

Remote Port Wireless USB 2.0 Hub

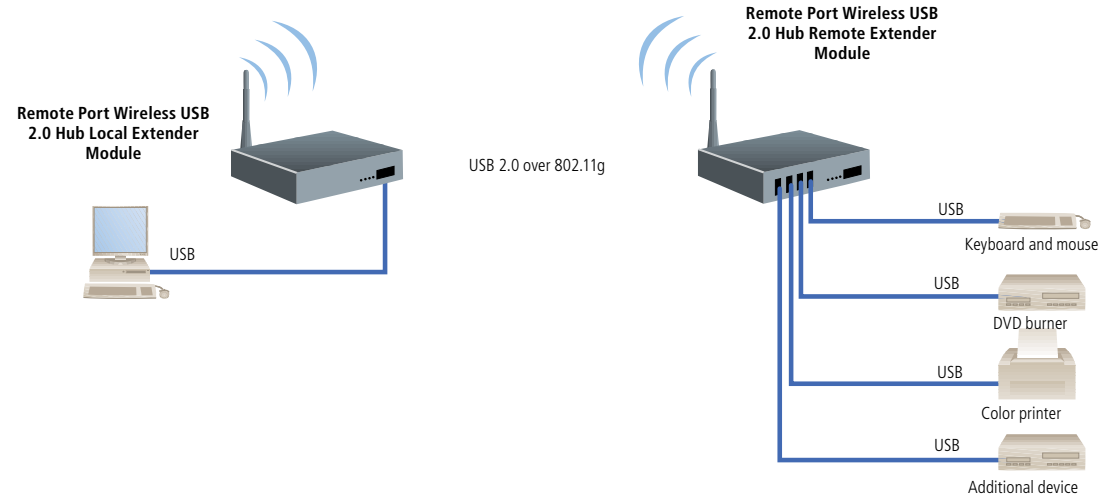
Connect up to four USB peripherals
to a USB PC via an 802.11g
wireless network.



FEATURES

- » Links USB 1.1 (1.5 Mbps low-speed, 12 Mbps full-speed) and USB 2.0 (480 Mbps high-speed) devices.
- » Truly plug-and-play: no additional software drivers required.
- » Integral 4-port USB hub enables you to connect up to four remote USB peripherals to a single local USB device.
- » Works with USB I/O devices, including printers, scanners, Web cameras, hard drives, and MP3 players.
- » Place the USB peripherals up to 100 feet (30.4 m) from the PC.
- » Supports Windows, Mac, and Linux operating systems.
- » User can select a radio channel on an 802.11g wireless network.
- » Powered at both ends of the connection: There's one power supply at the local (PC host) unit and one at the remote (USB hub) units.
- » Includes two power supplies that work in the U.S., Europe, or U.K. (specify when ordering).

Connect up to four USB peripherals to a USB host PC using your wireless network.



OVERVIEW

Link up to four USB peripherals up to 100 feet (30.4 m) from a USB host PC via an 802.11g wireless network. Attached USB peripherals might include a keyboard and mouse, DVD burners, printers, scanners, Web cameras, hard drives, and MP3 players.

The **Remote Port Wireless USB 2.0 Hub** includes a local extender module and a remote extender module, a power adapter for each module (choose from U.S., European, or U.K.), and a user's guide. The local unit connects directly to the USB port on your PC and transmits/receives data over a wireless network. The data is transmitted/received by the USB peripherals connected to the remote unit located up to 100 feet (30.4 m) from the local unit.

Installation is simple—just plug-and-play. The local extender module includes one USB Type B upstream port and the remote extender module has four USB Type A downstream ports. No new software drivers are required.

The hub works with Windows®, Mac®, and Linux® operating systems.

Because it complies with the IEEE 802.11g wireless standard, you get superior wireless data transfer rates—up to 54 Mbps! IEEE 802.11g uses Direct Sequence Spread Spectrum (DSSS), transmitting signals across the entire frequency range to reduce interference.

TECH SPECS

Compliance — FCC Class B, IC, CE Class B

Device Speeds Supported — High-speed USB 2.0 (480 Mbps), full speed; USB 1.1 (12 Mbps), and low speed USB 1.1 (1.5 Mbps)

Devices Connected (Maximum) — (14) including hubs

Radio Maximum Data Rate* — 54 Mbps (802.11g)

Range** — 100 ft. (30 m)

Standards — USB 1.1 and 2.0

Wireless Security — 40-bit WEP

Connectors — Local Extender Module: Upstream: (1) USB Type B,

Remote Extender Module: Downstream: (4) USB Type A

Indicators — (4) LEDs: Power, Link, Host, Activity

Operating Temperature — 39.2 to 104°F (4 to 40°C)

Power — 5-VDC, 3-A external power supply

Size — Each module: 7.1"H x 27.9"W x 17.5"D (2.8 x 11 x 6.9 cm)

Shipping Weight — 2.3 lb. (1 kg)

**NOTE: Actual data throughput will be restricted by the radio and operating environment. Some devices may not function properly because of this restriction.*

***NOTE: Actual performance will vary depending on the operating environment.*

Technically Speaking

USB.

