

Model:

# E822: Managed L2 Switch



## Smart Connectivity for the Enterprise Edge

Designed to power and protect your business network, it combines gigabit speed, PoE+ efficiency, and robust security features



8 × Gigabit PoE+ ports, 2 × SFP uplinks, and 1 × console port for seamless network expansion.



Delivers 130W total PoE power, compliant with IEEE 802.3af/at, ideal for IP cameras and access points.



20 Gbps switching capacity with a fanless, energy-efficient design for quiet reliability.



Advanced L2+ features including VLAN, QoS, ACL, and SNMP for intelligent traffic control.



Enterprise-grade protection against unauthorized access and network attacks.



ERPS ring recovery <20 ms and 4 kV lightning protection for maximum uptime and safety.





8 × Gigabit PoE+ Ports | 2 × SFP Uplinks | 1 × Console Port | 130W Total PoE Power



## PRODUCT OVERVIEW

The **E822** is a high-performance Layer 2+ Managed Gigabit PoE Switch designed to meet the networking demands of modern enterprises, campuses, and service providers. It is Equipped with 8 Gigabit RJ45 PoE+ ports, 2 Gigabit SFP uplink ports, and 1 Console port, this switch delivers superior data throughput and intelligent management.

### FEATURES

- Supports IEEE 802.3i/802.3u/802.3ab/802.3z/802.3x/802.3az/802.3af/802.3at standards
- 8 × 10/100/1000 Mbps RJ45 PoE+ ports (up to 30 W per port, 130 W total)
- 2 × Gigabit SFP fiber ports + 1 Console port
- 20 Gbps switching capacity with 14.88 Mpps forwarding rate
- Store-and-Forward switching mode for optimal packet integrity
- Fanless design for silent, energy-efficient operation

### RELIABILITY & PROTECTION

- ERPS ring protection (<20 ms recovery) for carrier-class uptime
- 4 kV lightning protection on service ports
- Internal power supply with 100–240 V AC input
- Full metal 19-inch rackmount design
- AI Smart PoE with watchdog functionality for auto-recovery of PD devices

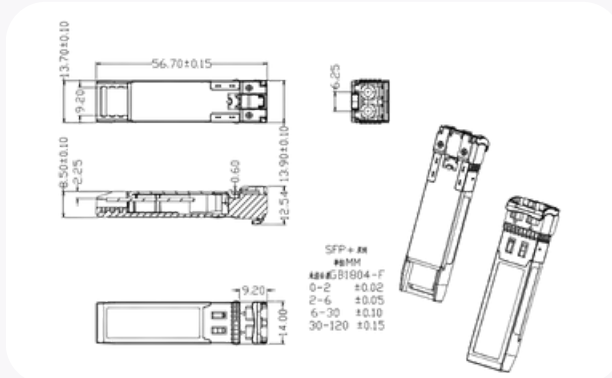
### ADVANCED SECURITY & CONTROL

- 802.1X Authentication, Web Portal, and MAC-based access control
- Custom ACLs with L2/L3/L4 packet classification and policy control
- Protection against DoS attacks, ARP spoofing, and MAC flooding
- Port-based and VLAN-based DHCP snooping & IP Source Guard
- Supports BPDU Guard, BPDU Filter, and loop prevention protocols

### INTELLIGENT MANAGEMENT

- Intuitive Web-based management (HTTPS)
- SNMP v1/v2/v3 and Syslog for centralized monitoring
- VCT and DDM (Digital Diagnostic Monitoring) for real-time diagnostics
- Supports CLI, Telnet, and SSH for IT administrators
- Unified management of logs and network configuration

## MECHANICAL SPECIFICATIONS



## GROSS WEIGHT

24 to 30 gm

## ORDERING INFORMATION

Name	SKU	Qty.
Immunity Link Optix- T10G	T10G-SM-LR-LC	1

VERSTILE **SOFTWARE**

## LAYER 2 / 2+ SWITCHING

- Up to 4096 VLANs with IEEE 802.1Q tag-based VLANs
- QinQ (Basic & Flexible), Voice VLAN, and MAC VLAN for multi-service networks
- STP / RSTP / MSTP with multi-instance support for loop-free redundancy
- Link Aggregation (LACP) with up to 8 groups for higher bandwidth and redundancy
- IGMP Snooping (v1/v2/v3), MLD Snooping, and MVR for efficient multicast traffic management
- Storm Control to prevent broadcast, multicast, and unicast flooding

