

ID MOS Digital I.P. SHORTFORM

IM148: RAPIDO8E Microcore

PRODUCT DESCRIPTION

RAPIDO8E is a high performance 8-bit microprocessor core. It is designed specifically to be embedded in both ASIC and FPGA.

FEATURES

- Harvard Architecture
- 8-bit internal Data bus structure
- Alarm Logic With Interrupt Request Output
- 2 accumulators (A and B)
- 2 index registers (IndexX and IndexY) for faster data accesses
- 54 instructions
- High Code Density
- Code-to-memory transfer implemented
- Program Memory up to 8K words
- RAM Memory: page organization (256 pages max), page size: 256 bytes
- 8-bit Stack Pointer
- One maskable interrupt
- Output for halt-and-catch-fire instruction
- Fully synchronous and static VHDL design
- No latches inferred
- No internal three-state busses
- ASIC/FPGA Synthesis Library Independent
- Prototype system on SILWAY MSOS emulator
- Software: assembler, debugger, disassembler

TYPICAL APPLICATIONS

- Automotive
- Consumer Electronics
- Industrial Processes Automation
- Home Automation

BLOCK DESCRIPTION

