

# eZdsp™ for the TMS320F2804x

## Quick Start Installation Guide

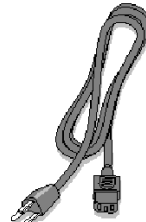
### Kit Contents



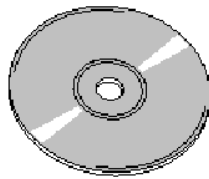
eZdsp Board



+5V Universal  
Power Supply



AC Power  
Cord



eZdsp Code Composer  
Studio CD ROM



USB Cable

### System Requirements

- 500MB of free hard disk space
- Microsoft Windows™ 2000/XP
- 128MB of RAM
- 16-bit color display
- CD-ROM Drive

### Service and Support

Web	<a href="http://support.spectrumdigital.com">http://support.spectrumdigital.com</a>
E-Mail	<a href="mailto:support@spectrumdigital.com">support@spectrumdigital.com</a>

### Description

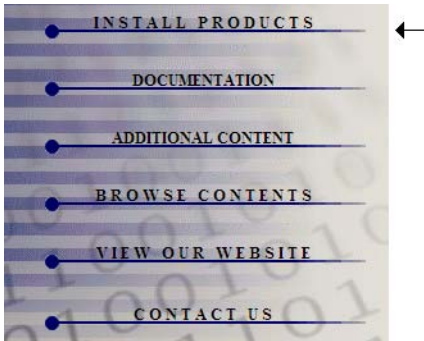
The F28xx eZdsp is an all-in-one evaluation platform for the TMS320F28xx Digital Signal Processor from Texas Instruments. An on-board JTAG emulator allows debug from Code Composer Studio through your PC's USB port.

This kit contains everything you need to get started with TI DSPs. It can also be used with the full version of Code Composer Studio and an external JTAG emulator.

## Install eZdsp Content from the CD-ROM

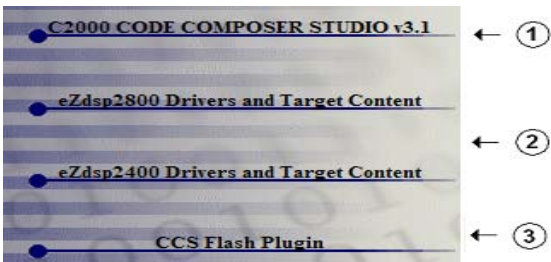
Before you install the eZdsp software, please make sure you are using **Administrator privileges** and any **virus checking** software is turned off. The eZdsp board should not be plugged in at this point.

1. Insert the Code Composer Studio installation CD into the CD-ROM Drive. An install menu (see below) should appear. If it does not, manually run Launch.exe from the CD-ROM. Select the **Install Products** option from the menu.



2. Install any components you need. To debug with the eZdsp you must have 1) a copy of **Code Composer Studio**, 2) the **target content** package for your board and 3) a copy of the **FlashBurn** plug-in.

Users of the full Code Composer Studio package can skip the Code Composer installation and simply install the target content packages.



3. The installation procedure will create icons on your desktop for F2804x CCStudio and Diagnostics.

## Connect the eZdsp to Your PC

1. Connect the supplied USB cable to your PC or laptop. We recommend that anyone making hardware modifications connect through a USB hub for safety.

2. Connect the included +5V power adapter brick to your AC power source using the AC power cord.
3. Apply power to the eZdsp by connecting the power brick to the +5V input on the eZdsp.
4. Make sure your eZdsp CD-ROM is installed in your CD-ROM drive. Now connect the eZdsp to your PC using the included USB. After few seconds Windows will launch its "Add New Hardware Wizard" and prompt for the location of the eZdsp drivers.
5. Follow the instructions on the screens and let Windows find the USB driver files "r28xxez.inf" and "sdusb2em.sys" on the eZdsp CD-ROM. On XP systems Windows will find the drivers automatically.