## IPV6 & L3 CAPABILITIES

- Static Routing for IPv4 / IPv6 networks
- ARP management for stable network communication
- Full IPv6 protocol support including HTTP(S), SSH, SNMP, TFTP, Syslog, and DHCPv6
- Enables future-ready connectivity across hybrid network environments

## QUALITY OF SERVICE (QOS)

- 8 queues per port with WRR / WFQ / SP / Hybrid scheduling
- Prioritization via Port-based, 802.1p, DSCP, and IP TOS parameters
- Ingress/Egress rate limiting for precise bandwidth management and traffic shaping

## INDUSTRY WE SERVE

Our optical transceivers are designed for high-performance networking applications across multiple sectors.

## Service Providers



Scale with cutting-edge optics and meet increasing bandwidth demands

## Enterprise



Enable secured, real-time data and get an edge over your competitors

## Data Centers



### Future-proof interconnects between center, state and local institutions

## Government



Build trusted, pro-active networks for servers, switches, and storages

### L3 Switching Features

- Static Routing
  - Pv4/IPv6
- Address Resolution Protocol (ARP)
  - Static ARP

### L2 Switching Features

- 8K MAC Address Table
- 10K (10000) Jumbo Frame
- Flow Control
  - 802.3x (Full-duplex)
  - Back-Pressure (Half-duplex)
- Spanning Tree
  - IEEE 802.1D (STP)
  - IEEE 802.1w (RSTP)
  - IEEE 802.1s (MSTP)/16 instances
  - Auto Edge Port - BPDU Filtering - ERPS
- Link Aggregation
  - IEEE 802.3ad LACP
  - Static Trunk
  - Max 8 Group
- Max 8 Ports/Group
- Traffic Load Balancing

### VLAN

- Surveillance VLAN
  - 16 OUI Mode (Auto/Manual)
- Voice VLAN
  - 16 OUI Mode (Auto/Manual)
- QinQ (IEEE 802.1ad)
  - Basic
- GARP VLAN Registration Protocol (GVRP)
- 4096 Static VLAN
- IEEE 802.1Q Tagged-based
- 8 groups Protocol-based
- 256 MAC-based

### Multicast

- Common
  - 256 Multicast Groups
  - Immediate Leave
  - Static/Forbidden Router Port
  - Static/Forbidden Forward Port
  - 128 profiles Filtering
  - Throttling
- IGMP Snooping
  - IGMP v1/v2
  - IGMP v3 Basic (BISS)
  - IGMP v2/v3 Querier
- MLD Snooping
  - MLD v1/v2
- Multicast VLAN Registration (MVR)
  - IPv4

### IPv6

- IPv6 Host
  - Auto Configuration
  - Static IPv6 Address and Prefix Length
  - Static IPv6 Default Gateway
  - IPv6 Neighbor Discovery (ND)
  - IPv6 Duplicate Address Detection
  - ICMPv6
- IPv6 Application
  - HTTP/HTTPS
  - TELNET
  - SSH
  - SNMP
  - TFTP
  - Syslog
  - PING
  - DHCPv6

### Quality of Service (QoS)

- Trusted QoS
- Queue Scheduling
  - WRR
  - WFQ
  - Strict Priority
  - Hybrid(WRR+SP or WFQ+SP)
- Class of Service - Port-based
  - 802.1p
  - IP TOS Precedence
  - IP DSCP
- Rate Limit
  - Port-based (Ingress/Egress)

### Access Control List (ACL)

- ACL Type
  - L2/L3/L4
  - 512 MAC-based
  - 512 IPv4-based
  - 512 IPv6-based
- PoE Function
  - Power
  - Current
  - Voltage
  - PoE Watch Dog
- Access Rules
  - 1024

### Management

- CLI
  - 3 sessions Console
  - 3 sessions Telnet (RFC854)
- WebUI
  - HTTPS
- SNMP(v1,v2c,v3)
- File Management
  - Firmware Upgrade/Backup
  - Dual Images
  - Configuration Download/Backup
  - Multiple Configurations
- Upload/Download
  - TFTP (RFC783)
- HTTP
  - UART
- Time Management
  - Local
  - SNTP
- Port Management
  - Friendly Port Name (Port Description)
  - Error Disabled Recovery
- Line Management
  - Console
  - Telnet (RFC854)
  - SSH v1/v2
- DHCP
  - Client
- DNS
  - Client
- Software Reset Button
- IEEE (802.3az)
- 32 entries / type RMON Management

