Professional Audio & Video Recorder for Conference

HCS-3316HDB
HD Videoconference Camera

HCS-8132M
Professional Audio & Video Recorder for Conference

HCS-8134M
Professional Audio & Video Recorder for Conference

HCS-8316SDI
SDI Encoder

HCS-8316HDMI
HDMI Encoder
**HCS-8316 Series Encoder**

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### HCS-8316AV-H AV Encoder

**Functions**

- For encoding and network transmitting audio / standard definition video signals (D1/CIF)
- Adopting DSP processing chip and embedded operating system, reliable due to immunity to network virus attacks
- With standard definition video input and output interface and Ethernet interface, input standard definition video signal can be transmitted on IP network after encoding
- Supports stereo audio input, using the industry's most advanced audio algorithms and audio sampling frequency of 48 kHz, the audio input sensitivity is adjustable, with better sound quality
- Variety of control methods and MMI to facilitate administrator's and users’ tasks
- Parameters can be set up from front panel without a computer, convenient for manual switching
- Supports multiple levels of user access rights
- Supports central control system for the management and operation of the equipment
- The ability of remote upgrading through network
- Widely used in various occasions of standard definition video signal acquisition and transmission based on IP network, to meet the needs of standard definition video conferencing applications

#### Technical Specifications

**Electrical**

- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Max. consumption: 8.4 W
- Ethernet: 10 M/100 M/1000 M with autodetect
- Audio input: LINE IN 1: XLRF-type socket; LINE IN 2: RCA (L+R)
- Audio output: LINE OUT: RCA (L+R)

**Mechanical**

- Mounting: Tabletop or mounted in a 19” rack
- Dimensions: h x w x d = 43 x 483 x 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)

**Ordering Information**

HCS-8316AV-H

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### HCS-8316SDI SDI Encoder

**Functions**

- For encoding and network transmitting SDI signal (720p/1080i/1080p)
- Adopting DSP processing chip and embedded operating system, reliable due to immunity to network virus attacks
- With SDI input and output interface and Ethernet interface, input SDI signal can be transmitted on IP network after encoding
- Supports stereo audio input, using the industry's most advanced audio algorithms and audio sampling frequency of 48 kHz, the audio input sensitivity is adjustable, with better sound quality
- Variety of control methods and MMI to facilitate administrator’s and users’ tasks
- Parameters can be set up from front panel without a computer, convenient for manual switching
- Supports multiple levels of user access rights
- Supports central control system for the management and operation of the equipment
- The ability of remote upgrading through network
- Widely used in multimedia broadcasting system for various occasions of SDI signal acquisition, SDI signal remote network transmission, dual stream transmission of video and conferencing, MMI monitoring

#### Technical Specifications

**Electrical**

- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Max. consumption: 10 W
- Ethernet: 10 M/100 M/1000 M with autodetect
- Audio input: LINE IN 1: XLRF-type socket; LINE IN 2: RCA (L+R)
- Audio output: LINE OUT: RCA (L+R)

**Mechanical**

- Mounting: Tabletop or mounted in a 19” rack
- Dimensions: h x w x d = 43 x 483 x 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)

**Ordering Information**

HCS-8316SDI
**HCS-8316VGA-H  VGA Encoder**

**Functions**

- For encoding and network transmitting VGA signal
- VGA signal acquisition and encoding capability support 1400×1050 and backward compatibility, with frame rate of 1 to 30 adjustable
- Adopting DSP processing chip and embedded operating system, reliable due to immunity to network virus attacks
- With VGA input and output interface and Ethernet interface, input VGA signal can be transmitted on IP network after encoding
- Supports stereo audio input, using the industry's most advanced audio algorithms and audio sampling frequency of 48 kHz, the audio input sensitivity is adjustable, with better sound quality
- Variety of control methods and MMI to facilitate administrator's and users' tasks
- Parameters can be set up from front panel without a computer, convenient for manual switching
- Supports multiple levels of user access rights
- Supports central control system for the management and operation of the equipment
- The ability of remote upgrading through network
- Widely used in multimedia broadcasting system for various occasions of VGA signal acquisition, VGA signal remote network transmission, dual stream transmission of video and conferencing, MMI monitoring

**Technical Specifications**

**Electrical**

- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Max. consumption: 8.4 W
- Ethernet: 10 M/100 M/1000 M with autodetect
- Audio input: LINE IN 1: XLRF-type socket; LINE IN 2: RCA (L+R)
- Audio output: LINE OUT: RCA (L+R)

**Mechanical**

- Mounting: Tabletop or mounted in a 19" rack
- Dimensions: h × w × d: 43 × 483 × 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)

**Ordering Information**

HCS-8316VGA-H  VGA Encoder

**HCS-8316HDMI  HDMI Encoder**

**Functions**

- For encoding and network transmitting DVI/HDMI signal
- DVI/HDMI signal acquisition and encoding capability support 1920x1200@60 and backward compatibility, with frame rate of 1 to 30 adjustable
- Adopting DSP processing chip and embedded operating system, reliable due to immunity to network virus attacks
- With HDMI input interface, DVI input interface and Ethernet interface, input DVI/HDMI signal can be transmitted on IP network after encoding
- Supports stereo audio input, using the industry's most advanced audio algorithms and audio sampling frequency of 48 kHz, the audio input sensitivity is adjustable, with better sound quality
- Variety of control methods and MMI to facilitate administrator's and users' tasks
- Parameters can be set up from front panel without a computer, convenient for manual switching
- Supports multiple levels of user access rights
- Supports central control system for the management and operation of the equipment
- The ability of remote upgrading through network
- Widely used in multimedia broadcasting system for various occasions of DVI/HDMI signal acquisition, DVI/HDMI signal remote network transmission, dual stream transmission of video and conferencing, MMI monitoring

**Technical Specifications**

**Electrical**

- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Max. consumption: 10 W
- Ethernet: 10 M/100 M/1000 M with autodetect
- Audio input: LINE IN 1: XLRF-type socket; LINE IN 2: RCA (L+R)
- Audio output: LINE OUT: RCA (L+R)

**Mechanical**

- Mounting: Tabletop or mounted in a 19" rack
- Dimensions: h × w × d: 43 × 483 × 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)

**Ordering Information**

HCS-8316HDMI  HDMI Encoder
HCS-8317  High Definition Digital AV Decoder

Functions
- Used for multi-channel digital media signal decoding and output
- TAIDEN series of video equipment can access encoder or VCR through IP network to realize live or on-demand broadcasting, after decoding, videos can be displayed to display devices via HDMI or VGA output
- Cooperating with HCS-8300 series paperless multimedia congress system to display the picture of the multimedia congress terminal camera and to share desktop; also convenient for connecting to remote meeting
- With high-performance DSP chip and dedicated hardware platform, supports 1 channel HDMI video and 1 channel VGA signal synchronization decoding and display, and immunes to network virus attack
- Supports 1 stereo audio decoder output
- Variety of control methods and MMI to facilitate administrator’s and users' tasks
- Supports multiple levels of user access rights
- Visual, interactive, cooperative play function
- B/S architecture system management and user interface based on IE web browser
- Supports central control system for the management and operation of the equipment
- The ability of remote upgrading through network
- Convenient for the user to record/broadcast at different environments, can be widely used in the place of conference room, lecture hall, demonstration hall and leadership office
- 2 x USB HOST interface for upgrade

