

## Product: [DRAGON MACH4000-48G+4X-L3A-MR](#)



## Full Gigabit Ethernet Backbone Layer-3 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 3 HIOS features, multicast routing

### Technical Specifications

#### Product description

Type:	DRAGON MACH4000-48G+4X-L3A-MR
Name:	DRAGON MACH4000-48G+4X-L3A-MR
Description:	Full 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 3 HIOS features, multicast routing
Software Version:	HIOS 09.0.06
Part Number:	942154003
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 Queue Management, IP Ingress DiffServ Classification and Policing, IP Egress DiffServ Classification and Policing, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egress Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), Protocol-based VLAN, VLAN Unaware Mode, GARP VLAN Registration Protocol (GVRP), Voice VLAN, MAC-based VLAN, IP subnet-based VLAN, GARP Multicast Registration Protocol (GMRP), IGMP Snooping/Querier per VLAN (v1/v2/v3), Unknown Multicast Filtering, Multiple VLAN 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, VRRP, VRRP Tracking, HivRRP (VRRP enhancements)
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:	Automatic Configuration Undo (roll-back), Configuration Fingerprint, Text-based Configuration File (XML), BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, DHCP Server: Pools per VLAN, AutoConfiguration Adapter ACA31 (SD card), 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:	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 MAC-based ACL, Ingress IPv4-based ACL, Egress IPv4-based ACL, Time-based ACL, VLAN-based ACL, Ingress VLAN-based ACL, Egress VLAN-based ACL, ACL Flow-based Limiting, Access to Management restricted by VLAN, Device Security Indication, Audit Trail, CLI Logging, HTTPS Certificate Management, Restricted Management Access, Appropriate Use Banner, Configurable Password Policy, Configurable Number of Login Attempts, SNMP Logging, Multiple Privilege Levels, Local User Management, Remote Authentication via RADIUS, User Account Locking, Password change on first login
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

Routing:	IP/UDP Helper, Full Wire-Speed Routing, Port-based Router Interfaces, VLAN-based Router Interfaces, Loopback Interface, ICMP Filter, Net-directed Broadcasts, OSPFv2, RIP v1/v2, ICMP Router Discovery (IRDP), Equal Cost Multiple Path (ECMP), Static Unicast Routing, Proxy ARP, Static Route Tracking, IGMP v1/v2/v3, IGMP Proxy (Multicast Routing), DVMRP, PIM-DM (RFC3973), PIM-SM / SSM (RFC4601)
Multicast routing:	DVMRP, PIM-DM (RFC3973), PIM-SM / SSM (RFC4601)

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 %
Protective paint on PCB:	Yes (conformal coating)

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:	cUL61010-1/-2-201, EN60950-1
Transportation:	EN 50121-4

Reliability

Guarantee:	60 months (please refer to the terms of guarantee for detailed information)
------------	---

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 supply module slot

Further Instructions

Product Documentation:	<a href="https://www.doc.hirschmann.com">https://www.doc.hirschmann.com</a>
Certificates:	<a href="https://www.doc.hirschmann.com/certificates.html">https://www.doc.hirschmann.com/certificates.html</a>
Software Download:	<a href="https://hirschmann-support.belden.com/en-US/downloads">https://hirschmann-support.belden.com/en-US/downloads</a>

History

Update and Revision:	Revision Number: 0.181 Revision Date: 11-29-2024
----------------------	--

© 2024 Belden, Inc  
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Hirschmann:](#)

[DRAGON MACH4000-48G+4X-L3A-MR](#)