Alcatel-Lucent OmniAccess 207 Series Access Points

Fast 802.11AC that's affordable for everyone

The affordable mid-range OmniAccess® 207 Series access point delivers high performance 802.11ac for medium density enterprise environments. With the integrated BLE and supporting 802.3af power, the OmniAccess 207 Series AP enables enterprises to improve their work efficiency and productivity with the lowest TCO.

The compact OmniAccess 207 Series AP delivers a maximum concurrent data rate of 867 Mb/s in the 5 GHz band and 400 Mb/s in the 2.4 GHz band (for an aggregate peak data rate of 1.3 Gb/s). Featuring 2x2:2SS, VHT160 MHz and increased operating temperature, the 207 AP is ideal for medium device density environments, such as schools, retail branches, warehouses, hotels and enterprise offices, where the environment is cost sensitive.

Unique benefits

- Dual Radio 802.11ac Access Point
  - ¬ Supports up to 867 Mb/s in the 5 GHz band (with 2SS/VHT80 clients) and up to 400 Mb/s in the 2.4 GHz band (with 2SS/VHT40 clients).
- Advanced Cellular Coexistence (ACC)
  - ¬ Minimizes interference from 3G/4G cellular networks, distributed antenna systems and commercial small cell/ femtocell equipment.
- Quality of Service for Unified Communication apps
  - ¬ Supports priority handling and policy enforcement for unified communication apps, including Microsoft Skype for Business, with encrypted videoconferencing, voice, chat and desktop sharing.
- RF Management
  - ¬ Adaptive Radio Management (ARM) technology automatically assigns channel and power settings, provides airtime fairness, and ensures that APs stay clear of all sources of RF interference to deliver reliable, high-performance WLANs.
  - ¬ The OmniAccess 207 Series APs can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection, VPN tunnels to extend remote locations to corporate resources, and wireless mesh connections where Ethernet drops are not available.
- Intelligent app visibility and control
  - ¬ AppRF technology leverages deep packet inspection to classify and block, prioritize or limit bandwidth for over 2,500 enterprise apps or groups of apps.
- Security
  - ¬ Integrated wireless intrusion protection offers threat protection and mitigation, and eliminates the need for separate RF sensors and security appliances.
  - ¬ IP reputation and security services identify, classify, and block malicious files, URLs and IPs, providing comprehensive protection against advanced online threats.
  - ¬ Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys.

Alcatel·Lucent Enterprise

Choose your operating mode

OmniAccess 207 Series APs offer a choice of operating modes to meet your unique management and deployment requirements.

- Controller-managed mode – When managed by OmniAccess Mobility Controllers, OmniAccess 207 Series APs offer centralized configuration, data encryption, policy enforcement and network services, as well as distributed and centralized traffic forwarding.
- Instant mode – In Instant mode, a single AP automatically distributes the network configuration to other Instant APs in the WLAN. Simply power-up one Instant AP, configure it over the air, and plug in the other APs – the entire process takes about five minutes. If WLAN requirements change, a built-in migration path allows 207 Series Instant APs to become part of a WLAN that is managed by a Mobility Controller.
- Remote AP (RAP) for branch deployments.
- Air monitor (AM) for wireless IDS, rogue detection and containment.
- Spectrum analyzer, dedicated or hybrid, for identifying sources of RF interference.
- Secure enterprise mesh.

AP207 Series specifications

- OAW-AP207 (controller-managed) and AW-IAP207 (Instant):
  - ¬ 802.11ac – 5 GHz 2x2 MIMO (867 Mb/s max rate) and 2.4 GHz 2x2 MIMO (400 Mb/s max rate) radios, with a total of two integrated omni-directional downtilt dual- band antennas

Wi-Fi radio specifications

- AP type: Indoor, dual radio, 5 GHz 802.11ac 2x2 MIMO and 2.4 GHz 802.11n 2x2 MIMO
- Software-configurable dual radio supports 5 GHz (Radio 0) and 2.4 GHz (Radio 1)
- 5 GHz: Two spatial stream Single User (SU) MIMO for up to 867 Mb/s wireless data rate to individual 2x2 VHT80 client devices
- 2.4 GHz: Two spatial stream Single User (SU) MIMO for up to 400 Mb/s wireless data rate to individual 2x2 VHT40 client devices (300 Mb/s for HT40 802.11n client devices)
- Support for up to 255 associated client devices per radio, and up to 16 BSSIDs per radio
- 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
- Dynamic frequency selection (DFS) optimizes the use of available RF spectrum
- Supported radio technologies:
  - ¬ 802.11b: Direct-sequence spread-spectrum (DSSS)
  - ¬ 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)
- Supported modulation types:
  - ¬ 802.11b: BPSK, QPSK, CCK
  - ¬ 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (conducted) transmit power (limited by local regulatory requirements):
  - ¬ 2.4 GHz band: +18 dBm per chain, +21 dBm aggregate (2x2)
  - ¬ 5 GHz band: +18 dBm per chain, +21 dBm aggregate (2x2)
  - ¬ Note: conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain
- Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
- Short guard interval for 20 MHz, 40 MHz and 80 MHz channels
- Space-time block coding (STBC) for increased range and improved reception
- Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
- Transmit beam-forming (TxBF) for increased signal reliability and range
- 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 MCS15)
  - ¬ 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80
- 802.11n high-throughput (HT) support: HT 20/40
- 802.11ac very high throughput (VHT) support: VHT 20/40/80
- 802.11n/ac packet aggregation: A-MPDU, A-MSDU

