WLAN Portfolio

Government and Public Sector Solutions

Motorola wireless LAN infrastructure

Secure, resilient wireless network solutions that are truly wireless inside and out

The Motorola difference

Motorola delivers WLAN solutions designed to enable the truly wireless network providing pervasive and persistent application connectivity at the point of activity. Our portfolio offers resiliency, security, performance equal to or greater than that of a wired network and delivers critical real-time information securely and seamlessly for all areas of government and the public sector.

From design, to flexibility of installation and ease of deployment, to operations, Motorola is the world leader in wireless indoor/outdoor networks, credited with the invention of the first wireless switch and continues to demonstrate its ability to deliver wireless solutions you can depend on.

Our proven, interoperable portfolio includes easy-to-manage wireless switches and access ports, access points with mesh networking designed for indoor and outdoor use, bridges and client adapters which connect adapters which connect to virtually any wireless device, and end-to-end management software.

- **Security that surpasses wired networks.** Our comprehensive suite enables you to deploy the right level of security to meet the needs of your operations. Robust 802.1X authentication, WPA2 (AES encryption), or FIPS 140-2 and Common Criteria ensures that only authorized users can gain access to your network.
- **Intrusion protection.** Our wireless switches are able to detect network attacks and then locate and disassociate wired and wireless unauthorized devices from your network.
- **Network resiliency for always-on availability.** A unified network of clustered wireless switches and indoor adaptive AP mesh networks provide the resiliency required to provide your personnel with a highly reliable, high-performance connection to your systems — even in remote locations.
- **Easily deployed.** Indoor and outdoor mesh capabilities allow for a cable-less installation that substantially reduces network deployment and maintenance costs — even in hard to wire and outdoor areas.
- **Scalability for today and tomorrow.** Regardless of how your needs may grow and evolve, or what new standards may be developed, Motorola wireless LAN infrastructure with dual-core architecture is designed to grow and evolve with you, starting with support of other RF technologies such as RFID and WiMAX.
- **Maximizing performance.** We are the only choice with end-to-end management solutions enabling optimal design planning, security monitoring, and analysis of your wireless network performance, mobile devices and wireless applications.
- **Mobility with a difference.** Our patented features are designed to manage the unique challenges that mobility presents. For example, preemptive roaming and load-balancing work hand-in-hand to ensure outstanding wireless application performance, coupled with the added benefit of 802.11n for faster access to mission critical applications, even while workers are on the move.
- **Superior voice capabilities.** Motorola's wireless architecture is optimized for exceptional quality of service, providing one of the highest levels of seamless voice performance for your business critical communications.
- **Ease of use.** Motorola's wireless products offer one of the industry's best out-of-box experiences, customer-proven to enable rapid deployment and simplified management compared to competitive offerings.

Motorola wireless LAN Solutions are secure, resilient, modular and easily deployable — a perfect solution for Government, Education, and Healthcare.

Wireless in Military Supply Chain

Today's military logistics systems are being transformed into fully integrated supply chains for total asset visibility of critical supplies, and equipment to meet the needs of our troops.

Motorola wireless products are modular, quickly deployable, and provide connectivity through all echelons of command in support of military operations. Wireless local area switches and access points incorporating mandated security profiles offer superb speed and versatility. This is especially effective when combined with Motorola offerings of ruggedized handheld computers, RFID, barcode scanning devices and leveraging a broad ecosystem of partner applications to provide end-to-end solutions.

Mobility Solutions for Critical Healthcare Environments

As wireless broadband connectivity and mobility are revolutionizing the healthcare industry, medical staff is able to deliver better patient care with improved accuracy and achieve higher levels of productivity. A wide variety of tasks are able to be performed right at the point of care.

Wireless broadband connectivity and mobility are revolutionizing the healthcare industry. Medical staff is able to deliver better patient care with improved accuracy and achieve higher levels of productivity with the ability to perform a wide variety of tasks right at the point of care.

Meeting the Challenges of the Modern Campus

Wireless networks are a critical component for today's colleges and universities. Students expect high-speed wireless connectivity and faculty rely on faster, more comprehensive access to educational research, online repositories, and course managements systems. Campus administrators and security personnel face the need to heighten property, personal, and public security.

WLAN can support crucial campus-wide applications including real-time video surveillance, asset management, and ubiquitous connectivity in lecture halls, libraries, dorms, student unions, parking lots and more.

Wireless Local Area Networks provide secure access and connectivity at the point of activity. Whether or not you currently have a fast T1 or T3 connection, a WLAN can help you minimize telecom fees while providing all the benefits of high-speed internet access.

