

EKI-9510 Series

EN 50155 10-port Ethernet Switch



Features

- M12 connector with IP67 rugged housing
- Complies with EN50155 & EN50121-3-2
- Complies with EN45545-2 & EN61373
- Supports PoE IEEE802.3af/at(PoE model)
- Wide nominal power input range: 24–110V_{DC}
Operating power input range: 16.8–137.5V_{DC}
- Compact size to fit in different narrow spaces
- Operating temperature:-40 ~ 70°C
- PoE/ non-PoE /Fast Ethernet/ Gigabit Ethernet/ Managed/ Unmanaged options available

Introduction

EKI-9510 series switch is designed for railway application, with rugged and high EMC performance. EKI-9510 series is the suitable networking solution for rolling stock and wayside applications. It provides M12 connectors for Ethernet/console/power-input) connections to ensure tight & robust connectivity, to guarantee reliable operation against environmental disturbances, it complies with IEC61373 vibration and shock for rolling stock application. The portfolio of EKI-9510 series provides multiple options, depends on user's demand, it has Managed type or Unmanaged type, Fast Ethernet or Gigabit Ethernet solutions, with IEEE802.3af/at PoE function (PoE model only), it provides up to total 90Watts power budget for P.D. devices (such as camera, IP-phone and wireless access point).

EKI-9510 series features a "compact" designed, with the IP67 rugged housing and the ample pitch connectors that can easy connect/ disconnect cables without interference to prevent the human error within the harsh industry and narrow environment. With the "short vertical height" dimension, it could be easily deployed/ installed in the cabinet or ceiling partition and integrate mass Ethernet connection in one box.

Specifications

Interface

- **Ethernet Port*** M12 4pin D-coded for Fast Ethernet (10/100BASE-T)
- **Console port** M12 8pin X-coded for Gigabit Ethernet (10/100/1000BASE-T)
- **Power Connector** M12 5pin A-coded (Management model only)
- **Power Connector** M12 5pin A-coded

*See the port options from ordering information

Physical

- **Enclosure** Die-cast zinc front panel and extruded aluminum chassis
- **Protection Class** IP67
- **Installation** Wall Mount
- **Dimensions** 160 x 100 x 70 mm (W x H x D)
- **Weight** 1.8 kg

LED Display

- **System LEDs** PWR1, PWR2, SYS.
- **Port LED** Alarm & R.M. (Management model only)
- **Port LED** Data, PoE (PoE model only)

Environment

- **Operating Temperature** -40 ~ 70°C (-40 ~ 158°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Ambient Relative Humidity** 5~95% (non-condensing)

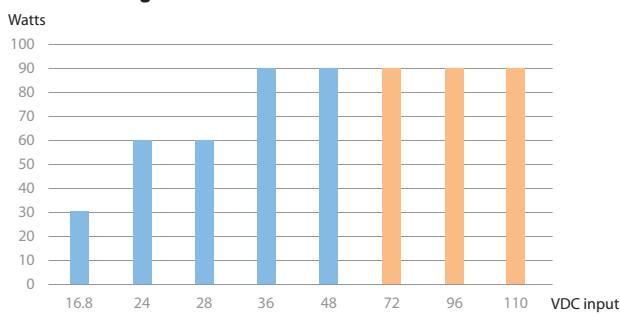
Power (non-PoE Model)

- **Power Consumption** 8 Watts
- **Nominal Input voltage** 24/28/36/48/72/96/110V_{DC}
- **Operating range** 16.8–137.5V_{DC}
- **Over current protection** Yes
- **Reverse polarity protection** Yes

Power (PoE Model)

- **Power Consumption** 15 Watts
- **Nominal Input voltage** 24/28/36/48/72/96/110V_{DC}
- **Operating range** 16.8–137.5V_{DC}
- **Over current protection** Yes
- **Reverse polarity protection** Yes

