



12 PORT LAYER 2+

INDUSTRIAL ETHERNET GIGA MANAGED SWITCH

DDSMG SERIES



SYNOPSIS

- THE DDSMG 308-4S CF IS A FULL-GIGABIT LAYER-2 MANAGED INDUSTRIAL ETHERNET FIBER SWITCH INDEPENDENTLY DEVELOPED BY DATABRIDGE DYNAMIC.
- IT IS EQUIPPED WITH 8 × 10/100/1000BASE-T RJ45 PORTS AND 4 × 100/1000BASE-X SFP FIBER PORTS, WITH ALL PORTS SUPPORTING WIRE-SPEED FORWARDING.
- THE SWITCH FEATURES COMPREHENSIVE LAYER-2 NETWORK MANAGEMENT, ADVANCED SECURITY PROTECTION MECHANISMS, ACL/QOS POLICIES, AND ENHANCED VLAN CAPABILITIES, ENSURING SIMPLIFIED MANAGEMENT AND MAINTENANCE.
- DEPENDING ON APPLICATION NEEDS, USERS CAN CONFIGURE ROUTING ADDRESS MANAGEMENT, PORT MANAGEMENT, TRAFFIC CONTROL, VLAN SEGMENTATION, IGMP, AND SECURITY POLICIES THROUGH VARIOUS NETWORK MANAGEMENT INTERFACES SUCH AS WEB, CLI, SNMP, AND TELNET.
- HOUSED IN A DURABLE ALUMINUM-ALLOY ENCLOSURE, THE DEVICE OFFERS EXCELLENT ENVIRONMENTAL ADAPTABILITY FOR INDUSTRIAL APPLICATIONS, INCLUDING RESISTANCE TO MECHANICAL VIBRATION, CLIMATE CHALLENGES, AND ELECTROMAGNETIC INTERFERENCE.
- IT FEATURES IP40 PROTECTION, DUAL REDUNDANT POWER SUPPLY SUPPORT, LOW POWER CONSUMPTION, AND A FANLESS DESIGN
- THE DDSMG 308-4S CF IS IDEAL FOR ESTABLISHING COST-EFFECTIVE, STABLE, AND HIGHLY RELIABLE COMMUNICATION NETWORKS IN DEMANDING INDUSTRIAL ENVIRONMENTS SUCH AS INTELLIGENT TRANSPORTATION, RAIL TRANSIT, ELECTRIC POWER SYSTEMS, MINING, PETROLEUM, MARINE APPLICATIONS, METALLURGY, AND GREEN ENERGY INFRASTRUCTURE.

TECHNICAL SPECIFICATIONS

INTERFACE	
Fixed Port	8 * 10/ 100/ 1000Base-T RJ45 ports 4 * 100/ 1000Base-X uplink SFP slot ports 1 * RS232 console port
Ethernet Ports	Port 1-8 support 10/ 100/ 1000Base-T auto-sensing, full/half duplex Auto MDI/MDI-X
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
SFP Slot Port	Gigabit SFP optical Fiber interface Supports single-mode single Fiber optical module. LC)
Wavelength/Distance	Multimode: 850nm 0 to 550M,1310nm 0 to 2KM Single mode: 1310nm 0 to 40KM , 1550nm to 120KM

HARDWARE FEATURES

Network Management Type	L2+
Ring network	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of <20ms
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-X, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	24Gbps
Buffer Memory	17.85Mpps
MAC	8K
LED Indicator	Power Indicator Light Green Fiber Indicator Light Green (Link, SDFED) On the RJ45 seat Yellow: PoE Green: Network working status
Reset Switch	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings

SOFTWARE FEATURES

Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor. Traffic statistics
Link Aggregation	Static link aggregation LACP Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunnelling Private VLAN (Protected port) GARP/GVRP
ACL	256ACLs L2, L3 e L4 Time-based ACL

Spanning Tree

802.1D Spanning Tree Protocol (STP)
802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s
Multiple
Spanning Tree Protocol (MSTP) Loop Guard
Root Guard
TC-BPDU Guard
BPDU Guard
BPDU Filter

Ring Protection

<20ms G.8032 ERPS Ring

Multicast

256 groups
IGMP v1/v2/v3 Snooping,
Fast Leave MLD Snooping
Multicast VLAN

QOS

Port-based
CoS 802.1p-based CoS
DSCP-based.
Scheduling algorithms SP, WRR, SP+WRR
Storm Control (Broadcast, Multicast, Unknown Unicast)
Bandwidth control per port

DHCP

SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups
WEB (HTTP/HTTPS)
CLI (Telnet, Console, SSHv1/v2) Firmware
upgrade via console/web/TFTP Configuration
Backup/Reload
Dual Firmware
LLDP

Security Features

Port Security MAC
Address filter
ARP Association (Manual, ARP scanning, DHCP
snooping) ARP
Protection
DoS (Denial of Service)
Classification of packages based on: End.MAC, IP End,
TCP / UDP Ports, Protocol Type.
802.1x Authentication (port-based e MAC-based)
TACACS/TACACS+ Authentication
RADIUS Authentication
DHCP Filter
Guest VLAN
SSLv2/SSLv3/TLSv1
SSHv1/SSHv2
Restriction of WEB access based on: IP Address, And.
MAC and Port; Port Isolation Loopback detection

Other Features

DNS Client DHCP
Relay DHCP Client
DHCP Snooping
DHCP Option 82
SNTP Client
UDLD

Maintenance

Cable Diagnostics
Ping
SFP DDM (Digital Diagnostics Monitoring) Thermal protection
System log (Local and Remote)
Memory and CPU Monitoring

APPROVALS AND STANDARDS TESTED FOR

IEC61000-4-2	ESD: ±8kV contact discharge, ±15kV air discharge
IEC61000-4-3	RS:10V/m (80~ 1000MHz)
IEC61000-4-4	EFT: power cable: ±4kV; data cable: ±2kV
IEC61000-4-5	Surge: power cable:CM±4kV/DM±2kV; data cable: ±4kV
IEC61000-4-6	radio frequency transmission:10V(150kHz~80MHz)
IEC61000-4-8	power frequency magnetic field:100A/m;1000A/m, 1s to 3s
IEC61000-4-9	pulsed magnet field:1000A/m
IEC61000-4- 10	damped oscillation:30A/m 1MHz
IEC61000-4- 12/ 18	shockwave: CM 2.5kV, DM 1kV
IEC61000-4- 16	common-mode transmission:30V; 300V, 1s
IEC61000-6-2	Common Industrial Standard
IEC60068-2-6	anti vibration
IEC60068-2-27	anti shock
IEC60068-2-32	free fall
CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS	Certifications
Lightning Protection	Lightning protection: 6KV 8/20us, Protection level: IP40

POWER

Power Supply	DC12-57V industrial power supply Dual Redundant
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PHYSICAL CHARACTERISTICS

Dimension (L*W*H)	172mm* 145mm*54mm
Installation	Desktop, DIN rail
Enclosure	Aluminum-alloy

ENVIRONMENT

Working Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Operating Humidity	5% to 90% (non-condensation)
Storage Humidity	5% to 90% (non-condensation)

ORDERING CODE

DDSMG 308-4S CF

DDSMG	Industrial Grade L2+ Giga Managed Ethernet Switch
308	8 * 10/100/1000M Copper Port
4S	4 * 100/1000Base-X uplink SFP slot ports
CF	Fixed