HIRSCHMANN
A BELDEN BRAND

Product: MACH104-16TX-PoEP +2X -R



Managed 22-port Full Gigabit 19" Switch with 10G Uplinks, PoEP, redundant PSU

Product Description

20 Port Gigabit Ethernet Industrial Workgroup Switch + 2 x 10GE Uplinks (16 x GE TX PoEPlus Ports, 4 x GE SFP combo Ports, 2 x 10GE XFP), managed, Software Layer 2 Professional, Store-and-Forward-Switching, IPv6 Ready

Technical Specifications

Product description

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Part Number:	942033001
Availability:	no longer available for order
Port type and quantity:	22 Ports in total; 16x (10/100/1000 BASE-TX, RJ45) PoEPlus and 4 Gigabit Combo Ports (10/100/1000 BASE-TX, RJ45 or 100/1000 BASE-FX, SFP) and 2 x 10GE XFP

More Interfaces

Power supply/signaling contact:	1 x terminal block 2-pins, contact manually or automatically (max. 1 A, 24 V DC or 24 V AC)
V.24 interface:	1 x RJ11 socket, serial interface for device configuration
USB interface:	1 x USB to connect auto-configuration adapter ACA21-USB

Network size - length of cable

Twisted pair (TP):	0-100 m
Single mode fiber (SM) 9/125 µm:	see SFP module M-FAST SFP-MM/LC and SFP module M-SFP-SX/LC
Single mode fiber (LH) 9/125 µm (long haul transceiver):	see SFP FO module M-FAST SFP-SM+/LC
Multimode fiber (MM) 50/125 µm:	see SFP module M-FAST SFP-MM/LC and SFP module M-SFP-SX/LC
Multimode fiber (MM) 62.5/125 µm:	see SFP module M-FAST SFP-MM/LC and SFP module M-SFP-SX/LC

Network size - cascadibility

Line - / star topology:	any
Ring structure (HIPER-Ring) quantity switches:	50 (reconfiguration time 0.3 sec.)

Power requirements

Operating Voltage:	100-240 V AC, 50-60 Hz (redundant)
Power consumption:	45 W
Power output in BTU (IT)/h:	153
Redundancy functions:	HIPER-Ring, MRP, MSTP, RSTP - IEEE802.1D-2004, MRP and RSTP gleichzeitig, Link Aggregation

Software

Switching:	Disable Learning (hub functionality), Independent VLAN Learning, Fast Aging, Static Unicast/Multicast Address Entries, QoS / Port Prioritization (802.1D/p), TOS/DSCP Prioritization, Egress Broadcast Limiter per Port, Flow Control (802.3X), Jumbo Frames, VLAN (802.1Q), GARP VLAN Registration Protocol (GVRP), Double VLAN Tagging (QinQ), Voice VLAN, GARP Multicast Registration Protocol (GMRP), IGMP Snooping/Querier (v1/v2/v3)
Redundancy:	Advanced Ring Configuration for MRP, HIPER-Ring (Manager), HIPER-Ring (Ring Switch), Fast HIPER-Ring, Link Aggregation with LACP, Media Redundancy Protocol (MRP) (IEC62439-2), Redundant Network Coupling, RSTP 802.1D-2004 (IEC62439-1), MSTP (802.1Q), RSTP Guards, RSTP over MRP
Management:	Dual Software Image Support, TFTP, LLDP (802.1AB), LLDP-MED, SSHv1, SSHv2, V.24, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet

Diagnostics:	Management Address Conflict Detection, Signal Contact, Device Status Indication, LEDs, Syslog, Port Monitoring with Auto-Disable, Link Flap Detection, RMON (1,2,3,9), Port Mirroring 1:1, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog
Configuration:	AutoConfiguration Adapter ACA11 Limited Support (RS20/30/40, MS20/30), Automatic Configuration Undo (roll-back), BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, AutoConfiguration Adapter ACA21/22 (USB), HiDiscovery, DHCP Relay with Option 82, Command Line Interface (CLI), CLI Scripting, Full-featured MIB Support, Web-based Management, Context-sensitive Help
Security:	IP-based Port Security, MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, RADIUS VLAN Assignment, Multi-Client Authentication per Port, MAC Authentication Bypass, Access to Management restricted by VLAN, HTTPS Certificate Management, Restricted Management Access, Appropriate Use Banner, SNMP Logging, Local User Management, Remote Authentication via RADIUS
Time synchronisation:	PTPv2 Transparent Clock two-step, PTPv2 Boundary Clock, Buffered Real Time Clock, SNTP Client, SNTP Server
Industrial Profiles:	EtherNet/IP Protocol, PROFINET IO Protocol
Miscellaneous:	PoE (802.3AF), PoE+ (802.3AT), PoE+ Manual Power Management, Manual Cable Crossing

Ambient conditions

Operating temperature:	0-+50 °C
Relative humidity (non-condensing):	10-95 %

Mechanical construction

Dimensions (WxHxD):	448 mm x 44 mm x 345 mm
Weight:	5100 g
Mounting:	19" control cabinet
Protection class:	IP20

Mechanical stability

IEC 60068-2-6 vibration:	3.5 mm, 5–8.4 Hz, 10 cycles, 1 octave/min; 1 g, 8.4–150 Hz, 10 cycles, 1 octave/min
IEC 60068-2-27 shock:	15 g, 11 ms duration, 18 shocks

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD):	4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field:	10 V/m (80-3000 MHz)
EN 61000-4-4 fast transients (burst):	2 kV power line, 4 kV data line
EN 61000-4-5 surge voltage:	power line: 2 kV (line/earth), 1 kV (line/line), 4 kV data line
EN 61000-4-6 Conducted Immunity:	10 V (150 kHz-80 MHz)

EMC emitted immunity

EN 55022:	EN 55022 Class A
FCC CFR47 Part 15:	FCC 47CFR Part 15, Class A

Approvals

Safety of industrial control equipment:	cUL 508
Safety of information technology equipment:	cUL 60950-1

Scope of delivery and accessories

Accessories to Order Separately:	Fast Ethernet SFP modules, Gigabit Ethernet SFP modules, autoConfiguration Adapter ACA21-USB, terminal cable, Industrial Hivision Network Management software
Scope of delivery:	Device, terminal block for signal contact, 2 brackets with fasteningscrews (pre-assembled), housing feet - stick-on, non-heating appliance cable - Euro model

Further Instructions

Product Documentation:	https://www.doc.hirschmann.com
Certificates:	https://www.doc.hirschmann.com/certificates.html

Variants

Item #	Type
942033001	MACH104-16TX-PoEP +2X -R

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