Technical Specifications

Electrical
- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Ethernet: 10 M/100 M with autodetect
- Audio output: RCA (L+R)
- Resolutions: 1280×720p@50/60 Hz; 1920×1080i@50/60 Hz; 1920×1080p@25/30/50/60 Hz; 1024×768@60 Hz; 1280×1024@60 Hz; 1366×768@60 Hz; AUTO
- Video output: 1 channel HDMI, 1 channel VGA signal

Analog audio
- Output impedance: <100Ω
- Gain: 0 dB
- Isolation: >75 dB
- SNR: >80 dB

Mechanical
- Mounting: Tabletop or mounted in a 19" rack
- Dimensions h × w × d: 483 × 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)

Ordering Information
- HCS-8317, HD Digital AV Decoder
HCS-8131M
Professional Audio & Video Recorder for Conference

Features
- The first professional digital audio & video recorder for conference in the world, especially designed for high-level meetings
- Cooperating with TAI DEN conference system, synchronously records conference video & audio information
- Special multi-channel simultaneous interpretation recording function
  - Especially designed for audio & video recording and playing back for conference; one video channel has a max. of 8 corresponding audio channels
- Supports one channel video and multi-channel audio combination and download as one media stream, or one audio channel download as one audio file
- Broadcast audio quality, HD video quality (1080p)
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Special indexing and sorting feature designed for conference for video & audio files recorded
  - Search by time, keywords of meeting name or room name
  - Search by time, keywords of speaker or proposal which of the speak information, simultaneous interpretation information or proposal information
- Recorded file playback, fast play, backward, pause/stop, etc.
- Audio/video files saved on hard disk in HCS-8131M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Hardware requirements: dual-core processor, RAM 4G or higher, discrete graphic card, 1440×900 (better), DirectX 9.0 or higher
- Software requirements: Windows 7 or higher.
- Variety of control methods and MMI to facilitate administrator’s and users’ tasks
- Visual, interactive, cooperative play function
- Downloading file adopts a common standard format: generic formats, such as mp4, etc.
- Single system scalable to support multiple concurrent meetings simultaneously recording live
- The ability of remote upgrading through network
- With DSP processing chips, embedded operating system, stable and reliable due to immunity to network virus attacks

Controls and Indicators
- Graphic 256x32 LCD with back-lighting displays status and menu of the system configuration, supporting multi-language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiator

Interconnections
- Signal Inputs:
  - 4 channels of video input via BNC connectors
  - 4 channels of audio input via BNC connectors
  - 1 channel of HD VGA input via female 15-pin HDF
- Signal outputs:
  - 1 channel of video output via HDMI connector
  - 1 channel of video output via BNC connector
  - 1 channel of VGA output via female 15-pin HDF
  - 1 channel of audio output via RCA (L+R)
- One RS-232 control port with connection to computer, modem and other device
- Ethernet interface
- Extension interface with built-in professional camera control protocols, a variety of professional cameras like TAI DEN, SONY, PELCO and Panasonic can be controlled

Technical Specifications

Electrical
- Video compression: H. 264
- Hard disk capacity: Up to 4 hard disks, each disk ≤ 2 T
- Video input (composite video): 1 Vpp/75 Ohm, BNC connectors, PAL: 704×576/NTSC: 704×480
- Video input (VGA): 0.7 Vpp/75 Ohm, female 15-pin HDF, up to 1400×1050 @ 60 Hz
- Video output: 1 channel HDMI, 1 channel VGA
- Audio input: 2 Vpp/1 kOhm, BNC connectors
- Audio output: Linear electrical level/1 kOhm, RCA connector
- Audio compression: AAC
- Communication interfaces: RJ45 10M/100M/1000M self-adaptive Ethernet interface, RS232 port
- Keyboard interface: 1 port
- USB interface: USB1.1/USB 2.0, supports USB flash memory, USB HDD, USB CD-R/W, USB DVD or USB mouse
- HDMI interface resolution: 1920×1080i@50 Hz
VGA interface resolution: 800×600@60 Hz, 1024×768@60 Hz, 1280×1024@60 Hz, 1440×900@60 Hz

Power supply: AC 100 V-240 V, 50 Hz/60 Hz
Power consumption (excluding hard disk): 20 W - 50 W

**Mechanical**

Temperature: -10 °C to +55 °C
Humidity: 10% ~ 90% RH
Mounting: Tabletop or mounted in a 19" rack
Weight: 6.6 kg
Color: White (PANTONE 420 C)

**Ordering Information**

HCS-8131M: Professional Audio & Video Recorder for Conference (4 CHs composite video input with D1 resolution, 1 CH VGA input, 4 CHs audio input)
HCS-8132M
Professional Audio & Video Recorder for Conference

Features
- The first professional digital audio & video recorder for conference in the world, especially designed for high-level meetings
- Cooperating with TAI DEN conference system, synchronously records conference video & audio information
- Special multi-channel simultaneous interpretation recording function
  - Especially designed for audio & video recording and playing back for conference; one video channel has a max. of 8 corresponding audio channels
- Supports one channel video and multi-channel audio combination and download as one media stream, or one audio channel download as one audio file
- Broadcast audio quality, HD video quality (1080p)
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Special indexing and sorting feature designed for conference for video & audio files recorded
  - Search by time, keywords of meeting name or room name
  - Search by time, keywords of speaker or proposal which of the speak information, simultaneous interpretation information or proposal information
- Recorded file playback, fast play, backward, pause/stop, etc.
- Audio/video files saved on hard disk in HCS-8131M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Hardware requirements: dual-core processor, RAM 4G or higher, discrete graphic card, 1440×900 (better), DirectX 9.0 or higher
- Software requirements: Windows 7 or higher.
- Variety of control methods and MMI to facilitate administrator's and users' tasks
- Visual, interactive, cooperative play function
- Downloading file adopts a common standard format: generic formats, such as mp4, etc.
- Single system scalable to support multiple concurrent meetings simultaneously recording live

Controls and Indicators
- Signal Inputs:
  - 8 channels of video input via BNC connectors
  - 8 channels of audio input via BNC connectors
  - 1 channel of HD VGA input via female 15-pin HDMI
- Signal outputs:
  - 1 channel of video output via HDMI connector
  - 1 channel of video output via BNC connector
  - 1 channel of VGA output via female 15-pin HDMI
  - 1 channel of audio output via RCA (L+R)
- One RS-232 control port with connection to computer, modem and other device
- Ethernet interface
- Extension interface with built-in professional camera control protocols, a variety of professional cameras like TAI DEN, SONY, PELCO and Panasonic can be controlled

Interconnections
- Signal Inputs:
  - 8 channels of video input via BNC connectors
  - 8 channels of audio input via BNC connectors
  - 1 channel of HD VGA input via female 15-pin HDMI
- Signal outputs:
  - 1 channel of video output via HDMI connector
  - 1 channel of video output via BNC connector
  - 1 channel of VGA output via female 15-pin HDMI
  - 1 channel of audio output via RCA (L+R)
- One RS-232 control port with connection to computer, modem and other device
- Ethernet interface
- Extension interface with built-in professional camera control protocols, a variety of professional cameras like TAI DEN, SONY, PELCO and Panasonic can be controlled

