Alcatel-Lucent OmniSwitch 6450-10
Gigabit Ethernet LAN Switch

The Alcatel-Lucent OmniSwitch® 6450 Stackable Gigabit Ethernet LAN value switch family includes a series of 10-port models (non-PoE, Power over Ethernet [PoE], Fast and Gigabit Ethernet) for classroom, workgroup and small enterprise segments. Designed with an optimized size, low-power consumption, fan-less and fan models and a rich software feature set, the OmniSwitch 6450-10 models provide a highly available, self-protective, easily managed and eco-friendly collocation solution.

Service providers offering managed services have the option to install the Metro services license enabling a set of Metro Ethernet features. This allows the OmniSwitch 6450-10 port models to be quickly integrated into the provider’s network as advanced customer premise equipment (CPE) devices. The OS6450-P10S is especially designed for small cell access point deployments requiring higher PoE power and precision network timing.

The Alcatel-Lucent OmniSwitch 6450-10 models use the latest technologies and Alcatel-Lucent Operating System (AOS) innovations.

Solutions benefiting from the OmniSwitch 6450-10 switches are:
• Classroom and workgroup networks
• Small enterprise or branch office networks
• Commercial and residential managed services
• Service Provider networks deployments
Alcatel-Lucent OmniSwitch 6450-10

The Alcatel-Lucent OmniSwitch 6450-10 offers eight user ports for smaller network environments. These models are power and acoustically optimized, with a half-rack width (8.5 in./21.59 cm), and have a fixed configuration chassis in a 1 RU form factor. All models are fanless (except -P10S) and have an internal power supply. The -P10L/-P10 PoE models are both IEEE 802.3af/802.3at compliant with a 115 W power budget for PoE attached devices. The P10S PoE model supports IEEE 802.3af/802.3at, and is compliant the PoE section of the PoH (Power over HDBase-T over four pair) standard with a 280W power budget for PoE attached devices.

The OmniSwitch 6450-10L/P10L models have the user port speeds fixed for 10/100M operation. These models are upgradeable to gigabit speeds in the future using the OS6450-10L-UPGD license upgrade.

Table 1. OmniSwitch 6450-10 model configurations

<table>
<thead>
<tr>
<th>Chassis</th>
<th>10/100 ports</th>
<th>10/100/1000 ports</th>
<th>Gig combo ports</th>
<th>SFP uplink (Gigabit)</th>
<th>Power supply supported</th>
<th>Backup power supply supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-PoE models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS6450-10L</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>Internal AC</td>
<td>N/A</td>
</tr>
<tr>
<td>OS6450-10/10M</td>
<td>0</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>Internal AC</td>
<td>N/A</td>
</tr>
<tr>
<td>PoE models</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS6450-P10L</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>Internal AC</td>
<td>N/A</td>
</tr>
<tr>
<td>OS6450-P10</td>
<td>0</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>Internal AC</td>
<td>N/A</td>
</tr>
<tr>
<td>OS6450-P10S</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>Internal AC</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Port information:
- RJ-45 combo port configurable to be RJ10/100/1000Base-T
- SFP combo port supporting 100/1000Base-X transceivers for short, long and very long distances
- SFP fixed fiber interfaces support only gigabit SFP transceivers or SFP stacking cable.
- All P10S ports support 1588v2 Transparent Clock and is a non-stackable switch

Technical specifications

<table>
<thead>
<tr>
<th>Port</th>
<th>OS6450-10L</th>
<th>OS6450-10/10M</th>
<th>OS6450-P10L</th>
<th>OS6450-P10</th>
<th>OS6450-P10S*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJ-45 10/100 ports</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RJ-45 10/100/1000</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>RJ-45/SFP 100/1000</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>SFP uplink/stacking</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>PoE ports</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Maximum units stackable*</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>OS6450-10L</th>
<th>OS6450-10/10M</th>
<th>OS6450-P10L</th>
<th>OS6450-P10</th>
<th>OS6450-P10S*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch width</td>
<td>8.50 in. (21.5 cm)</td>
<td>8.50 in. (21.5 cm)</td>
<td>8.50 in. (21.5 cm)</td>
<td>8.50 in. (21.5 cm)</td>
<td>8.50 in. (21.5 cm)</td>
</tr>
<tr>
<td>Switch height</td>
<td>1.73 in. (4.4 cm)</td>
<td>1.73 in. (4.4 cm)</td>
<td>1.73 in. (4.4 cm)</td>
<td>1.73 in. (4.4 cm)</td>
<td>1.73 in. (4.4 cm)</td>
</tr>
<tr>
<td>Switch depth</td>
<td>11.5 in. (29.21 cm)</td>
<td>11.5 in. (29.21 cm)</td>
<td>11.5 in. (29.21 cm)</td>
<td>11.5 in. (29.21 cm)</td>
<td>11.5 in. (29.21 cm)</td>
</tr>
</tbody>
</table>
## Performance (Aggregated)

