Engbedded Atmel AVR® Fuse Calculator

Device selection

Select the AVR device type you want to configure. When changing this setting, default fuse settings will automatically be applied. Presets (hexadecimal representation of the fuse settings) can be reviewed and even be set in the last form at the bottom of this page.

AVR part name: ATmega16 ⁻   [Select]

Feature configuration

This allows easy configuration of your AVR device. All changes will be applied instantly.

Features
Ext. Crystal/Resonator High Freq.; Start-up time: 16K CK + 64 ms; [CKSEL=1111 SUT
☐ Brown-out detection enabled; [BODEN=0]
Brown-out detection level at VCC=2.7 V; [BODLEVEL=1] ⁻
☑ Boot Reset vector Enabled (default address=$0000); [BOOTRST=0]
Boot Flash section size=1024 words Boot start address=$1C00; [BOOTSZ=00] ; defau
☐ Preserve EEPROM memory through the Chip Erase cycle; [EESAVE=0]
☐ CKOPT fuse (operation dependent of CKSEL fuses); [CKOPT=0]
☑ Serial program downloading (SPI) enabled; [SPIEN=0]
☐ JTAG Interface Enabled; [JTAGEN=0]
☐ On-Chip Debug Enabled; [OCDEN=0]

[Apply feature settings]

Manual fuse bits configuration

This table allows reviewing and direct editing of the AVR fuse bits. All changes will be applied instantly.

Note: ☐ means unprogrammed (1); ☑ means programmed (0).

Bit	Low	High
7	☐ BODLEVEL Brown out detector trigger level	☐ OCDEN Enable OCD
6	☐ BODEN Brown out detector enable	☐ JTAGEN Enable JTAG
5	☐ SUT1 Select start-up time	☑ SPIEN Enable Serial programming and Data Downloading
4	☐ SUT0 Select start-up time	☐ CKOPT Oscillator Options
3	☐ CKSEL3 Select Clock Source	☐ EESAVE EEPROM memory is preserved through chip erase
2	☐ CKSEL2 Select Clock Source	☑ BOOTSZ1 Select Boot Size
1	☐ CKSEL1 Select Clock Source	☑ BOOTSZ0 Select Boot Size
0	☐ CKSEL0 Select Clock Source	☑ BOOTRST Select Reset Vector

[Apply manual fuse bit settings]

Current settings

These fields show the actual hexadecimal representation of the fuse settings from above. These are the values you have to program into your AVR device. Optionally, you may fill in the numerical values yourself to preset the configuration to these values. Changes in the value fields are applied instantly (taking away the focus)!

Low	High	Action	AVRDUDE arguments
0x FF	0x D8	[Apply values] [Defaults] Apply manual changes to the values on the left side, or load factory default values for the selected device.	-U lfuse:w:0xff:m -U hfuse:w:0xd8:m Select (try triple-click) and copy-and-paste this option string into