TECHAYA

RUGGED ENVIRONMENT SOLUTIONS

ICE898G-PoE

Rugged 10-port Managed Gigabit Ethernet Switch With PoE support (IEEE802.3af)

The **ICE898G-PoE** Managed Industrial Switch is equipped with eight 10/100Base-TX ports and two combo 1000Mb slots (fiber option is SFP-type 1000Base-SX/LX/LHX) delivered in a rugged, hardened case. It features industrial components that are able to withstand a high degree of vibration and shock – and it can operate in extended temperature range of -40ºC - +80ºC.

The **ICE898G-PoE** has 2 optional gigabit fiber ports that are immune to moisture, static electricity, power surges and short-circuits – they minimize the effects of lightning strikes.

Featuring complete manageability via Web, SNMP, Telnet and Console, the **ICE898G-PoE** is an ideal solution for industrial network applications which require managed devices that offer hassle-free fiber deployment. The **ICE898G-PoE's** express Ring technology offers a very fast recovery time of less than 30ms in case of any link failure.

Key Features and Specifications

Standards

- IEEE 802.3af Power Over Ethernet
- IEEE 802.3u 100Base-TX Fast Ethernet
- IEEE 802.3ab 1000Base-TX
- IEEE 802.1x Radius Authentication
- IEEE 802.3z Gigabit Ethernet Fiber
- IEEE 802.3x Flow Control and Back-pressure
- IEEE 802.1p class of service
- IEEE 802.1Q VLAN
- IEEE 802.1W Rapid Spanning Tree Protocol (RSTP)
- IEEE802.3ad LACP
- IEEE802.3ab LLDP

Interface

Number of Ports:
- 10/100TX: 8 x RJ-45, Auto MDI/MDI-X, Auto Negotiation with PoE (IEEE 802.af)
- 10/100/1000TX: 2 x RJ-45 on front side
- SFP: 2 x Hot-Swappable SFP and combo with Gigabit RJ-45

Cables:
- 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable,
- EIA/TIA-568 100-ohm (100m)
- 100 Base-TX: 2/4-pair UTP/STP Cat. 5 cable,
- EIA/TIA-568 100-ohm (100m)
- 1000 Base-TX: 4-pair UTP/STP Cat. 5, Cat-5e cable,
- EIA/TIA-568 100-ohm (100m)

LED Indicators: 2 x Power (Green)
                     2 x SFP Link/Activity (Green)
                     Inner Port Link/Activity (Green)

System Power: 2 sets of power Input within 4-pin removable terminal block

Digital Output: 1 sets of Dry Relay Output for power fail and alarm, 1A@24VDC

Networking

- Supports SNMP v1, v2c and v3
- Express Ring - (redundant ring recovery < 30ms), STP, RSTP
- Dual Homing – Ex. Ring over RSTP, Redundant Ring with mix topology
- Automatic learning of up to 8192 MAC addresses
- Non-blocking, store-and-forward switching
- Auto-negotiation and Auto-MDI/MDIX on all 10/100Base-TX ports
- IGMP Snooping and IGMP query mode for multicast filtering
- Rate limitation, DHCP Server, Radius Server
- Full VLAN (802.1q)
- CoS/ToS for service differentiation
- Four hardware queues
- PoE monitoring via web interface

Network Redundancy

- **Rapid Spanning** IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy Spanning Tree and 802.1w
- **Express Ring**: Techaya's Ring Redundancy Technology. Failure recovery within 30ms
- **Dual Homing:** Express Ring over RSTP. Allows users to enable Express Ring and RSTP at the same device
- **Auto Ring Coupling:** Auto Ring Coupling allows users to couple Express Rings

Performance

Switch Technology:
- **Store and Forward Technology** with 32Gbps Switch Fabric
- **System Throughput**: 14,880pps for 10M Ethernet, 148,800pps for 100M Fast Ethernet, 1,488,100 for Gigabit Ethernet
- **MAC Address**: 8K MAC
- **Packet Buffer**: 1Mbits
- **Transfer performance**: 14,880pps for Ethernet and 148,800 for Fast Ethernet and transfer packet size from 64 to 1522Bytes.

Management

- **Configuration**: Cisco-Like CLI, Telnet, Web, TFTP/Web Update for firmware and configuration backup and restore, DHCP Client, warm reboot, reset to default, Admin password, Port Speed/Duplex Control, status, statistic, MAC address table display, static MAC, Aging time, SNMP v1, v2c, v3, Traps and RMON1
- **SNMP MIB**: MIBII, Bridge MIB, VLAN MIB, SNMP MIB, RMON, RSTP MIB, LLDP MIB and Private MIB
- **Port Trunk**: Up to 4 Static Trunk and 802.3ad LACP
- **VLAN**: 802.1Q VLAN, GVRP. Up to 256 VLAN groups
- **Quality of Service**: Four priority queues per port, 802.1p COS and Layer 3 TOS/DiffServ
- **IGMP Snooping**: IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2
- **Rate Control:** Ingress/Egress filtering for Broadcast, Multicast, Unknown DA or All packets
- **SNTP**: Network Time Protocol to synchronize time from internet
- **E-mail Notification**: Embedded SMTP with 6 email accounts for receiving system events alerts
- **Port Mirroring**: Online traffic monitoring on multiple selected ports
- **Port Security**: Port security to assign authorized MAC to specific port and Radius Authentication Via IEEE 802.1x, Internal Radius Server, SSH, HTTPS
- **IP Security:** IP address security to prevent unauthorized access
- **Interface Alias**: port description to appear on SNMP and CLI interface.
- **System Log**: Supports both Local mode and Server mode

Power Requirements

- **System Power:**   Dual Power Input, 48VDC with
- **Reverse Polarity Protection**
- **Power Consumption**:   About 11.5 Watts @ DC 48V without PoE
- **PoE pin Assignment**:   Positive (VCC+) RJ-45 PIN1,2,
                                    Negative (VCC-) RJ-45 PIN 3,6
                                    8 x PoE ports, up to 15.4W per port

Mechanical

- **Dimension:**   152mm(H) x 72mm (W) x 105mm (D)
- **Weight:**   0.78kg

Environmental

- **Operating Temperature:**   -40°C ~ 80°C
- **Operating Humidity:**   5% ~ 95%, non-condensing
- **Storage Temperature:**   -45°C ~ 85°C
- **Hi-Pot:**   1.2KV for all ports and power

Ordering information

ICE898G-PoE	.Hardened Mang. switch with 8 10/100 TX PoE ports and 2 Gigabit Combo (SFP/RJ45) ports
SFP1000iSX	.......................Hardened SFP Module, Gigabit Fiber – SX, Multi-mode, 500m
SFP1000iLX	.... Hardened SFP Module, Gigabit Fiber, Single Mode, 10km
SFP1000iLX20	.... Hardened SFP Module, Gigabit Fiber , Single Mode, 20km