection of up to 6 simultaneous delegates (1, 2, 4, or 6 units) with various operation mode (OPEN, APPLY, FREE, OVERRIDE).
- ❖ Ring redundant loop network connection enables the system to operate and perform a hot-swap with automatic recovery function when there is a unit failure or a break in the line.
- ❖ Independent level control and 8-band equalizer for individual tone adjustment.
- ❖ **Built-In Audio DSP functions: Automatic Gain Control (AGC) for automatic level adjustment, Adaptive Feedback Cancellation (AFC), Acoustic Noise Cancellation (ANC) to prevent acoustic feedback and echo cancellation (EC).**
- ❖ Support USB interface for USB storage disk for audio recording with advanced noise elimination technology for clearer recording.
- ❖ Utilising the expansion unit (DCS3020-E), the conference system is able to be extended up to 5200 delegates.
- ❖ The unit automatically assigns each delegate unit a unique ID to eliminate ID conflicts.
- ❖ Supports 2 channel of additional audio inputs and 8 channel audio outputs to the room AV system, simultaneous interpretation system and other systems.
- ❖ Supports TCP/IP connection to the host PC for synchronous control of the system (unit ON/OFF, Priority & Level Control).
- ❖ RS-485 / RS-232 output to send PELCO & VISCA protocols for PTZ camera telemetric control with auto-tracking function.
- ❖ Supports voting function:
 - (i) APPROVE / OBJECT
 - (ii) APPROVE / ABSTAIN / OBJECT
 - (iii) RATING of 1 to 5
 - (iv) RANKING: -- / - / 0 / + / ++



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DCS5020M

Digital Multimedia Unit

- ❖ Equipped with a 10-inch 1280×800 high-resolution LCD touch screen, 16:9 display ratio, providing the user clear and viewing experience, a capacitive touch screen with multi-touch support, creating a very user-friendly operating interface.
- ❖ Adopts standard and readily available UTP CAT5e/CAT6 cabling and RJ45 connector for ease of wiring installation and maintenance. Attached installation clamp makes the system more stable and firm.
- ❖ The connecting cable can be plugged from the bottom or the rear of the unit to meet different installation configurations.
- ❖ The unit provides the flexibility of the use with gooseneck microphone or its built-in microphone array, depending on the installation needs and usage of the user.
- ❖ Three-key, five-key voting function, customizable voting type and simultaneous interpretation function with 64-channel language selector and channel selection display.
- ❖ Optional RFID card reader for identity authentication, sign-in, discussion and voting.
- ❖ Internal high fidelity loudspeaker with head-set output and volume adjust.
- ❖ The unique AUDIO-LINK digital ring network technology achieve full-digital signal transmission and processing, anti the RF interference from cell phone or similar devices.
- ❖ The fan-free design of the multimedia unit and power supply module ensures silent operation, free from fan noise. The unit is designed with a capacitive screen touch button to completely eliminate microphone ON/OFF noise.
- ❖ Daisy chain AUDIO-LINK cabling topology connection provides the system cable redundancy for a trouble-free operation.
- ❖ The audio output of every individual unit can be adjusted with an 8-segment equalizer for tone control to fit every individual user voice pattern.
- ❖ Time and date display function with in-use duration display of speaking time, timer countdown, etc.
- ❖ Any multimedia unit in the network can be selected as chairman unit on-the-fly during use with the Conference Management Software. Delegate units can be set as a VIP unit, up to 32 VIP delegate units with maximum 8 simultaneous delegates in use.
- ❖ Paperless functions include: conference topic list, topic-related file browsing and playing; support various file browsing, support uploading WORD, PPT, EXCEL, TXT, PDF and other documents, supports image files such as jpg, png etc. and video files.

Technical Specifications

Screen Type	10-inch (16:9), 1280 x 800, Capacitive Multi-Touch Sensor
Colour & Contrast	18-bit, 800:1
Frequency Response	30 Hz ~ 20 kHz (-3 dB @ nominal)
Audio Output Sensitivity	-46 dBV / Pa
Microphone	Cardioid Condenser Gooseneck Microphone
Input Impedance	2 kW
Signal to Noise Ratio (S/N)	70 dB
Dynamic Range	125 dB max (THD <3%)
Power from Controller	PoE (48 VDC), max. 14W
Audio Interface	
Connection to Controller:	2 x RJ45
Headphones:	2 x 3.5mm Stereo Headphone Jack
Audio Input:	1 x 3.5mm Stereo Input Jack
Pluggable Microphone Base:	1 x XLR (M)
Network Interface	1 x RJ45, 10/100/1000 Mbps, PoE Enabled
Request to Talk	Back-lit Push Button
Discussion Modes	FIFO, OPEN, VOICE, APPLY, APP
Headphone Output	2 x 3.5 mm stereo, 13 mW
Headphone Impedance	16W
Operating Temperature	0°C ~ 55°C;
Operating Humidity	Humidity 10 ~ 85% (Non-Condensing)
Dimensions (WxDxH)	446 x 106 x 219 mm
Weight	2.5 kg (with microphone)

