

To get started with development, download and extract the Audio Development Board compressed archive file from www.microchip.com/adb. Connect a debugger or programmer such as the MPLAB® REAL ICE™ In-Circuit Emulator or ICD 3 to the RJ-45 (J3) connector. Open MPLAB and load the ADB Demo workspace. Compile, program and run the demo. For more information on the hardware, refer to the Audio Development Board User's Guide (DS70662).

Audio Development Board Information Sheet

Features

The Audio Development Board is a high quality audio development platform using a 16-bit or 32-bit microcontroller (MCU). The on-board high-performance MCU is ideal for complex audio algorithms, which are computation intensive.

Features of the Audio Development Board are:

- High-performance microcontroller
- Wolfson WM8960 audio codec with up to 48 kHz sampling rate and up to 24-bit resolution, headphone out and line-in jacks, and an on-board microphone
- TFT Color Display with 220x176 resolution
- USB and UART communication interfaces
- PICtail™ Plus expansion connector for Made for iPod®

Getting Started

The Audio Development Board is preprogrammed with an audio demonstration. Use the following procedure to run this demonstration:

1. Power the ADB by connecting the 9V power brick provided with the ADB in the power connector (J1).
2. Connect a pair of headphones or powered speakers into the jack labeled HP OUT (J6).
3. A line-in input to the Line IN (J5) jack can be connected or the on-board microphone (MIC) can be used for audio input. MIC is the default audio input, but it can be changed to Line-in in the settings.
4. A USB Flash drive must be plugged into the USB receptacle (J7) to use the record and playback features in the demonstration.
5. Press switch S3 to navigate between the individual applications. Navigation is indicated by the red bevel around the application icon. Descriptions of the applications are provided in [Table 1](#).
6. Press switch S2 to select the application. The selection is confirmed by the red bevel turning green before the next application screen is presented.
7. While the application is running, switch S1 can be pressed to return to the main menu, which closes the application. Or alternatively, switch S4 can be used to perform a specific action depending on the application, as described in [Table 1](#).

TABLE 1:

Action	Description	Switch S4	Switch S2, S3	Switch S1
Record	Audio from line-in or on-board microphone is recorded and stored on a USB Flash drive.	Stop or resume recording.	—	Back to main screen
Playback	Audio stored on a USB Flash drive is played back.	Pause or resume playback.	—	
Loopback	Audio from line-in or microphone is output to the headphones. Frequency spectrum of audio is displayed on screen.	Mute or un-mute playback.	—	
Settings	Change audio input, audio in and out volume, and sampling frequency.	Switch between settings options.	Change audio input between line-in and the on-board microphone. Increase or decrease audio in and out volume. Change audio sampling frequency.	

Americas

Atlanta - 678-957-9614
 Boston - 774-760-0087
 Chicago - 630-285-0071
 Cleveland - 216-447-0464
 Dallas - 972-818-7423
 Detroit - 248-538-2250
 Indianapolis - 317-773-8323
 Los Angeles - 949-462-9523
 Phoenix - 480-792-7200
 Santa Clara - 408-961-6444
 Toronto - 905-673-0699

Europe

Austria - Wels - 43-7242-2244-39
 Denmark - Copenhagen - 45-4450-2828
 France - Paris - 33-1-69-53-63-20
 Germany - Munich - 49-89-627-144-0
 Italy - Milan - 39-0331-742611
 Netherlands - Drunen - 31-416-690399
 Spain - Madrid - 34-91-708-08-90
 UK - Wokingham - 44-118-921-5869

Asia/Pacific

Australia - Sydney - 61-2-9868-6733
 China - Beijing - 86-10-8569-2100
 China - Chengdu - 86-28-8665-5511

Asia/Pacific (Continued)

China - Chongqing - 86-23-8980-9588
 China - Hangzhou - 86-571-2819-3180
 China - Hong Kong SAR - 852-2401-1200
 China - Nanjing - 86-25-8473-2460
 China - Qingdao - 86-532-8502-7355
 China - Shanghai - 86-21-5407-5533
 China - Shenyang - 86-24-2334-2829
 China - Shenzhen - 86-755-8203-2660
 China - Wuhan - 86-27-5980-5300
 China - Xiamen - 86-592-2388138
 China - Xian - 86-29-8833-7252
 China - Zhuhai - 86-756-3210040
 India - Bangalore - 91-80-3090-4444
 India - New Delhi - 91-11-4160-8631
 India - Pune - 91-20-2566-1512
 Japan - Yokohama - 81-45-471-6166
 Korea - Daegu - 82-53-744-4301
 Korea - Seoul - 82-2-554-7200
 Malaysia - Kuala Lumpur - 60-3-6201-9857
 Malaysia - Penang - 60-4-227-8870
 Philippines - Manila - 63-2-634-9065
 Singapore - 65-6334-8870
 Taiwan - Hsin Chu - 886-3-6578-300
 Taiwan - Kaohsiung - 886-7-213-7830
 Taiwan - Taipei - 886-2-2500-6610
 Thailand - Bangkok - 66-2-694-1351

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