

# Alcatel-Lucent OmniAccess Stellar AP1201L

## Indoor 802.11ac Wave 2 wireless access point

The multi-functional Alcatel-Lucent OmniAccess® Stellar AP1201L access point is an entry level, affordable 802.11ac Wave 2 AP for small and large business deployments. This indoor Wi-Fi access point provides high throughput and a seamless user experience.

The efficient 802.11ac AP1201L access point (AP) supports a maximum concurrent data rate of 1.2 Gb/s (867 Mb/s in 5 GHz and 300 Mb/s in 2.4 GHz), 80 MHz channels (VHT80), multi-user MIMO (MU-MIMO) and two spatial streams (2SS) per radio. It provides simultaneous multicast data transmission to multiple devices, maximizing data throughput and improving network efficiency.

AP1201L is ideal for enterprises of all sizes that require a simple, secure and scalable wireless solution. This AP features enhanced WLAN technology with RF Radio Dynamic Adjustment, a distributed control Wi-Fi architecture, and secure network admission control with unified access.



### **Cloud enabled with OmniVista Cirrus**

AP1201L access points can be managed by the Alcatel-Lucent OmniVista® Cirrus cloud platform. OmniVista Cirrus powers a secure, resilient and scalable cloud-based network management platform. It offers hassle free network deployment and easy service rollout with advanced analytics for smarter decision making. It offers IT friendly Unified Access with secure authentication and policy enforcement for users and devices.

### **OmniVista 2500 managed deployment**

The AP1201L AP can be also managed by Alcatel-Lucent OmniVista 2500 Network Management System, an on-premises solution. The access points are managed as one or more access point group, which is a logical grouping of one or more access points. The OmniVista 2500 next generation management suite embeds a visionary controller-less architecture, providing user friendly workflows for unified access along with an integrated unified policy authentication manager (UPAM) which helps define authentication strategy and policy enforcement for employees, guest management and bring your own devices (BYOD). OmniVista 2500 provides advanced options for RF management, WIDS/WIPS for intrusion detection and prevention, and a heat map for WLAN site planning.

## Plug and play: Secure web managed (HTTPS) cluster deployment

The AP1201L by default operates in a cluster architecture to provide simplified plug-and-play deployment. The access point cluster is an autonomous system that consists of a group of OmniAccess Stellar APs and a virtual controller, which is a selected access point, for cluster management. One AP cluster supports up to 32 APs.

The access point cluster architecture ensures simplified and quick deployment. Once the first AP is configured using the configuration wizard, the remaining APs in the network will come up automatically with an updated configuration. This ensures the whole network is up and functional within a few minutes.

The AP1201L also supports secure zero-touch provisioning with Alcatel-Lucent OXO Connect R2, a mechanism by which all access points in a cluster will obtain bootstrap data securely from an on-premises OXO Connect.

## Integrated guest management

The AP1201L supports role based management access to the AP cluster which includes Admin, Viewer and GuestOperator access. GuestOperator access simplifies guest account creation and management, and can be used by any non-IT person such as a front desk worker or receptionist. The AP1201L access point also supports a built-in customizable captive portal which enables customers to offer unique guest access.

## Quality of service for unified communication apps

The OmniAccess Stellar AP1201L access point supports finely tuned, quality of service (QoS) parameters to differentiate and provide appropriate QoS for each application such as voice, video and desktop sharing. OmniAccess Stellar AP is 802.11e (WMM) compliant, also providing marking for RTP/SRTP sessions which include Skype for business, Google Hangout, and more.

## RF management

Radio Dynamic Adjustment (RDA) technology automatically assigns channels and power settings, provides DFS/TPC, and ensures that access points stay clear of all radio frequency interference (RFI) sources to deliver reliable, high-performance wireless LANs. The OmniAccess Stellar AP1201L can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection.

## Product specifications

### Radio specification

- AP type: Indoor, dual radio, 5 GHz 802.11ac 2x2:2 MU-MIMO and 2.4 GHz 802.11n 2x2:2 MIMO
- 5 GHz: Two spatial stream single user (SU) /multi-user (MU) MIMO for up to 867 Mb/s wireless data rate
- 2.4 GHz: Two spatial stream single user (SU) MIMO for up to 300 Mb/s wireless data rate
- Supported frequency bands (country-specific restrictions apply):
  - 2.400 to 2.4835 GHz
  - 5.150 to 5.250 GHz
  - 5.250 to 5.350 GHz
  - 5.470 to 5.725 GHz
  - 5.725 to 5.850 GHz
- Available channels: Dependent on configured regulatory domain
- DFA (dynamic frequency adjustment) optimizes available channels and provides proper transmission power
- Short guard interval for 20 MHz, 40 MHz, 80 MHz channels
- Transmit beam forming (TxBF) for increased signal reliability and range
- 802.11n/ac packet aggregation: Aggregated Mac Protocol Data Unit (A-MPDU), Aggregated Mac Service Data Unit (A-MSDU)
- Supported data rates (Mb/s):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: 6.5 to 300 (MCS0 to MCS31)
  - 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80)

- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
- 802.11n high-throughput (HT) support: HT 20/40
- 802.11ac very high throughput (VHT) support: VHT 20/40/80
- Maximum (aggregate, conducted) transmit power (limited by local regulatory settings):
  - 2.4 GHz: +21 dBm (18 dBm per chain)
  - 5 GHz: +23 dBm (20 dBm per chain)
- Advanced Cellular Coexistence (ACC) minimizes interference from 3G/4G cellular networks, distributed antenna systems, and commercial small cell/femtocell equipment

- Red, blue and green rotate flashing: System running, use for location of an AP

### Antenna

- AP1201L: Built-in 2x2:2 @ 2.4 GHz, 2x2:2 @ 5 GHz
  - Integrated dual-band down tilt omni-directional antennas for 2x2 MIMO with maximum antenna gain of 4.1 dBi in 2.4 GHz and 5.2 dBi in 5 GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP.

### Maximum transmit power (per chain) ±2dBm

	2.4 GHz	5 GHz
1 Mb/s	18 dBm	
11 Mb/s	18 dBm	
6 Mb/s	18 dBm	20 dBm
54 Mb/s	15 dBm	18 dBm
HT20 (MSC 0/8)	18 dBm	20 dBm
HT20 (MSC 7/15)	15 dBm	18 dBm
HT40 (MSC 0/8)	18 dBm	20 dBm
HT40 (MSC 7/15)	15 dBm	18 dBm
VHT20 (MSC 0)	18 dBm	20 dBm
VHT20 (MSC 8)	15 dBm	15 dBm
VHT40 (MSC 0)	18 dBm	20 dBm
VHT40 (MSC 9)	13 dBm	14 dBm
VHT80 (MCS0)		20 dBm
VHT80 (MCS9)		14 dBm

Note: Maximum capability of the hardware provided (excluding antenna gain). Maximum transmit power is limited by local regulatory settings.

### Receive sensitivity (per chain)

	2.4 GHz	5 GHz
1 Mb/s	-93	
11 Mb/s	-85	
6 Mb/s	-89	-89
54 Mb/s	-70	-72
HT20 (MSC 0/8)	-89	-89
HT20 (MSC 7/15)	-67	-68
HT40 (MSC 0/8)	-85	-86
HT40 (MSC 7/15)	-64	-65
VHT20 (MSC 0)	-91	-90
VHT20 (MSC 8)	-68	-67
VHT40 (MSC 0)	-89	-88
VHT40 (MSC 9)	-64	-63
VHT80 (MCS0)		-84
VHT80 (MCS9)		-59

### Power

- Supports direct DC power and Power over Ethernet (PoE)
- When both power sources are available, DC power takes priority over PoE
- Direct DC source:
  - 48 V DC nominal, +/- 5%
- Power over Ethernet (PoE):
  - IEEE 802.3af/at compliant source
- Maximum (worst case) power consumption:
  - 10.5W (PoE or DC)
  - 3.5W in idle mode

### Mounting

- The AP ships with two (white) mounting clips to attach to a 9/16 inch or 15/16 inch flat T-bar drop-tile ceiling.
- Optional mount kits for Open Silhouette and Flanged Interlude.
- Optional mount kits for flat-surface (wall).

### Environmental

- Operating:
  - Temperature: 0°C to 45°C (+32°F to +113°F)
  - Humidity: 5% to 95% non-

- condensing
- Storage and transportation:
  - Temperature: -40°C to +70°C (-40°F to +158°F)

### Dimensions/Weight

- Single AP excluding packing box and accessories:
  - 155 mm (W) x 155 mm (D) x 28 mm (H) -6.10 in (W) x 6.10 in (D) x 1.10 in (H)
  - 320 g/0.7 lb
- Single AP including packing box and accessories:
  - 185 mm (W) x 172 mm (D) x 57 mm (H) -7.28 in (W) x 6.77 in (D) x 2.24 in (H)
  - 500 g/1.10 lb

### Reliability

- MTBF: 1,116,275h (127.42 years) at +25°C operating temperature

### Capacity

- Up to 8 SSID per radio
- Support for up to 384 associated client devices per AP

### Software features

- Up to 4K APs when managed by OmniVista 2500. There is no limit on the number of AP groups
- Up to 32 APs per web-managed (HTTP/ HTTPS) cluster
- Auto channel selection
- Auto transmit power control
- Bandwidth control per SSID
- L2 roaming

