

Airespace 1200R and 1250R Remote Edge Access Points



Features and Benefits WAN-Enabled LWAPP

- Reduces WLAN equipment required in remote offices
- Enables centralized policy configuration and enforcement for easier operations

Robust security options

- Works with existing and planned security policies
- Intrusion protection ensures that a neighboring business or malicious user cannot hack into the branch office network
- Detects and contains rogue access points

Zero-configuration and management

Reduces the cost and time to deploy a wireless network; dramatically simplifies day-to-day operations

Simultaneous air monitoring and data service

- Minimizes equipment requirements
- Simplifies network design
- Increases security through complete real-time monitoring across an entire network

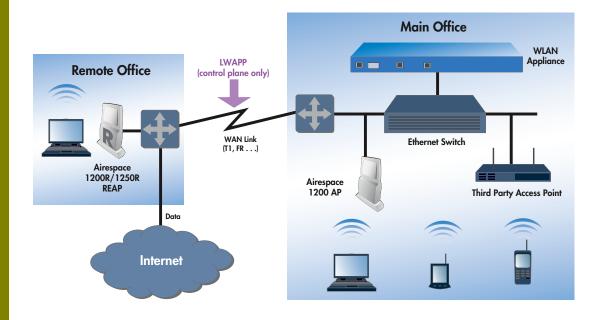
Internal and external antenna options

Provides flexible deployment and redeployment options

Airespace 1200R and 1250R Remote Edge Access Points

The Airespace 1200R and 1250R Remote Edge Access Points extend Airespace's security, performance, and RF management capabilities to enterprise remote offices. They communicate with Airespace WLAN Switches and WLAN Appliances via a Wide Area Network (WAN) link, enabling IT managers and network operators to deliver consistent Wireless LAN (WLAN) services to all enterprise locations, regardless of geography.

The Airespace 1200R and 1250R Remote Edge Access Points communicate with WLAN switches and appliances via most standard WAN technologies, including T1, Frame Relay, ATM, DSL, ISDN, and switched 56k. By leveraging the Lightweight Access Point Protocol (LWAPP), Airespace's Remote Edge Access Points can automatically detect the best available WLAN switch or appliance and download appropriate policies and configuration information with no hands-on intervention. This enables IT managers to centrally control SSIDs, security parameters, and software loads for unified, enterprise-wide WLAN services.





Like all Airespace Access Points, the 1200R and 1250R come equipped with Airespace's patent-pending AireWave Director™ Software, which dynamically adjusts WLAN parameters to adapt to changing RF conditions. Airespace's unique real-time RF management capability ensures optimal ongoing WLAN performance. In addition, all Airespace Access Points combine simultaneous data forwarding and air monitoring functions for premier location tracking, security, and WLAN operations. By eliminating the need for separate monitoring devices to perform these functions, Airespace reduces the cost of deploying a wireless network, simplifies network design and deployment, and maximizes RF security by extending real-time monitoring to every corner of a wireless infrastructure.

Airespace 1200R and 1250R Access Points come equipped with internal radios and sectorized antenna, with optional connectors available for connectivity to external antenna. All models are ple-

num rated to accommodate different building deployment scenarios. The Airespace 1250R provides all of the functionalities of the 1200R with the addition of auto MDI/MDX support and enhancements for Quality of Service (QoS).

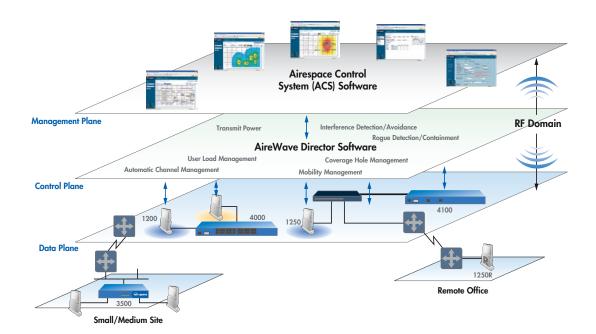
A Powerful Solution for Remote Offices

Airespace 1200R and 1250R Remote Edge Access Points are the ideal solution for enterprises extending intelligent WLAN services to remote locations. They deliver Airespace's award winning security, RF management, and mobility capabilities without requiring locally connected WLAN switches or appliances. This Access Points

Security Policies
QoS Policies
RF Management
Mobility Management

802.11 Radio/Antenna
Traffic Forwarding
Real-time Monitoring

facilitates the management of enterprise-wide WLAN services while keeping WLAN hardware investment costs to a minimum.