<table>
<thead>
<tr>
<th>Port</th>
<th>OS6450-10L</th>
<th>OS6450-10/10M</th>
<th>OS6450-P10L</th>
<th>OS6450-P10</th>
<th>OS6450-P10S*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch capacity (with 2GigE uplinks)</td>
<td>5.6 Gb/s</td>
<td>20 Gb/s</td>
<td>5.6 Gb/s</td>
<td>20 Gb/s</td>
<td>20 Gb/s</td>
</tr>
<tr>
<td>Switch capacity (with 4GigE uplinks)</td>
<td>9.6 Gb/s</td>
<td>24 Gb/s</td>
<td>9.6 Gb/s</td>
<td>24 Gb/s</td>
<td>N/A</td>
</tr>
<tr>
<td>Max frame rate (4GigE or 2GigE uplinks)</td>
<td>14.28 Mp/s</td>
<td>35.70 Mp/s</td>
<td>14.28 Mp/s</td>
<td>35.70 Mp/s</td>
<td>29.76 Mp/s (2 uplinks)</td>
</tr>
<tr>
<td>Stacking capacity (2x5Gbs stacking)</td>
<td>10/20 Gb/s</td>
<td>10/20 Gb/s</td>
<td>10/20 Gb/s</td>
<td>10/20 Gb/s</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## Operating conditions

<table>
<thead>
<tr>
<th>Operating temperature</th>
<th>0°C to +45°C</th>
<th>0°C to +45°C</th>
<th>0°C to +45°C</th>
<th>0°C to +45°C</th>
<th>0°C to +45°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>32°F to +113°F</td>
<td>32°F to +113°F</td>
<td>32°F to +113°F</td>
<td>32°F to +113°F</td>
<td>32°F to +113°F</td>
<td>32°F to +113°F</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40°C to +75°C</td>
<td>-40°C to +75°C</td>
<td>-40°C to +75°C</td>
<td>-40°C to +75°C</td>
<td>-40°C to +75°C</td>
</tr>
<tr>
<td></td>
<td>-40°F to +167°F</td>
<td>-40°F to +167°F</td>
<td>-40°F to +167°F</td>
<td>-40°F to +167°F</td>
<td>-40°F to +167°F</td>
</tr>
<tr>
<td>Humidity (operating and storage)</td>
<td>5% to 95%</td>
<td>5% to 95%</td>
<td>5% to 95%</td>
<td>5% to 95%</td>
<td>5% to 95%</td>
</tr>
<tr>
<td>MTBF (hours)</td>
<td>695,192</td>
<td>695,192</td>
<td>499,729</td>
<td>499,729</td>
<td>329,729</td>
</tr>
<tr>
<td>Power supply efficiency</td>
<td>85.6%</td>
<td>85.6%</td>
<td>90.1%</td>
<td>90.1%</td>
<td>88.46%</td>
</tr>
<tr>
<td>Fan-less design (Yes/No)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No (1+1 redundant)</td>
</tr>
<tr>
<td>Acoustic (dB)</td>
<td>Silent</td>
<td>Silent</td>
<td>Silent</td>
<td>Silent</td>
<td>&lt;40 db(A)</td>
</tr>
<tr>
<td>System power consumption (watts/btu)**</td>
<td>12.40 W/42.31</td>
<td>12.70 W/43.33</td>
<td>12.70 W/43.33</td>
<td>12.90 W/44.01</td>
<td>13.00 W/44.35</td>
</tr>
<tr>
<td>0% traffic</td>
<td>13.00 W/44.35</td>
<td>13.61 W/46.43</td>
<td>13.65 W/46.57</td>
<td>14.20 W/48.45</td>
<td>16.30 W/55.78</td>
</tr>
<tr>
<td>50% traffic</td>
<td>15.00 W/51.18</td>
<td>15.61 W/53.48</td>
<td>15.65 W/53.57</td>
<td>16.30 W/55.78</td>
<td>16.35 W/55.78</td>
</tr>
<tr>
<td>100% traffic</td>
<td>15.2 W/51.86</td>
<td>15.7 W/52.25</td>
<td>15.75 W/52.35</td>
<td>16.35 W/55.78</td>
<td>16.40 W/55.85</td>
</tr>
<tr>
<td>PoE power budget N/A</td>
<td>N/A</td>
<td>115 W</td>
<td>115 W</td>
<td>280 W</td>
<td>N/A</td>
</tr>
<tr>
<td>Max PoE power/ port (up to the power budget)</td>
<td>N/A</td>
<td>N/A</td>
<td>31 W</td>
<td>31 W</td>
<td>Ports 1-4: 75 W (four pair)</td>
</tr>
</tbody>
</table>

