

# EKI-9520H

## EN50155 L2 20-port Managed Ethernet switch with up to 6 x 10G ports



### Features

- 14 x 1G and 6 x 10G ports for high speed application.
- Up to 14 x IEEE802.3af/at PoE ports
- M12 connector with ruggedized metal housing
- DHCP relay and DHCP option 82 for flexible host configuration
- Provides M12-USB Dongle for quick configuration and backup
- Special mechanism design to save cabling space
- Wide operating power input range: 16.8~137.5V<sub>DC</sub>

### Introduction

Advantech's EKI-9520H Ethernet switch is engineered with a ruggedized design and superior EMC performance, making it ideal for rolling stock, wayside control, and other railroad applications. Tailored to meet the demands of modern transportation systems, this next-generation EN50155 Ethernet switch enhances both new and existing trains. With 6 x 10Gbps uplink speeds, it efficiently handles large volumes of data traffic, while its 2.5/5G and multigigabit ports support cutting-edge Wi-Fi 6 technology. The EKI-9520H offers users a versatile solution for a wide range of applications, helping to build advanced and reliable transportation services.

### Specifications

#### Interface description

- **Ethernet Ports** M12 X-coded 1G (port 1-14)  
M12 X-coded 2.5G/5G/10G (port 15-20)
- **Console port** M12 5pin A-coded
- **Relay output** M12 5pin A-coded with 2relay outputs of 1A@24V<sub>DC</sub>
- **Power Connection** M12 5pin K-coded

#### Physical

- **Enclosure** Extruded aluminum and metal chassis
- **Protection class** IP20
- **Installation** Wall mount
- **Dimensions (W x H x D)** 350 x 148.7 x 96 mm
- **Weight** 8kg

#### LED Display

- **System LEDs** PWR1, PWR2, SYS, Alarm
- **Port LED** Data, PoE

#### Environment

- **Operating temperature** -40 ~ 70°C
- **Storage temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Ambient relative humidity** 5~ 95% (non-condensing)

#### Power

- **Power consumption** 50 Watts
- **Nominal input voltage** 24/28/36/48/72/96/110V<sub>DC</sub>
- **Operating range** 16.8~137.5 V<sub>DC</sub>
- **Over current protection** Yes
- **Reverse polarity protection** Yes
- **PoE** IEEE802.3af/at
- **PoE Power budget** 24V/60W, 110V/100W

#### Certification

- **Safety** EN62368-1
- **EMI** FCC Part 15 Subpart B Class A, CE EN55032/EN55035
- **EMS** EN61000-4-2 (ESD); EN61000-4-3 (RS); EN61000-4-4 (EFT); EN61000-4-5 (Surge); EN61000-4-6 (CS)
- **Shock** EN61373
- **Freefall** IEC60068-2-32
- **Vibration** EN61373
- **Railway** EN50155, EN50121-3-2, 50121-1
- **Fire resistant** EN45545-2
- **Other** EN61000-6-4, EN61000-6-2

