

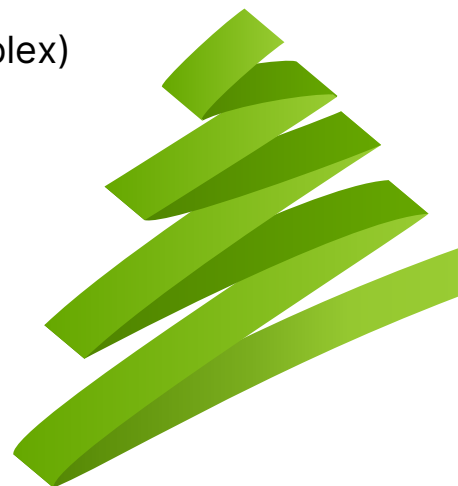
PRODUCT OVERVIEW



LN-4348Y-8Z

Highlights

- ▶ 1RU, 19-inch Rack Mountable Design
- ▶ Cut-through with Ultra-low-latency
- ▶ Open Automated Configuration and Zerotouch Provisioning Capabilities
- ▶ Simplify Management of Network Environments
- ▶ 48x25Gbps (SFP28) and 8x100Gbps (QSFP28) Ports
- ▶ 8GB DDR4
- ▶ 16GB eMMC
- ▶ Hot Pluggable FANS
- ▶ Up to 2Tbps of Switching I/O Bandwidth (Full Duplex)
- ▶ Marvell ROS Support
- ▶ SONiC OS Support
- ▶ Hot Swappable PSU



HARDWARE SPECIFICATIONS

Switching Performance and Scalability

Capacity	2.00 Tbps
Packet Buffer	24MB
Forwarding Rate	2.8 Bpps
Jumbo frames	Yes
Maximum jumbo frame size	9,216 bytes
Transmit Descriptors	192K
Bridge FDB Entries	Up to 256K
Router IPv4 Host Entries	Up to 256K
Router IPv6 Host Entries	Up to 128K
Router LPM	IPv4 - up to 512K unicast prefixes IPv6 - up to 256K unicast 64-bit prefixes
TCAM Resources (Shared between TTI, IPCL and EPCL Classification Engines)	36K x 10B rules (18K x 10B per dual control pipe)
Virtual Ports (ePorts)	8K
Bridge Domains (eVLANs)	Up to 8K
Multicast Physical Port Groups (VIDX)	Up to 4K
Multicast Virtual Port Groups (eVIDX)	16K
Multicast Linked List (MLL) Entries	16K
Tunnel-Start/ARP Table	Up to 192K ARP entries Up to 48K Non-IPv6 Tunnel-Start entries Up to 24K IPv6 Tunnel-Start entries
Router Next Hop Entries	24K
Router ECMP Groups	12K
ePort ECMP Groups	16K
Trunk ECMP Groups	Up to 4K
L2 ECMP Table (Shared by ePort ECMP group and Trunk ECMP groups)	16K ECMP members Each ECMP group may contain up to 4K EMCP members
Hardware OAM Flows	16K ECMP members 4K OAM flows (1K OAM flows per control pipe)
Spanning Tree Groups	Up to 4K
Mac-address entries	>32,000 entries

HARDWARE SPECIFICATIONS

Hardware

Management ports	1x RJ45 100/1000Base-T out-of-band
	1 x RJ-45 Console
	1 x USB Type A
Switching Chip	Marvell Falcon 98CX8512
Ports	48x25Gbps (SFP28) and 8x100Gbps (QSFP28) Ports
CPU	Intel Broadwell-DE D1517
Memory	Default 8GB DDR4
	Max 32GB DDR4
Storage	16GB eMMC NAND FLASH
	SSD module optional
BMC	AST2520 optional
Power supply units	2 x 100–240 VAC, 650W
	Redundant, hot swappable
Power consumption	520W max
Pluggable transceivers support	1000Base-T, 1000Base-LX, 1000Base-SX, 10GBase-SR, 10GBase-LR, 10GBase-ER, 25Gbase-SR, 25Gbase-LR, 40GBase-SR, 40GBase-LR
Fan units	5 (4+1 redundant)
	Hot swappable
Form factor and dimension	(W) 440 mm x (D) 470 mm x (H) 44 mm
Weight, kg	9.7 kg
Operating temperature	0°C – 40°C
Storage temperature	-40°C – 70°C
Operating humidity	5% – 95% (non-condensing)
Storage humidity	5% – 95% (non-condensing)
Operating altitude	3000m max
Safety regulation compliance	UL/CSA, cUL, CB, CCC

MARVELL ROS SOFTWARE FEATURES

Basic Functions

Port Speed/duplex management	VLANS (Protocol / MAC / IPv4 based)
Port Auto management	GVRP/GARP
VCT Diagnostics Port features	Multicast/CPE(Triple Play) VLAN
Jumbo Frames (FE and GE)	QinQ
LAG / LACP	Flow Control 802.3x
Green Ethernet	Back Pressure
STP/RSTP/MSTP etc.	Loopback and UDLD (Unidirectional link) detection
Optical Transceiver Analysis	IEEE 802.3az Energy Efficient Ethernet
RSTP	LACP
MC-LAG	DHCP