Technical Specifications

Electrical
Video compression, .......................................................... H.264
Hard disk capacity, ............................... Up to 4 hard disks, each disk ≤ 2 T
Video input (composite video), .............. 1 Vpp/75 Ohm, BNC connectors,
PAL: 704×576 / NTSC: 704×480
Video input (VGA) ......................... 0.7 Vpp/75 Ohm, female 15-pin HDMI,
up to 1400×1050@60 Hz
Video output ...................................... 1 channel HDMI, 1 channel VGA
Audio input .................................. 2 Vpp/1 kOhm, BNC connectors
Audio output ................................ Linear electrical level/1 kOhm, RCA connector
Audio compression, ................................. _AAC
Communication interfaces, ..................... RJ45 10M/100M/1000M self-adaptive
  Ethernet interface, RS232 port
Keyboard interface ................................. 1 port
USB interface ................................ USB1.1/USB 2.0, supports USB flash memory,
  USB HDD, USB CD-R/W, USB DVD or USB mouse
HDMI interface resolution, ............1920×1080i@50 Hz
VGA interface resolution…………………………………800×600@60 Hz, 1024×768@60 Hz, 1280×1024@60 Hz, 1440×900@60 Hz
Power supply……………………………AC 100 V-240 V, 50 Hz/ 60 Hz
Power consumption (excl. hard disk)…………………20 W - 50 W

**Mechanical**

Temperature…………………………………………………………..-10 °C to +55 °C
Humidity………………………………………………………………10% ~ 90% RH
Mounting…………………………………Tabletop or mounted in a 19“ rack
Weight……………………………………………………………………6.6 kg
Color………………………………………………………………………White (PANTONE 420 C)

**Ordering Information**

HCS-8132M……………………………Professional Audio & Video Recorder for Conference (8 CHs composite video input with D1 resolution, 1 CH VGA input, 8 CHs audio input)
Professional Audio & Video Recorder for Conference

HCS-8133M
Professional Audio & Video Recorder for Conference

Features
- The first professional digital audio & video recorder for conference in the world, especially designed for high-level meetings
- Cooperating with TAIDEN conference system, synchronously records conference video & audio information
- Special multi-channel simultaneous interpretation recording function
  - Especially designed for audio & video recording and playing back for conference; one video channel has a max. of 8 corresponding audio channels
- Supports one channel video and multi-channel audio combination and download as one media stream, or one audio channel download as one audio file
- Broadcast audio quality, HD video quality (1080p)
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Special indexing and sorting feature designed for conference for video & audio files recorded
  - Search by time, keywords of meeting name or room name
  - Search by time, keywords of speaker or proposal which of the speak information, simultaneous interpretation information or proposal information
- Recorded file playback, fast play, backward, pause/stop, etc.
- Audio/video files saved on hard disk in HCS-8131M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Hardware requirements: dual-core processor, RAM 4G or higher, discrete graphic card, 1440×900 (better), DirectX 9.0 or higher
- Software requirements: Windows 7 or higher.
- Variety of control methods and MMI to facilitate administrator's and users' tasks
- Visual, interactive, cooperative play function
- Downloading file adopts a common standard format: generic formats, such as mp4, etc.
- Single system scalable to support multiple concurrent meetings simultaneously recording live

Controls and Indicators
- Signal Inputs:
  - 1 channel of SDI video input via BNC connector
  - 4 channels of audio input via BNC connectors
  - 1 channel of HD VGA input via female 15-pin HDF
- Signal outputs:
  - 1 channel of video output via HDMI connector
  - 1 channel of video output via BNC connector
  - 1 channel of VGA output via female 15-pin HDF
  - 1 channel of audio output via RCA (L+R)
- One RS-232 control port with connection to computer, modem and other device
- Ethernet interface
- Extension interface with built-in professional camera control protocols, a variety of professional cameras like TAIDEN, SONY, PELCO and Panasonic can be controlled

Interconnections
- Video compression: H.264
- Hard disk capacity: Up to 4 hard disks, each disk ≤ 2 T
- Video input (composite video): 1 Vpp/75 Ohm, BNC connectors, PAL: 704×576 / NTSC: 704×480
- Video input (VGA): 0.7 Vpp/75 Ohm, female 15-pin HDF, up to1400×1050@60 Hz
- Video output: 1 channel HDMI, 1 channel VGA
- Audio input: 2 Vpp/1 kOhm, BNC connectors
- Audio output: Linear electrical level/1 kOhm, RCA connector
- Audio compression: AAC
- Communication interfaces: RJ45 10M/100M/1000M self-adaptive Ethernet interface, RS232 port
- Keyboard interface: 1 port
- USB interface: USB1.1/USB 2.0, supports USB flash memory, USB HDD, USB CD-RW, USB DVD or USB mouse
- HDMI interface resolution: 1920×1080i@50 Hz

Technical Specifications

Electrical
- Video compression: H.264
- Hard disk capacity: Up to 4 hard disks, each disk ≤ 2 T
- Video input (composite video): 1 Vpp/75 Ohm, BNC connectors, PAL: 704×576 / NTSC: 704×480
- Video input (VGA): 0.7 Vpp/75 Ohm, female 15-pin HDF, up to1400×1050@60 Hz
- Video output: 1 channel HDMI, 1 channel VGA
- Audio input: 2 Vpp/1 kOhm, BNC connectors
- Audio output: Linear electrical level/1 kOhm, RCA connector
- Audio compression: AAC
- Communication interfaces: RJ45 10M/100M/1000M self-adaptive Ethernet interface, RS232 port
- Keyboard interface: 1 port
- USB interface: USB1.1/USB 2.0, supports USB flash memory, USB HDD, USB CD-RW, USB DVD or USB mouse
- HDMI interface resolution: 1920×1080i@50 Hz
VGA interface resolution: 800×600@60 Hz, 1024×768@60 Hz, 1280×1024@60 Hz, 1440×900@60 Hz

Power supply: AC 100 V-240 V, 50 Hz/60 Hz
Power consumption (excl. hard disk): 20 W - 50 W

Mechanical

Temperature: -10 °C to +55 °C
Humidity: 10% ~ 90% RH
Mounting: Tabletop or mounted in a 19” rack
Weight: 6.6 kg
Color: White (PANTONE 420 C)

Ordering Information

HCS-8133M: Professional Audio & Video Recorder for Conference (1 CH SDI video input with 1080p resolution, 1 CH VGA input, 4 CHs audio input)
Features
■ The first professional digital audio & video recorder for conference in the world, especially designed for high-level meetings
■ Cooperating with TAIDEN conference system, synchronously records conference video & audio information
■ Special multi-channel simultaneous interpretation recording function
  ◇ Especially designed for audio & video recording and playing back for conference; one video channel has a max. of 8 corresponding audio channels
■ Supports one channel video and multi-channel audio combination and download as one media stream, or one audio channel download as one audio file
■ Broadcast audio quality, HD video quality (1080p)
■ Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
■ Special indexing and sorting feature designed for conference for video & audio files recorded
  ◇ Search by time, keywords of meeting name or room name
  ◇ Search by time, keywords of speaker or proposal which of the speak information, simultaneous interpretation information or proposal information
■ Recorded file playback, fast play, backward, pause/stop, etc.
■ Audio/video files saved on hard disk in HCS-8131M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
■ During AV recording, all channels can be monitored with earphones
■ Hardware requirements: dual-core processor, RAM 4G or higher, discrete graphic card, 1440×900 (better), DirectX 9.0 or higher
■ Software requirements: Windows 7 or higher.
■ Variety of control methods and MMI to facilitate administrator's and users' tasks
■ Visual, interactive, cooperative play function
■ Downloading file adopts a common standard format: generic formats, such as mp4, etc.
■ Single system scalable to support multiple concurrent meetings simultaneously recording live

