Order this document
by MC68HC16Z3PP/D

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

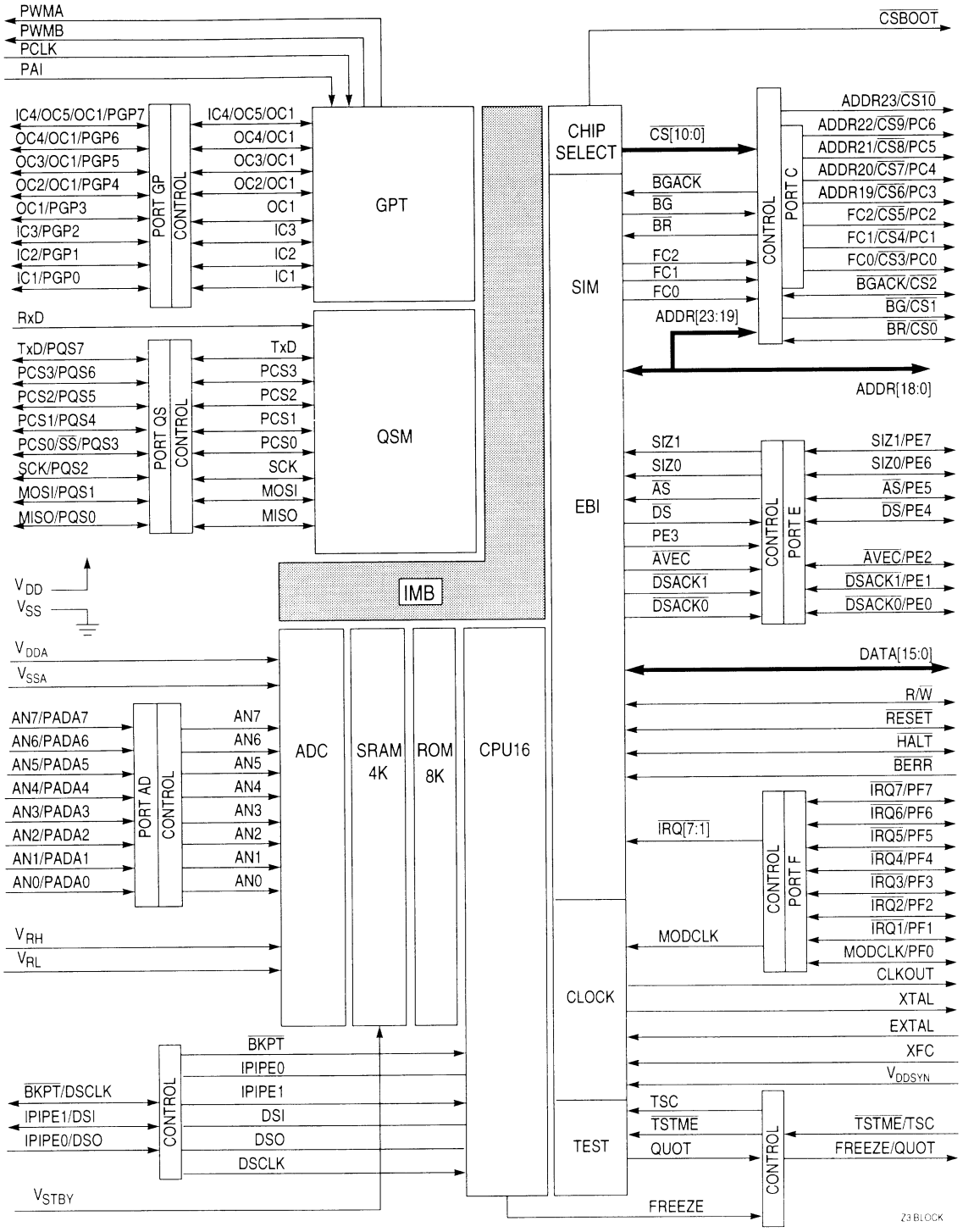

Figure 1 MC68HC16Z3 Block Diagram

Home Page:
www.freescale.com
email:
support@freescale.com
USA/Europe or Locations Not Listed:
Freescale Semiconductor
Technical Information Center, CH370
1300 N. Alma School Road
Chandler, Arizona 85224
(800) 521-6274
480-768-2130
support@freescale.com
Europe, Middle East, and Africa:
Freescale Halbleiter Deutschland GmbH
Technical Information Center
Schatzbogen 7
81829 Muenchen, Germany
+44 1296 380 456 (English)
+46 8 52200080 (English)
+49 89 92103 559 (German)
+33 1 69 35 48 48 (French)
support@freescale.com
Japan:
Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku
Tokyo 153-0064, Japan
0120 191014
+81 2666 8080
support.japan@freescale.com
Asia/Pacific:
Freescale Semiconductor Hong Kong Ltd.
Technical Information Center
2 Dai King Street
Tai Po Industrial Estate,
Tai Po, N.T., Hong Kong
+800 2666 8080
support.asia@freescale.com
For Literature Requests Only:
Freescale Semiconductor
Literature Distribution Center
P.O. Box 5405
Denver, Colorado 80217
(800) 441-2447
303-675-2140
Fax: 303-675-2150
LDCForFreescaleSemiconductor
@hibbertgroup.com

RoHS-compliant and/or Pb- free versions of Freescale products have the functionality and electrical characteristics of their non-RoHS-compliant and/or non-Pb- free counterparts. For further information, see http://www.freescale.com or contact your Freescale sales representative.

For information on Freescale.s Environmental Products program, go to http://www.freescale.com/epp.

MC68HC16Z3PP/D

1ATX35573-0 PRINTED IN USA 10/96 CSI 30321-07 5,000 AMCU YGAKAA