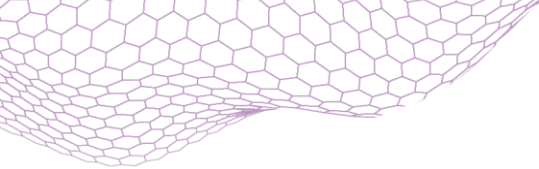


20 PORT LAYER 2+

INDUSTRIAL ETHERNET MANAGED SWITCH-GIGA

DDSMG CF SERIES





SYNOPSIS

- THE DDSMG 3016-4S CF IS A FULL GIGABIT L2 MANAGED INDUSTRIAL ETHERNET FIBER SWITCH INDEPENDENTLY DEVELOPED BY DATABRIDGE DYNAMIC.
- IT HAS 16*10/100/1000BASE-T RJ45 PORTS AND 4*100/1000BASE-X SFP FIBER PORTS.
- EACH PORT CAN SUPPORT WIRE-SPEED FORWARDING.
- THE DDSMG 3016-4S CF HAS L2 NETWORK MANAGEMENT FUNCTION, COMPLETE SECURITY PROTECTION MECHANISM, ACL/QOS POLICY AND RICH VLAN FUNCTIONS, EASY TO MANAGE AND MAINTAIN.
- SUPPORT MULTIPLE NETWORK REDUNDANCY PROTOCOLS STP/RSTP/MSTP(<50MS), SUPPORT ERPS RING NETWORK FUNCTION (CONVERGENCE TIME<20MS) TO IMPROVE LINK BACKUP AND NETWORK RELIABILITY TO ENSURE UNINTERRUPTED COMMUNICATION OF IMPORTANT APPLICATIONS.
- ACCORDING TO ACTUAL APPLICATION NEEDS, ROUTING ADDRESS MANAGEMENT, PORT MANAGEMENT, PORT FLOW CONTROL, VLAN DIVISION, IGMP, SECURITY POLICY AND OTHER APPLICATION SERVICE CONFIGURATIONS ARE PERFORMED THROUGH WEB, CLI, SNMP, TELNET AND OTHER NETWORK MANAGEMENT METHODS.
- PROTECTION LEVEL IS IP40, SUPPORT DUAL REDUNDANT POWER SUPPLY, LOW POWER CONSUMPTION AND NO FAN.
- IT IS SUITABLE FOR INDUSTRIAL SCENARIOS SUCH AS INTELLIGENT TRANSPORTATION, RAIL TRANSIT, ELECTRIC POWER INDUSTRY, MINING, PETROLEUM, SHIPPING, ETC

FEATURES & BENEFITS

- SUPPORT NON-BLOCKING WIRE-SPEED FORWARDING.
- SUPPORT FULL-DUPLEX BASED ON IEEE802.3X AND HALF-DUPLEX BASED ON BACKPRESSURE.
- SUPPORT GIGABIT ETHERNET PORT AND GIGABIT SFP PORT COMBINATION, WHICH ENABLES USERS TO FLEXIBLY BUILD NETWORKING TO MEET THE NEEDS OF VARIOUS SCENARIOS.
- SUPPORT PHYSICAL SINGLE-MODE SINGLE FIBER OPTICAL PATH(BYPASS) FUNCTION, PURE HARDWARE SWITCHING, SHORT SWITCHING TIME, DOES NOT AFFECT THE DATA TRANSMISSION RATE AND IMPROVES THE STABILITY OF THE NETWORK SYSTEM.
- STP/RSTP/MSTP/ERPS.
- STATIC AND DYNAMIC AGGREGATION.
- IEEE802. 1Q VLAN, FLEXIBLE VLAN DIVISION, ACCESS, TRUNK AND HYBRID.
- QOS, PRIORITY MODE BASED ON 802. 1P, PORT & DSCP, QUEUE SCHEDULING ALGORITHM INCLUDING EQU, SP, WRR & SP+WRR.
- IGMP SNOOPING V1/V2/V3 MEETS MULTI-TERMINAL HIGH-DEFINITION VIDEO SURVEILLANCE AND VIDEO CONFERENCE ACCESS REQUIREMENTS.
- ALC, FILTER DATA PACKET THROUGH CONFIGURING MATCHING RULES PROCESSING OPERATION & TIME PERMISSION AND PROVIDE FLEXIBLE AND SAFE ACCESS CONTROL.
- 802. 1X AUTHENTICATION.
- PORT ISOLATION, STORM CONTROL.
- IP-MAC-VLAN-PORT BINDING
- LOW POWER CONSUMPTION, NO FAN, ALUMINUM SHELL.
- THE USER-FRIENDLY PANEL CAN SHOW THE DEVICE STATUS THROUGH THE LED INDICATOR OF PWR, SYS, LINK, L/A
- HTTPS, SSLV3, AND SSHV1/V2.
- RMON, SYSTEM LOG, LLDP, AND PORT TRAFFIC STATISTICS.
- CPU MONITORING, MEMORY MONITORING, PING TEST, AND CABLE DIAGNOSE.
- WEB MANAGEMENT, CLI COMMAND LINE (CONSOLE, TELNET), SNMP (V1/V2/V3).

TECHNICAL SPECIFICATIONS

INTERFACE

Fixed Port	16 * 10/ 100/ 1000Base-T RJ45 ports 4 * 100/ 1000Base-X uplink SFP slot ports 1 * RS232 console port
Ethernet Ports	Port 1-16 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
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	40Gbps
Buffer Memory	29.7Mpps
MAC	8K
LED Indicator	Power, Fiber, PoE
Reset Switch	Yes

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

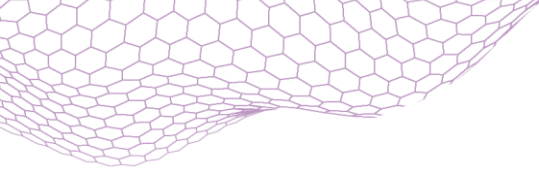
IEC61000-4-2	ESD: ±8kV contact discharge, ±15kV air discharge
IEC61000-4-3	RS:10V/m (80~ 1000MHz
IEC61000-4-4	EFT: power cable: ±4kV; data cable: ±2kV
IEC61000-4-5	Surge: power cable:CM±4kV/DM±2kV; data cable: ±4kV
IEC61000-4-6	Radio frequency transmission:10V(150kHz~80MHz)
IEC61000-4-8	Power frequency 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
Lightning Protection	Lightning protection: 6KV 8/20us,

POWER

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

Dimension (L*W*H)	174mm* 148mm*68mm
Installation	Desktop, DIN rail
Enclosure	Aluminium Alloy
IP Rating	IP40



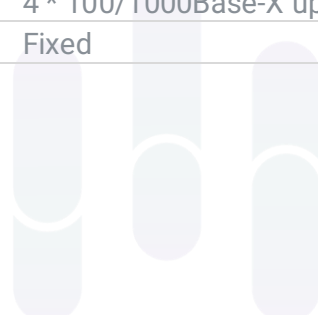
ENVIRONMENT

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

ORDERING CODE

DDSMG 3016-4S CF

DDSMG	Industrial Grade L2+ Giga Managed Ethernet Switch
3016	16 * 10/100/1000M Copper Port
4S	4 * 100/1000Base-X uplink SFP slot ports
CF	Fixed



DATA BRIDGE
D Y N A M I C