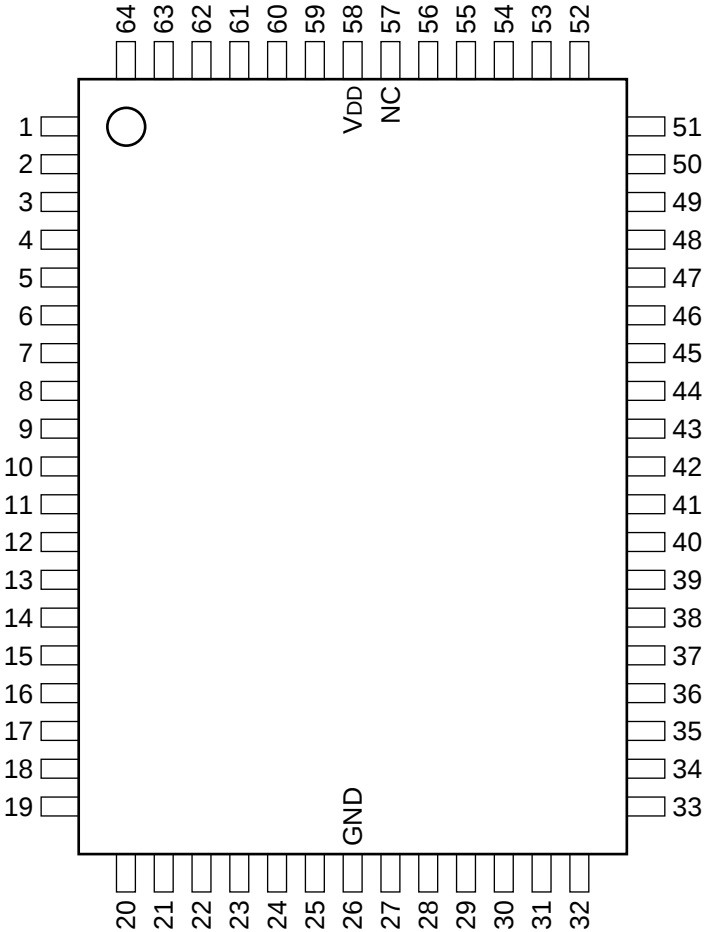


C-MOS 4-BIT SINGLE CHIP MICROCOMPUTER

—TOP VIEW—



| PIN No. | I/O | SIGNAL | PIN No. | I/O | SIGNAL   | PIN No. | I/O | SIGNAL   | PIN No. | I/O | SIGNAL |
|---------|-----|--------|---------|-----|----------|---------|-----|----------|---------|-----|--------|
| 1       | I/O | P41    | 17      | I/O | P70      | 33      | I   | PTH01    | 49      | I/O | P133   |
| 2       | I/O | P40    | 18      | I/O | P83      | 34      | I   | PTH00    | 50      | I/O | P132   |
| 3       | I/O | P53    | 19      | I/O | P82      | 35      | I   | T10      | 51      | I/O | P131   |
| 4       | I/O | P52    | 20      | I/O | P81      | 36      | I   | T11      | 52      | I/O | P130   |
| 5       | I/O | P51    | 21      | I/O | P80      | 37      | I/O | P23      | 53      | I/O | P143   |
| 6       | I/O | P50    | 22      | I/O | P93      | 38      | I/O | P22/PCL  | 54      | I/O | P142   |
| 7       | I   | RESET  | 23      | I/O | P92      | 39      | I/O | P21/PTO1 | 55      | I/O | P141   |
| 8       | I   | X2     | 24      | I/O | P91      | 40      | I/O | P20/PTO0 | 56      | I/O | P140   |
| 9       | I   | X1     | 25      | I/O | P90      | 41      | I   | P03/SI   | 57      | —   | NC     |
| 10      | I/O | P63    | 26      | —   | GND      | 42      | I/O | P02/SO   | 58      | —   | VDD    |
| 11      | I/O | P62    | 27      | I   | P13/INT3 | 43      | I/O | P01/SCK  | 59      | I/O | P33    |
| 12      | I/O | P61    | 28      | I   | P12/INT2 | 44      | I   | P00/INT4 | 60      | I/O | P32    |
| 13      | I/O | P60    | 29      | I   | P11/INT1 | 45      | I/O | P123     | 61      | I/O | P31    |
| 14      | I/O | P73    | 30      | I   | P10/INT0 | 46      | I/O | P122     | 62      | I/O | P30    |
| 15      | I/O | P72    | 31      | I   | PTH03    | 47      | I/O | P121     | 63      | I/O | P43    |
| 16      | I/O | P71    | 32      | I   | PTH02    | 48      | I/O | P120     | 64      | I/O | P42    |

