Freescale Semiconductor, Inc.

Addendum to

MC68(7)05R/U Series
8-Bit Microcomputers
ADI-977

MC68705R3
ONE TIME PROGRAMMABLE
ROM (OTPROM) or Standard Eraseable Programmable
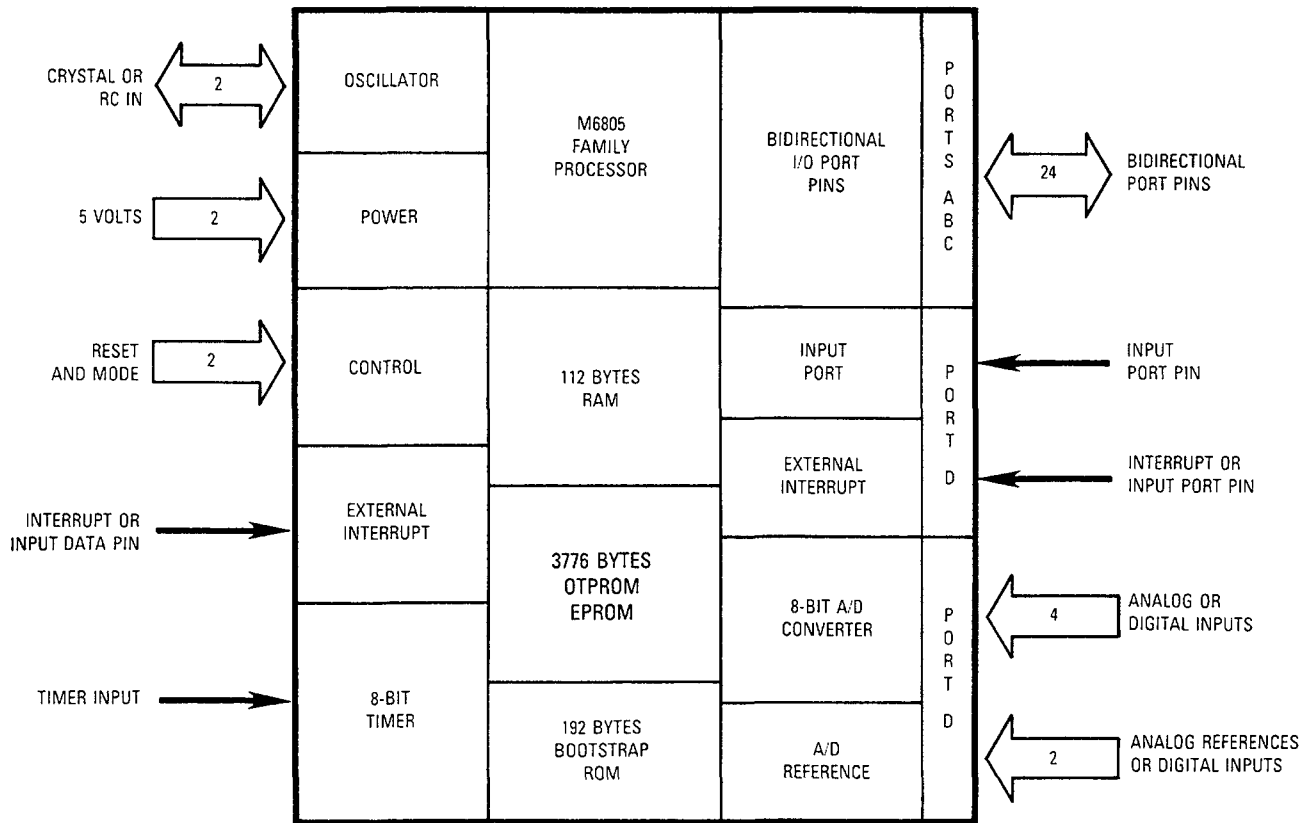### Read-Only Memory (EPROM) Microcomputer

The MC68705R3 One Time Programmable ROM (OTPROM) or Standard Eraseable Programmable Read-Only Memory (EPROM) Microcomputer (MCU) is an advanced 8-bit MCU with sophisticated on-chip peripheral capabilities and is produced in HMOS technology (refer to block diagram).

The following are some of the hardware and software features of the MC68705R3.

- 24 Bidirectional I/O Lines
- 8 Input Lines Only
- 8-Bit A/D Converter
- 3776 Bytes of User OTPROM or EPROM
- 112 Bytes of RAM
- 192 Bytes of Bootstrap ROM
- 8-Bit Timer with 7-Bit Programmable Prescaler
- 5-Volt Single Supply
- Memory Mapped I/O
- Byte Efficient Instruction Set
- True Bit Manipulation
- Bit Test and Branch Instructions
- Powerful Indexed Addressing for Tables
- Full Set of Conditional Branches
- Single Instruction Memory Examine/Change
- 40-Pin Plastic (OTPROM) Package
- 40-Pin DIP (EPROM Window) Package

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BLOCK DIAGRAM

CRYSTAL OR RC IN — 2 — OSCILLATOR

M6805 FAMILY PROCESSOR

BIDIRECTIONAL I/O PORT PINS — PORTS A B C — 24 — BIDIRECTIONAL PORT PINS

5 VOLTS — 2 — POWER

RESET AND MODE — 2 — CONTROL

112 BYTES RAM

INPUT PORT — PORT D — INPUT PORT PIN

EXTERNAL INTERRUPT — INTERRUPT OR INPUT PORT PIN

INTERRUPT OR INPUT DATA PIN — EXTERNAL INTERRUPT

3776 BYTES OTPROM EPROM

8-BIT A/D CONVERTER — PORT D — 4 — ANALOG OR DIGITAL INPUTS

TIMER INPUT — 8-BIT TIMER

192 BYTES BOOTSTRAP ROM

A/D REFERENCE — 2 — ANALOG REFERENCES OR DIGITAL INPUTS

A16699-2 PRINTED IN USA 2/92 IMPERIAL LITHO 83933 2,000 MCU YGACAA