| **Husky** | **Managed Ethernet Series** |
| --- | --- |
| | **HME-821 and HME-823** |

## Overview

The Husky managed Industrial Ethernet Switch is an extremely powerful and highly reliable fault-tolerant switch required in Industrial Ethernet applications. HME-821 and HME-823 series can be remotely configured by Web browser, SNMP, Telnet, CLI and menu driven management.

Husky managed switch supports X-ring self-recovery that is more powerful than Super Ring mechanism, which allows the switch to self-reconfigure and provide a redundant path in the network. In case any part of your network is disrupted or disconnected, the redundant feature allows a fault recovery time of less than 300ms to save your network from encountering interruption or failure.

Boasting advanced management features, HME-821 and HME-823 support Dual Homing and Ring Coupling. The switch provides a high level of immunity to electromagnetic interference and power supply surges typically found in industrial plant environments or external curb side enclosures.

## Key Features

- **Hardware Feature**

    Complies with IEEE 802.3, IEEE 802.3u,IEEE 802.3X, IEEE 802.3ad, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1D, IEEE 802.1W, IEEE 802.1x

    RJ-45 Port support auto MDI/MDI-X function

    Wide-range redundant power design

    Store and forward switch architecture

    DIN rail and 3-way wall mount design

- **Industrial Conformance**

    24 to 48V DC, redundant power with polarity reverse protection and terminal block for master and slave power
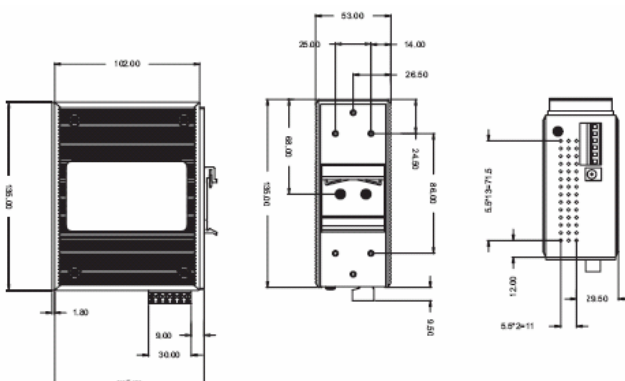
    -10 to 70 Degrees C operation temperature

    IP-31 standard Aluminum case

    EMI complies with FCC Class A, CE EN6100-4-2, CE EN6100-4-3, CE EN6100-4-4, CE EN6100-4-5 and CE EN6100-4-6, EN61000-4-8 and EN61000-4-11, EN61000-4-12

    Stability testing with IEC60068-2-32(Free fall), IEC60068-2-27(Shock) and IEC60068-2-6(Vibration)

## Mechanical Dimension (in mm)

## Specifications

### Technology

| | |
|---|---|
| Standard | IEEE802.3 10BASE-T<br>IEEE802.3u 100BASE-TX/100BASE-FX<br>IEEE802.3x Flow Control and Back Pressure<br>IEEE802.3ad Port trunk with LACP<br>IEEE802.1d Spanning Tree Protocol<br>IEEE802.1w Rapid Spanning tree<br>IEEE802.1p Class of Service<br>IEEE802.1Q VLAN Tagging<br>IEEE 802.1x User Authentication (Radius) |
| RFC Standard | RFC2030 SNTP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB |
| Protocol Technology | CSMA/CD |
| Switching Architecture | Store and Forward |
| Packet Filter | Broadcast packet filtering<br>-Number of MAC (50 Tables)<br>-IP Address Security (10 Sections) |

### Performance

| | |
|---|---|
| Internal Switching Capacity | 2Gbps |
| MAC Address | 8K |
| Memory Buffer | 1Mbytes |
| Back-plane | 2.0 Gbps |
| System Log | 1000 records |
| Back-plane | 2.0 Gbps |
| Transfer packet size | 3.87 Mpps at 64 bytes |
| Local configuration | RJ-45 for RS-232 series |
| Port Statistics | Supported |
| Flow Control | Full-duplex and Back Pressure for Half-duplex |
| Packet Filter | Broadcast/Multi-cast/Unknown Broadcast storm packet filter |

