

DO-EDK

Embedded Development Kit



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Developing a custom processing system using traditional solutions such as ASSPs or ASICs can involve risk, time delays and challenges in both resources and costs. Programmable system platforms that include hard and soft processor core options, along with soft peripherals to implement a complete SoC in an FPGA, can resolve these issues. By combining a programmable Platform FPGA with a tightly integrated embedded design environment, system designers can accelerate their products to market.

To streamline and ease the platform development process, the Xilinx Embedded Development Kit (EDK) enables the definition of custom hardware platforms for programmable systems using processor cores (PowerPC or Microblaze), parametrisable IP and interconnect busses. It will also allow for the development of software platforms to match custom hardware and employs verification support to interface to Xilinx supported HDL simulators.

Key Features

Xilinx Platform Studio (XPS)

- Graphical and command line tools for developing and debugging the hardware and software platforms for an embedded application
- Hardware platform that includes graphical and textual definition tools and generation of simulation and implementation netlists for use with the ISE logic design tools
- Software platform definition that includes graphical and textual tools for matching it to the hardware platform, editing source code, running the compiler tool chains and library generation

Software Development Tools

- GNU C/C++ compiler for MicroBlaze and PowerPC
- GNU Debugger for MicroBlaze and PowerPC
- Other GNU utilities
- XMD – Xilinx Microprocessor Debug engine for MicroBlaze and PowerPC It provides host-based target control using command line tools that enable complex regression testing
- Data2MEM – a stand alone application for loading and updating on-chip memory content directly within the FPGA bitstream
- Base System Builder – Wizard to streamline configuring hardware elements, processor options, bus system, IP options, and automatically generate memory map and design files

- Platform Studio SDK (Software Development Kit) – SW focused development and debug environment based on Eclipse IDE Controller, HDLC Multiple Channel (up to 256) Controller, and UART 16450, 16550 etc)

Board Support Packages (BSPs)

- Stand Alone BSP – For non-RTOS systems (MicroBlaze and PowerPC)
- Wind River VxWorks – For PowerPC Platform FPGAs
- MontaVista Linux – For PowerPC Platform FPGAs
- Support for Xilinx MicroKernel (XMK) Systems

Processor IP

- PowerPC and MicroBlaze infrastructure and peripheral IP cores (CoreConnect Processor Local Bus (PLB) and On-Chip Peripheral Bus (OPB) infrastructure cores)
- Evaluation versions of high value CoreConnect cores (EMAC 10/100, IIC Master Slave, HDLC Single Channel Controller, HDLC Multiple Channel (up to 256) Controller, UART 16450, 16550 etc)

MicroBlaze Soft Processor Core

- Industry's fastest 32-bit soft processor core

Service available or already delivered T&R from Manufacturer.
Tapes are available, but not stocked at Avnet Logistics due to low demand.
Device supported by or programming equipment, but the socket for this package must be provided by customer.

P/N	Package	Programming	Taping & Reeling	Marking	RoHS compliant*
DO-EDK			Tool		