ALCATEL-LUCENT ENTERPRISE OMNISWITCH 6250
STACKABLE FAST ETHERNET LAN SWITCH

The Alcatel-Lucent OmniSwitch™ 6250 is a stackable layer-2+ Fast Ethernet LAN value switch family for both the enterprise and Ethernet access segments. The enterprise models address the small and mid-sized enterprise edge and branch office environments, while the metro models address the residential and business Ethernet access supplied by service providers.

With an optimized design for flexibility and scalability as well as low power consumption, the OmniSwitch 6250 runs the field-proven Alcatel-Lucent Operating System (AOS), providing an outstanding edge solution for highly available, self-protective, easily managed and eco-friendly networks.

Solutions benefiting from the OmniSwitch 6250 family of switches are:
• Edge of small to mid-sized networks
• Branch office enterprise workgroups
• Residential or metro Ethernet triple-play applications

OmniSwitch 6250-24/P24/24M/24MD

OmniSwitch 6250-8M

BENEFITS

• Provides simplified selection with only two enterprise models: Power-over-Ethernet (PoE) and non-PoE

• Reduces sparing and inventory costs

• Allows any combination of PoE and non-PoE, up to 192 ports

• Meets the customers' configuration needs and offers excellent investment protection and flexibility, as well as easy deployment, operation and maintenance

• Small form factor and low noise output make the OmniSwitch 6250 ideal for collocation environments. The low power consumption reduces the operating expenses and cooling costs, which leads to lower operating expenditures (OPEX) and faster return on investment (ROI).

• Leads the industry in price/feature-performance ratio and offers customers a cost-efficient network technology upgrade, without needing to move to a higher-priced, layer-2+ gigabit solution

• Outstanding list of features and performance for supporting scalable, real-time voice, data and video applications for converged networks

• Supports cost-effective installation and deployment with automated switch setup and configuration, as well as end-to-end virtual LAN (VLAN) provisioning

• A field-upgradeable solution that makes the network highly available and reduces OPEX

• Fully secures the network at the edge at no additional cost

• The lifetime warranty eliminates service program costs and ongoing service renewals, lowering total cost of ownership (TCO) and allowing customers to reach ROI targets more quickly

• Simplifies metro Ethernet network OAM for service providers

Alcatel·Lucent
Enterprise

FEATURES

- Offers innovative half-rack-wide models for a great variety of switch combination deployments
- Highly efficient and optimized in their form factor, power consumption and acoustic output
- A feature-rich, cost-effective, 10/100 stackable switch built on the latest ASIC technologies
- Scalability from 24 to 192 Fast Ethernet and 16- gigabit uplink ports
- The Alcatel-Lucent virtual chassis design provides resiliency with integrated 5 G HDMI performance
- Optional metro services feature license for service provider deployments
- Support for IEEE 802.3af as well as IEEE 802.3at-compliant PoE
- AC or DC redundant power supplies
- Limited Lifetime Warranty Software and Hardware Support included

MANAGEMENT

- AOS field-proven software with management through web interface (WebView), command line interface (CLI), and Simple Network Management Protocol (SNMP)
- Supporting programmable AOS OpenFlow for the creation of specialized services.

- Ethernet operations, administration and management (OA&M) support for service configuration and monitoring
- Support by Alcatel-Lucent OmniVista™ 2500 Network Management System (NMS)
- Alcatel-Lucent 5620 Service Aware Manager (SAM) applications for service providers

SECURITY

- Flexible device and user authentication with Alcatel-Lucent Access Guardian (IEEE 802.1x/MAC/captive portal) with Host Integrity Check (HIC) enforcement
- Enables deployment of comprehensive and secure BYoD services in enterprise networks such as guest management, device on-boarding, device posturing, application management and dynamic change of authentication (CoA).
- Advanced Quality of Service (QoS) and Access Control Lists (ACLs) for traffic control, including an embedded Denial of Service (DoS) engine to filter out unwanted traffic attacks
- Extensive support of user-oriented features such as learned port security (LPS), port mapping, Dynamic Host Configuration Protocol (DHCP) binding tables and User Network Profile (UNP)