PoE Power budget



Certification

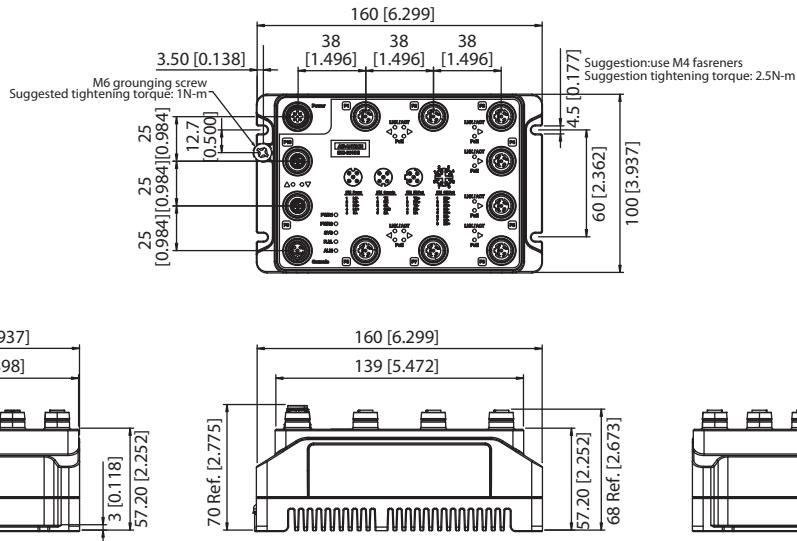
- **Safety** EN62368-1
- **EMC** CE, EN55011/55032/55035; FCC Part 15 Subpart B class A
- **EMS** EN61000-4-2 (ESD); EN61000-4-3 (RS); EN61000-4-4 (EFT); EN61000-4-5 (Surge); EN61000-4-6 (CS)
- **Shock** EN61373
- **Vibration** EN61373
- **Freefall** IEC60068-2-31
- **Railway** EN50155, EN 50121-3-2
- **Fire protection** EN45545
- **Other** EN61000-6-4, EN61000-6-2

Switch Properties (Management model only)

- **DRAM** 128MB
- **Flash** 32MB
- **Max. IGMP group** 256
- **Max static VLANs** 256
- **VLAN ID range** 1-4094
- **MAC table** 8K
- **Jumbo frame** 10KB
- **Packet buffer** 4.1MB
- **Max priority queues** 8

*Manage.

Dimensions



Unit: mm [in.]

L2 Features (Management model only)

- L2 MAC Address
- Jumbo Frame
- VLAN Group
- VLAN
- Port Mirroring
- IP Multicast
- Storm Control
- Redundancy Protocol

8K
10KB
256 (VLAN ID 1-4094)
802.1Q VLAN, GVRP
Per port, Multi-source port
IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
Broadcast, Multicast, Unknown unicast
IEEE 802.1D-STP, IEEE 802.1s-MSTP,
IEEE 802.1w-RSTP, X-Ring Pro

QoS (Management model only)

- Priority Queue
- Class of Service
- Rate Limiting
- Link Aggregation

Scheduling WRR (Weighted Round Robin),
SP (Strict Priority)
IEEE 802.1p based CoS, IP TOS, DSCP based CoS
Egress Rate limit
IEEE 802.3ad Dynamic Port Trunking, Static Port Trunking

Security (Management model only)

- Port Security
- Authentication
- Advanced Security

Static, Dynamic
802.1x (Port-Based, MAC-Based), RADIUS, TACACS+
IP Source Guard, Access control list

Management (Management model only)

- DHCP
- Access
- Security Access
- Software Upgrade
- NTP

Client, Server, Option 66/67
SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
SSH 2.0, SSL
TFTP, HTTP, Dual Image
NTP server/client

Accessories

PN	Description
OPT1-M12-CRP-4MD	Phoenix Contact M12 D-code 4 pin Male crimp type connector
OPT1-M12-CRP-8MX	Phoenix Contact M12 X-code 8 pin Male crimp type connector
OPT1-M12-CRP-5MA	Phoenix Contact M12 A-code 5 pin Male crimp type connector
OPT1-M12C-4MD-150R	M12 D-code 4 pin Male to RJ45, cable length:1.5m
OPT1-M12C-8MX-150R	M12 X-code 8 pin Male to RJ45, cable length:1.5m
OPT1-M12C-5MA-DB9	M12 A-code 5 pin Male to DB9 console, cable length:1.5m
OPT1-M12C-5FA-100	M12 A-code 5 pin Female to 1m cable
1990023703S000	M12 waterproof CAP (1pc.)

Ordering Information

Part number	Management model	10/100BASE-T	10/100/1000BASE-T	PoE ports
EKI-9510E-MPW-B	Yes	10 (P1-P10)		8 (P1-P8)
EKI-9510E-2GMPW-B	Yes	8 (P1-P8)	2 (P9-P10)	8 (P1-P8)
EKI-9510G-MPW-B	Yes		10 (P1-P10)	8 (P1-P8)
EKI-9510E-2GPW-B		8 (P1-P8)	2 (P9-P10)	8 (P1-P8)
EKI-9510E-PW-B		10 (P1-P10)		8 (P1-P8)
EKI-9510G-PW-B			10 (P1-P10)	8 (P1-P8)
EKI-9510E-MW-B	Yes	10 (P1-P10)		
EKI-9510E-2GMW-B	Yes	8 (P1-P8)	2 (P9-P10)	
EKI-9510G-MW-B	Yes		10 (P1-P10)	
EKI-9510E-W-B		10 (P1-P10)		
EKI-9510E-2GW-B		8 (P1-P8)	2 (P9-P10)	
EKI-9510G-W-B			10 (P1-P10)	

*Bypass function by request