



# 6 DSP56311EVM Sample Code

The DSP56311EVM kit includes sample software that demonstrates various features of the DSP56311 processor and the DSP56311EVM board. You will need an audio input source and headphones or amplified speakers to run some of the sample code. The sample code is located at installed directory\dsp56311evm\sample\_code. The following demonstration source codes are included:

**60Hz Demonstration (60hzdemo.asm):**  
This sample code illustrates many features of the DSP56311EVM product. An external audio signal is first applied into an input of the EVM board. A 60Hz signal is generated by the DSP. Both the external signal and the 60Hz signal are added producing a digital audio signal with an apparent 60Hz hum. The resultant signal is then sent to a digital 60Hz notch filter which removes the 60Hz hum.

**Audio Pass Through Demonstration (pass.asm):**  
This sample code passes digital audio signals directly though the DSP without any modifications.

**Echo Demonstration (echo.asm):**  
This sample code allows a user to input an audio signal into the EVM. The audio signal passes through the on-board codec and the digital signal is then processed through the DSP. During the processing of the signal, a delay is added to the signal to achieve a simple echo.

**Flash Memory Demonstration (flash.asm):**  
This sample code illustrates the use of the on board flash memory. The memory can be used to store user-bootable code.

**Filter Test Demonstration (filtr\_tst.asm):**  
This sample code demonstrates the use of the on-board external memory, analog circuitry, and OnCE port circuitry of the DSP56311EVM.

Please refer to the actual source code files for more information about the sample code.



Welcome and thank you for choosing this Motorola DSP Development Tools product. This document provides instructions on how to set up the DSP56311 Evaluation Module (EVM) product.

If you have any questions, please contact the DSP Technical Support organization via e-mail at:

[dsphelp@dsp.sps.mot.com](mailto:dsphelp@dsp.sps.mot.com)

or on the World Wide Web at:

<http://www.motorola.com/SPS/DSP/support>

To obtain any DSP Software Tools documentation, please go to the DSP Tools web site on the World Wide Web at:


[www.motorola.com/SPS/DSP/tools/documentation](http://www.motorola.com/SPS/DSP/tools/documentation)



For information regarding the DSP Tools please access our site on the World Wide Web at:

<http://www.motorola.com/SPS/DSP/tools>

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# 1

## Kit Contents

Your DSP56311EVM product includes the following components:

- Hardware**
- DSP56311EVM board
  - Parallel port extender cable
  - Plastic standoffs and plastic screws

- DSP56311EVM Development Tools CD-ROM**
- DSP56300 Tools Software
  - Device and tools documentation
  - Tutorial/example software

- Printed Documentation**
- DSP56311EVM Development Tools Release Notes
  - DSP56311EVM Product Installation Guide (this document)







## 2 Install Motorola's DSP56311EVM Development Tools

### System Requirements:

Windows PC (Pentium class, or higher), 32 Mbytes of RAM, Windows 95/98 or Windows NT 4.0 operating system, 50 Mbytes of hard drive space, parallel port, CD-ROM drive, and mouse.

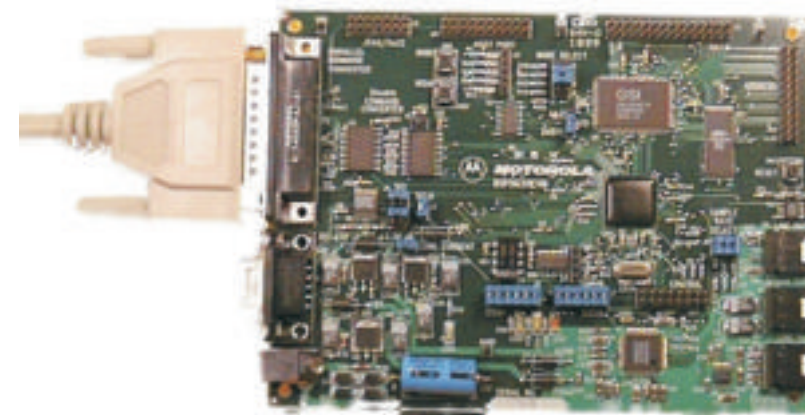


1. Insert the DSP56311EVM Development Tools CD-ROM into your computer's CD-ROM drive.

2. If you have Autorun activated, the installation software will start automatically. Otherwise, click on the **Start** button, select **Run** and type the CD-ROM's drive letter and **win\setup.exe** in the **Open:** text box. (For example, **D:\win\setup.exe**)

3. Follow the Motorola software installation instructions on your screen.

## 4 Connect the DSP56311EVM to your PC



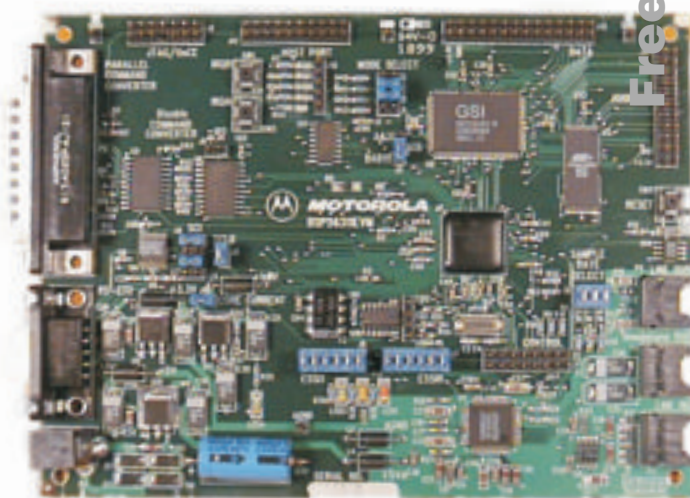
1. Connect the DB25 plug end of the parallel port extender cable to the parallel port on your computer.

2. Connect the DB25 receptacle end of the parallel port extender cable to the parallel port connector labeled P2 on the DSP56311EVM Board.

3. Plug 2.1 mm coax connector of 7-12 V, 500 mA power supply (supplied by user) into the P6 connector on the DSP56311EVM board.

4. Plug the other end of the power

## 3 Set Up the DSP56311EVM Board



The DSP56311EVM is shipped with all the jumper blocks in the default configuration. The photo on the left shows the default configuration for your reference.

For more information on the jumper configuration of the DSP56311EVM, refer to the *DSP56311EVM Hardware Reference Manual* on the DSP56311EVM Development Tools CD-ROM.

## 5 The DSP56311EVM Browser and Tutorial

The DSP56311EVM browser provides access to product information, release notes, documentation, tutorial, installation guide, install information, and contact information. The DSP56311EVM browser will automatically launch if Autorun is enabled on your computer. If Autorun is not enabled, click the **start.exe** file to launch the browser.



To run Motorola's DSP56311EVM Tutorial, click on the tutorial button in the DSP56311EVM browser. Example software is included in the tutorial program supplied on the DSP56311EVM Development Tools CD-ROM.