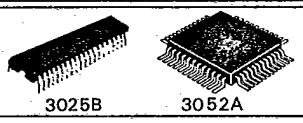
LC6510C

c-mos LSI

CIRCUIT DRAWING No.1012

SINGLE-CHIP 4-BIT MICROCOMPUTER FOR USE IN CONTROL-ORIENTED APPLICATIONS



The LC6510C is a high-end model belonging to the single-chip 4-bit microcomputer LC6500 series fabricated using CMOS process technology. It contains a ROM (4096 x 8 bits), RAM (256 x 4 bits) and is especially suited for use in large-scale control-oriented applications.

Features

- Low power dissipation
- Program ROM capacity: 4096 x 8 bits
- Data RAM capacity: 256 x 4 bits
- Subroutine stack: 8 levels (also used for interrupt)
- On-chip OSC circuit
  - CR OSC: 800kHz typ
  - Ceramic OSC: 400kHz, 800kHz
  - External input: 1143kHz max.
- Power-down by 2 standby functions
  - HALT mode: Power dissipation saving by program standby during normal operation.
  - HOLD mode: Power supply backup during power failure
- Input/output ports
  - Input: 4 bits x 2 ports
  - Input/output: 4 bits x 2 ports
  - Output: 4 bits x 4 ports
    2 bits x 1 port
- Interrupt
  - External 1, Internal timer interrupt 1
- On-chip 4-bit prescaler and 8-bit program timer
- Instruction cycle time: 3.5us (at 1143kHz)
- Supply voltage
  - Normal operation 4.0 to 6.0V
  - Memory hold 1.8 to 6.0V
- Instruction set common to the LC6502, LC6505 (Program BANK instruction added)
- 42-pin shrink DIP (The QIP 48 is under development.)