Corning ONE™ SDN LAN

Software Defined PoE Data Plane (SDPDP)

Product Overview

The Software Defined PoE Data Plane (SDPDP) L2 managed switch is designed for enterprise markets and provides a complete solution from 1G to 10G. The SDPDP is an PoE switch and delivers a default 370 W of PoE power, but can be extended up to 740 W. It supports 24 10/100/1000BASE-T ports and 4 Gigabit SFP ports.

The SDPDP includes green-saving technologies (IEEE 802.3az and Green-Ethernet). Using this Energy Efficient Ethernet standard, the switch automatically decreases power usage when network traffic is low.

Key Features and Benefits

- IEEE 802.3af & 802.3at
- 24-ports at 30 W to 740 W
- 4 integrated Gigabit SFP ports.
- L3 static routing
- Dynamic VLAN Assignment automatically assigns the same port to different VLANs
- PoE Timer can define a PoE power schedule for different customer applications.
- IGMP/MLD snooping manages multicast streams to ensure high-quality, smooth video.
- Supports the new IEEE 802.3az and Green Ethernet.
- Multiple security features, such as ACLs, storm control, 802.1X, port security, MAC filters, IP source guard, and AAA.
- 8 hardware queues, port-based QoS (IPv4/IPv6 DSCP), and DiffServ features to provide optimal real-time services.
- Provides DDOS protection
- Automatic voice VLANs, providing VoIP and IP cameras the optimum network traffic usage.

Product Specifications

<table>
<thead>
<tr>
<th>Ports</th>
<th>Power Supply</th>
</tr>
</thead>
</table>
| Switch Ports:  
  24 x RJ-45 10/100/1000 Ports (POE/POE+)  
  370 W Power budget w/o extender  
  4 x 1G SFP Uplink Ports |
| Management Ports on Front Panel:  
  1 x RJ-45 serial console |
| 100-270 VAC, 50-60 Hz |
| 490 W (950 W with optional extender) |

<table>
<thead>
<tr>
<th>Performance</th>
<th>Physical and Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching Capacity: 56 Gbps</td>
<td></td>
</tr>
<tr>
<td>Forwarding Rate: 41.7 Mpps</td>
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<tr>
<td>Flash Memory: 32 MB</td>
<td></td>
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<tr>
<td>DRAM: 256 MB</td>
<td></td>
</tr>
<tr>
<td>Packet Buffer: 4.1 Mibis</td>
<td></td>
</tr>
<tr>
<td>MAC Addresses: 8K</td>
<td></td>
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<tr>
<td>Jumbo frames: 10K</td>
<td></td>
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<tr>
<td>MTBF: 370,636 hrs</td>
<td></td>
</tr>
<tr>
<td>Heat Dissipation: 1680 Btu/Hr</td>
<td></td>
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<tr>
<td>Acoustic Noise: 79.7 dB (A)</td>
<td></td>
</tr>
<tr>
<td>Dimensions (WxDxH): 44 x 22 x 4.4 cm (17.3 x 8.6 x 1.7 in)</td>
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</tr>
<tr>
<td>Weight: 3.1 kg (6.85 lb)</td>
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</tr>
<tr>
<td>Operating Temperature: 0°C to 40°C (32°F to 104°F)</td>
<td></td>
</tr>
<tr>
<td>Storage Temperature: -40°C to 70°C (-40°F to 158°F)</td>
<td></td>
</tr>
<tr>
<td>Operating Humidity: 10% to 95% non-condensing</td>
<td></td>
</tr>
<tr>
<td>Storage Humidity: 10% to 95% non-condensing</td>
<td></td>
</tr>
<tr>
<td>Altitude: 3000m</td>
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</tbody>
</table>
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L2 Features
- Spanning Tree Protocol:
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP)
- Loopback Detection
- BDPU Filter/Guard
- BDPU Forward
- Root Guard
- VLANs:
  - Supports 4K IEEE 802.1Q VLANs
  - Port-Based/MAC-Based/Protocol-Based VLANs
  - Guest VLAN
  - Auto Voice VLAN
- Link Aggregation:
  - Static Trunk
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IGMP Snooping:
  - IGMP v1/v2/v3 snooping
  - IGMP Filtering/Throttling
  - IGMP Queries
  - IGMP Immediate leave
  - MLD Snooping
- LLDP/LLDP-MED
- Green-Saving
  - IEEE 802.3az
  - Cable Length
  - No Link Power-Saving
- Jumbo Frame packet
- Cable Diagnostic
  - Q-in-Q
  - mDNS
  - G.8032
  - IP Clustering