- L3 roaming with OmniVista 2500
- Captive portal (internal/ external)
- Guest self-registration (optional SMS notification) with OmniVista
- Internal user database
- Radius client
- Guest social login with OmniVista
- RADIUS proxy authentication OmniVista
- LDAP/AD proxy authentication OmniVista
- Wireless QoS
- Band steering
- Client smart load balance
- Client sticky avoidance
- User behavior tracking
- White/black list
- Zero-touch provisioning (ZTP)
- NTP server client
- ACL
- DHCP/DNS/NAT
- Wireless MESH P2P/P2MP
- Wireless bridge
- Rogue AP location and containment
- Dedicated scanning AP
- System log report
- SNMPv2
- SNMP trap notification with OmniVista 2500
- Wireless attack detection with OmniVista 2500
- Floor plan and heat map with

OmniVista 2500

- Stanley Healthcare / Aeroscout RTLS support

Note: Some features are limited by local regulatory settings

### Security

- 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA, AES 128-256 bits
- 802.1X
- WEP, Temporal Key Integrity Protocol (TKIP)
- Firewall: ACL, wIPS/wIDS
- Portal page authentication
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys

### IEEE standard

- IEEE 802.11a/b/g/n/ac Wave 2
- IEEE 802.11e WMM, U-APSD
- IEEE 802.11h, 802.11i, 802.11e QoS
- IEEE 802.1Q (VLAN tagging)
- 802.11k Radio Resource Management
- 802.11v BSS Transition Management
- 802.11r Fast Roaming

### Regulatory & certification

- CB Scheme Safety, cTUVus
- Wi-Fi Alliance (WFA) capable 802.11a/b/g/n/ac
- FCC capable
- CE mark capable
- RoHS, REACH, WEEE
- SRRC

### Ordering information

Item	Description
OAW-AP1201L-RW	Indoor entry level Enterprise 802.11ac MU-MIMO AP, dual-radio, 11n 2x2:2 + 11ac 2x2:2, 1x GigE, BLE radio, 1x Console, and integrated antennas. Unrestricted regulatory domain. These products should be considered as rest-of-world products and MUST NOT be used for deployments in the United States, Japan or Israel.
Accessories	Description
OAW-AP-MNT-B	OmniAccess desk mounting kit, for AP1201HL. Optional for customer ordering
OAW-AP-MNT-W	48V/30W AC-to-DC Power Adapter with Type A DC plug 2.1*5.5*9.5mm circular, straight. Please order PWR-CORD-XX for country specific power cord.
OAW-AP-MNT-C	1-Port IEEE 802.3af PoE Midspan. Port speed 10/100/1000M PoE power 15W. No power cord included. Please order PWR-CORD-XX for country specific power cord.
PD-9001GR/AT/AC	1-Port IEEE 802.3at PoE Midspan. Port speed 10/100/1000M PoE power 30W. No power cord included. Please order PWR-CORD-XX for country specific power cord.
ADP-30HRBD	48V/30W AC-to-DC Power Adapter with Type A DC plug 2.1*5.5*9.5mm circular, straight. Please order PWR- CORD-XX for country specific power cord.

## Warranty

OmniAccess Stellar Access Points come with Hardware Limited Lifetime Warranty (HLLW)

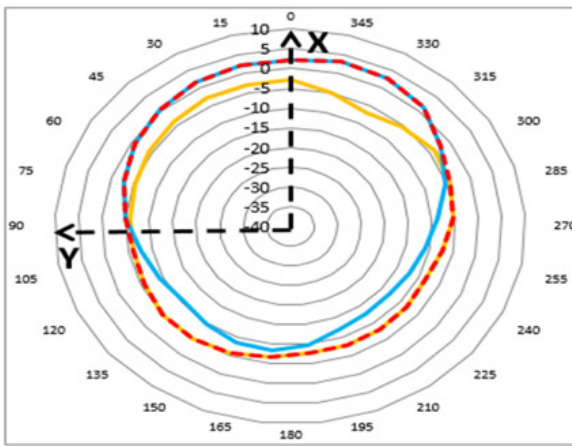
## Services and support

OmniAccess Stellar Access Points include one year of complementary SUPPORT Software for partners. For more information about Alcatel-Lucent Enterprise Professional Services, Support services and Managed services, please go to: <http://enterprise.alcatel-lucent.com/?services=EnterpriseServices&page=directory>