Controls and Indicators
■ Graphic 256x32 LCD with back-lighting displays status and menu of the system configuration, supporting multi-language menu
■ Four buttons for configuration
■ Power switch
■ Standby switch with indicator
■ Operation mode indicators
■ Monitor channel select knob
■ Monitor volume control knob
■ Mini IR radiator

Interconnections
■ Signal Inputs:
  ◇ 2 channels of SDI video input via BNC connectors
  ◇ 8 channels of audio input via BNC connectors
  ◇ 1 channel of HD VGA input via female 15-pin HDF
■ Signal outputs:
  ◇ 1 channel of video output via HDMI connector
  ◇ 1 channel of video output via BNC connector
  ◇ 1 channel of VGA output via female 15-pin HDF
  ◇ 1 channel of audio output via RCA (L+R)
■ One RS-232 control port with connection to computer, modem and other device
■ Ethernet interface
■ Extension interface with built-in professional camera control protocols, a variety of professional cameras like TAIDEN, SONY, PELCO and Panasonic can be controlled

Technical Specifications
Electrical
Video compression, H.264
Hard disk capacity, Up to 4 hard disks, each disk ≤ 2T
Video input (composite video), 1 Vpp/75 Ohm, BNC connectors, PAL: 704×576 / NTSC: 704×480
Video input (VGA), 0.7 Vpp/75 Ohm, female 15-pin HDF, up to 1400×1050@60 Hz
Video output, 1 channel HDMI, 1 channel VGA,
Audio input, 2 Vpp/1 kOhm, BNC connectors
Audio output, Linear electrical level/1 kOhm, RCA connector
Audio compression, AAC
Communication interfaces, RJ45 10M/100M/1000M self-adaptive Ethernet interface, RS232 port
Keyboard interface, 1 port
USB interface, USB1.1/USB 2.0, supports USB flash memory, USB HDD, USB CD-RW, USB DVD or USB mouse
HDMI interface resolution, 1920×1080i@50 Hz
VGA interface resolution

- 800×600@60 Hz,
- 1024×768@60 Hz,
- 1280×1024@60 Hz,
- 1440×900@60 Hz

Power supply: AC 100 V-240 V, 50 Hz/60 Hz
Power consumption (excl. hard disk): 20 W - 50 W

**Mechanical**

Temperature: -10 °C to +55 °C
Humidity: 10% ~ 90% RH
Mounting: Tabletop or mounted in a 19” rack
Weight: 6.6 kg
Color: White (PANTONE 420 C)

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**Ordering Information**

HCS-8134M: Professional Audio & Video Recorder for Conference (2 CHs SDI video input with 1080p resolution, 1 CH VGA input, 8 CHs audio input)
System Connection

Legend

- RG-6
- TAI NET
- CBL6PS
- AUDIO
- RS422
- Cat.5

CBL6PS to HCS-8300 and HCS-4100/50 series congress units
HCS-8243 Series
Digital HD Video Recording Management Software Module

Functions
Digital HD Video Recording Management Software Module works on dual-core processor/4G or higher/Discrete graphic card/1440×900 (better)/ DirectX 9.0 or higher Running Environment. With HCS-4130M series Professional Audio & Video Recorders can realize functions of video preview, video and record playback, meeting and management download, etc.

- Preview, Playback, Download, Meeting and Management
- Include screen layout, preview, video record, meeting record playback, information management and meeting download:
  - Screen layout: layout of multi sub screen, 4, 6, 8 or 9 sub screens
  - Preview
  - Record: record meeting video manually; if have connected to DCS, record start when meeting start
  - Playback: Files playback, must connect corresponding DVR
    - Playback video channel optional, playback all channels or any channel
    - Video display adjustable, 4:3 or 16:9
    - Support play/pause, stop, quick play and slow play
    - Support search by meeting, room or time, etc.
  - Information management: set up the connection of conference devices and synchronize meeting information from DVR to PC
  - Download: download video and audio files
    - select the partition time (10min, 30min, 60min, 90min or 120min) as stated capacity to partition the file into some sections to save
    - download type optional, include speak information, SI information and proposal information
    - userdefine information by time, define a new event from the selected conference by setting up the start time and end time

Ordering Information
HCS-8243, Digital HD Video Recording Management Software Module (used with HCS-8300 series)
HCS-4243/50, Digital HD Video Recording Management Software Module (used with HCS-4100/50 series)
TMX-0404SDI
4×4 High Definition Digital Video Tracking Matrix Switcher

Features
- Routing: 4×4 High Definition Digital Video Tracking Matrix Switcher
- Video interface: BNC×1 female
- Data rates: 143 Mbps~2.97 Gbps
- Compatible with SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- Input equalization and clock recovery, output pre-emphasis
- If input has no signal, the input and output will automatically shut down to reduce current consumption
- RS-232 control, supporting RS-232 protocols, for connection with central control system
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
- One TAINET interface for connection with TAIDEN conference system
- One RJ45 interface for TCP/IP connection
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 1U high, full rack width

Technical Specifications

Video
- Data rates: 143 Mbps ~ 2.97 Gbps
- Data types: 8 bit or 10 bit
- Compatible standards: SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)

Video input
- Connectors: 4 × BNC female
- Input level: 0.7 V - 1.2 Vp-p
- Input cable equalization: Typical equalization cable length (Belden 1694A standard cable)
- 100 m: 100 Mbps
- 200 m: 500 Mbps
- 400 m: 270 Mbps
- Nominal level: 0.8 Vp-p
- Impedance: 75 Ohm
- Return loss: 20~30 dB at 5 MHz to 1.5 GHz

Video output
- Connectors: 4 × BNC female
- Nominal level: 0.8 V ± 7%
- Output level: 0.5 V - 1.6 Vp-p
- Impedance: 75 Ohm
- Return loss: >15 dB at 5 MHz to 1.5 GHz
- DC offset: ±100 mV with no offset at input
- Jitter: 20~30 ps@HD/3G rate
- Rise and fall time (20~80%): SD: 600 ps, HD/3G: 100 ps

Control
To central control system:
- COM (RS-232): RS-232, 9 pin female D connector
- Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

Video track off:
- RJ45: TCP/IP
- RS422/RS485: Invalidation

Video track on:
- RJ45: TCP/IP
- RS422/RS485: Baudrate: 9600 to dome camera
- Baudrate: 19200, to main unit
- RS422/RS485: Invalidation

General specs
- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Temperature: Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
- Humidity: Storage and operating: 10% to 90%
- Dimensions: h × w × d (mm): 43 × 483 × 208 (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)
- Mean time between failures: 30,000 hours

Ordering Information
TMX-0404SDI, 4×4 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
**Features**

