## **ATtiny**

Device	Flash (kB)	SRAM (B)	EEPROM (KB)	Max I/O Pins	F.max (MHz)	Vcc (V)	16 bit Timers	8 bit Timers	PWM Chan	RTC	SPI	UART	IML	ISP	10 bit A/D Chan	Brn Out Det?	Watchdog	On Chip Osc.?	H/W Multipler	# Interrupts	# Ext. Interrupts	Self Prg Mem	DIP Package	Digi-Key \$	Mouser \$(@10)	Futurlec \$
ATtiny11	1			6	6	2.7-5.5		1									Yes	Yes		4	1		8	0.54		
ATtiny12	1		0.06	6	8	1.8-5.5		1						Yes		Yes	Yes	Yes		5	1		8	1.63	1.57	1.60
ATtiny15L	1		0.06	6	1.6	2.7-5.5		2	1					Yes	01/03/00	Yes	Yes	Yes		8	1(+5)		8	2.24		
ATtiny13	1	64+32reg	0.06	6	20	1.8-5.5		1	2					Yes	01/03/00	Yes	Yes	Yes	No	9	6	Yes	8	1.40	1.20	1.20
ATtiny28L	2	32		11	4	1.8-5.5		1									Yes	Yes		5	2(+8)		28	1.61	1.39	1.70
ATtiny2313	2	128	0.13	18	20	1.8-5.5	1	1	4		USI	1	USI	Yes		Yes	Yes	Yes		8	2	Yes	20	2.26	1.94	1.45
ATtiny24	2	128	0.13	12	20	1.8-5.5	1	1	4		USI		USI	Yes	01/07/00	Yes	Yes	Yes		17	12	Yes	14	1.91	1.65	
ATtiny25	2	128	0.13	6	20	1.8-5.5		2	4		USI		USI	Yes	01/03/00	Yes	Yes	Yes		15	7	Yes	8	1.76	1.52	
ATtiny26	2	128	0.13	16	16	2.7-5.5		2	2		USI		USI	Yes	01/10/00	Yes	Yes	Yes		11	1		20	2.47	2.13	
ATtiny261	2	128	0.13	16	20	1.8 - 5.5	1	2	2		Yes		USI	Yes	01/10/00	Yes	Yes	Yes		19	2	Yes	20	2.13	1.83	
ATtiny44	4	256	0.25	12	20	1.8-5.5	1	1	4		USI		USI	Yes	01/07/00	Yes	Yes	Yes		17	12	Yes	14	2.15	1.85	
ATtiny45	4	256	0.25	6	20	1.8-5.5		2	4		USI		USI	Yes	01/03/00	Yes	Yes	Yes		15	7	Yes	8	1.32	1.83	
ATtiny461	4	256	0.25	16	20	1.8 - 5.5	1	2	2		Yes		USI	Yes	01/10/00	Yes	Yes	Yes		19	2	Yes	20	2.45	2.11	
ATtiny84	8	512	0.5	12	20	1.8-5.5	1	1	4		USI		USI	Yes	01/07/00	Yes	Yes	Yes		17	12	Yes	14	2.90	2.50	
ATtiny85	8	512	0.5	6	20	1.8-5.5		2	4		USI		USI	Yes	01/03/00	Yes	Yes	Yes		15	7	Yes	8	2.73	2.44	
ATtiny861	8	512	0.5	16	20	1.8 - 5.5	1	2	2		Yes		USI	Yes	01/10/00	Yes	Yes	Yes		19	2	Yes	20	3.03	2.61	

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## **ATmega**

ū	Flash (kB)	(B)	EEPROM (KB)	Max I/O Pins	F.max (MHz)	<i>(</i> /	16 bit Timers	8 bit Timers	PWM Chan						bit A/D Chan	Brn Out Det?	atchdog	On Chip Osc.?	H/W Multipler	Interrupts	Ext. Interrupts	Self Prg Mem	DIP Package	Digi-Key \$	Mouser \$ (@10)
Device	ash	SRAM (B)	PRC	ax I/	ma	Vcc (V)	bit	bit '	٧×	RTC	-	UART	W	<b>a</b> .		0 u.	atch	ب ا	<b>*</b>	Inte	Ext.	if P	P Pē	gi-K	∍snc
											SPI		F	ISP	10		<b>&gt;</b>			#	#				
ATmega48	4	512	0.25	23	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	06/08/08	Yes	Yes	Yes	Yes	26	26	Yes	28	2.69	2.31
ATmega48P	4	512	0.25	23	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	26	26	Yes	28		
