

Freescale Semiconductor 56F827EVM Kit Installation Guide

Welcome!

Thank you for choosing this Freescale Development Tools product, featuring the CodeWarrior Integrated Development Environment (IDE). This document provides instructions on how to set up the Freescale 56F827 Evaluation Module (EVM) with the CodeWarrior IDE. If you have any questions regarding the hardware kit or software development tools, please contact the Technical Information Center:

www.freescale.com/support

Kit Contents

Your 56F827EVM kit includes:

Hardware

- 56F827EVM Board
- Parallel cable
- +12V DC power supply

Software

- Metrowerks® CodeWarrior® with Processor Expert™ Development Tools CD-ROM
- Freescale 56800/E Accelerated Development System Resource CD-ROM

Documentation

- *56F827EVM Kit Installation Guide* (this document)
- Warranty Registration card

System Requirements

- 133 MHz Intel® Pentium® or compatible processor
- Windows® 98/NT/2000/XP
- 64 MB of RAM
- 350 MB hard drive space
- Parallel port
- CD-ROM drive for installation

Help

To obtain assistance with the 56F827EVM, please contact the Technical Information Center: www.freescale.com/support

CodeWarrior Updates:

www.metrowerks.com/download

Processor Expert Updates:

www.processorexpert.com/mc56800updates.html

1

Install the CodeWarrior with Processor Expert Development Tools

1. Insert the CodeWarrior CD into your computer's CD-ROM drive.
If Auto Install is disabled on your computer, run the **setup.exe** program at root on the CD. Follow the CodeWarrior software installation instructions on your screen.
2. Activate your CodeWarrior license key.
There are several CodeWarrior license key options available:
 - 8K Words License - Enables full CodeWarrior and Processor Expert¹ functionality for up to 8K Words of Program memory and 2K Words of Data memory
 - 32K Words License - Enables full CodeWarrior and Processor Expert¹ functionality for up to 32K Words of Program memory
 - 64K Words License - Enables full CodeWarrior and Processor Expert¹ functionality for up to 64K Words of Program memory
 - Full License - Enables full CodeWarrior and Processor Expert¹ functionality with no memory restrictions

1. Some Processor Expert Beans are priced separately

To receive a free, Permanent 8K Words License:

- Go to: <http://www.metrowerks.com/MW/Develop/Embedded/56800/EHybrid>
- Select the appropriate http link to register for the free license
- Fill out your information online and a valid license key will be sent to your email address
- Copy and paste the new key at the bottom of the *license.dat* file², located in the CodeWarrior directory

If you decide to purchase a 32K, 64K, or Full License, you can activate your 30-day evaluation key:

- Go to <http://metrowerks.com/key/eval>
- Enter your validation code, located on the CodeWarrior tools CD case
- An evaluation key will be sent to you by email
- Copy and paste the new evaluation key at the bottom of the *license.dat* file², located in the CodeWarrior directory

2. Do not move the *license.dat* file after installation. For additional assistance with license issues, email the Metrowerks Licensing Team: license@metrowerks.com

2

Configure the 56F827EVM Board

The 56F827EVM is shipped with all the jumper blocks in the default configuration, shown in the table at right.

For more information about jumper settings, refer to the *DSP56F827 Evaluation Module Hardware User's Manual*:

1. Launch CodeWarrior IDE
2. Select **Help > Freescale 56F8xx PDF Index**

Jumper Group	Connections
JG1, JG2	NC
JG3, JG5, JG6	1 - 2
JG4	2 - 3
JG7	1 - 2, 3- 4, 5 - 6, 7 - 8

3

Connect the 56F827EVM to Your Computer

1. Connect the DB25 end of the parallel cable to the parallel port on your computer.
2. Connect the DB25 receptacle end of the parallel cable to the parallel port connector labeled P2 on the 56F827EVM.
3. Plug the power supply to P1 on the 56F827EVM.
4. Plug the +12V DC power supply into an AC outlet.

TIP: To protect the equipment from power source surges, the +12V DC power supply should be plugged into a surge-protected power strip.

4

Tutorial: Creating a Code Warrior Project

1. Launch the CodeWarrior IDE.
2. Select **File > New**.
3. Select **Processor Expert Stationery** and give your project a name (a project with the *.mcp* extension will be created).
4. Click **OK** in the **New** window.
5. Select **DSP56F82x > DSP56F827** from the **New Project** window and click **OK**.

The project window opens and displays the file contents of your new CodeWarrior project.

6. Choose **Project > Make**.
Processor Expert generates appropriate initialization and configuration files.
7. Expand the **User Modules** folder in the project window by clicking on the plus (+) sign.
8. Double click **projectname.c** to open it.
9. Add any additional code as indicated by comments:

```
/*write your own code here*/
```

10. Save your change and close the editor window.

11. Choose **Project > Debug**.

Your code downloads to the 56F827EVM and the program will stop at *main()* (which appears in the source pane of the debugger window).

12. Choose **Project > Run** (F5) and your program will continue execution until the next breakpoint is encountered.

Additional Resources

- Code examples can be accessed in **Processor Expert Examples Stationery** by selecting **File > New**.
- Additional training, tutorials, code examples, and documentation can be found on the Resource CD-ROM.
- Additional Freescale 56800 hardware and chip documentation is available from:
www.freescale.com/dsp

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