

16 & 24 PORT

INDUSTRIAL L2 MANAGED SWITCH - GIGA

DDSMG SERIES



SYNOPSIS

- DDSMG 16 AND 24 PORT SERIES INDUSTRIAL L2 MANAGED SWITCH ADOPT STORE-AND-FORWARD ARCHITECTURE, FAN-LESS AND ENERGY-SAVING DESIGN TO PROVIDE RELIABLE AND STABLE OPERATION IN HARSH INDUSTRIAL ENVIRONMENTS.
- ALL THE SWITCHES SUPPORT 12-58VDC DUAL POWER INPUT AND OPERATE AT TEMPERATURE OF -40 TO 85°C.
- WHILE USING STANDARD CAT5 / 5E / 6 CABLES THAT CARRY ETHERNET DATA, THE SWITCH CAN ALSO PROVIDE POWER TO A POWERED DEVICES, SUCH AS VOIP PHONES, VIDEO CAMERAS, WIRELESS ACCESS POINTS, ALARMS, TRAFFIC CONTROLLERS, SENSORS AND TRACKING DEVICES.

FEATURES & BENEFITS

- ERPS (G.8032) RING TECHNOLOGY
- LOOP PROTECTION
- SFP FIBER PORT SUPPORT 1.25G/155M
- 9.6K JUMBO FRAME
- 48-58V DC DUAL POWER INPUT WITH POLARITY REVERSE PROTECTION
- 6KV SURGE PROTECTION FOR POWER AND COPPER PORT
- 8-15KV ESD PROTECTION
- IP40 ENCLOSURE
- DIN-RAIL INSTALLATION, WALL-MOUNTED OPTIONAL
- LOW POWER CONSUMPTION, LEAD-FREE PROCESS

SPECIFICATIONS

PERFORMANCE

Model	16 Port, 12 Copper 4 SFP	24 Port, 12 Copper 12 SFP
Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z IEEE802.3x, IEEE802.1Q, IEEE802.1w IEEE802.1s, IEEE802.1d, IEEE802.1ag	
Mode	Store and Forward / Cut through or fragment free switching	
Protocols	TCP, UDP, ARP, ICMP, ICMP Router Discovery	
Switching Capacity	55Gbps Non-blocking	
Packet Forwarding Rate	23.8 Mpps	35.7 Mpps
MAC Address	8K	
Buffer Space	4M	
Jumbo Frame	9.6K	

INTERFACE

Copper Port	10 / 100 / 1000M Auto-negotiation, RJ45 Auto-Cross for MDI/MDIX Cat5 / Cat5e / Cat6, ≤100m
Fiber Port	1.25G/155M SFP slot type TX Power & RX Sensitivity based on SFP Modules
Console	RS232 (RJ45)
Reset	Key switch
Power Port	Terminal Block
LED indicators	PWR, RUN, Speed, Link/Act
Alarm Relay	Normal Open

POWER

Input Voltage	12-58VDC Dual Redundant 6-PIN Removable Terminal Block Overload Voltage protection Overload Current protection Reverse Polarity protection	
Input Current	Max.0.5A @ 24V DC	Max 0.8A @ 24V DC
Power Consumption	<12W	<20W
Full load		

PHYSICAL CHARACTERISTICS

Dimension	170x120x60mm
Enclosure	IP40, Aluminum Alloy, Fan-less
Installation	DIN-rail, Wall-mounted
Weight	950g

ENVIRONMENT

Working Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	5-95% (no condensation)

SOFTWARE FEATURES

L2 FEATURES

Port Features	IEEE 802.3x Flow control Interface counters Broadcast Storm Control Flow Mirroring
Link Aggregation	Static Aggregation IEEE802.1q Dynamic Aggregation, LACP
MAC-address table	Static MAC-address Dynamic MAC-address Security MAC-address IVL mode
Mirror	Port-based Mirror VLAN-Based Flow-Based
Spanning Tree	IEEE802.1d STP IEEE802.1w RSTP IEEE802.1s MSTP
GVRP	Supported
QINQ	VLAN-based QinQ 1:1 VLAN Mapping
LLDP	LLDP LLDP-MED
Loop Protection	Supported
ERPS (G.8032)	Single Ring, Sub-Ring, Multi-Ring Load balance Recovery Time < 50ms
VLAN	4094 VLAN Port-based VLAN GVRP
Protocol VLAN	MAC-based VLAN Protocol-based VLAN IP Subnet-based VLAN
Voice VLAN	Static entry LLDP-MED
Private VLAN	Supported
BPDU Filtering	Per Port
Host ARP table	Yes
Port Isolation	Supported