Wi-Fi antennas

- AP207/IAP207: Two integrated dual-band downtilt omni-directional antennas for 2x2 MIMO with maximum antenna gain of 3.4 dBi in 2.4 GHz and 6.6dBi in 5 GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees.
  - ¬ The maximum gain of the combined (summed) antenna patterns for all elements operating in the same band is 5.2 dBi in 2.4 GHz and 7.5 dBi in 5 GHz.

Other interfaces

- One 10/100/1000BASE-T Ethernet network interface (RJ-45)
  - ¬ Auto-sensing link speed and MDI/MDX
  - ¬ 802.3az Energy Efficient Ethernet (EEE)
- Bluetooth Low Energy (BLE) radio
  - ¬ Up to 3 dBm transmit power (class 2) and -92 dBm receive sensitivity
  - ¬ Integrated antenna with roughly 30 degrees downtilt and peak gain of 2.2 dBi
- Visual indicators (multi-color LEDs): for System and Radio status
- Reset button: factory reset (during device power up)
- Serial console interface (proprietary; optional adapter cable available)
- Kensington security slot

Power sources and consumption

- The AP supports direct DC power and Power over Ethernet (PoE)
- When both power sources are available, DC power takes priority over PoE
- Power sources are sold separately
- Direct DC source: 12 Vdc nominal, ±5%
  - ¬ Interface accepts 2.1/5.5-mm center-positive circular plug with 9.5-mm length
- Power over Ethernet (PoE): 48 Vdc (nominal) 802.3af/802.3at compliant source
  - ¬ Unrestricted functionality with 802.3af PoE
- Maximum (worst-case) power consumption: 12.3W (PoE) or 10.1W (DC)
- Maximum (worst-case) power consumption in idle mode: 5.3W (PoE) or 4.4W (DC)

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.
- Several optional mount kits are available to attach the AP to a variety of surfaces; see the Ordering Information section below for details

Mechanical

- Dimensions/weight (unit, excluding mount accessories):
  - ¬ 150 mm x 150 mm x 40 mm
  - ¬ 380 g
- Dimensions/weight (shipping):
  - ¬ 190 mm x 180 mm x 70 mm
  - ¬ 59 0g

Environmental

- Operating:
  - ¬ Temperature: 0° C to +50° C (+32° F to +122° F)
  - ¬ Humidity: 5% to 95% non-condensing
- Storage and transportation:
  - ¬ Temperature: -40° C to +70° C (-40° F to +158° F)

Regulatory

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5/EC
- Low Voltage Directive 72/23/EEC
- EN 300 328
- EN 301 489
- EN 301 893
- UL/IEC/EN 60950
- EN 60601-1-1, EN60601-1-2

For more country-specific regulatory information and approvals, please see your Alcatel-Lucent Enterprise representative.

Regulatory model numbers

- OAW-AP207 and OAW-IAP207: APIN0207

Reliability

- MTBF: 753,457hrs (86yrs) at +25C operating temperature

Certifications

- CB Scheme Safety, cTUVus
- UL2043 plenum rating
- Wi-Fi Alliance (WFA) certified 802.11a/b/g/n/ac

