

# POS-PHY Level 4 MegaCore Function

April 2006, Version 2.4.1 Release Notes

These release notes for the POS-PHY Level 4 MegaCore® function v2.4.1 contain the following information:

- System Requirements
- New Features & Enhancements
- Errata Fixed in This Release
- Obtain & Install the POS-PHY Level 4 MegaCore Function
- Contact Altera
- Revision History

### System Requirements

To use the POS-PHY Level 4 MegaCore function v2.4.1, the following system requirements exist:

- A computer running any of the following operating systems:
  - Windows 2000/XP
  - Red Hat Enterprise Linux 3 or 4 WS (with support for 32-bit, AMD64, or Intel EM64T workstations)
  - Solaris 8 or 9 (32-bit or 64-bit)
- Quartus® II software version 6.0 or higher
- Adobe Reader version 5.0 or higher, for viewing PDF documentation
- Mozilla Firefox 1.0 or higher on computers running the RedHat Linux or Solaris operating systems for following web links

## New Features & Enhancements

The following list outlines new features and enhancements in this release:

Maintenance release

## Errata Fixed in This Release

The following errata was fixed in this maintenance release:

The 32-bit receiver VHDL simulation fails



For existing up-to-date errata, refer to the *POS-PHY Level 4 MegaCore* Function v2.4.1 Errata Sheet on the errata page on the Altera® website at www.altera.com/literature/es/es\_posphy4\_241.pdf

# Obtain & Install the POS-PHY Level 4

Before you can use the POS-PHY Level 4 MegaCore function, you must obtain the files and install them on your computer. Altera MegaCore functions can be installed from the MegaCore IP Library CD-ROM during or after Quartus II installation, or downloaded individually from the Altera website and installed separately.



The following instructions describe the process of downloading and installing the POS-PHY Level 4 MegaCore function.

#### Download the POS-PHY Level 4 MegaCore Function

If you have Internet access, you can download the POS-PHY Level 4 MegaCore function from Altera's website at **www.altera.com**. Follow the instructions below to obtain the POS-PHY Level 4 MegaCore function from the Internet. If you do not have Internet access, contact your local Altera representative to obtain the MegaCore IP Library CD-ROM.

- 1. Point your web browser to **www.altera.com/ipmegastore**.
- 2. Type POSPHY in the IP MegaSearch box.
- 3. Click Go.
- 4. Choose **POS-PHY Level 4** from the search results page. The product description web page displays.
- Click **Download Free Evaluation** on the top right of the product description web page. Fill out the registration form and click **Submit Request**.
- 6. Read the Altera MegaCore license agreement. Turn on the I have read the license agreement check box and click Proceed to Download Page.
- 7. Follow the instructions on the POS-PHY Level 4 download and installation page to download the POS-PHY Level 4 MegaCore function and save it to your hard disk.



Ensure you download the MegaCore function for the operating system on which the MegaCore function will be running.

#### Install the POS-PHY Level 4 MegaCore Function Files

The following instructions describe how you install the POS-PHY Level 4 on computers running the Windows, Linux, and Solaris operating systems.

#### Windows

Follow these steps to install the POS-PHY Level 4 function on a computer running a supported version of the Windows operating system:

- 1. Choose **Run** (Windows Start menu).
- 2. Type <path name>\posphy\_14-v2.4.1.exe, where <path name> is the location of the downloaded MegaCore function.
- 3. Click **OK**. The **POS-PHY Level 4** Installation dialog box appears. Follow the on-screen instructions to finish installation.

#### Solaris & Linux

Follow these steps to install the POS-PHY Level 4 on a computer running supported versions of the Solaris and Linux operating systems:

- 1. Move the compressed files to the desired installation directory and make that directory your current directory.
- 2. Decompress the package by typing the following command:

```
gzip -d posphy_l4-v2.4.1_linux.tar.gz

or
gzip -d posphy_l4-v2.4.1_solaris.tar.gz
```

3. Extract the package by typing the following command:

```
tar xvf posphy_14-v2.4.1_linux.tar↔

or

tar xvf posphy 14-v2.4.1 solaris.tar↔
```

#### **Contact Altera**

Although every effort has been made to ensure that this version of the POS-PHY Level 4 MegaCore function works correctly, if problems occur, use the following contact information to communicate issues to the appropriate Altera representative.

For technical support or other information about Altera products, go to the Altera world-wide website at **www.altera.com**. You can also contact Altera through your local sales representative or any of the sources listed in Table 1.

Table 1. Contacting Altera				
Information Type	USA & Canada	All Other Locations		
Technical support	www.altera.com/mysupport/	www.altera.com/mysupport/		
	800-800-EPLD (3753) 7:00 a.m. to 5:00 p.m. Pacific Time	+1 408-544-8767 7:00 a.m. to 5:00 p.m. (GMT -8:00) Pacific Time		
Product literature	www.altera.com	www.altera.com		
Altera literature services	literature@altera.com	literature@altera.com		
Nontechnical customer service	800-767-3753	+ 1 408-544-7000 7:00 a.m. to 5:00 p.m. (GMT -8:00) Pacific Time		
FTP site	ftp.altera.com	ftp.altera.com		

## **Revision History**

Table 2 shows the revision history for the POS-PHY Level 4 MegaCore function v2.4.1.

Table 2. POS-PHY Level 4 MegaCore Function v2.4.1 Revision History (Part 1 of 2)			
Version	Date	Revision	
2.4.1	April 2006	See "New Features & Enhancements" on page 1.	
2.4.0	October 2005	<ul> <li>Preliminary support for Stratix<sup>®</sup> II GX devices</li> <li>Preliminary support for HardCopy<sup>®</sup> II devices</li> <li>Updated the reset structure</li> <li>Added the stat_rx_pll_locked or stat_tx_pll_locked signals</li> <li>Added the ctl_rx_pll_areset or ctl_tx_pll_areset signals</li> <li>Instantiates an ALTDDIO megafunction on all status interfaces to reduce on-chip skew</li> </ul>	

Table 2. POS-PHY Level 4 MegaCore Function v2.4.1 Revision History (Part 2 of 2)			
Version	Date	Revision	
2.3.1	April 2005	<ul> <li>ALTLVDS instances can be edited with the ALTLVDS Megafunction wizard.</li> <li>Relaxed restrictions on calendar length and calendar multiplier.</li> </ul>	
2.3.0	February 2005	<ul> <li>Cyclone<sup>™</sup> II device family support at up to 250 Mbps.</li> <li>Asymmetric ports and hitless bandwidth reprovisioning.</li> <li>Re-architected clock-domain crossing and Atlantic<sup>™</sup> alignment blocks, significantly reducing the logic consumption for 64- and 128-bit receiver variations.</li> <li>Option to select single or multiple clock domain Atlantic buffering.</li> <li>Optional Atlantic interface width.</li> <li>Optional parity protection across Atlantic first-in first-out (FIFO) buffer memories.</li> </ul>	



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