PERFORMANCE AND REDUNDANCY

- Advanced layer-2+ features with basic layer-3 routing for both IPv4 and IPv6
- Triple- speed (10/100/1000) user interfaces and fiber interfaces (SFPs) supporting 100Base X or 1000Base-X optical transceivers
- Wire-rate switching and routing performance
- High availability with virtual chassis concept, redundant stacking links, primary/secondary unit failover, hot-swappable power options and configuration rollback

CONVERGENCE

- Enhanced Voice over IP (VoIP) and video performance with policy-based QoS
- Support for multimedia applications with wire-rate multicast
- Airgroup™ Network Services for Bonjour®- speaking devices provides consistent experience over wireless and wired networks
- IEEE 802.3at PoE+ support for IP phones, wireless LAN (WLAN) access points and video cameras

AVAILABLE OMNISWITCH 6250 MODELS
24-port models

CHASSIS	10/100 RJ-45 PORTS	GIGABIT COMBO PORTS	HDMI STACKING (2.5 GB/S)	PRIMARY POWER	BACKUP POWER
Non-PoE models					
OS6250-24	24	2	2	Internal AC	External AC brick supply
Non-PoE models					
OS6250-P24	24	2	2	225 W, external AC supply	225 W, external AC supply

- The combo ports are configurable to 10/100/1000Base-T or may use 100/1000Base-X based transceivers.

AVAILABLE OMNISWITCH 6250 METRO MODELS
8- and 24-port models

CHASSIS	10/100 RJ-45 PORTS	GIGABIT COMBO PORTS	DAC STACKING (2.5 GB/S)	PRIMARY POWER	BACKUP POWER
OS6250-8M	8	2	2	Internal AC supply	N/A
OS6250-24M	24	2	2	Internal AC supply	External DC brick supply
OS6250-24MD	24	2	2	Internal DC supply	External DC brick supply

The OmniSwitch 6250 metro models support additional metro software features outlined later in this document.
- The combo ports are configurable to 10/100/1000Base-T or may use 100/1000Base-X based transceivers.
- The SFP ports of the "M" model support only gigabit transceivers or OmniSwitch 6250 small form factor pluggable (SFP) direct stacking cable.

DETAILED PRODUCT FEATURES

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™ 2500 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 off-line 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 supports four sessions with multiple sources-to-one destinations
- Policy-based mirroring that allows selecting the type of traffic to mirror by using QoS policies
- Remote port mirroring that facilitates passing mirrored traffic through the network to a remotely connected device
- Port monitoring feature that allows capturing Ethernet packets to a file, or to an 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

- Remote auto-configuration download
- Auto-negotiating 10/100/1000 ports automatically configure port speed and duplex setting
- Auto MDI/MDIX configureing transmit and receive signals to support straight-through and crossover cabling
- BOOTP/DHCP client that allows auto-configuring switch IP information for simplified deployment
- DHCP relay for forwarding 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 virtual LAN (VLAN) pruning and dynamic VLAN creation
- Auto QoS for switch management traffic and traffic from Alcatel-Lucent IP phones
- Network Time Protocol (NTP) for network-wide time synchronization
- Stackable to eight units

Resiliency and high availability

- Ring Rapid Spanning Tree (RRSTP) optimized for ring topology to provide less than 100 ms convergence time
- IEEE 802.1s Multiple Spanning Tree Protocol: Encompasses IEEE 802.1D STP and IEEE 802.1w Rapid Spanning Tree Protocol
- Per-VLAN spanning tree (PVST) and Alcatel-Lucent 1x1 STP mode
- Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) and static LAG groups across modules
- Dual-home link (DHL) support for sub-second link protection without STP
- Virtual Router Redundancy Protocol (VRRP) providing highly available routed environments
- Broadcast and multicast storm control to avoid degradation in overall system performance
- Unidirectional Link Detection (UDLD) for detecting and disabling 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, transceiver modules offering uninterruptable service
- Dual-image and dual-configuration file storage provide backup

