ALCATEL-LUCENT OMNIACCESS RAP3
DUAL RADIO 802.11N REMOTE ACCESS POINTS

The multifunctional OmniAccess RAP3 delivers secure 802.11n wireless and wired network access to corporate resources from branch and home offices.

Centrally managed by OmniAccess WLAN Switch/Controllers, the RAP3 extends corporate resources to remote locations by establishing site-to-site VPN tunnels to the data center.

The RAP3 offers a variety of enterprise-class features, including role-based network access, policy-based forwarding, and Adaptive Radio Management™ (ARM), which gives remote workers the same high-quality Wi-Fi experience they get at corporate headquarters.

Delivering a wireless data rate of up to 300 Mbps, the RAP3 has three 10/100BASE-T Ethernet ports and one USB port for connecting to 3G and 4G networks. It is also available with an 802.3af power-over-Ethernet (PoE) port for IP phones or other devices.

At locations that require greater coverage, the RAP3 can join an OmniAccess Instant™ WLAN cluster. Simply install additional RAP3s or any Instant AP and the entire cluster is managed as one. If one Instant AP fails, another AP automatically takes over with no disruption.

ADVANCED FEATURES

• Automatic device provisioning, firmware upgrades and inventory management

• ARM delivers best-in-class RF management, including automatic transmit power and channel control with auto coverage-hole correction

• **Security:**

  - With an OpenDNS service subscription, OmniAccess Instant RAPs delivers integrated web filtering, malware and botnet protection to every device connected to the WLAN

  - Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys

  - SecureJack-capable for secure tunneling of wired Ethernet traffic

OPERATING MODES

• **Wireless**

  - 802.11b/g/n Mobility Controller-managed RAP

  - 802.11b/g/n OmniAccess Instant AP

  - 802.11b/g/n air monitor

  - Hybrid WLAN and air monitor

  - Configurable to support 802.11n HT 20/40 channels or mixed-mode deployment IEEE 802.11b/g/n

• **Wired**

  - 10/100BASE-T Ethernet, PoE capable

  - User authentication: 802.1X, captive portal, MAC authentication or open access

  - Policy-based forwarding for local resource access

AT THE SPEED OF IDEAS™

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Wireless Radio Specifications

- AP type: 2.4 GHz 802.11n indoor
- Software-configurable 2.4-GHz radio
- 2×2 MIMO 802.11n with two spatial streams and up to 300 Mbps wireless data rate
- Supported frequency band (country-specific restrictions apply): 2.4000 GHz to 2.4835 GHz
- Available channels: Managed by Virtual Controller or Mobility Controller, dependent upon configured regulatory domain
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with 2 spatial streams
- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (aggregate) transmit power: +19 dBm (limited by local regulatory requirements)
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic Delay Diversity for improved downlink RF performance
- Short guard interval for 20-MHz and 40-MHz channels
- Space time blocking code (STBC) for increased range and improved reception
- Association rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS15 (6.5 Mbps - 300 Mbps)
- 802.11n high-throughput (HT) Support: HT 20/40
- 802.11n packet aggregation: A-MPDU, A-MSDU

Power In

- 48 V DC 802.3af PoE
- 12 V DC for external AC supplied power (adapter sold separately)
- Maximum power consumption: 12.5 watts
- AC-to-DC power adapter (included) – RAP3WN:
  - AC input: 100-240 volts AC/0.5 A
  - DC output: 12 volts DC/1.5 A
- AC-to-DC power adapter (included) – RAP3WN:
  - AC input: 100-240 volts AC/0.75 A
  - DC output: 48 volts DC/0.75 A
- Maximum power consumption – RAP3WN:
  - Maximum (excluding USB): 4.0 watts
  - Maximum (using USB): 6.5 watts
- Maximum power consumption – RAP3WN:
  - Maximum (excluding USB and PoE): 5.5 watts
  - Maximum (using USB, no PoE): 8.0 watts
  - Maximum (using USB, full PoE): 26 watts

Antenna

- Two integrated, omni-directional antenna elements for 2×2 MIMO
- Antenna gain: 2.0 dBi

Interfaces

- Network:
  - E0 (WAN): One 10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - E1-E2 (LAN): Two 10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - Optional 802.3af PoE (15.4 watts) on the E2 port for IP phones and other equipment
- Power:
  - 1 x DC power connector
- Other:
  - One USB 2.0 port (Type A connector)
  - One four-pin console interface (custom)

Mounting

- Desktop (using stand supplied with product)
- Wall (using optional wall-mount accessory)

Mechanical

- Dimensions/weight (unit with desk stand):
  - 129 mm x 109 mm x 64 mm (5.1" x 4.3" x 2.5")
  - 180 g (6.6 oz)
- Dimensions/weight (shipping):
  - 218 mm x 150 mm x 64 mm (8.6" x 5.9" x 2.5")
  - RAP3WN: 510 g (1.1 lb)
  - RAP3WNP: 620 g (1.4 lb)

