

EPSON 4-bit MCU S1C63666 SPEC

Model	S1C63666
Supply Voltage	2.4 ~ 3.6V : Max. 4MHz operation in normal mode 2.4 ~ 3.6V : 32kHz operation in halver mode
OSC1 oscillation circuit	32.768 kHz (Typ.) crystal oscillation circuit
OSC3 oscillation circuit	4 MHz (Max.) ceramic or 1.4MHz (Typ.) oscillation circuit (*1)
Instruction set	Basic instruction: 46 types (411 instructions with all) Addressing mode: 8 types
Instruction execution time (during operation)	At 32.768kHz: 61μsec 122μsec 183μsec At 4MHz: 0.5μsec 1μsec 1.5μsec
ROM capacity	Code ROM: 16,384 words x 13 bits Data ROM: 4,096 words x 4 bits
RAM capacity	Data memory: 5,120 words x 4 bits Display memory: 128 words x 4 bits
I/O port	Input ports: 8 bits (pull-up resistors may be supplemented *1) Output ports: 8 bits (It is possible to switch the 2 bits to special output *2) I/O ports: 8 bits (It is possible to switch the 4 bits to serial I/F input/output *2)
Serial interface	1 port (8-bit clock synchronous system)
LCD driver	64 segments x 4, 5 or 8 commons (*2)
Time base counter	1 system (Clock timer) Stopwatch timer (1/1000 sec, with direct key input function)
Programmable timer	Built-in, 8 bits x 3 channel or 16 bits x 1 channel + 8 bits x 1 channel (*2)
Watchdog timer	Built-in
Sound generator	With envelope and 1-shot output functions
R/F converter	2 ch., CR oscillation type, 20-bit counter
Multiply-drive circuit	8-bit accumulator x 1 ch. Multiplication: 8 bits x 8 bits ≦ 16-bit product Division: 16 bits ÷ 8 bits ≦ 8-bit quotient and 8-bit remainder
Analog comparator	1 ch.
SVD circuit	4 criteria voltage are selectable from 8 types (1.85 to 2.90V *1) (External voltage detection is possible *1)
External interrupt	Input port interrupt: 2 systems
Internal interrupt	Clock timer interrupt: 4 systems Stopwatch timer interrupt: 2 systems Programmable timer interrupt: 2 systems Serial interface interrupt: 1 system R/F converter interrupt: 1 system
Operating temperature range	-20 to 70°C
Current consumption (Typ.)	Low-speed operation (OSC1=32kHz crystal oscillation): During HALT 3.0V (LCD ON, halver mode) 0.65 μA During operation 3.0V (LCD ON, halver mode) 2.5 μA High-speed operation (OSC3): During operation 3.0V (LCD ON) 1 mA
Package	QFP20-144pin (plastic) or chip

*1 Can be selected with mask option.

*2 Can be selected with software.