### MIB

- RFC1213 MIBII (System & Interface groups)
- RFC2819 RMON I (1,2,3, & 9 groups)
- RFC1215 Generic Traps
- RFC1493 Bridge
- RFC2674 Bridge MIB Extensions
- RFC2737 Entity
- RFC3635 Ethernet-Like
- RFC2863 Interface Group

### Diagnostics

- UDLD
- Mirroring
  - 4 sessions port-based (Many to One)
- Syslog (RFC3164)
  - Local RAM
  - Local Flash
  - 8 Remote Server
- System Diagnostics
  - CPU Utilization
  - Memory Utilization
  - Port Utilization
  - Technical Support Log
- Port Diagnostics
  - Cable Test
  - Fiber Module Status
- Network Diagnostics
  - Ping Test
  - Traceroute

### Security

- AAA Authentication /8 TACACS+ /8 RADIUS
- Authentication Manager
  - IEEE 802.1X
  - MAC Auth
  - Web Auth
  - Guest VLAN
  - Port-based
  - Host-based
- Account Manager
  - Local Authentication
  - 8 Multiple User Account
  - Multi-Level Security (Manager/Operator)
  - Password Recovery Procedures
- Management Access
  - Management VLAN
  - 256Management ACL
- SSL
  - SSLv2
  - SSLv3
  - TLSv1
- WebUI
  - HTTPS
- CLI
  - SSH v1/v2
- Port Security
  - 256 Dynamic Lock
- Storm Control
  - Broadcast
  - Unknown Multicast
  - Unknown Unicast
- Spanning Tree
  - BPDU Guard
- Mirroring
  - 4 sessions port-based (Many to One)
- AAA Authentication
- 8 TACACS+
- 8 RADIUS
- Protected Port (Port Isolation)
- Black Hole MAC
- CPU Defence Engine
- DoS Prevention
- DHCP Snooping (with Option 82)
- Dynamic ARP Inspection
- 256 IP Source Guard
- IP/MAC/Port Binding (IMPB)
- Dynamic VLAN Assignment

### Discovery

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)

## PRODUCT SPECIFICATIONS

It integrates advanced hardware and software capabilities to deliver seamless connectivity, intelligent management, and reliable network performance.

### HARDWARE SPECIFICATIONS

Parameter	Specification
<b>Standards</b>	IEEE 802.3i,802.3u,802.3ab,802.3x,802.3az,802.3at,802.3af
<b>Ports</b>	8 x 10/100/1000Mbps RJ45 ports, 2 x 1000Mbps SFP fiber ports, 1x Console port
<b>Power Supply</b>	AC100~240V 50/60Hz
<b>Dimensions</b>	271*181.5*44.5 mm
<b>PoE Power</b>	130W
<b>Indicators</b>	Electrical port indicator, optical port indicator, power input indicator, system running indicator
<b>Network Media (Cable)</b>	10Base-T: UTP category 3, 4, 5 cable (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m) 1000Base-X: MMF, SMF
<b>PoE Pin Definition</b>	1/2(+), 3/6(-)
<b>Transfer Method</b>	Store-and-Forward
<b>MAC Address Table</b>	8K
<b>Switching Capacity</b>	20Gbps
<b>Packet Buffer</b>	4.1Mbit
<b>Jumbo Frame</b>	10KBytes
<b>Packet Forwarding Rate</b>	14.88Mpps
<b>Environment</b>	Operating Temperature: 0C ~45C (0F ~113F) Storage Temperature: -40C ~70C (-40F ~158F) Operating Humidity: 10% ~90% non-condensing Storage Humidity: 5% ~95% non-condensing
<b>Total Power</b>	150W

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Total Power	150W

### SOFTWARE SPECIFICATIONS

Parameter	Specification
L3 Switching Features	Static Routing - IPv4/IPv6 Address Resolution Protocol (ARP) - Static ARP
L2 Switching Features	8K MAC Address Table 10K (10000) Jumbo Frame Flow Control - 802.3x (Full-duplex) - Back-Pressure (Half-duplex) Spanning Tree - IEEE 802.1D (STP) - IEEE 802.1w (RSTP)