- Routing: 8×4 High Definition Digital Video Tracking Matrix Switcher
- Video interface: BNC×1 female
- Data rates: 143 Mbps~2.97 Gbps
- Compatible with SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- Input equalization and clock recovery, output pre-emphasis
- If input has no signal, the input and output will automatically shut down to reduce current consumption
- RS-232 control, supporting RS-232 protocols, for connection with central control system
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
- One TAINET interface for connection with TAIDEN conference system
- One RJ45 interface for TCP/IP connection
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 1U high, full rack width

**Technical Specifications**

### Video

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<th>Specification</th>
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<tr>
<td>Compatible standards</td>
<td>SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)</td>
</tr>
</tbody>
</table>

**Video input**

- Connectors: 8 × BNC female
- Input level: 0.7 V ~ 1.2 Vp-p
- Input cable equalization: Typical equalization cable length
  - (Belden 1694A standard cable)
  - 100 m @ 2.97 Gbps
  - 200 m @ 1.485 Gbps
  - 400 m @ 270 Mbps
- Nominal level: 0.8 Vp-p
- Impedance: 75 Ohm
- Return loss: 20~30 dB at 5 MHz to 1.5 GHz

**Video output**

- Connectors: 4 × BNC female
- Nominal level: 0.8 V ± 7%
- Output level: 0.5 V ~ 1.6 Vp-p
- Impedance: 75 Ohm
- Return loss: >15 dB at 5 MHz to 1.5 GHz
- DC offset: ± 100 mV with no offset at input
- Jitter: 20~30 ps @ HD/3G rate
- Rise and fall time (20~80%): SD: 600 ps, HD/3G: 100 ps

**Control**

To central control system:
- COM (RS-232): RS-232, 9 pin female D connector
- COM1: Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

Video track off:
- RJ45: TCP/IP
- RS422/RS485: Invalidation

Video track on:
- RJ45: TCP/IP
- RS422/RS485: Invalidation
- TAINET baudrate and protocol: Baudrate: 19200, to main unit
- RS422/RS485: Baudrate: 9600, to dome camera

**General specs**

- Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz
- Temperature: Operating: 0 °C to + 50 °C; Storage: -20 °C to + 70 °C
- Humidity: Storage and operating: 10% to 90%
- Dimensions: h × w × d (mm): 43 × 483 × 208 (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)
- Mean time between failures: 30,000 hours

**Ordering Information**

TMX-0804SDI 8×4 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
TMX-0808SDI
8×8 High Definition Digital Video Tracking Matrix Switcher

Features

■ Routing: 8×8 High Definition Digital Video Tracking Matrix Switcher
■ Video interface: BNC×1 female
■ Data rates: 143 Mbps ~ 2.97 Gbps
■ Compatible with SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
■ Input equalization and clock recovery, output pre-emphasis
■ If input has no signal, the input and output will automatically shut down to reduce current consumption
■ RS-232 control, supporting RS-232 protocols, for connection with central control system
■ One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAI DEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
■ One TAINET interface for connection with TAI DEN conference system
■ One RJ45 interface for TCP/IP connection
■ Power-off protection for scene status
■ LCD to display real-time operation
■ Front panel button control, easy to switch manually
■ Front panel keyboard lockup and protection function
■ Scene save and recall function
■ 1U high, full rack width

Technical Specifications

Video

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<td>Compatible standards</td>
<td>SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)</td>
</tr>
</tbody>
</table>

Video input

- Connectors: 8 × BNC female
- Input level: 0.7 V ~ 1.2 Vp-p
- Input cable equalization: Typical equalization cable length (Belden 1694A standard cable)
  - 100 m @ 2.97 Gbps
  - 200 m @ 1.485 Gbps
  - 400 m @ 270 Mbps
- Nominal level: 0.8 Vp-p
- Impedance: 75 Ohm
- Return loss: 20~30 dB at 5 MHz to 1.5 GHz

Video output

- Connectors: 8 × BNC female
- Nominal level: 0.8 V ± 7%
- Output level: 0.5 V ~ 1.6 Vp-p
- Impedance: 75 Ohm
- Return loss: > 15 dB at 5 MHz to 1.5 GHz
- DC offset: ± 100 mV with no offset at input
- Jitter: 20~30 ps @ HD/3G rate
  - 40~60 ps @ SD rate
- Rise and fall time (20~80%): 600 ps @ SD
  - 100 ps @ HD/3G

Control

To central control system:
- COM (RS-232): 9 pin female D connector
- COM1: Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
- Video track off:
  - RJ45: TCP/IP
  - RS422/RS485: Invalidation
- Video track on:
  - RJ45: TCP/IP
  - RS422/RS485: Baudrate: 19200, to main unit
  - RS422/RS485: Baudrate: 9600, to dome camera

General specs

- Power supply: AC 100 V ~ 240 V, 50 Hz / 60 Hz
- Operating temperature: 0 °C to + 50 °C
- Storage temperature: -20 °C to + 70 °C
- Humidity: 10% to 90%
- Dimensions: 43 × 483 × 208 mm (1U high, full rack width)
- Weight: 2.7 kg
- Color: Gray (PANTONE 425 C)
- Mean time between failures: 30,000 hours

Ordering Information

TMX-0808SDI 8×8 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
System Connection

![System Connection Diagram](image-url)
**TMX-0404SDI2**

4×4 High Definition Digital Video Tracking Matrix Switcher

---

**Features**

- **Routing:** 4×4 High Definition Digital Video Tracking Matrix Switcher
- **Video interface:** BNC female
- **Data rates:** 143 Mbps – 2.97 Gbps
- **Compatible with:** SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- **Input equalization and clock recovery, output pre-emphasis**
- **RS-232 control, supporting RS-232 protocols, for connection with central control system**
- **Two RS-422 control port with built-in professional camera control protocols, for a variety of professional cameras like TAIKEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled**
- **One TAINET interface for connection with TAIKEN conference system**
- **One RJ45 interface for TCP/IP connection**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control, easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **1U high, full rack width**

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**Technical Specifications**

**Video**

<table>
<thead>
<tr>
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<td>Compatible standards</td>
<td>SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)</td>
</tr>
</tbody>
</table>

**Video input**

- Connectors: 4 × BNC female
- Input level: 0.7 V - 1.2 Vp-p
- Input cable equalization: Typical equalization cable length:
  - 50 m@2.97 Gbps (odd channel)
  - 60 m@2.97 Gbps (even integer channel)
  - 90 m@1.485 Gbps
- Nominal level: 0.8 Vp-p
- Impedance: 75 Ohm
- Return loss: 20~30 dB@5 MHz to 1.5 GHz

**Video output**

- Connectors: 4 × BNC double-decker female
- Nominal level: 0.8 V ± 7%
- Output level: 0.5 V - 1.6 Vp-p
- Impedance: 75 Ohm
- Return loss: >15 dB@5 MHz to 1.5 GHz
- DC offset: ± 100 mV with no offset at input
- Jitter: 20~30 ps@HD/3G rate
- Rise and fall time: 20-~60 ps@SD rate
- HD/3G: 100 ps