Seamless Mobility for Government

Today's mobile workforce needs access to information throughout buildings, between locations and for secure reliable data communications between employees. Wi-Fi connectivity is now an integral part of modern government operations. Wi-Fi unshackles employees from their desktop, whether they are attending a meeting down the hall or at a remote location.

Government IT operations can feel confident that wireless technologies now match or exceed the performance of wired networks – at a significantly lower cost and a significantly higher ease of installation and management. Motorola WLAN solutions provide the best value (TCO/ROI) for wireless government with high reliability and security, indoors or out.

Top photo courtesy of the US Marines.
Lance Cpl. Ryan Wicks – 2008.

WLAN access points allow wireless tracking of supplies and "in the box" visibility.

WLAN helps nurses to administer medication more quickly and accurately.

WLAN networks connect students, faculty, and security throughout the campus.

Secure WLAN networks help provide seamless mobility for employees.

RFS7000-GR RF Switch

GCN BEST OF FOSE 2008 WINNER

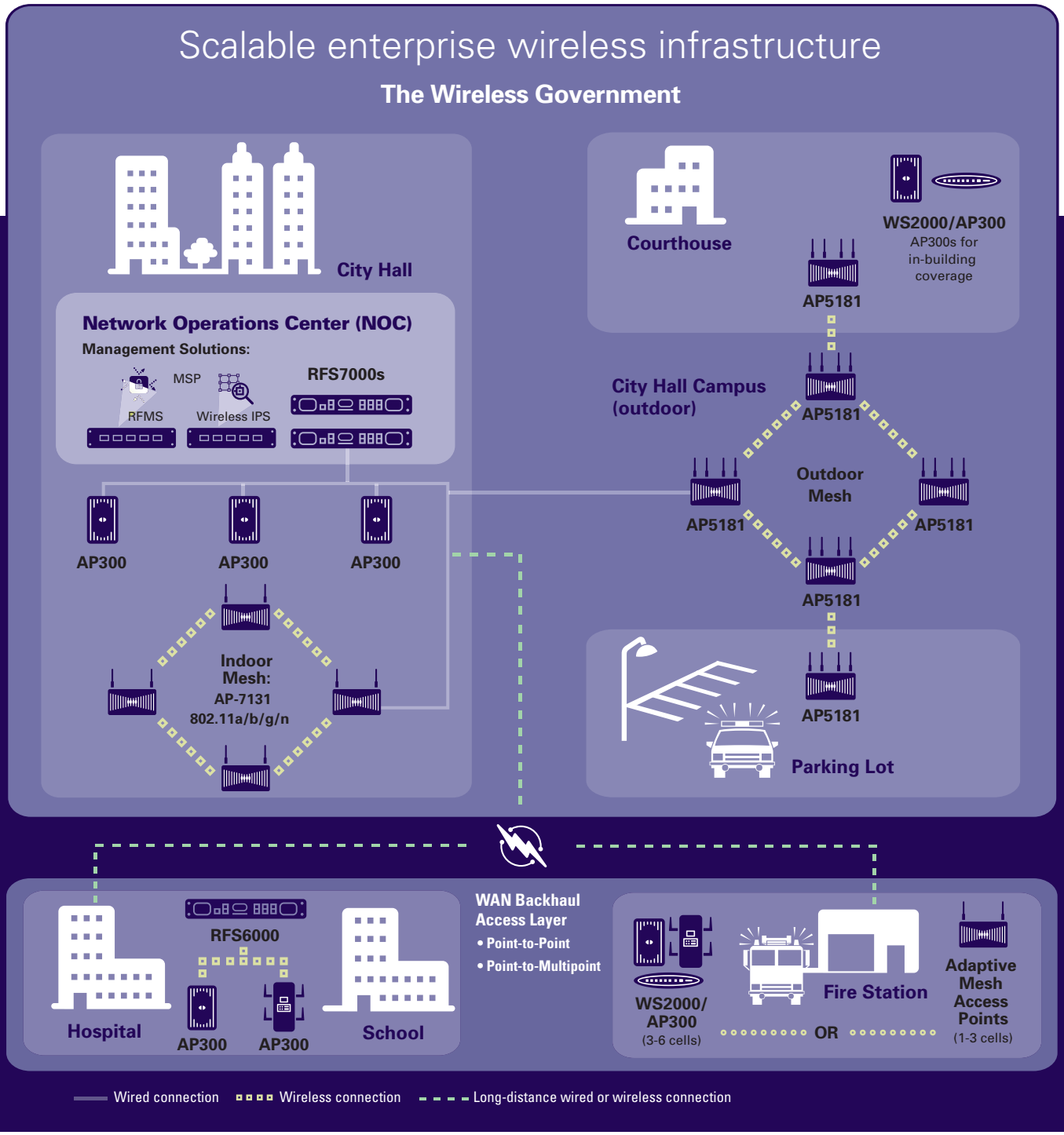
"We felt it pointed in the direction enterprise computing is headed: toward wireless local-area networking. The wireless switch advances an entire technology"

