

# HSTW-IEL-6800M(8G6SF) SERIES



- 8 Slot 10/100/1000Base-TX and 4 Slot 100/1000 Base-LX, 2 Slot 100/1000/2500Base-LX, 1 console Port 지원
- ITU-T ERPS G.8032, STP(802.1D), RSTP(802.1w), MSTP(802.1s), HSTW-Ring 프로토콜 지원 (Recovery time <50ms, 15ms 이내)

- WEB, CLI, TELNET, SSH, SNMP 지원.
- IEEE802.3af-2003, IEEE802.3at-2009 POE 지원
- 동작온도 범위 -40℃ ~ +85℃(산업용 부품 사용)
- 산업용 표준디자인
- Packet 무손실

## Introduction

HSTW-IEL-6800M(8G6SF) Series의 산업용 광장비는 8 Port 10/100/1000 Base-TX와 4 Slot 100/1000Base-LX, 2 Slot 100/1000/2500Base-LX 슬롯을 지원하며, 이중화 링 네트워크, VLAN, 트렁킹, 서비스 품질, 속도 제어, 포트 미러링, 장애 경보 및 온라인 펌웨어 업그레이드와 같은 고급 네트워크

관리 기능을 제공합니다. 모든 구성 요소는 산업 등급을 사용하므로 제품 신뢰성이 매우 좋고, 넓은 입력 전압을 제공합니다. KC표준, 산업용 표준 설계, 이중화 전원 입력, -40℃~85℃ 작동 온도로 외부 환경에 매우 적합합니다.

## Features

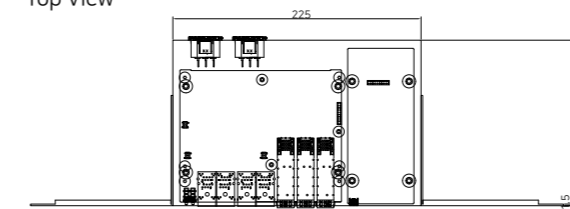
- Recovery time <50ms, 15ms 이내.
- IEEE802.3af-2003, IEEE802.3at-2009(Optional)
- IPv4/IPv6 지원
- STP/RSTP/MSTP/ITU-T ERPS G.8032/HSTW-Ring Ethernet Ring Protection 지원
- IGMP v1/v2/v3 Snooping, MLD v1/v2 Snooping 지원
- IP source guard/RADIUS/TACACS+/ACL/SSH v2/HTTPS 지원
- Port-based IEEE802.1X/Single and multiple IEEE802.1X/MAC-based authentication/VLAN Assignment 지원
- Port Trunking, port speed limit, broadcast storm control 지원

- LACP/Link Aggregation Static 지원
- DNS client/proxy 지원
- IEEE802.1Q VLAN/MAC based VLAN/Protocol based VLAN /IP subnet based VLAN/GVRP/MVR 지원
- IETF RFC 1213 MIB-II (Management Information Base) 지원
- Web Interface Management CLI-Console/Telnet, SNMP v1/v2/v3 RMON/System syslog 지원.
- Bypass 모듈(Optional)
- 광 선로 감지 기능(Optional)

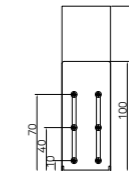
## Dimension

### AC Type

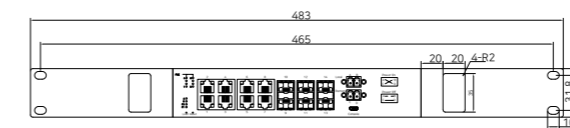
Top View



Side View

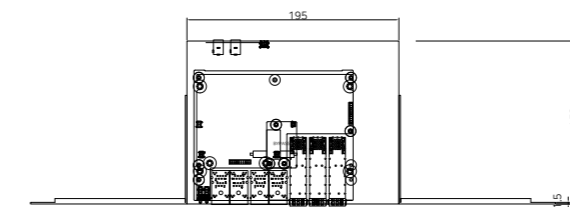


Front View

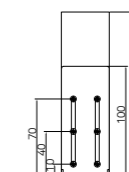


### DC Type

Top View



Side View



Front View



## Ordering Information

### HSTW-IEL-6800M(8G6SF)

8x 10/100/1000M Copper RJ-45 Ports, 4x 100/1000M SFP Slot, 2x 100/1000/2500M SFP Slot

