UltraZed™ PCIe Carrier Card

The UltraZed™ PCIe Carrier Card supports the UltraZed-EG™ System-on-Module (SOM), providing easy access to the full 180 user I/O, 26 PS MIO, and 4 PS GTR transceivers available from the UltraZed-EG SOM via three Micro Headers. Two 140-pin Micro Headers on the carrier card mate with the UltraZed-EG SOM, connecting 180 of the UltraZed-EG Programmable Logic (PL) I/O to 2 Digilent Pmod™ compatible interfaces, FMC LPC slot, LVDS Touch Panel interface, push button switches, DIP switches, LEDs, Xilinx SYMOM, and clock oscillator.

The UltraZed PCIe Carrier Card also uses a 100-pin Micro Header to gain access to the UltraZed-EG SOM Processing System (PS) MIO and GTR transceiver pins as well as USB 2.0 and Gigabit Ethernet interfaces. The UltraZed-EG SOM PS MIO and GTR pins are used on the PCIe Carrier Card to implement the microSD card, PMOD, USB 2.0/3.0, Gigabit Ethernet, SATA host, Display Port, PCIe Endpoint interface, dual USB-UART, user LED and switch, and MAC Address device interfaces.

The PCIe Carrier Card also provides several power rails to the UltraZed-EG SOM including the 12V main input voltage, user selectable bank voltages for the PL I/O (VCCOs), and the necessary voltages for the GTR transceivers. The PCIe Carrier Card is a great vehicle for validating the UltraZed-EG SOM and provides an excellent starting point for creating your own UltraZed-EG custom carrier card.

FEATURES
- Single UltraZed-EG SOM slot
- microSD card connector
- PS PMOD header
- Dual USB-UART
- Display port connector (x1)
- PCIe x1 Endpoint
- USB 2.0/3.0 connector
- SATA host interface
- RJ45 connector
- 2 PL PMOD headers
- PL user 8-position DIP switch
- 4 PL user push switches
- FMC LPC Slot
- 8 PL user LEDs
- PS user LED
- PMBus header
- PS VBATT battery
- SOM reset switch
- Differential clock generator
- Digilent USB-JTAG module
- PC4 JTAG header
- SYSMON header
- I2C MAC Address device
- LVDS Touch Panel interface
- USB connector (for dual USB-UART)
- 3 JX micro connectors (2 x 140-pin, 1 x 100-pin) providing the following connections to the UltraZed-EG SOM:
  - 180 user PL I/O pins
  - 26 user PS MIO pins (one full MIO bank)
  - 4 PS GTR transceivers
  - 4 PS GTR reference clock inputs
  - PS JTAG interface
  - PL SYMOM interface
  - USB 2.0 connector interface
  - Gigabit Ethernet RJ45 connector interface
  - PMBus interface
  - SOM PS VBATT battery input
  - Carrier Card I2C interface

Target Applications
- PCIe
- General UltraZed-EG evaluation and prototyping
- Embedded system-on-module (SOM) applications
- Test & measurement

To purchase this kit, visit www.ultrazed.org/product/ultrazed-pcie-carrier-card