

IOP 480RDK

Features

- PCI v2.2 compliant adapter board design based on the powerful PLX IOP 480 I/O Processor
- PowerPC 32-Bit RISC CPU Core with MMU at 66MHz
- Sample IOP 480 chip and Databook

IOP 480HDK CD-ROM:

- Complete reference design information
- OrCAD Schematics
- Gerber Layout Files
- Hardware Reference Manual
- Bill of Materials (BOM)
- IOP 480 Data Book

PCI SDK:

- Flexible IOP 480 API object code libraries
- Board Support Package (BSP) allows easy porting to customer design
- Sample Windows 98 and NT device drivers
- PLXMon 99, a comprehensive Windows 98 and NT GUI utility for monitoring, debugging, configuration and code downloading
- Comprehensive reference manuals for PCI SDK and PLXMon 99

Development Tool Support:

- Supported by a wide range of PowerPC development tools including the IBM RISCWatch and RISCTrace emulators, third party compilers, debuggers, real-time operating systems and other tools available through the PLX Partner Program

Reference Design Kit with HDK CD-ROM and PCI SDK

Based on the PLX IOP 480 I/O Processor, the PLX IOP 480RDK Reference Design Kit (RDK) provides a complete development environment for IOP and PCI embedded adapter designs.

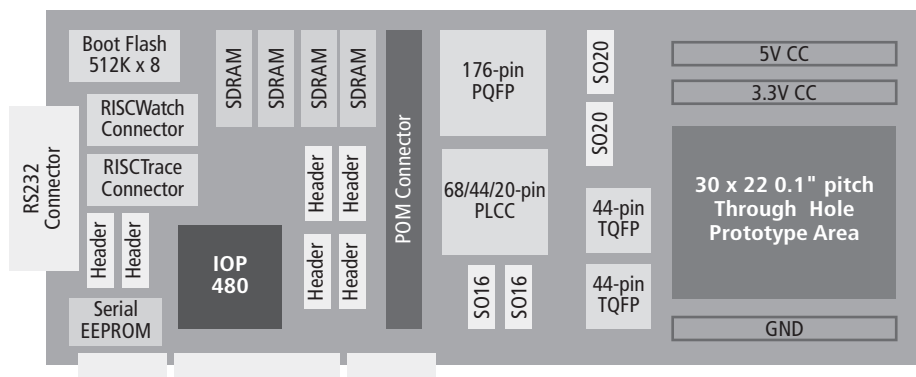
At the heart of the RDK is the PLX IOP 480 I/O Processor which supports a 32-bit, 33MHz PCI bus and 66MHz local bus. It has a 32-bit PowerPC RISC CPU core built-in with MMU, 4KB I-Cache and 2KB D-cache. The IOP 480 performs up to 80 MIPS @ 66MHz and provides a complete PCI v2.2 specification implementation enabling burst transfers up to 132 Mbytes/second. The IOP 480 incorporates PLX's industry leading advanced Data Pipe Architecture™ technology including dual DMA engines, programmable PCI Initiator, Target data transfer modes and PCI messaging functions. Additional enhancements include CompactPCI Hot Swap capability, power management, Local-to-Local DMA mode, memory controller, and both PCI and local bus arbiters.

The PLX IOP 480RDK allows customers to quickly and easily add PCI to a variety of applications in telecommunications, data communications and other embedded applications where cost, space, power consumption, and performance are all important criteria.

The PLX IOP 480RDK Reference Design Kit includes a PCI v2.2 compliant board, IOP 480HDK CD-ROM and PLX PCI Software Development Kit (SDK). The HDK CD-ROM offers a complete set of reference design files. It includes OrCAD Schematics, Gerber Layout Files, Bill of Materials (BOM), Hardware Reference Manual, and the IOP 480 Data Book. The PCI SDK features a complete set of tools for software development which significantly reduces the time necessary to develop PCI and I/O Processor (IOP) based software. The PCI SDK includes IOP 480 host and local side Application Programming Interface (API) object code libraries. A Board Support Package (BSP) with "C" source code provides everything necessary for porting to your target design. Also included are sample Windows® 98 and NT drivers. Plus, you also get PLXMon® 99, a robust and comprehensive Windows 98 and NT based GUI utility that allows for interactive PCI and local bus debugging, configuration, and code download to the PLX RDK board and customer board.



IOP 480RDK Block Diagram



IOP 480RDK

Function	Description
I/O Processor	PLX IOP 480 with 66MHz Max
Local Bus Speed	66 MHz Max
PCI Bus Speed	33 MHz
SDRAM	32 Mbytes (8M x 32)
Boot ROM Flash	512 Kbytes (512K x 8)
SDRAM Memory Controller	Integrated into IOP 480 chip
RS232C DB-9 Serial Port	Integrated into IOP 480 chip
IBM RISCWatch®/JTAG and IBM RiscTrace® Connectors	Integrated into IOP 480 chip
PLX Option Module Connector	Allows local bus daughter board development
Prototype area including popular device footprints	Easy to add new devices on board

IOP 480HDK CD-ROM

Content	Description
Hardware Documentation & Complete Design Files	Hardware Reference Manual, OrCAD Schematics, Gerber Layout Files, BOM, IOP 480 Chip Data Book, IOP 480 Product Brief

PLX PCI SDK

Features	Benefits
IOP 480 software API object code libraries	Simplifies the programming of complex hardware control with simple, powerful API calls. Enables easy creation of device drivers for RTOS or custom environments. Provides for easy porting to future PLX PCI & IOP devices
Board Support Package (BSP)	Allows easy porting to customer design with "C" source code
Sample Windows 98 and NT drivers	Allows creation of PLX device drivers
PLXMon 99 with User's Manual	Enables easy monitoring, debugging, and configuring of PLX's PCI & IOP devices. Supports code downloading on to the PLX RDK or customer board and allows debugging via serial port.
Programmer's Reference Manual	Enables easy use of PLX powerful API calls
Compatibility	Compatible with tools for IBM PowerPC 401

Product Ordering Information

Part Number	Description
IOP 480-AA66PI	PCI I/O Processor Chip (PQFP)
IOP 480-AA66BI	PCI I/O Processor Chip (PBGA)
IOP 480RDK	IOP 480 Reference Design Kit
IOP 480HDK CD-ROM	IOP 480 Hardware Development Kit CD-ROM with complete reference design files
PCI SDK	PCI Software Development Kit for IOP 480
PLX SDK for I ₂ O Architecture	I ₂ O Software Development Kit for PLX PCI devices and IOP



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