Government Computer News – Best of FOSE Judge

RFS7000-GR with FIPS 140-2 Level 2 and Common Criteria Evaluation Assurance Level 4 (EAL4) Certified wins the 2008 Best of FOSE in the Networking Category and Best of Show, recognizing the best overall product.

Scalable enterprise wireless infrastructure

The Wireless Government



Motorola's family of enterprise WLAN infrastructure easily scales to meet the needs of any government entity. Extend cost-effective wireless voice and data throughout your literal and virtual environment with this diverse portfolio — from large enterprise environments to mid-size and smaller remote sites.

Motorola's wireless LAN portfolio

Wireless Switches




	RFS7000-GR RF Switch	RFS7000 RF Switch	RFS6000	WS2000 Wireless Switch
Description	Designed for large, scale government organizations with stringent security requirements. • 802.11i Standards Compliant • FIPS 140-2 Level 2 Certified • DOD Directive 8100.2 Compliant • Common Criteria (CC) Evaluation Assurance Level 4 (EAL4) Certified • Certified with US Government Wireless Local Area Network (WLAN) Access System Protection Profile for Basic Robustness Environments	Designed for large scale, high bandwidth deployments, the RFS7000 provides robust, highly scalable support for seamless mobility, offering enhanced roaming, security, quality of service and management features.	The RFS6000, designed for medium to large deployments, provides an integrated wireless LAN communication platform that enables the delivery of highly secure mobile voice and data services inside and outside the four walls.	The WS2000 Wireless Switch offers an easy to manage network-in-a-box solution for small facilities and remote sites, including an integrated router, gateway, firewall, and Power-over- Ethernet (PoE).
General Characteristics	• 802.11a/b/g • Wi-NG architecture • AP300 Supported • Supports up to 256 802.11a/b/g access ports • Supports up to 256 WLANs • Supports up to 8000 devices per switch • Packet filtering: L2/3/4 Stateful Packet Analysis; Network Address Translation • Hotspot capable • Redundancy – Active: Standby; Clustering provides Active:Active; one-to-many availability • PCI Compliant out-of-the-box	• 802.11a/b/g • Wi-NG architecture • Adaptive AP support (enables adoption of Motorola Adaptive AP Access Points) • Supports up to 256 802.11a/b/g access ports • Supports up to 256 WLANs • Supports up to 8000 devices per switch • Packet filtering: L2/3/4 Stateful Packet Analysis; Network Address Translation • Hotspot capable • Redundancy – Active: Standby; Clustering provides Active:Active; one-to-many availability • PCI Compliant out-of-the-box	• 802.11a/b/g/n • Multicore multithreaded architecture • Adaptive AP support (enables adoption of Motorola Adaptive AP Access Points) • ExpressCard(TM) slot for redundant broadband wireless connection • Supports up to 48 802.11a/b/g dual radio access ports • Supports up to 32 WLANs • Supports up to 2,000 mobile devices • Packet filtering: L2/3/4 Stateful Packet Analysis; Network Address Translation • Hotspot capable • Redundancy – Active: Standby; Clustering provides Active:Active; one-to-many availability • PCI Compliant out-of-the-box	• 802.11a/b/g • Supports up to 6 802.11a/b/g access ports • Supports up to 8 WLANs • Supports up to 200 mobile devices • Packet filtering: L2/3/4 Stateful Packet Analysis; Network Address Translation • Hotspot capable • Redundancy – Active: Standby • PCI compliant out-of-the-box