Quality of Service

Basic / Advanced QOS (Port/Flow)	CoS/QoS
Ingress/egress Rate Limiting/Shaping	SP/WRR Queue settings
L2/L3 CoS->Queue mapping	Per-Flow Actions

Security

Access Control and logging	Radius Authentication/Accounting/802.1x
Time based ACL	TACACS+ Client and Accounting
MAC/Port based security	Syslog
Ace priority	DHCP Snooping
802.1x enhanced (all variants)	ARP inspection
802.1x MAC/Port/Web/Time based	IP Source Guard
Secure Control Technology (protect CPU)	DoS Attack prevention
MACsec	

Monitoring

Mirroring SPAN/RSPAN	Environmental PS/RPS, FAN, Temperature
RMON/SMON	SFLOW v5
SNMP v1/2/3 with MIBs	Counters with History
SPAN/RSPAN support	

Multicast

IGMP Snooping v1/2/3	*PIM-SM (optional)
MLD Snooping v1/2	IGMP/MLD Proxy
MLD Querier	Ports, Flows, CP
Unregistered Mcast	

MARVELL ROS SOFTWARE FEATURES

Management

OOB & serial Console support	DNS, DHCP, SNTP, LLDP-MED, UpnP
CLI/SNMP management (IPv4,IPv6) over Telnet or SSH	LLDP 802.1ab + LLDP MED
USB/SD flash storage support	WEB-GUI interface for basic management
DHCP based Self-Configuration/Update	Time based scheduled features
Multi-File Configs, Dual-Firmware	*Detailed REST compatible API (Optional)
RMON, Syslog, Radius, TACACS+	

Power Over Ethernet

PoE 802.3af 802.3at 60W PoE	Time Based PoE
PoE Budget with LLDP negotiation	PoE Consumption monitor
PSE/PD if HW supported	

*IP Routing (Optional)

L3 DHCP Relay	IP SLA
Proxy ARP for IP Routing	Loopback IP interface (Source Address Selection)
OSPF / RIP	Directed Broadcast
Equal Cost Multiple Path (ECMP)	UDP Relay
VRRP	IPv6 static unicast routing

*Stacking (Optional)

Optional Stacking up to 8(16) units using uplinks	Real cross-unit features, not just Management
Stand-alone and Stack-mode operation	Stack Master Election process
Firmware Version Control	Stack Backup capabilities
Unit joining or leaving the stack	Stacking Fast Failover
Stacking LAG	Virtual stacking support

*Optional Features for ROS

Ring protection	VxLAN
WEB-GUI with flexible configuration options	Radius COA
PTP	BGP

SONIC OS SOFTWARE FEATURES

Layer 2/3 Feature list

BGP / BGP MP	BGP/Neighbor-down fib-accelerate
BGP-EVPN support (type 5), (related HLD Fpmsyncd,Vxlanmgr,template)	ECMP
LAG	ACL permit/deny, IPv6 ACL
LLDP	DHCP
VLAN	CoPP
IPv6	VLUN Trunk
FRR	Priority Flow Control
Asymmetric PFC	PFC Watermark
DHCP Relay Agent	Tunnel Decap
LACP Fallback	MTU Setting
Vlan Trunk	Static Port breakout
Dynamic ACL Upgrade	MAC Aging
L3 RIF counter support	Configurable drop counters
Policy Based Routing (PBR)	Private VLAN

Monitoring

SNMP	Syslog
EverFlow	OOM
TCPDump	Critical Recourse Monitor
Dtel	Mirroring
Egress mirroring	ACL action support check via SAI
Streaming Telemetry	Everflow enhancement
sFlow	HW resource monitor

QoS

RDMA	ECN
PFC WD	WRED
COS	Watermark

Virtualization

L3 VxLAN	VRF
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SONIC OS SOFTWARE FEATURES

System

NTP	ONIE Install
CLI	TACACS+
ConfigDB	SONiC to SONiC upgrade
Multiple Images support	gRPC
Sensor transceiver monitoring	LLDP extended MIB: lldpremtable, lldploporttable, lldpremanaddrttable, lldploctmanaddrttable, lldploporttable, lldpLocalSystemData
Warm Reboot	Incremental Config (IP, LAG, Port shut/unshut)
Routing Stack Graceful Restart	Mgmt VRF
Management Framework	Multi-DB optimization-Part 1
Sub-port support	

ORDERING INFORMATION

Model	Description
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LN-4348Y-8Z	L3, 48x25G + 8x100G. Dual hot pluggable PSU. Hot pluggable FANS. 8GB DDR4, 16GB eMMC
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Model includes a 3-year HW Warranty.