Warranty

- Limited lifetime warranty

Minimum operating system software versions

- AOS-W 6.5.1.0
- InstantOS 4.3.1.0

RF performance table

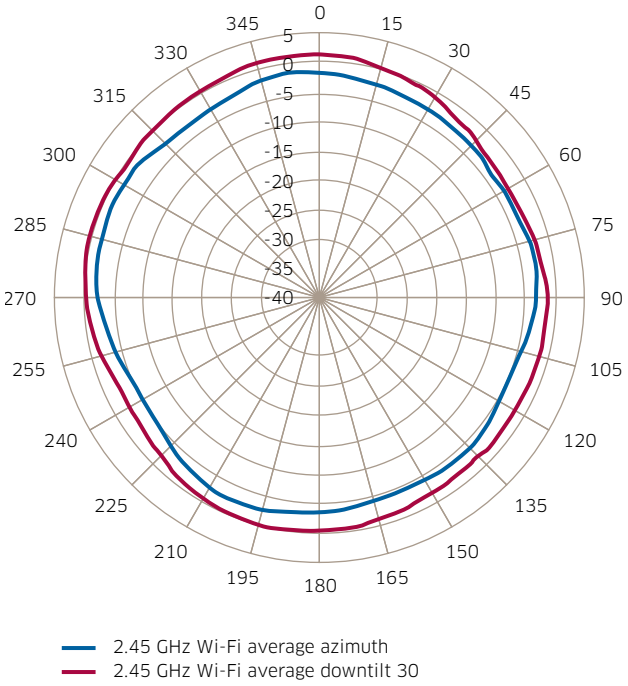
	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
802.11b 2.4 GHz		
1 Mb/s	18.0	-90.0
11 Mb/s	18.0	-90.0
802.11g 2.4 GHz		
6 Mb/s	18.0	-90.0
54 Mb/s	18.0	-75.0
802.11n HT20 2.4 GHz		
MCS0/8	18.0	-90.0
MCS7/15	18.0	-71.0
802.11n HT40 2.4 GHz		
MCS0/8	18.0	-87.0
MCS7/15	18.0	-68.0
802.11a 5 GHz		
6 Mb/s	18.0	-90.0
54 Mb/s	17.5	-75.0
802.11n HT40 5 GHz		
MCS0/8	18.0	-87.0
MCS7/15	17.0	-68.0
802.11n HT40 5 GHz		
MCS0/8	18.0	-87.0
MCS7/15	17.0	-68.0
802.11ac VHT20 5 GHz (SU-MIMO)		
MCS0	18.0	-90.0
MCS8	16.0	-67.0
802.11ac VHT40 5 GHz (SU-MIMO)		
MCS0	18.0	-87.0
MCS9	15.0	-62.0
802.11ac VHT80 5 GHz (SU-MIMO)		
MCS0	18.0	-84.0
MCS9	15.0	-59.0

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

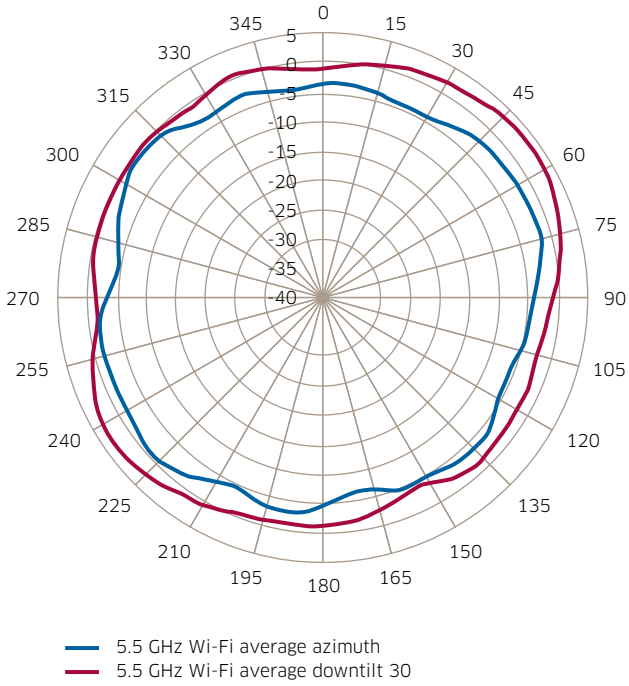
Horizontal planes top view, AP facing forward)

Showing azimuth (0 degrees) and 30 degrees downtilt pattern

2.45 GHz Wi-Fi (antennas W0, W1)



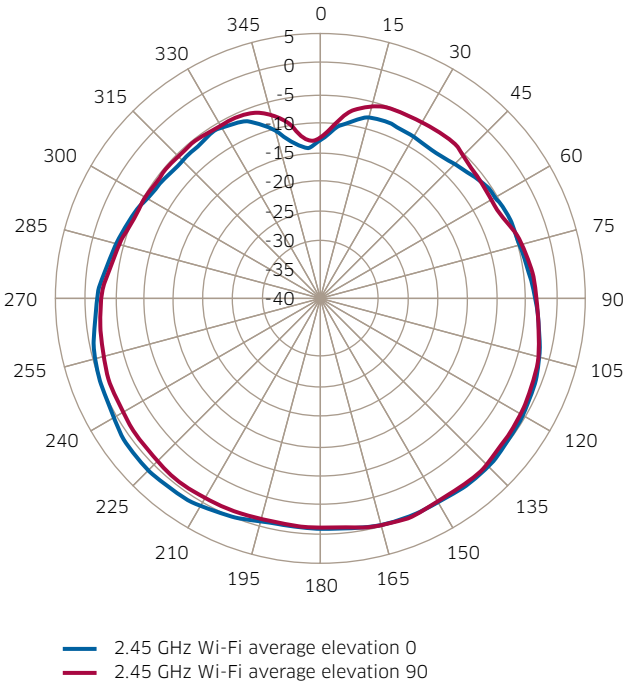
5.5 GHz Wi-Fi (antennas W0, W1)