## Testing Your Connection

If you want to test your eZdsp and USB connection you can launch the F2804x eZdsp Diagnostic Utility from the icon on your desktop.



F2804x eZdsp  
Diagnostics

From the diagnostic utility, press the **Run** button to run the diagnostics. The utility will print status messages and pass/fail messages.

## Starting Code Composer

To start Code Composer Studio, double click the F2804x eZdsp CCStudio icon on your desktop.



F2804x eZdsp  
CCStudio v3.1

Once CCS has started select **Debug->Connect** from the menu bar. Target **Connect/Disconnect** is a new feature in CCS 3.1.

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

## F28xx eZdsp Hardware Registration

The F28xx eZdsp hardware can be registered using the on-line registration process at [www.spectrumdigital.com](http://www.spectrumdigital.com). Spectrum Digital, Inc. warrants the products it produces for one (1) year after the date of purchase. For a product to be considered "in warranty", Spectrum Digital must be notified of the defect within one (1) year after being purchased from Spectrum Digital or one of its authorized resellers. Spectrum Digital is not responsible for accidents, improper installation of connections, misuse, neglect or unauthorized modifications. If the product qualifies for warranty repair Spectrum Digital may repair or replace the product at its discretion.

## Related Documentation

A complete list of related documentation is available in the on-line help. The path to this documentation is (assuming you choose `c:\CCStudio_v3.1` as the default path)

`c:\CCStudio_v3.1\docs\pdf\release_ccs_full_master.html`

## Debug Hints and Trouble Shooting

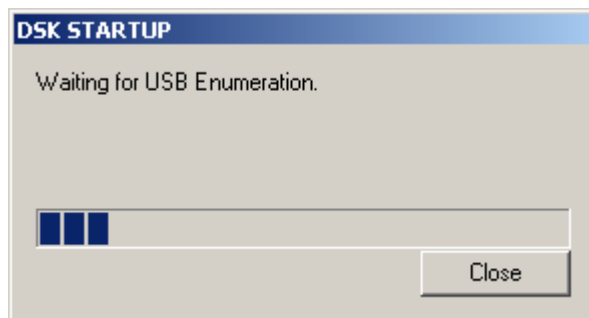
1. If installing on Windows XP and your PC is connected to the internet through a firewall the USB install may take up to 15 minutes if you let it complete normally. The work-around for this issue is to simply disconnect your network cable during the USB hardware install.
2. Some of the Help Files are links to Adobe Acrobat PDF files. If you intend to access these files you must have Adobe Acrobat installed on your system.
3. If you want to verify a successful USB driver install, open your device manager by right clicking on the My Computer icon on your desktop and selecting Properties --> HW --> Device Manager. You should see a new class "SD USB Based Debug Tools" and one Spectrum Digital TMS320F28xx eZdsp installed.
4. The DS201 LED comes on when power is applied to the eZdsp. Do not launch Code Composer until the LED is off.

The best place to look for eZdsp troubleshooting and software updates is:

<http://support.spectrumdigital.com>

## 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.



1. Message:  
Failed: Requires Win2K or Win XP.  
Problem: Your operating system does not support USB.
2. Message:  
Failed: USB device is NOT enumerated or plugged in.  
Problem: Windows cannot find the eZdsp. Check power and USB Cable.
3. Message:  
Failed: Load USB Application.  
Problem: Loader could not download the eZdsp emulation application. The on-board emulation controller could be in a bad state. Cycle power on the eZdsp.
4. Message:  
Failed: USB Channel in use by another app.  
Problem: Another application is using the eZdsp USB communication channel. Only one application is allowed to communicate to the eZdsp over the USB channel at the same time. Check for active applications using the Windows Task Manager if open application is not obvious.
5. Message:  
Waiting for USB Enumeration. Status: This is a status message that indicates that Code Composer Studio is waiting for communication with the on-board JTAG emulator to be established. This should take less than 10 seconds. Do not hit the close button unless it is clear that something is wrong (the progress bar runs forever)

