



28-port L2+ Managed Gigabit Ethernet Switch

IGM-2880

H/W Version: 1

LevelOne IGM-2880 is a full Gigabit, rack-mount type Ethernet switch, providing 28 Gigabit Ethernet ports to update the existing network to a full gigabit speed infrastructure. A full Gigabit network provides higher overall throughput than a legacy Fast Ethernet network, and reduce the response time for timing sensitive applications that may mix of video, voice and data in its traffic pipe. With the powerful features, IGM-2880 managed switches are easily to prioritize, partition and organize user's network and provide reliable and good quality services.

Key Features

- 24 Gigabit Copper ports plus 4 SFP ports 100FX or 1000BaseF (SX/LX/LH)
- 9K Jumbo frames
- L2 wire-speed switching
- Network redundant LACP, Spanning tree STP, RSTP & MSTP, and quick Ring fail-over protection (< 20 ms)
- Support Single & multiple rings
- Advanced VLAN operations: IEEE 802.1ad/QinQ VLAN, VLAN tag add/remove/replace
- Private VLAN, port-based /tag-based/protocol-based VLAN
- Multicasting support IGMP v1/v2/v3, proxy & snooping
- Security: IEEE 802.1x authentication, RADIUS & TACACS+ AAA
- Policy-based traffic control engine for actions of Deny, Allow, Queue mapping, rate limit, mirror, or CoS remark on any combination of specific Layer -2 / Layer- 3 / Layer-4 patterns
- QoS (SPQ,WRR, SPQ+ WRR): Hierarchical per-port, per queue shaping & scheduling with bandwidth management

Technical Specification

Ethernet	
Ethernet Interface	24 Gigabit Copper ports plus 4 SFP ports 100FX or 1000BaseF (SX/LX/LH)
Operating mode	Store and forward, L2 wire-speed/non-blocking switching engine
MAC addresses	8K
Jumbo frames	9K Bytes
Copper RJ45 Ports	
Speed	10/100/1000 Mbps
MDI/MDIX Auto-crossover	Support straight or cross wired cables
Auto-negotiating	10/100/1000 Mbps speed auto-negotiation; Full and half duplex
SFP (pluggable) Ports	
Port types supported	Gigabit fiber multimode, fiber single mode, fiber long-haulsingle mode 100/1000BaseF (SX/LX/LH)
Fiber port connector	LC typically for fiber (depends on module)
Network Redundancy	
Fast failover protection rings	Link loss recovery < 20ms Single & Multiple rings supported
Spanning Tree Protocol	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP BPDU forwarding and filtering
IEEE 802.3ad Port Trunk with LACP	Static trunk or Dynamic via LACP (Link Aggregation Control Protocol)
Bridge, Virtual Local Area Networks (VLANs) & Protocols	
Flow control	IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)
Max VLANs	2048
VLAN Types	Port-based VLANs, IEEE 802.1Q tag-based VLANs, IEEE 802.1v protocol-based VLANs, IEEE 802.1ad Double Tagging (Q in Q)Private VLAN
VLAN operations	Attach/Remove/Replacement VLAN tag
MVR (Multicast VLAN Registration)	Yes
Multicast protocols	IGMP v1, v2 and v3 with up to 512 multicast groups IGMP snooping and querying Immediate leave and leave proxy
Traffic management engine & QoS	
Policy-based access control engine	Policy/profile-based Access Control List (ACL) Multi-layer ACL support; Flexible combination of well-known fixed Layer 2/3/4 fields: - VLAN ID, Source/Destination MAC address, EtherType - Source/Destination IP address, IP protocol number - UDP or TCP, Source/Destination port number of TCP/UDP - DSCP or ToS value Actions per rule: Deny, Allow, Queue mapping, rate limit, mirror, CoS remark Max number of profiles per switch: 20 Max number of rules per profile: 32
Number of queues per port	8
Scheduling schemes	SPQ, WRR, SPQ + WRR
Traffic Shaper	Hierarchical per port and per queue shaping & scheduling with bandwidth management
Traffic Policer	Ingress rate limit in 1K bps granularity TrTCM (Two Rate Three Color Marker) policer engine
Security	
Port security	IP and MAC-based Access control; Policy-based Access control IEEE 802.1X authentication Network Access Control RADIUS Client for IEEE 802.1X
Storm Control	Multicast/Broadcast/Flooding Storm Control on per port and per VLAN basis
Management	
User Management interfaces	Cisco-like CLI (command line interface) WEB-based Management SNMP v1, v2c, v3 Telnet (5 sessions)
Management Security	HTTPs, SSH Radius Client for Management (*pending) TACACS+ Client for Management (*pending)
Upgrade & Restore	TFTP/FTP for Configuration Import/Export, TFTP/FTP for Firmware Upgrade
Diagnostic	Syslog Policy-based stream mirroring Ethernet Copper connection diagnostic tool
NTP/SNTP	Yes
Power	
Power input options	DC input: DC Redundant Input Terminals & Reverse power protectionSingle/dual AC inputsDC & AC dual inputs
Input voltage range	12-58VDC or 100/240 VAC, 50Hz ~ 60Hz
Indicators	
Power Status indication	Indication of power input status
Ethernet port indication	Link & Speed
Environmental and Compliances	
Operating temperature range	0 to 60°C or -40 to +75°C (cold startup at -40°C)
Storage temperature range	-40 to +85 °C
Humidity (non-condensing)	5 to 95% RH
Vibration, shock & freefall	Vibration: IEC60068-2-6; Shock: IEC60068-2-27; Free Fall: IEC60068-2-32
Certification compliance	CE/FCC/UL-508
EMI	Radiated Emission: CISPR 22, EN55022 Class A Conducted Emission: EN55022 Class A
EMS	ESD: IEC61000-4-2 Radiated RF (RS): IEC61000-4-3 EFT: IEC61000-4-4 Surge: IEC61000-4-5 Conducted RF (CS): IEC61000-4-6
RoHS and WEEE	RoHS (Pb free) and WEEE compliant
MTBF	> 25 years
Mechanical	
Ingress protection	IP30
Dimensions	440 x 44 x 300 mm (TBD)
Weight	TBD
Installation option	19" rack mounting

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