

DATACOM



DM-S300

CLOUD MANAGED GIGABIT ETHERNET SWITCHES

DATASHEET

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CLOUD-MANAGED L3 GIGABIT ETHERNET SWITCHES

The DM-S300 family of switches is a solution with 24 or 48 port Gigabit Ethernet wire-speed managed cloud (DmCloud) models to meet the growing bandwidth demand in enterprise networking applications, with PoE/PoE+ options and 10 Gigabit Ethernet uplink optical interfaces.

The switches have switching capacity of 128Gbit/s, 211Gbit/s and 264Gbit/s with all packet processing implemented in hardware, at wirespeed. Filtering functionalities also run on hardware, with no impact on CPU performance or packet forwarding.

It can be configured through the DmCloud cloud management platform. It has a CLI configuration interface with automatic syntax assistance, accessible through SSH, Telnet and RS-232 Console. Internal Web server and SNMP agent are also available.

DM-S300 switches support several advanced functionalities, such as VLAN configuration, QinQ, Link Aggregation, and Spanning Tree network protection and redundancy protocol (STP, MSTP, and RSTP). For Multicast, IGMP Snooping functionality is supported.

For network optimization, the switches have 8 CoS queues per port with traffic classification by IEEE802.1p and multiple matches using ACLs, allowing for bandwidth throttling and traffic conformation.

Two models have Power Over Ethernet (PoE) functionality, according to IEEE 802.3af / 802.3at standard, providing 24 / 48 PoE+ ports, with a power budget of 370W and 405W respectively.

IPv4 and IPv6 static and dynamic routing features are available, and the RIPv1/v2/ng and OSPFv2/v3 protocols are supported.

The Stacking (VSU) functionality allows multiple physical devices to be virtualized into a single logical device. Physical devices use the same IP address, process, Telnet, and CLI for management, and support automatic version checking and automatic configuration.

The switches are managed by the DmCloud platform, which allows the management of the network in an easy way with the ZTP functionality.

- Cloud Managed L3 Switches (DmCloud)
- Switching capacity of 128Gbit/s, 211Gbit/s and 264Gbit/s
- 24 or 48x 10/100/1000Base-T RJ45 interfaces
- 4x 1/10G SFP/SFP+ interfaces
- MAC table with 16K addresses
- VLAN, QinQ, QoS, STP
- RIPv1/v2/NG, OSPFv2/v3
- 370W and 405W PoE/PoE+ models
- Internal power supply

DM-S300 TECHNICAL SPECIFICATIONS

Item	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
ELECTRICAL INTERFACES	24x 10/100/1000Mbps	24x 10/100/1000Mbps (with PoE/PoE+)	48x 10/100/1000Mbps	48x 10/100/1000Mbps (with PoE/PoE+)
	Support Autonegotiation and Auto MDIX, Support Half and Full Duplex Modes			
OPTICAL INTERFACES	04x 1/10Gbps SFP+	04x 1/10Gbps SFP+	04x 1/10Gbps SFP+	04x 1/2.5/10Gbps SFP+
CONSOLE	1x console RJ45	1x console RJ45	1x console RJ45	1x console RJ45 1x USB
SWITCHING CAPACITY	264Gbps	256Gbps	264Gbps	211Gbps
TAXA PACKET FORWARDING	96Mpps	96Mpps	132Mpps	158Mpps
DIMENSIONS [W x D x A]	440x260x43,6mm	440x260x44mm	440x260x43,6mm	442x220x43,6mm
ENVIRONMENTAL CONDITIONS	Operating temperature: 0°C to 50°C Humidity: 10% to 90% non-condensing			Operating temperature: 0°C to 45°C Humidity: 10% to 90% non-condensing
VENTILATION	FAN	FAN	FAN	FAN
POWER SUPPLY	Internal Source 100~240VAC 50/60Hz			
PoE SUPPORT	No	Yes (370W)	No	Yes (405W)
POWER CONSUMPTION (W)	24	<460	50	460
STANDARDS	IEEE 802.3, IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3x, IEEE 802.3z, IEEE 802.3ad, IEEE 802.3ac, IEEE 802.1ax, IEEE 802.1p, IEEE 802.1q, 802.3az,			
CABLING	10BASE-T UTP category 3,4,5 (max 100m) 100BASE-Tx UTP category 5.5e cable (max 100m) 1000BASE-T UTP category 5e,6 cable (max 100m)			
SWITCHING	Store-and-forward			
PACKET BUFFER	1.5MB			4MB
MAC ADDRESS LEARNING	16k			
IGMP GROUPS	256			
CPU	Single-core 1GHz			Dual-core 1GHz
RAM	512MB			1GB
FLASH	512MB			
JUMBO FRAME (MTU)	9216 bytes			
ARP TABLE	1.000			4.000

