

ATmega168

8-bit MCU
32 x 8 registers

flash : 16 KB
EEPROM: 512 B
SRAM : 1 KB

peripheral features

2x 8-bit timers
1x 16-bit timer
real time counter w/ seperate osc.
6 PWM channels
6 resp. 8-channel 10-bit ADC
programmable USART
master/slave SPI
Byte-oriented 2-wire serial interface
programmable watchdog
on-chip analog comparator
interrupt and wake-up on pin change

special MCU features

DebugWire on-chip debug system
Five sleep modes: Idle, ADC noise reduction,
power-save, power-down, and standby

23 programmable I/O lines
28-pin

model dependend

10 – 20 MHz
1.8 V – 5.5 V operating voltage
-40 °C – 85 °C

(PCINT14/RESET) PC6	1	28	PC5 (ADC5/SCL/PCINT13)
(PCINT16/RXD) PD0	2	27	PC4 (ADC4/SDA/PCINT12)
(PCINT17/TXD) PD1	3	26	PC3 (ADC3/PCINT11)
(PCINT18/INT0) PD2	4	25	PC2 (ADC2/PCINT10)
(PCINT19/OC2B/INT1) PD3	5	24	PC1 (ADC1/PCINT9)
(PCINT20/XCK/T0) PD4	6	23	PC0 (ADC0/PCINT8)
VCC	7	22	GND
GND	8	21	AREF
(PCINT6/XTAL1/TOSC1) PB6	9	20	AVCC
(PCINT7/XTAL2/TOSC2) PB7	10	19	PB5 (SCK/PCINT5)
(PCINT21/OC0B/T1) PD5	11	18	PB4 (MISO/PCINT4)
(PCINT22/OC0A/AIN0) PD6	12	17	PB3 (MOSI/OC2A/PCINT3)
(PCINT23/AIN1) PD7	13	16	PB2 (SS/OC1B/PCINT2)
(PCINT0/CLKO/ICP1) PB0	14	15	PB1 (OC1A/PCINT1)

PD2 (INT0/PCINT18)	32	24	PC1 (ADC1/PCINT9)
PD1 (TXD/PCINT17)	31	23	PC0 (ADC0/PCINT8)
PD0 (RXD/PCINT16)	30	22	ADC7
PC6 (RESET/PCINT14)	29	21	GND
PC5 (ADC5/SCL/PCINT13)	28	20	AREF
PC4 (ADC4/SDA/PCINT12)	27	19	ADC6
PC3 (ADC3/PCINT11)	26	18	AVCC
PC2 (ADC2/PCINT10)	25	17	PB5 (SCK/PCINT5)
(PCINT19/OC2B/INT1) PD3	1		
(PCINT20/XCK/T0) PD4	2		
GND	3		
VCC	4		
GND	5		
VCC	6		
(PCINT6/XTAL1/TOSC1) PB6	7		
(PCINT7/XTAL2/TOSC2) PB7	8		
(PCINT21/OC0B/T1) PD5	9		
(PCINT22/OC0A/AIN0) PD6	10		
(PCINT23/AIN1) PD7	11		
(PCINT0/CLKO/ICP1) PB0	12		
(PCINT1/OC1A) PB1	13		
(PCINT2/SS/OC1B) PB2	14		
(PCINT3/OC2A/MOSI) PB3	15		
(PCINT4/MISO) PB4	16		

