



10 PORTS INDUSTRIAL L2+ MANAGED SWITCH - GIGA

DDSMG SERIES



SYNOPSIS

- THE DATABRIDGE DYNAMIC DDSMG 308-2S ST SERIES ARE HIGH-RELIABILITY MANAGED INDUSTRIAL ETHERNET SWITCHES FEATURING 8× 10/100/1000-T RJ45 PORTS AND 2× 1G/2.5GBASE-X FIBER INTERFACES.
- SUPPORT ERPS REDUNDANT NETWORKING, DELIVERING <20 MS SELF-RECOVERY TIME UNDER FULL LOAD, ENABLING HIGHLY RELIABLE ETHERNET NETWORKS WITH REDUNDANT RING TOPOLOGIES.
- PROVIDE IPV4/IPV6 STATIC ROUTING, DHCP SERVER, AND ROBUST LAYER-2 MANAGEMENT AND SECURITY FEATURES, MEETING THE DEMANDING REQUIREMENTS OF INDUSTRIAL AUTOMATION ENVIRONMENTS.
- OFFER COST-EFFECTIVE, EASY-TO-USE INDUSTRIAL NETWORKING, INCLUDING:
 1. 12–58 VDC WIDE-RANGE POWER INPUT
 2. REDUNDANT POWER DESIGN WITH REVERSE POLARITY, OVER-VOLTAGE, AND OVER-CURRENT PROTECTION
 3. RUGGED IP40 FANLESS HOUSING WITH DIN-RAIL MOUNTING
 4. WIDE OPERATING TEMPERATURE RANGE: –40°C TO 75°C
 5. HIGH EMI/EMC IMMUNITY
- IDEAL FOR DEPLOYMENT IN HEAVY INDUSTRIAL PLANTS, TRANSPORTATION SYSTEMS, OIL & GAS FACILITIES, CHEMICAL INDUSTRIES, IP SURVEILLANCE, AND PROCESS AUTOMATION, WHERE RELIABLE OPERATION IN HARSH AND CRITICAL ENVIRONMENTS IS ESSENTIAL.

FEATURES & BENEFITS

- 8*10/100/1000BASE-T RJ45 PORTS, 2*1000/2500BASE-X SFP SLOTS
- REDUNDANT POWER 12-58V INPUT WITH POLARITY REVERSE/OVER-VOLTAGE/OVER-CURRENT PROTECTION
- SUPPORT USB ONE KEY CONFIGURATION AND UPGRADING(OPTIONAL)
- SUPPORT DI/DO/RS485(OPTIONAL)
- LAYER 3 FEATURES: SUPPORT IPV4/IPV6 STATIC ROUTING, DHCP SERVER
- SUPPORT LAYER 2 MANAGEMENT FUNCTION: VLAN/VLAN CLASSIFICATION/QINQ/STP, RSTP, MSTP/PORT MIRRORING/DHCP/MULTICAST/ACL/IGMP/QOS/LLDP/802.1X/DYING GASP/SFP DDM/IPV6 MANAGEMENT/WEB/SNMP/TELNET/TFTP/WEB UPGRADING
- SUPPORT G.8032 ERPS PROTOCOL, RECOVERY TIME ≤20MS
- SUPPORT 6KV SURGE PROTECTION AND ESD: AIR-15KV, CONTACT-8KV PROTECTION
- IP40 FAN-LESS AND DIN-RAIL HARDWARE DESIGN
- OPERATION TEMPERATURE: -40 °C ~+75°C

SPECIFICATIONS

INTERFACE

Copper Port	8 * 10/100/1000M
Fiber Port	2 * 1G/2.5G Base-X SFP
Console	1*RJ45 Console port (115200,8, N,1)
	1*USB 2.0 (optional)

**Data & Alarm channel
(optional)**

1 channel RS485
1 channel DI (digital input)
1 channel DO (digital output)

