

MDX-32C IP Media 100G Core Switch

High capacity and bandwidth,
Low latency, High availability.
Delivers line rate L2 & L3
Switching plus Hybrid Match &
Forward, supporting up to 32x
25/40/100 GbE connections.

Features and Benefits

- 32x QSFP28 ports, each supporting 10G/25G/40G or 100G
- Switching capacity of up to 6.4 Tbps
- Forwarding rate of 4.7 Bpps
- L2 and L3 wire speed forwarding
- MAC Addresses: 8K (min)/136 K (max)
- Hot-swappable, load-sharing redundant PSUs (AC/DC)
- 5 + 1 redundant, hot-swappable, configurable fan modules
- Energy efficient: 310W typical/550W max power consumption w/o optics
- 1RU, 43.8(W) x 51.5(D) x 4.4 cm(H) (17.26 x 20.28 x 1.71 inch)
- 10.87 kg (23.96 lb), with two installed PSUs
- 1x RJ45 serial console
- 1x RJ45 1000BASE-T management port
- 1x USB Type-A storage port
- All ports on front; PSU and fans accessible from rear



Front



Rear

Built for core, carrier, superhub, and studio applications, the Media Links MDX-32C is a high performance IP Media Switch designed to work in concert with Media Links' MDX family of edge and aggregation switches. The MDX-32C delivers 32 QSFP28 high speed 100GbE Ethernet ports and provides line rate Layer 2 and Layer 3 switching with a total switching capacity of 6.4 Tbps. The switch supports up to 4K VLAN IDs and up to 136K MAC addresses and uses a Packet Buffer size of 16MB in a shared buffer pool. OpenFlow 1.3 switching support is standard.

The MDX-32C is optimized to handle both compressed and uncompressed video/audio streams as well as bidirectional TCP-over-IP data traffic and is designed with a non-blocking architecture that assures no packet loss at full bandwidth rates in various configurations. It supports unicast and multicast traffic with 9KB Jumbo frames and features an advanced set of Quality of Service (QoS) features including per port priority queuing, traffic scheduling, and traffic classification.

The unit features a compact 1RU form factor and includes NEBS certification. Power for the switch is supplied by two redundant, load-sharing, hot swappable AC or -48VDC power supplies and cooling is provided by 5 + 1 hot-swappable redundant fans. Several device management options are available, including SNMP, web management, and CLI.

Ports

Switch Ports:
32x QSFP28 each supporting 100GbE or 10GbE or 40GbE or 25GbE
Management ports on port side:
1x RJ45 serial console
1x RJ45 100/1000BASE-T management port
1x USB Type A storage port

Key Components

Embedded Broadcom Tomahawk 3.2Tbps
Intel Atom® C2538 CPU
Debian GNU/Linux Open Linux Environment

Performance

Wire Speed Forwarding: L2 and L3
Switching Capacity: Up to 6.4Tbps
MAC Addresses: 8K min./136K max.
VLAN IDs: 4K
L3 Routes: IPv4 8K (min)/72K (max), IPv6 4K (min)/36K (max)
Packet Buffer Size: 16MB shared buffer pool

Physical and Environmental

Dimensions (WxDxH): 43.80 x 51.50 x 4.35 cm (17.4 x 18.6 x 1.71 in)
Weight: 10 kg (23 lb), with two installed PSU modules
Fans: hot-swappable 5+1 redundant fans
Operating Temperature: 0°C to 45°C (32°F to 104°F)
Operating Humidity: 5% to 95% non-condensing

Software

Diagnostics
Hardware monitoring
PicOS

LEDs

System PSU, fan, and diagnostic LEDs
100G/40G QSFP28 Port LEDs, Link status, Activity
Ethernet Management Port LED

Power

PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
Input Voltage: 90 to 264 VAC at 50-60 Hz., or -36 to -72 VDC
PSU Efficiency: Up to 93% for AC PSUs
12 VDC power input option

Regulatory

EMI
CE Mark, EN55032 Class A, EN55024, EN61000-3-2,
EN61000-3-3, FCC Part 15 Subpart B Class A,
VCCI Class A, CCC
Safety
CB, EN 60950, UL/CUL

Layer 2 / Layer 3 Support

| Item | Details |
|--|--|
| Supports 4K VLANs | Layer 2 |
| Supports 9KB Jumbo frames | |
| Non-blocking for multicast streams | No packet loss at full bandwidth |
| Hybrid Match & Forward + Layer 2/3 | |
| L2 and L3 wire speed forwarding | |
| QoS: 8 Priority queues per port | |
| QoS: Traffic Scheduling | Strict priority, weighted round robin, or hybrid |
| QoS: Traffic Classification | Four types of QoS |
| LLDP Compatibility | MD8000/MDX2040/MDX4090 |
| Uni-directional operation for bi-directional two fiber optical | 10G/25G/40G/100G |
| Storm Control | Broadcast, Multicast, Unknown unicast |

System Management Support

| Item | Support |
|--|---------|
| CLI and Web Management | Yes |
| SNMP v1, v2c, v3 | Yes |
| NTP | Yes |
| OpenFlow 1.3 | Yes |
| Syslog | Yes |
| SSH | Yes |
| Software download/upgrade: TFTP, FTP, HTTP | Yes |
| RMON 1 & 2 | Yes |
| LLDP | Yes |

Hardware Management Support

| Item | Support | Details |
|-----------------------------------|---------|--|
| Temperature Monitoring | Yes | CPU, SwitchChip, PSU |
| Fan Speed Control | Yes | SwitchChip, PSU, Fan Unit |
| Fan Speed Monitoring | Yes | SwitchChip, PSU, Fan Unit |
| Power Monitoring | Yes | PSU Status |
| CPU Load Monitoring | Yes | Usage, Memory |
| Mac Table Monitoring | Yes | Usage |
| QSFP Monitoring | Yes | Temperature, Voltage, Bias, Tx/Rx Power |
| Traps for HW Fan Speed Monitoring | Yes | CPU usage, MAC table, PSU, Fan status, QSFP in/out |

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