### HSTW-IEL-6800M(8G6SF)- P

8x 10/100/1000M Copper RJ-45 Ports, 4x 100/1000M SFP Slot, 2x 100/1000/2500M SFP Slot, POE 지원

### · SFP Module CWDM/WDM Version Optical Output Wavelength(nm)

A 1470, B 1490, C 1510, D 1530, E 1550, F 1570, G 1590, H 1610, M 1270, N 1290, P 1310, Q 1330, R 1350, S 1370, T 1390, U 1410, V 1430, W 1450

## · HSTW - IEL- 6800M(8G6SF) - P

HyeSung TechWin  
(회사 상호)

Industrial Ethernet Link  
(산업용)

자사 모델명 시리즈

Power over Ethernet(POE)  
지원

# Specifications

| Technical parameters                      | Specification   |   |
|---|---|---|
| <b>Product Name</b>                       | 14 ports L2 Full Gigabit Managed Industrial Ethernet Switch   |   |
| <b>Product Model</b>                      | HSTW-IEL-6800M(8G6SF)Series   |   |
| <b>Interface</b>                          | 8x 10/100/1000M copper RJ-45 ports, 4x 100/1000M SFP Slot, 2x 100/1000/2500M SFP Slot, 1 console Port   |   |
| <b>Network Protocols</b>                  | IEEE802.3i  | 10Base-T 10Mbit/s Ethernet  |
|   | IEEE 802.3u   | 100Base-TX, 100Base-FX, Fast Ethernet   |
|   | IEEE 802.3ab  | 1000Base-T Gigabit/s Ethernet over twisted pair                                   |
|   | IEEE 802.3z   | 1000/2500Base-LX Gigabit/s Ethernet over Fiber-Optic                              |
|   | IEEE 802.3x   | Flow control, Back pressure   |
|   | IEEE 802.3ad  | Link aggregation for parallel links with LACP (Link Aggregation Control Protocol) |
|   | IEEE 802.1p   | LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization                           |
|   | IEEE 802.1q   | Virtual LANs (VLAN)   |
|   | IEEE 802.1ad  | Stacked VLANs, Q-in-Q   |
|   | IEEE 802.3az  | EEE (Energy Efficient Ethernet)   |
| <b>Port Management</b>                    | IEEE 802.1x   | Port based and MAC based Network Access Control, Authentication                   |
|   | Enable/Disable port<br>Speed, duplex, MTU settings, etc.<br>Flow-control flow control setup<br>Port mirroring<br>Support port access direction, VLAN image<br>To support the port speed limit<br>Support port isolation settings<br>Unknown unicast, multicast, broadcast storm suppression |   |
| <b>Spanning Tree Protocol</b>             | IEEE 802.1D   | STP (Spanning Tree Protocol)  |
|   | IEEE 802.1w   | RSTP (Rapid Spanning Tree Protocol)   |
|   | IEEE 802.1s   | MSTP (Multiple Spanning Tree Protocol)  |
| <b>ITU-T G.8032/ Y.1344</b>               | ERPS (Ethernet Ring Protection Switching)<br>Recovery time <50ms, 15ms 이내<br>Single Ring, Sub-Ring, Multiple Ring Topology Network  |   |
| <b>사설 Ring Protocol</b>                   | HSTW-Ring Protocol  |   |
| <b>Link Aggregation</b>                   | Support static manual aggregation,<br>Support LACP dynamic convergence IEEE 802.3ad   |   |
| <b>IEEE802.3af-2003, IEEE802.3at-2009</b> | Power over Ethernet(POE)  |   |
| <b>VLAN</b>                               | Support up to 4K VLANs simultaneously (out of 4096 VLAN IDs)<br>Support Port based VLAN and IEEE 802.1Q VLAN  |   |
| <b>IGMP Snooping</b>                      | Support static add/delete   |   |
| <b>GMRP</b>                               | Supports GARP multicast registration protocol   |   |
| <b>MAC</b>                                | Support static add/delete<br>MAC address learning limit<br>Support dynamic aging time settings  |   |
| <b>ACL</b>                                | Based on the source MAC, destination MAC, protocol type, source IP,<br>Destination IP, L4 port number<br>Support time-range time management   |   |
| <b>QOS</b>                                | Based on 802.1p (COS) classification<br>Based on DSCP classification<br>Based on the source IP, destination IP, port number classification<br>Support SP,WRR, DRR scheduling strategy<br>Support traffic speed limit CAR  |   |
| <b>MPLS</b>                               | MPLS supports static LSP / Support VPN MPLS   |   |
| <b>LLDP</b>                               | Support LLDP link discovery protocol  |   |
| <b>802.1x</b>                             | Support 802.1x port authentication (Radius, local)  |   |