ATmega8515	8	512	0.5	35	16	2.7-5.5	1	1	3		1	1		Yes		Yes	Yes	Yes	Yes	16	3	Yes	40	5.27	4.53
ATmega8535	8	512	0.5	32	16	2.7-5.5	1	2	4		1	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	20	3	Yes	40	5.70	4.90
ATmega8	8	1024	0.5	23	16	2.7-5.5	1	2	3	Yes	1	1	Yes	Yes	06/08/08	Yes	Yes	Yes	Yes	18	2	Yes	28	3.66	3.15
ATmega88	8	1024	0.5	23	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	06/08/08	Yes	Yes	Yes	Yes	26	26	Yes	28	3.87	3.33
ATmega88P	8	1024	0.5	23	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	26	26	Yes	28		
ATmega16	16	1024	0.5	32	16	2.7-5.5	1	2	4	Yes	1	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	20	3	Yes	40	6.56	5.64
ATmega162	16	1024	0.5	35	16	1.8-5.5	2	2	6	Yes	1 4.UCADT	2	 V	Yes	04 /07 /00	Yes	Yes	Yes	Yes	28	3	Yes	40	6.77	5.83
ATmega164P	16	1024	0.5	32	20	1.8-5.5	1	2	6	Yes	1+USART	2	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	31	32	Yes	40	4.82	4.14
ATmega165	16	1024	0.5	54	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	23	17	Yes			
ATmega165P	16	1024	0.5	54	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	23	17	Yes	20		
ATmega168	16	1024	0.5	23	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	06/08/08	Yes	Yes	Yes	Yes	26	26	Yes	28	4.11	3.53
ATmega168P	16	1024	0.5	23	20	1.8-5.5	1	2	4	Yes	1+USART	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	26 23	26	Yes	28		
ATmega169	16	1024	0.5	54	16	1.8-5.5	1	2	•	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes		17	Yes			
ATmega169P	16	1024	0.5	54	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	23	17	Yes	40		
ATmega32	32	2048		32	16	2.7-5.5	1	2	4	Yes	1 1+USART	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	19	3	Yes	40	8.28	7.12
ATmega324P	32 32	2048	1	32	20	1.8-5.5	1	2	4	Yes	1+USAR1	2	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	31 23	32	Yes	40	6.02	5.18
ATmega325		2048		54	16	1.8-5.5	1	2	4	Yes		1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes		17	Yes			
ATmega3250	32 32	2048 2048	1	69 69	16 20	1.8-5.5	1	2	4	Yes	1+USI 1+USI	•	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	32 32	17 17	Yes			
ATmega3250P		2048	1	54		1.8-5.5 1.8-5.5	1	2	4	Yes Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	23	17	Yes			
ATmega325P	32		1		20		1	2				1		Yes		Yes	Yes	Yes	Yes	26			28		
ATmega328P	32 32	2048 2048	1	23 54	16	1.8-5.5 1.8-5.5	1	2	6 4	Yes Yes	1+USART 1+USI	1	Yes USI	Yes	01/07/00 01/07/00	Yes	Yes	Yes Yes	Yes	25	26 17	Yes Yes	28		
ATmega329	32	2048	1	69	16	1.8-5.5	1	2	4		1+USI	1	USI		01/07/00		Yes			25	32	Yes			