## Indicators

**System LEDs**
- System (OK) (chassis HW/SW status)
- PWR (primary power supply status)
- PRI (virtual chassis primary)
- BPS (backup power status)
- STK (stacking indicator for 10 port models)

**Per-port LEDs**
- 10/100/1000: PoE, link/activity
- SFP: Link/activity
- Stacking: Link/activity

## Compliance and certifications

**Commercial**

**EMI/EMC**
- FCC CRF Title 47 Subpart B (Class A limits. Note: Class A with UTP cables)
- VCCI (Class A limits. Note: Class A with UTP cables)
- AS/NZS 3548 (Class A limits. Note: Class A with UTP cables)
- CE-Mark: Marking for European countries (Class A limits. Note: Class A with UTP cables)
- CE-Mark
  - 2006/95/EC: Low voltage Directive
  - 2011/65/EU: RoHS-Directive

*All PoE ports support IEEE 802.3af/802.3at. PoE (four pair) ports 1-4 are compliant with the PoE portion of the Power over HD Base-T (PoH) standard with a 280W PoE power budget.

**Power consumption measured with 64 byte packets at varied % traffic conditions on all port, including the stacking ports.
• EN 55022: 2010 (EMI and EMC requirement))
• EN 61000-3-3: 2008
• EN 61000-3-2: 2006+A1:2009+A2 (Limits for harmonic current emissions)
• EN 55024: 2010 (ITE Immunity characteristics)
  ~ EN 61000-4-2: 2008
  ~ EN 61000-4-3: 2010
  ~ EN 61000-4-4: 2011
  ~ EN 61000-4-5: 2005
  ~ EN 61000-4-6: 2008
  ~ EN 61000-4-8: 2009
  ~ EN 61000-4-11: 2004
• IEEEB02.3: Hi-Pot Test (2250 V DC on all Ethernet ports)
• EN 50581: 2012 Standard for technical documentation for RoHS recast

Safety agency certifications
• CB Scheme: Certification per IEC 60950/EN 60950 with all different country deviations, IEC 60950-1:2005 2nd Edition
  ~ UL 60950 United States
  ~ IEC 60950-1:2005; all national deviations
  ~ CAN/CSA-C22.2 No. 60950-1-03
  ~ NOM-019 SCFI, Mexico
  ~ AS/NZ TS-001 and 60950:2000, Australia
  ~ UL-AR, Argentina
  ~ UL-CS Mark, Germany
• IEC 60825-1 Laser, IEC 60825-2 Laser
• CDRH Laser

Detailed product fetaures

Simplified management

Configuration management interfaces
• Intuitive Alcatel-Lucent command-line interface (CLI) with familiar interface reducing training costs
• Easy-to-use, point-and-click web-based element manager (WebView) with built-in help for easy configuration
• Integration with Alcatel-Lucent OmniVista for network management
• Full configuration and reporting using SNMPv1/2/3 across all OmniSwitch families to facilitate third-party Network Management System (NMS) integration
• Remote Telnet management or Secure Shell access using SSHv2
• File upload using USB, TFTP, FTP, SFTP, or SCP for faster configuration
• Human-readable ASCII-based configuration files for offline editing and bulk configuration
• Managed by Alcatel-Lucent 5620 Service Aware Manager

