# AP 3021 Ethernet Access Point

## <del>symb</del>ol

### Spectrum24<sup>e</sup>

IEEE 802.11, FREQUENCY HOPPING, 2 Mbps WIRELESS LAN

#### IEEE 802.11 Seamless, Wireless Connection Between Wired Ethernet LANs and Mobile Clients

Symbol's Spectrum24 AP 3021 Ethernet Access Points strategically placed in your facility create a seamless, wireless extension of your network, providing mobile workers with immediate access to mission-critical information and enabling real-time communications throughout the enterprise. Designed for high levels of speed, the AP 3021 provides a fast 2 Mbps network link with any number of devices equipped with Spectrum24 Wireless LAN PC adapter, radio or ISA cards.

The AP 3021 is designed to IEEE 802.11 standards for wireless local area networks (WLAN) and is based on frequency hopping spread spectrum (FHSS) technology for secure, reliable data and voice communications at ranges of up to 2,000 ft./606 m. Each access point supports up to 256 clients. Advanced mobile IP features allow Spectrum24 clients to roam freely about the facility while remaining connected to any standards-based LAN system.



Other features of the award-winning AP 3021 include:

- ▶ Enhanced, built-in diagnostics
- ▶ MAC layer bridge based on the IEEE 802.11 to Ethernet standard
- ▶ Powerful data encryption and decryption based on the IEEE 802.11 Wired Equivalent Privacy standard
- ▶ UTP fiber and COAX connectivity options
- ▶ Simple Network Management Protocol
- ▶ Mobile IP support
- ▶ Wireless bridge support

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Features	Benefits
Frequency Hopping Spread Spectrum (FHSS) transmission up to 2 Mbps	Robust, reliable radio frequency transmission technology
Operation within the ISM 2.4 to 2.5 GHz Band	Worldwide acceptance is ideal for multinational users
Automatic data rate selection of 1 or 2 Mbps	Optimized range and throughput
Support for Mobile IP	Seamless roaming between network segments
Software upgrade via FLASH memory	Fast and easy access point maintenance and upgrades
Network management, configuration, and diagnostic tools	Straightforward administration of your wireless network
SNMP compliant	Allows integration with popular enterprise network management systems such as Tivoli, CA Unicenter TNG, and HP OpenView
Wired Equivalent Privacy (WEP) encryption and decryption	Powerful data security at 64 bits
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
Scalable	Adding an access point expands coverage and capacity to meet your needs
Computing devices with Wireless PC Card	A complete line of Symbol-designed-and-manufactured Spectrum24-compatible terminals to meet 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

#### **Maximum Connectivity to Support Mobile Workers**

The AP 3021 boosts productivity and communications by providing real-time network access to PC-compatible laptop and desktop computers, hand-held computers, Symbol's portable terminals with integrated scanners and voice-over-IP NetVision® Phone and Data Phone network appliances.

Wherever associates are located, from sales floors to manufacturing areas, the AP 3021 provides fast access to information and to each other. And when your coverage and range needs grow, your Spectrum24 Wireless LAN can be expanded simply by adding more access points.

#### **Easy Administration and Network Management**

The AP 3021 is administered using a number of bundled management tools for quick install, maintenance, and upgrade. 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. The AP 3021 supports full backward compatibility to existing Spectrum24 IEEE 802.11 products such as the AP 2410, LA 24XX, and EB 24XX series.

#### **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**

Frequency Range:	Worldwide product covering 2.4 to 2.5 GHz,
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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: 100 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 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 130°F/0° to 55°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, 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



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