PCI 9054RDK–LITE

PCI 9054 Rapid Development Kit

High-Performance, Flexible Hardware Development Platform

- PCI r2.2 compliant PCI form factor
- The PCI 9054 I/O Accelerator
  - Supports 32-bit, 33MHz PCI bus operation
  - Supports 32-bit, 50MHz generic Local Bus operation
- CPLD Local Bus memory controller and 128KB SRAM
- PLX Option Module (POM) expansion connector
- Surface mount footprints for processors, DSPs, ASICs, FPGAs, memory, I/O devices
- 30x25 0.1" through hole grid space for expansion

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

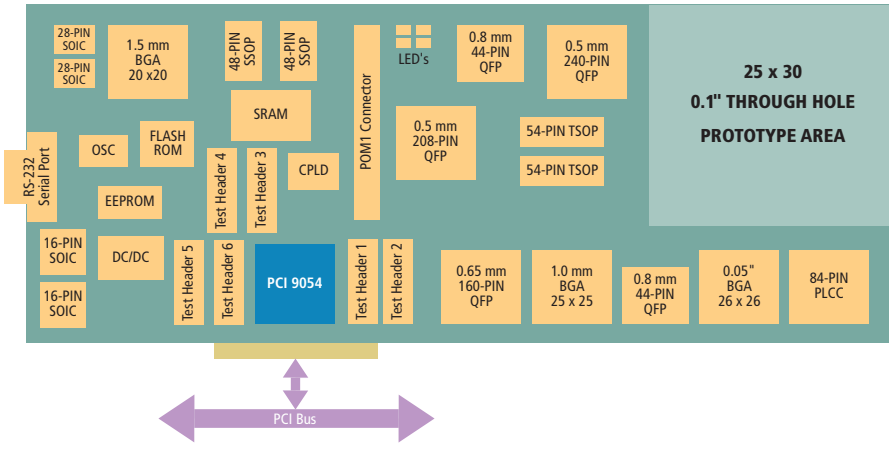
Complete Windows Host Software Development Environment

- Windows 98/Me/NT/2000 device drivers with source code
- PCI 9054 Windows Host API and object code library
- PLXMon Windows GUI debug tool for monitoring, debugging, configuration, and code download

Based on the powerful PLX PCI 9054, the PLX PCI 9054RDK-LITE (RDK-LITE) provides a low-cost development environment for PCI 9054 embedded application designs.

At the heart of the RDK-LITE is the PLX PCI 9054 I/O Accelerator that supports a 32-bit, 33MHz PCI bus and a 50MHz local bus. It provides a complete PCI v2.2 specification implementation enabling burst transfers up to 132 Mbytes/second. The PCI 9054 incorporates PLX's industry leading advanced Data Pipe Architecture™ technology including dual DMA engines, programmable PCI Initiator and Target data transfer modes and PCI messaging functions.

A prototyping area featuring surface-mount footprints and a 0.1" through-hole grid provides space to add additional memories, FIFOs, ASICs and I/O devices. This prototyping area allows designers to develop their own custom hardware without having to wait for fabrication of their own PCI-compliant boards. The RDK-LITE kit includes the PLX Hardware Development Kit (HDK) CD, containing reference design information for hardware development. Also included is the PLX Software Development Kit Lite Edition (SDK-LITE), providing a complete Microsoft Windows host-side development environment.



PCI 9054RDK-LITE Block Diagram

PCI 9054RDK-LITE Board

Features	Description/Value
PCI Bus Speed	33 MHz Max
Local Bus Speed	50 MHz Max
Through Hole Matrixes	Supports BGA 0.050" pitch up to 26 x 26 BGA 1.0 mm pitch up to 25 x 25, BGA 1.5mm pitch up 20x20
Prototype Footprints	0.8 mm pitch: 54-pin TSOP (2), 44-pin PQFP (2) 0.65 mm pitch: 160-pin PQFP, 112-pin PQFP 0.5 mm pitch: 240-pin PQFP, 208-pin PQFP (2), 176-pin PQFP (2), 144-pin PQFP (2), 100-pin PQFP (2), 80-pin PQFP (2) 0.4 mm pitch: 128-pin PQFP 0.05" pitch: 84-pin PLCC, 68-pin PLCC, 44-pin PLCC, 28-pin PLCC (3), 28-pin SOIC (2), 16-pin SOIC (2) 0.025" pitch: 48-pin SSOP (2)
SDRAM	Supporting up to 64 Mbytes SDRAM with footprints on board (0.8mm pitch 54-pin TSOP)
EEPROM Socket	Supports boot-up FLASH memory
SRAM	128 Kbytes (32k x 32)
RS232 DB-9 Serial Port	Used for debugging or code downloading
RJ-45 and USB Connector Footprints	Can be used for Ethernet and USB connectors
Logic Analyzer Headers	Six (6) 2x10-pin for HP Termination Adapters
POM J-Bus Connector	Used for all PLX Option Modules
30 x 25 0.1" Through Hole Grid Space	Easy to add other devices on board

HDK-LITE CD-ROM

Contents	Description
HDK-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 9054 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 9054 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 9054-AB50PI	PCI 9054 I/O Accelerator Chip (PQFP)
PCI 9054-AB50BI	PCI 9054 I/O Accelerator Chip (PBGA)
PCI 9054RDK-LITE	PCI 9054 Bus Master Prototyping Kit
PCI 9054RDK-860	PCI Reference Design Kit with PLX PCI 9054 I/O Accelerator Chip and Motorola MPC860 PowerQUICC
CompactPCI 9054RDK-860	CompactPCI Reference Design Kit with PLX PCI 9054 I/O Accelerator Chip and Motorola MPC860 PowerQUICC
SDK-LITE	Windows host side software development kit for PLX I/O Accelerators and Processor
SDK-PRO	Window host and local sides software development kit, plus Lunux host drivers, 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 samples.

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THE I/O INTERCONNECT SOLUTION

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