Authentication Mechanisms	Access Control Lists (ACLS); pre-shared keys (PSK); 802.1x/EAP— transport layer security (TLS), tunneled transport layer security (TTLS), protected EAP (PEAP) The following are available in FIPS only mode but not CC: Integrated AAA/RADIUS Server with native support for EAP-TTLS, EAP-PEAP (includes a built in user name/password database; supports LDAP), and EAP-SIM	Access Control Lists (ACLS); pre-shared keys (PSK); 802.1x/EAP— transport layer security (TLS), tunneled transport layer security (TTLS), protected EAP (PEAP); Kerberos Integrated AAA/RADIUS Server with native support for EAP-TTLS, EAP-PEAP (includes a built in user name/password database; supports LDAP), and EAP-SIM	Access Control Lists (ACLS); pre-shared keys (PSK); 802.1x/EAP— transport layer security (TLS), tunneled transport layer security (TTLS), protected EAP (PEAP); Kerberos Integrated AAA/RADIUS Server with native support for EAP-TTLS, EAP-PEAP (includes a built in user name/password database; supports LDAP), and EAP-SIM	Access Control Lists (ACLs); Pre-Shared Keys (PSK); 802.1x/EAP — Transport Layer Security (TLS), Tunneled Transport Layer Security (TTLS), Protected EAP (PEAP); Kerberos; Integrated AAA server with native support for PEAP and TTLS; Supports LDAP
Encryption Mechanisms	• WPA2-CCMP (AES)	• WEP 40M28 (RC4) • KeyGuard • WPA-TKIP • WPA2-CCMP (AES) • WPA2 TKIP	• WEP 40M28 (RC4) • KeyGuard • WPA-TKIP • WPA2-CCMP (AES) • WPA2 TKIP	• WEP 40M28 (RC4) • KeyGuard • WPA-TKIP • WPA2-CCMP (AES); WPA2 TKIP
Transport Encryption	WPA2-CCMP (AES)	WEP 40/128 (RC4), KeyGuard, WPA-TKIP, WPA2-CCMP (AES), WPA2-TKIP	WEP 40/128 (RC4), KeyGuard, WPA-TKIP, WPA2CCMP (AES), WPA2-TKIP	WEP 40/128 (RC4), KeyGuard, WPA-TKIP, AES-CCMP; (802.11i WPA2)
IPSec VPN Gateway	Supports 3DES and AES encryption	Supports DES, 3DES and AES encryption	Supports DES, 3DES and AES-128 and AES-256 encryption; supports site-to-site and client-to-site VPN capabilities	
Wireless Radius Support	• User-based VLANs (standard) • MAC-based authentication (standard) • User-based QoS (Motorola VSA) • Location-based authentication (Motorola VSA) • Allowed ESSIDs (Symbol VSA)	• User-based VLANs (standard) • MAC-based authentication (standard) • User-based QoS (Motorola VSA) • Location-based authentication (Motorola VSA) • Allowed ESSIDs (Symbol VSA)	• User-based VLANs (standard) • MAC-based authentication (standard) • User-based QoS (Motorola VSA) • Location-based authentication (Motorola VSA) • Allowed ESSIDs (Symbol VSA)	
NAC support		NAC support with third party systems from Microsoft and Symantec	NAC support with third party systems from Microsoft and Symantec	
Optimized Wireless QoS	• Voice prioritization • Wireless bandwidth management • WMM • SpectraLink Voice Prioritization	• Voice prioritization • Wireless bandwidth management • WMM • SpectraLink Voice Prioritization	• Voice prioritization • Wireless bandwidth management • WMM • SpectraLink Voice Prioritization	• Voice prioritization • Wireless bandwidth management • WMM • SpectraLink Voice Prioritization
Warranty	Hardware – 1 year; Software – 90 days	Hardware – 1 year; Software – 90 days	Hardware – 1 year; Software – 90 days	Hardware – 1 year; Software – 90 days
Recommended Services	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support