ACLs	1500 rules			
ROUTING TABLE (IPv4/IPv6)	500			6k IPv4 / 2k IPv6
MTBF	>2000,000 hours	388055 hours	>2000,000 hours	>2000,000 hours

DM-S300 – SOFTWARE FEATURES

Group	Feature	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
VLAN	4K VLANs	✓	✓	✓	✓
	Interface-based VLAN assignment	✓	✓	✓	✓
	MAC address-based VLAN assignment	✓	✓	✓	✓
	Protocol-based VLAN assignment	✓	✓	✓	✓
	Private VLAN	✓	✓	✓	✓
	Voice VLAN	✓	✓	✓	✓
	IP subnet-based VLAN	✓	✓	✓	✓
	Guest VLAN	✓	✓	✓	✓
	GVRP	✓	✓	✓	✓
QinQ	Basic QinQ	✓	✓	✓	✓
	Selective QinQ	✓	✓	✓	✓
ACL	Standard IP ACL	✓	✓	✓	✓
	Extended IP ACL	✓	✓	✓	✓
	Extended MAC ACL (hardware ACL based on source MAC address, destination MAC address, and Ethernet type).	✓	✓	✓	✓
	Time range-based ACL	✓	✓	✓	✓
	Expert-level ACL (hardware ACL based on flexible combinations of VLAN ID, Ethernet type, MAC address, IP address, TCP/UDP port ID, protocol type, and time range)	✓	✓	✓	✓
	ACL 80	✓	✓	✓	✓
	IPv6 ACL	✓	✓	✓	✓
	Global ACL	✓	✓	✓	✓
	ACL redirection	✓	✓	✓	✓
QoS	Rate Limit on an interface based on incoming or outgoing traffic	✓	✓	✓	✓





Group	Feature	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
	Flow-based rate limit on incoming or outgoing traffic	✓	✓	✓	✓
	802.1p/DSCP/ToS Traffic Classification	✓	✓	✓	✓
	Eight priority queues per interface	✓	✓	✓	✓
	SP, WRR, DRR, SP+WFQ, SP+WRR, SP+DRR	✓	✓	✓	✓
	Tail drop	-	-	-	✓
	RED/WRED scheduling	-	✓	-	-
MIRRORING	Common service interfaces and aggregate interfaces can be configured as mirroring source and target interfaces	✓	✓	✓	✓
	Local and remote mirroring based on 1:1, 1:N, N:1 and stream	✓	✓	✓	✓
	Support to RSPAN and ERSPAN	✓	✓	✓	✓
	Traffic Mirroring Between Devices	✓	✓	✓	✓
DHCP	DHCP server	✓	✓	✓	✓
	DHCP client	✓	✓	✓	✓
	DHCP snooping	✓	✓	✓	✓
	DHCP relay	✓	✓	✓	✓
	IPv6 DHCP snooping	✓	✓	✓	✓
	IPv6 DHCP client	✓	✓	✓	✓
	IPv6 DHCP relay	✓	✓	✓	✓
LAYER 2 PROTOCOLS	IEEE 802.3	✓	✓	✓	✓
	IEEE 802.3u	✓	✓	✓	✓
	IEEE 802.3z	✓	✓	✓	✓
	IEEE802.3ab	✓	✓	✓	✓
	Flow Control (IEEE 802.3x)	✓	✓	✓	✓
	Layer 2 protocol tunnel	✓	-	✓	-
LINK AGGREGATION	LACP (IEEE 802.3ad)	✓	✓	✓	✓
	Link Aggregation Groups	128	128	128	128
	Maximum Ports per Group	8	8	8	8
MULTICAST	IGMPv1/v2/v3 snooping	✓	✓	✓	✓
	IGMP Proxy	-	-	-	✓
	IGMP Filter	✓	✓	✓	✓
	IGMP Fast Leave	✓	✓	✓	✓
	IGMP Querier	✓	-	✓	✓

