LEAGRID™

Product Model

LGS2000-ICS-21

Product Image

Product Overview

LGS2000-ICS-21 series switch is a DIN-rail gigabit switch, which can support 4 gigabit optical ports, 8 gigabit electrical ports, 4 serial/485 ports, 2 CAN interfaces; using Linux 2.6.26 operating system, standard file system, supporting user protocol custom development; supporting RSTP, VLAN, multicast, QoS, SSH, ERPS and other rich software features; supporting console, SSH and other management methods.It supports RSTP, VLAN, multicast, QoS, SSH, ERPS and other rich layer 2 software features; supports console, SSH and other management methods. At the same time, the industry's first to support the international standard ERPS ring protocol (self-healing time <20ms), a change in the current situation of incompatible ring protocols of various manufacturers, while being able to mix the network with equipment that does not support the protocol, suitable for a variety of network applications that require high-precision clock synchronization.

Characteristics

Support for 485 interface, Modbus TCP, TCP/UDP data transit, and custom customization development.
Support for CAN bus interface, TCP/UDP data transit, and custom custom development.
International standard redundancy technology: support for various redundancy mechanisms such as RSTP and ERPS (self-healing time < 20ms).
Rich network and security features: support for VLAN, RSTP, multicast, port mirroring, QoS, ACL and other Layer 2 features.
ASIC-based high-speed hardware data forwarding mechanism.

Technical Specification

Indicator Light
Run indicator is Run
Alarm indicator:Alarm
Power indicator:PWR1,PWR2
Interface indicator:Link/ACT,Speed

Transmission distance
Twisted-pair cable: 100m (using standard CAT5,CAT5e network cable)
Multimode fiber: 1310nm, 5km (100 megabit); 850nm, 550m (Gigabit)
Single-mode fiber: 1310nm,40km/60km (100 megabit)
1550nm,60km/80km(100GbE)
1310nm,10km/40km(Gigabit)
1550nm,60km/80km(Gigabit)

Power supply
Input voltage: 24V/48V wide power supply
Access terminal: 5 core 5.08mm pitch plug-in terminal
Power: <15W
Overload protection: Support
Reverse connection protection: Support
Redundancy protection: Dual power supply redundancy

Mechanical structure
Protection level: IP40
Industrial Grade: Industrial Grade IV
Size: 84mmH×135mmW×132mmD
Weight ： Specification 1.2Kg

Protection level: IP40

Software Features
Redundancy technology
Support ERPS (self-healing time <20ms)
Support RSTP
Multicast
Support IGMP Snooping
Support static multicast

Switching function
Support VLAN
Support PVLAN
Port aggregation support
Port flow control
Support broadcast storm suppression
Support port rate management

Serial Protocol
Support serial to Ethernet transparent transmission, TCP/UDP protocols, user-defined protocols
Support Modbus/TCP and Modbus data collection management
Security Technology
Support SSH
Support blacklist, whitelist
Support ACL

Environment
Working temperature:-40℃～+80℃
Storage temperature:-40℃～+85℃
Relative humidity:5～95% no condensation

Warranty
MTBF:346889h
Warranty period:5 years

Quality of Service Management
QoS support
Support for strict priority queuing and weighted priority queuing
Management and Maintenance
Support CLI, SSH, WEB and other management methods
Support LLDP auto topology
Support SNMPv1/v2/v3, ROMON, SNTP
Support TFTP/FTP upgrade, support logging and uploading
Device maintenance: support port mirroring
Alarm output: power, port and ring alarms
Product Specifications

Ports
Gigabit interface: 8GE (1000Base-T), 2/4GX (1000Base-LX, SFP interface)
Serial/485: 4 x 485/serial ports
2 CAN bus interfaces
CONSOLE port: 1×RS232 communication serial port, 115200 baud rate
Grounding port: 1
Power port: Dual power ports

Switching attributes
Priority queue: 4
Number of VLANs: 4094
VLAN ID：1～4094
Number of multicast groups: 256
MAC table: 8k
Packet buffer: 4Mbit
Packet forwarding rate: 9.5Mpps
Switching delay: <5μs

Certification
State Grid Class A
Implementation Standard
IEEE 802.3i(10Base-T)
IEEE 802.3u(100Base-T)
IEEE 802.3ab(1000Base-T)
IEEE 802.3ad (port aggregation)
IEEE 802.3z (1000Base-SX/LX)
IEEE 802.3x(flow control)
IEEE 802.1p(Priority)
IEEE 802.1Q(VLAN)
IEEE 802.1w (RSTP)
IEEE 802.1x

Reliability and Security
EMI:FCCCFR47 Part 15,EN55022/CISPR22,Class A
EMC:IEC61000-4-2(ESD) ±8kV(contact),±15kV(air)
IEC61000-4-3(RS) 10V/m(80MHz～2GHz)
IEC61000-4-4(EFT) Power Port:±4kV,Data Port:±2kV
IEC61000-4-5(Surge) Power Port:±2kV/DM,±4kV/CM;Data Port:±2kV
IEC61000-4-6(CS) 3V(10kHz～150kHz);10V(150kHz～80MHz)
IEC61000-4-8(FT magnetic field) 100A/m(cont.),1000A/m(1s～3s)
IEC61000-4-9(Impulse magnetic field) 1000A/m
IEC61000-4-10(Damped oscillation) 100A/m
IEC61000-4-12(Oscillation wave) 2.5kV/CM,1kV/DM
IEC61000-4-16(Common mode conduction) 30V(cont.),300V(1s)
Mechanical: IEC60068-2-6(Vibration) IEC60068-2-27(Shock) IEC60068-2-32(Free fall)
Industrial:IEC61000-6-2
Power:IEC61850-3,IEEE1613
Railroad:EN50155,EN50121-4
Traffic control:NEMA TS-2

Machanical Drawing