


# AirPro AP-DCS7510-48S6Q-HI Data Center Switch

## Product Overview

AP-DCS7510-48S6Q-HI data center 40G switch uses advanced hardware and software architecture design, support built-in modular 1+1 redundant power supplies, 4+1 redundant fans, cross ventilation and wind direction adjustable. It has 48\*10GE SFP+ ports and 6\*40G QSFP+ ports.

AP-DCS7510-48S6Q-HI is ideal for cloud computing data center server access and core switch of small to medium datacenter. For campus or other large network, AP-DCS7510-48S6Q-HI could also be deployed at aggregation or core layer as its high performance and reliability.

Appearance	Description
 <p>AP-DCS7510-48S6Q-HI</p>	<ul style="list-style-type: none"><li>● 48 x 10G SFP+ and 6 x 40G QSFP</li><li>● AC+AC Power Supply</li><li>● 1 console, 1 USB, 1 RJ45 management port</li><li>● Forwarding performance: 1071Mpps</li><li>● Switching capacity: 1440Gbps</li></ul>

## Key Features and Highlights

### High Performance and scalability

With high switching capacity, AP-DCS7510-48S6Q-HI supports wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10 Gigabit Ethernet connectivity of AP-DCS7510-48S6Q-HI is accomplished via a hot-pluggable 10 Gigabit SFP+ transceiver which supports distance up to 300 meters over multi-mode fiber and 10 to 40km over single-mode fiber (The distance depends the optical module chosen).

### High Reliability

AP-DCS7510 series support modular 1+1 redundant power supplies and 4+1 redundant fans. Business won't be interrupted in case replacing power supplies and fans. System supports dual images. Even though the primary image was destroyed, system will still boot via backup image normally.

### VSF (Virtual Switch Framework)

As new generation data center switch, AP-DCS7510 support VSF which not only guarantees the flexibility, but also enhanced the scalability of datacenter network.

### Flex Resource

Flex Resource is able to allocate, recover and reallocate hardware resource dynamically according to demand. It can increase the utilization of the hardware resource.

### OpenFlow

AP-DCS7510-48S6Q-HI supports OpenFlow 1.0 standard protocol. OpenFlow network is increasingly becoming a trend as the core protocol of SDN network. It makes the network easier programming OpenFlow brings the high performance to datacenter users via self-defined network. With OpenFlow, this product is ideal to build SDN test-bed for research institutes and SDN Experimental Bureau for large ISP and operator.

### Rich L3 Features

AP-DCS7510-48S6Q-HI delivers high-performance, hardware-based IP routing.

RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers.

With AP-DCS7510-48S6Q-HI, customers could easily achieve Policy based Route (PBR), which is important when they need multi exit application.

### MPLS/VPLS

AP-DCS7510-48S6Q-HI supports MPLS L3 VPN/MPLS L2 VPN(VPLS) and helps customer to

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construct more secure/extendable network. With max.255 VRF instances, DCS7510-48S6Q-HI series could be deployed as P & PE devices, guarantees the variety of services.

### Abundant IPv6 Support

DCS7510-48S6Q-HI supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing and the need for larger addressing and higher security becomes critical, DCS7510-48S6Q-HI will be a right product to meet the requirement. DCS7510-48S6Q-HI passed

IPv6 form Phase II certification, which is the best proof of the application.

### Strong Multicast

DCS7510-48S6Q-HI supports abundant multicast features such as IGMPv1/v2/v3 snooping and fast leave and IGMPv1/v2/v3, PIM-DM, PIM-SM, PIM-SSM and even MSDP. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detection functions, DCS7510-48S6Q-HI provides great application experience for customer