**Control**

- **To central control system:**
  - COM (RS-232): RS-232, 9 pin female D connector, Baudrate: 115200, data: 8 bits, stop: 1 bit, no parity
  - RJ45: TCP/IP, Baudrate: 19200, to main unit
  - TAINET: Baudrate: 19200, to control keypad
- **RS422:** Baudrate: 9600, to dome camera
- **RS232:** Baudrate: 9600, to control keypad

**General specs**

- **Power supply:** AC 100 V - 240 V, 50 Hz / 60 Hz
- **Temperature:** Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
- **Humidity:** Storage and operating: 10% to 90%
- **Dimensions h × w × d (mm):** 43 × 483 × 208 (1U high, full rack width)
- **Weight:** 2.7 kg
- **Color:** Gray (PANTONE 425 C)
- **Mean time between failures:** 30,000 hours

---

**Ordering Information**

TMX-0404SDI2 4×4 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
Professional Audio & Video Recorder for Conference

TMX-0804SDI2
8×4 High Definition Digital Video Tracking Matrix Switcher

Features
- **Routing:** 8×4 High Definition Digital Video Tracking Matrix Switcher
- **Video interface:** BNC female
- **Data rates:** 143 Mbps~2.97 Gbps
- **Compatible with:** SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- **Input equalization and clock recovery, output pre-emphasis**
- **RS-232 control, supporting RS-232 protocols, for connection with central control system**
- **Two RS-422 control port with built-in professional camera control protocols, for connecting with TAIKEN conference system**
- **One TAINET interface for connection with TAIKEN conference system**
- **One RJ45 interface for TCP/IP connection**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control, easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **1U high, full rack width**

Technical Specifications

**Video**

<table>
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</tr>
</tbody>
</table>

**Video input**

- **Connectors:** 8 × BNC female
- **Input level:** 0.7 V ~ 1.2 Vp-p
- **Input cable equalization:**
  - Typical equalization cable length
  - 50 m @ 2.97 Gbps (odd channel)
  - 60 m @ 2.97 Gbps (even integer channel)
  - 90 m @ 1.485 Gbps
- **Nominal level:** 0.8 Vp-p
- **Impedance:** 75 Ohm
- **Return loss:** 20~30 dB@5 MHz to 1.5 GHz

**Video output**

- **Connectors:** 4 × BNC double-decker female
- **Nominal level:** 0.5 V ~ 1.6 Vp-p
- **Impedance:** 75 Ohm
- **Return loss:** >15 dB@5 MHz to 1.5 GHz
- **DC offset:** ±100 mV with no offset at input
- **Jitter:** 20~30 ps@HD/3G rate
- **Rise and fall time (20~80%):**
  - SD: 600 ps
  - HD/3G: 100 ps

**Control**

- **To central control system:**
  - COM (RS-232), RS-232, 9 pin female D connector
  - Baudrate: 115200, data: 8 bits, stop: 1 bit, no parity
  - RJ45, TCP/IP
  - Baudrate: 19200, to main unit
  - TAINET, Baudrate: 9600, to dome camera
  - RS232, Baudrate: 9600, to control keypad

**General specs**

- **Power supply:** AC 100 V - 240 V, 50 Hz / 60 Hz
- **Temperature:** Operating: 0 °C to + 50 °C;
  - Storage: -20 °C to + 70 °C
- **Humidity:**
  - Storage and operating: 10% to 90%
- **Dimensions h × w ×d (mm):** 43 × 483 × 208
  - (1U high, full rack width)
- **Weight:** 2.8 kg
- **Color:** Gray (PANTONE 425 C)
- **Mean time between failures:** 30,000 hours

**Ordering Information**

- **TMX-0804SDI2**
  - 8×4 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
TMX-0808SDI2
8×8 High Definition Digital Video Tracking Matrix Switcher

Features
- Routing: 8×8 High Definition Digital Video Tracking Matrix Switcher
- Video interface: BNC female
- Data rates: 143 Mbps~2.97 Gbps
- Compatible with SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- Input equalization and clock recovery, output pre-emphasis
- RS-232 control, supporting RS-232 protocols, for connection with central control system
- Two RS-422 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
- One TAINET interface for connection with TAIDEN conference system
- One RJ45 interface for TCP/IP connection
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 1U high, full rack width

Technical Specifications

Video
- Data rates: 143 Mbps~2.97 Gbps
- Data types: 8 bit or 10 bit
- Compatible standards: SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)

Video input
- Connectors: 8 × BNC female
- Input level: 0.7 V ~ 1.2 Vp-p
- Input cable equalization:
  - Typical equalization cable length:
    - 50 m@2.97 Gbps (odd channel)
    - 60 m@2.97 Gbps (even integer channel)
    - 90 m@1.485 Gbps
- Nominal level: 0.8 Vp-p
- Impedance: 75 Ohm
- Return loss: 20~30 dB at 5 MHz to 1.5 GHz

Video output
- Connectors: 8 × BNC double-decker female
- Nominal level: 0.8 V ± 7%
- Output level: 0.5 V ~ 1.6 Vp-p
- Impedance: 75 Ohm
- DC offset: ±100 mV with no offset at input
- Jitter: 20~30 ps@HD/3G rate, 40~60 ps@SD rate
- Rise and fall time (20~80%): SD: 600 ps, HD/3G: 100 ps

Control
- To central control system:
  - COM (RS-232): RS-232, 9 pin female D connector
  - COM1: Baudrate: 115200, data: 8 bits, stop: 1 bit, no parity
  - RJ45: TCP/IP
  - TAINET: Baudrate: 19200, to main unit
  - RS422: Baudrate: 9600, to dome camera
  - RS232: Baudrate: 9600, to control keypad

General specs
- Power supply: AC 100 V ~ 240 V, 50 Hz / 60 Hz
- Temperature: Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
- Humidity: Storage and operating: 10% to 90%
- Dimensions h × w ×d (mm): 43 × 483 × 208 (1U high, full rack width)
- Weight: 3.0 kg
- Color: Gray (PANTONE 425 C)
- Mean time between failures: 30,000 hours

Ordering Information
- TMX-0808SDI2: 8×8 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)
TMX-1604SDI2
16×4 High Definition Digital Video Tracking Matrix Switcher

**Features**

- **Routing:** 16×4 High Definition Digital Video Tracking Matrix Switcher
- **Video interface:** BNC female
- **Data rates:** 143 Mbps~2.97 Gbps
- **Compatible with:** SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- **Input equalization and clock recovery, output pre-emphasis**
- **RS-232 control,** supporting RS-232 protocols, for connection with central control system
- **Two RS-422 control port** with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
- **One TAINET interface** for connection with TAIDEN conference system
- **One RJ45 interface** for TCP/IP connection
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control,** easy to switch manually
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **1U high, full rack width**

**Technical Specifications**

**Video**

<table>
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<th>Data rates</th>
<th>143 Mbps ~ 2.97 Gbps</th>
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<td>Data types</td>
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<td>Compatible standards</td>
<td>SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)</td>
</tr>
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</table>

**Video input**

- **Connectors:** 4 × BNC female
- **Input level:** 0.7 V - 1.2 Vp-p
- **Input cable equalization:** Typical equalization cable length (RG60/ Ø1.0 mm standard cable)
  - 50 m@2.97 Gbps (odd channel)
  - 60 m@2.97 Gbps (even integer channel)
  - 90 m@1.485 Gbps
- **Nominal level:** 0.8 Vp-p
- **Impedance:** 75 Ohm
- **Return loss:** 20~30 dB@5 MHz to 1.5 GHz