Airespace 1200R and 1250R Remote Edge Access Points

Like all Airespace Access Points, the 1200R and 1250R are self-configuring and self-optimizing. This reduces deployment and management costs by alleviating the need for manual configuration. As many remote offices do not have onsite IT support, reducing day-to-day WLAN management burdens can have an enormous effect on overall WLAN operational costs.

In addition, the Airespace 1200R and 1250R Remote Edge Access Points provide simultaneous 801.11a/b/g data service and real-time air monitoring. This eliminates the need for multiple types of access points to handle different application requirements. It also eliminates the need to deploy separate monitoring devices for wireless intrusion protection and RF security, which can be especially cost prohibitive in remote office environments.

Security

The Airespace Remote Edge Access Points work in tandem with Airespace WLAN Switches/ Appliances and Airespace Control System (ACS) Software to create a secure yet manageable wireless solution. IT managers can choose from an array of security options, including 802.1X, IPsec, VPN pass-through, WPA, 802.11i (WPA2).

The Airespace Remote Edge Access Points ship with built-in X.509 certificates which prevent malicious users from 'spoofing' an access point to gain unauthorized access to an Airespace network. In addition, Airespace offers the only WLAN access point that provides both air monitoring and data services simultaneously, providing rogue access point containment and intrusion detection in a single cost effective platform.

Quality of Service (QoS)

Airespace Remote Edge Access Points are an intrinsic component of Airespace's comprehensive QoS framework. With intelligent queuing and contention management schemes, they provide effective resource management of the air space. This makes the Airespace solution ideal for real-time applications, such as voice. Airespace's QoS capabilities closely mirror the emerging IEEE 802.11e standard. When completed, the Airespace system will be fully compliant with this specification via a simple software upgrade.

The Airespace 1250R Access Point adds a number of QoS enhancements including QoS profiles. These profiles allow administrators greater control over QoS prioritization by assigning different classes of usage. The QoS profiles supported by the Airespace 1250R include "Bronze" (guest access), "Silver" (normal access), Gold" (higher bandwidth) and "Platinum" (reserved for voice).

Airespace 1200R and 1250R **Remote Edge Access Points**

Interfaces and Indicators

Radio Specifications

802.11a

Data rates: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps Frequency bands: 5.15 - 5.25 GHz, 5.25 - 5.35 GHz, 5.725 - 5.825GH₂

Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) Radio Technology: Orthogonal Frequency Division Multiplexing (OFDM) Modulation Type: BPSK (6 and 9 Mbps), QPSK (12 and 18 Mbps), 16-QAM (24 and 36 Mbps), 64-QAM (48 and 54 Mbps)

Operating channels: 23 (country dependent)

Typical receiver sensitivity: -73 dBm at 54 Mbps, -75 dBm at 48 Mbps, -80 dBm at 36 Mbps, -83 dBm at 24 Mbps, -87 dBm at 18 Mbps, -89 dBm at 12 Mbps, -90 dBm at 9 Mbps, -91 dBm

Transmit Power Settings: 100%, 50%, 25%, 12.5%, 6.25%

Maximum Transmit Power: 50 mW (17 dBm) conducted. Maximum power setting will vary according to individual country regulations

Typical Radio Range

- Indoor: 45 ft (14 m) @ 54 Mbps, 110 ft (34 m) @ 18 Mbps, 165 ft (50 m) @ 6 Mbps
- Outdoor: 100 ft (30 m) @ 54 Mbps, 600 ft (183 m) @ 18 Mbps, 1000 ft (305 m) @ 6 Mbps

Ranges and actual throughput will vary based upon environmental

802.11b

Data rates: 1, 2, 5.5 and 11 Mbps Frequency band: 2.412 - 2.497 GHz

Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) Radio Technology: Direct Sequence Spread Spectrum (DSSS)

Modulation Type: DBPSK (1 Mbps), DQPSK (2 Mbps), CCK (5.5 and 11 Mbps)

Operating channels: 14 (country dependent)

Typical receiver sensitivity: -89 dBm at 11 Mbps, -91 dBm at 5.5 Mbps, -92 dBm at 2 Mbps, -94 dBm at 1 Mbps

Transmit Power Settings: 100%, 50%, 25%, 12.5%, 6.25%

Maximum Transmit Power: 100 mW (20 dBm) conducted. Maximum power setting will vary according to individual country regulations Typical Radio Range

- Indoor: 160 ft (49 m) @ 11 Mbps, 410 ft (125 m) @ 1 Mbps

- Outdoor: 1000 ft (305 m) @ 11 Mbps, 2000 ft (610 m) @ 1 Mbps Ranges and actual throughput will vary based upon environmental factors

802.11g

Data rates: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps Frequency band: 2.412 - 2.497 GHz

Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) Radio Technology: Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM)

