

### OXPCIe200 Highlights

- Dual USB 2.0 host ports or USB 2.0 host port & SPI/SRAM port, both with UART port configuration
- PCIe x1 end-point
  - Integrated 2.5 GT/s SerDes
- Small 9x9mm<sup>2</sup>, 156-pin TAPP package
- Typical power: 300 mWatts
- PCI Express Base Specification, r1.1
- PCI Power Management Specification, r1.2
- ExpressCard, Mini Card, and Add-In Card compatible
- MSI/MSI-X compatible
- ASPM (L0s, L1) Link power management
- Master or slave mode SPI or SRAM port
- PLX's Oxford 950 UART
- DMA/Bus Mastering on UART port
- Asynchronous baud rates up to 15 Mbps
- 128-byte deep transmit/receive FIFO
- 9, 8, 7, 6, 5-bit data framing
- Advanced FIFO fill management
- IEEE1284, SPP/EPP/ECP compliant parallel port
- 8 user-configurable GPIOs/PWMs
- Device parameters configurable via EEPROM
- 1.8V, 2.5V, 3.3V UART and GPIO I/O voltage
- Operation from a single 3.3V power supply
- Industrial Temperature range: -40°C to +85°C

### Application:

## **PCI Express USB 2.0 Host Card Adapter**

### PLX Product:

## **OXPCIe200 – x1 PCIe-to-USB 2.0 Host Bridge**

### Key Benefit:

## **Industry's only PCI Express native USB 2.0 host controller**

### **Legacy PCI based USB2.0 Host Controllers**

All computer systems shipping today support the mainstream Universal Serial Bus (USB). USB is the prevailing choice used to connect an abundant number of external peripherals ranging from simple Human Interface Devices (mouse, keyboard, etc.) to mass storage devices (hard drives, memory sticks, etc.) just to name a few. However, the number of available USB host ports is often limited which restricts the number of peripherals which can be attached to a computer system. A USB2.0 Host Controller card is used to expand USB connectivity, but this obsolete PCI native version will not work in the latest PCIe native computer systems that are widely available today. This is a problem for PCIe native computer systems needing additional USB host ports.



### **A PCIe native USB 2.0 host controller solves the problem**



PLX Technology's OXPCIe200 is the industry's first and only PCIe to USB2.0 Host Controller Bridge that is available today and already in production. The OXPCIe200 expands the number of available USB host ports on the new PCIe native computer systems. Therefore, the number of USB host ports on a PCIe computer system is no longer restricted by simply designing in the OXPCIe200.

The OXPCIe200 is a fully integrated, single-lane PCIe x1 end-point controller where the SerDes enables the host system to access the USB host. It uses the operating systems native USB drivers and supports dedicated PLX device drivers that are quality assured, exhaustively tested, and Windows Hardware Quality Labs (WHQL) approved. The OXPCIe200 is housed in a tiny 9x9mm<sup>2</sup> TAPP package.

The OXPCIe200 only draws 300mW of additional power thereby no heat sink or air flow will be required. In addition, its small package size utilizes only one square centimeter of board real estate. The low power consumption, the small footprint, and the low cost of the OXPCIe200 make it an ideal fit when adding more USB host ports to any PCIe computer system.

ExpressCard USB2.0 Host Controller:



Now that the OXPCIe200 can easily add more USB host ports to any PCIe computer system, the restriction on the number of USB peripherals connected to a PCIe computer system can now be increased. Therefore, customers are no longer limited by the number of USB host ports defined by the computer architecture. A simple USB Host Controller ExpressCard or PCIe add-in card with the OXPCIe200 is the solution!!

### Shipping Now

The OXPCIe200 is in production today and samples are in stock at PLX. OXPCIe200 comes in a lead-free RoHS compliant package. A Reference Design Kit (RDK) is also available to help ease the design process and allows designers to quickly reach time to market.

Part Number	Description
OXPCIe200-TAAG	Lead-Free TAPP Package
EK-OXPCIe200	Rapid Development Kit

### Key Advantage of Using PLX

PLX is the industry's leading supplier of PCI Express Bridges and Switches. The company is focused on the design and support of silicon in PCI Express systems. Below is a table showcasing the PCIe bridges that are in production and available today:

PCIe Bridges	Lanes	Description
OXPCIe840	x1	Parallel Port to PCIe
OXPCIe952	x1	Dual Serial to PCIe
OXPCIe954	x1	Quad Serial to PCIe
OXPCIe958	x1	Octal Serial to PCIe
PEX 8112	x1	PCI-to-PCIe
PEX 8114	x4	PCI-X-to-PCIe
PEX 8311	x1	Local bus to PCIe

PLX also offers a wide range of Serial Port bridges to PCI and PCI to PCI bridges.

### Design Tools & Documentation:

- Oxide Software Development Kit
- <http://www.plxtech.com/products/sdk/oxide>
- On PLX Website Toolbox:
- [www.plxtech.com/products/uart/oxpcie200](http://www.plxtech.com/products/uart/oxpcie200)
  - Product Brief
  - Data Book
  - Design Notes
  - Application Notes
  - IBIS Models
  - Reference Designs
  - Device Drivers