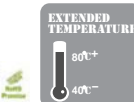




HMG-628GE-CD

Features

- ✓ **High Performance Network Switching Technology**
 - ✓ Complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.1p, IEEE 802.1q, IEEE 802.1d, IEEE 802.1w, IEEE 802.1x, IEEE 802.3ad, IEEE 802.3z, IEEE 802.3ab
 - ✓ Provides 6 x 10/100/1000Base-TX Ethernet ports with RJ-45 connector
 - ✓ Provides 2 combo ports
 - ✓ SFP supports DMI (Digital Monitoring Interface)
 - ✓ RJ-45 ports support auto MDI/MDI-X crossover
 - ✓ Provides broadcast storm protection
 - ✓ Redundant X-Ring recovery time < 10 ms on full load
 - ✓ Supports Dual Homing – RSTP over X-Ring
 - ✓ Supports Ring Coupling
 - ✓ SNMP for network management
 - ✓ IGMP snooping for multicast traffic
 - ✓ QoS/ToS to increase network packet determinism
 - ✓ VLAN for easy network planning (port based, Tag VLAN & GVRP)
 - ✓ Event notification by e-mail, SNMP trap, Syslog & Relay output
 - ✓ Online Port Mirroring for online debugging
 - ✓ Supports IP security, port security & login security
 - ✓ Configurable by WEB browser
 - ✓ IntraVUE Network Management software compatible
- ✓ **Robust Industrial Design**
 - ✓ Robust aluminum case complying to IP-30 housing standard
 - ✓ Supports operating temperature -40 to 80°C
 - ✓ DIN-Rail, panel mount or desktop installation
 - ✓ High level of immunity to electromagnetic interference & power supply surges typically found in industrial plant environments or external curb side enclosures
- ✓ **Reliable Power Design**
 - ✓ Wide range redundant power design
 - ✓ Equipped with redundant power inputs
 - ✓ Supports 24 to 48VDC redundant power with polarity reverse protection
 - ✓ Supports 24VAC
 - ✓ Removable terminal block



Overview

The Husky Series HMG-628GE-CD is an extremely powerful gigabit switch designed to be the best Industrial Extended Temperature 8-port Full Gigabit Managed Ethernet Switch in the industry. It supports state of the art design with six 10/100/1000T Ethernet ports and two small form pluggable (SFP) ports that supports dual mode (100/1000) and Digital Monitoring Interface (DMI). The DMI technology in SFP enhances the digital interface which allows real-time access to device operating parameters. SFP supporting DMI is capable of real time monitoring of RX received optical power, TX output power, Laser Bias current, temperature, supply voltage & wavelength. HMG-628GE-CD provides redundant self-recovery mechanism in less than 10ms on full load which allows you to establish a redundant Ethernet network to build a back-up ring topology. Dual Homing and Ring Coupling are supported to add reliability by allowing a device to be connected to be network by way of two independent connection points. HMG-628GE-CD offers powerful network management functions including SNMP, SMTP, SNTIP, Quality of Service, Class of Service, IGMP, Snooping, LACP, DHCP, VLAN, RMON, Port Trunk, Port Mirror, User Authentication (Radius) and IP Security. The HMG-628GE-CD is equipped with a terminal block to provide dual power inputs (12-48 VDC and 24VAC) with reverse polarity protection, 4000 VDC EFT and 8000 VDC ESD protection. Its IP-30 housing protection, wide operating temperature of -40 to 80°C and DIN-Rail mounting is suitable for an industrial environment. The HMG-628GE-CD is a plug-and-play solution for your Industrial Ethernet applications compliant to Class 1 Division 2 environments.

Hardware Specifications

Interface

RJ-45 Ports: 6 10/100/1000Base-TX auto-negotiation speed, Full/Half duplex, auto MDI/MDI-X

Fiber Ports: 2 combo ports, DMI (Digital Monitoring Interface) supported

Console port: RS-232 connector

LEDs: Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green)
Per port: Link/Activity (Green), Speed (1000Mbps Green)
SFP: Link/Activity (Green)

Alarm: Relay output for port break and power failure
Current carry ability (1A at DC 24V)

Power Input: VDC 24-48V, 24VAC
Redundant power with removable terminal block

Power Protection: ESD: 8000 VDC, EFT: 4000 VDC
Power Reverse Polarity

Power Consumption: 18.96 watts

Dimensions: IP-30 standard, 59.6 mm (W) x 152 mm (H) x 105 mm (D)

Installation: DIN-Rail, panel mounting or desktop

Environmental

Operating Temp: Regular: -40 to 80°C

Storage Temp: -40 to 85°C (-40 to 185°F)

Operating Humidity: 5% to 90% RH (non-condensing)

Performance

Data Transfer Rate:

14,880 pps for Ethernet port
148,800 pps for Fast Ethernet port
1,488,000pps for Gigabit Fiber Ethernet port

