Seamless HD Matrix Switcher

TRI-AVC-MSS7272-6033

Large venues | Live events & performing arts | Auditorium | planetarium | Network Operation Centers

Description :

The Modular Digital Matrix Switcher represents a state-of-the-art, high-performance solution engineered specifically for operator Centres, NOC Rooms, enabling seamless integration and scalable operation in demanding AV environments such as control rooms, broadcast studios, and video wall setups. At its core, this switcher leverages proprietary Seamless Switching Technology—a cutting-edge innovation that delivers instantaneous, glitch-free switching of HDCP-encrypted content, ensuring zero-frame latency and uninterrupted signal flow even during rapid source changes. This technology eliminates common issues like blackouts or artifacts, providing reliable, professional-grade performance for mission-critical applications.

Input/Output :

- Scalable Input Architecture: Designed to accommodate up to 72 independent inputs, this modular system supports a diverse array of digital and analog sources, including HDMI, DVI, 3G/HD-SDI, VGA/Component, HDBaseT, and fiber optic connections. The flexible slot-based frame allows for easy expansion from smaller configurations (e.g., 16x16) to full 72-input capacity without disrupting operations.

- Robust Output Distribution: Equipped to handle up to 72 simultaneous outputs, the switcher facilitates precise routing of signals to multiple displays, projectors, or downstream devices. Its non-blocking matrix architecture ensures that any input can be directed to any output—or duplicated across all outputs—while maintaining full bandwidth integrity for large-scale multi-room or multi-zone distribution.

Design :

- Modular, Field-Upgradeable, and Hot plug Construction: The switcher's innovative card-cage design incorporates fully hot plug I/O cards, allowing technicians to add, replace, or upgrade input/output modules on-site without powering down the system—minimizing downtime and maximizing adaptability. This field-upgradeable architecture supports endless combinations of connectivity options, from copper-based HDMI to long-reach HDBaseT or fiber extensions, ensuring compatibility with evolving infrastructure needs.
- Enhanced System Intelligence: Includes intelligent features like EDID for automatic extended display identification data management, which dynamically assigns optimal resolution profiles to inputs for plug-and-play compatibility HDCP2.2 for secure HDCP key authentication across all connections and built-in diagnostics with real-time status reporting via an intuitive front-panel interface.

Control and Connectivity :

- Integrated User Interfaces: Provides a RJ-45 port for convenient local configuration, firmware updates, and direct device control, network-based management, remote access, and integration with third-party control systems.
- slot-frame: Tailored for slot-frame integration in operator consoles, the compact, rack-mountable chassis (typically 16U or) includes tool-less card insertion, comprehensive cable management, and low-profile cabling to streamline installation in space-constrained environments.

Reliability :

- Redundant Power Infrastructure: Powered by a dual 230 VAC ±10% (50-60 Hz) supply with automatic failover redundancy, ensuring 24/7 operational continuity even in the event of a power module failure. This hot plug design incorporates efficient, low-heat components for energy savings and thermal stability in high-ambient setups.

For the most current specification information, please visit tri-star.co.in

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Technical specifications

Parameter	Value
Input board	18
Output board	18
Control board	1
Input channel	72
Output channel	72
Serial port	1×RS-232 (9-pin female D-type interface)
Baud rate and protocol	9600; data bits: 8 bits, stop bits: 1, no parity
RS-485control interface	4-digit 3.8mm Phoenix interface, used with a touch panel
Ethernet control interface	RJ-45 female interface
Ethernet control rate	Adaptive 10M/100M, full or half duplex
Power supply	AC 100V~240V, 50/60Hz, international adaptive redundant power supply
Environment temperature	-20°C—+70°C
Dimension	484 x 356 x 712mm (L*W*H)
Weight	36Kg (without IO board)

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