Advanced security

Access control

- AOS Access Guardian framework for comprehensive user-policy-based network access control (NAC)
- Auto-sensing IEEE 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-supplicants
- Group mobility rules and "guest" VLAN support
- Host integrity check (HIC) agent on each switch makes it an HIC enforcer and facilitates endpoint device control for company policy compliance. Support for quarantine and remediation as required.
- Support for dynamic change of authentication (CoA) and enforcing traffic remediation or restriction for non-compliant devices
- User network profile (UNP): Simplify NAC management and control by dynamically providing predefined policy configuration to authenticated clients (VLAN, ACL, BW, HIC)
- SSH for secure CLI session with public key infrastructure (PKI) support
- Centralized Remote Access Dial-In User Service (RADIUS) and LDAP user authentication
- Private VLAN feature for user traffic segregation

Containment, monitoring and quarantine

- DHCP snooping, DHCP IP spoof protection
- Terminal Access Controller Access Control System Plus (TACACS+) client allowing authentication, authorization and accounting with a remote TACACS+ server
- Dynamic ARP protection and ARP poisoning detection

- ACLs filtering out unwanted traffic including DoS attacks; flow-based filtering in hardware (L1 to L4)
- BPDU blocking: Automatically shutting down user ports if an STP BPDU packet is seen to prevent topology loops
- STP Root Guard: Prevents edge devices from becoming Spanning Tree Protocol root nodes

Converged networks

PoE
- PoE models support Alcatel-Lucent IP phones and WLAN access points, as well as any IEEE 802.3af or IEEE 802.3at-compliant end devices
- Configurable per-port PoE priority and max power for power allocation
- Dynamic PoE allocation: Delivering only the power needed by the powered devices (PD) up to the total power budget for most efficient power consumption

QoS
- Priority queues: Eight hardware-based queues per port for flexible QoS management
- Traffic prioritization: Flow-based QoS with internal and external (remarking) prioritization
- Bandwidth management: Flow-based bandwidth management, ingress rate limiting; egress rate shaping per port
- Queue management: Configurable scheduling algorithms, including Strict Priority Queuing (SPQ), Weighted Round Robin (WRR) and Deficit Round Robin (DRR)
- Congestion avoidance: Support for End-to-End Head-Of-Line (E2E-HOL) Blocking Protection
- Auto QoS for switch management traffic as well as traffic from Alcatel-Lucent IP phones
- Three-color marker: Single/Dual Rate policing with commit BW, excess BW and burst size

Layer-2, Layer-3 Routing and Multicast

Layer-2 switching
- Up to 16,000 MACs
- Up to 4000 VLANs
- Up to 2000 ACLs
- Latency: < 4 µs
- Max Frame: 9216 bytes (jumbo)

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

Multicast
- IGMPv1/v2/v3 snooping for optimized multicast traffic
- Multicast Listener Discovery (MLD) v1/v2 snooping
- Up to 1000 multicast groups per 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
- Dynamic Host Configuration Protocol (DHCP) relay
- DHCP relay for forwarding 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 through 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)
- Ethernet OAM compliant with IEEE 802.3ah
- ITU-T G.8032 Ethernet Ring Protection designed for loop protection and fast convergence times (< 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 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 (SLAs)
- IPMVLAN for optimized multicast replication at the edge, saving network core resources
- Layer-2 Multicast VLAN Replication (MVR) that 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 and burst size
- TR-101 PPPoE Intermediate Agent allowing the PPPoE network access method
- MAC-forced forwarding support according to RFC 4562
- Layer-2 Control Protocol (L2CP) for tunneling a customer's L2CP frames through a well-known address, on a given UNI for Ethernet Private Line (EPL) and Ethernet Virtual Private Line (EVPL) services
- Dying Gasp through SNMP and Ethernet OAM delivery
- Metro Ethernet Forum CE 2.0 Certified
- Managed by Alcatel-Lucent 5620 SAM

