

ADARA Axis 1132-4



Product Highlights

Performance

- 32 1/10GbE SFP/SFP+ and 4 10/40GbE QSFP+ ports
- Non-blocking switching architecture (Broadcom Trident II)
- 1.28 terabits per second
- 960 million packets per second
- 1 uSecond latency

Robust Hardware

- 1+1 hot-swappable power supplies
- 2+1 hot-swappable fans
- Out-of-band management port

Cost Effective

- Compact 1U form factor
- Low power consumption

Flexible high-performance switch for SDN applications.

The ADARA Axis 1132-4 is a high-performance, low-latency Ethernet switch with 32 1/10GbE SFP/SFP+ ports and 4 10/40GbE QSFP+ ports in a compact rack-unit size.

The ADARA Axis 1132-4 is designed for high availability operation. The switch provides redundant hot-swappable power supplies and fans. A management Ethernet port (10/100/1000) is provided for out-of-band management.

The ADARA Axis 1132-4 is a compact, high-density switch, ideal for use as a leaf switch in large data center, cloud computing or telecom service-provider networks. The small 1U form factor maximizes the space in the rack for compute and storage. The switch provides high (960Mpps) traffic throughput with low power consumption.

ADARA software running on this switch provides software solutions including OpenFlow Controller, L2-L3 switching, and other SDN applications.

Software Features

L2 Features

- Auto-negotiation for port speed and duplex
- Flow control: IEEE 802.3x & back-pressure
- Switching mode: store-and-forward
- Spanning Tree Protocol:
 - 802.1D, 802.1w, & 802.1s
 - Spanning Tree Fast Forwarding
 - Edge port
 - Loop guard
 - BPDU filter/guard
 - Auto Edge
 - TCN guard
 - Root guard
- VLANs
 - IEEE 802.1Q tagged based
 - Port-based (up to 4094 VLANs)
 - Private VLAN
 - GARP/GVRP/GMRP
 - 802.1v protocol VLAN
 - Voice VLAN
 - MAC-based VLAN
 - IP-subnet VLAN
 - QinQ
- VTP v1/v2
- Storm control
 - Broadcast
 - Unknown multicast
 - Unknown unicast
- IGMP snooping
 - IGMP snooping v1/v2/v3
 - IGMP v1/v2 querier
 - IGMP immediate leave
- Link Aggregation
 - 802.3ad with LACP
 - Cisco EtherChannel Like
 - Unicast/Multicast traffic balance over trunking port (dst-ip, dst-mac, src-dst-ip, src-dst-mac, src-ip, src-mac)
- Multi-chassis LAG (MLAG)
- Link state
- Port backup

QoS

- Priority queues: 8 queues
- Scheduling for priority queue: WRR, Strict and hybrid (WRR+Strict)
- COS: 802.1p, IP Precedence, & DSCP
- DiffServ
- Port rate limit
- Auto VoIP
- iSCSI optimization

Security

- Static and dynamic port security (MAC-based)
- 802.1x: port-based, MAC-based, auto VLAN assignment, QoS assignment, guest VLAN, unauthenticated VLAN
- ACL: L2/L3/L4
- IPv6 ACL: L3/L4
- RADIUS: authentication and accounting (up to 32 servers)
- TACACS+: authentication (up to 5 servers)
- HTTPS and SSL (AES 128-cbc, 3ES-cbc, Blowfish-cbc)
- SSH 1.5/v2.0 (AES 128-cbc, 3ES-cbc, Blowfish-cbc)
- User name and password: local authentication and remote authentication via RADIUS/TACACS+
- Denial of Service control

- Management IP filtering (SNMP/Web/Telnet/SSH)
- MAC filtering
- IP Source Guard
- Dynamic ARP inspection (DAI)
- DHCP snooping

