

# 48 PORT 10/100/1000M + 4\*10G (SFP+) FIBER PORT MANAGED ETHERNET SWITCH-LAYER 3: (KL-S48E4S3-GE)



#### **DESCRIPTION:**

The KL-S48E4S3-GE is a 10G uplink managed Ethernet fiber switch. It has 48\*10/100/1000Base-T RJ45 ports and 4\*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The KL-S48E4S3-GE has L3 full network management function, support IPV4/IPV6 management, static route full line rate forwarding, complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web network management mode. It meets the needs of various industrial Ethernet application environments and is suitable for industrial, intelligent transportation, rail transit, power industry, mining, petroleum, marine, metallurgical and green energy construction to form a cost-effective, stable and reliable communication network.

### **PRODUCT DETAILS:**

- 48\*10/100/1000M RJ45 ports+4\*10G(SFP+) fiber ports Managed Ethernet Convergence/Core switch;
- Support QOS, STP/RSTP, IGMP, DHCP, SNMP, WEB, VLAN, ERPS etc.;
- Bandwidth:598Gbps, Packet forwarding cache:32M;
- Support to ERPS/STP/RSTP/MSTP.
- Compatible with 1U rack, built-in internal power adapter;
- L3 network management, IPV4/IPV6 management;
- Support enhanced management through WEB, CLI, TELNET, SNMP;
- 3 years warranty.

#### **TECHNICAL SPECIFICATIONS:**

Model	KL-S48E4S3-GE
Interface	48*10/100/1000Base-T RJ45 ports (Data) 4*1/10G uplink SFP+ fiber slot ports (Data) 1*Console RS232 port (115200,N,8,1)

Network Managed Tape	L3
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-LX/SX/CX; IEEE802.3ae 10GBase-SR/LR; IEEE802.3x
Ethernet Port Feature	Port1-48,10/100/1000Base-T, auto-sensing, full/half duplex MDI/MDI-X self-adaption
SFP Port Characteristic	Gigabit/10 Gigabit SFP fiber interface, default matching fiber modules, need to buy separately, (optional single-mode/multi-mode, single fiber / dual fiber module, LC)
Forwarding Mode	Store and Forward (Full Wire Speed)
Switching Capacity	598Gbps
Forwarding Rate@64byte	97.2Mpps
MAC Address Table	32K
Buffer Memory	32M
Jumbo Frame	9.6K
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meter) ;100BASE-TX: Cat5 or later UTP (≤100 meter) ;1000BASE-T: Cat6 or later UTP (≤100 meter)
Optical cable	Multi-mode:850nm 0~300M(10G),850nm 0~550M (1.25G) Single-mode:1310nm 0~40KM,1550nm 0~120KM.
Total PWR / Input Voltage	60W/(AC100-240V)
Power Consumption	Standby:<40W; full load:<60W
LED	Power indicator: PWR (yellow), System indicator: SYS (yellow), Network indicator: Link/Act (yellow), fiber port: L/A(green)
Reset switch	Support one key to restore factory settings
Power Supply	Built-in power supply; AC:100 ~240V 50-60Hz
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+80°C;5%~95% RH Non condensing
Dimension(L*W*H)	440*290*44.5mm
Net /Gross Weight	<5.5kg /<6.5kg
Installation Method	Desktop.19-inch 1U cabinet installation
Anti-surge / Protection Level	Anti-surge: 4KV 8/20us; Protection Level: IP30
Warranty	3 years
Interface	IEEE802.3x flow control (full duplex) Broadcast storm suppression for port rate support speed limit for incoming and offline message traffic, with a
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	minimum particle size of 64Kbps. Temperature protection setting Energy saving configuration of port EEE Ethernet
Layer3 Function	L3 network management, IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	Support port based VLAN (4K), IEEE802.1q Support protocol based VLAN Support Access, Trunk, Hybrid three types of port configuration Support QinQ configuration
Port Aggregation	Support LACP Support static polymerization Support the largest 8 aggregation groups, each aggregation group supports 8 ports.
Spanning Tree	STP(IEEE802.1d) RSTP(IEEE802.1w) MSTP(IEEE802.1s)
Industrial Ring Network Protocol	Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring. The self-healing time of the ring network is less than 20ms
Multicast	Support IGMP Snooping V1/V2 and support 1024 multicast groups at most. Support the user's quick departure mechanism Support MLD Snooping V1/V2 Support multicast VLAN
Image	Bi-directional traffic mirroring supporting the basic port
QoS	Diff-Serv QoS Each port supports 8 output queues Support 802.1p/DSCP priority mapping Support queue scheduling mechanism (SP, WRR, SP+WRR) priority tag Mark/Remark stream based packet filtering Support for stream-based redirection Support flow-based speed limit
ACL	Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL. Support ACL based on port and VLAN
Safety Characteristics	Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports

DHCP	DHCP Client DHCP Snooping
System Requirements	Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; 5 types and above Ethernet cable; TCP/IP, network adapter and network operating system (such as Microsoft Windows, Linux or Mac OS X) are installed on computers in the network.

## **DIMENSIONS:**

