

PRODUCT OVERVIEW



LN-2324-SERIES

Highlights

- ▶ Proactive Threat Defense with Real-Time DoS Mitigation and IP Integrity Protection
- ▶ Seamless Stack Management: Control Up to 8 Switches as One, with Zero Overhead
- ▶ Optimized Voice VLAN with Intelligent QoS for Lag-Free VoIP Performance
- ▶ Advanced QinQ Stacking for Multi-Tenant Networks and Seamless VLAN Isolation
- ▶ Hardened Secure Control Technology for Uninterrupted Administration Under Attack
- ▶ All Models Can Support Layer 3 if Necessary
- ▶ PoE Budget Can Be Adjusted According to Client Requirements
- ▶ Ability to Modify the Number and Types of Ports
- ▶ Supports PoE+ or PoE++ Ports
- ▶ Design can be Modified to Include a Removable Power Supply Unit
- ▶ Removable Fans can be Added (Where Applicable)



HARDWARE SPECIFICATIONS

	1G RJ45 Downlinks	1G Fiber Uplinks	10G Fiber Uplinks	PoE	Fanless	Hot swap PSU / RPS	1G RAM and FLASH	Hot swap Fans
LN-2324G-4XGF	24	-	4	-	+	-	-	-
LN-2324GP-4XGF	24	-	4	PoE+ 400W	-	-	-	-
LN-2324GMP-4XGF	24	-	4	PoE+ 740W	-	-	-	-
LN-2324GP-4XGF-RPS	24	-	4	PoE+ 400W	-	RPS	-	-
LN-2324GMP-4XGF-RPS	24	-	4	PoE+ 740W	-	RPS	-	-
LN-2324G-4XGF-RPS	24	-	4	-	-	RPS	-	-
LN-2424G-4XGF-ACDC- HSP	24	-	4	-	-	Hot swap 2PSU AC+DC24V	-	-
LN-2324G-4XGF-ACDC- HSP	24	-	4	-	-	Hot swap 2PSU AC+DC24V	-	-
LN-2324G-4GF-ACDC-HSP	24	4	-	-	-	Hot swap 2PSU AC+DC24V	-	-
LN-2324G-4XGF-HSP-HSF	24	-	4	-	-	Hot swap 2PSU	-	+
LN-2324G-4XGFMPP-HSP	24	-	4	PoE budget 500W+500W	-	Hot swap 2PSU	-	-
LN-2324G-4XGFMPP-HSP	24	-	4	PoE budget 740W+740W	-	Hot swap 2PSU	-	-
LN-2424G-4XGFMPP-HSP- HSF	24	-	4	PoE budget 500W+500W	-	Hot swap 2PSU	-	+
LN-2324G-4XGF-RPS	24	-	4	-	-	RPS	-	-
LN-2324GP-4XGF-RPS	24	-	4	PoE+ 400W	-	RPS	-	-
LN-2424G-4XGF	24	-	4	-	-	-	+	-
LN-2424GP-4XGF	24	-	4	PoE+ 400W	-	-	+	-

The switch model with a 1G SFP uplink port does not support the stacking feature.
Each switch has USB, OOB, and Console interfaces. In PoE-enabled devices, all 24 ports support PoE.

HARDWARE SPECIFICATIONS

Hardware

Marvell Chipset	98DX223S/ 98DX336S
MTBF	100,000h
Case	440x250x44 (LxWxH)
Weight	PoE: 3.5KG
	Non PoE: 2.8KG
Type	Standard 19-inch rack cabinet model
Height	Equal to 1 Rack Unit
Pluggable transceivers support	1000Base-T, 1000Base-LX, 1000Base-SX, 10GBase-SR, 10GBase-LR
PoE Budget / Consumption	460 W max (incl. PoE, 15.4 W/port)
Power Consumption	≤55 W (at 100% throughput, no PoE)

Environment

Operating temperature	-5°C (23°F) to 65°C (149°F)
Humidity	5% ~ 95% non-condensing