MAC Address: 8k

Memory Buffer: 4Mbytes

System Log: 1000 records

Back-plane: 16 Gbps

Local Configuration: RJ-45 connector for RS-232 interface

Port Statistics: Supported

Flow Control: Full-duplex and Back Pressure for Half-duplex

Packet Filter: Broadcast/Multi-cast/Unknown Broadcast storm packet filter

Transfer Packet Throughput: 14.88Mpps @ 64 bytes

Technical Specifications

Standard:

IEEE 802.3 10Base-T Ethernet
IEEE 802.3u 100Base-TX
IEEE 802.3ab 1000Base-T
IEEE 802.3z Gigabit fiber
IEEE 802.3x Flow Control and Back Pressure
IEEE 802.3ad Port trunk with LACP
IEEE 802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree
IEEE 802.1p Class of Service
IEEE 802.1q VLAN Tag
IEEE 802.1x User Authentication (Radius)

RFC Standard:

RFC2030 SNMP, 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

Network Media:

10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E cable
EIA/TIA-568 100-ohm (100m)
100Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable
EIA/TIA-568 100-ohm (100m)
1000Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable
EIA/TIA-568 100-ohm (100m)

Packet Filter:

Broadcast packet filtering
-Number of MAC (50 Tables)
-IP Address Security (10 Sections)

Protocol Technology:

CSMA/CD

Switching Architecture:

Store and Forward

Regulatory Approvals

EMI: FCC Class A

EMS:

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5,
EN61000-4-6, EN61000-4-8, EN61000-4-11

Safety:

UL, cUL, CE/EN60950
UL508
Class 1 Division 2

Shock: IEC60068-2-27

Vibration: IEC60068-2-6

EMC: CE, FCC Class A

EN61000-6-4, EN61000-6-2, EN61000-4-2 (ESD), EN61000-4-3 (Radiated RFI)
EN61000-4-4 (Burst), EN61000-4-5 (Surge), EN61000-4-6 (Induced RFI)
EN61000-4-8 (Magnetic Field), EN61000-4-11 (Voltage Dip)
EN61000-3-2 (Harmonics Current), EN61000-3-3 (Voltage Fluctuation & Flickers)

Freefall: IEC60068-2-32

DNV: Pending*

Environmental: WEEE, RoHS

MTBF: 325,000 hrs based on Mil-Hdbk-217F, GB

Warranty: 5 years

Management Specifications

Redundancy:

STP, RSTP
Dual Homing, Ring Coupling, Dual Ring*
X-Ring with recovery time < 10 ms

Management Protocols:

SNMP v1/v2c/v3, RMON, SMTP, SNTP,
IGMP v1/v2 & Query mode, DHCP/Client, TFTP

MIB: MIB-II, Bridge MIB, Ethernet like MIB, VLAN MIB, Private MIB

Configuration:

Web interface management

VLAN:

Port-based VLAN/Tag VLAN (256 entries)
VLAN ID (Up to 4K)
GVRP (256 Groups)
Double Tag VLAN (Q in Q)**
Static VLAN groups up to 256, the VLAN ID can be assigned from 1 to 4094

LLDP*: Supports LLDP to allow switch to advise its identification and capability on the LAN

Quality of Service: Hardware supports 4 queues per port

Port Mirroring: Online traffic monitoring on selected ports

MAC IP Security:

Ingress and egress MAC address filter and static source MAC address lock,
Dumping MAC address Table, Ingress/Egress MAC address security,

IP Security:

10 IP address accounts for system management security for Web, SNMP and Telnet management security to prevent intruder

IGMP Snooping: v1 and v2, query mode, multicast group with 256 entries

LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members

Port Mirror:

Global system supports 3 mirroring types: "RX, TX and Both packet".
Maximum of 8 entries

Class of Service: Per port 4 queues

Email 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: Up to 6 e-mail accounts

Firmware Upgrade: By TFTP

Bandwidth Control:

Supports ingress packet filter and egress packet limit
The egress rate control supports all packet types
and the limit rates are 100K-250Mbps
Ingress filter packet type combination rules are Broadcast/Multicast/Unknown
Unicast packet, Broadcast/Multicast packet
The packet filter rate can be set from 100k to 250Mbps

Flow Control:

Support sFlow Control for Full-duplex and Back Pressure for Half-duplex

DMI:

DMI(Digital Monitoring Interface)
supports real time monitoring of RX Received Optical Power,
TX Output Power, Laser Bias Current, Temperature, Supply Voltage and Wavelength

DHCP: Provides DHCP Client/DHCP Server functions

DNS: Provides DNS client feature and supports Primary and Secondary DNS server

SNTP: Supports SNTP to synchronize system clock in Internet

Configuration upload and download:

Supports binary configuration file for system quick installation

ifAlias:

Each port allows importing 128bit of alphabetic string of word on SNMP
and CLI interface