



# Alcatel-Lucent OmniSwitch 2220

WebSmart Gigabit Ethernet LAN Switches

The Alcatel-Lucent OmniSwitch® 2220 Gigabit WebSmart family of switches provides a simple, secure, and smart business network at affordable prices.

The OmniSwitch 2220 allows you to achieve a reliable business class network performance including security without paying for advanced network management features. These switches are a lower-priced alternative to managed switches for wired connectivity while maintaining performance, quality of service (QoS) and scalability using a simplified web management interface.

The OmniSwitch 2220 family is embedded with the latest technology innovations, and offers maximum investment protection.

Deployments benefiting from the OmniSwitch 2220 family are:

- High speed desktop connectivity
- Secure wireless connectivity
- Unified communication connectivity (IP telephony, video and converged solutions)



OS2220-8/-P8



OS2220-24/-P24

## Features

- 8-, 24- and 48-port, Power over Ethernet (PoE+) and non-PoE models with fixed small form factor pluggable (SFP) 1G uplink interfaces
- Reduced power consumption with energy efficient ethernet (EEE) technology
- Simplified web-based management
- Easy MAC/IP-based ACLs

## Management

- Web-based GUI (HTTP)
- SNMP v1/v2/V3
- RMON
- Cable test diagnostics

## Security

- 802.1X RADIUS access security
- MAC filtering/port security
- Guest VLAN
- Broadcast storm recovery

## Convergence

- Enhanced voice over IP (VoIP) VLAN
- Auto VoIP VLAN for Alcatel-Lucent Enterprise VoIP Phones
- IEEE 802.3af/.at PoE+ for IP phones, WLAN access points and video cameras

## Benefits

### Simple and easy configuration and management

The OmniSwitch 2220 switches are designed to be easy to deploy and used by small and medium sized businesses.

### Performance and reliability

The OmniSwitch 2220 family provides high availability and performance for both wired and 802.11ac wireless deployments.

### Network security

The OmniSwitch 2220 provides configurable Access Control Lists (ACLs) and 802.1x port-based and RADIUS server access security.

### IP telephony support

OmniSwitch 2220 switches include QoS features to prioritize delay-sensitive services such as voice and video while simplifying unified communications deployments.

## OmniSwitch 2220 8-, 24- and 48-port models

Table 1. Available OmniSwitch 2220 models

Chassis	10/100/1000 – RJ45 ports	SFP Gigabit uplink	Primary power	Backup power
<b>Non-PoE models</b>				
OS2220-8	8	2	Internal AC	N/A
OS2220-24	24	2	Internal AC	N/A
OS2220-48	48	2*/2	Internal AC	N/A
<b>PoE models</b>				
OS2220-P8	8	2	Internal AC	N/A
OS2220-P24	24	2	Internal AC	N/A
OS2220-P48	48	2*/2	Internal AC	N/A

\* RJ45/SFP Combo ports

## Datasheet

Alcatel-Lucent OmniSwitch 2220

## Detailed product features

### Simplified management Configuration management interfaces

- Web based GUI (HTTP)
- Friendly port naming
- Web management applet
- Dual image storage (active/backup)

### Monitoring and troubleshooting

- Broadcast storm recovery
- Event and error logging Facility
- Port-based mirroring for troubleshooting
- Ping utility

- SNMP v1/v2/v3 and associated MIBs
- RMON groups 1,2,3,9
- Cable test diagnostics

### Advanced security

#### Access control

- RADIUS Client
- 802.1X RADIUS usage guidelines
- Guest VLAN

#### QoS

- CoS WRR/WRED
- Mapping of CoS to queue
- Auto VoIP

### Layer-2 and Multicast

#### Layer-2 switching

- RAM:
  - 8 port: 64MB
  - 24 port: 128 MB

- Flash:
  - 8 port: 16 MB
  - 24/48 port: 32 MB
- MAC Addresses:
  - 8 port: 8k
  - 24/48 port: 16k
- MSTP instances: 4
- Link Agg Groups: 2
- ACLs: 50 with 10 rules per port
- Traffic classes (4 or 8 queues)
- Up to 16k MACs
- Up to 64 VLANs
- Latency: < 4 μs

#### Multicast

- IGMPv1/v2/v3 snooping to optimize multicast traffic

## Technical specifications

### 8/24/48 port models

Port	OS2220-8	OS2220-P8	OS2220-24	OS2220-P24	OS2220-48	OS2220-P48
RJ-45 10/100/1000 ports	8	8	24	24	48	48
1G Combo/SFP uplink ports	0/2	0/2	0/2	0/2	2/2	2/2
PoE ports	0	8	0	24	0	48
802.3af/at ports	0	8	0	24	0	48
Switching capacity	20 Gb/s	20 Gb/s	52 Gb/s	52 Gb/s	100 Gb/s	100 Gb/s
<b>Dimensions</b>						
Width	27.94 cm (11.0 in)	27.94cm (11.0 in)	44.0 cm (17.32 in)	44.0 cm (17.32 in)	44.0 cm (17.32 in)	44.0 cm (17.32 in)
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)	4.4 cm (1.73 in)
Depth	17 cm (6.69 in)	17 cm (6.69 in)	24 cm (9.44 in)	24 cm (9.44 in)	35 cm (13.77 in)	35 cm (13.77 in)
<b>Operating conditions</b>						
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	0°C to +45°C 32°F to +113°F
Storage temperature	-25°C to +70°C -13°F to +158F	-25°C to +70°C -13°F to +158F	-25°C to +70°C -13°F to +158F	-25°C to +70°C -13°F to +158F	-25°C to +70°C -13°F to +158F	-25°C to +70°C -13°F to +158F
Humidity (operating and storage)	5% - 95%	5% - 95%	5% - 95%	5% - 95%	5% - 95%	5% - 95%
Fan (variable speed)*	Fan-less	1 fan	Fan-less	2 fans	3 fans	3 fans
Acoustic (dB)	0 db (A)	<40db (A)	<40db (A)	<40db (A)	<40db (A)	<40db (A)
MTBF (hours)	1,209,148	1,104,816	987,125	656,251	487,878	425,531
PoE power budget (watts)	N/A	75 W	N/A	192 W	N/A	384 W