#### Switch Properties

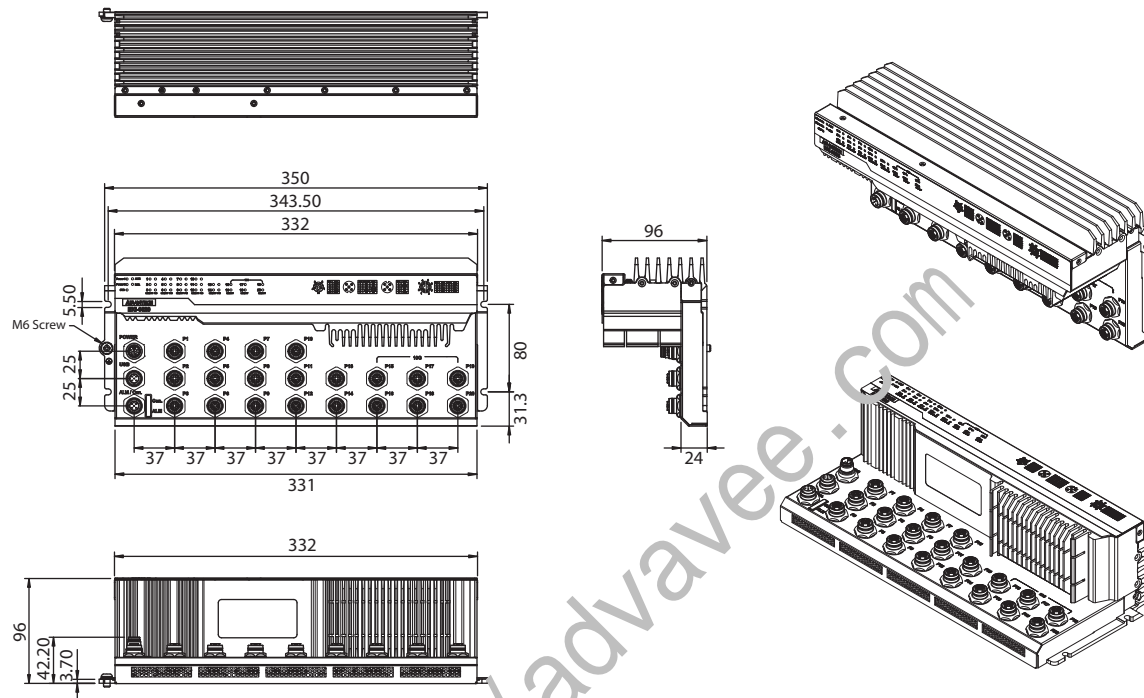
- **DRAM** 256MB
- **Flash** 128MB
- **Max. IGMP group** 1024
- **Max static VLANs** 256
- **VLAN ID range** 1-4094
- **MAC table** 32K
- **Jumbo frame** 10KB
- **Packet buffer** 32Mbits
- **Max priority queues** 8

#### L2 features

- **Link aggregate** Static Trunk, 802.3ad LACP
- **VLAN** 802.1Q Tag-based, 802.1v Protocol-based VLAN, 802.1ad VLAN stacking, GVRP, GMRP, MAC/IP subnet/Private
- **Port mirroring** Per port, Multi-source port
- **IP multicast** IGMP Snooping v1/v2/v3, MLD Snooping
- **Redundancy** IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP

## Dimensions

Unit: mm



### QoS

- **Priority queue** Scheduling WRR (Weighted Round Robin), SP (Strict Priority)
- **Class of service** IEEE 802.1p based CoS, IP TOS, DSCP, Port priority
- **Rate limit** Ingress/Egress Rate limit

### Security

- **Loop detection** Port-based detection/prevention
- **Storm control** Broadcast, Unknown Multicast, Unknown unicast
- **Port security** Static MAC, MAC Violation Notice
- **Authentication** 802.1x (Port-Based, MAC-Based), RADIUS, TACACS+
- **Account manager** Multiple Account, 0-15 User Privilege
- **IP security I** P source guard, DHCP snooping, ARP spoofing
- **ACL** L2, L3 Access Control List, Permit/Deny/Redirect

### Management

- **OAM** IEEE802.1ag, Continuity Check, IEEE802.3ah, Link Monitor, Remote Loopback, Diagnostic features
- **DHCP** Client, Server, DHCP Relay, Option 82
- **Config & access** IPv4/ IPv6, SNMP v1/v2c/v3, WEB GUI, Telnet, RMON,
- **SSH** 2.0, SSL(TLSv1) Standard MIB, Private MIB
- **Upgrade/ backup** TFTP, HTTP, SFTP; Firmware Dual Image
- **Others** SNTp/NTP client, DNS client, Syslog

### Accessories

PN		Description
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-8MX-150R		M12 X-code 8 pin male to RJ45, cable length: 1.5 m (4.9 ft)
OPT1-M12C-5MA-DB9		M12 A-code 5 pin male to DB9 console, cable length: 1.5 m (4.9 ft)
OPT1-M12C-5FK-150		Phoenix Contact M12 K-code 5 pin female power cable 1.5 m (4.9 ft)

## Ordering Information

Model name	Description	1GE M12 X-code	10GE M12 X-code
EKI-9520H-6XPW-A	Layer 2 management PoE switch with 6x10G port	14 PoE	6