# HSP-IO-24GE4XS-C2AH
# 24-Port Non-PoE L2 Managed (24x1 GE access + 4x1/10 GE uplink)

## Overview

| | | | |
|---|---|---|---|
| Fully Managed L2 Switch with wire speed Non-Blocking Architecture | All Gigabit Ethernet Access Ports with 10G Uplinks in a fixed 1U configuration | 24 1G Access ports with PoE and Non-PoE Options | 4×1/10G Uplink Ports that allow termination on either fiber or copper based on SFP module |
| Multiple Power Supply options (Single, Redundant) to choose from | Upto 128 Gbps Switching capacity and up to 64 Gbps of Full-Duplex Throughput | PoE Variants Suitable in an enterprise/telco environment to connect end PoE clients like Wi-Fi AP, CCTV, P2P, P2MP, IoT etc. | Non PoE Variants Suitable as access or aggregation switch in Enterprise / Campus / Telco Environment |

# Key Feature Highlights

### All Gigabit Ports

Access ports with both PoE and Non-PoE options. Support Auto MDIX as well as Auto Negotiation

### 10G SFP Uplinks

10G SFP Uplinks that support both the copper and fiber termination options (based on SFP Module)
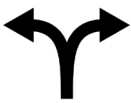
### Smart PoE (PoE Variants only)

802.3af/802.3at support on all access ports simultaneously. Smart PoE Capabilities like dynamic and static allocation of power to end host, PoE Port priority, and PoE Traffic Monitor

### Go-Green

Comply with Energy Efficient Ethernet Standards (802.3az)

### Power Supply Flexibility

Power supply with Single & Redundant options

### Secured OS

Powered by fully indigenously developed NiOS with a Security hardened protocol stack and features like L2/L3/L4 ACL, DHCP snooping, Dynamic ARP Inspection, 802.1x Port Security with dACL

### Rich L2 Features

Dual-Stack (IPv4/IPv6) Support, 4K VLAN, 16K MAC, L2 loop avoidance mechanisms like STP/RSTP/MSTP/ERPS, L2 Multicast (IGMP), QoS, Static Routing

### Industry Standard Management

Support secured management access over CLI and Web with built-in scripting and event scheduler framework.

# Technical Specifications

## Switch Ports

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|---|---|
| **1** | 24×10/100/1000 Base-T Gigabit Access Ports |
| **2** | 4×1/10G SFP Uplink Ports with the flexibility to terminate the connection on copper or fiber-based SFP module |
| **3** | One Serial Console Port |
| **4** | One RJ45 Management Port |
| **5** | Link / Speed / LED Status on All ports. |
| **6** | System status LED |

## Switching / Forwarding Capacity

| | |
|---|---|
| **Switching Capacity** | 128 Gbps |
| **Forwarding Capacity** | 95.232 MPPS |

## Rich L2 Features

| | |
|---|---|
| **1** | Support 4094 VLAN IDs, 16K MAC Table, Voice VLAN |
| **2** | L2 Loop Avoidance – STP/RSTP, MSTP, ERPS, STP Root and Edge Port Protection |
| **3** | Multicast - IGMP v1/v2/v3 Snooping, IGMP filtering, IGMP proxy |
| **4** | LACP based LAG and Static LAG with Traffic load share and active –standby policies |
| **5** | Static Routing & Inter-VLAN Routing, Dual Stack and IPv6 Compliant |
| **6** | 802.1q and QinQ (Port based and Selective), MVRP |
| **7** | QoS – Up to eight priority queues, Rate Limiting/Policing, CIR/EIR, Shaping (SPQ / WRR/ WFQ), Multi-Field (802.1p / DSCP) Classification and Remarking |
| **8** | LLDP / LLDP MED to identify end points, IP Phones etc. |
| **9** | Jumbo MTU upto 9198 Bytes |

## Security Features

- L2/L3/L4 ACL
- 802.1X Port Security with Radius CoA, dACL, Accounting & Dynamic VLAN Assignment
- TACACS+ / RADIUS AAA
- DHCP snooping, ARP Inspection, IPv6 ND Inspection
- MAC-IP Anti spoofing, MAC Address Notification
- Inherent DoS Attack Prevention
- Storm Control - Broadcast, Multicast and Unknown Unicast

## Industry Standard Management with Automation

| | |
|---|---|
| **1** | CLI and GUI options |
| **2** | Dual Stack (IPv4 and IPv6) Management |
| **3** | Telnet, SSHv2 and SNMP v1/v2/v3 support |
| **4** | NTP, FTP, TFTP, SCP, SFTP, Port Mirroring, Traceroute |
| **5** | DHCP Relay & Client * |
| **6** | Built-in Event Policy / Scheduler Framework for Automation |
| **7** | Zero Touch Provisioning |

\* Contact sales representative for use case

## PoE Capabilities (PoE Variants only)

| | |
|---|---|
| 1 | Each access port comply to 802.3af/802.3at with Max power output of 30W per port |
| 2 | PoE Budget options: 200W, 370W, 720W |
| 3 | Smart PoE Capabilities like dynamic and static allocation of power to end host, PoE Port priority and PoE Traffic Monitor |

## Power Supply Options

| | |
|---|---|
| 1 | Single AC Supply |
| 2 | Redundant Supply options: AC / DC (100V to 240V AC / -44V to 57V DC) |

## Other Design Parameters

- Operating Temperature - 0°C to 50°C (Fanless Variants), 0°C to 55°C (Variants with Fans)
- Fans for Cooling (In Modular Power/Fans Variants)
- 1U fixed configuration

## Certifications

- Environment: IEC 600682, QM-333, RoHS
- EMI/EMC: EN 55024, EN 55032, CISPR 24, CISPR 32, IEC 61000-4
- Safety: EN 62368-1, IEC 62695-11-10, IEC 60320-1
- Software: IPV6 Ready Logo Certified