32-bit RISC CPU IP
SH-4 CPU

Overview

The SH-4 is a 32-bit RISC (reduced instruction set computer) microprocessor, featuring object code upward-compatibility with Renesas SuperH SH-1, SH-2, SH-3, and SH-3E microcomputers. It includes separate instruction and operand caches, the latter supporting both copy-back and write-through modes.

Key Features

- 32-bit CPU + FPU, MMU option
- CPU with integrated vector FPU
    - 7MFLOPS / MHz
- Dual issue 32-bit CPU
    - 1.5DMIPS / MHz
- 5-stage pipeline

- Configurable
    - 2-way 4, 8, 16, 32, 64k I and D cache sizes
    - Optional emulation, peripheral facility
- Synthesizable core
- Peripherals
    - CSP(Core Support Peripherals)
    - ESP(Emulation Support Peripherals)

Block diagram

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