PIC32 Bluetooth® Solutions
Wireless Solutions for Data Transfer and Audio

Summary
PIC32 microcontrollers enable Bluetooth solutions ranging from simple wire replacement to customizable, high-performance audio applications. They offer best-in-class performance and a smart mix of peripherals to suit the varied needs of our customers. Microchip provides dedicated development platforms and software libraries to help you bring a cost-effective design to market in the shortest time possible.

Broad Portfolio
The PIC32 family of microcontrollers offers a wide range of performance and peripherals to match your design challenges. Whether you are adding Bluetooth to a high-performance audio solution or to a graphics application, PIC32 microcontrollers provide a scalable solution to fit your needs.

- Up to 200 MHz/330 DMIPS, M-Class core with DSP instructions
- Up to 120 MHz/150 DMIPS, MIPS M4K core
- Fast interrupts and context switch
- SPI/I²S™ interfaces for audio processing and playback
- Connectivity peripherals including USB, Ethernet and CAN
- Dual-panel Flash with live update options
- 16 KB to 2 MB Flash
- 4 KB to 512 KB RAM for data and program execution
- Temperature range: −40 to 85°C; −40 to 105°C
- Pin counts from 28 to 144 with Peripheral Pin Select (PPS) for pin remapping of most digital I/O

Solutions for Data Transfer

PIC32 Bluetooth Starter Kit (DM320018)
The easiest way to get started with Bluetooth, this board features an accelerometer for motion tracking, temperature sensor, LED and GPIO buttons for developing simple Serial Port Profile (SPP) applications. It is also expandable via a 20-pin header to accept audio codec daughter cards for simple streaming audio applications. This board, which is based on the low-cost PIC32MX270, is complete with USB and a PICkit™ On Board programmer.

PIC32MZ Embedded Connectivity Starter Kit (DM320006/7) and Multimedia Expansion Board II (DM320005-2)
When combined, the PIC32MZ Embedded Connectivity Starter Kit and the Multimedia Expansion Board II (MEBII) allow you to add Bluetooth support to your high-performance applications.

This platform features the 200 MHz, 2 MB Flash-based PIC32MZ processor and offers USB, Ethernet, Wi-Fi®, SDIO and Bluetooth support. It also includes a 4.3” WQVGA touch screen, an audio codec and a VGA camera.

Software Downloads for Bluetooth Serial Port Profile Applications
Microchip offers free downloads of the basic Bluetooth 2.1 EDR stack and Serial Port Profile (SPP) for PIC32MX and PIC32MZ devices. SPP multi-master mode with up to seven masters is now available.

For more information on the stack or to download a copy of the software, please visit www.microchip.com/pic32btspp.
PIC32 Bluetooth Audio Libraries

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<tr>
<th>Description</th>
<th>Apple®</th>
<th>Android™</th>
<th>Samsung®</th>
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