

# Modular 24-Port Fast Ethernet Switch for FTTO/FTTH Applications

- **24-Port Fast Ethernet + 2x Gigabit Ethernet uplink**
- **Modular slots for fiber or copper ports**
- **High performance 8.8 Gbps capacity**
- **SNMP/RMON1/Telnet/CLI/ Web management**
- **QoS, VLAN, IGMP, Rapid Spanning tree etc.**
- **Redundant Power Supply option**



This modular 24-Port Fast Ethernet layer 2+ switch is a high performance device mainly for Fiber To The Office (FTTO) and Fiber To The Home (FTTH) applications.

The switch has three modular slots on the front which can be equipped with 8 port switching modules. These modules are available with 10/100-Base-TX copper interfaces or with fiber optic ports. The fiber ports can be chosen as multi-mode, single mode or single mode simplex interfaces.

It is also possible to combine different modules in one chassis. On the rear, the switch has 2 high bandwidth Gigabit Ethernet ports for the central uplink. Each port can be used alternatively with the 10/100/1000Base-T

or via the SFP slot as a fiber optic interface.

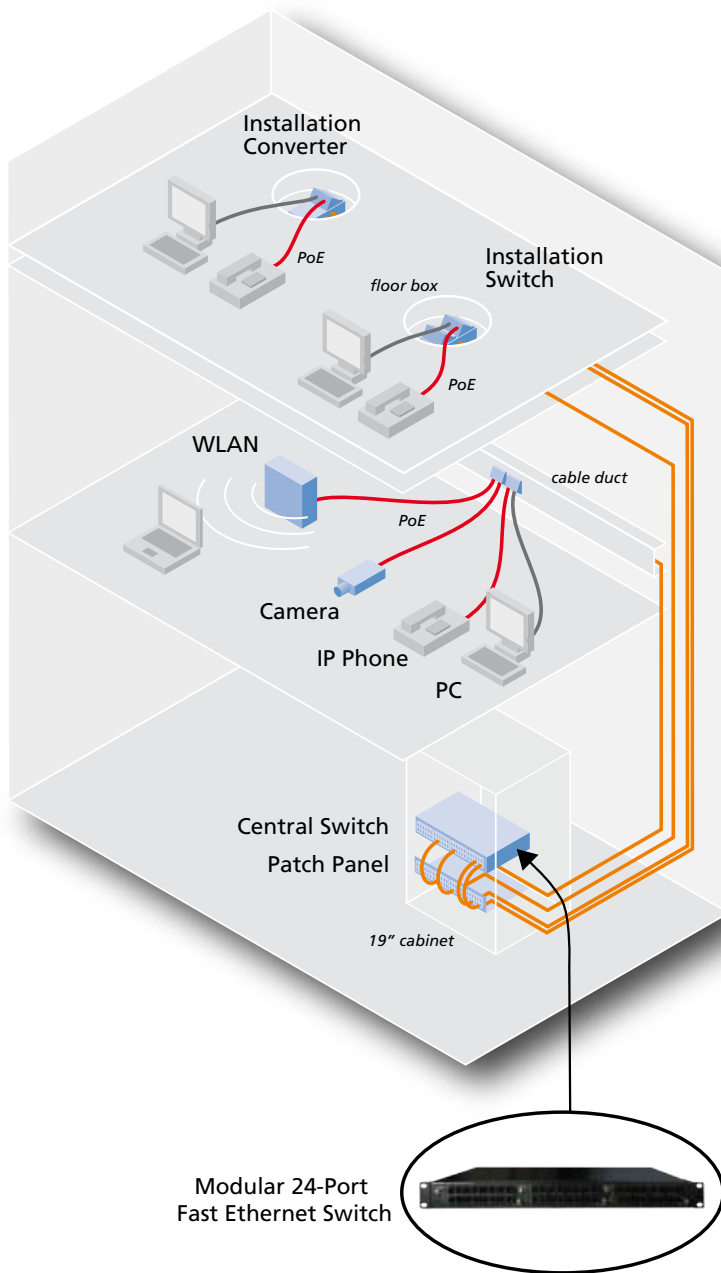
All existing state-of-the-art mechanisms are integrated into this switch. The Quality of Service (QoS) functionality allows the prioritisation of the data for time critical applications such as Voice over IP (VoIP). The VLAN functionality offers the possibility to define virtual LANs within the physical network. Spanning tree and Rapid Spanning tree make it possible to have the network connection protected. The main power supply for 100 – 240 V AC is integrated into the switch. The backup is a 12 – 48 V DC power supply.

