

# MOTOROLA AP7131

## WIRELESS ACCESS POINT

**ISIS**  
integration

### The re-defined access point: a true wired network replacement

The 802.11a/b/g/n AP-7131 Access Point delivers the throughput, coverage and resiliency required to enable a wireless enterprise. The tri-radio expandable design provides simultaneous support for three major networking functions: high-speed wireless voice and data services for client access, self-healing mesh networking and non-data applications including Wireless IPS sensor functionality for around the clock protection of the wireless and wired network. The fully DFS compliant 802.11n Draft 2.0 AP-7131 offers speeds of up to 600 Mbps per Access Point — six times the bandwidth of an 802.11a/g access point. The Adaptive AP architecture allows the device to offer two modes of operation, without changing the firmware — either as a stand-alone access point or as a wireless switch adopted access point for centralized management. The ability to self-configure in an 802.3af environment further simplifies deployment. The elegant industrial design with an optional snap-on antenna façade enables enterprise wide deployment — from the warehouse to the front lobby.

### Standalone Access Point: wired and wireless 'Enterprise in a box' for the SME

As a standalone access point, the AP-7131 provides small and medium-sized businesses with a consolidated wired and wireless networking infrastructure, all in a single device. The integrated router, gateway, firewall, DHCP and AAA Radius servers, VPN, hot-spot gateway, Power-over-Ethernet (PoE) simplify and reduce the costs associated with networking by eliminating the need to purchase and manage multiple pieces of equipment.

### Centrally managed Access Point: Adaptive AP Mode

The AP-7131 is also designed to meet the needs of large, distributed enterprises by converging the functionality of a thick access point and thin access port into a single device. This mode enables the deployment of a fully featured intelligent access point that can be centrally configured and managed via a Motorola wireless switch in either corporate headquarters or a network operations center (NOC). In the event the connection between the AP-7131 and the wireless switch is lost, a Remote Site Survivability (RSS) feature ensures the delivery of uninterrupted wireless services at the local or remote site. All traffic between the adaptive access points and the wireless switch is secured through an IPSec tunnel. And compatibility with Motorola's RF Management Suite allows you to centrally plan, deploy, monitor, and secure large AP-7131 deployments.



#### FEATURES

802.11n support with 3X3 MIMO

Tri-radio, dualband design

Multi Mode Rogue AP detection: On-board IDS, Mobile unit assist mode, dedicated Wireless IPS sensor radio

Adaptive AP mode

Integrated router, DHCP server, Stateful Packet Inspection Firewall, AA server, NAT, and Hotspot Gateway

Mesh networking

802.11i, WPA2 and WPA; IPSec encryption

Wi-Fi Multimedia (WMM™) Quality of Service (QoS) and voice prioritisation

Java™ web-based graphical user interface; SNMPv3; command line interface (CLI)

Integrated VPN

Power-over-Ethernet (PoE) support

DFS compliance

#### BENEFITS

Delivers maximum wireless network throughput to support virtually any enterprise application, including voice and video

Works with any standards based IEEE WLAN

Around the clock network protection through instant identification and reporting of unauthorised users

Can be controlled with a wireless switch to enable central management from the NOC, and in the event of loss of connectivity, resumes functionality as a standalone access point

Eliminates need to purchase and manage additional equipment; simplifies provisioning of network services and public access

Allows wireless extension of existing wired or wireless networks in remote or outdoor locations

End-to-end enterprise class wired and wireless security

Superior performance for demanding mission critical applications, including voice and video

Flexible management options; easy-to-use "anytime, anywhere" management

Cost-effective secure site-to-site communications

Eliminates need and expense to power access point; supports 802.3af, 802.3at (draft)

Increased throughput through greater channel availability in the 5 GHz bands

## Mesh: cost-effective networking for challenging locations

Mesh functionality enables the cost-effective wireless extension of the enterprise network to areas where Ethernet or fiber cabling is cost-prohibitive or otherwise impractical. Mesh functionality includes multi-node, multi-link networks as well as simple point-to-point bridging to connect two wired networks. Self-healing ensures continuity of service in the event of a wired or wireless network failure. The self-forming highly resilient, VLAN and WMM QoS-aware mesh technology enables enterprises to wirelessly extend reliable high-performance voice and data services to workers in remote and outdoor locations.