TECHNICAL SPECIFICATIONS

AVAILABLE OMNISWITCH 6250 MODELS: TECHNICAL SPECIFICATIONS

	ENTERPRISE MODELS		METRO MODELS		
	OS6240-24	**OS6250-P24**	**OS6250-8M**	**OS6250-24M**	**OS6250-24MD**
RJ-45 100/100 ports	24	24	8	24	24
RJ-45/SFP Gb combo ports	2	2	2	2	2
HDMI stacking ports	2	2	0	0	0
SFP uplink/stacking ports	0	0	2	2	2
PoE ports	0	24 FE or 22FE + 2 GE	0	0	0
Max unit per stack	8*	8*	2	2	2
Dimensions	OS6240-24	OS6250-P24	OS6250-8M	OS6250-24M	OS6250-24MD
Switch width	21.5 cm (8.50 in.)	21.5 cm (8.50 in.)	21.5 cm (8.50 in.)	21.5 cm (8.50 in.)	21.5 cm (8.50 in.)
Switch height	4.4 cm (1.73 in.)	4.4 cm (1.73 in.)	4.4 cm (1.73 in.)	4.4 cm (1.73 in.)	4.4 cm (1.73 in.)
Switch depth (no PS shelf attached)	29.21 cm (11.5 in.)	29.21 cm (11.5 in.)	29.21 cm (11.5 in.)	29.21 cm (11.5 in.)	29.21 cm (11.5 in.)
Switch depth (with PS shelf attached)	47.6 cm (18.88 in.)	47.6 cm (18.88 in.)	N/A	N/A	N/A
Switch weight (no PS shelf)	1.72 kg (3.80 lb)	1.72 kg (3.80 lb)	1.72 kg (3.80 lb)	1.72 kg (3.80 lb)	1.72 kg (3.80 lb)
Switch tray weight	0.61 kg (1.35 lb)	0.61 kg (1.35 lb)	0.61 kg (1.35 lb)	0.61 kg (1.35 lb)	0.61 kg (1.35 lb)
Performance	OS6240-24	OS6250-P24	OS6250-8M	OS6250-24M	OS6250-24MD
Raw switch capacity (aggregated)	24.8 Gb/s	24.8 Gb/s	21.6 Gb/s	24.8 Gb/s	24.8 Gb/s
Throughput no stacking at aggregated port speeds	13 Mpps @ 8.8 Gb/s	13 Mpps @ 8.8 Gb/s	14.3 Mpps @ 9.6 Gb/s	19 Mpps @12.8 Gb/s	19 Mpps @ 12.8 Gb/s
Throughput with stacking at aggregated port speeds	28 Mpps @ 18.8 Gb/s	28 Mpps @ 18.8 Gb/s	23.2 Mpps @ 15.6 Gb/s	28 Mpps @ 18.8 Gb/s	28 Mpps @ 18.8 Gb/s
Stacking capacity (aggregated)	10 Gb/s	10 Gb/s	10 Gb/s	10 Gb/s	10 Gb/s
Operating conditions	OS6240-24	OS6250-P24	OS6250-8M	OS6250-24M	OS6250-24MD
Operating temperature	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)	0°C to 45°C (32°F to 113°F)
Storage temperature	-40°C to +75°C (-40°F to +167°F)	-40°C to +75°C (-40°F to +167°F	-40°C to +75°C (-40°F to +167°F)	-40°C to +75°C (-40°F to +167°F)	-40°C to +75°C (-40°F to +167°F)
Humidity (operating and storage)	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%
MTBF (hours)	268,730	189,585	290,108	268,698	268,715
Fanless design	Yes	1 fan	Yes	Yes	Yes
Acoustic (dB) – all fans on*	Silent	< 35 db(A)	Silent	Silent	Silent
System power consumption (watts)**	17.40 W	24.90 W	12.80 W	16.20 W	15.89 W
Heat dissipation (BTU)***	59	85	44	55	54

* Acoustic levels measured with a single power supply at room temperature
** Power consumption measured with 64 byte packets at varied traffic conditions on all ports, including the 10GE stacking module (accounting for 8 W).