Microphone Option

- GMC22 - 220 mm hypercardioid gooseneck, 1-section
- GMC33 - 330 mm cardioid gooseneck, 2-section
- GMC41 - 410 mm cardioid gooseneck, 1-section
- GMC48 - 480 mm cardioid gooseneck, 1-section
- GMC60 - 600 mm cardioid gooseneck, 1-section



DCS5000 Series

Digital Paperless Multimedia System



DCS5025-MC

Digital Multimedia Controller

- ❖ Robust 2U rack mounted, self-ventilated epoxy coated metal enclosure.
- ❖ Stable and reliable. Designed by a pure enterprise-class platform to ensure a life cycle of more than 5 years, wide range of voltage input of 100-240V.
- ❖ High performance and expansion-ready to support any small to large configuration.
- ❖ Establish overall communication between the server and client of the entire paperless conference system.
- ❖ Provide conference room management, support simultaneous reservation of multiple meeting rooms in the management system, and setting of each meeting room.
- ❖ **Seat Management:** set the entire meeting room seating layout, personnel ID location
- ❖ **Nameplate Management:** Set the name and position of the participants in each seat, and synchronize to the nameplate display on each seat.
- ❖ **Display Management:** Set the display content corresponding to each topic, support images, text free editing
- ❖ **Department Management:** Individual personnel login, modification and management, one-time entry system for long-term preservation, convenient for personnel to check and manage internal departmental meetings, inter-departmental meetings and multi-departmental meetings.
- ❖ **User Management:** Set different personnel administration privileges, including system administrators, meeting administrators, etc. to ensure system information security and system setting security.
- ❖ **Meeting Management:** Have personnel allocation and agenda management for a meeting
- ❖ **Participant Management:** Can be allocated any time, query and configure the seats of participants of each meeting
- ❖ **Document Management:** Documents required for meeting topics can be imported into the system prior to meeting, and various topics can be bound for easy access by participants.
- ❖ **Agenda Management:** Support agenda management and multi-agenda meetings to ensure the flow and efficiency of the meeting process.

Technical Specifications

Processor	Intel Core I5
Memory Module	8GB DDR4
Storage	128GB SSD
I/O Interface	1 x VGA output, 1 x HDMI output 1 x Audio In, 1 x Audio Out 1 x 10/100/1000 Mbps Network Port 5 x RS-232 serial ports 1 x RS-485 serial port, 4 x USB2.0 ports
Dynamic Range	125 dB max (THD <3%)
Power Supply	18.5V, 6.5A 120W
Voltage Input	110 ~ 240Vac, 50/60 Hz
MTBF	50,000 hours
Operating Temperature	0°C ~ 55°C;
Operating Humidity	Humidity 10 ~ 85% (Non-Condensing)
Dimensions (WxDxH)	446 x 106 x 219 mm
Weight	2.5 kg (with microphone)

License Option

DCS-MVOTE - Supports voting, agenda guidance, conference material links, camera tracking, screen synchronization, USB file import, electronic whiteboard, conference recording, SMS communication, browser and other functions.



DCS5000 Series Digital Paperless Multimedia System



CSO220-U 2MP, 20x optical zoom, USB3.0, HDMI, LAN
CSO220-3G 2MP, 20x optical zoom, USB2.0, HDMI, 3G-SDI, LAN
CSO230-3G 2MP, 30x optical zoom, USB2.0, HDMI, 3G-SDI, LAN

