

MDX4090 - IP Video Switch & Router

Low latency, high availability IP Media Switches & Routers

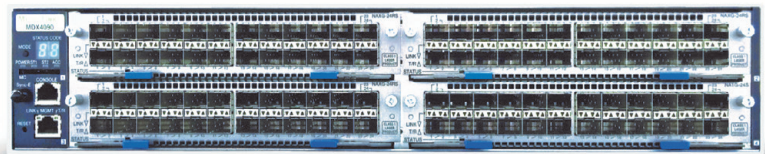
The MDX4090 is a purpose-built high performance hardware-based IP Media Switch/Router offering low latency, guaranteed QoS, and high availability.

KEY FACTS:

- 1, 10, and 40 Gigabit per second port speeds
- Modular hardware design with four slots allows expansion from 24, 48, or 72 ports to full 96 port capacity
- Supports up to 4096 separate VLANs
- Wire speed L2 and L3 forwarding

Engineered to meet the stringent performance and reliability needs of carriers and Telco operators, the MDX4090 is a compact, high density IP Media switch and router. The MDX4090 supports up to ninety six 1G or 10G Ethernet ports as well as four ultra-high speed 40G Ethernet trunks. Using industry-standard SFP and QSFP pluggable optical interfaces, the unit is intended to grow as your business needs and network traffic change.

The MDX4090 is designed to interoperate seamlessly with a wide range of Media Links equipment, including the MDX2040 IP switch and our award-winning MD8000 Media over IP transport product line. Advanced features of the product include ultra-low latency, Media Rapid Flow (MRF) switching for fast VLAN circuit setups, and precision timing for end-to-end IP applications.



Handling both compressed and uncompressed video/audio streams as well as bi-directional TCP-over-IP data traffic, the MDX4090 is ideal for use as an aggregation hub or in end-to-end contribution to distribution networks. Designed with a non-blocking switch architecture, the MDX4090 offers 100% Quality of Service (QoS) with multiple service classes, guaranteed bandwidth, and low latency. The product supports a number of mission-critical applications including contribution video, 4K UHD-1 video transmission, regional hub switching, remote production, and file-based workflows. In conjunction with Media Links NetGazer® Network Management System, support for Software Defined Networks is also forthcoming. Multicast transmission allows a single source to be sent to multiple destinations across the network, regardless of location. With a total switching capacity of 1.92Tbps, the MDX4090 helps content providers, broadcasters and carriers deliver the services need today and well into the future.

MDX4090 KEY FEATURES:

- 1428Mbps packet forwarding rate
- Media Rapid Flow Protocol for ultra-fast switching
- Ideal for core or aggregation switching
- Low power consumption with static or dynamic power saving features
- Guaranteed bandwidth control including shaping
- 100% Quality of Service (QoS) and non-blocking architecture for full line rate on all ports
- Layer 2/3 hardware switching core, IPv4/IPv6 unicast and multicast hardware routing
- Ultra Low Latency switching
- Pluggable electrical or optical port interfaces
- Port and MAC VLANs
- Non-disruptive VLAN provisioning and seamless multicast joins
- High port density in a compact 2RU chassis form factor
- Numeric front panel LED status indicator
- Redundant power supplies
- 1G electrical or 10G optical ports, four 40Gb ports
- Modular design, expandable to 96 ports in 24 port increments
- SD memory card for local log file, firmware, and configuration storage
- Loop detection and storm control

APPLICATIONS FOR THE MDX4090:

- Traffic aggregation and local/WAN switching
- Layer 2 & Layer 3 core switching
- 4K video transport
- Core networks for Media organizations and media outlets
- Contribution video and end-to-end transport, including distribution
- Remote production and file-based workflows

MDX4090 KEY BENEFITS:

- Highly reliable, field proven switching/routing technology
- Cost effective design with high port density
- Combines video streams and TCP/IP data traffic over a single unified network
- Simplified and automated configuration for rapid deployment and expansion
- Full SNMP management and provisioning under the Media Links NetGazer[®] Network Management System
- High reliability/availability, including redundant power supplies and redundant upstream and downstream links, loop detection, and storm control
- Software Defined Networking (SDN) ready for true network programmability
- Hot swappable power supplies and fans
- Support Precision Time Protocol (PTP) for in-studio workflows and end-to-end IP transport
- Static and dynamic power saving modes for reduced energy consumption
- Available API/SDK to control VLANs, ports, and configuration information

FUNCTIONAL SPECIFICATIONS:

Interface	10GBASE-R SFP+		96 port
	40G QSFP		4 port
Layer 2 Functions	VLAN		Port-VLAN, Tag-VLAN, (IEEE 802.1Q), MAC VLAN, Protocol VLAN
	Spanning Tree Protocols (STP)		STP (IEEE 802.1D), RSTP (IEEE 802.1W), MSTP (IEEE 802.1S), PVST
	Multicast Snooping		IGMPv1/v2/v3 Snooping, MLDv1 / v2 Snooping (*)
Static Multicast Routing Protocols			MGLP (**)
Layer 3 Functions	IPv4	Routing Protocol	RIP, RIP2, OSPF, BGP4
		Multicast Protocol	IGMPv2/v3, PIM-SM, PIM-SSM(*)
	IPv6	Routing Protocol	RIPng, OSFPv3, BGP4+
		Multicast Protocol	MLDv1/v2, PIM-SM, PIM-SSM(*)
QoS			IEEE 802.1p, DSCP/User-Priority, Diffserv
High Availability			VRRP(IPv4/IPv6), Link Aggregation (IEEE 802.3ad), IEEE 802.3ah/UDLD, GSRP, Uplink redundant
Management Interface			SNMPv1/v2/v3, MIB II, RMON, LLDP, CLI, telnet, ping, syslog

* This function doesn't work with MGLP

** Proprietary protocol for fast switching between static multicast entries

CHASSIS SPECIFICATIONS:

GENERAL	Dimensions	2RU for 19" Rack Mount	
		H: 3.4" / 8.7cm	
		W: 17.5" / 44.5cm	
		D: 19.6" / 49.8cm	
	Weight	66.1 lbs./ 30 kg	
Ambient Operating Temperature	0°C to + 45°C		
	32°F to 113°F		
POWER SUPPLY	Units	2 Slots for redundant PSUs	
	Input Voltage	AC	100 to 240 VAC (50 / 60 Hz)
	Power Consumption	800W, maximum	

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