	<ul style="list-style-type: none"> <li>- IEEE 802.1s (MSTP)/16 instances</li> <li>- Auto Edge Port - BPDU Filtering - ERPS</li> <li>Link Aggregation</li> <li>- IEEE 802.3ad LACP</li> <li>- Static Trunk</li> <li>- Max 8 Group</li> <li>- Max 8 Ports/Group</li> <li>- Traffic Load Balancing</li> </ul>
<b>VLAN</b>	<p>Surveillance VLAN</p> <ul style="list-style-type: none"> <li>- 16 OUI Mode (Auto/Manual)</li> </ul> <p>Voice VLAN</p> <ul style="list-style-type: none"> <li>- 16 OUI Mode (Auto/Manual)</li> </ul> <p>QinQ (IEEE 802.1ad)</p> <ul style="list-style-type: none"> <li>- Basic</li> </ul> <p>GARP VLAN Registration Protocol (GVRP)</p> <p>4096 Static VLAN</p> <p>IEEE 802.1Q Tagged-based</p> <p>8 groups Protocol-based</p> <p>256 MAC-based</p>
<b>Multicast</b>	<p>Common</p> <ul style="list-style-type: none"> <li>- 256 Multicast Groups</li> <li>- Immediate Leave</li> <li>- Static/Forbidden Router Port</li> <li>- Static/Forbidden Forward Port</li> <li>- 128 profiles Filtering</li> <li>- Throttling</li> </ul> <p>IGMP Snooping</p> <ul style="list-style-type: none"> <li>- IGMP v1/v2</li> <li>- IGMP v3 Basic (BISS)</li> <li>- IGMP v2/v3 Querier</li> </ul> <p>MLD Snooping</p> <ul style="list-style-type: none"> <li>- MLD v1/v2</li> </ul> <p>Multicast VLAN Registration (MVR)</p> <ul style="list-style-type: none"> <li>- IPv4</li> </ul>
<b>Quality of Service (QoS)</b>	<p>Trusted QoS</p> <p>Queue Scheduling</p> <ul style="list-style-type: none"> <li>- WRR</li> <li>- WFQ</li> <li>- Strict Priority</li> <li>- Hybrid(WRR+SP or WFQ+SP)</li> </ul> <p>Class of Service - Port-based</p> <ul style="list-style-type: none"> <li>- 802.1p</li> <li>- IP TOS Precedence</li> <li>- IP DSCP</li> </ul> <p>Rate Limit</p> <ul style="list-style-type: none"> <li>- Port-based (Ingress/Egress)</li> </ul>
<b>Access Control List (ACL)</b>	<p>ACL Type</p> <ul style="list-style-type: none"> <li>- L2/L3/L4</li> <li>- 512 MAC-based</li> <li>- 512 IPv4-based</li> <li>- 512 IPv6-based</li> </ul> <p>PoE Function</p> <ul style="list-style-type: none"> <li>- Power</li> <li>- Current</li> <li>- Voltage</li> <li>- PoE Watch Dog</li> </ul> <p>Access Rules</p> <ul style="list-style-type: none"> <li>- 1024</li> </ul>

