

This document addresses known errata and documentation issues for the Altera® 8B10B Encoder/Decoder MegaCore® function version 1.6.0. Errata are functional defects or errors, which may cause the 8B10B Encoder/Decoder MegaCore function to deviate from published specifications. Documentation issues include errors, unclear descriptions, or omissions from current published specifications or product documents.

Table 1 shows the issues that affect the 8B10B Encoder/Decoder MegaCore function v1.6.0.

<i>Table 1. 8B10B Encoder/Decoder MegaCore Function v1.6.0 Issues</i>	
Issue	Page
A Design Change Affecting the Input & Output Ports & the Encoding Latency Was Not Documented in the User Guide	1
IP Toolbench Fails When Using X-Win32	2



For the most up-to-date errata for this release, refer to the errata sheet on the Altera website:

[www.altera.com/literature/es/es\\_ed8b10b\\_160.pdf](http://www.altera.com/literature/es/es_ed8b10b_160.pdf)

## 8B10B Encoder/Decoder MegaCore Function v1.6.0 Issues

This section describes the 8B10B Encoder/Decoder MegaCore function v1.6.0 issues.

### **A Design Change Affecting the Input & Output Ports & the Encoding Latency Was Not Documented in the User Guide**

Unlike previous versions of the 8B10B Encoder/Decoder MegaCore function which had only registered input and output ports, version 1.6.0 can have registered or non-registered input and output ports. Currently, non-registered ports is the default and only available option for this release of the MegaCore function.

#### *Affected Configurations*

This issue affects all encoder configurations.

### *Design Impact*

The encoding latency has changed from three clock cycles for registered ports, as documented in the user guide, to one clock cycle for non-registered ports.

### *Workaround*

To maintain the encoding latency documented in the *8B10B Encoder/Decoder MegaCore Function User Guide*, delay the output ports: `kerr`, `dataout [9:0]`, and `valid` by two clock cycles by sending the data through two flipflops driven by the encoder clock signal (`clk`).

### *Solution Status*

This issue will be fixed in the next release of the 8B10B Encoder/Decoder MegaCore function. A parameter allowing you to choose between registered and non-registered ports will be added to IP Toolbench, and the *8B10B Encoder/Decoder MegaCore Function User Guide* will be updated to reflect the changes.

## **IP Toolbench Fails When Using X-Win32**

Clicking the **Parameterize** button in IP Toolbench does not open the parameterization window. Additionally, not all buttons are visible in the IP Toolbench toolbar window.

### *Affected Configurations*

This issue affects version 1.6.0 and prior versions of the MegaCore function that use version 5.1 of the Quartus® II software in a Linux environment accessed from a Microsoft Windows PC using the X-Win32 terminal application.

### *Design Impact*

The MegaCore function cannot be parameterized. The **Set Up Simulation** and **Generate** buttons operate correctly.

### *Workaround*

Run IP Toolbench with the Exceed PC X server application from Hummingbird Ltd., or run IP Toolbench with Microsoft Windows.

### Solution Status

Currently, the Exceed application is the only one supported by the Quartus II software.

## Contact Information

For more information, contact Altera's mySupport website 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 2 shows the revision history for the *8B10B Encoder/Decoder MegaCore Function v1.6.0 Errata Sheet*

<b>Table 2. 8B10B Encoder/Decoder MegaCore Function v1.6.0 Errata Sheet Revision History</b>		
<b>Version</b>	<b>Date</b>	<b>Errata Summary</b>
1.2	February 2006	Added the following issue: <ul style="list-style-type: none"> <li>• "A Design Change Affecting the Input &amp; Output Ports &amp; the Encoding Latency Was Not Documented in the User Guide" on page 1.</li> </ul> Modified the following issue: <ul style="list-style-type: none"> <li>• "IP Toolbench Fails When Using X-Win32" on page 2.</li> </ul>
1.1	November 2005	Added the following issue: <ul style="list-style-type: none"> <li>• "IP Toolbench Fails When Using X-Win32" on page 2.</li> </ul>
1.0	October 2005	First release.



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