Standard

IEEE 802.3 10Base-T Ethernet
IEEE 802.3u 100Base-TX Ethernet
IEEE 802.3ab 1000Base-T Ethernet
IEEE 802.3z 1000Base-X Ethernet
IEEE802.3x Flow Control and Back Pressure
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol
IEEE 802.1Q VLAN
ITU-T G.8032 ERPS
IEEE 802.1X Port Authentication Network Control
IEEE 802.1ab LLDP
IEEE 802.3ad LACP

LED Indicator

P (Power indicator)
S (System status indicator)
USB (USB status indicator) Green
ALM (Fault status indicator) Red
1-8 (Copper ports indicators) Green
1-8 (Copper speed indicators) Yellow
9-10 (Fiber ports indicators) Green

SOFTWARE FEATURES

L2 FEATURES

Port aggregation

Support GE port aggregation
Support 2.5GE aggregation
Support static aggregation
Support LACP dynamic aggregation
Up to 64 aggregation groups and up to 8 ports per group

**Mac-address table
management**

Support static Mac-address management
Support dynamic Mac-address Management
Support filtering Mac-address
Support MAC limit based on port and VLAN
Support MAC flapping based on port and VLAN

Port Features

Support IEEE802.3x flow control
Support interface counters
Support port isolation
Port mirroring (One-to-One, Many-to-One)
Support loop detection (Port-based; VLAN-based)
Support broadcast storm suppression (broadcast; unknown multicast; unknown unicast)

VLAN

Support access mode
Support trunk mode
Support hybrid mode

VLAN classification

Mac Based VLAN
IP Based VLAN
Protocol Based VLAN

GVRP

Normal mode
Fixed mode
Forbidden mode

QinQ

Port-based QinQ
VLAN-based QinQ (VLAN-stacking; VLAN-mapping)
Flow-based QinQ

LLDP

LLDP (Link Layer Discovery Protocol)

Ring network protocol

Support IEEE802.1D-STP
Support IEEE802.1W-RSTP
Support IEEE802.1S-MSTP
Support G.8032 ERPS protocol single ring, sub-Ring and major ring
Recovery time $\leq 20\text{ms}$

L2 MULTICAST

IGMP snooping

Support IGMP snooping

Group address

Support group address

SECURITY

ACL

IP Standard ACL
MAC extend ACL
IP extend ACL
IPv6 ACL

QoS

Support QoS Class, remarking
Support SP, WRR queue scheduling
Ingress port-based rate-limit
Egress port-based rate-limit
Support policy-based QoS

802.1x

Port access control
Mac-address access control
RADIUS server

Port-security

Port-security

IP source guard

IP Port/MAC binding

ARP-check

Support ARP-check and ARP packet filtering for illegal users

Access control

Support Telnet/SSH/HTTP/HTTPS user access control

MANAGEMENT

User management

Support password protection
Support user authorization management

SNMP

Supporting SNMP V1/V2C/V3 version

Web Management

Web Management
Support HTTP V1.1
Support HTTPS

CLI management

Console/Telnet command line management

RMON

Support RMON (Remote Monitoring) alarm

Firmware upgrade

Firmware upgrade

Fault Detection

Ping/Tracerout
Dying gasp
Support optical transceiver DDM function

Cable detection

Support copper port cable detection

NTP

Network Time Protocol

Syslog/Debug

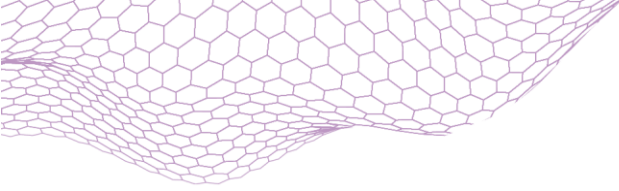
Syslog/Debug
Syslog sends to three servers

Configuration import/export

Support FTP/TFTP remote import/export

Dual partition management

Support dual partition switching



APPLICATION

DHCP Snooping	DHCP snooping trust port Support remote-id/circuit-id configuration DHCP option-82
DHCP client	Support DHCP client
Telnet server	Support telnet server
Telnet client	Support telnet client
SSH server	Support SSH server
TACACS	Support TACACS (the terminal access controller accesses the control system)
sflow	Support network traffic analysis
TFTP	Support TFTP Client