Group	Feature	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
	IGMP SGVL/IVGL	✓	-	✓	✓
	MLD Snooping v1/v2 (IPv6)	✓	-	✓	✓
	MLDv1/v2 e MLD proxy	-	-	-	✓
	MSDP	-	-	-	✓
	PIM-DM, PIM-SM and PIM-SSM	-	-	-	✓
	PIM SMv6 and PIM-SSMv6	-	-	-	✓
	PIM-SMv6 and PIM-SSM v6	-	-	-	✓
DIAGNOSIS	Cable diagnosis	✓	✓	✓	✓
ENERGY EFFICIENT ETHERNET (EEE)	IEEE 802.3az compliant: When EEE is enabled, the power consumption of the interfaces is significantly reduced.	✓	✓	✓	✓
PORT SLEEPING	Port sleeping	✓	✓	✓	✓
PROTECTION RING	STP (802.1d), RSTP (802.1w), MSTP (802.1s)	✓	✓	✓	✓
	Port Fast	✓	✓	✓	✓
	BPDU Filter	✓	✓	✓	✓
	BPDU Guard	✓	✓	✓	✓
	TC Guard	✓	✓	✓	✓
	TC Protection	✓	✓	✓	✓
	Root Guard	✓	✓	✓	✓
	MSTP Instances	64	64	64	64
	ERPS G.8032	✓	✓	✓	✓
RELIABILITY	802.3ah (EFM)	-	-	-	✓
	Link tracing	-	-	-	✓
	fault notification	-	-	-	✓
	VRRP IPv4 / IPv6	-	-	-	✓
	Dual-boot	-	-	-	✓
	DLDP	-	-	-	✓
SAFETY	3-tuple binding (IP address, MAC address, and interface)	✓	✓	✓	✓
	3-tuple binding (IPv6 address, MAC address, and interface)	✓	✓	✓	✓
	Invalid MAC address filtering	✓	✓	✓	✓
	Interface- and MAC address-based 802.1X authentication	✓	✓	✓	✓
	MAC address bypass authentication (MAB)	✓	✓	✓	✓
	Portal and Portal 2.0 authentication	✓	✓	✓	✓

Group	Feature	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
	ARP check	✓	✓	✓	✓
	DAI	✓	✓	✓	✓
	Static and Dynamic ARP	✓	✓	✓	✓
	ARP Proxy	✓	✓	✓	✓
	ARP spoofing prevention	✓	✓	✓	✓
	Broadcast ou multicast storm suppression	✓	✓	✓	✓
	Unknown multicast suppression and multicast bandwidth suppression	✓	✓	✓	✓
	Hierarchical management and password protection	✓	✓	✓	✓
	RADIUS and TACACS+	✓	✓	✓	✓
	Radius Change of Authorization (CoA)	✓	-	✓	-
	AAA (IPv4/IPv6) for device login management	✓	✓	✓	✓
	SSH and SSHv2.0	✓	✓	✓	✓
	IP Source Guard	✓	✓	✓	✓
	CPP and NFPP (Anti DDoS)	✓	✓	✓	✓
	Port protection / security	✓	✓	✓	✓
POE	Support for IEEE 802.3af and IEEE 802.3at standards	-	✓	-	✓
	IEEE 802.3bt (4 x 60W interfaces per port)	-	✓	-	-
	Automatic and efficient power management modes	-	✓	-	✓
	Fast start-up to ensure continuous power supply	-	✓	-	✓
	Interface priority	-	✓	-	✓
	Compatibility with non-standard PDs	-	✓	-	✓
	Scheduling on/off PoE interfaces	-	✓	-	✓
ROUTING	IPv4/IPv6 static routes	✓	✓	✓	✓
	RIP, RIPng, OSPFv2, and OSPFv3	✓	✓	✓	✓
	Routing policy	✓	✓	✓	✓
	IS-IS v4 / IS-IS v6	-	-	-	✓
	BGP4 / BGP4+	-	-	-	✓
	VRF IPv4/ IPv6	-	-	-	✓
	PBR IPv4 / IPv6	-	-	-	✓
IPV6	IPv6 addressing	✓	✓	✓	✓
	Neighbor Discovery (ND)	✓	✓	✓	✓
	IPv6 ACL	✓	✓	✓	✓

