8x10/100TX + COMBO: 2x10/100/1000T + 2x1000SFP Industrial PoE Gigabit Ethernet Switch (Managed / Ring)

Benefits

- **System Interface/Performance**
  - RJ-45 port support Auto MDI/MDI-X Function
  - Embedded 8-port PoE inject function
  - Store-and-Forward Switching Architecture
  - Back-plane (Switching Fabric): 5.6Gbps
  - 1Mbits Packet Buffer
  - 8K MAC Address Table

- **Case/Installation**
  - IP-30 Protection
  - DIN Rail and Wall Mount Design

- **Power Supply**
  - Redundant Power Design

- **Spanning Tree**
  - Support IEEE802.1d Spanning Tree
  - Support IEEE802.1w Rapid Spanning Tree

- **VLAN**
  - Port Based VLAN
  - Support 802.1 Q Tag VLAN
  - GVRP
  - Double Tag VLAN (Q in Q)*
  - Private VLAN**

- **Ring**
  - Ring, Dual Homing, and Couple Ring Topology
  - Provide redundant backup feature and the recovery time below 300ms

- **Port Trunk with LACP**

- **Support 802.1ab LLDP****

- **QoS (Quality of Service)**
  - Support IEEE 802.1p Class of Service,
  - Per port provides 4 priority queues
  - Port Base, Tag Base and Type of Service Priority

- **Bandwidth Control**
  - Ingress Packet Filter and Egress Rate Limit
  - Broadcast/Multicast Packet Filter Control

- **Port Mirror: Monitor traffic in switched networks.**
  - TX Packet only
  - RX Packet only
  - Both of TX and RX Packet

- **System Event Log**
  - System Log Server/Client
  - SMTP e-mail Alert
  - Relay Alarm Output System Events

- **Security**
  - Port Security: MAC address entries/filter
  - IP Security: IP address security management to prevent unauthorized intruder.
  - Login Security: IEEE802.1X/RADIUS

- **SNMP Trap**
  - Device cold start
  - Power status
  - Authentication failure
  - Ring topology changed
  - Port Link up/Link down

- **IGMP with Query mode for Multi Media Application**

- **TFTP Firmware Update and System Configure Restore and Backup**

Standard Compliance

IEEE Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX
	IEEE802.3ab 1000Base-T
	IEEE802.3z Gigabit fiber
	IEEE802.3x Flow Control and Back Pressure
	IEEE802.3ad Port trunk with LACP
	IEEE802.3af Power over Ethernet
	IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree
	IEEE802.1p Class of Service
	IEEE802.1Q VLAN Tag
	IEEE 802.1x User Authentication (Radius)
	IEEE802.1ab LLDP**

Hardware Specification

Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps Packet throughput ability(Full-Duplex): 8.3Mpps @64bytes
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fiber Ethernet port
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connector	10/100TX: 8 x ports RJ-45 with Auto MDI/MDI-X function Gigabit fiber: 2 x Mini-GBIC socket. RS-232 connector: RJ-45 type
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable EIA/TIA-568 100-ohm (100m) 1000Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable EIA/TIA-568 100-ohm (100m)
Optical Cable	Multimode: 50/125µm~62.5/125µm Singlemode: 9/125µm~10/125µm Available distance: 2km (Multimode) / 30KM (Singlemode) Wavelength: 1310nm (Multimode/ Single mode)
PoE pin assignment	RJ-45 port # 1~# 8 support IEEE 802.3af End-point, Alternative B mode. Per port provides 15.4W ability. Positive (VCC+): RJ-45 pin 4,5. Negative (VCC-): RJ-45 pin 7,8.
Protocol	CSMA/CD
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green) 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow) Giga port: Link/Activity
Power Supply	External Power Supply: DC 48V Redundant power DC 48V Connective removable terminal block for master and slave power
Power Consumption	Watt
Operating Humidity	5% to 95% (Non-condensing)
Operating Temperature	Standard -10℃ to 60℃ Wide Operating Temperature -40℃~75℃
Storage Temperature	-40℃ to 70℃
Case Dimension	IP-30, 72mm (W) x 105mm (D) x 152mm (H)
Installation	Provide DIN rail kit and wall mount ear for wall mount or DIN-type cabinet install
EMI	FCC Class A, CE EN61000-4-2, CE EN61000-4-3, CE EN-61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE EN61000-4-8, CE EN61000-4-11
Safety	UL, cUL, CE/EN60950-1
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

Software Feature

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI/Menu Driven**
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB
VLAN	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP (256 Groups) Double Tag VLAN (Q in Q)* Private VLAN**
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
LLDP**	Support LLDP to allow switch to advise its identification and capability on the LAN
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Ring	Support Ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 300ms
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirror	Support 3 mirroring types: "RX, TX and Both packet".
IGMP	Support IGMP snooping v1,v2 256 multicast groups and IGMP query
IP Security	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Login Security	Support IEEE802.1X Authentication/RADIUS
Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
System Log	Support System log record and remote system log server
SMTP	Support SMTP Server and 6 e-mail accounts for receiving event alert
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, Ring topology change
DHCP	Provide DHCP Client/ DHCP Server/ IP Relay functions
DNS	Provide DNS client feature and support Primary and Secondary DNS server.
SNTP	Support SNTP to synchronize system clock in Internet
Firmware Update	Support TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Support text format configuration file for system quick installation

* Future Release
** Optional

Order Information

Part Number	Product Family	Description
26 P1870 300	DragonLine	8x10/100TX + 2x10/100/1000FX Industrial PoE Gigabit Ethernet Switch (Managed/Ring/SFP)