

PRODUCT OVERVIEW



LN-3548XGEBPPP-6Z-2AC-HSP-M

Highlights

- ▶ 1RU, 19-inch Rack Mountable Design
- ▶ Cut-Through with Ultra-Low-Latency
- ▶ 48x10G Copper Ports and 6x100 Gbps (QSFP28) Ports
- ▶ Up to 1.08 Tbps of Switching Performance
- ▶ Open Automated Configuration and Zerotouch Provisioning Capabilities
- ▶ Simplify Management of Network Environments
- ▶ Interface Flexibility
- ▶ Power Efficiency
- ▶ Marvell ROS Support
- ▶ SONiC OS Support



HARDWARE SPECIFICATIONS

Switching Performance

Switch ASIC	Marvell Prestera 98DX8548
Ports	48×10GBase-T (≥24× 802.3bz 2.5/5G), 6×100G QSFP28)
Capacity	1.08 Tbps
Packet Buffer	6MB
MAC Address Table	>32 K
Matrix bandwidth	296 Gbps
Jumbo Frames	10 KB

Hardware

CPU	Marvell OcteonTX2 CN9130
Memory	4GB DDR4
SSD	32GB eMMC, Optional M.2 SATA slot
Pluggable transceivers support	1000Base-T, 1000Base-LX, 1000Base-SX, 10GBase-SR, 10GBase-LR, 10GBase-ER

Management Port

USB	1 x USB 2.0
Serial Console	1 x RJ45
Management Port	1xRJ45 Ethernet 1GBase-T management port

Power

PSU	Dual hot-pluggable, redundant (n+1), incl. PoE continuity
PSU Input	110V~240V(AC), 36V~72V(DC)
PSU Output	200W/200W (AC/DC)
Power consumption	920W max (incl. PoE)
PoE	IEEE 802.3af/at/bt compliant, 16×90 W ports (no PoE injectors)
PoE Budget	720W

HARDWARE SPECIFICATIONS

Physical and Environmental

Dimensions	HxWxD 440x44x470 mm
Rack Space	1RU
Fan	2+1, hot pluggable
Operating Temperature	0°C to 45°C
Operating Humidity	5% to 90% (non-condensing)

Approvals

Certificate	CCC/CE
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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
MC-LAG	SPAN/RSPAN

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

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+	API/Automation: OpenFlow, NETCONF, RESTCONF, YANG

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
IEEE 802.3az Energy Efficient Ethernet	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: Ildpretable, Ildploporttable, Ildpremanaddrttable, Ildploctmanaddrttable, Ildploporttable, IldpLocalSystemData
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	



LN-3548XGEBPPP-6Z-2AC-HSP-M

ORDERING INFORMATION

Model	Description
LN-3548XGEBPPP-6Z-2AC-HSP-M	L3, 48x10G ETH + 6x100G QSFP28, Dual hot pluggable PSU, Hot pluggable FANS. 4GB DDR4, 32GB eMMC. Port 1-16 Support BT 90W, 2 hot swappable PSU 2000W+2000W (PoE budget 1800W+1800W)

Model includes a 1-year HW Warranty.