

2. The SPIEN Fuse is not accessible in serial programming mode.
3. See ["WDTCSR – Watchdog Timer Control Register" on page 54](#) for details.
4. The default value of BOOTSZ[1:0] results in maximum Boot Size. See ["Pin Name Mapping" on page 300](#).

Table 25-9. Fuse Low Byte

Low Fuse Byte	Bit No	Description	Default Value
CKDIV8 ⁽⁴⁾	7	Divide clock by 8	0 (programmed)
CKOUT ⁽³⁾	6	Clock output	1 (unprogrammed)
SUT1	5	Select start-up time	1 (unprogrammed) ⁽¹⁾
SUT0	4	Select start-up time	0 (programmed) ⁽¹⁾
CKSEL3	3	Select Clock source	0 (programmed) ⁽²⁾
CKSEL2	2	Select Clock source	0 (programmed) ⁽²⁾
CKSEL1	1	Select Clock source	1 (unprogrammed) ⁽²⁾
CKSEL0	0	Select Clock source	0 (programmed) ⁽²⁾

- Note:
1. The default value of SUT1..0 results in maximum start-up time for the default clock source. See [Table 6-11 on page 33](#) for details.
 2. The default setting of CKSEL3..0 results in internal RC Oscillator @ 8 MHz. See [Table 6-10 on page 33](#) for details.
 3. The CKOUT Fuse allows the system clock to be output on PORTB0. See ["Clock Output Buffer" on page 35](#) for details.
 4. See ["System Clock Prescaler" on page 35](#) for details.

The status of the Fuse bits is not affected by Chip Erase. Note that the Fuse bits are locked if Lock bit1 (LB1) is programmed. Program the Fuse bits before programming the Lock bits.

25.2.1 Latching of Fuses

The fuse values are latched when the device enters programming mode and changes of the fuse values will have no effect until the part leaves Programming mode. This does not apply to the EESAVE Fuse which will take effect once it is programmed. The fuses are also latched on Power-up in Normal mode.

25.3 Signature Bytes

All Atmel microcontrollers have a three-byte signature code which identifies the device. This code can be read in both serial and parallel mode, also when the device is locked. The three bytes reside in a separate address space. For the ATmega48P/88P/168P/328P the signature bytes are given in [Table 25-10](#).

Table 25-10. Device ID

Part	Signature Bytes Address		
	0x000	0x001	0x002
ATmega48P	0x1E	0x92	0x0A
ATmega88P	0x1E	0x93	0x0F
ATmega168P	0x1E	0x94	0x0B
ATmega328P	0x1E	0x95	0x0F