USB's main attraction is that it makes adding peripherals to your computer incredibly easy. It enables you to connect peripherals to the outside of the computer so you don't have to open your PC.

A USB peripheral simply plugs right into the port and works. You don't need to install a card; you don't even need to turn off your computer. Because USB configuration happens automatically, built-in USB means you don't have to fiddle with drivers and software when adding most peripherals.

USB 1.1, the original USB standard, has two data rates: 12 Mbps for devices, such as disk drives, that need high-speed throughput and 1.5 Mbps for devices, such as joysticks, that need much lower bandwidth.

In 2002, USB 2.0, Hi-Speed USB 2.0, gained wide acceptance in the industry. It increases the speed of the peripheral-to-PC connection from 12 Mbps to 480 Mbps, or 40 times faster than USB 1.1. This increase in bandwidth enhances the use of external

peripherals that require high throughput, such as CD/DVD burners, scanners, digital cameras, and video equipment. USB 2.0 also supports demanding applications where multiple high-speed devices run simultaneously, such as Web publishing. A USB 2.0 host will work with both USB 2.0 and USB 1.1 peripherals. USB 2.0 also supports Windows® XP through a Windows update.

Another USB standard, USB On-The-Go (USB OTG), has also been developed. USB OTG enables devices other than a PC to act as a host. It enables portable equipment—such as PDAs, cell phones, digital cameras, and digital music players—to connect to each other without the need for a PC host.

There are four types of USB connectors: Type A, Type B, Mini B, and Mini A.

USB 1.1 specifies the Type A and Type B. USB 2.0 specifies the Type A, Type B, and Mini B. The Mini A connector was developed as part of the USB OTG specification and is used for smaller peripherals, such as cell phones.

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application. Don't waste time and money—call Black Box today.



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Technically Speaking

Wireless Ethernet Standards.

IEEE 802.11

IEEE 802.11 only supported speeds up to 2 Mbps, and it supported two entirely different methods of encoding—Frequency Hopping Spread Spectrum (FHSS) and Direct Sequence Spread Spectrum (DSSS). This led to confusion and incompatibility between different vendors' equipment.

IEEE 802.11b

802.11b is comfortably established as the most popular wireless standard. With the IEEE 802.11b Ethernet standard, wireless is fast, easy, and affordable. Wireless devices from all vendors work together seamlessly. 802.11b is a perfect example of a technology that has become both sophisticated and standardized enough to really make life simpler for its users.

The 802.11b extension of the original 802.11 standard boosts wireless throughput from 2 Mbps all the way up to 11 Mbps. 802.11b can transmit up to 200 feet under good conditions, although this distance may be reduced considerably by the presence of obstacles such as walls.

This standard uses DSSS. With DSSS, each bit transmitted is encoded and the encoded bits are sent in parallel across an entire range of frequencies. The code used in a transmission is known only to the sending and receiving stations. By transmitting identical signals across the entire range of frequencies, DSSS helps to reduce interference and makes it possible to recover lost data without retransmission.

IEEE 802.11a

The 802.11a wireless Ethernet standard is new on the scene. It uses a different band than 802.11b—the 5.8-GHz band called U-NII (Unlicensed National Information Infrastructure) in the United States. Because the U-NII band has a higher frequency and a larger bandwidth allotment than the 2.4-GHz band, the 802.11a standard achieves speeds of up to 54 Mbps. However, it's more limited in range than 802.11b. It uses an orthogonal frequency-division multiplexing (OFDM) encoding scheme rather than FHSS or DSSS.

IEEE 802.11g

802.11g is an extension of 802.11b and operates in the same 2.4-GHz band as 802.11b. It brings data rates up to 54 Mbps using OFDM technology.

Because it's actually an extension of 802.11b, 802.11g is backward-compatible with 802.11b—an 802.11b device can interface directly with an 802.11g access point. However, because 802.11g also runs on the same three channels as 802.11b, it can crowd already busy frequencies.

Super G® is a subset of 802.11g and is a proprietary extension of the 802.11g standard that doubles throughput to 108 Mbps. Super G is not an IEEE approved standard. If you use it, you should use devices from one vendor to ensure compatibility. Super G is generally backwards compatible with 802.11g.

Technically Speaking

How to maximize your wireless range.

- Try to keep a direct line between the transmitter and receiver.
- Minimize the number of walls and ceilings between the transmitter and receiver. Such obstructions reduce the range.
- If there are obstructions, be sure the wireless signal passes through drywall or open doorways and not other materials.
- Keep the transmitter and receiver at least 3 to 6 feet (0.9 to 1.8 m) from electrical devices or appliances, especially those that generate extreme RF noise.

What's included

- ◆ Local Extender Module with antenna
- ◆ Remote Extender Module with antenna
- ◆ (2) Power adapters (for U.S., EU, or U.K.)
- ◆ 2-m USB cable
- ◆ User's guide
- ◆ Quick-start guide

Item

Remote Port Wireless USB 2.0 Hub
with U.S. Power Cords
with European (EU) Power Cords
with U.K. Power Cords

Code

IC252A-US
IC252A-EU
IC252A-UK