

Appendix B - Technical Specifications

Hardware Specifications

Key Components / Performance

- Switching Capacity:
 - DGS-1210-16: 32Gbps
 - DGS-1210-24: 48Gbps
 - DGS-1210-48: 96Gbps
- Max. Forwarding Rate
 - DGS-1210-16: 23.8Mpps
 - DGS-1210-24: 35.7Mpps
 - DGS-1210-48: 71.4Mpps
- Forwarding Mode: Store and Forward
- Packet Buffer memory:
 - DGS-1210-16: 512K Bytes
 - DGS-1210-24: 512K Bytes
 - DGS-1210-48: 1MBytes
- DDRII for CPU: 64M Bytes
- Flash Memory: 16M Bytes

Port Functions

- 16/24/48 1000Base-T ports compliant with the following standards:
 - IEEE 802.3
 - IEEE 802.3u
 - Supports Full-Duplex operations
- 4 combo SFP ports compliant with the following standards:
 - IEEE 802.3z
 - Supports Full-Duplex operations
- SFP transceivers supported
 - DEM-310GT (1000BASE-LX, 10km)
 - DEM-311GT (1000BASE-SX, 550m)
 - DEM-314GT (1000BASE-LH, 50km)
 - DEM-315GT (1000BASE-ZX, 80km)
 - DEM-312GT2 (1000BASE-SX, 2km)
 - DEM-210 (100BASE-FX, 15km)
 - DEM-211 (100BASE-FX, 2km)
- WDM Transceivers Supported:
 - DEM-330T (1000Base-BX,TX-1550/RX-1310nm, 10km)
 - DEM-330R (1000Base-BX,TX-1310/RX-1550nm, 10km)
 - DEM-331T (1000Base-BX,TX-1550/RX-1310nm, 40km)
 - DEM-331R (1000Base-BX,TX-1310/RX-1550nm, 40km)
 - DEM-220T (100Base-BX, TX-1550/RX-1310nm, 20km)
 - DEM-220R (100Base-BX, TX-1310/RX-1550nm, 20km)

Physical & Environment

- AC input, 100~240 VAC, 50/60Hz, internal universal power supply
- Acoustic Value:
 - DGS-1210-16/24: 0dB (Fan-less)
 - DGS-1210-48: (TBD)dB (Smart Fan)
- Operation Temperature 0~40°C
- Storage Temperature -10~70°C
- Operation Humidity: 10%~95% RH
- Storage Humidity: 5%~95% RH

Emission (EMI) Certifications

- FCC class A
- CE Class A
- VCCI Class A

Safety Certifications

- cUL, LVD

Features

L2 Features

- Supports up to 8K MAC address
- Jumbo frame: Supports up to 10,000 bytes
- IGMP snooping: Supports 256 multicast group
- 802.1D Spanning Tree
- 802.1w Rapid Spanning Tree
- Loopback Detection
- 802.3ad Link Aggregation: up to 8 groups per device, up to 8 ports per group
- Port mirroring

D-Link Green Technology

- Power Saving: Enabled by default, save energy in 2 ways:
 - Sleep Mode: Drastically save power when the switch port link is down. For example, no PC connection or the connected PC is powered off.
 - Cable Length Detection: Detects the length of connected RJ-45 cables and adjusts power usage accordingly without affecting performance. Once the RJ-45 connection is less than 20m, the switch will reduce the power instead of full power, which is only needed for 100m cables.

VLAN

- 802.1Q VLAN standard (VLAN Tagging)
- Up to 256 static VLAN groups

- Asymmetric VLAN
- Management VLAN
- Auto-Voice VLAN

QoS (Quality of Service)

- 802.1p priority, DSCP priority queue mapping
- Up to 4 queues per port
- Supports Strict / WRR mode in queue handling
- Bandwidth Control

Security

- 802.1X port-based access control
- Port Security
- IP and MAC ACL
- Broadcast Storm Control
- D-Link Safeguard Engine
- Trusted Host

Management

- Web-based GUI or SmartConsole Utility
- D-Link proprietary CLI
- SNMP support
- DHCP client
- Trap setting for destination IP, system events, fiber port events, twisted-pair port events
- Port access control
- Web-based configuration backup / restoration
- Web-based firmware backup/restore
- Firmware upgrade using SmartConsole Utility & Web-based management
- Reset, Reboot