

★ Under development

8-bit Single-chip Microcomputers

| Model No. | Memory(bit) | | Port | | | Interrupt | Instruction set | Instruction cycle (μs) MIN. | Supply current (mA) TYP. | Standby function | OSC | Supply voltage (V) | Operating temp. (°C) | Package | Remarks |
|-----------|-----------------|--------------|------|----|-----|------------|-----------------|------------------------------|--------------------------|------------------|----------------------|------------------------------|----------------------|----------------------|---|
| | ROM | RAM | I | O | I/O | | | | | | | | | | |
| SM8203 | 10 240 x 8 | 256 x 8 | 8 | 16 | 24 | 17 (10) | 64 | 0.8 | 10 | — | Crystal | 5 ± 10% | -20 to 70 | 64SDIP | Built-in VCR servo controller, A/D, SIO |
| SM8205 | 16 384 x 8 | 256 x 8 | 8 | 16 | 24 | 17 (10) | 68 | 0.44 | 15 | — | Crystal | 5 ± 10% | | | |
| SM8206 | 16 384 x 8 | 512 x 8 | 8 | 24 | 32 | 18 (11) | 68 | 0.5 | 15 | — | Crystal | 5 ± 10% | | | |
| SM8311 | 8 192 x 8 | 512 x 8 | 12 | 16 | 24 | 10 (9) | 74 | 0.5 (at 5 V) | 6 (at 1 μs) | HALT STOP | Crystal/ Ceramic | 2.7 to 5.5 | -20 to 70 | 64SDIP/ 64QFP | PWM output, LED direct drive, built-in A/D, SIO |
| SM8313 | 16 384 x 8 | 512 x 8 | 12 | 16 | 24 | 10 (9) | 74 | 0.5 (at 5 V) | 6 (at 1 μs) | HALT STOP | Crystal/ Ceramic | 2.7 to 5.5 | | | |
| SM8314 | 24 576 x 8 | 1 024 x 8 | 12 | 16 | 24 | 10 (9) | 74 | 0.5 (at 5 V) | 6 (at 1 μs) | HALT STOP | Crystal/ Ceramic | 2.7 to 5.5 | | | |
| SM8315 | 32 768 x 8 | 1 024 x 8 | 12 | 16 | 24 | 10 (9) | 74 | 0.5 (at 5 V) | 6 (at 1 μs) | HALT STOP | Crystal/ Ceramic | 2.7 to 5.5 | | | |
| SM8320 | 12 288 x 8 | 256 x 8 | 8 | — | 40 | 11 (9) | 74 | 1 | 6 (at 1 μs) | HALT STOP | Crystal/ Ceramic | 5 ± 10% | | | |
| SM8521 | 4 096 x 8 | 1 024 x 8 | — | — | 32 | 10 (10) | 64 | 0.4 | 10 | HALT STOP | Crystal/ Ceramic | 5 ± 10% | | | |
| SM8405 | 8 192 x 8 | 128 x 8 | 23 | 16 | 4 | 11 (7) | 74 | 2 (at 3 V) | 2.5 (at 3 V) | HALT STOP | Resistor/ Crystal | 1.8 to 5.5 | -20 to 70 | 72QFP*2 | LCD direct drive, built-in OP amp., A/D |
| SM8406 | 12 288 x 8 | 128 x 8 | 23 | 16 | 4 | 11 (7) | 74 | 2 (at 3 V) | 2.5 (at 3 V) | HALT STOP | Resistor/ Crystal | 1.8 to 5.5 | | | |
| SM8408 | 16 384 x 8 | 256 x 8 | 18 | 16 | 14 | 8 | 74 | 2 (at 3 V) | 2.5 (at 3 V) | HALT STOP | Resistor/ Crystal | 1.8 to 5.5 | | | |
| SM8415 | 10 240 x 8 | 320 x 8 | 15 | 14 | 22 | 15 (9) | 74 | 2.17*3 1.09*4 (at 5 V) | 1*3 4*4 | HALT STOP | Crystal | 1.8 to 5.5*3 3.4 to 5.5*4 | -20 to 70 | 80QFP/ 80LQFP*2 | PWM output, built-in MSK modem, A/D, SIO |
| SM8410 | 16 384 x 8 | 512 x 8 | 19 | 18 | 22 | 15 (9) | 74 | 2.17*3 1.09*4 (at 5 V) | 1*3 4*4 | HALT STOP | Crystal | 1.8 to 5.5*3 3.4 to 5.5*4 | | | |
| SM8411 | 24 576 x 8 | 512 x 8 | 19 | 18 | 22 | 15 (9) | 74 | 2.17*3 1.09*4 (at 5 V) | 1*3 4*4 | HALT STOP | Crystal | 1.8 to 5.5*3 3.4 to 5.5*4 | | | |
| SM8413 | 32 768 x 8 | 1 024 x 8 | 20 | 18 | 22 | 17 (9) | 74 | 0.72 | 10 | HALT STOP | Crystal | 5 ± 10% | | | |
| *SM8502 | 24 576 x 8 | 1 024 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 10 | HALT STOP | Crystal | 1.8 to 5.5 | -20 to 70 | 100QFP/ 100LQFP*2 | Built-in wave form generator(2 ch), 10-bit A/D, D/A, SIO, UART, external memory expansible |
| *SM8503 | 32 768 x 8 | 1 024 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 10 | HALT STOP | Crystal | 1.8 to 5.5 | | | |
| SM8504 | 40 960 x 8 | 1 024 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 10 | HALT STOP | Crystal | 1.8 to 5.5 | | | |
| *SM8505 | 49 152 x 8 | 2 048 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 10 | HALT STOP | Crystal | 1.8 to 5.5 | | | |
| SM8506 | 61 440 x 8 | 2 048 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 10 | HALT STOP | Crystal | 1.8 to 5.5 | | | |
| LU8500QF1 | 61 440*1 x 8 | 2 048 x 8 | 16 | 16 | 52 | 16 | 68 | 0.33*6 (at 5 V) | 20 | HALT STOP | Crystal | 2.7 to 5.5 | | | |
| LR3795X | 16 384 x 8 | 384 x 8 | — | — | 53 | 8 | 74 | 1 | 15 (MAX.) | — | Ceramic | 5 ± 10% | -20 to 70 | 64SDIP/ 80QFP | PWM output, built-in OSD, A/D, SIO, E ² PROM |
| LR3796X | 16 384 x 8 | 512 x 8 | — | — | 53 | 8 | 74 | 1 | 25 (MAX.) | — | Ceramic | 5 ± 10% | | | |
| LR3793X | 32 768 x 8 | 512 x 8 | — | — | 53 | 8 | 74 | 1 | 25 (MAX.) | — | Ceramic | 5 ± 10% | | | |
| LR3797X | 32 768 x 8 | 512 x 8 | — | — | 53 | 8 | 74 | 1 | 25 (MAX.) | — | Ceramic | 5 ± 10% | | | |
| LR3794X | 63 488 x 8 | 1 024 x 8 | — | — | 53 | 22 | 74 | 1 | 30 (MAX.) | — | Ceramic | 5 ± 10% | | | |
| | | | | | | | | | | | | | | | |

*1 Flash memory
 *2 0.5 mm pin-pitch
 *3 The system clock is 1/8th of the reference clock.
 *4 The system clock is 1/4th of the reference clock.

*5 Figures in parentheses in the interrupt column indicate the number of vectors.
 *6 System clock speed is switchable on programming.