Management

- Industrial command-line interface
- CLI filtering
- Telnet/SSH
- Software download/upload: TFTP/Xmodem/FTP
- Configuration download/upload: TFTP/Xmodem/FTP
- Dual image supported
- SNMP v1/v2c/v3
- RMON 1, 2, 3 & 9
- BOOTP: client/relay
- DHCP: client/relay/option 82
- Auto-Installation
- Event/error log: local flash and remote server via system log (RFC3164)
- DNS: client/relay
- NTP/SNTP
- LLDP (802.1ab, Link Layer Discovery Protocol)
- CDP (Cisco Discovery Protocol) version 2
- Port mirroring: one to one & many to one
- sFlow (RFC 3176)
- IPv6 management:
 - IPv4/IPv6 Dual Stack
 - ICMPv6
 - ICMPv6 redirect
 - IPv6 Path MTU Discovery
 - IPv6 Neighbor Discovery
 - stateless auto-configuration
 - manual configuration
 - DHCPv6 (client)
 - SNMP/HTTP/SSH/Telnet over IPv6
 - IPv6 DNS resolver
 - IPv6 RADIUS/TACACS+ support
 - IPv6 Syslog support
 - IPv6 SNTP & NTP
 - IPv6 TFTP
 - IPv6 Ping

Layer 3 Features

- IP Multinetting/CIDR
- /31 subnets
- ARP (static: 128, dynamic: 3968)
- Proxy ARP
- Local proxy ARP
- IRDP
- Static route
- Unicast Routing: RIP v1/v2, OSPF
- ECMP
- Multicast Routing: IGMP v1/v2/v3, DVMRP, PIM-DM/-SM
- VRRP
- Source IP Configuration
- Policy-based routing

IPv6 Layer 3 Features

- IPv6 Layer 3 features
- Static route
- Unicast Routing: RIPng & OSPFv3
- Multicast Routing: MLD v1/v2, PIM-DM6/-SM6
- DHCPv6: relay

Datacenter Features

- Congestion Notification
- Enhanced Transmission Selection
- Priority-based Flow Control
- Datacenter Bridging Extension
- FIP snooping

VM Tracer Features

- VMware vSphere support
- VM Auto Discovery
- VM Adaptive Segmentation
- VM host view

Ethernet Virtual Bridge

- Ethernet Virtual Bridging (EVB, IEEE 802.1Qbg)

Hardware Specifications

Physical Ports

- 32 ports of 1/10GbE SFP/SFP+ and 4 10/40GbE QSFP+ ports
- 1 RJ-45 Ethernet (10/100/1000) out-of-band management port
- 1 RJ-45 console port
- 1 USB 2.0 port

Performance

- Switching Capacity 1.28Tbps
- Forwarding Rate: 960Mpps
- Latency: 1 microsecond
- Memory: 2GB
- Flash: 128MB
- MAC table: 128K
- Packet buffer: 9MB
- Jumbo Frame: 12K

Power

- Power requirement: 100~240VAC, 50/60Hz
- Maximum Power Consumption: 150 Watts

Cooling

- 3 hot-swappable fans

Mechanical

- Dimensions (HxWxD): 44 x 440 x 440 mm
- Weight: 7.83kg/17.31lb (NET)
- Operating Humidity 5-95%

Environmental

- Operating Temperature 0 to 55 °C or 32 to 131 °F

Safety

- Pending Certification

EMC

- Pending Certification

Environmental Compliance

- Pending Certification

ADARA Management / Configuration Capabilities

| ADARA Network Functions Virtualization Software | ADARA Software Defined Networking Software | ADARA Axis Switch |
|--|--|---|
| <p>Auto Configuration</p> <ul style="list-style-type: none"> • Cloud Based • Local • Double Touch ICON - (Full Keyboard/Mouse not required) | <p>Auto Configuration</p> <ul style="list-style-type: none"> • Cloud Based • Local • Double Touch ICON - (Full Keyboard/Mouse not required) | <p>Auto Configuration</p> <ul style="list-style-type: none"> • From Bootup |
| <p>Automated Management</p> <ul style="list-style-type: none"> • Policy Engine Automated CLI Management | <p>Automated Management</p> <ul style="list-style-type: none"> • Policy Engine Automated CLI Management | <p>Automated Management</p> <ul style="list-style-type: none"> • Software Defined Networking • Policy Engine Automated CLI Management |
| <p>Manual</p> <ul style="list-style-type: none"> • CLI Management • GUI (drop down) | <p>Manual</p> <ul style="list-style-type: none"> • CLI Management • GUI (drop down) | <p>Manual</p> <ul style="list-style-type: none"> • CLI Management |
| | | <p>Auto Topology Discovery</p> <ul style="list-style-type: none"> • Link Layer Discovery Protocol • Cisco Discovery Protocol |
| | | <p>Virtual Machine Auto Discovery</p> |

Your next step

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