



# LA-5127

Wireless radio card for embedded mobile applications



## FEATURES

### WPA2 and 802.1x compatible

Provides robust standards-based security for Linux and Windows applications

### Pre-emptive roaming

Optimized network availability, improved wireless link reliability and enhanced mobility

### Dynamic load balancing

Increased throughput in cluttered, real-world environments

### Power management

Extended operation time on-station between charges

### Limited modular worldwide regulatory approval backed by Motorola service/support

Potentially accelerates time-to-market, reducing product development time and cost

## Build secure enterprise mobility into your portable devices

Optimized for embedded mobile applications, the LA-5127 Wireless Networker™ CompactFlash® radio card delivers the power of 802.11b/g wireless connectivity to application-specific enterprise, retail, medical and industrial devices and equipment. It offers the robust security such applications require, as well as low-power modes for longer battery life and load balancing to maximize bandwidth.

The card is built with a worldwide radio chipset, and OEM end-product development is backed by Motorola's strong pre- and post-sales support. It comes with a complete software development kit, including API and drivers for Linux and Windows CE, which can be customized and ported to proprietary operating systems. Quite simply, the LA-5127 is designed for enterprise mobility with the OEM customer in mind.

## Enterprise-class security on enterprise WLANs

Provide robust security in your wireless handheld and portable enterprise devices with the LA-5127 radio card. Advanced encryption and authentication features offer the data security for Linux and Windows applications required by standards such as HIPAA and Visa CISP, making the card ideal for use in medical and retail settings, or anyplace security is essential.

Wi-Fi CERTIFIED®, the LA-5127 is compatible with any Wi-Fi certified 802.11b/g wireless LAN, so you can be confident that products using the LA-5127 will work with the LANs most often found in enterprise, medical, retail and industrial environments.

## Designed for mobility

The LA-5127's high performance mobility features include exceptional throughput using dynamic load balancing for reduced latency and increased bandwidth; low-power modes to preserve battery life and pre-emptive roaming to allow users to transparently move anywhere within the secure wireless network. The unique self-hosted card architecture also reduces the host device's workload and maximizes power savings while maintaining authenticated connectivity.

Its mobility features combined with its small footprint allow OEM customers to design truly mobile enterprise devices.

## Accelerate time-to-market—now and in the future

Available uniquely to the OEM market, the LA-5127 comes with a comprehensive development kit and API. Your developers can easily customize and port the API and drivers for Linux and Windows CE to proprietary operating systems, and Motorola's OEM

## SPECIFICATION SHEET

LA-5127

Wireless radio card for embedded mobile applications

### Comprehensive software development kit

Provides the tools for customizing the LA-5127 for embedded mobile applications

### Design support and technical service

Enables custom solutions optimized for each OEM

### Hard MAC with on-card memory

Easily upgradeable with substantial memory for future features and functions

### Common code-base radio platform

Leverages end-product driver development and regulatory efforts; accelerates product migration path

support team can work directly with your designers. Motorola can help you leverage the LA-5127's regulatory approvals by providing software to facilitate regulatory testing, uploading Motorola-proprietary information to labs and regulatory bodies and, in some cases, even using your antennas as part of our regulatory certifications.

The LA-5127 is based on a worldwide radio chipset, backed by multi-tiered pre- and post-design support. Motorola's extensive regulatory and compliance process provides a limited modular approval with the card, which can significantly reduce regulatory

and compliance testing requirements for the end-product. In some cases, end-products attain certification compliance by simply referencing the LA-5127—without additional testing.

The card's hard MAC with on-board memory makes it easily upgradeable, with substantial memory for future features and functions, and the LA-5127 is the first of a family of Motorola wireless radios to be built on a common code base for ease of future product migration. This means you can leverage today's driver development efforts for future adoption of new features and additional radio bands.

## LA-5127 specifications

Physical Characteristics:	Type I/II CF card (extended) Connectorized/external antenna: 1.69 in. W x 2.18 in L x .13 in. H 42.8 mm W x 55.4 mm L x 3.3 mm H Internal antenna: 1.69 in. W x 2.18 in L x .23 in. H 42.8 mm W x 55.4 mm L x 5.9 mm H 50-pin CF card connector
Operating Environment:	+32° to 131° F/0° to 55°C; Up to 95% relative humidity, non-condensing
Conducted Power:	15dBm typical (not including antenna gain, varies with data rate)
Input Voltage:	3.3V ± 5%
Input Current (typical):	Transmit: 500ma; Receive: 280ma; In-rush: 165ma; Standby/idle: 17ma
System Operational Modes:	Continuous power mode (297mA for 20% Tx duty cycle); fast power-save mode; maximum power-save mode
Network Standard Compatibility:	802.11b — 2.4GHz band, 5.5Mbit/s and 11Mbit/s physical RF spec. 802.11g — 2.4GHz band, 54Mbit/s physical RF spec. 802.11d — international country-to-country roaming 802.11i — enhanced security, Wi-Fi Protected Access (WPA2) with AES
Frequency Range:	2.4 to 2.5GHz
Operating Channels:	11 (U.S. FCC); 13 (EU ETSI); 14 (Japan)

Modulation Type:	CCK, DBPSK, DQPSK, QPSK, OFDM (16 and 64QAM)
Data Rate:	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and up to 54Mbps
Range:	300 feet (typical, office environment)
Wireless Security:	WEP: 64/128 bit with AES; WPA/WPA2 personal and enterprise; Advanced encryption standard (AES)
Antenna:	Two coaxial antenna connectors (Hirose U.FL-R-SMT, or equivalent) Two-antenna diversity
System Interface:	Mechanical: 50-pin CF card connector Electrical: 16-bit PC Card
Operating Systems	Linux 2.4 and Windows CE 5.0
Wi-Fi CERTIFIED® Interoperability:	WPA/WPA2 Personal; WPA/WPA2 Enterprise; EAP-TLS; EAP-TLS/MSCHAPv2; PEAPv0/EAP-MSCHAPv2; PEAPv1/EAP-GTC; EAP-SIM
Electrical Safety:	Certified to UL/cUL 60950-1, IEC/EN60950-1
RF Compliance	USA: FCC Part 15.247; CANADA: RSS-210; EUROPEAN UNION: EN 300 328; JAPAN: ARIB STD-T33, ARIB STD-T66; AUSTRALIA: AS/NZS 4268
EMI/EMS:	North America: FCC Part 15; Canada: ICES 003 Class B; EU: EN55022 Class B, EN 301 489-1, EN 310 489-17, EN 60601-1-2; Australia: AS/NZS CISPR 22

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).



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