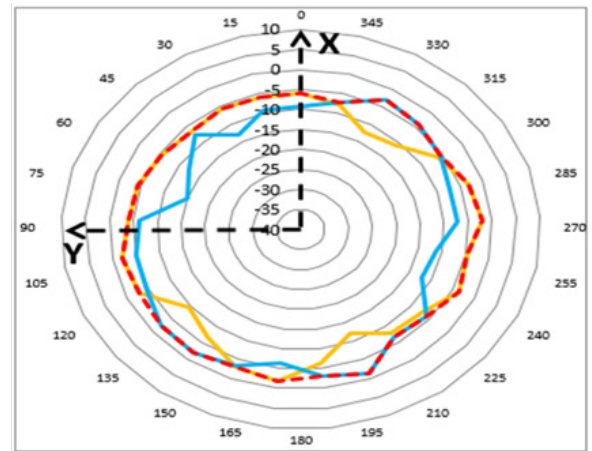


Figure 1. OmniAccess AP1201L antenna pattern plots

Horizontal or Azimuth plane (top view)

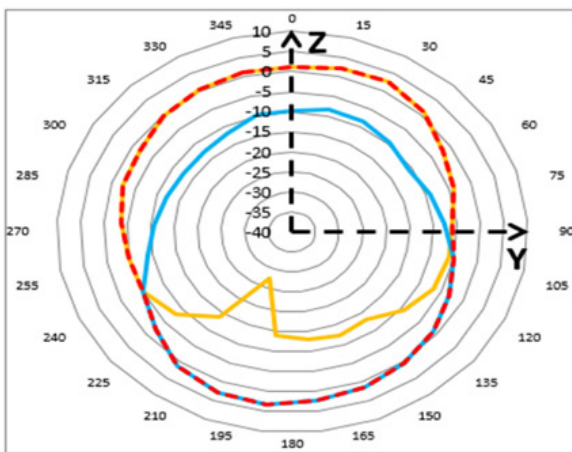


2.4GHz

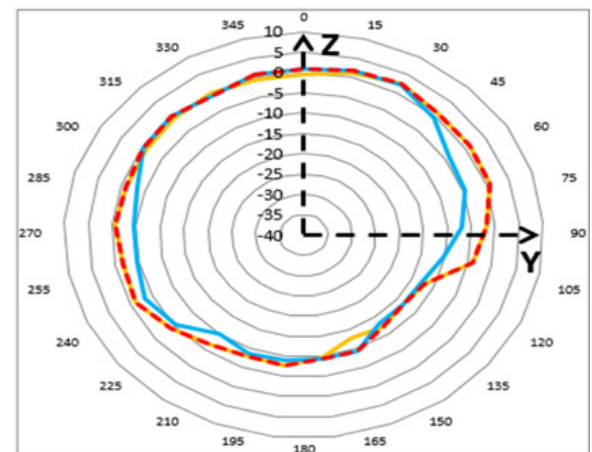


5GHz

Elevation plane (side view, 0 degrees angle)

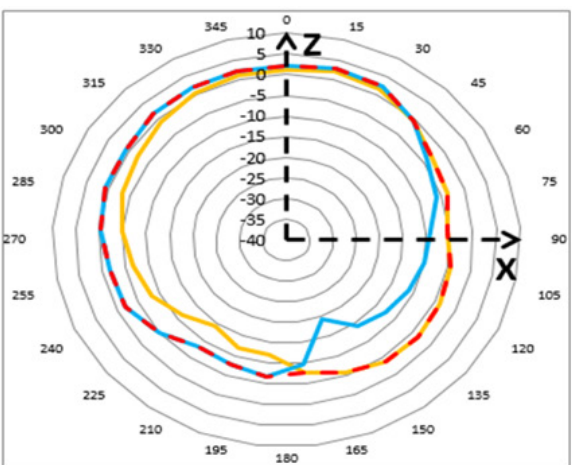


2.4GHz

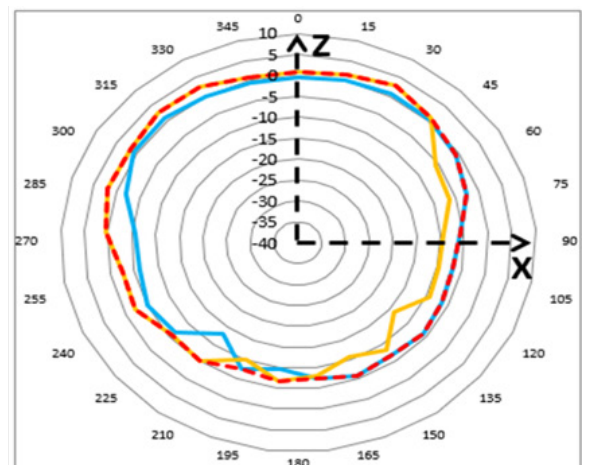


5GHz

Elevation plane (side view, 90 degrees angle)



2.4GHz



5GHz