



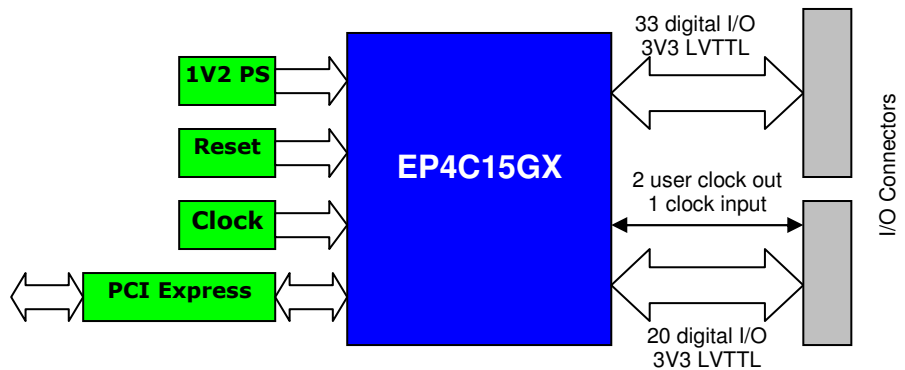
## SOPC PCIe System: Simple Base Peripheral System

### Overview

PCI Express family systems are a set of typical basic systems targeted on GEB PCIe boards family (Cyclone IV GX Fpga) which contains all files to make a PCIe subsystem quickly: Configuration files to load on FPGAs, SOPC files, related drivers for multiple OS, simple Demo and test programs. All support files are available in source format. Customer can use the basic system to develop his application hardware and software directly on GEB board, which can be sold in volume at low cost, or may retarget his application on his hardware editing the source files.

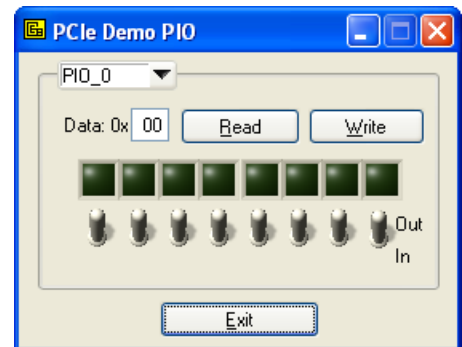
### SOPC PCIe Cards Family Features

GEB High Performance System On Card (Sopc-Card) includes, all-in-one, whatever needed to start a PCIe design using the advanced features of Altera CycloneIV-GX family and features a socketed board with an **EP4CGX15** device in a BGA169 package.



### Simple Base Peripheral System Features

The Simple Base Peripheral System includes all Customer needs to start designing and practicing with PCI-Express, that is 7 PIOs totally settable as inputs or outputs, to access the pins available on the I/O connectors. Moreover, a simple Test Application is provided in conjunction with the device drivers (available for different x86 platforms). The Test Application allows the user to easily control I/O by means of an intuitive Graphical User Interface (GUI). Furthermore, the provided source code allows you to understand how to use the drivers in a custom application.



### Driver Architecture

The driver allows direct access to all I/O registers inside Avalon Bus by function calls. More library files are then provided to control base devices, in order to develop custom applications without having to care about low-level access and focusing on the application business logic. In the end, custom device drivers can be developed starting from the library example source files, and then be integrated in the end-user application.

### Customization Service

GEB is available to target PCIe hardware/software subsystem to your needs, integrating your hardware blocks, analyzing and foreseeing the performance, developing the SOPC system and drivers on GEB or on Customer Boards. During the design all know-how needed to maintain the system in the next years will be taught to the customers.

### Ordering Information

Product Name	GEB Code	Description
PCI-E-REGS-XP32	120107-01A1	Simple Regs QSYS Target system, XP32 drivers
PCI-E-REGS-732	120107-01A2	Simple Regs QSYS Target system, Seven32 drivers
PCI-E-REGS-764	120107-01A3	Simple Regs QSYS Target system, Seven64 drivers

