

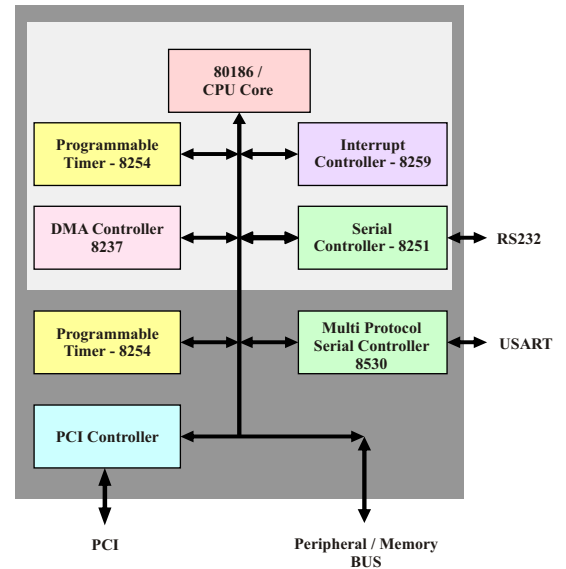
Overview

iW-86SOC design provides instruction set compatibility to 80186 type design with multiple peripherals fit in to a single FPGA.

Features

- ◆ iW -86 CPU Core with
 - ▶ Bus Interface Unit
 - ▶ Bus Arbitration Unit
 - ▶ Wait Control Unit
- ◆ Multi Protocol Serial Controller equivalent to 8530
- ◆ 8254 Programmable Timer
- ◆ PCI Target controller with on-chip memory
- ◆ Peripheral/Memory bus interface
- ◆ CPU on-chip peripherals
 - ▶ Programmable 16 bit timer similar to 8254
 - ▶ Serial Controller Unit similar to 8251
 - ▶ Interrupt Controller Unit similar to 8259
 - ▶ DMA Controller Unit similar to 8237

Block Diagram



Core Benefits

- ◆ Compatible with the 80186 instruction set
- ◆ High FPGA integration enables lower BOM cost and smaller board design
- ◆ Support to retarget and merge external peripherals and traditional custom old ASICs
- ◆ Enhancements of system performance, with increased operating frequency and integration

Core Applications

- ◆ Quick migration of 80186 based designs to an FPGA platform
- ◆ Deliver Retrofit of existing systems, maintaining the I/O compatibility
- ◆ Replacement for 80186 processor and ASICs
- ◆ Typical processor applications such as Industrial, Automotive, etc.

Deliverables

- ◆ Technical Specification
- ◆ RTL Verilog Synthesizable Code
- ◆ Comprehensive Test Environment
- ◆ Technical Support and Maintenance

About Us

iWave Systems Technologies is an embedded Hardware and Software Turnkey Design Services focused on providing integrated solutions for developing innovative products and systems in the areas of Communication, Consumer Electronics and Multimedia. iWave offers complete turnkey solutions for systems engineering and product development.

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