

### OXPCIe952 Highlights

- Dual UART or single UART plus IEEE 1284 parallel port configurations
- PCIe x1 end-point
  - Integrated 2.5 GT/s SerDes
- Small 11x11mm<sup>2</sup>, 120-pin TFBGA package
- Typical power: 200 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
- PLX's Oxford 950 UART
- DMA/Bus Mastering on both UART ports
- 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
- RS232, RS422, RS485, and IrDA operation
- 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 Dual Serial RS232/422/485 Card Adapter

### PLX Product:

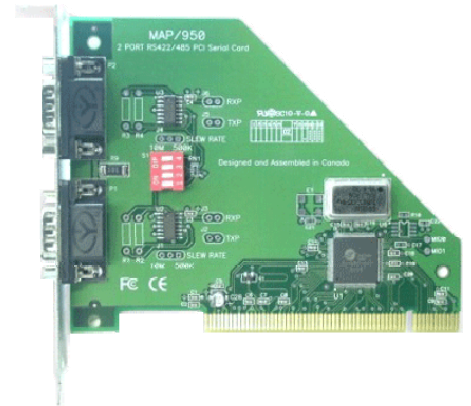
## OXPCIe952 – x1 PCIe-to-Dual Serial and Parallel Port

### Key Benefit:

## PCI Express Native Solution

### Legacy 2 port RS232/422/485 PCI Serial Cards

Majority of the RS232/422/485 controller add-in cards in the market today ship in the PCI Serial Card form factor. This is largely due to the fact that serial controller silicon is still being deployed as a PCI native solution. This is slowly becoming a problem as PCIe slots are now widely available on motherboards that are now shipping. Eventually, PCIe will be the dominant choice and legacy RS232/422/485 serial cards will thus need to be available as a PCIe based add-in card. Nevertheless, it is a very expensive and lengthy process to design PCIe native serial controller silicon. Serial Card manufacturers need to address this issue to keep up with the new PCIe systems in the market today. A PCI to PCIe bridge will solve this dilemma, but why add unnecessary silicon.



### A PCIe Bridge to Dual Serial & Parallel Port Solves the Problem

The wait is over for serial card manufacturers as PLX Technology offers a wide range of PCIe native serial devices. Engineers can easily design in one of these devices without the need for a PCI-to-PCIe bridge to convert existing designs into the PCIe form factor. The OXPCIe952 was developed for opportunities just like this.



The OXPCIe952 is a fully integrated, single-lane PCIe x1 end-point dual serial and parallel port connectivity solution. It delivers outstanding system performance and unrivaled flexibility to satisfy even the most demanding serial applications. The OXPCIe952 uses dedicated PLX device drivers that are quality assured, exhaustively tested, and Windows Hardware Quality Labs (WHQL) approved. The OXPCIe952 is housed in a tiny 11x11mm<sup>2</sup> BGA package.

The OXPCIe952 only draws 200mW of additional power thereby no heat sink or air flow will be required. In addition, its small package size utilizes half the board real estate its predecessor the PCI native solution consumes (OXuPCI952 is housed in a 22x22mm<sup>2</sup> LQFP package). The low power consumption, the small footprint, and the low cost of the OXPCIe952 make it an ideal fit when deploying RS232/422/485 serial cards in the new PCIe form factor.

PCIe native RS232/422/485 Serial Card:



Now that the OXPCIe952 can easily be designed in, Serial Card manufacturers can continue to sell their legacy add-in cards in the PCIe form factor as PCIe slots proliferate the latest computer architectures. A simple RS232/422/485 serial card with the OXPCIe952 is the solution!!

### Shipping Now

The OXPCIe952 is in production today and samples are in stock at PLX. It 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
OXPCIe952-FBAG	Lead-Free BGA Package
EK-OXPCIe952	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
OXPCIe200	x1	Multi-Port to PCIe
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:

On PLX Public Website Toolbox:

[www.plxtech.com/oxpcie952](http://www.plxtech.com/oxpcie952)

- ◆ Product Brief
- ◆ Data Book
- ◆ Design Notes
- ◆ Application Notes
- ◆ IBIS Models
- ◆ Reference Designs
- ◆ Device Drivers