OmniSwitch 6250 backup power supplies and specifications

The backup power supplies for the OmniSwitch 6250-24 and OmniSwitch 6250-24MD models come in the form of a power brick in either AC or DC variant and may be mounted to the back of the chassis using the power shelf with securing brackets. All of the required parts are included in the backup power supply kits.

The OmniSwitch 6250-P24 external 225 W power supply acts as both the primary supply and the redundant supply. The primary supply/tray combination is attached directly to the back of the chassis. The redundant supply/tray combination is mounted to the side of the switch and attached using remote cable.

SPECIFICATION	OS6250-BP	OS6250-BP-P	OS6250-BP-D
Style	Brick	Framed	Brick
Internal/external	Internal	External	External
Input voltage	90-220V AC	90-220V AC	36-72V DC
Output voltage	12V DC	12V DC/54.5V DC	12V DC
Wattage	42 W	225 W	30 W
PoE power budget	N/A	180 W	N/A
Power supply efficiency	85%	80%	85%
Weight	0.21 kg (0.45 lb)	0.25 kg (0.55 lb)	1.04 kg (2.30 lb)
Total RU with BPS	1 RU	1 or 2 RU	1 RU
Models supported	OS6250-24/24M	OS6250-P24	OS6250-24/24MD

Power supply shelf

The power supply shelf holds one brick or PoE style backup power supply, and it is mounted to the rear of the unit. Any backup power supply and shelf may be mounted in a side-by-side configuration to the switch using the supplied mounting ears. This feature allows for space-sensitive installations requiring reduced depth (for example, in a wall-mounted cabinet).

INDICATORS

System LEDs

- System (OK) (chassis HW/SW status)
- PWR (primary power supply status)
- PRI (virtual chassis primary)
- BPS (backup power status)
- LED segment display indicates the stack ID of the unit in the stack: 1 to 8 (24/48 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
  - Low Voltage Directive
  - EMC Directive
  - RoHS Directive
- EN 55022 (EMI and EMC requirement)
- EN 61000-3-3
- EN 61000-3-2 (Limits for harmonic current emissions)
- EN 55024 (ITE Immunity characteristics)

- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6
- EN 61000-4-8
- EN 61000-4-11
- IEEE802.3: Hi-Pot Test (2250 V DC on all Ethernet ports)
- EN 50581 Standard for technical documentation for RoHS recast

Safety agency certifications

- CB Scheme: Certification per IEC 60950/ EN 60950 with all different country deviations
  - UL 60950 United States
  - IEC 60950-1 all national deviations
  - EN 60950-1 (Electric/Health & Safety), all national deviations
  - CAN/CSA-C22.2 No. 60950-1-03
  - NOM-019 SCFI, Mexico
  - AS/NZ TS-001 and 60950, Australia
  - UL-AR, Argentina
  - UL-GS Mark, Germany
- IEC 60825-1 Laser, IEC 60825-2 Laser
- CDRH Laser

Supported 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 802.3x (Flow Control)
- IEEE 802.3z (Gigabit Ethernet)
- IEEE 802.3ab (1000Base-T)
- IEEE 802.3ac (VLAN Tagging)
- IEEE 802.3ad (Link Aggregation)
- IEEE 802.3af (Power-over-Ethernet)
- IEEE 802.3at (Power-over-Ethernet)
- IEEE 802.ah (Ethernet first mile)
- IEEE 802.3az (Energy Efficient Ethernet)

