DM4170

CARRIER ETHERNET SWITCH

DATASHEET

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GE/10GE/40GE L2/L3/MPLS SWITCHES WITH HIGH CAPACITY UPLINKS FOR ETHERNET AGGREGATION AND ACCESS NETWORKS

DM4170 switches provide high switching capacity to meet the growing demands of traffic aggregation and access to high capacity services on Metro Ethernet and local area networks, always delivering high performance and reliability.

DM4170 family is equipped with DATACOM´s DmOS modular network operating system, ensuring robustness and high availability of services on a platform with support for a number of L2/L3/MPLS functionalities. Features like VLAN operations such as QinQ and VLAN Translate, LAG/LACP, ring operation through the EAPS or ERPS protocol, RSTP support, static and dynamic IP routing protocols using OSPF and BGP, access policy creation (ACL) filters, QoS functionality, among others.

DM4170 switches can operate as either LER or LSR in an MPLS network, through the establishment of LSPs and MPLS tunnels, with LDP protocols. From the LDP infrastructure, it is possible to establish point-to-point VPNs for data transport services.

All L2/L3/MPLS packet forwarding is done in HW, as well as filter applications and QoS policies, ensuring wirespeed operation for any packet size.

The products offer configuration via command line (CLI) accessible by SSHv2, Telnet and RS-232 or USB console port. RADIUS and TACACS functionality enable the creation of user authentication and access authorization policies. Local and remote Syslog features, NTP, DHCP, and SNMP clients are also available to enable equipment remote management and troubleshooting.

DM4170 switches are compact 1U height units ready for installation on standard 19 inch racks. They feature power redundancy through two hot-swap slots for AC or DC power supplies, enabling the operation of high availability services.

- 24 optical Gigabit Ethernet ports (SFP)

- 12 10GE (SFP+) ports as uplink interfaces

- 40GE interface option for uplink

- Compact 1U height design

- VLAN, QinQ and EAPS/ERPS support for Metro Ethernet applications

- L2 tunneling protocols for LAN-to-LAN services

- Static and dynamics routing through OSPF or BGP

- MPLS VPNs creation support, LER and LSR operation

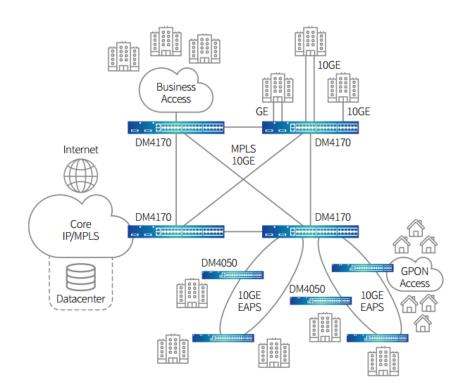- Two hot-swap slots for AC or DC redundant power supplies

10GE AGGRREGATION

DM4170 switch has twelve 10GE SFP+ interfaces that can be used for both service access links greater than 1GE as well as an uplink interface for 10GE or more than 10GE aggregation rings through the use of Link Aggregation and LACP.

APPLICATIONS

METRO ETHERNET AGGREGATION

 DM4170 line of switches, through its GE/10GE optical interfaces and support for L2 Metro Ethernet features and IP / MPLS routing capability, serve high-capacity Metro Ethernet traffic aggregation applications, delivering a reliable, high availability solution for corporate or residential services. The product supports the use of ring, star or linear topologies, allowing the network design that best suits the needs of the solution.

TECHNICAL SPECIFICATIONS

		DM4170 24GX+12XS	DM4170 24GX+4XS+2QX
HARDWARE CHARACTERISTICS	Power supply	2 hot swappable slots for PSUs compatible with PSU 125 AC and PSU 125 DC	
	PSU 125 AC – Power input	100Vac to 240Vac	
	PSU 125 DC – Power input	-38,4Vdc to -72Vdc	
	Maximum power consumption	120 W	
	Typical power consumption	90 W	
	Operational temperature (*)	0ºC to 55ºC	
	Operational relative humidity	10% to 90%, non-condensed	
	Operational altitude	0 to 3000m	
	Storage temperature	-20ºC to 70ºC	
	Storage relative humidity	10% to 90%, non-condensed	
	Dimensions (H x D x W)	44mm x 265mm x 447mm (482mm with brackets)	
	Weight	3,3kg	
INTERFACES	1000Base-X (SFP)	24	24
	10G Base-X (SFP+)	12	4
	40G Base-X (QSFP+)	-	2
	GE Outband Management (RJ45)	1	
	Console (RJ45)	1	
	USB Console	1	
	USB Data	1	
	Alarms	1 output e 2 inputs (**)	
PERFORMANCE	Throughput	288 Gbps	
	Packets per Second	220 Mpps	

