

# Alcatel-Lucent OmniAccess AP120, OmniAccess AP121

## SINGLE-RADIO MIMO ACCESS POINTS

The Alcatel-Lucent OmniAccess™ AP120 and OmniAccess AP121 are high-performance, multi-band [802.11a/b/g and 802.11n (3x3 MIMO)] single-radio indoor wireless access points capable of delivering wireless data rates of up to 300Mbps. These multi-function access points provide wireless LAN access, air monitoring, and wireless intrusion detection and prevention over the 2.4–2.5GHz and 5GHz RF spectrum. The access points work in conjunction with Alcatel-Lucent OmniAccess WLAN switches to deliver high-speed, secure network services.



802.11n increases performance through techniques such as channel bonding, block acknowledgement, and multiple in, multiple out (MIMO) radio technology. In addition, advanced antenna technology also increases the range and reliability.

The OmniAccess AP120 and OmniAccess AP121 feature dual 100/1000 Ethernet interfaces and operate from standard 802.3af power over Ethernet (PoE) sources. The OmniAccess AP120 features detachable antenna interfaces while the OmniAccess AP121 features integrated 3x3 MIMO dual-band antenna elements.

The access points are also available in a 802.11a/b/g-only variant that can be converted to full 802.11n support through a software unlock key. This feature allows organizations to prepare for future 802.11n deployments without paying for 802.11n today.

### Features

- IEEE 802.11n 3x3 MIMO access point
- Low power consumption
- Dual Ethernet interfaces
- Adaptive radio management
- TPM vault

### Benefits

- High speed wireless with up to 300Mbps of throughput. Improved coverage compared to 802.11a/b/g technologies. Backward compatibility with 802.11a/b/g Wi-Fi clients
- Operates with existing IEEE 802.3af compliant PoE sources.
- High availability with dual homing of the access point to the wireline infrastructure. Second port can also be used as a secured port for guest or employee wired access.
- Automatic transmit power and channel management control with automatic coverage hole correction.
- When encryption keys are stored at the access points level (remote access point deployments mostly) the TPM vault protects cryptographic keys in case of AP theft or attack.

## Technical specifications

### Application

- High-performance 802.11n enterprise campus or branch office applications, high-performance secure-jack, indoor use.

### Operating mode

- Multi-service 802.11a/n or b/g/n WLAN
- 802.11a/b/g/n air monitor (AM)
- Hybrid combination of WLAN/AM
- Remote AP
- Configurable to support 802.11n HT 20/40 channels or mixed-mode deployment IEEE 802.11a/b/g/n.

### Radios

- Single radio – software configurable to support 2.4–2.5 GHz or 5 GHz

### RF management

- Automatic transmit power and channel management control with auto coverage hole correction via Adaptive Radio Management (ARM)

### Advanced features

- Automatic transmit power and channel management control with auto coverage hole correction via Adaptive Radio Management (ARM)

### 802.11a Radio specifications

- Operating frequency: 5.150–5.950 GHz (dependent upon configured regulatory domain)
- Available channels: WLAN switch-managed, dependent upon configured regulatory domain
- Modulation: Orthogonal frequency division multiplexing (OFDM)
- Transmit power
  - 20 dBm / 100 mW (dependent upon configured regulatory domain)
  - Configurable in increments of 0.5 dBm
- Association rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 with automatic fallback

### 802.11b Radio specifications

- Operating frequency: 2.4–2.5 GHz (dependent upon configured regulatory domain)
- Available channels: WLAN switch-managed, dependent upon configured regulatory domain
- Modulation: Direct-sequence spread-spectrum (DSSS)
- Transmit power
  - 20 dBm / 100 mW (dependent upon configured regulatory domain)
  - Configurable in increments of 0.5 dBm
- Association rates (Mbps): 11, 5.5, 2, 1 with automatic fallback

### 802.11g Radio specifications

- Operating frequency: 2.4–2.5 GHz (dependent upon configured regulatory domain)
- Available channels: WLAN switch-managed, dependent upon configured regulatory domain
- Modulation: Orthogonal frequency division multiplexing (OFDM)
- Transmit power
  - 20 dBm / 100 mW (dependent upon configured regulatory domain)
  - Configurable in increments of 0.5 dBm
- Association rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 with automatic fallback

### 802.11n Radio specifications

- Operating frequency: 2.4–2.5 GHz and 5.150 GHz–5.950 GHz (dependent upon configured regulatory domain)
- Available channels: WLAN switch-managed, dependent upon configured regulatory domain
- Modulation: 802.11n
- Transmit power
  - 20 dBm / 100 mW (dependent upon configured regulatory domain)
  - Configurable in increments of 0.5 dBm
- Association rates (Mbps): MSC0–MSC15 (6.5Mbps–300Mbps)
- Radio: 2x3, 3x3 multiple-in, multiple-out (MIMO)

- High-throughput (HT) support: HT 20/40
- Packet aggregation: A-MPDU, A-MSDU

### Antenna

- OAW-AP120: Tri (3x3), RP-SMA interfaces for external antenna support (supports up to 3x3 MIMO with spatial diversity)
- OAW-AP121: Integral, tri (3x3), omni-directional multi-band dipole antenna elements (supports up to 3x3 MIMO with spatial diversity)
- OAW-AP121 antenna max gain
  - 2.4 GHz–2.5 GHz / 3.2 dBi
  - 5.150 GHz–5.875 GHz / 5.2 dBi