ITU-T recommendations

- ITU-T Y.1731 OA&M fault and performance management
- ITU-T G.8032/Y.1344 2010: Ethernet Ring Protection (ERPv2)

IETF RFCs

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 854/855 Telnet and Telnet options
- RFC 959/2640 FTP
- 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 1350 TFTP Protocol
- RFC 1573/2233/2863 Private Interface MIB
- RFC 1643/2665 Ethernet MIB
- RFC 1901-1908/3416-3418 SNMP v2c
- RFC 2096 IP MIB
- RFC 2131 DHCP Server/Client
- RFC 2570-2576/3411-3415 SNMP v3
- RFC3414 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 VLAN MIB

- RFC 2818 HTTPS over SSL
- RFC 4251 Secure Shell Protocol Architecture
- RFC 4252 The Secure Shell (SSH v2) Authentication Protocol

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 FTP Security Extensions 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 Subnetting
- 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 Prefix

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
OS6250-8M	OS6250-8M Fast Ethernet chassis with AOS Metro software Chassis provides 8 RJ-45 ports configurable to 10/100Base-T, 2 SFP/RJ-45 combo ports configurable to be 10/100/1000Base-T or 100/1000Base-X and 2 SFP fiber ports configurable to be 1G uplinks or 2.5 G stacking ports in a 1U by half-rack form factor with internal AC power supply.
OS6250-24M OS6250-24MD	OS6250-24M Fast Ethernet chassis with AOS Metro software Chassis provides 24 RJ-45 ports configurable to 10/100Base-T, 2 RJ-45/SFP combo ports configurable to be 10/100/1000Base-T or 100/1000Base-X and 2 SFP fiber ports configurable to be 1 G uplinks or 2.5 G stacking ports in a 1U by half-rack form factor with internal AC or DC power supply respectively.
OS6250-24	OS6250-24 Fast Ethernet chassis with AOS Enterprise software Chassis includes 24 RJ-45 ports configurable to 10/100Base-T, 2 RJ-45/SFP combo ports configurable to be 10/100/1000Base-T or 100/1000Base-X and 2 dedicated 2.5 G HDMI stacking ports. Ethernet SFP optical transceivers, HDMI stacking cables and backup power supply can be ordered separately.
OS6250-P24	OS6250-P24 Fast Ethernet chassis with AOS Enterprise software Chassis includes 24 PoE RJ-45 ports configurable to 10/100Base-T, 2 SFP/PoE RJ-45 combo ports configurable to be 10/100/1000Base-T or 100/1000Base-X and 2 dedicated 2.5 G HDMI stacking ports in a 1U by half-rack form factor with external AC PoE supply. Includes 225 W AC PoE supply and power shelf.
BOS6250-48	Two OS6250-24 units with AOS Enterprise software bundled for side-by-side mounting in a 19-in. by 1U rack space providing a total of 48 Fast Ethernet and 4 RJ-45/SFP combo ports
BOS6250-P48	Two OS6250-P24 units with AOS Enterprise software bundled for side-by-side mounting within a 19-in. by 1U rack space for a total of 48 PoE Fast Ethernet ports and 4 PoE RJ-45/SFP combo ports. Includes two 225 W supplies and power shelves.
	Ethernet SFP optical transceivers and SFP direct connect stacking cable can be ordered separately. Above bundles include country-specific power cords, user manuals access cards, software download access cards, R J- 45 to DB-9 adapters and hardware for mounting unit side by side with another OmniSwitch 6250 in a 19-in. rack. Order mounting tray kit (OS6250-RM-19) for single-mounting the unit in a 19-in. rack

LICENSE OPTIONS	SUPPORTED ON ANY NON-"M" MODELS ABOVE.
OS6250-SW-ME	OS6250 Software license enables the Metro Software features outlined in the Metro Ethernet Access section of this data sheet.

