



The NYX Dual-engine AV Over IP System

Ultimate Video And Audio Experience

System introduction

The NYX dual-engine system is a latest AV over IP products developed by Tricolor Technology for the needs of networked and IP-based users. Relying on the unique codec technology, professional R & D team and unique design concept, Tricolor Technology has combined the unique TR low compression codec technology with the traditional H.264 / H.265 deep compression codec technology to create the "NYX Dual Engine AV Over IP System" product.

The NYX dual-engine system uses a "Low compression engine" to provide users with the ultimate audio and video experience with ultra-low latency and lossless transmission; While relying on the "deep compression engine" to achieve H.264 / H.265 stream's high compatibility and low bandwidth transmission, With useful functions such as long-distance transmission and high-quality preview.

The NYX dual-engine system integrates audio and video long-distance transmission, matrix switching, KVM management, and video wall control. it cooperates with comprehensive visual management software and OSD menus to provide users with zero delay and visual lossless audio and video experience. It is widely used in multiple scenarios such as joint command, airport air traffic control, conference communications, and information sharing between buildings.



System applications



Joint command

New command and dispatch method widely used in the army, armed police, and public security. The system guarantees group cooperation, information sharing and analysis and decision-making among multiple departments



The system can be used for flexible organization of meetings. Users are not limited to the space and distance of the conference room. Meeting content, materials and screens can be displayed in real time. Information Sharing Multi-region video information

communication within the building; Real-time monitoring of multiple regions; Facilitate unified management.



Dual-engine design

With dual-engine design, NYX outputs both "TR" high-performance code stream and standard H.264 / H.265 stream. It adapts to a variety of different application scenarios, and meets the users' needs for local operation, high-definition display applications, and high-quality applications, as well as remote sharing under limited network resources and low bandwidth.



Lossless image quality display

Uses lossless compression codec technology to achieve ultra-high-definition 4: 4: 4 professional color sampling. Ensure video transmission quality, realize lossless and distortion-free picture transmission, and maintain original color saturation. The output display perfectly restores the original image quality and brings the ultimate visual experience.



Zero latency video transmission

NYX dual-engine system realizes ultra-low latency transmission of audio and video. The video signal is encoded by the input node, transmitted via the network, and then decoded and output by the output node to show that the video transmission delay is between 17 ~ 35ms. Provide users with real-time audio and video transmission display and smooth KVM control experience.



Free switching of audio and video

Support free choice of audio and video switching along the way and independent switching of audio and video. The audio can be switched in real-time synchronously with the video signal, or it can provide users with independent audio switching function. It has perfect audio add-de-embed function, which can separate audio from video and output it separately or embed it in video for unified output.



Mass IP video access

Compatible with H.264, H.265 standard format network streams. It supports the docking display of surveillance cameras of different brands, multiple network streaming media devices and third-party security platforms, which facilitates the upgrading and unified management of the network system.



USB 2.0 high-speed transmission

Support USB2.0 high-speed transmission function. By connecting a USB2.0 device to the output node, the system can perform a high-speed information sharing within the network. Users can copy files and contents in USB storage devices such as U disks and external hard disks via the network and send them to the source computer; they can also copy the contents of the source computer to the storage device. User can use the mouse and keyboard to quickly switch USB devices to different signal source computers.



Professional synchronous display

The professional synchronous display technology is used to ensure that each frame of the large-screen spliced video output is completely synchronized, which perfectly solved the problem of picture tearing caused by video-wall unsynchronized.

Device parameters

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Input interface	DVI, SDI, HDMI 1.3, HDMI 1.4
Output interface	DVI, SDI, HDMI 1.3, HDMI 1.4
Resolution support	Maximum resolution supports 3840x2160P @ 30Hz and backward compatible with common resolutions
Video loop out	Same as video input interface
Audio	Supports 3.5mm standard analog audio interface
Reverse audio	Supports 3.5mm standard analog audio interface
Network Interface	RJ45 interface; FPS+ interface
Size (WxDxH)	Single node: 210mm x 166mm x 43mm (8.17in x 6.53in x 1.69in)
Weight	Single node: 1Kg (2.2 lb.)
Operating temperature	0 °C ~ 40 °C
Storage temperature	-10 °C ~ 60 °C
Power consumption	Less than 25W
Storage environment	No corrosive and solvent gas, no flying dust, no strong magnetic field interference
Powered	POE power supply or 12V / DC, 3.3A
Cabinet installation	Dedicated mounting tray for standard cabinets

System Diagram



© technology parameters in the data if any change, without prior notice.