

# Product: DRAGON MACH4000-48G+4X-L2A ☑



Full Gigabit Ethernet Backbone Layer-2 Switch with up to 48x GE + 4x 2.5/10 GE ports

# **Product Description**

Full Gigabit Ethernet Backbone Switch with up to 48x GE + 4x 2.5/10 GE ports, modular design, fan unit installed, blind panels for line card and power supply slots included, advanced Layer 2 HiOS features

## **Technical Drawing**





# **Technical Specifications**

#### **Product description**

Туре:	RAGON MACH4000-48G+4X-L2A			
Name:	RAGON MACH4000-48G+4X-L2A			
Description:	ull Gigabit Ethernet Backbone Switch with internal redundant power supply and up to 48x GE + 4x 2.5/10 GE ports, modular design and advanced Layer 2 HiOS features			
Software Version:	iiOS 09.0.06			
Part Number:	942154001			
Port type and quantity:	Ports in total up to 52, Basic unit 4 fixed ports: 4x 1/2.5/10 GE SFP+, Modular: 48x FE/GE ports expandable with four media module slots, 12x FE/GE ports per module			

#### **More Interfaces**

V.24 interface:	1 x RJ45 socket	
SD-card slot:	1 x to connect auto-configuration adapter ACA31 (SD)	
USB interface:	1 x USB to connect auto-configuration adapter ACA22-USB	

# **Power requirements**

Operating Voltage:	PSU unit input: 100 - 240 V AC; switch can be operated with either 1 or 2 field-replaceable PSU units (to be ordered separately)	
Power consumption:	80 W (incl. SFP transceivers + 1 PSU + Fan module)	

# Software

Switching:	Independent VLAN Learning, Fast Aging, Static Unicast/Multicast Address Entries, QoS / Port Prioritization (802.1D/p), TOS/DSCP Prioritization, Interface Trust Mode, CoS Queu Management, IP Ingress DiffServ Classification and Policing, IP Egress DiffServ Classification and Policing, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egre Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), Protocol-based VLAN, VLAN Unaware Mode, GARP VLAN Registration Protocol (GVRP), Voice VL MAC-based VLAN, IP subnet-based VLAN, GARP Multicast Registration Protocol (GMRP), IGMP Snooping/Querier per VLAN (v1/v2/v3), Unknown Multicast Filtering, Multiple VL Registration Protocol (MVRP), Multiple MAC Registration Protocol (MMRP), Multiple Registration Protocol (MRP), Layer 2 Loop Protection	
Redundancy:	HIPER-Ring (Ring Switch), HIPER-Ring over Link Aggregation, Link Aggregation with LACP, Link Backup, Media Redundancy Protocol (MRP) (IEC62439-2), MRP over Link Aggregation, Redundant Network Coupling, Sub Ring Manager, RSTP 802.1D-2004 (IEC62439-1), MSTP (802.1Q), RSTP Guards	
Management:	Dual Software Image Support, TFTP, SFTP, SCP, LLDP (802.1AB), LLDP-MED, SSHv2, V.24, HTTP, HTTPS, Traps, SNMP v1/v2/v3, Telnet, DNS Client, OPC-UA Server	

Diagnostics:	Management Address Conflict Detection, MAC Notification, Signal Contact, Device Status Indication, TCPDump, LEDs, Syslog, Persistent Logging on ACA, Email Notification, Port Monitoring with Auto-Disable, Link Flap Detection, Overload Detection, Duplex Mismatch Detection, Link Speed and Duplex Monitoring, RMON (1,2,3,9), Port Mirroring 1:1, Port Mirroring 8:1, Port Mirroring N:1, RSPAN, SFLOW, VLAN Mirroring, Port Mirroring N:2, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog, Switch Dump, Snapshot Configuration Feature		
Configuration:	omatic Configuration Undo (roll-back), Configuration Fingerprint, Text-based Configuration File (XML), BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, DHCP ver: Pools per VLAN, AutoConfiguration Adapter ACA31 (SD card), AutoConfiguration Adapter ACA21/22 (USB), HiDiscovery, DHCP Relay with Option 82, Command Line Interface I), CLI Scripting, Full-featured MIB Support, Web-based Management, Context-sensitive Help, CLI script handling over ENVM at boot		
Security:	MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, Integrated Authentication Server (IAS), RADIUS VLAN Assignment, RADIUS Policy Assignment, Multi-Client Authentication per Port, MAC Authentication Bypass, DHCP Snooping, IP Source Guard, Dynamic ARP Inspection, Denial-of-Service Prevention, LDAP, Ingress MAC-based ACL, Egress IPV4-based ACL, Egress IPV4-based ACL, Time-based ACL, VLAN-based ACL, Ingress IPV4-based ACL, Egress VLAN-based		
Time synchronisation:	PTPv2 Transparent Clock two-step, PTPv2 Boundary Clock, Buffered Real Time Clock, SNTP Client, SNTP Server		
Miscellaneous:	Manual Cable Crossing, Port Power Down		

#### **Ambient conditions**

MTBF (Telecordia SR-332 Issue 3) @ 25°C:	1 281 583 h
Operating temperature:	0-+60 °C
Storage/transport temperature:	-40-+70 °C
Relative humidity (non-condensing):	10-95 %

#### **Mechanical construction**

Dimensions (WxHxD):	480 mm x 88 mm x 445 mm	
Mounting:	19" control cabinet	
Protection class:	IP20	

#### **Approvals**

Basis Standard:	C-Tick, CE, EN61131	
Safety of industrial control equipment:	SUL61010-1/-2-201, EN60950-1	
Transportation:	EN 50121-4	

#### Reliability

Guarantee:	60 months (please refer to the terms of guarantee for detailed information)
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#### Scope of delivery and accessories

Accessories to Order Separately:	Media Modules (D4K-12xxx), Power Supply Unit (D4K-PSU-300W-HV), Power Cord (e.g. Power Cord Europe – 942 271-001), SFP Transceiver, ACA22-USB (EEC), ACA31	
Scope of delivery: Device, Safety and general information sheet, 3-pin terminal block for signal contact, Fan module D4K-AIR, 4 × Cover panel for media module slot, Cover panel for power slot		

#### **Further Instructions**

Product Documentation:	tps://www.doc.hirschmann.com	
Certificates:	https://www.doc.hirschmann.com/certificates.html	
Software Download:	https://hirschmann-support.belden.com/en-US/downloads	

### **History**

Update and Revision: Revision Number: 0.189 Revision Date: 01-02-2024

## Variants

Iten	n #	Туре
94215	4001	DRAGON MACH4000-48G+4X-L2A

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