

PRODUCT OVERVIEW



LN-2312-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
- ▶ Support Layer 3 (Optional)
- ▶ Changeable PoE Budget
- ▶ Variable Types and Number of Ports
- ▶ Supports PoE+ or PoE++ (Optional)
- ▶ Removable Power Supply Unit (Optional)
- ▶ Removable Fans (Optional)



Tailor-made network hardware & software development

HARDWARE SPECIFICATIONS

	1G RJ45 Downlinks	1G Fiber Uplinks	10G Fiber Uplinks	PoE/ W	Switching capacity/ Gbps	Forwarding rate/ Mpps
LN-2312GP-2XGF	12	-	2	180	64	47.62
LN-2312GMP-2XGF	12	-	2	400	64	47.62
LN-2312G-2XGF	12	-	2	-	64	47.62
LN-2312G-2GF	12	2	-	-	28	20.83

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 12 ports support PoE.

Hardware

Marvell Chipset	98DX2518
MTBF	100,000h
Case	440*250*44 (L*W*H)
Weight	PoE: 3.5KG
	Non PoE: 2.8KG

Environment

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

Capacity

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)

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)	

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-2312GP-2XGF	12x1G ETH+ 2x10G, PoE 180W
LN-2312GMP-2XGF	12x1G ETH+ 2x10G, PoE 400W
LN-2312G-2XGF	12x1G ETH+ 2x10G, no PoE
LN-2312G-2GF	12x1G ETH+ 2x1G, no PoE

In all configurations: USB, OOB, and Console.

All switches include a 1-year HW Warranty.