LAYER 3 FUNCTION

ARP	ARP table aging
DHCP server	Support
IPv4 / IPv6	static routing

SWITCHING FEATURES

Switching capacity	26Gbps
Packet forwarding rate	38.6Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
MTBF	> 200,000 hours

APPROVALS & STANDARDS TESTED FOR

EMS

Surge protection of power:

IEC 61000-4-5 6KV/4KV (8/20us)

Surge protection of Ethernet ports:

IEC 61000-4-5 6KV/2KV (10/700us)

RS : IEC 61000-4-3 80 MHz-1 GHz : 10 V/m

EFT : IEC 61000-4-4 4K/2K

CS : IEC 61000-4-6 10V

ESD : IEC 61000-4-2 Contact: 8K ; Air: 15K

EMI

FCC Part 15B Class A

Shock

IEC 60068-2-27

Free fall

IEC 60068-2-32

Vibration

IEC 60068-2-6

Certification

CCC/CE/UKCA/RoHS/REACH/FCC

POWER

Input Voltage

12-58VDC, redundant power input

Input Current

0.9A Max

Power Consumption

Full loading $\leq 10W$

Connector

Removable 4-pin terminal block

Reverse polarity protection

Support

Over-voltage protection

Support

Over-current protection

Support

PHYSICAL CHARACTERISTICS

Dimension (W*D*H)

54*115*158mm

Enclosure

IP40

Installation

DIN-rail

Weight

1.08Kg

ENVIRONMENT

Working Temperature

-40°C to +75°C

Storage Temperature

-40°C to +85°C

Relative Humidity

10 - 90% RH

Storage humidity

5% - 95%RH

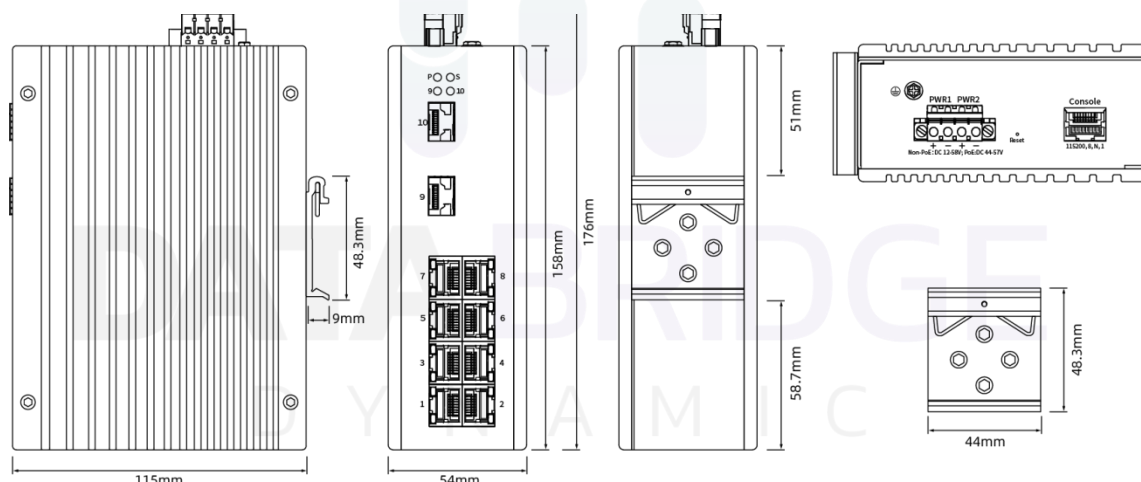
ORDERING CODE

DDSMG 308-2S (FI) ST

DDSMG	Industrial Grade Giga L2+ Managed Ethernet Switch
308	8* 10/100/1000M Copper Port
2S	2 * 1G/2.5G Base-X SFP
FI (Optional)	Supports DI/DO/RS485
ST	Fixed

STRUCTURE DIAGRAM

1. DDSMG 308-2S ST



2. DDSMG 308-2S FI ST

