

# Intel Keeps You Connected With Bluetooth\* Wireless Technology



In the past decade, mobile computing and communications devices have become essential productivity tools. The popularity of these devices has risen as their costs—and their sizes—have diminished. It is now routine for business travelers to carry mobile computers, mobile phones and personal data assistants.

Although many handheld devices now easily slip into your pocket or purse, it has not been easy to connect them to your mobile computer. That is, until the Bluetooth\* wireless technology.

Intel's Personal Wireless products for the mobile computer use the Bluetooth wireless technology and consist of an Intel developed hardware module and software suite. The Intel solution enabled with the Bluetooth wireless technology allows you to create "personal connections" around your mobile computer, consisting of mobile phones, personal data assistants and other portable devices—all without device cables and adapters. This means you can check e-mail and access the Internet on your mobile computer via your mobile phone; share data files with colleagues at a meeting without using wires; and automatically synchronize the phone directories and calendars on both your personal data assistant and your mobile phone with those on your mobile computer.

Using the latest radio technology, the Intel solution enabled with the Bluetooth wireless technology provides secure and fast transmission of both voice and data across various devices. The Intel software suite provides built-in, universal tools for monitoring, configuring and managing device connectivity.



## The Intel Solution User Benefits

- Complete solution:
  - Hardware
  - Software
  - Enabling sockets and antennas
  - Driving regulatory approvals
- Small form factor
- Low cost
- Low power requirements
- Multiple simultaneous wireless connections
- User interface optimized to monitor, configure and manage connections
- Available worldwide
- Application programmer interfaces (APIs) enable compatibility with new and legacy software applications
- Full integration into the Windows\* 98 Second Edition, Windows\* Me and Windows\* 2000 operating systems
- Limited Module Approval process for "self-contained" antenna subsystem reduces time to market by simplifying the test/approval process



Build a personal network around your mobile computer

## About the Bluetooth\* wireless technology

The Bluetooth wireless technology is an open specification for small-form-factor, low-cost personal connections among mobile computers, mobile phones and other devices. The Bluetooth wireless technology specification provides secure, radio-based transmission of data and voice. It delivers opportunities for rapid, ad hoc, automatic, wireless connections, even when devices are not within the line of sight. The Bluetooth wireless technology uses a globally available frequency range to ensure interoperability no matter where you travel.

The Bluetooth wireless technology was developed by the Bluetooth Special Interest Group, which was founded in 1998 to define an industry-wide specification for connecting personal and business mobile devices. More than 2,000 companies are now members of the Special Interest Group, signifying the industry's unprecedented acceptance of the Bluetooth wireless technology.

## The Intel solution: software provides unique advantage

The Intel solution enabled with the Bluetooth wireless technology consists of a baseband controller, flash memory, radio, crystal reference (XTAL) and voltage regulators. When built into a mobile computer, it offers a universal bridge to other devices.

The Intel software suite allows users to monitor, configure and manage wireless connections. For example, an integrated shell extension allows the user to query the services provided by a remote device enabled with the Bluetooth wireless technology; a control panel extension allows the user to manage the security aspects of data transmission; and a system tray icon allows the user to turn the radio on and off. The software also allows users to easily detect and connect their mobile computers to surrounding devices enabled with the Bluetooth wireless technology, as well as hide from such devices. The Intel software suite is being developed for Windows\* 98 Second Edition, Windows\* Me and Windows\* 2000 environments.

## A boost to productivity

When a mobile computer is equipped with the Intel solution enabled with the Bluetooth wireless technology, it can easily control and share information with other devices. Here are a few of the ways it can improve productivity:

- **Wireless Internet Access:** Use your mobile computer to conveniently access the Internet from any location by using your mobile phone as a modem or by using any wire-bound connection enabled with Bluetooth wireless technology (PSTN, ISDN, LAN, xDSL).

## Bluetooth Wireless Technology Highlights

- **Bandwidth: 1 Mbps**
- **Channels supported:**
  - **one asynchronous data channel**
  - **three simultaneous synchronous voice channels**
- **Simultaneous connections: up to eight devices**
- **Range: approximately 10 meters**
- **Radio frequency: unlicensed 2.4 GHz band**
- **Radio power output: 1 mW**

- **Interactive Conferencing:** Connect all participants in a meeting so they can exchange data and work on documents together—without wires.
- **Up-to-Date Datebook:** Automatically synchronize the information in your desktop, mobile computer, personal data assistant and mobile phone. Since all the data stored in one device is easily accessible from other devices, your calendar, phone roster, to-do list and address book will never be outdated on any device, regardless of where and when you input data.

Imagine the features that mobile computers equipped with the Intel solution will be able to provide in the future:

- **Briefcase Magic:** Access e-mail while your mobile computer is still in your briefcase; when the computer receives an e-mail, you will get an alert on your mobile phone. You will then be able to browse the incoming e-mails and read those you select on the mobile phone's display.
- **Flight Time With a Purpose:** Compose e-mails on your mobile computer while you're on an airplane. When you land, you will be able to switch on your mobile phone and automatically send the messages.

**To learn more about the Intel solution enabled with the Bluetooth wireless technology, visit our Web site at [www.intel.com/mobile/bluetooth/](http://www.intel.com/mobile/bluetooth/)**

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