

## Inteno XL3024F Metro fiber switch

# 24-port SFP Fast Ethernet + 4 Combo (RJ45+SFP) Gigabit Ethernet



The Inteno Metro Access Switches are developed to provide operators and service providers with the most cost effective range of Metro Access equipment. XL3024F has 24-ports SFP 100 Base Fast Ethernet and 4 Combo Gigabit Ethernet switch ports.

The Inteno XL3024F Metro Access Switch includes Metro specific security, QoS and Management features to enable service providers to deliver a secure triple play service. Front-panel stacking via

standard gigabit Ethernet interfaces, stack up to 8 switches. The Inteno XL3024F is SKA (Secure Customer Access) certified by the Swedish Urban Network Association.

### Features

#### Spanning Tree and Ethernet Ring

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) – up to 16 instances
- Switched Ethernet Ring Protection mechanism (SERP) – 50ms rapid link switching and protection

#### VLANs

- 4K IEEE 802.1Q VLANs
- Port-based VLAN
- IP Subnet-based VLAN
- MAC-Based VLAN
- Private VAN
- GVRP
- Q-in-Q
- VLAN Translation

#### Link Aggregation

- Static Trunk
- Dynamic Trunk - IEEE 802.3ad LACP
- Load Balancing
- Trunk groups:
  - 1) 32 groups
  - 2) 8 ports per trunk

#### Multicast Features

- IGMP v1, v2, v3
- IGMP Snooping
- IGMP Groups, 256 multicast groups
- Multicast VLAN, specific VLAN for multicast applications are allocated
- Multicast VLAN Registration (MVR)

#### QoS

- 8 Priority Queues/port
- Queues Scheduling Schemes
  - 1) WRR
  - 2) Strict Priority
  - 3) WDRR
  - 4) WRR/WDRR, Strict Priority

#### Traffic classification and priority management

- IEEE 802.1p/1Q
- IP Precedence/DSCP
- MAC-Address
- TCP/UDP port number

#### Rate Limiting

- 64Kbps~100Mbps for Ethernet port
- 1Mbps~1000Mbps for Gigabit port
  - 1) Flow-based
  - 2) Port-based

#### DiffServ Enforcement Support

- Single Rate Three Color Marker
- Two Rate Three Color Marker
- Bandwidth Management
  - 1) Maximum bandwidth/Queue
  - 2) Minimum bandwidth/Queue
  - 3) Maximum bandwidth/Port



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## Security

### Port Security

- Trust Port
- Port-Blocking
- Private VLAN
- MAC-Address learning Limit
- Secure forwarding
- DHCP Snooping
- DHCP Option 82

### MAC Security

- MAC-authen bypass allow non-802.1x device access the network using their mac address
- MAC address Filtering

### Access Control List (ACL)

- MAC / VLAN / IP / TCP/UDP
- Port-based ACL allow application of security policies on individual switch ports

### Broadcast Storm Control

- Unknown unicast and multicast port blocking
- Broadcast rate limiting

### AntiDoS

- DoS checking features can detect and block the general DoS attacks and protect the user's resources.

### Management security

- Local Authentication
- Remote Authentication
- SSH
- Management access list control
- Management Port/VLAN
- DHCP relay/DHCP option 82

### IEEE 802.1X

- Port-based - allows dynamic, port-based security, providing user authentication.
- Mac-based – allows multiple clients use the same port to access the network.
- MD5/TLS/PEAP
- RADIUS/TACACS+ :
  - 1) CHAP/PAP – reuse the same RADIUS/TACACS+ infrastructure of the service provider
  - 2) Multiple-Domain support

## Management

### Switch Management

- CLI via console port or Telnet or SSH
- Web management
- SNMPv1, v2c, v3
  - 1) SNMP Trap
  - 2) SNMP MIBs:
    - RMON statistics group (IETF RFC 2819) (Group 1, 2, 3, 9)
    - SNMP interface group (IETF RFC 1213 and 2863)
    - Ethernet-like MIB (IETF RFC 1643)
    - Ethernet MIB (802.3u)
    - Bridge MIB (IETF RFC 1493)

### Firmware upgrade

- Firmware/Configuration upgrade via TFTP/FTP/Xmodem server
- Automatic upgrade the Firmware/ configuration at specific time
- Firmware/Configuration upgrade failure protection

## Specifications list

### Performance

Switching capability:	12.8Gbps
Transmitting capability(PPS):	9.52Mpps
Wire-speed Performance:	Full wire speed switching
MAC table:	16K
Jumbo frame:	13Kbyte
Packet buffer:	1Mbyte
System memory:	64Mbyte
Flash memory:	8Mbyte

### Interface

100M Ethernet:	24 x SFP (100Base)
Combo Gigabit ethernet (RJ-45/SFP):	4
RS-232 ( console ):	1

### Mechanical

Dimensions (W x D x H):	442mm x 287.5mm x 43.6mm
Weight:	3.5kg

### Power Requirement

AC Input:	90 ~ 240VAC, 50/60HZ
DC Input:	-48V ~ 60V
Power Redundancy:	Yes
Max Power Consumption:	50W

### POE Power Supply

Per port feeding power:	N/A
Standard:	-
POE power budget:	-

### Environmental Specifications

Operating temperature:	0°C ~ 50°C
Storage temperature:	-40°C ~ 70°C
Operating humidity:	5% to 85%, non-condensing
Relative humidity:	10% ~ 90%, non-condensing

### Electromagnetic Compatibility

EN55022 Class A -Emissions  
EN55024 - Immunity  
FCC Class A  
CE mark

### Electrical Safety

EN 60950  
UL 60950  
CE mark

**Note:** Not every listed feature will be included in the shipping product.

We reserve the right to make changes of technical specifications, housing or design without prior notice.



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