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MC68HC05B4
MC68HC705B5
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MC68HC05B6
MC68HC05B8
MC68HC05B16
MC68HC705B16
MC68HC705B16N
MC68HC05B32
MC68HC705B32

Technical Data

M68HC05
Microcontrollers

MC68HC05B6/D
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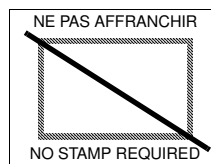
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High-density Complementary Metal Oxide Semiconductor (HCMOS) Microcomputer Unit

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Conventions

Where abbreviations are used in the text, an explanation can be found in the glossary, at the back of this manual. Register and bit mnemonics are defined in the paragraphs describing them.

An overbar is used to designate an active-low signal, eg: $\overline{\text{RESET}}$.

Unless otherwise stated, shaded cells in a register diagram indicate that the bit is either unused or reserved; 'u' is used to indicate an undefined state (on reset).

Unless otherwise stated, pins labelled "NU" should be tied to V_{SS} in an electrically noisy environment. Pins labelled "NC" can be left floating, since they are not bonded to any part of the device.

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INTRODUCTION

The MC68HC05B6 microcomputer (MCU) is a member of Freescale's MC68HC05 family of low-cost single chip microcomputers. This 8-bit MCU contains an on-chip oscillator, CPU, RAM, ROM, EEPROM, A/D converter, pulse length modulated outputs, I/O, serial communications interface, programmable timer system and watchdog. The fully static design allows operation at frequencies down to dc to further reduce the already low power consumption to a few micro-amps.

This data sheet is structured such that devices similar to the MC68HC05B6 are described in a set of appendices (see [Table 1-1](#)).

Table 1-1 Data sheet appendices

Device	Appendix	Differences from MC68HC05B6
MC68HC05B4	A	4K bytes ROM; no EEPROM
MC68HC05B8	B	7.25K bytes ROM
MC68HC705B5	C	6K bytes EPROM; self-check replaced by bootstrap firmware; no EEPROM
MC68HC05B16	D	16K bytes ROM; increased RAM and self-check ROM
MC68HC705B16	E	16K bytes EPROM; increased RAM; self-check replaced by bootstrap firmware; modified power-on reset routine
MC68HC705B16N	F	16K bytes EPROM; increased RAM; self-check replaced by bootstrap firmware; modified power-on reset routine
MC68HC05B32	G	32K bytes ROM; no page zero ROM; increased RAM
MC68HC705B32	H	32K bytes EPROM; no page zero ROM; increased RAM; self-check mode replaced by bootstrap firmware