(*) For environments with temperatures above 45ºC, it may be necessary to use extended temperature range optical modules, depending on the quantity and power of the modules.

(**) Product / Feature in roadmap. Contact DATACOM for availability information.

Standards

ANATEL

Resolução 242 (Nov, 30, 2000)

> Rules for Certification and Homologation of Telecommunication Products.

Resolução 323 (Nov, 7, 2002)

> Standard for Certification of Telecommunication Products.

Resolução 442 (Jul, 21, 2006)

> Rules for the Certification of Telecommunication Equipment in Aspects of Electromagnetic Compatibility.

ETSI

EN 300 019-1-1, Class 1.2	Environmental Conditions for storage
EN 300 019-1-2, Class 2.3	Environmental Conditions for Transport
EN 300 386 V1.6.1 (2012-09)	Electromagnetic compatibility and Radio spectrum Matters (ERM)
EN 55022	Information technology equipment. Radio disturbance characteristics - Class A

IEC

60825-1	Laser Safety Class
61000-4-11	Voltage dips, short interruptions and voltage variations immunity tests
61000-4-6	Immunity to conducted disturbances, induced by radio-frequency fields
EN 61000-4-2	Electrostatic Discharge Immunity Test
EN 61000-4-4	Electrical fast transient/burst immunity test
EN 61000-4-5	Surge immunity test

ACCESSORIES

Accessory	Description
QSFP+ 40GE ER4 *PN: 377.1400.xx*	Optical 40 Gigabit Ethernet QSFP+ module. Single mode, dual fiber. Typical reach of up to 40km.
QSFP+ 40GE LR4 *PN: 377.1401.xx*	Optical 40 Gigabit Ethernet QSFP+ module. Single mode, dual fiber. Typical reach of up to 10km.
QSFP+ 40GE SR4 *PN: 377.1402.xx*	Optical 40 Gigabit Ethernet QSFP+ module. Single mode, dual fiber. Typical reach of up to 0,1km.
QSFP+ to QSFP+ Direct Attach Copper Cable 1m *PN: 710.0384.xx*	Copper cable for interconnection of 40 Gigabit Ethernet ports, 1m length.
QSFP+ to QSFP+ Direct Attach Copper Cable 3m *PN: 710.0391.xx*	Copper cable for interconnection of 40 Gigabit Ethernet ports, 3m length.
SFP+ 10GbE *PN: Inquire*	Optical 10 Gigabit Ethernet SFP+ modules. Several models with varying power and reach specifications are offered.
SFP 1GbE *PN: Inquire*	Optical Gigabit Ethernet SFP modules. Several models with varying power and reach specifications are offered.
PSU 125 AC *PN: 800.5187.*	AC full range (100V-240Vac) power supply.
PSU 125 DC *PN: 800.5188.xx*	DC full range (48V-60Vdc) power supply.

ORDERING INFORMATION

Model	Description	
DM4170 24GX+12XS *800.5186.xx*	Manageable L2/L3/MPLS wirespeed Ethernet Switch, 24x 100/1000Base-X ports (SFP), 12x 1/10 Gigabit Ethernet optical ports (SFP/SFP+). Up to two AC or DC power supplies (not included). MPLS support (MPLS license required).	
DM4170 24GX+4XS+2QX *800.5184.xx*	Manageable L2/L3/MPLS wirespeed Ethernet Switch, 24x 100/1000Base-X ports (SFP), 4x 1/10 Gigabit Ethernet optical ports (SFP/SFP+), 2x 40Gigabit Ethernet optical ports (QSFP+). Up to two AC or DC power supplies (not included). MPLS support (MPLS license required).	
DM4170 SW MPLS license *012.4203.00*	Software with MPLS capabilities for DM4170. License per unit.	-

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