Access Ports and Points




	AP-5131 Access Point	AP-5181 Access Point	AP-7131 Access Point
Description	Enterprise-class wired and wireless networking for small footprint deployments and mesh networking for cost-effective extension of the corporate network in difficult-to-cable areas.	Specifically designed for outdoor use, Motorola's AP-5181 delivers enterprise-class wireless networking in harsh environments. Support of mesh networking enables rapid and inexpensive deployment in difficult-to-cable areas	An industry first, the AP-7131 802.11a/b/g/n tri-radio Access Point offers the throughput, coverage and resiliency required to replace the wired network, enabling the truly wireless enterprise.
General Specifications	• 802.11a/b/g; DSSS and ODFM • 802.3af Power-over-Ethernet (PoE) • Mesh networking • Adaptive AP support (enables adoption of Motorola Adaptive AP Access Points) • Plenum-rated housing • Up to 127 devices supported • -4°F to 122°F/-20°C to 50°C • Desktop; wall; above drop and under-ceiling • Hotspot capable • PCI Compliant out-of-the-box	• 802.11a/b/g; DSSS and ODFM • 802.3af Power-over-Ethernet (PoE) • Mesh networking • Adaptive AP support (enables adoption of Motorola Adaptive AP Access Points) • Plenum-rated housing; IP56; NEMA 4X • Up to 127 devices supported • -22°F to 131°F/-30°C to 55°C • Wall; pole • Hotspot capable • PCI Compliant out-of-the-box	• 802.11a/b/g/n; DSSS and ODFM • 802.3af and 802.3at draft Power over Ethernet (PoE)) • Mesh networking • Adaptive AP support (enables adoption of Motorola Adaptive AP Access Points) • Plenum-rated housing • -4°F to 122°F/-20°C to 50°C • Desktop; wall; above drop and under-ceiling • Hotspot capable • PCI Compliant out-of-the-box
Security	• 802.11i • WPA2 • WPA • 3DES IP Sec encryption • VPN Client • AAA server • Integrated firewall • DHCP server • Rogue AP detection	• 802.11i • WPA2 • WPA • 3DES IP Sec encryption • VPN Client • AAA server • Integrated firewall • DHCP server • Rogue AP detection	• 802.11i • WPA2 • WPA • 3DES IP Sec encryption • VPN Client • AAA server • Integrated firewall • DHCP server • Rogue AP detection
Optimized Wireless QoS	• Voice prioritization • WMM • QoS	• Voice prioritization • WMM • QoS	• Voice prioritization • WMM • QoS
Accessories	802.3af power injector	Heavy weather mounting kit; surge-protector power tap kit; outdoor dual-band antennas	
Warranty	Hardware — 1 year Software — 90 days	Hardware — 1 year Software — 90 days	Hardware — 1 year Software — 90 days
Recommended Services	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support

	AP300 (Internal and External Antenna Models)
Description	Two models offer greater mounting flexibility. Internal antenna model can be mounted anywhere inside the carpeted space; the external antenna model can be mounted above ceiling tiles.
WLAN	802.11a/b/g and 802.11b/g options
POE	802.3af
Housing	Plenum-rated (external antenna version only)
Operating Temperature	Internal antenna model: 32°F to 104°F/0°C to 40°C External antenna model: 4°F to 122°F/-20°C to 50°C
Wireless Medium	DSSS and ODFM
Security	• 802.11i • WPA2 • WPA • 3DES IP Sec Encryption
Mounting	Internal model: Wall; ceiling (to suspended ceiling T-bars below tile only) External model: Wall; ceiling (above or below tile)
Warranty	Hardware — 1 year Software — 90 days
Recommended Services	• Service from the Start Advance Exchange Support

Motorola's complete portfolio of wireless LAN infrastructure is built on an integrated upgradeable platform, allowing you to securely and seamlessly extend wireless networking throughout locations — with ease of integration and manageability.

Bridges and Client Adapters

	CB3000	LA-5127/LA-5137
Description	The CB3000 provides robust, enterprise-class wireless connectivity for Ethernet-enabled devices such as printers, scales and point-of-sale equipment without card slots or native wireless capabilities.	Optimized for embedded mobile applications, these CompactFlash cards deliver the power of wireless connectivity to enterprise devices and industrial equipment.
WLAN	• 802.11a/b/g	• LA-5127: 802.11b/g • LA-5137: 802.11a/b/g
Security	• WEP 40/128 • WPA and AES encryption • 802.1x support with PEAP • EAP/TLA • EAP/TTLS authentication	• WEP • WPA/WPA2 • EAP-TLS • EAP-TLS/MSCHAPv2 • PEAPv0/EAP-MSCHAPv2 • PEAPv1/EAP-GTC • EAP-SIM (802.1x)
Features	• Work group bridge with support for up to 16 client devices • Ad hoc mode (CB3000 to CB3000) for easy sharing of printers and other peripherals • Embedded secure web server for anywhere, anytime management • SNMP v2 support for easy integration with standard management systems	• Robust security for Linux and Windows applications • CompactFlash type I/II form factor with 16-bit PC card interface • Upgradable hard MAC with on-card memory • Comprehensive software development kit for OEM products • Worldwide regulatory approval backed by Motorola service and support
Warranty	Hardware –1 year; Software – 90 days	Hardware –1 year; Software – OEM Development Agreement
Recommended Services	• Service from the Start Advance Exchange Support • Wireless Infrastructure Device Software Support	• Service from the Start — Bronze

