Datasheet

FMX-40MS | UltraScale Fiber Matrix Switcher 10SLT



Key features

- Seamless HD Switching: Smooth transitions with zero black frames or jitter.
- Non-Compressed 1080P@60Hz: High-definition video without loss of quality.
- Flexible Input & Output: Per-module scaling and independent output resolution.
- Fiber-Optic Design: Robust interference immunity and long-distance transmission.
- Deep Color Support: 24/30/36/48-bit YUV 4:2:2 and 4:4:4 for vibrant visuals.
- Wide Signal Compatibility: Supports CVBS, YPbPr, VGA, HDMI, 3G-SDI, DVI, and audio.
- Extended Transmission Range: Fiber links up to 80 km for enterprise-scale AV networks.

Product Overview

The FMX-40MS Ultra Scale Fiber Matrix Switcher 10SLT from the FMX series is a high-performance 40×40 optical fiber matrix switcher engineered for mission-critical AV and signal distribution applications. Built for environments that demand maximum system stability, security, and reliability, it seamlessly integrates advanced signal conversion technology with all-fiber optical transmission.

This matrix switcher supports a wide range of signal formats, including CVBS, YPbPr, VGA, HDMI, 3G-SDI, DVI, and audio, allowing for flexible system integration. Using non-compressed image processing technology, it delivers pristine, jitter-free video output over long distances up to 80 km with fiber optics without quality loss or black frames.

The input modules allow scaling configuration per input, and the output modules enable customizable resolutions per port, ensuring ultimate flexibility for professional AV setups. Its robust fiber-optic design provides strong immunity against electromagnetic interference, making it ideal for control rooms, broadcasting centers, conference halls, and mid-sized AV infrastructures.

Designed specifically in the 40×40 configuration, the FMX-40MS meets the needs of mid-sized AV systems while maintaining enterprise-grade performance and reliability.

Technical Specification

Feature	Details
Description	40×40 Fiber Matrix Switcher
Input /Output Card Slot	5 / 5
Input Modules	FMX-IN8-1500, FMX-IN8-10K
Output Modules	FMX-OUT8-1500, FMX-OUT8-10K
Supported Signal Types	CVBS, YPbPr, VGA, HDMI, 3G-SDI, DVI, Audio
Transmission Medium	Single-mode / Multi-mode Fiber
Transmission Distance	1.5 km, 10 km (Upgradeable to 80 km)
Video Resolution	1080P@60Hz, Non-compressed
Deep Color Support	24/30/36/48-bit YUV 4:2:2 / 4:4:4
Bandwidth	10.2 Gbps
Scaling / Resolution Control	Each input supports scaling; each output supports independent resolution customization
Switching Technology	Seamless Switching, zero black frames, no jitter
Serial Control Protocol	RS-232 (Baud rate: 115200, Data bits: 8, Stop bit: 1, Non-parity)
Serial Port Connector	9-pin D-sub (DE9F) Jack: 3=TX, 2=RX, 5=GND
Network Control Protocol	TCP/IP
Network Connector	RJ45, 10/100Base-T Ethernet
Power Specification	AC 100–240V, 50/60Hz
Operating Temperature	–20°C ~ 60°C
Storage Temperature	0°C ~ 40°C
Dimensions (W×D×H)	440 × 221 × 374 mm (5U)
Certifications	CE, RoHS compliance

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