Product Model	**LGS2000-F-16PFE4FE4GE-M12-M**

Product Image

Product Overview

LGS2000-F-16PFE4FE4GE-M12-M is an industrial-grade Layer 2 managed Gigabit Ethernet switch designed for rail transit. It has complete Layer 2 network functions, such as 802.1Q VLAN, STP/RSTP, QoS function, DHCP Server/Client, IGMP, static multicast, port aggregation, port mirroring, etc. It also provides various network management methods such as WEB/Telnet/Console/CLI. The product supports trunk network fault bypass function (i.e. BYPASS function) to avoid the communication interruption of downstream nodes caused by the failure of intermediate nodes in the line network. The product adopts industrial-grade devices and housing design, and provides M12 interface to ensure long-term stable, reliable and safe use in harsh environments.

Technical Specification

Standards
IEEE 802.3 10Base-T
IEEE 802.3u 100Base-TX
IEEE 802.3ab 1000BASE-T

Ethernet characteristics .
Forwarding frame length: 9K bytes maximum
MAC address capacity: 8K
Data cache: 4M
Number of VLANs: 4K
Switching latency : <10us
VLAN mode : Acess/Trunk/Hybrid
QINQ: Support
Bandwidth management : port speed limit inbound and outbound direction
Speed limit granularity: 0~1G, Step 100Kbps
Extended loopback : port-based: supported
Link Aggregation /LACP: support load balancing , support port protection
Spanning Tree Protocol : Support STP, RSTP, MSTP
Industrial ring network : support ERPS, ring protection switching time <20ms
QOS flow classification : support
QOS priority trust: support
QOS queue number: 8
QOS queue scheduling : SP, WRR
QOS flow policy: Support
Storm suppression type: broadcast , multicast , unknown unicast
Storm suppression based on global: Support
ACL based on MAC: Support
ACL based on IP: Support

ACL based on VLAN: Support
Number of ACL entries: 256
OAM: 802.3 ah: Support
    802.1ag: supported

Management and maintenance features .
Command line management : Console , Telnet
SNMP network management : Support
WEB management : Support
System upgrade : support Xmodem / TFTP upgrade under BOOTROM ; support upload and upgrade of system files and configuration files
User management : user classification and password protection
System maintenance : fiber break alarm, power failure alarm, optical module diagnosis, ping, port statistics

Interface
100 Gigabit M12: 1-20 ports, 10/100Base-Tx, M12 (Female, 4-pin, D-Coded), 1-16 ports support POE
Gigabit M12: 21-24 ports, 10/100/1000Base-T, M12 (Female, 8-pin X-Coded), 21 and 13 ports are a set of bypass ports, 22 and 24 ports are a set of bypass ports
Console port: RJ45

PoE Function
IEEE 802.3.af : Supported 15.4W/port
IEEE 802.3.at: Supported 30W/port

Power
Single power supply, standard input voltage : 72/110VDC.
Input voltage range: 66~160V
Power consumption : < 150W (POE)
Protection : Dual power supply redundancy protection, overvoltage protection, overcurrent protection , short-circuit protection, anti-reverse connection protection

Physical Characteristics .
Housing : Metal , fanless
Protection Class: IP40
Dimensions : 430mm x 88mm x 230mm(W×D×H)
Weight: 5.2kg
Mounting : Panel mounting

Mechanical standard
Machinery:
IEC60068-2-6 (Vibration)
IEC60068-2-27 (Shock)
IEC60068-2-32 (Free Fall)

Certification
CE, FCC, RoHS

Industrial Standards :
EMI:
FCC CFR47 Part 15, EN55022/CISPR22, Class A
EMS:
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)
IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)

Environmental Conditions
Operating Temperature : -40 to 75°C
Storage Temperature : -40 to 85°C
Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF
360,000 hrs

Warranty
3 years

Machanical Drawing