

### PRODUCT OVERVIEW



## LN-3824G-LIGHT-SERIES

### Highlights

- ▶ AC5X Solution
- ▶ Stacking With 8 Devices
- ▶ ITU-T G.8032 ERPS L2 Ring Protection
- ▶ Comprehensive and Field-Proven Software Features for ISPs/ Carriers, Providing Broadband Access, IPTV Services
- ▶ Full L3 Features with Commonly-Used Unicast and Multicast Routing Protocols, Redundant Routing Protocols, and DHCP Relay and Server
- ▶ Complete Private MIB to Fully Control and Monitor the Switch via Customer's EMS
- ▶ Enhanced Security and IPv6
- ▶ Simple Management (CLI, SNMP, Web)
- ▶ Marvell ROS Support
- ▶ SONiC OS Support (Optional)



## HARDWARE SPECIFICATIONS

|                    | 1G RJ45<br>Downlinks | 10G SFP+<br>Uplinks | PoE<br>Budget/W | Internal PSU |
|--------------------|----------------------|---------------------|-----------------|--------------|
| LN-3824G-6XG       | 24                   | 6                   | -               | -            |
| LN-3824GP-6XG      | 24                   | 6                   | 400             | -            |
| LN-3824GMP-6XG     | 24                   | 6                   | 740             | -            |
| LN-3824G-6XG-RPS   | 24                   | 6                   | -               | 2            |
| LN-3824GP-6XG-RPS  | 24                   | 6                   | 400             | 2            |
| LN-3824GMP-6XG-RPS | 24                   | 6                   | 740             | 2            |

Each switch has USB, OOB, and Console interfaces.

## Switching Performance

|                        |                                             |
|------------------------|---------------------------------------------|
| Switch ASIC            | 98DX3510                                    |
| Ports                  | 24x1G RJ-45 Ports + 6x10G SFP+ Uplink Ports |
| Capacity               | 168Gbps                                     |
| Packet forwarding rate | 243.3Mpps                                   |
| MAC Address Table      | 32K                                         |
| VLAN                   | 4K                                          |
| Buffer                 | 24Mbit                                      |
| Forwarding delay       | <5us                                        |
| Jumbo Frame            | Support 10Kbytes                            |
| MDX/MIDX               | Support                                     |

## Hardware

|            |                                                |
|------------|------------------------------------------------|
| Nand Flash | 4GB for SONiC version or 512MB for ROS version |
| DDR        | 4GB for SONiC version or 2GB for ROS version   |

## Physical and Environmental

|                       |                            |
|-----------------------|----------------------------|
| Dimensions            | 440x400x44mm               |
| Net Weight            | ~7.0kgs                    |
| Operating Temperature | 0°C to 50°C                |
| Operating Humidity    | 10% – 90% (non-condensing) |

## Approvals

|             |                                                                  |
|-------------|------------------------------------------------------------------|
| Certificate | FCC Class A/CE/Safety<br>Compliance: CB/Safety<br>Compliance: UL |
|-------------|------------------------------------------------------------------|

## 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  |                                                   |

### 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+                      |                                          |

### 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                                      |                                               |

### \*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       |

### 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 |
|----------|-----|

## 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, Ildplomanaddrttable, 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               |                                                                                                                                 |

## ORDERING INFORMATION

| Model              | Description                           |
|--------------------|---------------------------------------|
| LN-3824G-6XG       | 24x1G+6x10G                           |
| LN-3824GP-6XG      | 24x1G+6x10G, PoE 400W                 |
| LN-3824GMP-6XG     | 24x1G+6x10G, PoE 740W                 |
| LN-3824G-6XG-RPS   | 24x1G+6x10G, no PoE, Internal 2 PSU   |
| LN-3824GP-6XG-RPS  | 24x1G+6x10G, PoE 400W, Internal 2 PSU |
| LN-3824GMP-6XG-RPS | 24x1G+6x10G, PoE 740W, Internal 2 PSU |

Models include a 1-year HW Warranty.