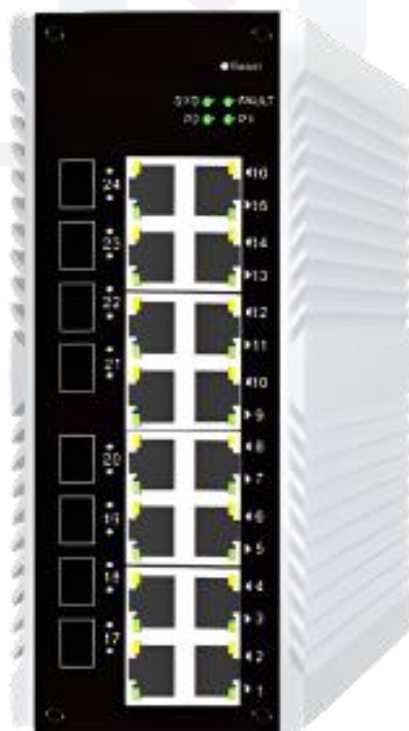
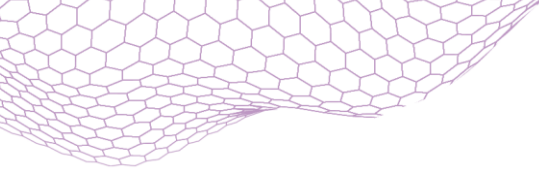


24 PORT LAYER 2+

INDUSTRIAL ETHERNET MANAGED SWITCH-GIGA

DDSMG CF SERIES





SYNOPSIS

- THE DDSMG 3016-8S CF IS A LAYER 2+ MANAGED INDUSTRIAL ETHERNET FIBER SWITCH.
- IT IS EQUIPPED WITH $16 \times 10/100/1000\text{BASE-T}$ RJ45 PORTS AND $8 \times 100/1000\text{BASE-X}$ SFP FIBER PORTS.
- THE SWITCH PROVIDES COMPREHENSIVE L2+ NETWORK MANAGEMENT CAPABILITIES, INCLUDING IPV4 STATIC ROUTING, ADVANCED SECURITY PROTECTION MECHANISMS, ACL AND QOS POLICIES, AND EXTENSIVE VLAN FEATURES, ENSURING EFFICIENT TRAFFIC CONTROL AND SECURE NETWORK OPERATION.
- IT SUPPORTS MULTIPLE NETWORK REDUNDANCY PROTOCOLS SUCH AS STP/RSTP/MSTP WITH CONVERGENCE TIMES < 50 MS, ERPS RING WITH CONVERGENCE TIMES < 20 MS, ENHANCING NETWORK RELIABILITY AND ENSURING UNINTERRUPTED COMMUNICATION FOR CRITICAL APPLICATIONS.
- THE DEVICE ALLOWS FLEXIBLE CONFIGURATION OF ROUTING ADDRESS MANAGEMENT, PORT MANAGEMENT, FLOW CONTROL, VLAN SEGMENTATION, IGMP, AND SECURITY POLICIES THROUGH MULTIPLE MANAGEMENT INTERFACES, INCLUDING WEB, CLI, SNMP, AND TELNET, ENABLING EASY OPERATION AND MAINTENANCE.
- THE SWITCH FEATURES A RUGGED ALUMINUM ALLOY ENCLOSURE WITH AN IP40 PROTECTION RATING AND SUPPORTS DUAL REDUNDANT POWER SUPPLIES.

