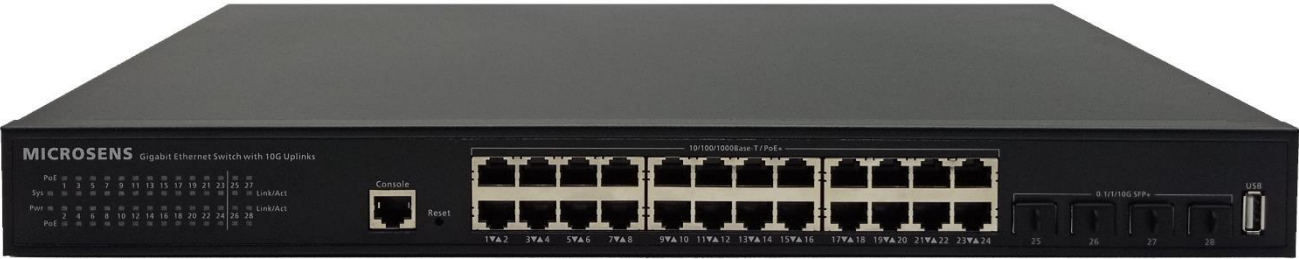


Data Sheet

28-Port 10G L2/L3 Switch 19" PoE+



Layer3

Layer3 feature set for broad application diversity



10G Uplinks (IEEE 802.3ae)

4 x 1/10G uplink ports as SFP/SFP+ version



PoE+ PSE local ports (IEEE 802.3at)

PoE/PoE+ PSE Ports with up to 30W per port



IT Security

Feature set for high level of IT security



Network redundancy

Feature set for meshed topologies

Software Features

System Management

- WEB GUI
- CLI (Telnet/SSH, console)
- SNMP v1/v2
- SNMP traps
- IP interface configuration per VLAN
- MAC address table
- Syslog
- Configuration upload/download
- TFTP Management
- Firmware upgrade
- Factory Default Reset
- System reboot
- User right settings
- System status, history and traffic statistics
- NTP (Network Time Protocol)
- Port mirroring (TX, RX, both, 1:1 or many to 1)

Port Configuration

- Port enable/disable
- Individual port name
- Speed and full/half duplex settings
- Flow control
- Jumbo Frames
- Rate limiting
- Port isolation

Power-over-Ethernet PoE/PoE+

- IEEE 802.3af PoE (max. 15 W/Port)
- IEEE 802.3at PoE+ (max. 30 W/Port)
- Enabling or disabling PoE per port
- PoE scheduling
- Limitation of total PoE power

DHCP

- DHCP Client/Server/Relay
- DHCP Snooping

IP Routing

- Static Routing
- RIP v1/v2 (IPv4), OSPF v2
- Static ARP add, delete, show
- Dynamic ARP inspection

- VRRP v1/v2/v3 (Virtual Redundant Route Protocol)
- PIM
- LLDP

Virtual LANs (VLANs)

- 4k VLANs
- Access, hybrid, tunnel and trunk mode
- Q-in-Q double tagging
- GVRP
- Voice VLAN

Quality of Service (QoS)

- Layer 1 priority (port-based)
- Layer 2 priority based on 802.1Q VLAN tags
- Layer 3 priority based on 802.1p (DSCP)
- 8 priority levels (8 queues)
- Strict priority or WRR (Weighted Round Robin)

Link Aggregation

- Up to 128 groups, up to 8 ports per group
- Static and LACP Link Aggregation

IP Multicast

- IGMP Snooping
- MLD Snooping
- MVR
- GMRP

Reliability

- Spanning Tree (STP) according to IEEE 802.1D
- Rapid Spanning Tree (RSTP) according to IEEE 802.1w
- Multiple Spanning Tree (MSTP)

Security

- RADIUS client (IEEE 802.1X)
- IP-, Port-, MAC-, or VLAN-based binding combinations
- Access Control List (ACL)
- TACAS+
- Static MAC address

Technical Specifications

Switch

Type	10 Gigabit Ethernet L2/L3 Switch – 19" 1U, PoE+ PSE IEEE 802.3 compliant
Performance	Store-and-forward
Switching Capacity	128 Gbps
Packet Forwarding Rate	96 Mpps
Packet Buffer	12 Mbit
MAC addresses	16 k, automatic learning and aging
Jumbo Frames	12 kBytes

Twisted-Pair Ports

Number	24
Type	Gigabit Ethernet, Triple Speed 10/100/1000Base-T
Connector	RJ-45 port, shielded
Cable type	Twisted-Pair cable, Category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause Frames (IEEE 802.3x), configurable
Pin out	IEEE 802.3af/at/:2 pairs
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3af/at Class 0-4, max. 15 W / 30 W
PoE Voltage	54 VDC
Total PoE Power	370 W
PoE Lines	1/2 (+), 3/6 (-)

Fiber Ports (SFP+ slots)

Number	4
Type	1/10GBase-X SFP+ slot, support of SFP digital diagnostics function
Connector	LC (SFP transceiver)
Flow Control	Pause Frames (IEEE 802.3x), configurable

CLI Console

Type	RS-232
Connector	RJ-45

LEDs

Port LEDs	Link/activity, PoE status
Device LED	Power

Power Supply

Input Voltage	100..240 VAC
Frequency	50/60 Hz
Power Consumption	< 400 W (including PoE)
Connector	Cold device plug

Environmental Conditions

Temperature	Operation	0..+40 °C
	Storage	-40..+70 °C
Humidity	5..95%, non-condensing	

Mechanic

Dimensions (in mm)	440 x 300 x 44.5 (L x W x H, without connectors)
Weight	Approx. 4.35 kg
Mounting	19" (1U)


Standards

CE	2014/30/EU (EMC) 2014/35/EU (Low voltage) 2011/65/EU (RoHS)
Safety	EN 62368-1:2020+A11:2020
Emitted interference	EN 55032:2015+A1:2020
Immunity	EN 55035:2017+A11:2020
Surge Immunity	6 kV (IEC61000-4-5)
ESD Immunity	6 kV contact discharge, 8 kV air discharge (IEC 6100-4-2)
Ethernet	IEEE 802.3 IEEE 802.3u (100Base-TX) IEEE 802.3ab (1000Base-T) IEEE 802.3z (1000Base-X) IEEE 802.3ae (10GBase-X) IEEE 802.3x (flow control) IEEE 802.3af/at (PoE/PoE+)

Order Information

	Description	Article No.:
	10 Gigabit Ethernet L2/L3 Switch – 19" 1U	
	10 Gigabit Ethernet L2/L3 Switch – 19" 1U 24x 10/100/1000Base-T PoE+ (PSE), 4x 1/10GBase-X SFP+ slots, console port, 0..40°C, power input 100..240 VAC	MS400835M

Accessoires

	Description	Article No.:
	SFP/SFP+ Transceiver (other models on request)	
	SFP GbE Transceiver 1.25G SX Multimode 850nm, DDM, LC	MS100200D
	SFP GbE Transceiver 1.25G LX SingleMode 1310nm, 10km, DDM, LC	MS100210D
	SFP+ 10G Transceiver SR Multimode 850nm, DDM, LC	MS100700D
	SFP+ 10G Transceiver LR SingleMode 1310nm, 10km, DDM, LC	MS100702D

Services

Description	Article No.:
Warranty extension after 24-month manufacturer warranty	
Warranty extension for 1 year	MSGV01
Warranty extension for 1 year	MSGV02
Warranty extension for 1 year	MSGV03

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