DS-C80K-01HI/4K
KVM 4K HDMI input Node

Rely on the company's strong research strength and deep technical accumulation, the Hikvision distributed control system (hereinafter referred as the system) is a professional video and audio control system, and allows the KVM (Keyboard Video Mouse) seat staff to seamlessly and remotely operate and change remote signals. The system adopts the advanced distributed core technology and the overall architecture without center server to ensure the stability of the overall operation. The system uses two engines and YUV 444 image sampling technology to bring the extremely low latency operation experience of the entire system and industry-leading image color reproduction. The powerful GUI interface of the system allows the KVM seat staff to take over and push remote signals easily and allows the KVM seat staff to communicate and cooperate with each other seamlessly. The system can be connected with the video wall to achieve signal interconnection, and converged communication and seamless connection between the KVM seats and splicing system. The system can be widely used in the command centers of the energy, government, public security, electric power and other industries, and various exhibition halls.

- The KVM system consists of input nodes and output nodes, and can be used together with centralized video wall controllers, distributed video wall controllers, multi-functional video centers, and decoders.
- Through network connection, all devices can realize long-range transmission of signals, break the geographical limitation, and achieve any signal connection and easy capacity expanding. In theory, the system scale can be extended limitlessly.
- The system adopts decentralization and does not need a center server. All nodes work independently, and failure of single node will not affect the running of the entire system.
- The system uses dual-engine system, including DSP and FPGA signal processing systems. The system supports deep compression and shallow compression for signals. In an environment with good network, the shallow compression for signals can achieve high-quality image effect on the video wall. In an environment with average network, the deep compression for signals can achieve smooth transmission and processing of signals.
- Through the two-engine shallow compression system, the system achieves extremely low signal delay and good remote operating experience of keyboard signals. The minimum delay is within 10 ms.
- The system uses YUV 444 for image sampling, transmission and processing to achieve high-quality color restoration and meet user requirements for high quality images.
- The system has good system compatibility to take over and control hosts of various operating systems, including Windows, Linux, Unix, and Kylin. The system supports remote host power on and remote host power off.

- The system has a complete product specification system. The system supports up to 4K 60 fps signal input and output.
- The system conforms to the 802.3at standard protocol, supports POE, and supports the dual power supply system by using the device together with the external power supply.
- The system supports switching between unicast and multicast protocols, and has good third-party network compatibility.
- Each node uses the half-width structure and the width of two nodes equals to the width of one rack. This design is elegant and supports standard rack installation.
- Each node has its own OLED screen to show the device configuration and running status.
- Each node provides one Gigabit SFP optical port and one Gigabit electrical port. The node supports multiple forms of network access and hot backup between the optical port and electrical port.
- The 2K input node supports 1 channel of 1080p 60 fps input and custom resolution input.
- The 4K input node supports 1 channel of 4K 60 fps input and custom resolution input.
- Supports the HDMI composite audio input and the external audio input. The audio input supports 24 bit and 48 KHz sampling, dual channel, and stereo.
- Supports YUV 444 image collection and output without image quality loss.
- Supports OSD on the input to display user personalized information.
- The HDMI port supports outputting the video signals and audio signals simultaneously. You can use the 3.5 mm audio port to output audio signals, or use the HDMI port and 3.5 mm audio port simultaneously to output the audio signals.
- The output node comes with a powerful GUI interface to allow quick signal taking over and signal pushing. The input and output nodes of the KVM can be connected to form a self-contained system that can be used independently, flexibly, and conveniently.
- Supports KVM seat binding to realize the roaming among multiple screens by using one set of keyboard and mouse. The maximum KVM seat output matrix can be 3 × 5.
- Supports graphics card binding, multi-screen application of one device, and graphics card expansion of 1 × 2, 1 × 3, or 1 × 4 scale.
- Supports setting, saving and changing scenes. By default, one user can save 8 scenes. Supports simultaneously displaying multiple images on one display terminal. One screen supports 1/4/6/8 window division and custom window di vision. Supports the reverse control of content to meet the KVM reverse control requirements of different users.
- Provides a comprehensive multi-level user permission management system to realize different operation and management permissions for different levels of users. Thus, the user needs of personalization and multiple usage can be met. The system supports up to 500 users by default.
- Provides powerful shortcut keys to allow the quick system operation, and supports custom shortcut key to meet the user personalization needs and operation habits.
- Supports central control to realize the environment control for lighting, curtains, and infrared devices, and supports the control of LCD and LED screens.
- Supports PTZ control to realize rotation and zooming of conference cameras and monitoring cameras.
- Supports the access and operation of control client and web client.
- Supports obtaining and configuring parameters remotely, importing parameters remotely, and exporting parameters remotely.
- Supports obtaining system running status and system logs remotely
- Supports restarting the device remotely, restoring the default settings, and upgrading the device.
- Supports auto detection and alarm for failures, including network exception, temperature exception, fan exception, and signal exception. Supports alarm for device exception, including network disconnection, IP conflict, invalid access, temperature threshold exceeding, and fan exception.
- Supports visualization operation and maintenance. The maintenance interfa ce displays the status information of main control node and sub-nodes.
- Supports manual time sync or NTP time sync.