ATmega3290	32	2048	1				1	2	4	Yes Yes		1	USI	Yes		Yes		Yes	Yes	25	32				
ATmega3290P	32		1	69	20	1.8-5.5	1	2	4		1+USI	1		Yes	01/07/00	Yes	Yes	Yes		25		Yes			
ATmega329P	40	2048 2048	0.5	54 18	20	1.8-5.5 39563	1	1	1	Yes Yes	1+USI		USI Yes	Yes	01/07/00	Yes	Yes Yes	Yes Yes	Yes Yes	23	17 4	Yes			
ATmega406			2	54	16	2.7-5.5	2		8	Yes	1	2			01/07/00	Yes	Yes			34	8	Yes			
ATmega64	64	4096 4096	2	32	20	1.8-5.5	1	2	6		1+USART		Yes	Yes	01/07/00		Yes	Yes	Yes	31	32	Yes	40		
ATmega644	64 64	4096	2	32	20	1.8-5.5	1	2	6	Yes	1+USART	1	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	31	32	Yes	40	7.87	6.77
ATmega644P	64	4096	2	54	16	1.8-5.5	1	2	4	Yes	1+USAKT	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	23	17	Yes	40	7.76	
ATmega645	64	4096	2	69	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes		Yes	32	17	Yes			
ATmega6450	64	4096	2	54	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00		Yes	Yes	Yes	25	17	Yes			
ATmega649	64	4096	2	69	16	1.8-5.5	1	2	4	Yes	1+USI	1	USI	Yes	01/07/00	Yes	Yes	Yes	Yes	25	32	Yes			
ATmega6490	64	4096	2	32	20	1.8-5.5	1	2	6	Yes	1+2 USART	2	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	31	32	Yes	40		
ATmega64RZAPV ATmega64RZAV	64	4096	2	32	20	1.8-5.5	1	2	6	Yes	1+USART	1		Yes	01/07/00	Yes	Yes		Yes	31	32	Yes	40		
-	64	8192	4	86	16	1.8-5.5	4	2	16		1+USART		Yes		01/07/00		Yes	Yes Yes	Yes	57	32	Yes	40	44.00	10.11
ATmega640	128	4096	4	53	16	2.7-5.5	2	2	8	Yes	1+U3AK1	4	Yes	Yes	01/13/00	Yes	Yes	Yes	Yes	34	8	Yes		11.80	10.16
ATmega128	128	8192	4	86	16	1.8-5.5	4	2	16	Yes	1+USART	4	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	57	32	Yes		45 70	12.95
ATmega1280	128	8192	4	54	16	1.8-5.5	4	2	9	Yes	1+USART	2	Yes	Yes	01/13/00	Yes	Yes	Yes	Yes	48	17	Yes		15.72	
ATmega1281	128	8192	4	54	16	1.8-5.5	4	2	9	Yes	1+USART	2	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	48	17	Yes			12.36
ATmega128RZAV	128	8192	4	86	16	1.8-5.5	4	2	16	Yes	1+USART	4	Yes	Yes	01/07/00	Yes	Yes	Yes	Yes	57	32	Yes			
ATmega128RZBV	256	8192	4	86	16	1.8-5.5	4	2	16	Yes	1+USART	4	Yes	Yes	01/15/00	Yes	Yes	Yes	Yes	57	32	Yes			
ATmega2560	256	8192	4	54	16	1.8-5.5	4	2	9	Yes	1+USART	2		Yes	01/13/00	Yes	Yes		Yes	48	17	Yes			
ATmega2561	256	8192	4	54 54	16	1.8-5.5	4	2	9	Yes	1+USART 1+USART	2	Yes	Yes	01/07/00			Yes	Yes	48	17	Yes			
ATmega256RZAV	256	8192 8192	-										Yes			Yes	Yes			48 57	32				
ATmega256RZBV	230	0172	4	86	16	1.8-5.5	4	2	16	Yes	1+USART	4	Yes	Yes	01/15/00	Yes	Yes	Yes	Yes	3/	32	Yes			

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