Modulation Type: DBPSK (1 Mbps), DQPSK (2 Mbps), CCK (5.5 and 11 Mbps), BPSK (6 and 9 Mbps), QPSK (12 and 18 Mbps), 16-QAM (24 and 36 Mbps), 64-QAM (48 and 54 Mbps)

Operating channels: 14 (country dependent)

Typical receiver sensitivity: -73 dBm at 54 Mbps, -75 dBm at 48 Mbps, -80 dBm at 36 Mbps, -84 dBm at 24 Mbps, -87 dBm at 18 Mbps, -90 dBm at 12 Mbps, -89 dBm at 11 Mbps, -91 dBm at 9 Mbps, -91 dBm at 6 Mbps, -91 dBm at 5.5 Mbps, -92 dBm at 2 Mbps, -94 dBm at 1 Mbps

Transmit Power Settings: 100%, 50%, 25%, 12.5%, 6.25%

Maximum Transmit Power: 100 mW (20 dBm) conducted. 30 mW (15 dBm). Maximum power setting will vary according to individual country regulations

Typical Radio Range

- Indoor: 90 ft (27 m) @ 54 Mbps, 180 ft (55 m) @ 18 Mbps, 300 ft (91 m) @ 6 Mbps
- Outdoor: 250 ft (76 m) @ 54 Mbps, 600 ft (183 m) @ 18 Mbps, 1300 ft (396 m) @ 6 Mbps

Ranges and actual throughput will vary based upon environmental









Physical and Environmental

Dimensions - Internal antenna: 6" x 4.4" x 1.6" (15.2 x 11.2 x 4.1 cm)

Other Indicators: Power, Alarm, 2.4 GHz radio, 5 GHz radio

- External antenna: $6" \times 5.4" \times 1.6"$ (15.2 x 13.7 x 4.1 cm)

Weiaht

- AP and ceiling clips: 1.3 lbs (0.6 kg)
- AP with optional wall brackets kit: 2.2 lbs (1 kg)

Network: 10/100 Mbps Ethernet (RJ45 - link, activity)

- Operating: 32 to 122°F (0 to 50°C)
- Storage: -13 to 158°F (-25 to 70°C)

- Operating humidity: 0 95%, non-condensing
- Storage humidity: up to 95%

Input power: 48 VDC; 250 mA; 10 W

- Power over Ethernet (IEEE 802.3af) - Optional AC adapter

Compliance

Safety

- UL 60950 third edition
- FN 50385:2002
- RSS 102
- FCC OET 65

Electrical Safety

- UL 60950-1:2003, First Edition
- CSA C22.2 No. 60950-1-03

Radio Approvals

- US: FCC Part 15 subpart C and E
- EN 300 328 V1.4.1
- FN 301 893 V1 2 3
- Canada: RSS-210
- Europe: EN 301.893, EN 300.328
- Japan: ARIB STD-33A/STD-T66, ARIB STD T-71
- Australia: AS 4268.2
- New Zealand: Class License 2002, Part 2, Section 9(4) & Section 10(4)
- Korea: MIC Notice 2003-13
- Singapore: TS 555 Issue 1
- Taiwan: LP2002
- Hong Kong: HKTA1039

EMI and Susceptibility (Class A)

- US: FCC Part 15.107 and 15.109
- Canada: ICES-003
- Japan: VCCI
- Europe: EN 55022, EN 55024, EN 301.489-1 and -17

Electromagnetic Compatibility (EMC)

- EN 60601-1-2:1993 Class B
- EN 301 489-17 V1.2.1; EN 301 489-1 V1.4.1
- Subpart B of Part 15 of FCC Rules for Class B digital devices
- Canada ICES 003 1997 Class B
- VCCI Class B
- En 55022:1994, Class B, as modified by Amendment A1, dated 1995, and Amendment A2, dated 1997

Power Supply Safety: AS-AP-PWR and AS-IPWR

- US, EU, worldwide UL listed, TUV/GS mark, CE mark, CB scheme, USL/CSL per UL60950
- Japan PSE
- Korea K60950

Standards

IEEE 802.11a/b/g Ethernet IEEE 802.3/IEEE 802.3u Power over Ethernet IEEE 802.3af

©2004 Airespace, Inc. All rights reserved. Airespace, and the Airespace logo are registered trademarks, and AireWave Director is a trademark of Airespace, Inc. All other trademarks belong to their respective holders. LIT 09-04-04-10-1200R.web



EMEA Headquarters

Fax: +44 (0) 01483 243501

Airespace K.K.

Tokyo Japan 100-0006 Tel: +81-3-5288-8511

Airespace Wireless Networks Pvt. Ltd.

Fax: +81-3-5288-8525

Diamond District

www.airespace.com