### Specifications

Item	AP-DCS7510-48S6Q-HI
<b>Physical port</b>	48 * 10G SFP+ and 6 * 40G QSFP
<b>Management port</b>	Console port RJ45 10/100/1000Mbps RJ45 Ethernet Management port USB2.0 Management port
<b>Performance</b>	
<b>Switching Capacity</b>	1440Gbps
<b>Forwarding Rate</b>	1071Mpps
<b>MAC Address</b>	96K(standard)/32K(routee)/288K(bridgee), UFT configuration, default is standard
<b>ARP Table</b>	208k(standard)/16k(routee)/16k(bridgee), UFT configuration, default is standard
<b>Routing Table</b>	8k(standard)/128k(routee)/8k(bridgee), UFT configuration, default is standard
<b>Physical</b>	
<b>Dimension(W*H*D)</b>	433.8mm*44mm*550mm
<b>Relative Humidity</b>	10%~90% non-condensing
<b>Temperature</b>	Working 0°C~50°C, storage -40°C~75°C
<b>Power Input</b>	AC: 100~240V,50~60 Hz
<b>Power Supply</b>	1+1 Modular Redundant
<b>Main Features</b>	
<b>L1, L2 Features</b>	IEEE 802.3(10Base-T), IEEE 802.3u(100Base-TX), IEEE 802.3z(1000BASE-X) IEEE 802.3ab(1000Base-T), IEEE 802.3ae(10GBase), IEEE802.3x IEEE 802.3ak(10GBASE-CX4) IEEE 802.3ba
	12k Jumbo Frame Port Loopback Detect LLDP and LLDP-MED UDLD 802.3ad LACP, max 128 group trunks with max 8 ports for each trunk LACP Load Balance
	N:1 Port Mirroring RSPAN ERSPAN

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	<p>IEEE802.1d(STP)  IEEE802.1w(RSTP)  IEEE802.1s(MSTP)  Root Guard  BPDU Guard  BPDU Tunnel</p>
	<p>802.1Q, 4096 VLAN  MAC VLAN, VOICE VLAN, PVLAN, Protocol VLAN, Multicast VLAN  QinQ, Selective QinQ, Flexible QinQ  GVRP  N:1 VLAN Translation  Broadcast / Multicast / Unicast Storm Control</p>
	<p>IGMP v1/v2/v3 Snooping and L2 Query  ND Snooping  MLDv1/v2 Snooping</p>
	<p>Port Security</p>
	<p>Flow control: HOL, IEEE802.3x  Bandwidth Control</p>
<b>L3 Features</b>	<p>Static Routing, RIPv1/v2, OSPFv2, BGP4  OSPFv3, BGP4+  OSPF Multiple Process  LPM Routing  Policy-based Routing (PBR) for IPv4 and IPv6  VRRP  URPF,  ECMP  BFD</p>
	<p>IGMP v1/v2/v3, IGMP Proxy,  DVMRP, PIM-DM, PIM-SM, PIM-SSM, any cast RP, MSDP  Static Multicast Route  Multicast Receive Control  Illegal Multicast Source Detection</p>
	<p>ARP Guard, Local ARP Proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit  Anti ARP Cheat, Anti ARP Scan</p>
	<p>DNS Client</p>
	<p>GRE Tunnel</p>
<b>IPv6</b>	<p>6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, GRE Tunnel  ICMPv6, ND, DNSv6  IPv6 LPM Routing, IPv6 Policy-Based Routing (PBR)  IPv6 VRRPv3, IPv6 URPF, IPv6 RA  RIPng, OSPFv3, BGP4+  MLD Snooping, IPv6 multicast VLAN  MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QOS</p>
<b>MPLS</b>	<p>MPLS, VRF, LDP</p>

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	MPLS L3 VPN, MPLS L2 VPN (VPLS), VPWS
QoS	8 Queues SWRR, SP, WRR, DWRR, SDWRR, WRED Traffic Classification Based on 802.1p CoS, ToS, DiffServ DSCP, ACL, port number Traffic Shaping PRI Mark/Remark
ACL	IP ACL, MAC ACL, IP-MAC ACL Standard and Expanded ACL Based on source/destination IP or MAC, IP protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS REDIRECT and accounting-based ACL Rules can be configured to port, VLAN Time ranged ACL
Security	802.1x AAA Port, MAC based authentication Accounting based on time length and traffic Guest VLAN and Auto VLAN
	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB
DHCPv4/v6	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
Security Management	Network CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog server HTTP SSL SNMP MIB, SNMP TRAP FTP/TFTP SNTP/NTP RMOM 1,2,3,9 Authentication by radius SSH v1/v2 Dual firmware images/ Configuration files 802.3ah OAM, 802.1ag OAM OpenFlow 1.0 (support open controller Opendaylight, Floodlight, Ryu, Pox, etc.)
Data Center Features	IEEE VEPA (Virtual Ethernet Port Aggregator) * TRILL * VXLAN * VSF (Virtual Switch Framework)

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### Order Information

Product	Description
<b>AP-DCS7510-48S6Q-HI</b>	40G Advance Enhanced Datacenter Switch (48*10GbE (SFP+) +6*40GbE (QSFP+)), redundant and modular design, high performance. Full L3 features, Default with two hot-swap AC power supply, Default with 5 (4+1) fans, Broadcom chipset