

PCI 9056RDK-LITE

High-Performance, Flexible Hardware Development Platform

- PCI r2.2 compliant PCI form factor
- PLX PCI 9056 I/O Accelerator
 - 32-bit, 66MHz PCI bus operation
 - 32-bit, 66MHz generic Local Bus operation
- CPLD Local Bus memory controller and 128KB SRAM
- PLX Option Module (POM) expansion connector
- 33 surface mount footprints for processors, DSPs, ASICs, FPGAs, memory, I/O devices
- 30x25 0.1" through hole grid space for through hole devices

Complete Design Documentation

- OrCAD schematics
- Bill of Materials (BOM)
- OrCAD layout source with Gerber output files
- CPLD memory controller Verilog source code
- All hardware manuals in PDF format

Complete Windows Host Software Development Environment

- Windows 98/Me/NT/2000 device drivers with source code
- PCI 9056 Windows Host API and object code library
- PLXMon Windows GUI debug tool for monitoring, debugging, configuration, and code download
- Power Management Event D₃COLD wake-up event emulation



Rapid Development Kit For PCI 9056 Generic Local Bus Designs

An Invaluable Development Aid

The PLX PCI 9056RDK-LITE (RDK-LITE) delivers a flexible development platform for designs using the PCI 9056 with generic 32-bit local bus devices. The RDK-LITE is shipped pre-configured for de-multiplexed generic address/data bus operation, but is very easily reconfigured for multiplexed address/data bus applications. The RDK-LITE provides 33 surface-mount footprints for hardware designers to easily add processors, DSPs, ASICs, FPGAs, memory, and I/O devices to test, simulate, and debug their designs without fabricating their own boards, which can save considerable time in the development process and shorten time to market. The RDK-LITE also includes the PLX Software Development Kit Lite Edition (SDK-LITE) CD, which provides a complete Microsoft Windows® software development environment. The PCI 9056RDK-LITE's software, hardware registers, and footprints are backward-compatible with the PCI 9054RDK-LITE, simplifying the move from existing 32-bit, 33MHz PCI 9054 generic local-bus designs into 32-bit, 66MHz PCI 9056 based products.

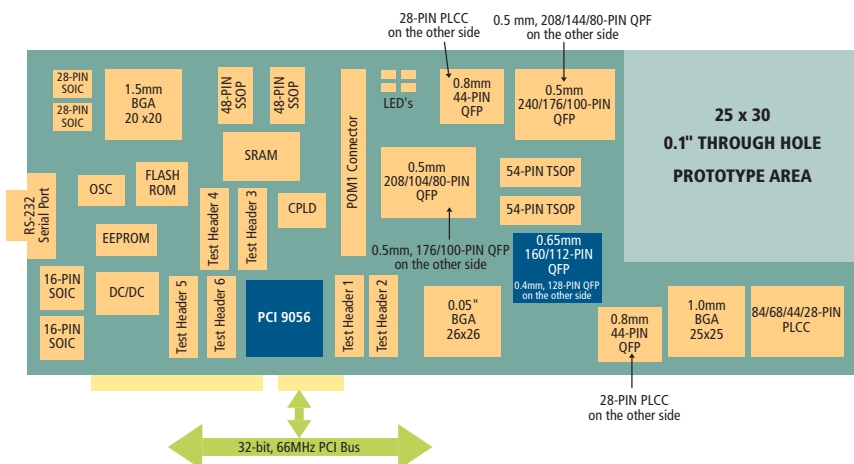
A Complete Package

The hardware reference board serves as both a hardware and software development platform for PCI 9056 based designs. This board is configured for de-multiplexed address and data bus operation (C Mode), but it is user configurable for multiplexed address and data bus operation (J Mode). Its local bus memory controller and SRAM enable immediate Direct Slave and DMA code development and testing. Its large and flexible prototyping area enables the easy extension of the test and debug features of the RDK to include your value added logic.