Monitoring and troubleshooting
• Local (on the flash) and remote server logging: Syslog and command log
• Port-based mirroring for troubleshooting and lawful interception supporting four sessions with multiple sources-to-one destination
• Policy-based mirroring – allows selection of the type of traffic to mirror by using quality of service (QoS) policies
• Remote port mirroring that facilitates passing mirrored traffic through the network to a remotely connected device
• Port monitoring feature that allows capture of Ethernet packets to a file, or for on-screen display to assist in troubleshooting
• sFlow v5 and RMON: For advanced monitoring and reporting capabilities for statistics, history, alarms, and events
• IP tools: Ping and trace route
• Digital Diagnostic Monitoring (DDM): Real-time diagnostics of fiber connections for early detection of optical signal deterioration
• Time Domain Reflectometry (TDR): For locating breaks or other discontinuity in copper cables

Network configuration
• Auto remote configuration download feature
• Auto-negotiating 10/100/1000 ports automatically configure port speed and duplex setting
• Auto MDI/MDIX automatically configures transmit and receive signals to support straight through and crossover cabling
• BootP/Dynamic Host Configuration Protocol (DHCP) client allows auto-config of switch IP information for simplified deployment
• DHCP relay to forward client requests to a DHCP server
• Alcatel-Lucent Mapping Adjacency Protocol (AMAP) for building topology maps
• IEEE 802.1AB Link Layer Discovery Protocol (LLDP) with MED extensions for automated device discovery
• Multiple VLAN Registration Protocol (MVRP) for IEEE 802.1Q-compliant VLAN pruning and dynamic VLAN creation
• Auto QoS for switch management traffic as well as traffic from Alcatel-Lucent IP phones
• IEEE 1588v2 Precision Timing Protocol (PTP) via end-to-end Transparent Clock (TC) for network-wide time synchronized applications: – “S” models only
• Network Time Protocol (NTP) for networkwide time synchronization
• Stackable to 4 units

Resiliency and high availability

• Rapid Ring Spanning Tree Protocol (RRSTP optimized for ring topology to provide less than 100 ms convergence time
• IEEE 802.1s Multiple Spanning Tree Protocol: Encompasses IEEE 802.10 STP and IEEE 802.1w Rapid Spanning Tree Protocol
• Per-VLAN spanning tree (PVST) and Alcatel-Lucent 1x1 STP mode
• IEEE 802.3ad Link Aggregation Control Protocol (LACP) and static LAG groups across modules is supported
• Dual-home link (DHL) support for sub second link protection without STP
• Virtual Router Redundancy Protocol (VRRP) to provide highly available routed environments
• Broadcast and multicast storm control to avoid degradation in overall system performance
• Unidirectional Link Detection (ULD): Detects and disables unidirectional links on fiber optic interfaces
• Layer 2 port loopback detection for preventing customer loops on Ethernet access ports
• Redundant and hot-swappable power supplies, transceivers modules offering uninterruptable service
• Dual image and dual configuration files storage provides backup

Advanced security

Access control
• AOS Access Guardian framework for comprehensive user policy-based Network Access Control (NAC)
• Autosensing 802.1X multi-client, multi-VLAN
• MAC-based authentication for non-802.1x hosts
• Web-based authentication (Captive Portal) – a customizable web portal residing on the switch that can be used for authenticating supplicants as well as non-suppllicants
• Group mobility rules and “guest” VLAN support
• The host integrity check (HIC) agent on each switch makes it a HIC enforcer and facilitates endpoint device control for company policy compliance.
• Supports dynamic Change of Authentication (CoA) and enforces traffic remediation or restriction for noncompliant devices.
• User Network Profile (UNP) – simplify NAC management and control by dynamically providing pre-defined policy configuration to authenticated clients – VLAN, ACL, BW, HIC
• SSH for secure CLI session with public key infrastructure (PKI) support
• Centralized RADIUS and Lightweight Directory Access Protocol (LDAP) user authentication
• Private VLAN feature for user traffic segregation

Containment, monitoring and quarantine
• Alcatel-Lucent Quarantine Manager and quarantine VLAN (not supported)