Capacity

Switching capacity	128 Gbps
Forwarding rate	95 Mpps
MAC address table	Max 16k
Packet buffer size	3 MB
Active VLANs support	4096
Maximum jumbo frame size	9,216 bytes



SOFTWARE FEATURES

Quality of Service

DiffServ (Differentiated services)	Strict priority support
Priority queue	Traffic shaping/policing
ACL mapping to priority queue	WRR support
Flow mirror, 802.1p Support	SP+WRR
Flow redirection	Rate limiting (Based on per port and per queue)
Single Rate Three Color Marker (srTCM)	Class map defines traffic flow with ACLs or support for network traffic management
Two Rate Three Color Marker (trTCM)	Policy map & route MAP to define the action for a set of classified inbound traffic
QoS based on classification (Based on IP, MAC and VLAN)	

Security

RADIUS, TACACS+	Downloadable ACL
Port security	Dynamic ACL
DHCP Snooping	Role based access control
AAA (Authentication, Authorization, and Accounting)	802.1x authentication (Port Based, MAC Based, Web Based)
ACL (Based On IP, Port, Protocol, MAC, Time Based)	Management ACL
IP source guard	DoS prevention
Protected port	Secure copy (SCP)
ARP inspection (DAI & SAI)	Kerberos
SSL	

Multicast

Internet Group Management Protocol -IGMP v1/v2/v3	Multicast Listener Discovery- MLD v1/V2
IGMP snooping	MLD snooping
PIM-SM/SSM	Multicast TV VLAN
PIM-SMv6	MVR (Multicast VLAN registration)

SOFTWARE FEATURES

Layer 2

Port Tagging/untagged	BPDU guard
MAC based VLANs	GVRP
Private VLAN	LLDP/LLDP MED
Subnet based VLAN	RADIUS assigned VLAN
Auto MDI/MDIX	Link aggregation (Ether Channel)
Loopback detection	Link Aggregation Control Protocol (LACP)
Port isolation	Port mirroring (Port, ACL, VLAN Based)
Root guard	Default VLAN
Guest VLAN	Auto voice VLAN
Energy Efficient Ethernet (EEE)	Green Ethernet
Link flapping detection	Flow control
STP/RSTP/MSTP	Native VLAN
QinQ (802.1Q)	Loop guard

Layer 3

IPv4 and IPv6 dual stack	IPv6 prefix list
Intra-Site Automatic Tunnel Addressing Protocol (ISATAP)	IP source guard
Policy Based Routing (PBR)	DHCP server
ARP, Gratuitous ARP	DHCP relay
DHCP Client	IPv6 NDRA (Neighbor Discovery Router Advertisement)
ICMP redirect & ICMP unreachable	Duplicate Address Detection (DAD)
IPv6 SLAAC (Stateless Address Auto configuration)	IPv6 ND
ARP-Proxy	DHCP Option 82, 66, 67

Layer 3 Routing

Static routing (IPv4, IPv6)	Inter-VLAN routing
Routing Information Protocol, version 2 (RIPv2)	OSPFv2/v3 (Open Shortest Path First)

High Availability

Stacking (Up-to 8 members)	Ring Redundancy Protocol (RRP)
Equal-Cost Multi Path (ECMP)	Virtual Router Redundancy Protocol (VRRP)
Storm control (Broadcast, Multicast, Unicast)	

SOFTWARE FEATURES

Management

Local GUI	Management: RUDDER (Controller)/Standalone
Industrial standard CLI	SPAN/RSPAN
Telnet support	SSHv1/v2
Storage & File management with USB	Firmware auto install support
TFTP support	Syslog server
SNMP v1/v2c/v3	RMON (All 4 Groups 1,2,3,9)
API/Automation: OpenFlow, NETCONF, RESTCONF, YANG	SFLOW

