



This document addresses known errata and documentation changes the DSP Development Kit, Stratix® II Edition version 1.1.0.

Errata are design functional defects or errors. Errata may cause the board or designs in this DSP Development Kit, Stratix II Edition to deviate from published specifications.

Documentation changes include typos, errors, unclear descriptions, or omissions from current published specifications or product documents. These documentation changes or clarifications will be incorporated into an upcoming release of the DSP Development Kit, Stratix II Edition.

## DSP Development Kit, Stratix II Edition 1.1.0 Issues

Altera has identified the following issues that affect the DSP Development Kit, Stratix II Edition.

1. *“When Using the Quartus II Software Version 4.2 or Later Versions, Programming Failure Is Reported During JTAG Programming on the 2S60 DSP Development Board” on page 1.*
2. *“You Cannot Write to User Configuration 2 Area of the Nonvolatile Memory on the Board Cannot with the Nios II Designs in the Kit” on page 2.*
3. *“The Write2Flash Utility, Referenced by the Stratix II EP2S60 DSP Development Board Data Sheet, Is Not On the Kit CD-ROM” on page 3.*

### **When Using the Quartus II Software Version 4.2 or Later Versions, Programming Failure Is Reported During JTAG Programming on the 2S60 DSP Development Board**

On the Stratix II DSP board, configuration of the FPGA via JTAG fails when you use the Quartus II software version 4.2 or higher, if switch4 is set to the **Open** state on DIP switch SW2. The Quartus II software version 4.2 or higher incorrectly reports that the device programming was unsuccessful.

### *Affected Configurations*

This failure is observed on all Stratix II DSP boards when you configure the FPGA via JTAG using the Quartus II software version 4.2 or later and switch4 on DIP switch SW2 is set to the **Open** state.

### *Design Impact*

This error occurs because the expected user programming file is not loaded into the FPGA. The factory configuration is loaded into the FPGA instead of the user programming file.

### *Workaround*

Set switch4 of DIP switch SW2 to the **Closed** position before programming the FPGA.

### *Solution Status*

There are no planned changes for this problem.

## **You Cannot Write to User Configuration 2 Area of the Nonvolatile Memory on the Board Cannot with the Nios II Designs in the Kit**

When trying to write a user-made configuration into User 2 area using the Nios II Flash Programmer, the flash write fails. This is caused by an error in the make target board (**TargetBoard.mak**) file. The address for the User 2 area does not match the address that is used by the configuration controller (the MAX CPLD).

### **Affected Configurations**

This problem occurs with all Nios II designs compiled with the original Nios II board component that shipped with the DSP Development Kit, Stratix II Edition version 1.1.0 kit CD-ROM.

### *Design Impact*

Your programs cannot write user configurations into the User 2 area of the on-board flash memory. However, User 0 and User 1 areas are still writable.

### *Workaround*

Replace the board component files with files you download from the Altera FTP site.

After you install the software from the distribution CD-ROM, the board files you will replace are in the directory:

```
<install_path>\StratixII_DSP_Kitv1.1.0\Examples\HW  
\NiosII\altera_dsp_dev_board_stratix_2s60
```

Download replacement files from the Altera FTP site:

```
ftp://ftp.altera.com/outgoing/devkit/DSP_DK_2S60  
/DSP-2S60_Brd_Cmp_fix.zip
```

Using the Nios II Flash Programmer utility, recompile the Nios II design that you want to use to program the flash memory.

### *Solution Status*

Future releases of this kit will include the corrected board component files.

## **The Write2Flash Utility, Referenced by the *Stratix II EP2S60 DSP Development Board Data Sheet*, Is Not On the Kit CD-ROM**

In the Stratix II EP2S60 DSP Development Board Data Sheet, in the Non-Volatile Configuration section, the **Write2Flash** utility is mentioned as a tool you can use to download user configuration data into the on-board flash. The new method is to use the Nios II Flash Programmer through the Nios II SDK Shell.

### *Affected Configurations*

This **Write2Flash** utility is mentioned in versions 1.0 and 1.1 of the *Stratix II EP2S60 DSP Development Board Data Sheet*.

### *Design Impact*

There is no design impact.

### *Workaround*

Use the Nios II Flash Programmer from the Nios II SDK Shell to download configurations into the on-board flash. See the example instructions below.



Refer to the *Nios II Flash Programmer User Guide* for more detailed instructions on using the Nios II Flash Programmer.

Example instructions for programming the 2S60 DSP board.

1. Generate a flash file to load into the flash device.
2. Run the Nios II SDK Shell.
3. Change directories to the project location.
4. Run the sof2flash utility:

```
$ sof2flash --input=<project_name>.sof --output  
=<project_name>.flash --offset=0x00500000
```

Use the offset switch to specify which configuration area of the flash will be loaded. Use 0x00500000 for User 0 area, 0x00800000 for User 1 area, or 0x00C00000 for User 2 area.

5. Copy the flash file into the on-board flash device.
6. Move a copy of the flash programming **SOF** file to your project directory. The **SOF** file is in the directory:

```
<2S60_DevKit_Install_Directory>\Examples\HW\NiosII  
\altera_dsp_dev_board_stratix_2s60\system  
\altera_dsp_dev_board_stratix_2s60.sof
```

7. Run the Nios II Flash Programmer (nios2-flash-programmer) utility:

```
$ nios2-flash-programmer --base=0x01000000 input  
=<project_name>.flash -sof  
=altera_dsp_dev_board_stratix_2s60.sof --device=1
```

### *Solution Status*

Future releases of this kit will correct the *Stratix II EP2S60 DSP Development Board Data Sheet*.

## **Contact Information**

For more information, contact Altera's mySupport web site at [www.altera.com/mysupport](http://www.altera.com/mysupport) and click **Create New Service Request**. Choose the **Product Related Request** form.

## Revision History

Table 1 shows the DSP Development Kit, Stratix II Edition errata sheet revision history.

Version	Date	Details of Change
1.1.0	August 2005	<ul style="list-style-type: none"> <li>• “When Using the Quartus II Software Version 4.2 or Later Versions, Programming Failure Is Reported During JTAG Programming on the 2S60 DSP Development Board” on page 1</li> <li>• “You Cannot Write to User Configuration 2 Area of the Nonvolatile Memory on the Board Cannot with the Nios II Designs in the Kit” on page 2</li> <li>• “The Write2Flash Utility, Referenced by the Stratix II EP2S60 DSP Development Board Data Sheet, Is Not On the Kit CD-ROM” on page 3</li> </ul>



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