

MC68HC916Y3

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
- Time Processor Unit (TPU2)
 - Sixteen channels, each associated with a pin; each channel can perform any time function
- 4-Kbyte Flash EEPROM (TPUFLASH)
 - Block-erasable; can be used for micro-ROM emulation or normal operation
- General-Purpose Timer (GPT)
 - Two 16-Bit free-running counters with prescaler
 - 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; optional external clock input
- 8/10-Bit Analog-to-Digital Converter (ADC)
 - Eight channels, eight result registers; eight automated modes of operation
 - Three result-alignment modes
- Queued Serial Module (QSM)
 - Enhanced serial communication interface
 - Queued serial peripheral interface
 - One 8-bit dual function port
- Multichannel Communication Interface (MCCI)
 - Two channels of enhanced SCI (UART); one channel of SPI
- 96-Kbyte Flash EEPROM
 - Three 32-Kbyte blocks
- 4-Kbyte Standby RAM (SRAM)
 - Mappable to any 4-Kbyte boundary
 - External standby voltage supply input and power-down status flag

This document contains information on a new product. Specifications and information herein are subject to change without notice.



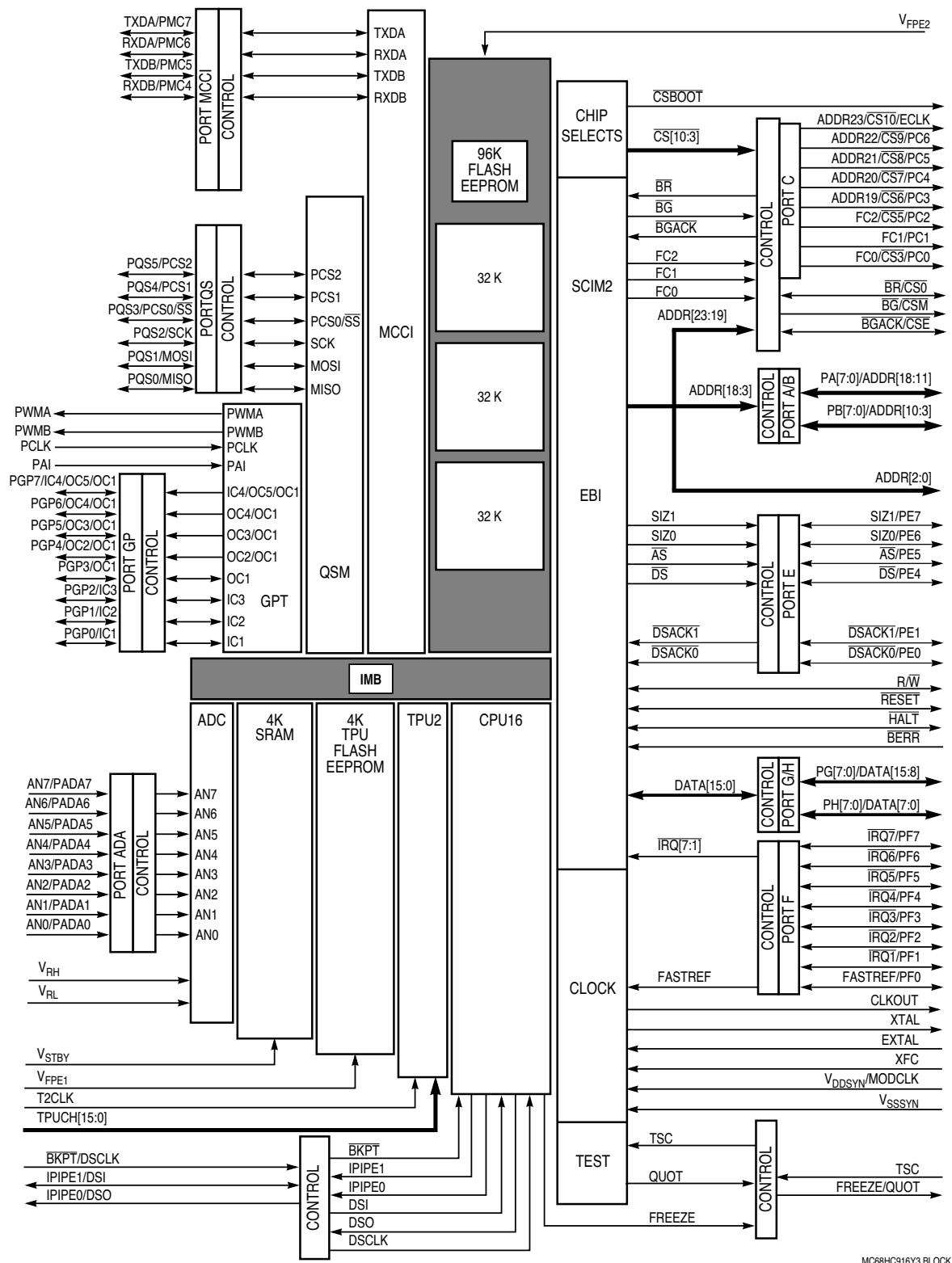


Figure 1 MC68HC916Y3 Block Diagram