**Video output**

- **Connectors:** 4 × BNC double-decker female
- **Nominal level:** 0.5 V ± 7%
- **Impedance:** 75 Ohm
- **Return loss:** >15 dB@5 MHz to 1.5 GHz
- **DC offset:** ± 100 mV with no offset at input
- **Jitter:** 20~30 ps@HD/3G rate, 40~60 ps@SD rate
- **Rise and fall time (20~80%)**
  - SD: 600 ps
  - HD/3G: 100 ps

**Control**

- **To central control system:**
  - COM (RS-232): RS-232, 9 pin female D connector
  - COM1: Baudrate: 115200, data: 8 bits, stop: 1 bit, no parity
  - RJ45: TCP/IP
  - TAINET: Baudrate: 9600, to main unit
  - RS422: Baudrate: 9600, to dome camera
  - RS232: Baudrate: 9600, to control camera

**General specs**

- **Power supply:** AC 100 V - 240 V, 50 Hz / 60 Hz
- **Temperature:** Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
- **Humidity:** Storage and operating: 10% to 90%
- **Dimensions h × w ×d (mm):** 43 × 483 × 208 (1U high, full rack width)
- **Weight:** 3.0 kg
- **Color:** Gray (PANTONE 425 C)
- **Mean time between failures:** 30,000 hours

**Ordering Information**

TMX-0404SDI2, 16×4 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)

9.22
**TMX-1608SDI2**

**16×8 High Definition Digital Video Tracking Matrix Switcher**

### Features
- **Routing:** 16×8 High Definition Digital Video Tracking Matrix Switcher
- **Video interface:** BNC female
- **Data rates:** 143 Mbps~2.97 Gbps
- **Compatible with:** SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- **Input equalization and clock recovery, output pre-emphasis**
- **RS-232 control, supporting RS-232 protocols, for connection with central control system**
- **Two RS-422 control port with built-in professional camera control protocols, for a variety of professional cameras like TAI DEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled**
- **One TAINET interface for connection with TAI DEN conference system**
- **One RJ45 interface for TCP/IP connection**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control, easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **1U high, full rack width**

### Technical Specifications

#### Video
- **Data rates:** 143 Mbps ~ 2.97 Gbps
- **Data types:** 8 or 10 bit
- **Compatible standards:** SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M, DVB-ASI (270 Mbps)

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#### Ordering Information
- **TMX-1608SDI2**
- **16×8 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G)**
System Connection

RS-422: TX+(A): TX-(B)
   RX+(A): RX-(B)
   (Note: A and B are opposite for SONY's camera)
RS-232: TX-(B) → RXD (the input connector of other device, such as SONY D70)
   RX-(B) ← TXD (the output connector of other device, such as SONY D70)
   If connected with camera by RS232 protocol, the camera must be common ground.
   If connected with camera by VISCA protocol, the cameras that ID=8~14 must be connected to RS-422.

Pin2: TXD → RXD
Pin3: RXD ← TXD
Pin5: GND ← GND

Connect the ETHERNET interface to the LAN interface of HCS-8300MAD via HUB.
TMX-0804SDI2 can also use this mean.
TMX-0104SDI
1×4 SDI Distribution Amplifier

Features
- Routing: 1 × 4 SDI Distribution Amplifier
- Video interface: BNC female
- Data rates: 270 Mbps~2.97 Gbps

Technical Specifications
- Input: 1 SD/HD-SDI, 3G HD-SDI on a BNC connector
- Output: 4 SD/HD-SDI, 3G HD-SDI on BNC connectors
- Max data rate: Up to 2.97 Gbps
- Power supply: DC 9 V - 12 V, 0.3 A
- Temperature: Operating: 0 °C to + 50 °C; Storage: -20 °C to + 70 °C
- Humidity: Storage and operating: 10% to 90%
- Dimensions h × w × d (mm): 40 × 150 × 100
- Weight: 0.4 kg
- Color: Gray (PANTONE 425 C)

Ordering Information
TMX-0104SDI, 1×4 SDI Distribution Amplifier
TMX-HDSDI2HDMI
3G HD-SDI to HDMI Converter

Features
■ Transfers SDI input into HDMI signal as digital audio and video output, and also into VGA signal at the same time, that is convenient for local monitor
■ Mainly cooperates with HCS-3316HDB and SDI series matrix
■ Output resolution is adjustable

Technical Specifications
Video
Input.................................................1 SD/HD-SDI, 3G HD-SDI on a BNC connector
Output..............................................1 SD/HD-SDI, 3G HD-SDI loop on a BNC connector;
1 HDMI connector (unsupports CEC and HDCP).
1 VGA 15-pin HDF connector
Input/output data rate.........................1.485 Gb/s and 2.97 Gb/s

Audio
Output...............................................1 3-pin Phoenix
Impedance..........................................< 15 Ω
S/N......................................................> 85 dB
Stereo channel separation......................> 60 dB
Frequency response.............................30 - 20 kHz (-3 dB)

Control
COM (RS-232),..............................3-pin Phoenix; baudrate: 9600,
data: 8 bits, stop: 1 bit, no parity

General specs
Power supply........................................DC 9 V - 12 V, 0.7 A
Temperature........................................Operating: 0 °C to +50 °C;
storage: -20 °C to +70 °C
Humidity.............................................Storage and operating: 10% to 90%
Dimensions h × w ×d (mm)...........................40 × 150 × 100
Weight...............................................0.4 kg
Color...................................................Gray (PANTONE 425 C)

Ordering Information
TMX-HDSDI2HDMI..............................3G HD-SDI to HDMI Converter

System Connection

From TMX-6808SDI or other SDI source

Display with HDMI input
Loudspeaker
Display with VGA input
TMX-HDSDI2HDMI

9.26
TMX-HDMI/VGA2SDI
HDMI/VGA to SDI Converter

Features
- Transfers HDMI or VGA input into SDI or HDMI signal as digital audio and video output
- Mainly cooperates with HCS-3316HDB and SDI series matrix
- Panel button control, easy to switch manually

Technical Specifications

Video
- Input: 1 HDMI connector; 1 VGA 15-pin HDF connector
- Output: 2 SD/HD-SDI, 3G HD-SDI on BNC connectors; 1 HDMI connector (unsupports CEC and HDCP)
- Input/output data rate: 1.485 Gb/s and 2.97 Gb/s

Audio
- Input: 1 3-pin Phoenix (L+R), unbalanced
- Impedance: > 10 kΩ
- Normal input level: 7.4 dBu (1.8Vrms)
- Max. Input level: 14.26 dBu (4Vrms)
- Analog input sensitivity: mute, 0 - 12 dB, step: 3 dB
- Frequency response: 30 - 20 kHz (±4 dB)

General specs
- Power supply: DC 9 V - 12 V, 1.2 A
- Temperature: Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
- Humidity: Storage and operating: 10% to 90%
- Dimensions: h × w ×d (mm): 40 × 150 × 100
- Weight: 0.4 kg
- Color: Gray (PANTONE 425 C)