With the integrated network management it is possible to monitor and configure the switch remotely. Access

to the management can be realised by SNMP, RMON1, Telnet, CLI or web based. Using the integrated SMTP function, events can be set to send an email notification.

Ideally, this switch can be used in combination with the MICROSENS 45x45 FTTO Switches in FTTO application and with the MICROSENS FTTH CPE unit.

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Modular 24-Port Fast Ethernet Switch

Typical FTTO application

## Ordering Information

Art.-No.	Description
MS400820M	24 Port Fast Ethernet L2+ Access Switch Chassis, 3 Module Slots, 2x10/100/1000T or SFP Uplink, manageable, 19" 1U
MS400822	8x 10/100Base-TX Module for MS400810M/20M Access Switches
MS400823	8x 100FX Multimode 1310nm SC Module for MS400810M/20M Access Switches
MS400824	8x 100FX Single Mode 1310nm 30 km SC Module for MS400810M/20M Access Switches
MS400824A	8x 100FX Single Mode WDM Tx: 1310nm Rx:1550nm SC simplex Module for MS400810M/20M Access Switches
MS400824B	8x 100FX Single Mode WDM Tx: 1550nm Rx:1310nm SC simplex Module for MS400810M/20M Access Switches

Further products on request.

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## Technical Specifications

### Type

Modular 24-Port Fast Ethernet manageable Layer 2+ switch, store and forward architecture for FTTO/FTTH applications

### Standard

IEEE802.3 10BASE-T  
IEEE802.3u 100BASE-TX/100BASE-FX  
IEEE802.3z Gigabit SX/LX  
IEEE802.3ab Gigabit 1000T  
IEEE802.3x Flow Control and Back pressure  
IEEE802.3ad Port trunk with LACP  
IEEE802.1d Spanning tree protocol  
IEEE802.1w Rapid Spanning tree protocol  
IEEE802.1p Class of service  
IEEE802.1q VLAN Tagging  
IEEE802.1x User authentication  
IEEE802.1ab LLDP\*\*

### Interfaces/Slots

3x slots for 8 port switching modules  
RS-232 console: Female DB-9  
2 Gigabit Copper + 2 SFP dual media

### LEDs

System Power (Green)

8 10/100TX module: Link/Activity (Green), Full duplex/collision (Yellow)

8 100Base-FX module: Link (Green)/Activity (Green Blinking)

Gigabit Copper: Link/Activity (Green), 1000 Mbps (Green), 100 Mbps (Green), Full duplex/collision (Yellow)  
SFP: Link/Activity (Green), 1000 Mbps (Green)

### Features

SNMP v1 v2c, v3 / Web / Telnet / CLI / RMON1 Management  
SNMP Traps for several events  
Support IEEE802.3x Flow control  
IEEE802.1d spanning Tree, IEEE802.1w Rapid Spanning tree protocol  
Up to 4094 VLANs, IEEE802.1Q Tag VLAN  
GVRP up to 256 groups  
Quality of Service Port based, Tag based, IPv4 Type of service, IPv4 Different service.  
IGMP V1 and V2 snooping  
Port Security, Port Mirror, Bandwidth Control  
Access Control List, Access Security  
802.1x Authentication  
DHCP, DNS, System Log, SNMP, SMTP Packet filter  
LLDP\*\*

### Power Supply

100 – 240 V AC, 50/60 Hz, backup 12 – 48 V DC  
Max. 50 W consumption

### Temperatures

Operating: 0°C to 45°C, 5%~95% RH  
Storage: -40°C to 70°C, 5%~95% RH

### Dimensions

440 x 280 x 44 mm (w x d x h)

### EMI & Safety

FCC Class A, CE, CE/EN60950-1

\*\* Optional

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