



Spectrum24° Wireless LAN

IEEE 802.11 FH/IEEE 802.11b DS

Wireless LAN Interface for Serial and Ethernet Devices

The Spectrum24® CB 1000 Client Bridge from Symbol Technologies extends wireless networking capabilities to printers, scales, medical equipment, manufacturing machinery, bar code readers, time clocks, point-of-sale, and other data collection devices. It provides a reliable, cost-effective interface between devices utilizing RS-232 serial or Ethernet ports and Symbol's wireless LAN access points. The flexible, durable case design features an accessible slot for inserting your choice of Symbol wireless LAN radio adapters*, Spectrum24 High Rate or Spectrum24:

▶ Spectrum24 High Rate is based on direct sequence spread spectrum technology and designed to IEEE 802.11b standards.

It transmits data up to 11 Mbps and to ranges up to 1,500 ft./450 m Spectrum24 High Rate is Wi-Fi™ certified for interoperability with other non-Symbol Wi-Fi-certified equipment.



Spectrum24 is based on frequency hopping spread spectrum technology and designed to IEEE 802.11 wireless LAN standards. It transmits data up to 2 Mbps and to ranges up to 2,000 ft./606 m. Its wide temperature range and robust mechanical design delivers reliable performance in the most demanding environments. When using the Spectrum24 2 Mbps frequency hopping option, multiple devices can share one CB 1000 through a 10Base-T Ethernet hub. This feature saves equipment costs when several low data volume devices require wireless Ethernet connectivity.

Wireless Connectivity for Serial Devices

The CB 1000 has an on-board TCP/IP stack to provide a reliable transport mechanism for serial data. The CB 1000 can initiate a permanent client connection to your server or accept datagrams from multiple sources. Baud rates up to 115,200 can be supported with hardware or software flow control.

Antenna Options Meet Application Requirements

The CB 1000 can be purchased with a radio card that has an integrated antenna, or you can select one or two external connectors. The external connectors support Symbol's selection of omni-directional (360°) and directional (20° to 90°) antennas to meet coverage, wired site, and power requirements.



Features	Benefits
Spectrum24 2 Mbps Frequency Hopping or Spectrum24 High Rate 11 Mbps Direct Sequence radio*	Easily adapt CB 1000 to your choice of infrastructure technology
Output up to 500 mW US/ 100 mW international	Higher power provides extended range
Easy configuration	Flexibly meet changing application requirements
2.4 to 2.5 GHz band	Multinational organizations can deploy unified solutions with approved international frequencies
Support for international roaming	Seamless worldwide communica- tions for supporting countries
Connectivity options including TCP/IP stack	Reliable data transport for serial client devices
Wide temperature range and robust mechanical design	Delivers reliable, top performance in the most demanding environments
IEEE 802.11/IEEE 802.11b compliant; Wi-Fi certified	Interoperable standards- based wireless networking

IBM Point-of-Sale Terminal Support

Retailers can wirelessly connect IBM SurePOS™ and 4694 point-of-sale terminals to their Spectrum24 or Spectrum24 High Rate Wireless LAN via the CB 1000. This enables quick and easy networking changes to meet seasonal and floor layout requirements, without the expense and time of re-wiring.

Designed for Easy Configuration

The CB 1000 can be configured for your wireless installation, TCP/IP stack choices, and serial data parameters. You can access the parameter menu with a serial-based terminal emulator or from Ethernet-based Windows® programs. All configuration parameters are saved in non-volatile Flash memory, easing system setup and expansion. Firmware is also stored in Flash and can be upgraded with a utility program.

*Client adapter card purchased separately

Mobilize Your Enterprise Wirelessly—Just Add Symbol. And Go.

Symbol's global wireless industry leadership is founded on a comprehensive range of innovative technologies and knowledgeable services. Symbol 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. All you have to do is Add Symbol. And Go.

CB 1000 Client Bridge Specification Highlights

Client Bridge Specifications		
Power Supply:	5.2 Volt regulated, 1 Amp supply	
Size:	6.2 in. L x 3.9 in. W x 1.0 in. H/15.7 cm x 9.9 cm x 2.5 cm	
Serial Port:	DB9 female with optional hardware flow control, baud rates 9600 - 115,200	
Ethernet Port:	10Base-T with straight-through RG-45	
Operating Temperature:	-4° to 131°F/-20° to 55°C	
Storage Temperature:	-40° to 194°F/-40° to 90°C	

Radio Characteristics	Spectrum24 2 Mbps Frequency Hopping Solution	Spectrum24 High Rate 11 Mbps Direct Sequence Solution
Frequency Range:	Worldwide product covering 2.4 to 2.5 GHz, programmable for different country regulations	Worldwide product covering 2.4 to 2.5 GHz, programmable for different country regulations
Data Rate:	2 Mbps per Channel	11 Mbps per Channel maximum; rate scaling to 1 Mbps, 2 Mbps, 5.5 Mbps for optimum throughput
Institute of Electronics and Engineering Standards:	IEEE 802.11	IEEE 802.11b
Modulation:	Frequency Hopping Spread Spectrum. Number of hops: 79 in US 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	Direct Sequence Spread Spectrum with BPSK (1 Mbps), QPSK (2 Mbps), and CCK (5.5 and 11 Mbps)
Output Power:	500 mW and 100 mW versions available	100 mW
Range:	Up to 2,000 ft./606 m in open environment	Up to 1,500 ft./450 m in open environment
TX Out-of-Band Emissions:	FCC regulations part 15.247, 15.205, 15.209 in US, ETS 300 328 in Europe, RCR STD-33 in Japan	FCC regulations part 15.247, 15.205, 15.209 in US, ETS 300 328 in Europe, RCR STD-33 in Japan











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