The Hardware Development Kit LITE (HDK-LITE) CD-ROM includes complete documentation of the reference board hardware design, making its components easily reusable in your designs. This documentation includes the board schematics, the OrCAD layout source and Gerber output files, Bill of Materials (BOM), the Verilog source code for the CPLD memory controller and manuals in PDF format.

The SDK-LITE is a CD-ROM which provides a complete set of Windows host side software and tools, including host-side Windows 98/Me/NT/2000 drivers for the reference board, PCI 9056 specific APIs and object code libraries, and the PLXMon™ Windows GUI debug tool. The APIs are backward compatible with the PCI 9054, enabling the easy migration of PCI 9054 software to the PCI 9056.

PCI 9056RDK-LITE Block Diagram



PCI 9056RDK-LITE Board

| Function | Description |
|---|--|
| PCI Bus Interface | PLX PCI 9056 I/O Accelerator |
| PCI Bus Speed | 32-bit, 66 MHz Max |
| Local Bus Speed | 32-bit, 66 MHz Max with C or J mode |
| PME D3 _{cold} wake up emulation button | Emulate Power Management wake up event |
| 32K x 32 synchronous SRAM with CPLD memory controller | Demonstrating the infinite bursting capability of the PCI 9056 for both C and J modes |
| BGA Footprints | 0.050" 26x26, 1.0 mm 25x25, 1.5mm 20x20 |
| QFP/PLCC Footprints | 0.65mm 160/112-pin with 0.4mm 128-pin on soldering side 0.5mm 240/176/100-pin with 0.5mm 208/144/80-pin on soldering side 0.5mm 208/144/80-pin with 0.5mm 176/100-pin on soldering side Two (2) 0.5 mm 44-pin with 28-pin PLCC on soldering side 32-pin PLCC 28/44/68/84-pin PLCC |
| SDRAM Footprint | Two (2) 54-pin supporting up to 64 Mbytes SDRAM |
| EEPROM Socket | Supports boot-up Flash memory |
| RS232 DP-9 Serial Port | Used for debugging or code downloading |
| RJ 40 and USB Connector Footprints | Supports Ethernet or USB port |
| Termination Adapter Footprints | Six (6) 2x10-pin |
| 0.1" Through Hole Grid Space | For through hole devices |

PCI 9056HDK-LITE CD-ROM

| Contents | Description |
|-------------------------|--|
| PCI 9056HDK-LITE CD-ROM | A CD-ROM containing all hardware design information: OrCAD schematics, OrCAD layout source and Gerber output files, Bill of Materials (BOM), glue logic code, hardware manuals in PDF format |

PLX SDK-LITE CD-ROM

| Contents | Description |
|--|--|
| PCI 9056 host side API and object code libraries | Simplifies the programming of complex hardware control with simple, powerful API calls. The reusable components enable easy creation of device drivers for customer environments and provide for easy porting to future PLX PCI devices |
| Windows 98/Me/NT/2000 drivers | PCI 9056 Windows reference drivers |
| PLXMon™ | Enables easy monitoring, debugging, and configuring of PLX's PCI devices and other PCI/local bus devices. Supports downloading of sample boot Flash code onto RDK or customer design and allows debugging via serial and/or Ethernet ports |
| Comprehensive Manuals (PDF) | Shortens learning curve and development cycle |

Product Ordering Information

| Part Number | Description |
|------------------------|---|
| PCI 9056-AA66BI | PCI 9056 I/O Accelerator Chip (PBGA) |
| CompactPCI 9056RDK-860 | CompactPCI Rapid Development Kit with PLX PCI 9056 I/O Accelerator Chip and Motorola MPC860 PowerQUICC |
| PCI 9056RDK-LITE | PCI 9056 flexible Rapid Development Kit |
| SDK-LITE | Windows host side software development kit for PLX I/O Accelerators and Processor |
| SDK-PRO | Windows host and local sides software development kit, plus RTOS and source code for PLX I/O Accelerators and Processor |

Please visit the PLX Web site at <http://www.plxtech.com> or contact PLX sales at 408-774-9060 for pricing and availability.



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