

MC68HC16Z3

Product Preview

16-Bit Modular Microcontroller

Features

- System Integration Module
 - External bus support
 - 12 programmable chip-select outputs
 - System protection logic
 - Watchdog timer, clock monitor, and bus monitor
 - Two 8-bit dual function ports
 - One 7-bit dual function port
 - Phase-locked loop (PLL) clock system
- CPU16
 - 16-bit architecture
 - Full set of 16-bit instructions
 - Three 16-bit index registers
 - Two 16-bit accumulators
 - Control-oriented digital signal processing capability
 - 16-bit multiply and accumulate (digital signal processing support)
 - High-level language support
 - Fast interrupt response time
 - Hardware breakpoint signal/Background debugging mode
 - Fully static implementation
- Analog-to-Digital Converter
 - Eight channels, eight result registers
 - Eight automated modes
 - Three result alignment modes
 - One 8-bit digital input port
- Queued Serial Module
 - Enhanced serial communication interface
 - Queued serial peripheral interface
 - One 8-bit dual function port
- General-Purpose Timer
 - 16-bit free-running counter with prescaler for capture/compare subsystem
 - Three input capture channels
 - Four output compare channels
 - One input capture/output compare channel
 - One pulse accumulator/event counter input
 - Two pulse-width modulation outputs with user-selectable clock source
 - Optional external clock input
- 4-Kbyte Standby RAM
 - External standby voltage supply input
- Masked ROM Module
 - 8-Kbyte array, accessible as bytes or words

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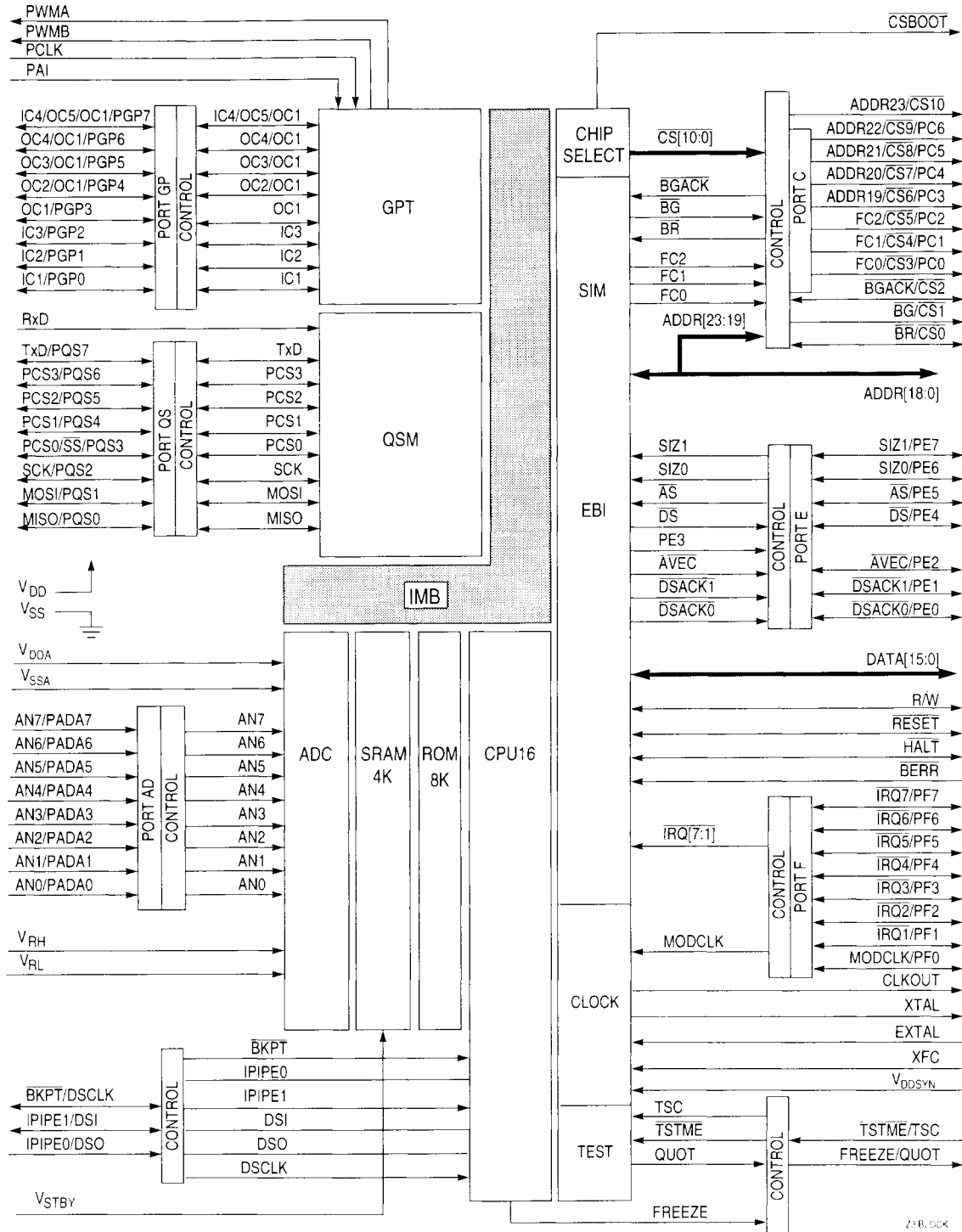


Figure 1 MC68HC16Z3 Block Diagram

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