| Technical parameters             | Specification   |   |
|----------------------------------|---|---|
| <b>Prevent attack</b>            | DOS defense<br>Support for CPU protection, limited to send CPU message rate   |   |
| <b>System Management</b>         | User add / delete<br>User login, operation, status, event log<br>Device reset, configuration save / restore, upgrade management, time setting, etc.   |   |
| <b>Management Function</b>       | CLI   | Support serial command line management                                |
|                                  | TELNET  | Support serial command line management                                |
|                                  | SSH   | Supports SSHv1/2 remote management                                    |
|                                  | SNMP  | Cold Start, Warm Start, Link Down, Link Up<br>SNMP v1/v2/v3 and so on |
|                                  | WEB   | Supports two layers, three layers of view, etc                        |
|                                  | RMON  | RMON I (1, 2, 3, 9 group), RMON II                                    |
| <b>Network Media</b>             | 10BASE-T: Cat3,4,5 UTP(≤100 meter)<br>100BASE-TX: Cat5 or later UTP(≤100 meter)<br>1000BASE-TX: Cat6 or later UTP(≤100 meter)   |   |
| <b>Fiber Media</b>               | Multi-mode: 850nm/1310nm, ~500m/~2km<br>Single-mode:1310nm/1550nm, ~20/40/60/80/100/120km   |   |
| <b>Performance Specification</b> | Bandwidth:40Gbps<br>Packet Buffer Memory:4Mbit<br>Packet Forwarding Rate:25.296Mpps<br>Address Table:8K<br>Switching delay:< 5μs  |   |
| <b>IGMP / MLD Snooping</b>       | IGMP Snooping v1, v2, v3 / MLD Snooping v1, v2<br>Port Filtering Profile<br>Throttling, Fast Leave<br>Maximum Multicast Group : up to 1022 entries<br>Query / Static Router Port  |   |
| <b>Forwarding Mode</b>           | Store-And-Forward   |   |
| <b>LED Display</b>               | Run indicator: LED-Green<br>Power supply indicator: LED-Green<br>10/100/1000M-TX indicator: LED-Yellow, LED-Green<br>100/1000/2500M LINK indicator: LED-Green   |   |
| <b>Power Supply</b>              | Input Voltage: AC(85~264VAC), DC(12~72VDC),<br>Optional Input Voltage: 12VDC, 24VDC, 48VDC<br>Dual power supplying redundancy   |   |
| <b>Working Environment</b>       | Working temperature: -40~85℃<br>Storage temperature: -40~90℃<br>Relative Humidity: 5%~95 % (no condensation)  |   |
| <b>Industry Standard</b>         | EMI: FCC Part 15, CISPR (EN55022) class A<br>EMS: EN61000-4-2 (ESD)<br>EN61000-4-3(RS) exceeds Level 3<br>EN61000-4-4 (EFT)<br>IEC 61000-4-5 (Surge)<br>IEC 61000-4-6 (CS) Level 2<br>IEC 61000-4-8 IEC 61000-4-11 IEC 61000-4-16<br>Shock(충격): IEC 60068-2-27<br>Free fall(낙하): IEC 60068-2-31<br>Vibration(진동,내시험): IEC 60068-2-6 |   |
| <b>Certification</b>             | CE mark, commercial / FCC Part 15 Class B / VCCI ClassB / EN 55022 (CISPR 22), ClassB   |   |
| <b>Mechanical Structure</b>      | Shell : IP30 protect grade, metal shell<br>Installation : DIN-Rail or Wall mounts   |   |
| <b>MIB</b>                       | RFC1213 MIB II, Private MIB   |   |
| <b>Over load protection</b>      | Support   |   |
| <b>Redundancy protection</b>     | Support   |   |
| <b>MTBF</b>                      | 200,000 hours   |   |
| <b>Warranty</b>                  | 5 years warranty  |   |