

14. Interrupts

This section describes the specifics of the interrupt handling as performed in ATmega640/1280/1281/2560/2561. For a general explanation of the AVR interrupt handling, refer to [“Reset and Interrupt Handling” on page 17](#).

14.1 Interrupt Vectors in ATmega640/1280/1281/2560/2561

Table 14-1. Reset and Interrupt Vectors

Vector No.	Program Address ⁽²⁾	Source	Interrupt Definition
1	\$0000 ⁽¹⁾	RESET	External Pin, Power-on Reset, Brown-out Reset, Watchdog Reset, and JTAG AVR Reset
2	\$0002	INT0	External Interrupt Request 0
3	\$0004	INT1	External Interrupt Request 1
4	\$0006	INT2	External Interrupt Request 2
5	\$0008	INT3	External Interrupt Request 3
6	\$000A	INT4	External Interrupt Request 4
7	\$000C	INT5	External Interrupt Request 5
8	\$000E	INT6	External Interrupt Request 6
9	\$0010	INT7	External Interrupt Request 7
10	\$0012	PCINT0	Pin Change Interrupt Request 0
11	\$0014	PCINT1	Pin Change Interrupt Request 1
12	\$0016 ⁽³⁾	PCINT2	Pin Change Interrupt Request 2
13	\$0018	WDT	Watchdog Time-out Interrupt
14	\$001A	TIMER2 COMPA	Timer/Counter2 Compare Match A
15	\$001C	TIMER2 COMPB	Timer/Counter2 Compare Match B
16	\$001E	TIMER2 OVF	Timer/Counter2 Overflow
17	\$0020	TIMER1 CAPT	Timer/Counter1 Capture Event
18	\$0022	TIMER1 COMPA	Timer/Counter1 Compare Match A
19	\$0024	TIMER1 COMPB	Timer/Counter1 Compare Match B
20	\$0026	TIMER1 COMPC	Timer/Counter1 Compare Match C
21	\$0028	TIMER1 OVF	Timer/Counter1 Overflow
22	\$002A	TIMER0 COMPA	Timer/Counter0 Compare Match A
23	\$002C	TIMER0 COMPB	Timer/Counter0 Compare match B
24	\$002E	TIMER0 OVF	Timer/Counter0 Overflow
25	\$0030	SPI, STC	SPI Serial Transfer Complete
26	\$0032	USART0 RX	USART0 Rx Complete
27	\$0034	USART0 UDRE	USART0 Data Register Empty
28	\$0036	USART0 TX	USART0 Tx Complete
29	\$0038	ANALOG COMP	Analog Comparator
30	\$003A	ADC	ADC Conversion Complete