L3 Features
- Static Routing

IPv6
- IPv4/IPv6 Dual Protocol Stack
- IPv6 Management
  - IPv6 Ping/Trace
  - IPv6 Telnet
  - IPv6 Syslog
  - IPv6 TFTP
- HTTP over IPv6
- SNMP over IPv6

PoE
- Support IEEE 802.3af (15.4 W)/IEEE802.3at (30W) on each port
- Total PoE Power Budget as follows:
  - SDPDP (370 W)
  - (Up to 740W using extension)
- Dynamic Power Allocation
- Auto disable after exceeding power budget
- PoE Timer

Security
- DDOS Protection
- CPU Guard (CPU Protection)
- Port Isolation
- Port Mirror (One to One, One to Many)
- Remote Mirror
- Storm Control
- Broadcast/Multicast/Unknown Storm Control
- IEEE 802.1X
- ACL
  - Ingress Only
  - L2/L3/L4
  - ACL entry: 512
  - IPv4/IPv6
  - TCP/UDP-Based, MAC-Based ACL
- Port Security
- MAC Filter
- MAC Authentication
- Port max count per port
- Dynamic VLAN Assignment
- Dynamic ARP Inspection
- AAA (RADIUS/TACACS+)
- IP Source Guard
- SSH v1.5/v2.0
  - SSL v1/v2/v3
  - SSL IPv4/IPv6
- SFlow
  - (10T/P/PE/28T/28P/28PP Trace on port -Ingress only)
  - (52T/26T trace multi port)
- Web Authentication

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Management
System password protection
NTP/SNTP
Dual Image/Configuration
Configuration upload/download (HTTP/TFTP/FTP/SFTP)
Firmware upload/download (HTTP/TFTP/FTP/SFTP)
Auto Firmware Upgrade
RMON (groups 1,2,3 and 9)
SNMP
SNMP Trap
SNMP v1/v2/v3
SNMP Standard/Private MIB
Management Access (Console/SNMP/Web /Telnet)
Memory Flash Log
Event/Error Log/Syslog

DHCP v4/v6
Client/DHCP Snooping
DHCP Snooping Option82
Dynamic Provision (via Option 66,67)
DHCP Relay v4 (v6)
Port Mirroring (One to One) TX/RX (both)
DNS Client without DNS proxy

Regulatory
WEEE
RoHS
Country of Origin: Taiwan

Ordering Information |

<table>
<thead>
<tr>
<th>P/N</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1LAN-SDDP-24-P2</td>
<td>24 Port Gigabit Expandable PoE Switch Plus 4 SFP Uplink Ports (370W POE Budget)</td>
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<tr>
<td>1LAN-SDDP-24-P1</td>
<td>24 Port Gigabit Expandable PoE Switch Plus 4 SFP Uplink Ports (200W POE Budget)</td>
</tr>
<tr>
<td>1LAN-SFP-3405BC</td>
<td>Bi-Di SFP; SDDP-PTP to SDDP-PTP/SDDP-PTMP</td>
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<tr>
<td>1LAN-SFP-4305BC</td>
<td>Bi-Di SFP; SDDP-PTP/SDDP-PTMP to SDAN</td>
</tr>
<tr>
<td>1LAN-SFP-1GCU</td>
<td>Copper Ethernet SFPs (1G-TX)</td>
</tr>
<tr>
<td>1LAN-SFPP-10GB-LR</td>
<td>10Gb/s SFP+ Transceiver module, SMF, 1310nm, 10km</td>
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<tr>
<td>1LAN-SFPP-10GB-SR</td>
<td>10Gb/s SFP+ Transceiver module, MMF, 850nm, 300-meter</td>
</tr>
<tr>
<td>1LAN-SFP-1GB-LXLH</td>
<td>Gigabit SFP Transceiver, 1000Base-LX/LH, SMF, 1310nm, 10km</td>
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<tr>
<td>1LAN-OA-UPC</td>
<td>UPC Optical Attenuator</td>
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