Group		Feature	DM-S300 24GT4XS	DM-S300 24GP4XS	DM-S300 48GT4XS	DM-S300 48GP4XS
	ICMPv6		✓	✓	✓	✓
	IPv6 ping		✓	✓	✓	✓
	IPv6 tracert		✓	✓	✓	✓
STACKING	Stacking		9	9	9	8
	Local and remote stacking		✓	✓	✓	✓
	Grouping links between chassis within the stack		✓	✓	✓	✓
	Stacking compatibility		DM-S300 24GT4XS and 48GT4XS	DM-S300 24GP4XS	DM-S300 24GT4XS and 48GT4XS	DM-S300 48GP4XS
ZERO TOUCH PROVISIONING (ZTP)	CWMP (TR-069) standard protocol		✓	✓	✓	✓
SDN	OpenFlow		✓	✓	✓	✓
MANAGEMENT	SNMPv1/v2c/v3		✓	✓	✓	✓
	CLI (Telnet/console, SSH)		✓	✓	✓	✓
	RMON (1, 2, 3, 9)		✓	✓	✓	✓
	SSHv1 / v2		✓	✓	✓	✓
	Syslog / debugging		✓	✓	✓	✓
	NTP/SNTP		✓	✓	✓	✓
	FTP / TFTP / SCP		✓	✓	✓	✓
	Web GUI		✓	✓	✓	✓
	sFlow		✓	✓	✓	✓
	NETCONF		-	-	-	✓
	gRPC		-	-	-	✓
	HTTP / HTTPS		✓	✓	✓	✓
	LLDP		✓	✓	✓	✓
	LLDP-MED		-	✓	-	✓
	Manageable via DmCloud platform		✓	✓	✓	✓

DM-S300 – ORDERING INFORMATION

MODEL	DESCRIPTION	PHOTO
DM-S300 24GT4XS 825.4545.xx	DM-S300 24GT4XS L3 Switch with 24 Gigabit Ethernet Electrical Ports and 4 Optical 1/10G Ethernet Uplink Ports on SFP+ Connectors. Internal AC Power Supply. Managed by DmCloud.	
DM-S300 24GP4XS 825.4546.xx	DM-S300 24GP4XS L3 Switch with 24 electrical Gigabit Ethernet ports with PoE+ support (370W) and 4 optical 1/10G Ethernet uplink ports on SFP+ connectors. Internal AC Power Supply. Managed by DmCloud.	
DM-S300 48GT4XS 825.4547.xx	DM-S300 48GT4XS L3 Switch with 48 electrical Gigabit Ethernet ports and 4 optical 1/10G Ethernet uplink ports on SFP+ connectors. Internal AC Power Supply. Managed by DmCloud.	
DM-S300 48GP4XS 825.4548.xx	DM-S300 48GP4XS L3 Switch with 48 electrical Gigabit Ethernet ports with PoE+ support (370W) and 4 optical 1/10G Ethernet uplink ports on SFP+ connectors. Internal AC Power Supply. Managed by DmCloud.	

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