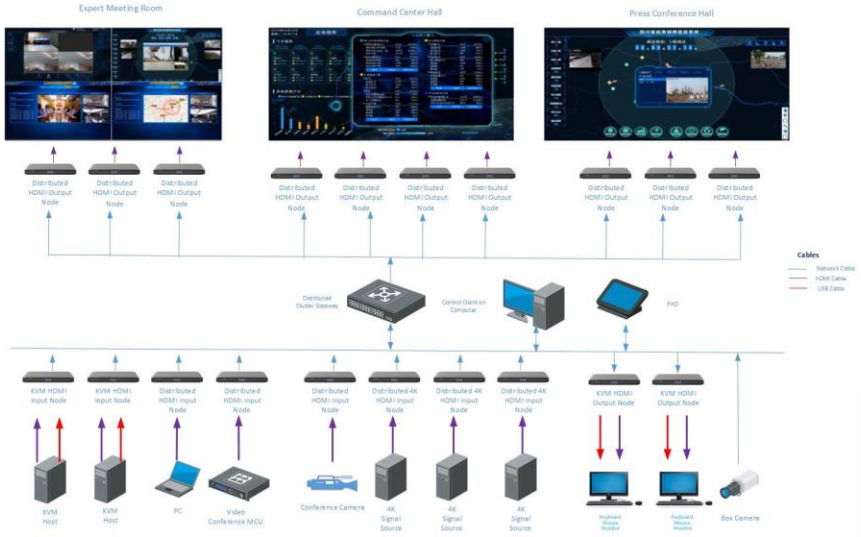
▪ Specification

Device Feature	
Device Type	Input node
KVM Function	Yes
Signal Source Live View	Supported
Interface	
Optical Interface	1 channel of 1000 Mbps SFP port
Electrical Interface	1 channel of 1000 Mbps Ethernet port
USB Interface	3 × USB 2.0 port
Screen Type	OLED 128 × 64 dot-matrix screen
Other Interfaces	1 × Console port for debugging
RS-232 Interface	1 channel, Phoenix terminal
RS-485 Interface	1 channel, Phoenix terminal
IO/IR IN Interface	1 channel, Phoenix terminal, customized by software
IO/IR OUT Interface	1 channel, Phoenix terminal, customized by software
IR POWER Interface	1 channel, 3.3 V, Phoenix terminal
RELAY Interface	1 channel, Phoenix terminal
RESET Interface	1 channel
General	
Working Temperature	0 °C to 50 °C
Working Humidity	0% to 95%
Indicator	1 × single double base color light indicator, 1 × optical port indicator, 1 × network port indicator
Net Weight	1.76 kg (3.88 lb.)
Gross Weight	2.7 kg (5.95 lb.)
Dimensions (W × H × D)	210 mm × 42 mm × 180 mm (8.27 inch × 1.65 inch × 7.09 inch)
Installation Method	Magnetic installation (optional), planar arrangement, rack installation
Packing List	1 × DS-C80K-01HI/4K, 2 × USB cable, 1 × regulatory compliance and safety information manual, 1 × power cord, 1 × mounting bracket, 1 × connecting bracket
Power Consumption	≤ 30 W
Power Supply	Power supply: 110 VAC to 240 VAC, 0.7 A POE: 802.3at protocol
Video	
Video Input Interface Type	HDMI 2.0
Video Input Interfaces	1
Max. Video Input Resolution	4K60
Image Sampling	YUV 444
Loop Output Interface	1 channel of HDMI 2.0
Video Input Resolution	1024 × 768@60 Hz, 1280 × 720@60 Hz, 1280 × 1024@60 Hz, 1360 × 768@60 Hz, 1440 × 900@60 Hz, 1600 × 1200@60 Hz, 1920 × 1080@60 Hz, 1920 × 1200@60 Hz, 3840 × 2160@30 Hz, 3840 × 2160@60 Hz, 4096 × 2160@30 Hz, 4096 × 2160@60 Hz, custom resolution in the range of 1920 × 1080 to 4092 × 2160
Audio	
Audio Input Interfaces	1
Audio Input Interface Type	3.5 mm coaxial audio jack
Audio Channel	Dual audio channel