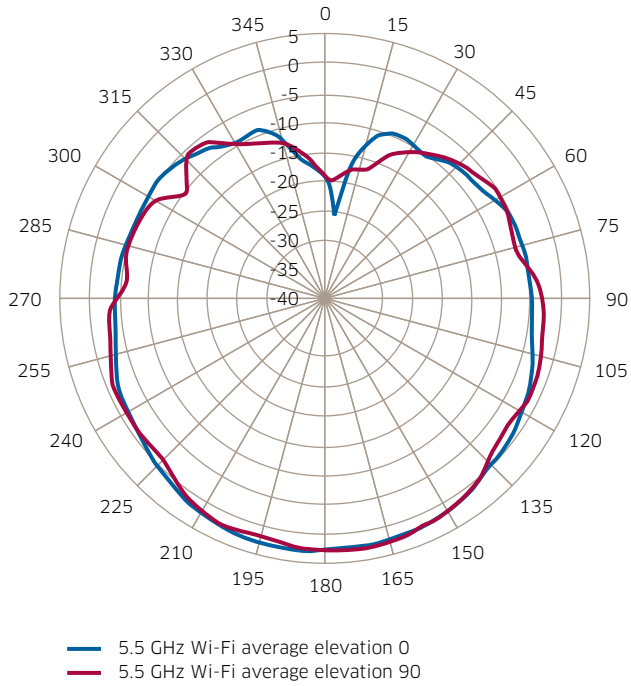
Elevation planes (side view, AP facing down)

Showing side view with AP rotated 0 and 90 degrees

2.45 GHz Wi-Fi (antennas W0, W1)



5.5 GHz Wi-Fi (antennas W0, W1)



Ordering information

Part number	Description
AP207 Series Access Points	
OAW-AP207	OmniAccess AP207 802.11n/ac 2x2:2 Dual Radio Integrated Antenna AP
OAW-IAP207-RW	OmniAccess Instant IAP207 (RW) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP. Unrestricted Regulatory Domain. MUST NOT be used for deployments in the United States, Japan or Israel.
OAW-IAP207-US	OmniAccess Instant IAP207 (US) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP. Restricted regulatory domain: US
OAW-IAP207-IS-0÷p	OmniAccess Instant IAP207 (IS) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP. Restricted regulatory domain: Israel
OAW-IAP207-JP	OmniAccess Instant IAP207 (JP) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP. Restricted regulatory domain: Japan
Mounting Spares	
AP-220-MNT-C1	Indoor Access Point suspended ceiling rail mount kit (for flat rails only, black). Spare for the clips provided with the AP.
Mounting Accessories	
AP-220-MNT-C2	Indoor Access Point suspended ceiling rail mount kit (for Interlude and Silhouette rail styles only, black). Alternate to standard clips provided with AP.
AP-MNT-CM1	Indoor Access Point suspended ceiling rail mount kit (industrial grade, metal). Fits most rail types AP-220-MNT-W1
AP-220-MNT-W1	Indoor Access Point flat-surface mount kit (basic, black)
AP-220-MNT-W1W	Indoor Access Point flat-surface mount kit (basic, white). Mechanically identical to AP-220-MNT-W1 AP-200-MNT-W3
AP-200-MNT-W3	Indoor Access Point flat surface mount kit (box style, secure, low-profile, large). Color: white
Other Accessories	
AP-207-CVR-20	Kit of 20 snap-on covers for AP-207. Plain white, non-glossy, with holes for LED indicators. Color: white
Generic Indoor AP Accessories	
AP-AC-12V30B	OmniAccess 12V/30W AC-to-DC Desktop Style Power Adapter with Type B DC plug (2.1/5.5/9.5 mm circular, 90-degree angled). Note: does not include country specific AC power cord (PC-AC-xx).
PD-3501G-AC	1 Port 802.3af PoE Midspan 10/100/1000 15.4W. No power cord included.

Alcatel·Lucent Enterprise