Layer 2, Layer 3 routing and multicast

Layer 2 switching
• Up to 16,000 MACs
• Up to 4000 VLANs
• Up to 2K Access Control Lists (ACLs)
• Latency: <4 μs

IPv4 and IPv6
• Static routing for IPv4 and IPv6
• RIP v1 and v2 for IPv4, RIPng for IPv6
• Up to 256 IPv4/128 IPv6 static and RIP routes
• Up to 128 IPv4 and 16 IPv6 interfaces
• Up to 1k Arp entries

Multicast
• IGMPv1/v2/v3 snooping to optimize multicast traffic
• Multicast Listener Discovery (MLD) v1/v2 snooping
• Up to 1000 multicast groups/stack
• IP Multicast VLAN (IPMVLAN) for optimized multicast replication at the edge saving network core resources

Network protocols
• DHCP relay (including generic UDP relay)
• ARP
• DHCP relay
• DHCP relay to forward client requests to a DHCP server
• Generic User Datagram Protocol (UDP) relay per VLAN
• DHCP Option 82 – configurable relay agent information
Metro Ethernet access  
(features available on “M” models or with metro license upgrade)

- Ethernet services support per IEEE 802.1ad Provider Bridge
  - Transparent LAN Services with Service VLAN (SVLAN) and Customer VLAN (CVLAN) concept
- Ethernet network-to-network interface (NNI) and user network interface (UNI) services
- Service Access Point (SAP) profile identification
- CVLAN to SVLAN translation and mapping
- IEEE 802.1ag Ethernet OAM: Connectivity Fault Management (L2 ping and link trace)
- IEEE 802.1q Ethernet OAM compliant with IEEE 802.3ah
- ITU-T G.8032 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies
- Private VLAN feature for user traffic segregation
- Service Assurance Agent (SAA) for proactively measuring network health, reliability and performance. Four SAA tests including L2-MAC, IP, ETH-LB and ETH-DMM depending on your network requirements
- Customer Provider Edge (CPE) test head traffic generator and analyzer tool used in the metro Ethernet network to validate customer Service Level Agreements (SLA)
- IPMVLAN for optimized multicast replication at the edge saving network core resources
- Layer 2 Multicast VLAN Replication (MVR) – allows users from different multicast VLANs to subscribe to a multicast group from an upstream trunk interface
- Three color marker – single/dual rate – policing with commit BW, excess BW, burst size
- TR-101 Point-to-Point Protocol over Ethernet (PPPoE) Intermediate Agent allowing for the PPPoE network access method
- MAC-forced forwarding support according to RFC 4562

- L2CP – Layer 2 Control Protocol for tunneling a customer’s L2CP frames, using a well known address, on a given UNI for the EPL and EVPL services
- Dying Gasp using SNMP and Ethernet OAM delivery
- Metro Ethernet Forum CE 2.0 Certified
- Managed by Alcatel-Lucent 5620 Service Aware Manager

**Supported standards**

**IEEE standards**
- IEEE 802.1D (STP)
- IEEE 802.1p (CoS)
- IEEE 802.1Q (VLANs)
- IEEE 802.1ad (Provider Bridge)
- Q-in-Q (VLAN stacking)
- IEEE 802.1ag (Connectivity Fault Management)
- IEEE 802.1s (MSTP)
- IEEE 802.1w (RSTP)
- IEEE 802.1X (Port-based Network Access Protocol)
- IEEE 802.3i (10Base-T)
- IEEE 802.3u (Fast Ethernet)
- IEEE 802.3ab (1000Base-T)
- IEEE 802.3ac (VLAN Tagging)
- IEEE 802.3af (Power over Ethernet)
- IEEE 802.3at (Power over Ethernet)
- IPv4 Unicast address or Ethernet Multicast Encapsulation

**ITU-T standards**
- ITU-T G.8032: Draft (June 2007) Ethernet Ring Protection
- ITU-T Y.1731 OA&M fault and performance management

**IETF standards**

**RIP**
- RFC 1058 RIP v1
- RFC 1722/1723/1724/2453 RIP v2 and MIB
- RFC 1812/2644 IPv4 Router Requirement
- RFC 2080 RIPng for IPv6