<b>Management</b>	<ul style="list-style-type: none"> <li>CLI <ul style="list-style-type: none"> <li>- 3 sessions Console</li> <li>- 3 sessions Telnet (RFC854)</li> </ul> </li> <li>WebUI <ul style="list-style-type: none"> <li>- HTTPS</li> </ul> </li> <li>SNMP(v1,v2c,v3)</li> <li>File Management <ul style="list-style-type: none"> <li>- Firmware Upgrade/Backup</li> <li>- Dual Images</li> <li>- Configuration Download/Backup</li> <li>- Multiple Configurations Upload/Download</li> <li>- TFTP (RFC783)</li> <li>- HTTP</li> <li>- UART</li> </ul> </li> <li>Time Management <ul style="list-style-type: none"> <li>- Local</li> <li>- SNTP</li> </ul> </li> <li>Port Management <ul style="list-style-type: none"> <li>- Friendly Port Name (Port Description)</li> <li>- Error Disabled Recovery</li> </ul> </li> <li>Line Management <ul style="list-style-type: none"> <li>- Console</li> <li>- Telnet (RFC854)</li> <li>- SSH v1/v2</li> </ul> </li> <li>DHCP <ul style="list-style-type: none"> <li>- Client</li> </ul> </li> <li>DNS <ul style="list-style-type: none"> <li>- Client</li> </ul> </li> <li>Software Reset Button</li> <li>IEEE (802.3az)</li> <li>32 entries / type RMON Management</li> </ul>
<b>Discovery</b>	<ul style="list-style-type: none"> <li>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)</li> <li>ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)</li> </ul>
<b>Diagnostics</b>	<ul style="list-style-type: none"> <li>UDLD</li> <li>Mirroring <ul style="list-style-type: none"> <li>- 4 sessions port-based (Many to One)</li> </ul> </li> <li>Syslog (RFC3164) <ul style="list-style-type: none"> <li>- Local RAM</li> <li>- Local Flash</li> <li>- 8 Remote Server</li> </ul> </li> <li>System Diagnostics <ul style="list-style-type: none"> <li>- CPU Utilization</li> <li>- Memory Utilization</li> <li>- Port Utilization</li> <li>- Technical Support Log</li> </ul> </li> <li>Port Diagnostics <ul style="list-style-type: none"> <li>- Cable Test</li> <li>- Fiber Module Status</li> </ul> </li> <li>Network Diagnostics <ul style="list-style-type: none"> <li>- Ping Test</li> <li>- Traceroute</li> </ul> </li> </ul>
<b>MIB</b>	<ul style="list-style-type: none"> <li>RFC1213 MIBII (System &amp; Interface groups)</li> <li>RFC2819 RMON I (1,2,3, &amp; 9 groups)</li> <li>RFC1215 Generic Traps</li> <li>RFC1493 Bridge</li> <li>RFC2674 Bridge MIB Extensions</li> <li>RFC2737 Entity</li> <li>RFC3635 Ethernet-Like</li> <li>RFC2863 Interface Group</li> </ul>



IPv6	IPv6 Host <ul style="list-style-type: none"> <li>- Auto Configuration</li> <li>- Static IPv6 Address and Prefix Length</li> <li>- Static IPv6 Default Gateway</li> <li>- IPv6 Neighbor Discovery (ND)</li> <li>- IPv6 Duplicate Address Detection</li> <li>- ICMPv6</li> </ul> IPv6 Application <ul style="list-style-type: none"> <li>- HTTP/HTTPS</li> <li>- TELNET</li> <li>- SSH</li> <li>- SNMP</li> <li>- TFTP</li> <li>- Syslog</li> <li>- PING</li> <li>- DHCPv6</li> </ul>
Security	AAA Authentication /8 TACACS+ /8 RADIUS Authentication Manager <ul style="list-style-type: none"> <li>- IEEE 802.1X</li> <li>- MAC Auth</li> <li>- Web Auth</li> <li>- Guest VLAN</li> <li>- Port-based</li> <li>- Host-based</li> </ul> Account Manager <ul style="list-style-type: none"> <li>- Local Authentication</li> <li>- 8 Multiple User Account</li> <li>- Multi-Level Security (Manager/Operator)</li> <li>- Password Recovery Procedures</li> </ul> Management Access <ul style="list-style-type: none"> <li>- Management VLAN</li> <li>- 256 Management ACL</li> </ul> SSL <ul style="list-style-type: none"> <li>- SSLv2</li> <li>- SSLv3</li> <li>- TLSv1</li> </ul> WebUI <ul style="list-style-type: none"> <li>- HTTPS</li> </ul> CLI <ul style="list-style-type: none"> <li>- SSH v1/v2</li> </ul> Port Security <ul style="list-style-type: none"> <li>- 256 Dynamic Lock</li> </ul> Storm Control <ul style="list-style-type: none"> <li>- Broadcast</li> <li>- Unknown Multicast</li> <li>- Unknown Unicast</li> </ul> Spanning Tree <ul style="list-style-type: none"> <li>- BPDU Guard</li> </ul> Mirroring <ul style="list-style-type: none"> <li>- 4 sessions port-based (Many to One)</li> </ul> AAA Authentication <ul style="list-style-type: none"> <li>8 TACACS+</li> <li>8 RADIUS</li> </ul> Protected Port (Port Isolation)           Black Hole MAC