SerialLite II MegaCore Function

April 2007, MegaCore Function Version 7.0 Errata Sheet

This document addresses known errata and documentation issues for the SerialLite II MegaCore Function version 7.0. Errata are functional defects or errors, which may cause the SerialLite II 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 functional issues that affect the SerialLite II MegaCore function v7.0. A functional issue is a defect or design issue that needs an enhancement or will be fixed in a future release.

Table 1. SerialLite II MegaCore Function v7.0 Issues

For the most up-to-date errata for this release, refer to the SerialLite II v7.0 Errata Sheet on the Altera website.

SerialLite II MegaCore Function v7.0 Issues

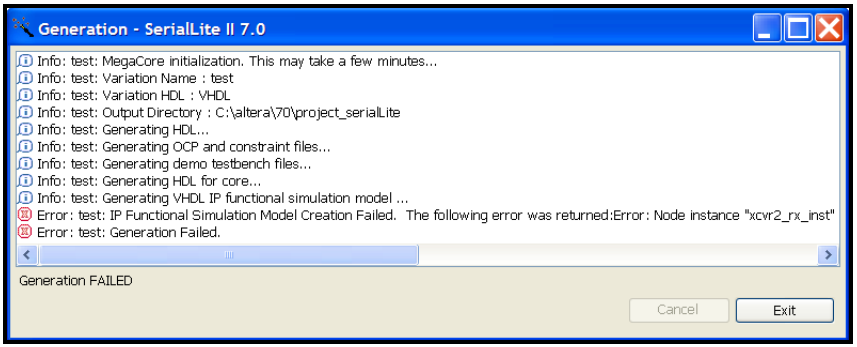
Altera has identified the following functional issues that affect the SerialLite II MegaCore Function v7.0.

The Generation Fails or a Corrupted Variation Is Generated When the Asymmetric Broadcast Mode Is Used

The SerialLite II MegaCore function fails to generate or generates corrupted variations that use the broadcast mode in an asymmetric configuration.

If the state machine is not self-synchronized, the syntax error shown in Figure 1 appears and the generation fails. If the state machine is self-synchronized, an invalid configuration is generated, data is corrupted, and the testbench fails.

Figure 1. Syntax Error Message



Affected Configurations

This issue affects configurations that use the broadcast mode and for which the transmitter number of lanes does not equal the receiver number of lanes (asymmetric).

Design Impact

If the state machine is not self-synchronized, the syntax error shown in Figure 1 appears and the generation fails. If the state machine is self-synchronized, an invalid configuration is generated, data is corrupted, and the testbench fails.

Workaround

If the self-synchronized state machine is required, use the MegaWizard interface to generate a transmitter-only broadcast variation. Use the MegaWizard interface again to generate a single lane receiver-only self-synchronized variation. Then instantiate as many of these receiver variations as required to match the number of lanes needed.

You cannot select options such as retry-on-error and flow control for your workaround variation.

If self-synchronized state machine is not required, there is no workaround other than to use a self-synchronized state machine and configure the system as previously described.

Solution Status

This issue will be fixed in a future release of the SerialLite II MegaCore function.

Data Misalignment in Multilane Stratix GX Configurations

An issue has been found with the external phase compensation that exists between the Stratix GX Transceiver blocks and the SerialLite MegaCore function. This FIFO may indicate that it is empty, when it is not empty, due to the additional delays in the pointer crossings since they are crossing clock domains.

Affected Configurations

This issue affects all Stratix GX multilane (**RX Number of Lanes** > 1) configurations.

Design Impact

This issue can cause data to become misaligned after the link is up, resulting in errors.

Workaround

No workaround exists for this issue.

Solution Status

This issue will be fixed in the 7.1 release of the SerialLite II MegaCore function.

Contact Information

For more information, contact Altera's mySupport website at **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 *SerialLite II MegaCore Function v7.0 Errata Sheet*.

Table 2. SerialLite II MegaCore Function v7.0 Errata Sheet Revision History

Version	Date	Errata Summary
1.2	April 2007	Corrected the workaround for the erratum, Data Misalignment in Multilane Stratix GX Configurations.
1.1	April 2007	Added the following erratum: Data Misalignment in Multilane Stratix GX Configurations.
1.0	December 2006	First release.

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