FEATURES & BENEFITS

- SUPPORTS NON-BLOCKING, WIRE-SPEED PACKET FORWARDING ACROSS ALL PORTS.
- SUPPORTS FULL-DUPLEX OPERATION IN COMPLIANCE WITH IEEE 802.3X FLOW CONTROL AND HALF-DUPLEX OPERATION USING BACKPRESSURE MECHANISMS.
- SUPPORTS STATIC AND DYNAMIC LINK AGGREGATION TO INCREASE BANDWIDTH AND PROVIDE LINK REDUNDANCY.
- SUPPORTS IEEE 802.1Q VLAN, ENABLING FLEXIBLE VLAN SEGMENTATION WITH ACCESS, TRUNK, AND HYBRID PORT MODES.
- PROVIDES ADVANCED QUALITY OF SERVICE (QOS) WITH PRIORITY CLASSIFICATION BASED ON IEEE 802.1P, PORT, AND DSCP, AND SUPPORTS MULTIPLE QUEUE SCHEDULING ALGORITHMS INCLUDING EQU, SP, WRR, AND SP+WRR.
- SUPPORTS IGMP SNOOPING V1/V2/V3, ENSURING EFFICIENT MULTICAST TRAFFIC HANDLING FOR MULTI-TERMINAL HIGH-DEFINITION VIDEO SURVEILLANCE APPLICATIONS.
- SUPPORTS ACL (ACCESS CONTROL LIST) FUNCTIONS TO FILTER DATA PACKETS THROUGH CONFIGURABLE MATCHING RULES, PROCESSING ACTIONS, AND TIME-BASED POLICIES.
- SUPPORTS IEEE 802.1X AUTHENTICATION FOR SECURE PORT-BASED NETWORK ACCESS CONTROL.
- SUPPORTS PORT ISOLATION AND BROADCAST/MULTICAST STORM CONTROL TO ENHANCE NETWORK STABILITY AND SECURITY.
- SUPPORTS IP-MAC-VLAN-PORT BINDING TO PREVENT ADDRESS SPOOFING AND UNAUTHORIZED ACCESS.
- SUPPORTS SECURE MANAGEMENT ACCESS VIA HTTPS, SSLV3, AND SSH (V1/V2).
- SUPPORTS RMON, SYSTEM LOGGING, LLDP, AND DETAILED PORT TRAFFIC STATISTICS FOR NETWORK MONITORING AND DIAGNOSTICS.
- PROVIDES CPU AND MEMORY MONITORING, PING TESTING, AND CABLE DIAGNOSTICS FOR EFFICIENT FAULT DETECTION AND MAINTENANCE.
- SUPPORTS MULTIPLE MANAGEMENT INTERFACES, INCLUDING WEB-BASED MANAGEMENT, CLI (CONSOLE AND TELNET), AND SNMP (V1/V2/V3) FOR COMPREHENSIVE DEVICE ADMINISTRATION.

TECHNICAL SPECIFICATIONS

INTERFACE

Fixed Port	16 * 10/ 100/ 1000Base-T RJ45 ports 8 * 100/ 1000Base-X uplink SFP slot ports 1 * RS232 console port
Ethernet Ports	Port 1-26 support 10/ 100/ 1000Base-T auto-sensing, full/half duplex, Auto MDI/MDI-X
SFP Slot Port	Gigabit SFP optical Fiber interface
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)
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	48 Gbps
Buffer Memory	35.7Mpps
MAC	8K
LED Indicator	Power, Fiber, Network
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 & 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 scan, 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

L3 functions

IPV4 Equal Cost Routing
NG protocol, maximum 1000 entries
ARP protocol, maximum 1000 entries
Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6
IPV4/IPV6 VRRP, the maximum group is 255
IPV4/IPV6 VLANIF interface supports up to 128
IPV4/IPV6 static route/default route supports up to 128 entries
L3 Network Management Function,
IPV4/IPV6 Dual-stack Management
Layer 3 routing and forwarding, support communication between different network segments and different VLANs

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
FCC Part 15/CISPR22(EN55022): Class B	EMI

POWER

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

Dimension (L*W*H)	174mm* 148mm*68mm
Installation	Desktop, DIN rail

ENVIRONMENT

Working Temperature	-40°C to +75°C
Storage Temperature	-40°C to +85°C
Operating Humidity	5% to 90% (no condensation)
Storage Humidity	5% to 95% (no condensation)

ORDERING CODE

DDSMG 3016-8S CF

DDSMG	Industrial Grade L2+ Giga Managed Ethernet Switch
3016	16 * 10/100/1000M Copper Port
8S	8 * 100/1000Base-X uplink SFP slot ports
CF	Fixed