Technical Specifications

Video	HD: 1080p/60, 1080p/50, 1080i/60, 1080i/50, 1080p/30, 1080p/25, 720p/120 (supported by network only), 720p/60, 720p/50, 720p/30, 720p/25, 640x480p/240 (supported by network only, optional) SD: 480i, 576i H.265 / H.264 / MJPEG compression Main Stream: 1920x1080, 1280x720, 1024x576 Sub Stream: 720x576, 720x480, 320x240 Video Bitrate: 128Kbps ~ 8192Kbps, VBR/CBR Frame Rate: 50fps 1080p, 120fps 720p, 240fps (640x480)
Audio	AAC 96 kbps, 128 kbps, 256 kbps
Sensor	1/2.8", CMOS, Effective Pixel: 2.07M
Scanning Mode	Progressive
Lens	20x, f4.42mm ~ 88.5mm, F1.8 ~ F2.8 (CSO220) 30x, f4.3mm ~ 129.0mm, F1.8 ~ F2.8 (CSO230)
Digital Zoom	32x (CSO220), 16x (CSO230)
Min Illumination	0.5 lux @ F1.8, AGC ON
Shutter Speed	1/30s ~ 1/10000s
White Balance	Auto, 3000K /Indoor, 4000K, 5000K /Outdoor, 6500K(1), 6500K(2), 6500K(3), One Push, Manual
Image Processing	BLC, 2D & 3D DNR,
View Angle	60.7° ~ 3.36° (H), 34.1° ~ 1.89° (V)
Pan & Tilt	+/- 170° (H), -30° ~+ 90° (V)
Pan/Tilt Speed	1.7° ~ 100° /s (Pan), 1.7° ~ 70° (Tilt)
Image Setting	H&V Flip, Image Freeze, Face Detection
Local Storage	support
Number of Presets	255, 0.1° accuracy
USB Video	UVC1.0, supports Windows 10, 8, 7, Vista, XP, MAC OS X, Linux USB3.0: 1080p/60, 1080p/50, 1080p/30, 1080p/25, 720p/60, 720p/50, 720p/30, 720p/25 USB2.0: 960x540p/30, 960x540p/25, 640x360p/60, 640x360p/50
Colour System	YUV 4:2:2

CSO Series

20x / 30x IP Pan-Tilt-Zoom Camera

- ❖ H.265 encoding enables full HD 1080p / 60fps video streaming through ultra-low bandwidth.
- ❖ Using a new generation of Panasonic's 1/2.8 inch high-quality high-definition CMOS sensor with 2.07 million effective pixels, it can achieve high-quality images with a maximum resolution of 1920x1080.
- ❖ The output frame rate of 1080P is up to 60fps, the output frame rate of 720P is up to 120fps (only supported by the network), and 640x480P can be up to 240fps (only supported by the network, optional).
- ❖ 20x Optical + 32x Digital Zoom with TAMRON high quality super telephoto lens, support 20x optical zoom, 32x digital zoom (Model CSO220) and 30x Optical, 16x digital zoom (Model CSO230).
- ❖ Supports AAC audio coding, with better sound quality and lesser bandwidth.
- ❖ Supports local storage module, without NVR recording directly to local USB flash drive.
- ❖ The low light and high SNR of the CMOS sensor combined with 2D and 3D noise reduction algorithms effectively reduces image noise. Even under low illumination conditions, the picture can still be kept clear.
- ❖ Various interface, support HDMI output, 3G-SDI interface, effective transmission distance up to 150 meters (1080p30 or less). HDMI, SDI, and network can be output simultaneously. It also supports CVBS interface.
- ❖ Using RS232/485 interface, all the parameters of the camera can be remotely controlled by high-speed serial communication.

Interface	1 x HDMI 1.3 1 x 3G-SDI (BNC 800mVp-p, 75W) (Model CSO230) 1 x CVBS (3.5mm jack, 1Vp-p, 75W) 1 x RJ45 10/100M ethernet interface 1 x 3.5mm jack Audio Line In 1 x USB2.0 Type A (Model CSO230) 1 x USB3.0 Type A, 1 x USB2.0 Type B (Model CSO220) 1 x RS-232 In (8-pin mini DIN, max 30m, VISCA / Pelco-D / Pelco-P) 1 x RS-232 Out (8-pin mini DIN, max.30m, VISCA network use only) 1 x RS-485 (screw terminal, max.1200m, VISCA, Pelco-D, Pelco-P)
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Power Requirement	12Vdc, 1A
Operating Temperature	-10°C ~ 40°C
Operating Humidity	Humidity 10 ~ 85% (Non-Condensing)
MTBF	30,000 hours
Dimensions (WxHxD)	169 x 142x 164 mm
Weight	1.35 kg



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Typical Application