## Datasheet

## Indicators

### System LEDs

- Power LED
- Reset button

### Per-port LEDs

- 10/100/1000: link/activity
- 10/100/1000: PoE activity
- SFP: Link/activity

## Compliance and certifications

### Commercial

#### Electromagnetic Emission

- FCC Class A (<http://www.fcc.gov>)
- CE Class A, include EN55022 (CISPR 22) / 55024 / 50082-1 (<http://www.cenelec.org/>)
- VCCI Class A ([http://www.vcci.or.jp/vcci\\_e/](http://www.vcci.or.jp/vcci_e/))

#### Safety Agency Approvals

- UL/cUL (<http://www.ul.com>)
- CE (include EN60950-1) (<http://www.cenelec.org/>)
- CB (<http://www.iecee.org/cbscheme/default.htm>)
- IEC 60825-1 Laser, IEC 60825-2 Laser
- CDRH Laser

## Supported standards

### IEEE standards

- IEEE 802.3 – 10BASE-T
- IEEE 802.3u – 100BASE-T
- IEEE 802.3ab – 1000BASE-T
- IEEE 802.1AB – LLDP
- IEEE 802.1D – Spanning Tree
- IEEE 802.1p – Ethernet Priority with User Mapping
- IEEE 802.1Q – Virtual LANs w/ Port-based VLANs
- IEEE 802.1S – Multiple Spanning Tree
- IEEE 802.1W – Rapid Spanning Tree
- IEEE 802.1X – Port Based Authentication
- IEEE 802.3ac – VLAN Tagging
- IEEE 802.3ad – Link Aggregation (w/LACP)
- IEEE 802.3x – Flow Control

## RFCs

- RFC 768 – UDP
- RFC 783 – TFTP
- RFC 791 – IP
- RFC 792 – ICMP
- RFC 793 – TCP
- RFC 826 – Ethernet ARP
- RFC 894 – Transmission of IP data-gram over Ethernet networks
- RFC 951 – BOOTP
- RFC 1034 – Domain names – concepts and facilities
- RFC 1035 – Domain names – implementation and specification
- RFC 1321 – Message digest algorithm
- RFC 1534 – Interop. between BootP & DHCP
- RFC 2030 – Simple Network Time Protocol (SNTP) V4
- RFC 2131 – DHCP Client
- RFC 2347 – TFTP option extension
- RFC 2348 – TFTP blocksize option
- RFC 2865 – RADIUS Client
- RFC 3164 – BSD syslog protocol
- RFC 3580 – 802.1X RADIUS Usage Guidelines
- RFC 5424 – Syslog protocol

## Ordering information

Model number	Description
OS2220-8	Gigabit Ethernet WebSmart chassis in a 1U form factor with 8 x 10/100/1000 Base-T ports, 2 fixed SFP (1G) ports with internal power supply.
OS2220-P8	Gigabit Ethernet WebSmart chassis in a 1U form factor with 8 x 10/100/1000 PoE Base-T ports, 2 fixed SFP (1G) ports with internal power supply (75W power budget)
OS2220-24	Gigabit Ethernet WebSmart chassis in a 1U form factor with 24 x 10/100/1000 Base-T ports, 2 fixed SFP (1G) with internal power supply.
OS2220-P24	Gigabit Ethernet WebSmart chassis in a 1U form factor with 24 x 10/100/1000 PoE Base-T ports, 2 fixed SFP (1G) with internal power supply (192W PoE budget)
OS2220-48*	Gigabit Ethernet WebSmart chassis in a 1U form factor with 48 x 10/100/1000 Base-T ports, 2 RJ45/SFP combo and 2 fixed SFP ports (1G) with internal power supply.
OS2220-P48*	Gigabit Ethernet WebSmart chassis in a 1U form factor with 48 x 10/100/1000 PoE Base-T ports, 2 RJ45/SFP combo and 2 x fixed SFP (1G) with internal power supply. (384W PoE budget)

\*48 port models are future development

The above model numbers contain All models above include an AC power supply with a country-specific power cord, user manuals access card and hardware for mounting in a 19” rack.

Transceivers	Description
SFP-GIG-T	1000Base-T Gigabit Ethernet Transceiver SFP
SFP-GIG-SX	1000Base-SX Gigabit Ethernet optical transceiver SFP
SFP-GIG-LX	1000Base-LX Gigabit Ethernet optical transceiver SFP