

MC68HC916R1

Product Preview

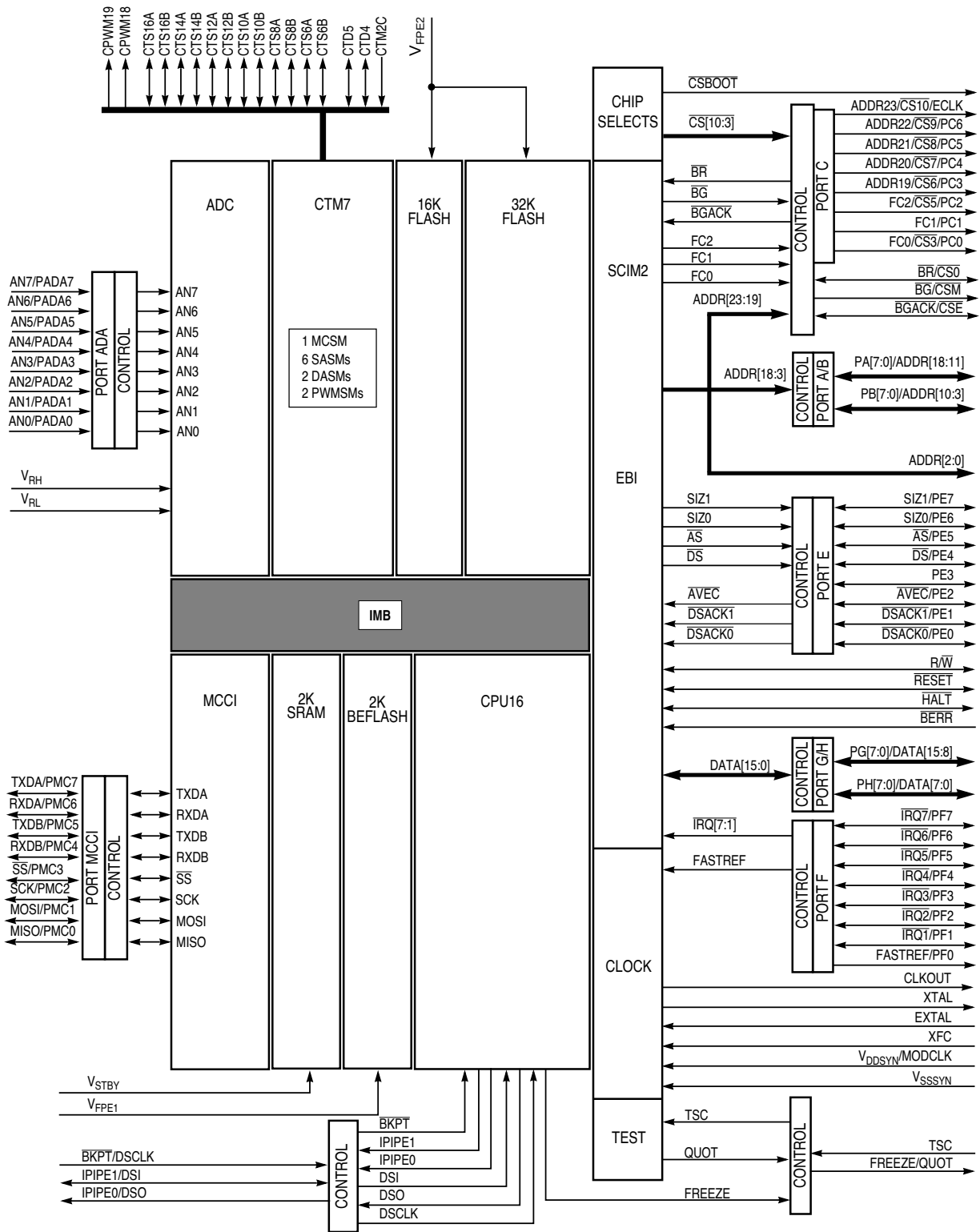
16-Bit Modular Microcontroller

Features

- Modular Architecture
- Central Processing Unit (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
 - Addresses up to 1 Mbyte of program memory; 1 Mbyte of data memory
 - Background debug mode
 - Fully static operation
- Single-Chip Integration Module (SCIM2)
 - Single-chip or expanded modes of operation
 - External bus support in expanded mode
 - Nine programmable chip-select outputs
 - Improved system clock based on either fast or slow reference clock
 - Watchdog timer, clock monitor, and bus monitor
 - Address and data bus provide 33 discrete I/O lines in single-chip mode
 - Enhanced reset controller
- 2-Kbyte Standby RAM (SRAM)
 - External standby voltage supply input for low-power standby operation
- Analog-to-Digital Converter (ADC)
 - Eight channels, eight result registers
 - Eight automated modes
 - Three result alignment modes
- Multichannel Communication Interface (MCCI)
 - Two channels of enhanced SCI (UART)
 - One channel of SPI
- Configurable Timer Module (CTM7)
 - One 16-bit modulus counter submodule (MCSM)
 - Six single-action submodules (SASMs)
 - Two double-action submodules (DASMs)
 - Two pulse-width submodules (PWMSMs)
 - One external clock pin for modulus counters
- 16 and 32-Kbyte Flash EEPROM Modules
 - Bulk erase mode
 - Can provide a contiguous 48 Kbyte address space
- 2-Kbyte Block Erasable Flash EEPROM (BEFLASH)
 - Bulk/block erase and byte/word programming with 12 volt external input

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MC68HC916R1 BLOCK

Figure 1 MC68HC916R1 Block Diagram

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