### Interfaces

- Network
  - 2 x 10/100/1000BaseT Ethernet (RJ45), auto-sensing link speed and MDI/MDX
  - 48 V DC 802.3af or 802.3at or PoE + interoperable power-over-Ethernet (PoE) (both ports)
- Antenna (model OAW-AP120 only):
  - 3 x RP-SMA antenna interfaces (supports up to 3x3 MIMO with spatial diversity)
- Other
  - 1 x RJ-45 console interface

### Power

- 48 V DC 802.3af or 802.3at or PoE + interoperable power-over-Ethernet (PoE)
- 5 V DC for external AC supplied power (adapter sold separately)
- 12W maximum

### Mounting

- Standard
  - Desk-top (stand)
  - Wall
  - Tool-less ceiling tile rail (15/16")
- Optional mounting kit
  - Solid wall stand-off
  - Ceiling tile rail (15/16" and 9/16" recessed or non-recessed)
- Security
  - Kensington security lock point

### Mechanical

- Dimensions / Weight
  - 4.9" x 5.13" x 2.0" (124 mm x 130 mm x 51 mm)
  - 15oz (0.42 Kg)

### Environmental

- Operating
  - Temp: 32° to 122°F (0° to 50°C)
  - Humidity: 5 to 95% non-condensing
- Storage
  - Temp: 32° to 158°F (0° to 70°C)

### Regulatory

- FCC Part 15
- Industry of Canada
- VCCI
- MIC
- Anatel
- NOM/COFETEL
- SRRC/CCC
- GS Mark
- CE Mark
- R&TTE Directive – 1995/5/EC
- Low Voltage Directive – 72/23/EEC
- EN 300 328
- EN 301 893
- EN 301 489
- UL/IEC/EN 60950-1:2001
- CB, cULus
- AS/NZS 4268, 4771
- UL2043 Compliant

### Certification

- Wi-Fi certified: 802.11a/b/g/n

## Ordering information

PART NUMBER	DESCRIPTION
OAW-AP120	OmniAccess AP120 wireless access point. Single radio IEEE 802.11n wireless access point with support for selectable 802.11 "B/G/N" or 802.11 "A/N" operation, 3x3 MIMO dual-band RP-SMA detachable antenna interfaces, 2 x 10/100/1000BaseT (RJ-45) Ethernet interface (supports power over Ethernet), 1 x console port, 1 x 5V DC power interface. Includes installation guide and removable desktop stand. AC power adapter kit and antenna sold separately.
OAW-AP120ABG	OmniAccess AP120ABG wireless access point. Single radio IEEE 802.11a/b/g wireless access point with support for selectable 802.11 'B/G' or 802.11 'A' operation, dual-band RP-SMA detachable antenna interfaces, 2 x 10/100/1000BaseT (RJ-45) Ethernet interface (Supports power over Ethernet), 1 x console port, 1 x 5V DC power interface. Upgradeable through WLAN switch license to 802.11n compliant AP. Includes installation guide and removable desktop stand. AC power adapter kit and antenna sold separately.
OAW-AP121	OmniAccess AP121 wireless access point. Single radio IEEE 802.11n wireless access point with support for selectable 802.11 "B/G/N" or 802.11 "A/N" operation, 3x3 MIMO dual-band antenna, 2 x 10/100/1000BaseT (RJ-45) Ethernet interface (supports "power over Ethernet"), 1 x console port, 1 x 5V DC power interface. Includes installation guide and removable desktop stand. AC power adapter kit sold separately.
OAW-AP121ABG	OmniAccess AP121ABG wireless access point. Single radio IEEE 802.11a/b/g wireless access point with support for selectable 802.11 "B/G" or 802.11 "A" operation, dual-band integral antenna, 2 x 10/100/1000BaseT (RJ-45) Ethernet interface (supports power over Ethernet), 1 x console port, 1 x 5V DC power interface. Upgradeable through WLAN switch license to 802.11n compliant AP. Includes installation guide and removable desktop stand. AC power adapter kit sold separately.
OAW-AP120U-x	OAW-AP120ABG Access Point 802.11pre-n upgrade license (x Access Point License)
OAW-AP121U-x	OAW-AP121U-x OAW-AP121ABG Access Point 802.11pre-n upgrade license (x Access Point License)
OAW-AP120-MNT	OmniAccess AP120 series wireless access point wall / ceiling mounting kit. Includes: 1 x wall mounting cradle complete with security plate and anti-tamper screws, 1 x 15/16" to 9/16" recessed ceiling tile rail adapter and 1 x 15/16" to 15/16" recessed ceiling tile rail adapter – suitable for use with OAW-AP124 or OAW-AP125.
OAW-AP-AC-NA2	OAW-AP60/61/65/70/120 series AC Power Adapter Kit – North America version
OAW-AP-AC-JPN2	OAW-AP60/61/65/70/120 series AC Power Adapter Kit – Japan
OAW-AP-AC-UK2	OAW-AP60/61/65/70/120 series AC Power Adapter Kit – United Kingdom
OAW-AP-AC-IT2	OAW-AP60/61/65/70/120 series AC Power Adapter Kit – Italy
OAW-AP-AC-EC2	OAW-AP60/61/65/70/120 Series AC Power Adapter Kit – Schuko
OAW-AP-AC-AUS2	OAW-AP60/61/65/70/120 Series AC Power Adapter Kit – Australia
OAW-AP-AC-LA2	OAW-AP 60/61/65/70/120 Series AC Power Adapter Kit – North America 2 Prong Version
OAW-AP-AC-CHN2	OAW-AP60/61/65/70/120 Series AC Power Adapter Kit – China
OAW-AP-AC-IN2	OAW-AP60/61/65/70/120 Series AC Power Adapter Kit – India
OAW-AP-AC-KOR2	OAW-AP60/61/65/70/120 Series AC Power Adapter Kit – Korea