

eZdsp™ for the TMS320F2808

Quick Start Guide

The TMS320F2808 eZdsp contains:



AC Power Cord

+5V Universal
Power Supply



eZdsp Board



TMS320C2000 eZdsp
Code
Composer Studio
CD ROM



USB Cable

System Hardware and Software Requirements

These operating platform requirements are necessary to install the Code Composer Studio (CCS) integrated Development Environment and support the printer port. The requirements for the operating platform are:

Minimum Configuration

- 233 Mhz. or faster Pentium or compatible
- 600MB of free hard disk space
- Microsoft Windows 2000(SP4 or higher), or XP (SP1 or higher)
- 64MB of RAM
- SVGA (640x480) color display
- Local CD-ROM Drive
- Internet Explorer (5.0 or later)

Recommended

- 128MB of RAM
- SVGA(1024 x 768) color display
- 500 Mhz. or faster Pentium or compatible

Installing Composer Studio for Windows 2000/XP

Note: For Windows 2000 and XP you must install Code Composer Studio (CCS) using Administrator privileges. To run CCS on these systems requires write permission on the registry. If installing hardware, follow the instructions provided with the hardware.

Also prior to installing the Code Composer Studio make sure the Virus checker on your system is turned off or disabled. It may be turned on or enabled after installing

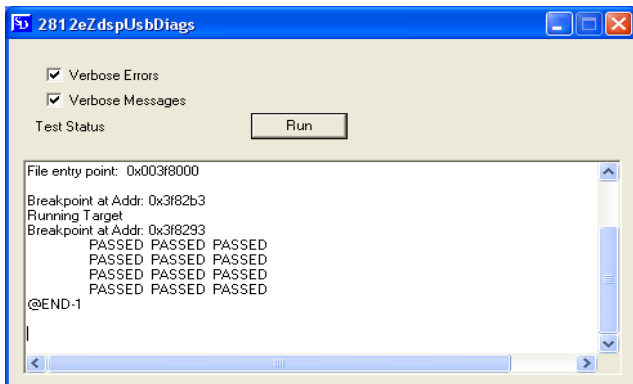
1. Do **NOT** connect to any hardware at this time.
2. Insert the Code Composer Studio installation CD into the CD-ROM Drive. An install screen should appear; if not, go to Windows Explorer and run **launch.exe** from the CD-ROM.

3. From the install panel select “Install Products” and then “C2000 Code Composer Studio”. This will install the baseline C2000 CCS 2.21 content. During the installation you may be prompted to connect to the DSK and do a reset. Ignore this dialog, as it does not apply to C2000 eZdsp. At the end of the CCS setup you may be prompted to restart you PC. Defer this step until step 5 below so that you can install other content first.
4. From the same panel select “R2812/F2808 eZdsp USB Drivers” to install the F2808 eZdsp specific content. You must install your F2808 eZdsp drivers into same directory as CCS from step 3.
5. At this point you can exit from the installer or install other content. You can always return to the installer at a later time to install other options as required. If you were prompted to restart your PC in step 3 you should restart now.
6. Connect up your eZdsp hardware in the following order:
 - a. Plug AC power cord into power supply provided
 - b. Plug AC power cord into AC power outlet
 - c. Plug USB cable into PC USB port or USB hub. A USB hub is always recommended for development tools.
 - d. Plug USB cable into the eZdsp.
 - e. Plug power supply into the eZdsp.
 - f. At this point Windows should detect new hardware and start the Hardware Wizard. Let the wizard find the F2808 eZdsp USB system level drivers, which are located on the root of the install CD.
7. Select the F2808 EzDSP Diagnostics icon from your desktop.



R2808 EzDSP
Diagnostics

8. Click the run button to verify your USB connection and run a simple board diagnostics. When the diagnostic runs you should see a pass message in the output window.



Starting Code Composer

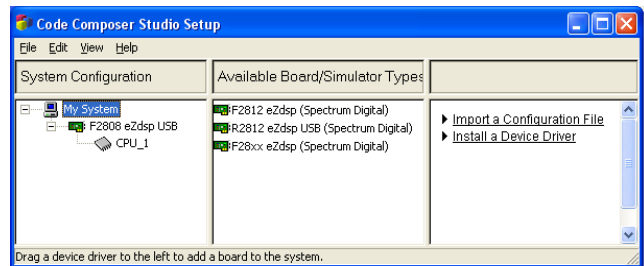
During the F2808 driver installation an icon is generated as shown below. Start Code Composer by clicking on the icon for your connected F2808 eZdsp.



