

Wireless Serial Servers

Connect your legacy
serial devices over your
wireless network.



FEATURES

- » Use your tried-and-true serial equipment over a wireless network.
- » Ideal in areas where running cable is not an option.
- » Use in applications requiring COM ports, serial tunneling, TCP, or UDP sockets.
- » Perform remote device monitoring and diagnostics.
- » Comply with the 802.11g (54-Mbps) or the 802.11b (11-Mbps) standard.
- » 802.11g servers provide backward compatibility with 802.11b equipment.
- » Rugged IP30 enclosure offers DIN rail or panel-mount options.
- » Security features include WEP, WPA, EAP, Cisco LEAP, and passwords.

OVERVIEW

Black Box® Wireless Serial Servers provide easy access to industrial serial devices such as PLCs, motor controls, and process analyzers across your wireless 802.11g or 802.11b Ethernet network.

The servers are built for heavy-duty industrial applications. They're housed in rugged IP30-rated metal cases and are DIN rail or panel mountable. They feature terminal block power connectors for redundant, wide-range AC/DC power.

The servers are fully compliant with IEEE 802.11g, which brings data rates up to 54 Mbps using OFDM (Orthogonal Frequency-Division Multiplexing) technology. Because it's backward compatible with 802.11b, an 802.11b access point can interface directly with a Wireless Serial Server. An omni-directional antenna is included.

Wireless Serial Servers come in RS-232 and RS-232/422/485 interface options for a variety of serial devices.

The built-in Web server enables you to easily configure Wireless Serial Servers using any standard browser. The servers are compatible with Windows® 98/Me/2000/XP, and Windows NT® 4.0.

Complete Security

The server includes full wireless security: 64- and 128-bit WEP, WPA, EAP, and Cisco LEAP.

Wired Equivalent Privacy (WEP) encrypts data packets well enough to keep out most eavesdroppers. WEP encrypts each 802.11 packet separately with an RSA RC4 cipher stream generated by a 64- or 128-bit RCA key.

Wi-Fi® Protected Access (WPA) uses dynamic session keys called Temporal Key Integrity Protocol (TKIP) to address the problem of users who don't enable WEP or who don't change the default key. TKIP automatically derives its encryption keys from a master key using a mathematical algorithm and changes the keys at regular intervals. This eliminates the problem of people who forget to change keys.

WPA depends on the 802.1x protocol, which incorporates the Extensible Authentication Protocol (EAP). EAP enables authentication between a client device and the authentication server. Like WEP, WPA uses the RC4 stream cipher.

Cisco Lightweight Extensible Authentication Protocol (LEAP) provides username/password-based authentication between a wireless client and a RADIUS server. With Cisco LEAP in place, a LAN station cannot pass traffic through the Wireless Serial Server until it authenticates itself.

Additionally, the servers include password security for configuration and administration.

TECH SPECS

Data Bits — 5, 6, 7, 8

Data Parity — Mark, space, none, even, odd

Operating Temperature — LWS401A: 32 to 140° F (0 to 60° C); LWS405A: 32 to 158° F (0 to 70° C)

Protocols — TCP, IP, ARP, DHCP, HTTP, UDP, ICMP

RS-232 Support — TD, RD, RTS, CTS, DTR, DCD, DSR, GND

RS-422 Support — LWS405A: 4-wire, full-duplex

RS-485 Support — LWS405A: 4-wire, half-/full-duplex

Speed — Wireless transmission: 802.11g: 54 Mbps, 802.11b: 11 Mbps;

Serial: 110, 150, 300, 600,1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600,115200, 230400 bps

Stop Bits — LWS401A: 1, 1.5, 2;

LWS405A: 1, 2

CE Approval — Yes

Connectors — (1) RJ-45 configuration port, (1) terminal block power port

Indicators — LEDs: Power, Link Active;

LWS401A also has: Signal Strength

Power — Input: Terminal Block: LWS401A: 12–30 VDC/24 VAC; LWS405A: 10–30 VDC

Size — LWS401A: 6.9"H x 2.3"W x 5.7"D (17.5 x 5.8 x 14.5 cm); LWS405A: 6"H x 2.3"W x 5.2"D (15.2 x 5.8 x 13.2 cm)

What's included

- ◆ Wireless Serial Server
- ◆ Omnidirectional antenna
- ◆ CD containing:
 - Device detection software
 - Serial-IP virtual COM port software
 - Operation manual in PDF format
 - Quick start guide in PDF format
- ◆ Manual
- ◆ Quick start guide

Item

Code

Wireless Serial Servers, 802.11g
1-Port, RS-232
1-Port, RS-232/422/485

LWS401A
LWS405A