IGMP Snooping

IGMP V1 Snooping
IGMP V2 Snooping
IGMP V3 Snooping
Source Port Check
IGMP Fast Leave
IGMP Filter
IGMP Proxy

MLD Snooping

MLD V1 Snooping
MLD V2 Snooping
Source Port Check
MLD Fast Leave
MLD Filter
MLD Proxy

MVR

Static Mode
Dynamic Mode
Fast Leave

SECURITY

ACL

ACL (IP Standard ACL), IPv4/IPv6
MAC extend ACL
IP extend ACL
L2, L3, L4 fields match
log, redirection, mirroring, speed limit

QoS

QoS Class, Remarking
SP, WRR queue scheduling
Ingress port-based rate-limit
Ingress priority-based rate-limit
Egress port-based rate-limit
Egress queue-based rate-limit
Storm Control
Policy-based QoS
8 queues per port

Dot1x

Port Access Control
User Access Control
MAC-address Access Control
RADIUS Server
TACACS+ Server

IP Source Guard

Dynamic entry (from DHCP Snooping)
Static entry

ARP Inspection

Dynamic entry (from DHCP Snooping)
Static entry

Port Security Access Management

Supported
Supported

Access Control List (ACL)	Port based, VLAN based, Bidirectional ACL
Additional Features	IP Binding per Port, Port trunking Static IEEE 802.1p QoS / CoS / ToS / DSCP priority queuing Port Mirroring, Auto sensing, Dynamic ARP Inspection ARP Snooping / Spoofing prevention, Loopback detection/ STP Loopback detection, Priority Mapping, DiffServ Marking BootDoS attack prevention, DHCP Server Screening, Head of Line(HoL), BootP, Digital Diagnostic Monitoring Interface (DDMI) support IEEE 802.1x Port Access Authentication, User authentication for Web GUI, Ingress policing, Auto QoS

MANAGEMENT

User management	Password protection
SNMP	SNMP V1/V2c/V3 (MIB)
SNTP	Yes
	System configure, Restore and Backup
Other	Smart Port, Syslog, DHCP Server
RMON	Statistics Group History Group Alarm Group Events Group
Web management	WebUI with HTTP V1.1, HTTPS
Firmware Upgrade	Reversion Upgrade
IPv4/IPv6	Supported
CLI	Supported
RADIUS client	Supported
Syslog/Debug	Supported
Diagnosis	Ping (IPv4), ping (IPv6) Trace route(IPv4) Trace route(IPv6)

APPLICATION

NTP	NTP Client
DHCP	DHCPv4 Client, DHCPv6 Client
DHCP Snooping	DHCP snooping table Trust Port
TELNET	Telnet Server
TFTP	TFTP Client
SSH	SSH Server

APPROVALS & STANDARDS TESTED FOR

ELECTRO MAGNETIC INTERFERENCE EMISSIONS : EN55032 : 2015

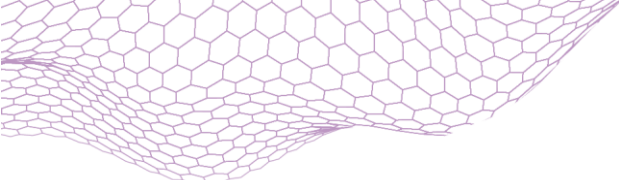
EN55022 / 55032: 2015	Conducted Disturbance, Radiated Disturbance
IEC 61000-3-2: 2014	Harmonic Current Emissions
IEC 61000-3-3: 2013	Voltage Fluctuation & Flicker

ELECTRO MAGNETIC IMMUNITY / SUSCEPTIBILITY: EN55024 / EN55035 : 2017

IEC 61000-4-2: 2009	Electrostatic Discharge
IEC 61000-4-3	RF Immunity Continuous Radiated Disturbance
IEC 61000-4-4	Electrical Fast Transient
IEC 61000-4-5	Surge Immunity
IEC 61000-4-6	Conducted RF immunity Continuous Conducted Disturbance
IEC 61000-4-8	Power Frequency Magnetic Field
IEC 61000-4-11	AC Voltage Dips & Interruption/Variation

OTHERS

EN 62368 / EN 60950	Safety
FCC 47 CFR Part 15B 15.107(a), 15.109(a)	FCC



ORDERING CODE

DDSMG 3012-XS A

DDSMG	Industrial Grade Giga Managed Ethernet Switch	
3012	3012	12 * 10/100/100 Copper Ports
XS	4S	4 * 100/1000 SFP Port
	12S	12 * 100/1000 SFP Port
A	Fixed	