## Enterprise-class manageability and end-to-end security

AP-7131's stateful firewall supports key standards-based security protocols ensuring enterprise-level protection for the wired and wireless network infrastructure, as well as for data in transmission over the wireless LAN. Only authorized users are granted access to your network, protecting your network perimeter and your resources. The powerful feature set enables security to be administered by either local, non-technical staff or remote IT professionals at your headquarters or NOC. The AP-7131 can also function as a Wireless Intrusion Protection System (IPS) sensor, enabling automatic 24x7 monitoring of your wireless network.

## AP7131 Specifications

### 802.11n Draft 2.0 Capabilities

3X3 MIMO with 2 Spatial Streams / 20 MHz and 40 MHz Channels  
300 Mbps Data Rates per Radix / Packet Aggregation (AMSDU, AMPDU)  
Reduced Interframe Spacing / 802.11 DFS

### Physical Characteristics

Dimensions: 13.97 cm L x 20.32 cm W x 2.79 cm H  
Weight: 0.98 kg  
Housing: Metal, plenum-rated housing (UL2043)  
Available Mounting: No additional hardware required to mount  
LEDs: 6 top mounted LEDs, 1 bottom mounted LED, with multiple modes indicating 802.11a/g/n activity, power, Ethernet adoption and errors  
Uplink: 2 ports (GE1, GE2) Auto-sensing 10/100/1000 Base-T Ethernet  
Console Port: RJ45 Console Port

### User Environment

Operating Temperature: -20°C to 50°C  
Storage Temperature: -40°C to 70°C  
Operating Humidity: 5 to 95% RH non-condensing  
Operating Altitude: 8000 ft./2438 m @ 28°C  
Storage Altitude: 15000 ft./4572 m @ 12°C  
Electrostatic Discharge: 15kV air, 8kV contact

### Power Specifications:

Operating Voltage: 38-54V DC  
Operating Current: Not to exceed 600mA @ 48VDC  
Integrated PoE Support: 802.3af, 802.3at (draft)

### Radio Specification

Wireless Medium: Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), and Spatial multiplexing (MIMO)  
Network Standards: 802.11a, 802.11b, 802.11g, 802.3, 802.11n Draft 2.0

## End-to-end solution: from 802.11n network design to everyday support

Motorola provides full life-cycle support for your 802.11n mobility deployment, from network design to day-to-day support. Motorola's RF Management suite provides a comprehensive planning tool that enables the easy creation of a well-designed 802.11n wireless LAN, eliminating the high cost associated with an iterative trial-and-error approach and multiple site surveys. Motorola Professional Services offer expertise to assist with assessment through implementation of your mobility solution. Once your Motorola mobility solution is deployed, our responsive Customer Services keep your solution up and running, with maximum uptime — reducing your total cost of ownership.

## A rapid return on investment (ROI)

You can count on this multi-function multi-purpose device to deliver a rapid return on investment. The AP-7131 can be deployed as a standalone or centrally managed device to provide wireless voice and data services, mesh backhaul and Wireless IPS sensor functionality, all in one device. This built-in flexibility simplifies the mobility architecture. There is less equipment to purchase and manage, reducing capital and operational expenditures.

Data Rates Supported: 802.11g: 1,2,5.5,11,6,9,12,18,24,36,48, and 54Mbps  
802.11a: 6,9,12,18,24,36,48, and 54Mbps  
802.11n: MCS 0-15 up to 300Mbps

Operating Channels: All channels from 4920 MHz to 5825 MHz except channel 52 thru 64  
Chan 1-13 (2412-2472 MHz)  
Chan 14 (2484 MHz) Japan only  
Actual operating frequencies depend on regulatory body

Maximum Available Transmit Power: 20dBm  
Transmit Power Adjustment: 1dB increments  
Antenna Configuration: 3x3 MIMO (transmit and receive on all three antennas)

Operating Bands (EU): 2.412 to 2.472 GHz  
5.150 to 5.250 GHz  
5.150 to 5.350 GHz  
5.470 to 5.725 GHz

### Regulatory

Standards Compliance: Wi-Fi: 802.11a/b/g/n WPA2, WMM, WMM-UAPSD (Planned Q2 2008)  
Product Safety Certifications: UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS  
Radio Approvals: FCC (USA), Industry Canada, CE (Europe) and TELEC (Japan)

*Specifications are subject to change without notice.*

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