Ordering Information
- TMX-HDMI/VGA2SDI HDMI/VGA to SDI Converter

System Connection
HCS-3316HDB
HD Videoconferencing Camera

Features
- Superb picture quality 5 megapixel HD COMS Sensor
- Video format compatible with multiple formats from NTSC/PAL to 1080p60 full HD
- Quiet, high-speed pan/tilt action
- DVI-I interface
- High-quality image transmission via the digital interface (HD-SDI)
- Built-in conversion lens for wide angle view (58.7 degrees)
- RS-485/422 and RS-232 serial control by VISCA/PELCO-D protocol
- 240x zoom ratio (20x optical + 12x digital)

HCS-3316HDB is equipped with a DVI-I interface designed to maximize high video quality displays and is capable of displaying both digital and analog signals (output is selectable from Y/Pb/Pr, HDMI, DVI-D, VGA, RGBHV and HD SDI etc.). It utilizes a direct drive motor mechanism for achieving high-speed, quiet and smooth P/T/Z operations. The camera covers a wide shooting range, with a pan angle of -150° to +150°, with a max pan speed of 300°/s, tilt angle of -30° to +90°, with a max tilt speed of 125°/s. Conference rooms everywhere are making the transition to HD and it makes this change effortless.

This unique camera employs a 1/2.7-type HD CMOS image sensor with five mega effective pixels and can be used in combination with any number of codecs and other systems to produce high-quality, high-resolution images. With its wide field of view, built-in 20x optical zoom lens, 16:9 aspect ratio video and high-speed, quiet pan/tilt operation, the camera can cover subjects across wider space with minimal disturbance. Combining convenient features such as auto focus/ auto exposure, 64-position presets, auto cruise, configurable scan mode, remote control, and external control by standard RS-485/232 interface, it is ideal for application including videoconferencing, distance learning, corporate training, etc.

Technical Specifications

Electrical
Image sensor: 1/2.7-type HD CMOS sensor
Effective pixels: Five mega

Ordering Information
HCS-3316HDB_B ..........HD Videoconferencing Camera (black)
HCS-3316HDB_S ..........HD Videoconferencing Camera (silver)

HCS-3316ZJ Tripod

Features
- Used for mounting HCS-3316HDB camera
- Max. adjustable height: 1.4 m
- Weight: 2.6 kg

Ordering Information
HCS-3316ZJ ..........Tripod (for HCS-3316HDB camera)
HCS-3316CK
Camera Control Keypad

Features

- Working with HD video conferencing camera HCS-3316HDB, and compatible with a variety of professional cameras, such as, SONY, VBLOSSOM, Polycom, CISCO, etc.
- Preset 6-16 image functions, such as, doom position, lens position, white balance, mirror, frozen, etc.
- LCD with backlight, to display information and tips
- Control interface: six axis control lever, 28 function keys with backlight
- Control protocols: VISCA, PELCO-P, PELCO-D

Technical Specifications

Electrical

- Power supply: DC 12 V/1 A
- Power consumption: 2.7 W
- Control protocol: PELCO-P, PELCO-P, VISCA

Connectors:

- Camera control: RS232, RS485
- DVR control: RJ45 (RS485)
- Computer control: USB 2.0

Mechanical

- Installation: Tabletop or ceiling-mounting
- Dimensions (h x w x d): 155 x 355 x 150 mm
- Weight: 1.5 kg (excl. power adapter)
- 1.9 kg (with power adapter)

Ordering Information

HCS-3316CK, Camera Control Keypad
(for TMX-xxxxSDI2 Series HD Video Tracking Matrix Switcher)
TMX-0804HTK
8×4 High Definition Video Tracking Matrix Switcher

Features
- Routing: 8×4 HD Video Tracking Matrix Switcher
- Video interface: BNC×5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- RS-232 control, supporting RS-232 protocols
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3316HDB, SONY, PELCO and Panasonic can be controlled
- One RS-232 control port for connection with TAIDEN conference system
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Technical Specifications

Video
- Gain: 0 dB
- Bandwidth: 450 MHz (-3dB), fully loaded; 0~10 MHz ≤ ±0.1 dB; 0~100 MHz ≤ ±0.8 dB
- Crosstalk of channel: -53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
- Crosstalk of luminance and chrominance: ≤ -80 dB @ 1 kHz, fully loaded
- Differential phase error: Max. 0.05 degree, @ RL = 150 Ohm
- Differential gain error: Max. 0.05%, @ RL = 150 Ohm
- Typical propagation delay: 5 ns @ 2 Vp-p, RL = 150 Ohm
- Typical switching speed: 25 ns
- Signal type: RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

Video input
- Connectors: 8 × 5 BNC female
- Min./max. levels: Analog: 0.5 V to 2.0 Vp-p with no offset
- Nominal level: 0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
- Impedance: 75 Ohm
- Return loss: -30 dB @ 5 MHz
- Max. DC offset: ±1.5 V

Video output
- Connectors: 4 × 5 BNC female
- Nominal level: 0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
- Min./max. levels: Analog signal: 0 V to 2.0 Vp-p (follows input)
- Impedance: 75 Ohm
- Return loss: -30 dB @ 5 MHz
- DC offset: ±5 mV with no offset at input
- Switching type: RGB simultaneity

Sync
- Input level: 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
- Output level: AGC to TTL: 4.5 V to 5.0 Vp-p
- Input impedance: 510 Ohm
- Output impedance: 75 Ohm
- Max input voltage: 5.0 Vp-p
- Max. propagation delay: 20 ns
Control
Video track off:
COM (RS-232), RS-232, 9 pin female D connector
COM1, Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
COM2, Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Video track on:
COM (RS-232), RS-232, 9 pin female D connector
COM1, Baudrate: 19200, to conference main unit;
1 = A(RX+), 4 = B(RX-), 5 = GND
COM2, NC
RJ45, Baudrate: 9600, 1 = TX+, 2 = TX-, 3 = RX+, 6 = RX-
RS422/RS485 to dome camera

General specs
Power supply, AC 100 V - 240 V, 50 Hz / 60 Hz
Temperature, Operating: 0 °C to + 50 °C;
storage: -20 °C to + 70 °C
Humidity, Storage and operating: 10% to 90%
Dimensions h x w x d (mm), 132 x 478 x 310
(3U high, full rack width)
Weight, 5.1 kg
Color, Gray (PANTONE 425 C)
Mean time between failures, 30,000 hours

Ordering Information
TMX-0804HTK, 8 x 4 High Definition Video Tracking Matrix
Switcher, 450 M, Video on BNC Connectors

System Connection
Professional Audio & Video Recorder for Conference

Video Control Module

Types
- Video Control Module
- Video matrix
- Camera control

Functions
- Carries out automatic video tracking when cooperating with camera and video switch unit.
- Set up video matrix: set input/output channels for computer, camera and other video apparatus according to the connections between video equipment and video switch unit. The configuration can be sent to the main unit for synchronization.
- Video switch: switch among different input and output video signals according to the video matrix.
- Camera control: adjust the camera preset for each seat/microphone and preset the panorama of the conference venue.
- Cooperating with microphone management module to set and adjust the camera preset for each seat/microphone and to transmit speaker’s video picture simultaneously to a hall display.

Ordering Information
- HCS-4215/50, Video Control Software Module
  (used with HCS-4100/50 series)
- HCS-8215, Video Control Software Module
  (used with HCS-8300 series)