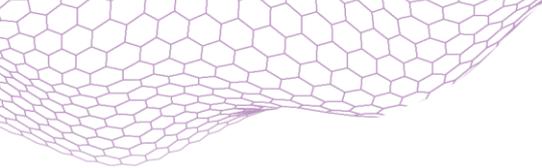# 8 PORT LAYER 2+

INDUSTRIAL ETHERNET MANAGED SWITCH-GIGA

DDSMG SERIES

SYNOPSIS

- THE DDSMG 306-2S CF IS A FULL GIGABIT L2+ MANAGED INDUSTRIAL ETHERNET FIBER SWITCH
- IT HAS 6 * 10/100/1000BASE-T RJ45 PORTS AND 2 * 100/1000BASE-X SFP FIBER PORTS
- THE DDSMG 306-2S CF HAS L2+ NETWORK MANAGEMENT FUNCTION, SUPPORT IPV4 STATIC ROUTE FORWARDING, 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)
- 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.
- ALUMINUM ALLOY ENCLOSURE HAS EXCELLENT MECHANICAL STABILITY, CLIMATE ENVIRONMENT ADAPTABILITY, ELECTROMAGNETIC ENVIRONMENT ADAPTABILITY, ETC.),
- PROTECTION LEVEL IS IP40
- DUAL REDUNDANT POWER SUPPLY, LOW POWER CONSUMPTION AND NO FAN.

FEATURES & BENEFITS

- SUPPORT NON-BLOCKING SPEED FORWARDING.
- SUPPORT FULL-DUPLEX BASED ON IEEE802.3X AND HALF-DUPLEX BASED ON BACKPRESSURE.
- SUPPORT GIGABIT ETHERNET PORT AND GIGABIT SFP PORT
- 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
- 802. 1X AUTHENTICATION.
- PORT ISOLATION, STORM CONTROL.
- IP-MAC-VLAN-PORT BINDING
- LOW POWER CONSUMPTION, NO FAN, ALUMINUM ENCLOSURE.
- 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	6* 10/ 100/ 1000Base-T RJ45 ports 2* 100/ 1000Base-X uplink SFP slot ports 1*RS232 console port
Ethernet Ports	Port 1-6 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 0~550M,1310nm 0~2KM Single mode: 1310nm 0~40KM , 1550nm 0~120KM

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	20Gbps
Buffer Memory	14.88Mpps
MAC	8K
LED Indicator	Power Indicator, Fiber Indicator and Network status
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
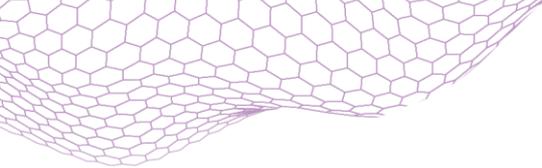
DHCP	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS)
	CLI (Telnet, Console, SSHv1/v2)
	Firmware upgrade via console/web/TFTP Configuration Backup/Reload
	Dual Firmware
	LLDP
Security Features	Port Security
	MAC Address filter
	ARP Association (Manual, ARP scanning, DHCP snooping)
	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

L3 FUNCTIONS

Static Routing	IPv4 Unicast: Static Routing (Software Base) IPv6 Unicast: Static Routing (Software Base)
IPV6	IPv6 neighbour discovery (ND) Path maximum transmission unit (MTU) discovery Internet Control Message Protocol (ICMP) version 6 TCPv6/UDPv6 Ping6 Telnet(v6) Http/Https Interface IPV6 ACL IPV6

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

PHYSICAL CHARACTERISTICS

Dimension (L*W*H)	172mm* 145mm*55mm
Installation	Desktop, DIN rail
Protection Level	IP40
Enclosure	Aluminium Alloy

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 306-2S CF

DDSMG	Industrial Grade L2+ Giga Managed Ethernet Switch
306	6 * 10/100/1000M Copper Port
2S	2* 100/1000Base-X uplink SFP slot ports
CF	Fixed