Manual setup of Code Composer

In the event that you need to change the Code Composer configuration you have to run “cc_setup.exe” from the Code Composer installation directory. The default location is “c:\ti\cc\bin\cc_setup.exe” where, “c:\ti” is the default installation directory.

1. From CC Setup import the configuration “F2808 eZdsp USB”. The default configuration is: I/O port address 0x540, one DSP, and F2808.gel configuration file. You may want to clear the system configuration before importing a different configuration. Now import the configuration. When complete, your setup should resemble the following. For more details select “Help” on the CCS Setup menu bar.



2. If you want to change the configuration of your setup simply right mouse click on the eZdsp under **System Configuration** then select **Properties**. You can modify the individual properties for your setup. Save your configuration and exit CCS Setup.
3. Start Code Composer by clicking on the F2808 EzDSP Code Composer icon as described above.

Running the Code Composer Studio IDE Tutorial

The interactive Code Composer Studio IDE tutorial provides an effective method to learn about the new and existing features of this tool.

1. Code Composer Studio IDE should now be running. If it is not already running, double-click on the F2808 EzDSP icon on your desktop.

- From the Code Composer Studio IDE Help menu, select Tutorial.

Debug Hints and Trouble Shooting

If installing on Windows XP and your PC is connected to the internet through a firewall the USB install may take up to 15 minutes if you let it complete normally. The work-around for this issue is to simply disconnect your network cable during the USB hardware install.

Some of the Help Files are links to Adobe Acrobat PDF files. If you intended to access these files you must have Adobe Acrobat installed on your system or Install Adobe Acrobat during the Code Composer Install.

If you want to verify a successful USB driver install:

For Win2000 and XP:

Right mouse click on

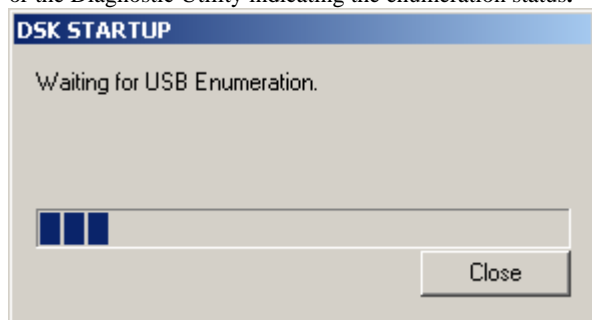
My Computer ->Properties->HW->Device Manager.

You should see a new class "SD USB Based Debug Tools" and one Spectrum Digital eZdsp28xx USB installed.

The Busy LED (DS201) near the center of the board illuminates when the eZdsp is powered on. Do not launch Code Composer until the led turns off.

Error Messages:

Many of the error messages below refer to USB enumeration issues. The following window will appear when launching CCS or the Diagnostic Utility indicating the enumeration status.



Message:

Failed: Requires Win98, Win2K or Win XP.

Problem: Your operating system does not support USB.

Message:

Failed: USB device is NOT enumerated or plugged in.

Problem: Windows cannot find the F2808 eZdsp. Check power and USB Cable.

Message:

Failed: Load USB Application.

Problem: Loader could not download the F2808 eZdsp emulation application. The on-board emulation controller could be in a bad state. Cycle power on the eZdsp.

Message:

Failed: USB Channel in use by another app.

Problem: Another application is using the F2808 eZdsp USB communication channel. Only one application is allowed to communicate to the F2808 eZdsp over the USB channel at the same time. Check for active applications using the Windows Task Manager if open application is not obvious.

Message:

Waiting for USB Enumeration.

Status: This is a status message, which indicates that the F2808 eZdsp application has been loaded. The loader will maintain this message until the F2808 eZdsp re-enumerates.

On Windows 2000 and XP the above message will generally be active for less than 20 seconds.

Code Composer Registration

Remember to register your product within 30 days of purchase. Texas Instruments may make available DSK specific patches, utilities or promotions to registered eZdsp users. You must register your DSK through the online web registration form to enable access through the new Internet enabled Update Advisor. You can register online during installation if you are connected to the Internet. To register online after installation or to register via fax or by e-mail you can access the registration forms from within Code Composer Studio TM IDE. From the menu bar select Help → CCS on the Web → Register On-line, select the appropriate registration link for your product and follow the instructions on the form.

You will need your Service Code to register the product. The Service Code is a 16-digit number starting with the letters CCS attached to the CD case.

Note: paid annual software subscription service is not available for eZdsp products.

eZdsp Documentation

The eZdsp Technical Reference and schematics can be found under the install directory at "boards\2808eZdspUSB\docs\pdf". These files along with other CCS docs can also be found on the install CD.

