



**Bluetooth®**  
*Wireless Technology*

# Adapters



**Model 4311 USB Adapter**

**Model 4312 PC Card Adapter**

The Zoom Bluetooth Adapters plug into a personal computer to provide a wireless connection to another Bluetooth-enabled device, such as an audio system receiver, a modem, mobile phone, headset, computer, PDA or peripheral. Zoom 4311 and 4312 Bluetooth adapters are Class 1 Bluetooth devices, which allows them to provide a range of up to 100 meters (330 feet)\*, the longest range provided under the Bluetooth standard. Zoom's Class 1 Bluetooth device will communicate with all other Bluetooth devices, including Class 1, Class 2 and Class 3 devices. When connecting to Class 2 and Class 3 devices, Zoom Bluetooth adapters are limited to the shorter range of the less powerful Bluetooth devices on the other end of the transmission.

Both units are Bluetooth version 2.0 + EDR compliant, which increases speed, reduces battery consumption and allows superior performance in the presence of interference from 802.11 wireless devices and other 2.4GHz radios. Both units support throughput of up to 3 megabits per second, the maximum allowed by the Bluetooth version 2.0 + EDR standard.

The Models 4311 and 4312 support the newer Bluetooth multi-media profiles: A2DP, AVRCP, and GAVDP. The model 4311F USB adapter can maintain both A2DP/AVRCP (audio) profiles and an HSP (headset) profile concurrently when connecting to a headset. This allows toggling between stereo audio and telephony applications on the Bluetooth headset.

The Model 4311 USB adapter plugs into the USB port of a Macintosh® with OS X (10.3 or greater), or a Windows® computer.

The Model 4312 is a PC Card which plugs into the PC Card slot of a Windows computer.

All Zoom Bluetooth adapters come complete with a software installation wizard which makes setup of the Bluetooth protocol stack fast and easy for Windows users..

The Bluetooth Piconet protocol supports concurrent connections with up to seven other Bluetooth devices. Security is ensured with the implementation of a Bluetooth security key and data encryption. Each Zoom Bluetooth adapter contains a unique link key that prevents unauthorized access to the attached computer. The key is transmitted in a secure environment to prevent interception. Unlike an 802.11 b/g wireless device, Bluetooth wireless links are not susceptible to eavesdropping and false authentication.

Zoom Bluetooth adapters carry a two-year warranty. Documentation is provided in English and Spanish.

## Features:

- Bluetooth v2.0 + EDR compliant
- Class 1 Bluetooth with a maximum range of 100 meters (330 feet)\*
- Communicates with Class 1, 2, and 3 Bluetooth devices
- Includes Bluetooth multimedia profiles
- Includes setup wizard for fast and easy software installation
- Provides secure wireless communications at data rates up to 3 Mbps
- Two-year warranty
- Documentation provided in English and Spanish
- Compliant with the EU Restriction of Hazardous Substances (RoHS) directive


# Zoom Bluetooth Wireless Technology Adapters

Model 4311  
Model 4312


## Hardware Specifications for both Model 4311 and 4312

- Compliant with Bluetooth v2.0 + EDR (Enhanced Data Rate)
- Class 1 Bluetooth device with a range of up to 100 meters (330 feet)\*
- Connects concurrently with up to seven other Bluetooth devices
- Operates in the license-free 2.4 GHz to 2.4835 GHz frequency band
- Data Rates: 3 Megabits per second (DPSK), 2 Mbps ( $\pi/4$ -DQPSK), 1 Mbps basic rate (GFSK)
- LED status indicator: One LED indicating Bluetooth is activated
- FCC and CE certifications

## Model 4311 Hardware Specifications

- Full-speed USB Version 1.1 interface
- Pivoting single sleeve dipole antenna, 60.2 mm long (2.37 inches)
- Dimensions: 72.2 mm long X 29.8 mm wide X 8.5 mm high (2.84" X 1.17" X .33"), width includes the antenna
- Power consumption Typical: 110mA/5V; Maximum transmit: 200mA/5V; Maximum receive: 80mA/5V; Idle: 26mA/5V
- RoHS Lead-free compliant 

## Model 4312 Hardware Specifications

- PC Card (PCMCIA) Type II fits Type II, III or Toshiba 16mm slot
- Power consumption Typical: 110mA/5V; Maximum transmit: 200mA/5V; Maximum receive: 80mA/5V; Idle: 26mA/5V
- RoHS compliant 

## Software

An installation CD includes drivers, manuals in English and Spanish, and support information.

The drivers support the v2.0 + EDR protocol stack and the following networking protocols: DUN (Dial Up Networking), A2DP (Advanced Audio Distribution)\*\*, AVRCP (Audio/Visual Remote Control)\*\*, GAVDP (Generic Audio/Visual Distribution)\*\*, FAX (Fax), SSP (Serial Port), HID (Human Interface Device), HCRP (Hardcopy Cable Replacement), FTP (File Transfer), OPP (Object Push), HSP (Headset)\*\*, PAN (Personal Area Network)\*\*, BIP (Basic Imaging)\*\*, GOEP (Generic Object Exchange), LAP (LAN Access) and SYNC (Bluetooth Synchronization).

## Package contents:

### Model 4311 USB Adapter

- USB adapter with Bluetooth Class 1 wireless technology Installation CD for Windows operating systems (Macintosh OS 10.3 and later includes Bluetooth networking protocols compatible with the Model 4311F)
- Quick Start Guide
- Two-year warranty

### Model 4312 PC Card

- PC Card with Bluetooth Class 1 wireless technology Installation; CD for Windows operating systems
- Quick Start Guide
- Two-year warranty

\* Range may be less due to interference, physical obstructions or other conditions. Range may be higher when communicating with Class 1 devices.



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