io by HFCL

HSP-IO-4GE2S-C2U

Commercial Access Switch
4-Port L2 Managed

Overview:

- Fully Managed L2 Switch with wire speed Non-Blocking Architecture.

- All Gigabit Ethernet Ports in a fixed 1U configuration.

- Four 1G Access ports with PoE and Non-PoE Options.

- 2/4 1G Uplink Ports that allow termination of both fiber and copper simultaneously.

- Multiple Power Supply options (Single, Redundant, Universal (AC+DC)) to choose from.

- Upto 16 Gbps Switching capacity and up to 8 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 to connect Small Cells / BTS, P2P / P2MP etc. in telco environment and Desktops/ Servers, IP-Phone etc. in an Enterprise / Campus environment.

Key Feature Highlights	
All Gigabit Ports	Access ports with both PoE and Non-PoE options and Uplink Ports with both copper and fiber termination options. Support Auto MDIX as well as Auto-Negotiation on RJ45 based ports.
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 & Universal (AC+DC) 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.

Switch Ports

1	4x10/100/1000 Base-T Gigabit Access Ports.
2	2x10/100/1000 Base-T + 2x1G SFP Gigabit Uplink Ports (PoE Variants). 2x1G SFP Uplink Ports (Non-PoE Variants).
3	One Serial Console Port.
4	Link / Speed / PoE LED Status on All ports.
5	System status LED & onboard RESET button.

Switching / Forwarding Capacity

Switching Capacity	PoE+ Variants: 16 Gbps, Non-PoE Variants: 12 Gbps
Forwarding Capacity	PoE+ Variants: 11.9 MPPS, Non-PoE Variants: 8.93 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 and 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

1	L2/L3/L4 ACL.
2	802.1X Port Security with Radius CoA, dACL, Accounting & Dynamic VLAN Assignment.
3	TACACS+ / RADIUS AAA.
4	DHCP snooping, ARP Inspection, IPv6 ND Inspection.
5	MAC-IP Anti spoofing, MAC Address Notification.
6	Inherent DoS Attack Prevention.
7	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	Provides PoE Budget of up to 120W.
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	The Universal Supply with option of either connecting to an AC or DC input (100V to 240V AC, -36V to 57V DC).
2	Single Supply option: Only AC or DC input.
3	Redundant DC supplies.

Other Design Parameters	
1	Operating Temperature - 0°C to 55°C.
2	Passive Cooling with Fan less Design.
3	1U fixed configuration.

HSP 4-Port L2 Managed Switch Variants:

Model: HSP-IO-4GE2S-C2U	
Description	HFCL 4-Port Non-PoE L2 Managed Switch with 2x1G SFP Uplinks and Universal Power Supplies.
Ports Configuration	4x10/100/1000-Base-T + 2x1G SFP + 1xRJ45 Serial Console Port.
Power Supply	Universal Supply with option of either connecting to an AC or DC input.

Model: HSP-IO-4GE2S-C2D

Description	HFCL 4-Port Non-PoE L2 Managed Switch with 2x1G SFP Uplinks and Single DC Power Supply.
Ports Configuration	4x10/100/1000-Base-T + 2x1G SFP + 1xRJ45 Serial Console Port.
Power Supply	Single Integrated DC Power Supply.

Model: HSP-IO-4GE2S-C2A

Description	HFCL 4-Port Non-PoE L2 Managed Switch with 2x1G SFP Uplinks and Single AC Power Supply.
Ports Configuration	4x10/100/1000-Base-T + 2x1G SFP + 1xRJ45 Serial Console Port.
Power Supply	Single Integrated AC Power Supply.

Model: HSP-IO-4GE2S-CPD

Description	HFCL 4-Port PoE+ L2 Managed Switch with 2x1G SFP and 2x1G RJ45 Uplinks and Dual DC Power Supplies.
Ports Configuration	4x10/100/1000-Base-T (PoE+) + 2x1G SFP + 2x1G RJ45 + 1xRJ45 Serial Console Port.
Power Supply	Dual Redundant DC Power Supplies.

Certifications

- Software: IPV6 Ready Logo Certified