### Interface

| | |
|---|---|
| Number of Ports | 8 x 10/100Base-TX + 2 x 100Base FX |
| System Interface | Port Enable/Disable, Auto-Negotiation and Force speed, Full-duplex or Half-duplex mode |
| Diagnostic LED | Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green)<br>8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow)<br>Fiber: Link/Activity (Green) |
| Optical cable | SC (Multi Mode) : 50/125um to 62.5/125um<br>SC (Single Mode) : 9/125um to 10/125um |
| Distance & wavelength | Multi Mode : Distance 2 km, Wavelength 1310nm<br>Single Mode : Distance 30 km, Wavelength 1310nm |
| Alarm | Relay output for port break and power failure<br>Current carry ability (1A at DC24V) |

### Power

| | |
|---|---|
| Power Supply | 24 ~48 VDC, Redundant power with polarity reverse protect function and connective removable terminal block for master and slave power |
| Reverse Polarity Protection | Present |
| Power Consumption | 9.54 Watts (Max) |

### Mechanical

| | |
|---|---|
| Case Dimensions (WxHxD) | IP 31 standard, 72(W) x 152(H) x 105(D) in mm |
| Mounting | DIN Rail and wall mount |
| Installation | Provide DIN rail kit and wall mount plate for 3-way installation |

### Environmental

| | |
|---|---|
| Operating Temperature | -10 deg C to 70 deg C |
| Storage Temperature | -40 deg C to 85 deg C (-40 degF to 185 deg F) |
| Operating Humidity | 5%~90%RH (Non-condensing) |

### Regulatory Approvals

| | |
|---|---|
| Emission | FCC Class A, CE EN6100-4-2, CE EN6100-4-3, CE EN-6100-4-4, CE EN6100-4-5, CE EN6100-4-6, |

| | EN61000-4-8, EN61000-4-11, EN61000-4-12 |
|---|---|
| Safety | UL, cUL, CE/EN60950 |
| Shock | IEC60068-2-27 |
| Vibration | IEC60068-2-6 |
| Free Fall | IEC60068-2-32 |
| **Management Features** | |
| Redundancy X-ring | Provide X-ring, Dual Homing, and Couple Ring.<br>Provide redundant backup feature and the recovery time below 300 ms |
| Management | Web/SNMP/Telnet/CLI/Menu Driven management |
| Management Protocols | SNMP V1/V2c/V3, RMON 1 (Statistics, History, Alarm, Events)<br>SMTP, SNTP, IGMP V1/V2, DHCP/Client, DHCP Server, TFTP |
| MIB | MIB-II, Bridge MIB, Ethernet like MIB, VLAN MIB, Private MIB |
| Configuration | Web interface management<br>Default button is available to restore default settings |
| VLAN | Support Port based VLAN/Tag VLAN(256 entries)<br>VLAN ID(Up to 4K)<br>GVRP(256 Groups)<br>Static VLAN groups up to 256, the VLAN ID can be assigned from 1 to 4094. |
| Quality of Service | Hardware supports 4 queues per port |
| Port Mirroring | Online traffic monitoring on selected ports |
| MAC IP Security | - Supports ingress and egress MAC address filter and static source MAC address lock,<br>  Dumping MAC address Table<br>- Ingress/Egress MAC address security, per port support learning 50 MAC addresses |
| IP Security | Support 10 IP address accounts for system management security for Web, SNMP and Telnet<br>management security to prevent intruder. |
| Firmware update | By TFTP |
| IGMP Snooping | v1 and v2, multicast group with 256 entries |
| LACP Port Trunk | 3 Trunk groups/Maximum 4 trunk members |
| Port Mirror | Global system supports 3 mirroring types: "RX, TX and Both packet".<br>Maximum of 8 entries |
| Port Trunk | 802.3ad with LACP function. Up to 3 trunk groups and maximum group member up to 4 ports |
| Class of Service (CoS) | Per port 4 queues |
| Quality of Service (QoS) | Port based/Tag based, IPv4 ToS, IPv6 Different Service |
| E-mail warning | Pre-defined events |
| SNMP Trap | Cold start, link down, link up, authorization fail, X-ring topology Change, Power alarm trap, Trap station up to 3 |
| SMTP | Support up to 6 e-mail accounts |

## Ordering Information

HME-821   : Husky Industrial SNMP managed 8-port Ethernet Switch + 2-port 100Base-FX Multi mode
        (-10 to 70 deg C operating temperature)

HME-823   : Husky Industrial SNMP managed 8-port Ethernet Switch + 2-port 100Base-FX Single mode
        (-10 to 70 deg C operating temperature)