**IP Multicast**
- RFC 1112 IGMP v1
- RFC 2236/2933 IGMP v2 and MIB
- RFC 2365 Multicast
- RFC 3376 IGMPv3 for IPv6

**IPv6**
- RFC 1886 DNS for IPv6
- RFC 2292/2373/2374/2460/2462
- RFC 2461 NDP
- RFC 2463/2466 ICMP v6 and MIB
- RFC 2452/2454 IPv6 TCP/UDP MIB
- RFC 2464/2553/2893/3493/3513
- RFC 3056 IPv6 Tunneling
- RFC 3542/3587 IPv6
- RFC 4007 IPv6 Scoped Address Architecture
- RFC 4193 Unique Local IPv6 Unicast Addresses

**Manageability**
- RFC 1350 TFTP Protocol
- RFC 854/855 Telnet and Telnet options
- RFC 1155/2578-2580 SMI v1 and SMI v2
- RFC 1157/2271 SNMP
- RFC 1212/2737 MIB and MIB-II
- RFC 1213/2011-2013 SNMP v2 MIB
- RFC 1215 Convention for SNMP Traps
- RFC 1573/2233/2863 Private Interface MIB
- RFC 1643/2665 Ethernet MIB
- RFC 1901-1908/3416-3418 SNMP v2c
- RFC 2096 IP MIB
- RFC 2570-2576/3411-3415 SNMP v3
- RFC 3414 User-based security model
- RFC 2616/2854 HTTP and HTML
- RFC 2667 IP Tunneling MIB
- RFC 2668/3636 IEEE 802.3 MAU MIB
- RFC 2674 VLAP MIB
- RFC 4251 Secure Shell Protocol architecture
- RFC 4252 The Secure Shell (SSH) Authentication Protocol
- RFC 959/2640 FTP

**Security**
- RFC 1321 MD5
- RFC 2104 HMAC Message Authentication
- RFC 2138/2865/2868/3575/2618
RADIUS Authentication and Client MIB
• RFC 2139/2866/2867/2620
RADIUS Accounting and Client MIB
• RFC 2228 step
• RFC 2284 PPP EAP
• RFC 2869/3579 Radius Extension
Quality of service
• RFC 896 Congestion control
• RFC 1122 Internet Hosts
• RFC 2474/2475/2597/3168/3246 DiffServ
• RFC 3635 Pause Control
• RFC 2697 srTCM
• RFC 2698 trTCM
Others
• RFC 791/894/1024/1349 IP and IP/Ethernet
• RFC 792 ICMP
• RFC 768 UDP
• RFC 793/1156 TCP/IP and MIB
• RFC 826/903 ARP and Reverse ARP
• RFC 919/922 Broadcasting Internet datagram
• RFC 925/1027 Multi LAN ARP/Proxy ARP
• RFC 950 Sub-netting
• RFC 951 BootP
• RFC 1151 RDP
• RFC 1191 Path MTU Discovery
• RFC 1256 ICMP Router Discovery
• RFC 1305/2030 NTP v3 and Simple NTP
• RFC 1493 Bridge MIB
• RFC 1518/1519 CIDR
• RFC 1541/1542/2131/3396/3442 DHCP
• RFC 1757/2819 RMON and MIB
• RFC 2131/3046 DHCP/BootP Relay
• RFC 2132 DHCP Options
• RFC 2251 LDAP v3
• RFC 3060 Policy Core
• RFC 3176 sFlow
• RFC 3021 Using 31-bit prefixes