|    |                              |      |    |
|----|------------------------------|------|----|
| 44 | P00/INT4                     | P50  | 6  |
| 43 | P01/ $\overline{\text{SCK}}$ | P51  | 5  |
| 42 | P02/SO                       | P52  | 4  |
| 41 | P03/SI                       | P53  | 3  |
| 30 | P10/INT0                     | P60  | 13 |
| 29 | P11/INT1                     | P61  | 12 |
| 28 | P12/INT2                     | P62  | 11 |
| 27 | P13/INT3                     | P63  | 10 |
| 40 | P20/PTO0                     | P70  | 17 |
| 39 | P21/PTO1                     | P71  | 16 |
| 38 | P22/PCL                      | P72  | 15 |
| 37 | P23                          | P73  | 14 |
| 62 | P30                          | P80  | 21 |
| 61 | P31                          | P81  | 20 |
| 60 | P32                          | P82  | 19 |
| 59 | P33                          | P83  | 18 |
| 2  | P40                          | P90  | 25 |
| 1  | P41                          | P91  | 24 |
| 64 | P42                          | P92  | 23 |
| 63 | P43                          | P93  | 22 |
| 34 | PTH00                        | P120 | 48 |
| 33 | PTH01                        | P121 | 47 |
| 32 | PTH02                        | P122 | 46 |
| 31 | PTH03                        | P123 | 45 |
| 35 | T10                          | P130 | 52 |
| 36 | T11                          | P131 | 51 |
| 7  | RESET                        | P132 | 50 |
|    |                              | P133 | 49 |
| 9  | X1                           | P140 | 56 |
| 8  | X2                           | P141 | 55 |
|    |                              | P142 | 54 |
|    |                              | P143 | 53 |

**INPUT**

|               |                                           |
|---------------|-------------------------------------------|
| INT0 - INT4   | : INTERRUPT                               |
| P00 - P03     | : 4-BIT PORT (PORT0)                      |
| P10 - P13     | : 4-BIT PORT (PORT1)                      |
| PTH00 - PTH03 | : THRESHOLD 4-BIT PROGRAMABLE ANALOG PORT |
| RESET         | : SYSTEM RESET                            |
| SI            | : SERIAL INTERFACE DATA                   |
| Ti0           | : TIMER/EVENT COUNTER CLOCK (CH-0)        |
| Ti1           | : TIMER/EVENT COUNTER CLOCK (CH-1)        |
| X1, X2        | : CRYSTAL OSCILLATOR                      |

**OUTPUT**

|      |                              |
|------|------------------------------|
| PCL  | : PROGRAMABLE CLOCK          |
| PTO0 | : TIMER/EVENT COUNTER (CH-1) |
| PTO1 | : TIMER/EVENT COUNTER (CH-2) |
| SO   | : SERIAL INTERFACE DATA      |

**INPUT/OUTPUT**

|             |                                   |
|-------------|-----------------------------------|
| P20 - P23   | : 4-BIT PORT (PORT2)              |
| P30 - P33   | : PROGRAMMABLE 4-BIT PORT (PORT3) |
| P40 - P43   | : 4-BIT PORT (PORT4)              |
| P50 - P53   | : 4-BIT PORT (PORT5)              |
| P60 - P63   | : PROGRAMMABLE 4-BIT PORT (PORT6) |
| P70 - P73   | : 4-BIT PORT (PORT7)              |
| P80 - P83   | : 4-BIT PORT (PORT8)              |
| P90 - P93   | : 4-BIT PORT (PORT9)              |
| P120 - P123 | : 4-BIT PORT (PORT12)             |
| P130 - P133 | : 4-BIT PORT (PORT13)             |
| P140 - P143 | : 4-BIT PORT (PORT14)             |
| SCK         | : SERIAL INTERFACE CLOCK          |

