

AP 41X1 Ethernet Access Point



Spectrum24® High Rate

IEEE 802.11b, DIRECT SEQUENCE,
11 Mbps WIRELESS LAN

802.11b Ethernet-Speed Wireless Bridge Between Wired LANs and Computing Devices

Symbol Technologies' Spectrum24 (HR) AP 41X1 Ethernet Access Point series provides wireless network connectivity for organizations seeking high-speed, high-throughput capabilities. Designed to the IEEE 802.11b open standard, the 11 Mbps AP 41X1 connects your wired LAN to any number of devices equipped with Spectrum24 HR Wireless LAN PC Cards, mobile computing devices with Spectrum24 HR radio cards, or Spectrum24 HR PCI cards (for desktop systems). Two antenna options are available: integrated diversity antenna or the high-gain external directional model. The 41X1 provides coverage



up to 300 ft./90 m indoors and 1500 ft./450 m outdoors, and supports up to 256 clients as well as Simple Network Management Protocol (SNMP).

Strategically placed throughout the enterprise, the AP 41X1 enables portable computing, giving today's fast-paced workforce

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Features	Benefits
11 Mbps direct sequence (DS) high data rate transmission	Supports bandwidth-demanding applications
IEEE 802.11b compliant	Fully interoperable wireless networking based on the high rate standard
Mobile IP function	Enables multiple users to roam across routers/subnets and between cells for uninterrupted connectivity
Output up to 100 mW worldwide	Extended high-speed communications indoors and out
Dynamic rate scaling at 11, 5.5, 2, and 1 Mbps	Provides continuous connectivity at the highest rate even in high-interference environments, auto selects highest usable rate
System-wide upgrades from a single access point, via FLASH memory accessible by HTTP, serial, Telnet	Fast and easy access point maintenance and upgrades
Network management, configuration, and diagnostic tools	Straightforward administration
Wired Equivalent Privacy (WEP) encryption and decryption	Powerful data security at 64 and 128 bits
Event logging, data packet tracing, SNMP alarm generation, operating statistics, protocol and bandwidth filters for optimum network management	Diagnostic capabilities for simplified, optimal network management
Standards: Commitment to open standards at every hardware and software interface including IEEE 802.11b, HTML user interface, NIC utilities	Bridges communication paths between wired and wireless network segments Uses diverse application tools in the same wireless LAN environment Supports technology that is already installed; integrates seamlessly with existing systems Ensures interoperability with wireless LAN devices from other vendors Protects your investment by ensuring migration path
Scalable	Adding an access point expands coverage and capacity
Supports up to 256 clients	A single access point provides support for multiple mobile clients and device types
Complete SymbolCare SM Service and Support	Count on Symbol to help you specify, configure, install and support your wireless LAN
Wi-Fi TM Certified	Ensures interoperability among other Wi-Fi certified wireless systems for investment protection and system architecture flexibility
User-friendly client tools	NICTT-Task tray applet that monitors a Spectrum24 WLAN card My WLAN Places—interface that creates profiles of WLAN client information
Bridge-to-bridge mode	Seamless bridging between separate Ethernet networks which enables connectivity without cables

instant, untethered access to vital network resources including corporate intranets, the Internet, information databases, and applications such as e-mail. Based on direct sequence spread spectrum (DSSS) technology, the AP 41X1 is also ideal for high throughput applications such as training courses, CAD/CAM file sharing, video and rapid image transfer, Internet/intranet terminals, and presentations. And a Spectrum24 HR Wireless LAN is the ideal network solution for ad hoc and temporary workgroup and kiosk support.

Dynamic Rate Scaling for Reliable Data Throughput

The AP 41X1 provides Dynamic Rate Scaling as defined by the 802.11b standard, always seeking to connect at 11 Mbps then automatically scaling to 5.5 Mbps, as well as 2 Mbps and 1 Mbps, to increase data range and ensure wireless network connectivity. When the signal strength increases, its speed also increases until it reaches an optimal rate, ensuring the highest level of service and best continuity for data transmission.

Wi-Fi™ Interoperability

Symbol's AP 41X1 bears the Wi-Fi logo, a mark granted as the official "seal of interoperability" by the Wireless Ethernet Compatibility Alliance (WECA). Only select wireless networking products possess this characteristic of IEEE 802.11b. This standard provides system architecture flexibility and investment protection for 802.11b interoperable installations.

Multi-Featured Security

The AP 41X1's multiple layers of security include Wired Equivalent Privacy (WEP) encryption, access control lists and domain identification providing powerful user authentication, and spread spectrum, data encryption and decryption capabilities to ensure data security.

Mobile IP for Seamless Roaming

Symbol's Spectrum24 AP 41X1 Access Point supports mobile IP functionality, allowing seamless roaming across routers as clients physically move from one subnet to another. This ensures uninterrupted connectivity as associates move throughout your facility.

Easy Administration and Network Management

The AP 41X1 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.

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 enables 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 High Rate Wireless LAN Specification Highlights

Radio Characteristics	
Frequency Range:	Worldwide product covering 2.4 to 2.5 GHz, programmable for different country regulations
Data Rate:	11 Mbps per channel maximum
Output Power:	100 mW worldwide
Power Management:	Continuous Aware Mode and Power Saving Polling Mode
Range:	Data throughput scaled to support up to 1500 ft./450 m outdoors and up to 295 ft./90 m indoors
TX Maximum Radiated EIRP:	FCC regulations part 15.247 in U.S.; ETS 300 328 in Europe; RCR STD-33 in Japan
Modulation:	Direct Sequence Spread Spectrum (DSSS) with BPSK (1 Mbps), QPSK (2 Mbps), and CCK (5.5 and 11 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:	-20° to 70° C/-4° to 158° F
Storage Temperature:	-30° to 80° C/-22° to 176° F

Network Characteristics	
Driver Software Support:	Microsoft Windows 95/98, Windows NT 4.0, Windows CE 2.11 (only for Symbol's PPT2740), Windows 2000, Windows ME; NDIS 4 AND 5
Access Protocol:	CSMA/CA
Roaming:	Virtually instantaneous



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