Environmental

- Operating:
  - Temperature: 0°C to 40°C (+32°F to +104° F)
  - Humidity: 5 to 95% non-condensing
- Storage and transportation temperature range:
  - Temperature: -40°C to +70°C (-40°F to +15 8°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
- UL/IEC/EN 60950

Certifications

- CB Scheme Safety, cTUVus
- Wi-Fi certified 802.11a/b/g/n

Warranty

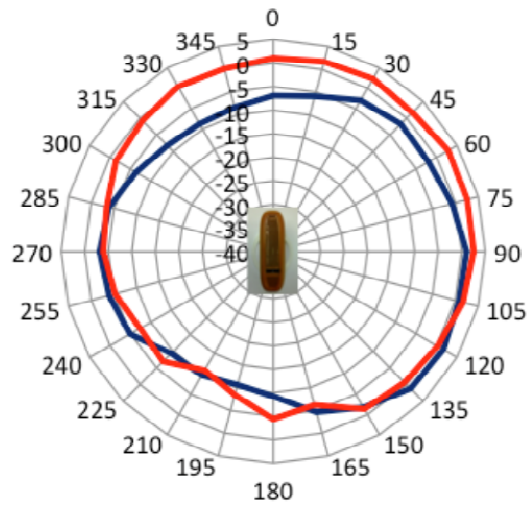- Limited lifetime warranty

Minimum AOS version

- 6.1.4.0
- Instant 3.0

RF PERFORMANCE TABLE

	Max TX powerper active TX chain (dBm)	RX Sensitivity (dBm)
2.4 GHz		
802.11b		
1Mbps	16	-97
2Mbps	16	-
5.5Mbps	16	-
11Mbps	16	-90
802.11a/g		
6Mbps	16	-90
9Mbps	16	-
12Mbps	16	-
18Mbps	16	-
24Mbps	16	-
36Mbps	16	-
48Mbps	13	-
54Mbps	11	-75
802.11n HT20		
MCS0/8	16	-90
MCS1/9	16	-
MCS2/10	16	-
MCS3/11	16	-
MCS4/12	16	-
MCS5/13	13	-
MCS6/14	11	-
MCS7/15	10	-72

Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.
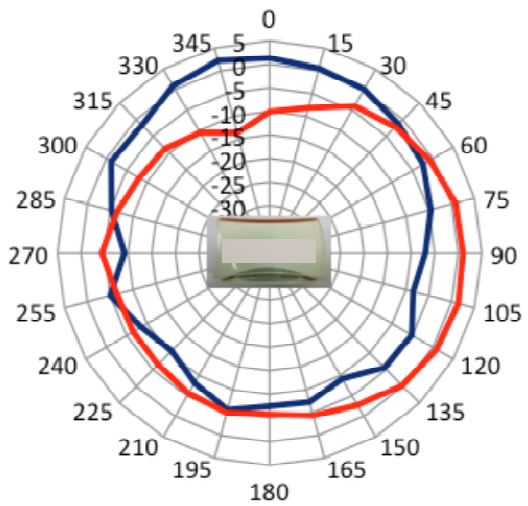
ANTENNA GAIN PLOTS

All plots are for channel 6 (2.436 MHz)
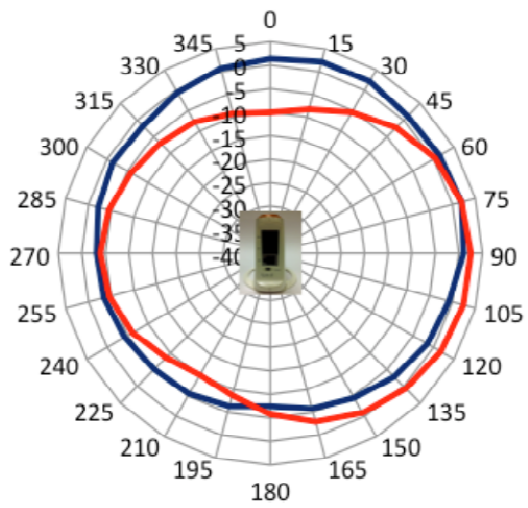
ORDERING INFORMATION

PART NUM BER	DESCRI PTI ON
OAW-RAP3WN	OmniAccess RAP3 Instant Access Point (wireless, 3x10/100Base-T, USB). 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. Ships with IAP software but can easily be converted to RAP
OAW-RAP3WNP	OmniAccess RAP3P Instant Access Point (wireless, 3x10/100Base-T, USB, POE out). 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. Ships with IAP software but can easily be converted to RAP.
OAW-RAP3WN-MNT	OmniAccess RAP3WN Series Wall Mount Kit
OAW-AP-CBL-SER	OmniAccess RAP3 Series serial adapter cable (proprietary to DB9 female)
OAW-APAC-48V36	48VDC/36W AC Power Adapter. Note: does not include country specific AC power cord

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