Power-over-Ethernet

	802.3af Single Port Power Injector
Description	Delivers power to individual Motorola access ports and access points via standard Ethernet cabling, simplifying installation and eliminating the need — and associated expense — for cabling and power outlets.
Features	• Cost-effective power solution for small site deployments • Supports AP300 Access Ports, AP-5131 and AP-5181 Access Ports • Provides effective independent overload and short circuit protection per port • Sleek interlocking housing provides ability to affix multiple devices in an organized fashion • Desktop or wall mount • AC and Ethernet 10/100 ports • Operating temperature: 32°F to 104°F/0°C to 40°C
Warranty	1 year
Recommended Services	Service from the Start Advance Exchange Support

Motorola RF Management Suite

Motorola's RF Management Suite is a powerful set of integrated applications that enables administrators to easily execute end-to-end design and management of wireless LANs — pre- and post-deployment.

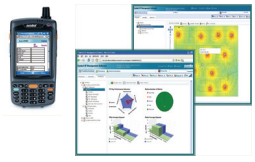
Motorola LANPlanner®

Rapid and accurate design of high performance wireless networks. Ensure that your wireless LAN is designed to deliver maximum performance and value with Motorola LANPlanner — regardless of whether you are adding a new wireless LAN, expanding an existing wireless network or need to plan for the impact of new wireless applications. This comprehensive tool enables the design and deployment of wireless networks that meet the specific capacity, reliability and performance requirements in your environment. The ability to predict and visualize the impact of construction materials, network usage and the potential impact of co-channel interference enables the rapid design of wireless networks that provide superb wireless performance, exceptional quality of service (QoS) — and superior total cost of ownership (TCO). And post deployment reporting enables validation that the network is performing to expectations.

Wireless Intrusion Protection System (IPS)

Around the clock security monitoring. Proactively protect your wireless network, mobile devices and traffic from attacks and unauthorized access. With built-in forensic support and industry standard reports for PCI, HIPAA, Sarbanes-Oxley, GLBA, FDIC and DOD, Motorola's Wireless Intrusion Protection System (IPS) provides powerful tools for standards compliance, as well as around-the-clock 802.11a/b/g wireless network security in a distributed environment. It allows administrators to identify and accurately locate attacks, rogue devices, and network vulnerabilities in real time and permits both wired and wireless lockdown of wireless device connections.

RF Management Software (RFMS)



Plan, monitor and analyze wireless network performance. Motorola's RF Management Software is a scalable, browser-based tool for Wi-Fi site monitoring and troubleshooting. Providing AutoCAD support through LANPlanner, it also displays RF heat maps and channel maps; suggests probable causes for suspicious statistics and allows users to generate reports and export data easily. Administrators can see the status and location of wireless infrastructure devices and clients, identify and locate rogue APs, and view a single dashboard of key statistics such as RF coverage, load balancing, security threat level and network utilization across all locations, and administrators can use mobile devices to check for service interruptions and security threats.

MSP RF Management Edition Software®

Management of your entire enterprise mobility solution. MSP RF Management Edition provides comprehensive RF management for Motorola Enterprise Wireless LAN infrastructure devices. Scalable up to 2,000 AP's, this solution is a "Manager of Managers", handling multiple Wireless Intrusion Protection System (IPS) servers, displaying alarms in the shared console and providing administrators with visibility into the network at both the NOC and the site level. Used with Motorola's suite of network planning, monitoring and analysis, security and management tools, it incorporates Motorola's RF Management Software to enable site level management, displaying heat maps and channel maps.

As an acknowledged leader in integrating wireless technologies, Motorola offers nearly 80 years of exceptional expertise in designing, deploying and managing wireless networks around the world. Our solutions are empowering stronger, more effective networks for a broad range of customers, including government and public sectors.

The Motorola Wireless Broadband Portfolio

WLAN is part of Motorola's comprehensive end-to-end portfolio of Wireless Broadband solutions and services that extend indoors and out. These solutions provide high speed connectivity that helps to enable greater situational awareness, improved response and seamless connectivity to critical voice, data, and video applications. The Wireless Broadband portfolio includes outdoor solutions like Fixed PTP, Fixed PTMP, MOTOMESH™; indoor solutions such as Broadband over Power Line and WLAN; and end-to-end management solutions.

Our solutions help create, complement and complete broadband coverage with high performance networks that are secure, fast, scalable, and easy to deploy. These solutions allow our customers to help improve decision making, transform operations and increase efficiency.

MOTOROLA

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Part number: RC-99-2172
Printed in USA 04/08.