OmniSwitch 6450-10 models ordering

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS6450-10L</td>
<td>Fast Ethernet chassis in a 1 RU form factor with eight 10/100Base-T, two 10/100/1000 RJ-45/SFP combo and two fixed SFP uplink/stacking ports</td>
</tr>
<tr>
<td>OS6450-10</td>
<td>Gigabit Ethernet chassis in a 1 RU form factor with eight 10/100/1000Base-T, two 10/100/1000 RJ-45/SFP combo and two fixed SFP uplink/stacking ports</td>
</tr>
<tr>
<td>OS6450-10 M</td>
<td>Gigabit Ethernet chassis in a 1 RU form factor with eight 10/100/1000Base-T, two 10/100/1000 RJ-45/SFP combo and two fixed SFP uplink/stacking ports. Metro ethernet services enabled by default</td>
</tr>
<tr>
<td>OS6450-P10L</td>
<td>Fast Ethernet chassis in a 1 RU form factor with eight PoE 10/100Base-T, two 10/100/1000 RJ-45/SFP combo and two fixed SFP uplink/stacking ports</td>
</tr>
<tr>
<td>OS6450-P10</td>
<td>Gigabit Ethernet chassis in a 1 RU form factor with eight PoE 10/100/1000Base-T, two 10/100/1000 RJ-45/SFP combo and two fixed SFP uplink/stacking ports</td>
</tr>
<tr>
<td>OS6450-P10S</td>
<td>Gigabit Ethernet chassis in a 1 RU form factor with eight PoE 10/100/1000Base-T and two fixed gigabit SFP uplink ports. Supports IEEE 802.3af, IEEE 802.3at and 4x75W PoE (four pair) ports compliant with the Power over HD Base-T (PoH) standard with a 280W PoE power budget. Supports 1588v2 precision timing protocol.</td>
</tr>
</tbody>
</table>

License options

<table>
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<tr>
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<tbody>
<tr>
<td>OS6450-10L-UPGD</td>
<td>Software license enabling gigabit speeds on the RJ-45 ports of OS6450-10L and OS6450-P10L chassis to operate at gigabit speed</td>
</tr>
<tr>
<td>OS6450-SW-ME</td>
<td>OS6450 software license enables the Metro software features outlined in the Metro Ethernet access section of this data sheet</td>
</tr>
</tbody>
</table>

Mounting options

<table>
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<tbody>
<tr>
<td>OS6450-RM-19-L</td>
<td>Simple L-bracket for mounting a single OS6450-10 model switch in a 19-in. rack</td>
</tr>
<tr>
<td>OS6450-DUAL-MNT</td>
<td>Two universal mounting and sliding brackets accessory kit. Hardware to mount two 6450-10 units in a 19-in. rack</td>
</tr>
</tbody>
</table>

Gigabit transceivers

<p>| SFP-GIG-LH70 | 1000Base-LH transceiver with an LC interface for single mode fiber over 1550 nm wavelength. Typical reach of 70 km |
| SFP-GIG-LH40 | 1000Base-LH transceiver with an LC interface for single mode fiber over 1310 nm wavelength. Typical reach of 40 km |
| SFP-GIG-LX   | 1000Base-LX transceiver with an LC interface for single mode fiber over 1310 nm wavelength. Typical reach of 10 km |</p>
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>SFP-GIG-SX</td>
<td>1000Base-SX transceiver with an LC interface for multimode fiber over 850 nm wavelength. Typical reach of 300 m</td>
</tr>
<tr>
<td>SFP-GIG-BX-D</td>
<td>1000Base-BX bidirectional transceiver with an LC type interface for use over single mode fiber optic on a single strand link up to 10 km point to point. Transmits 1490 nm and receives 1310 nm optical signal</td>
</tr>
<tr>
<td>SFP-GIG-BX-U</td>
<td>1000Base-BX bidirectional transceiver with an LC type interface for use over single mode fiber optic on a single strand link up to 10 km point to point. Transmits 1310 nm and receives 1490 nm optical signal</td>
</tr>
<tr>
<td><strong>100 Megabit transceivers</strong></td>
<td></td>
</tr>
<tr>
<td>SFP-100-MM</td>
<td>100Base-FX transceiver with an LC interface for multimode fiber optic cable</td>
</tr>
<tr>
<td>SFP-100-SM15</td>
<td>100Base-FX transceiver with an LC type interface for single mode fiber optic cable up to 15 km</td>
</tr>
<tr>
<td>SFP-100-SM40</td>
<td>100Base-FX transceiver with an LC type interface for single mode fiber optic cable up to 40 km</td>
</tr>
<tr>
<td>SFP-100-BX-U</td>
<td>100Base-BX bidirectional transceiver with an SC type interface for use over single mode fiber optic on a single strand link up to 20 km point to point, where the client (ONU) transmits 1310 nm and receives 1550 nm optical signal</td>
</tr>
<tr>
<td>SFP-100-BX-D</td>
<td>100Base-BX bidirectional transceiver with an SC type interface for use over single mode fiber optic on a single strand link up to 20 km point to point, where the client (OLT) transmits 1550 nm and receives 1310 nm optical signal</td>
</tr>
</tbody>
</table>