Standard Compliance

IEEE Standards Compliance

802.1AB LLDP/ LLDP-MED	802.3ae 10 gigabit Ethernet
802.1D MAC bridging	802.3at power over Ethernet Plus
802.1p Mapping to priority queue	802.3u 100Base-TX
802.1s Multiple Spanning Tree (MST)	802.3x flow contro
802.1w Rapid Reconfiguration of Spanning Tree (RSTP)	802.3z 1000Base-SX/LX
802.1x Port-based Network Access Control (PNAC)	802.3 MAU MIB (RFC 2239)
802.3 Carrier Sense Multiple Access/Collision Detection(CSMA/CD)	802.1Q VLAN tagging
802.3ab 1000Base-T	802.3az Energy Efficient Ethernet
802.3 10Base-T	802.3af Power over Ethernet
802.3ad link aggregation (Dynamic and Static)	802.3at PoE Plus

Monitoring and Troubleshooting

Errdisable detection and recovery	CPU Utilization
Device temp/PSU/FAN/status display & alarm	User operation logs
Virtual cable test	Management logs, alarms
ICMPv4/v6	DDM (Digital Diagnostic Monitoring)
Traceroute	UDLD (Unidirectional Link Detection)

Packaging Content

Switch with type D power cord with rack mounting kit

CERTIFICATION & COMPLIANCES

Regulatory

FCC

BIS

TEC

Environmental

RoHS

CE

ORDERING INFORMATION

Models	Description
LN-2324G-4XGF	Campus Switch L2, 24×1G+4×10G
LN-2324GP-4XGF	Campus Switch L2, 24×1G+4×10G, PoE+ 400w
LN-2324GMP-4XGF	Campus Switch L2, 24×1G+4×10G, PoE+ 740w
LN-2324GP-4XGF-RPS	Campus Switch L2, 24×1G+4×10G, PoE+ 400w, Dying gasp, Redundant power supply
LN-2324GMP-4XGF-RPS	Campus Switch L2, 24×1G+4×10G, PoE+ 740w, Dying gasp, Redundant power supply
LN-2324G-4XGF-RPS	Campus Switch L2, 24×1G+4×10G, no PoE, Dying gasp, Redundant power supply
LN-2424G-4XGF-ACDC-HSP	Campus Switch L3, 24×1G+4×10G, Non-PoE, Hot-swappable 2PSU AC+DC24V
LN-2324G-4XGF-ACDC-HSP	Campus Switch L2, 24×1G+4×10G, Non-PoE, Hot-swappable 2PSU AC+DC24V
LN-2324G-4GF-ACDC-HSP	Campus Switch L2, 24×1G+4×1G, Non-PoE, Hot-swappable 2PSU AC+DC24V
LN-2324G-4XGF-HSP-HSF	Campus Switch L2, 24×1G ETH+4×10G, No PoE, Dying Gasp, 2 hot swappable PSU 100W +100W, Redundant Fan Trays
LN-2324G-4XGFMP-HSP	Campus Switch L2, 24×1G ETH+4×10G, Dying Gasp, 2 hot swappable PSU 600W+600W(PoE budget 500W+500W)
LN-2324G-4XGFMP-P-HSP	Campus Switch L2, 24×1G ETH+4×10G, Dying Gasp, 2 hot swappable PSU 820W+820W(PoE budget 740W+740W)
LN-2424G-4XGFMP-HSP-HSF	Campus Switch L2, 24×1G ETH+4×10G, Dying Gasp, 2 hot swappable PSU 600W+600W(PoE budget 500W+500W), Redundant Fan Trays
LN-2324G-4XGF-RPS	Campus Switch L2, 24×1G+4×10G, Non-PoE, Internal 2PSU
LN-2324GP-4XGF-RPS	Campus Switch L2, 24×1G+4×10G, PoE+ 400w, Internal 2PSU
LN-2424G-4XGF	Campus Switch L3, 24×1G+4×10G, 1G DDR, 1G FLASH
LN-2424GP-4XGF	Campus Switch L3, 24×1G+4×10G, PoE+ 400w, 1PSU, 1G DDR, 1G FLASH

In all configurations: USB, OOB, and Console.

All switches include a 1-year HW Warranty.