PART NUMBER	DESCRIPTION
Power Supplies	
OS6250-BP	OS6250-BP 40 W power brick AC backup power supply. Provides backup power to one non-PoE switch. Ships with country-specific power cord, backup power supply tray and securing brackets.
OS6250-BP-P	OS6250-BP-P 225 W AC PoE backup power supply. Provides backup power to one PoE switch. Ships with country-specific power cord and backup power supply tray.
OS6250-BP-D	OS6250-BP-D 30 W DC power brick backup power supply. Provides backup DC power to one non-PoE switch. Ships with chassis connection cable, backup power supply tray and securing brackets.
CABLES AND MOUNTING	
OS6250-CBL-30	OS6250 30-cm long HDMI stacking cable
OS6250-CBL-60	OS6250 60-cm long HDMI stacking cable
OS6250-CBL-150	OS6250 150-cm long HDMI stacking cable
OS6250M-CBL-30	OS6250M 30-cm long SFP direct stacking cable
OS6250M-CBL-60	OS6250M 60-cm long SFP direct stacking cable
OS6250M-CBL-150	OS6250M 150-cm long SFP direct stacking cable
OS6250-RM-19	Tray kit for mounting one OmniSwitch 6250 in a 19-in. rack
OS6250-DUAL-MNT	Two mounting and sliding brackets replacement kit. Hardware to mount two 6250 units in a 19-in. rack
GIGABIT TRANSCEIVERS	
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
SFP-GIG-SX	1000Base-SX transceiver with an LC interface for multimode fiber over 850 nm wavelength. Typical reach of 300 m
SFP-GIG-BX-D	1000Base-BX bidirectional transceiver with an LC-type interface for use over single-mode fiber on a single strand link up to 10 km point-to-point. Transmits 1490 nm and receives 1310 nm optical signal
SFP-GIG-BX-U	1000Base-BX bidirectional transceiver with an LC-type interface for use over single-mode fiber on a single strand link up to 10 km point-to-point. Transmits 1310 nm and receives 1490 nm optical signal
100 MEGABIT TRANSCEIVERS	
SFP-100-MM	100Base-FX transceiver with an LC interface for multimode fiber optic cable
SFP-100-SM15	100Base-FX transceiver with an LC-type interface for single-mode fiber optic cable up to 15 km
SFP-100-SM40	100Base-FX transceiver with an LC-type interface for single-mode fiber optic cable up to 40 km
SFP-100-BX-U	100Base-BX bidirectional transceiver with an SC-type interface for use over single-mode fiber 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
SFP-100-BX-D	100Base-BX bidirectional transceiver with an SC-type interface for use over single-mode fiber 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

Warranty information – OmniSwitch 6250 Lifetime Support

Alcatel-Lucent Enterprise includes a Limited Lifetime Warranty with the purchase of your OmniSwitch 6250 product.This covers both the OmniSwitch 6250 hardware and the related Alcatel-Lucent Operating System (AOS) software.

Hardware Limited Lifetime Warranty (LLW) Support

Hardware warranty is included with the OmniSwitch 6250 family. Limited to the original owner and/or the registered end user, this warranty is provided for up to five years after the product's end-of-sales announcement.

Note: Hardware Limited Lifetime Warranty does not cover transceivers.

Software Limited Lifetime Support

Limited Software Support is included with the OmniSwitch 6250 family as part of the warranty. Limited to the original product owner and/or the registered end user, the support is provided for up to two years after the product's end-of-sales announcement.

This service includes:

• Remote Technical support with the Alcatel-Lucent Switch Certified personnel

• Web and phone access to technical support

• Operating system software maintenance, minor and major releases

For more information about the Alcatel-Lucent OmniSwitch 6250 service and support programs, visit
http://enterprise.alcatel-lucent.com/?services=EnterpriseServices&page=directory.

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