



# Spectrum24°

IEEE 802.11, FREQUENCY HOPPING, 2 Mbps WIRELESS LAN

## IEEE 802.11 Connectivity for High Performance Wireless Mobile Computing Solutions

Providing mobility and extended networking throughout your enterprise is quick and easy with the Spectrum24 LA 3021 PC Card. Simply insert the IEEE 802.11 LA 3021 wireless network interface card into any laptop or other device with a PC card slot and users are enabled with high-throughput connectivity for wireless data communications, gaining full mobility while staying connected to the wired LAN. Based on frequency hopping spread spectrum technology, the 2 Mbps LA 3021 PC Card supports high data throughput at ranges of up to 2,000 ft./606 m.

The LA 3021's support for the ITU H.323 standard also provides voice-over-IP communications for applications such as Microsoft® NetMeeting® running on voice-enabled devices



including many laptop and desktop computers. Devices equipped with the LA 3021, along with other Spectrum24-compatible hand-held and fixed-mount computers, communicate with the Spectrum24 AP 3021 Access Point which serves as the connectivity point to your wired network. Wherever associates are located, from sales floors to manufacturing areas, the LA 3021 provides fast access to vital information.

Continued on back

Features	Benefits
Frequency Hopping Spread Spectrum (FHSS) Transmission	FHSS provides increased capacity, superior interference immunity, high-design throughput and multi-path rejection for continuous, real-time data transfer
Support for Mobile IP	Enables seamless roaming between network segments
Very low power consumption	Extended battery life
Fast software upgrade via FLASH memory	Simplified PC card update and maintenance
Supports all popular network operating systems	Reduce programming time and enable fast integration with enterprise systems
Wired Equivalent Privacy (WEP) encryption and decryption	Powerful data security at 64 bits
One-piece PC card design	Provides durable and rugged wireless capability
Ridged or external antenna	Can be adapted to meet site conditions
Standards: Commitment to open standards at every hardware and software interface including IEEE 802.11, HTML user interface, ITU H.323 voice-over-IP, NIC utilities	Bridges communication paths between wired and wireless network segments
	Uses diverse application tools In the same wireless LAN environment
	Supports technology that's already installed; integrates seamlessly with existing systems
	Ensures interoperability with wireless LAN devices from other vendors
	Protects your investment by ensuring migration path
	Enables converged voice and data on one wireless LAN
2.4 to 2.5 GHz Band	Worldwide acceptance is ideal for multinational users
2 Mbps Data Rate	Quick data transfer suitable for voice-over-IP and data applications
Scalable	Adding an access point expands coverage and capacity to meet your needs
Computing Devices with Wireless PC Cards	A complete line of Symbol-designed-and-manufactured Spectrum24-compatible terminals meets your application needs
Complete SymbolCare <sup>SM</sup> Service and support	Count on Symbol to help you specify, configure, install and support your wireless LAN

### **Easy Setup and Maintenance**

The LA 3021 PC Card provides a low-maintenance connectivity option for active mobile users. Its power management capabilities help to ensure a very low rate of power consumption, extending the battery life of mobile devices. Industry-standard ODI and NDIS drivers reduce programming time, as well as provide full documentation for fast configuration.

## **Easy Administration and Network Management**

Client devices using the LA 3021 PC Card are administered using a number of quick installation, maintenance, and upgrade management tools. In addition, you can manage your entire WLAN installation using Symbol's SpectrumSoft™ suite of tools, including software for monitoring and controlling network activity and performance. SpectrumSoft offers Web-based tools for fast application development, and supports three-tier client/server architecture for Internet- and intranet-based thin-client connection to your servers and host systems.

#### **Extending Information Wirelessly**

With more than 70,000 wireless LAN sites installed, Symbol's global wireless industry leadership is founded on a comprehensive range of innovative technologies and knowledgeable services. Spectrum24 brings you a unique combination of benefits that enable your organization's end-to-end mobile computing strategy and optimizes the capture, computing and communication of data crucial to business decision-making and success.

# **Spectrum24 Wireless LAN Specifications**

Radio Characteristics	
Frequency Range:	Worldwide product covering 2.4 to 2.5 GHz, programmable for different country regulations
Frequency Hopping:	Number of hops: 79 in U.S. and Europe (35 in France and 27 in Spain); 23 in Japan; programmable to meet regulations of all other countries. Hopping rate: 10 hops/sec. Hopping sequences: 66
Data Rate:	2 Mbps per channel with Dynamic Rate Scaling to 1 Mbps for extended range
Output Power:	500 mW and 100 mW versions available
Power Management:	Power Consumption: Continuous Aware Mode Power Saving Mode: Sleep Mode: 3 mA Receive: 500 mW = 375 mA, 100 mW = 375 mA both @ 5 V Transmit: 500 mW = 500-675 mA, 100 mW = 450-600 mA both @ 5 V
Range:`	Up to 2,000 ft./606 m in open environments; up to 250 ft./75.5 m in a typical office or retail space
TX Maximum Radiated EIRP:	FCC regulations part 15.247 in U.S.; ETS 300 328 in Europe; RCR STD-33 in Japan
Modulation:	Binary GFSK, and 4GFSK for 2 Mbps
TX Out-of-Band Emissions:	FCC regulations part 15.247, 15.205, 15.209 in U.S.; ETS 300 328 in Europe; RCR STD-33 in Japan
Operating Temperature:	32° to 120°F/0° to 50°C
Storage Temperature:	-5° to 140°F/-20° to 60°C
Network Characteristics	
Driver Software Support:	Microsoft Windows 95/98, Windows NT 4.0, 3.51, Windows CE 2.0, 2.11, future Windows 2000; ODI Version 1.6, future enhancements to version 4.0: NDIS version 2.01, future enhancement to version 3.0
Access Protocol:	CSMA/CA
Roaming:	2 Mbps per channel with Dynamic Rate Scaling to 1 Mbps for extended range; virtually instantaneous



Specifications are subject to change without notice.

All product and company names are trademarks, service marks or registered trademarks of their respective owners.

Symbol\*

Business Partner



Part No. JM Printed in USA 12/00 ©2000 Symbol Technologies, Inc. Symbol is an ISO 9001 and ISO 9002 UKAS, RVC, and RAB Registered company, as scope definitions apply.

For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Business Partner.

Corporate Headquarters
Symbol Technologies, Inc.

One Symbol Plaza, Holtsville, NY 11742-1300 TEL: 1-800-722-6234/1-631-738-2400 FAX: 1-631-738-5990

For Asia Pacific Area Symbol Technologies Asia, Inc. (Singapore Branch) Asia Pacific Division 230 Victoria Street #04-05 Bugis Junction Office Tower Singapore 188024

Singapore 188024 TEL: 65-337-6588 FAX: 65-337-6488

For Europe, Middle East and Africa Symbol Technologies EMEA Division Symbol Place, Winnersh Triangle Berkshire, England RG41 5TP TEL: 44-118-9457000 FAX: 44-118-9457500 For North America, Latin America and Canada Symbol Technologies The Americas

The Americas
One Symbol Plaza
Holtsville, NY 11742-1300
TEL: 1-800-722-6234/1-631-738-2400
FAX: 1-631-738-5990

Symbol World Wide Web Internet Site

For a complete list of Symbol subsidiaries and Business Partners worldwide contact us at: http://www.symbol.com E-mail: webmaster@symbol.com

