Datasheet

AMX-18 | UHD Advance Hybrid Mix Modular Matrix Switcher 18x18



Key features

- Seamless Switching – Instant transitions with zero black/blue screens.
- Dual Power Backup – Ensures uninterrupted operation.
- Flexible Modular Design – Customizable 9x9 input/output configuration.
- POC Support – Remote powering via HDBaseT slots.
- Centralized Control – Manage via RS-232, TCP/IP, or network protocols.
- System Integration – Compatible with video conferencing, IP monitoring, and recording systems.
- Intelligent Management – Monitors temperature, EDID, HDCP, and input/output signals.
- Matrix control - Support Mobile client (Android, iOS) and PC client applications.
- Centralized management : supporting User-friendly multi-user and multi-matrix operations.
- Integrates video, audio, transmission, and control functions in one platform
- Commercial-grade performance with plug-and-play flexibility

Product Overview

The Macsys AMX Series is a professional HD modular hybrid matrix switcher designed for flexible, scalable, and robust AV signal routing in large and complex audio-visual systems. Its modular plug-in design supports configurations from 9x9 up to 80x80, allowing seamless integration of mixed video and audio signals including DisplayPort, HDMI, DVI, VGA, YPbPr, CVBS, 3G/HD/SD-SDI, and IP streaming.

Featuring seamless switching to eliminate black or blue screens, tearing, and jitter, the system ensures uninterrupted display outputs. It offers intelligent monitoring, automatic input backup, and dual power redundancy for high reliability. Operators benefit from flexible control via RS232, IP, mobile apps (Android/iOS), and Windows/PC client platforms, with EDID/HDCP management, temperature monitoring, and image adjustment.

Advanced HDBaseT and H.264 video transmission supports distances up to 100 meters over CAT6 or 80 km via single-mode fiber. Robust design includes electrostatic discharge protection, wide operating temperature range, optional 7-inch LCD touchscreen, and LED indicators for status monitoring.

Ideal for conference halls, control centers, multimedia venues, large digital signage, and professional AV installations requiring high reliability and flexible I/O configurations.

Technical Specification

Feature	Details
Card Slot	18 input + 18 output, one signal per card
Signal Input/output	Support CVBS, YPbPr, VGA, HDMI, DVI, AUDIO, 3G-SDI, HDBaseT, Fiber, IP streaming media
Resolution Support	Up to 4K2K (3840×2160) at 30Hz; 3D Video Formats Supported
Bandwidth	10.2 Gbps
Transmission Distance	HDBaseT: 70–100 m (CAT6) H.264: >160 m (CAT6) Fiber: 2–80 km (single-core single-mode)
Color Space	Supports RGB444, YUV444, YUV422, x.v.Color extended gamut
Seamless Switching	No Black Screen during Switching
Audio Support	Analog Audio Embedding into HDMI; Digital Audio De-embedding from HDMI
Intelligent Management	EDID/HDCP management, temperature monitoring, Intelligent input/output signal monitoring,
Hot Swapping	Supported for Input/Output Signal Cards
Control Interfaces	RS232, IP, Web Interface, front-panel HD touchscreen, Mobile (Android/iOS), PC client
Serial Port Control	9-pin D-sub (DE9F) jack: Pin 2 = TX, Pin 3 = RX, Pin 5 = GND
Network Control	TCP/IP protocol
Power Supply	Dual Power Supply with Hot Swapping Support
Redundancy Features	Dual Control Backup, Dual Power Backup
Signal Monitoring	Intelligent Input/Output Signal Monitoring
Electrostatic Protection	Human body discharge: 8 kV (air), 4 kV (contact)
Input Voltage	100V AC – 260V AC, 50/60Hz (Input port × 2)
Operating Temperature	0°C – 40°C
Humidity Range	10% – 90% Non-condensing
Storage Temperature	–20°C – 60°C
Mounting Options	19" Standard Rack Mountable
Certifications	CE, RoHS compliance

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