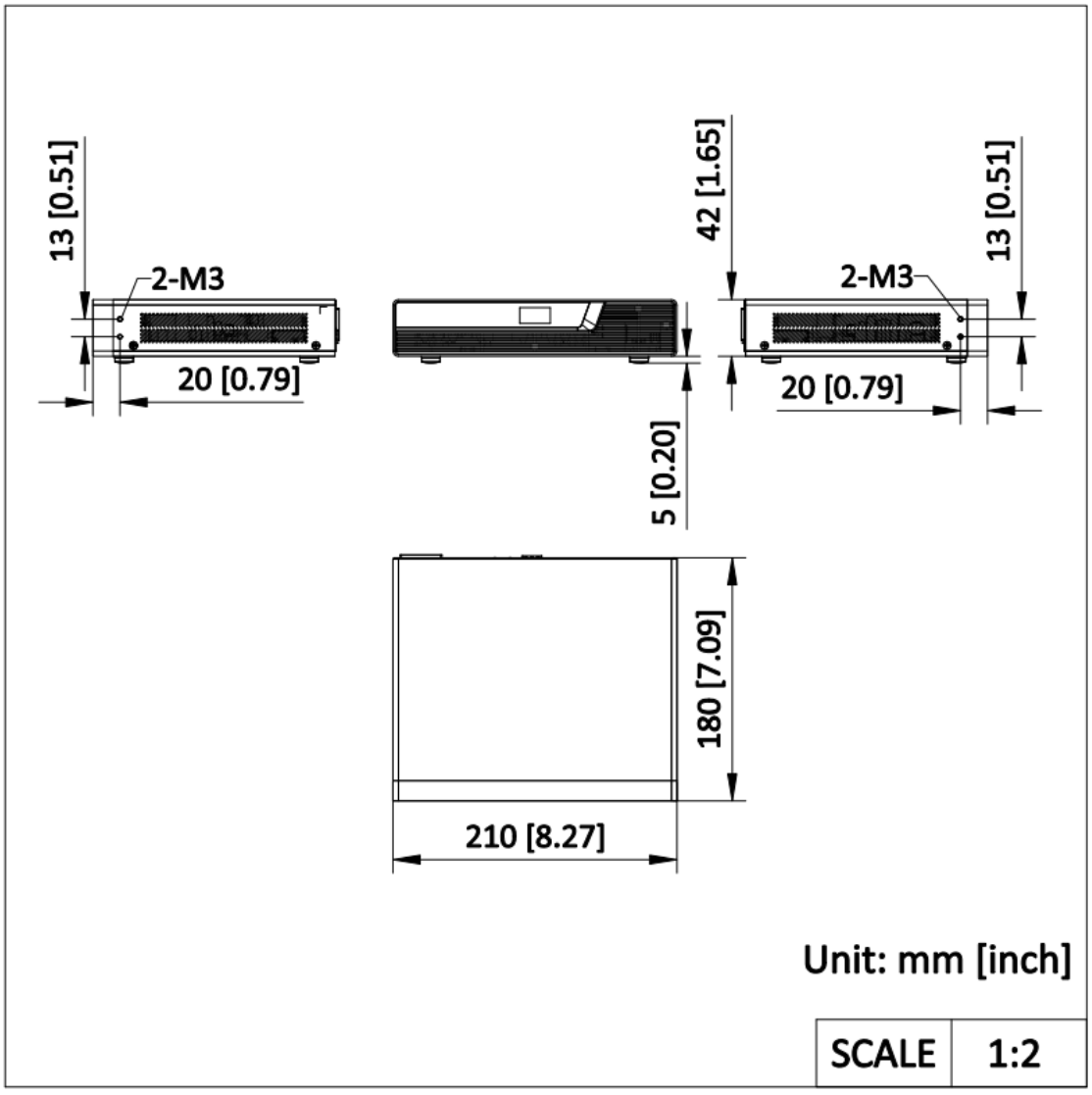
Audio Output Interfaces	1
Audio Output Interface Type	3.5 mm coaxial audio jack
Audio Talk	Use the audio input port and audio output port
Audio Sampling Rate	24 bit, 48 KHz
Video Encoding	
Video Encoding Format	H.265 (default), H.264
Video Encoding Channels	1
Video Encoding Capability	Sub-stream and main stream encoding; Sub-stream encoding contains: CIF(352 × 288), FCIF(704 × 576), 720p(1280 × 720) Main stream encoding contains: 720p(1280 × 720), XGA(1024 × 768), XVGA(1280 × 960), SXGA(1280 × 1024), WXGA(1360 × 768), WSXGA(1440 × 900), UXGA(1600 × 1200), 1080p(1920 × 1080), 1920 × 1200, 3840 × 2160, 4096 × 2160, custom resolution in the range of 1920 × 1080 to 4092 × 2160
Input Logo Overlay	Not supported
Input OSD	Supported, 2 OSDs
Input Image Clipping	Not supported
Live View Channels	6 simultaneous channels
Audio Decoding	
Audio Decoding Format	G711A, G711U, G722.1, AAC_LC
Audio Decoding Channels	1

▪ Typical Application

Distributed System Topology



- **Dimension**


13 [0.51]
2-M3
20 [0.79]
42 [1.65]
5 [0.20]
2-M3
13 [0.51]
20 [0.79]
180 [7.09]
210 [8.27]
Unit: mm [inch]
SCALE
1:2

See Far, Go Further

www.hikvision.com
support@hikvision.com

HIKVISION®