



MSP430™ Ultra-Low Power Microcontrollers (Cont.)



Memory Size Flash (Program)	SRAM (Byte)	I/O	Timer (16-Bit)	ADC Ch/Res	UART/ SPI	Freq. Range Min./Max.	Vcc (V)	Package	Digi-Key Part No.	Price Each			Tape and Reel†		Texas Instruments Part No.	
										1	25	100	Qty.	Pricing		
32K	1024	48	8	Slope	—	DC-8MHz	1.8 - 3.6	64-LQFP	296-16767-ND	4.71	3.79	3.45	—	—	MSP430F4171PZR	
	1024	48	8	Slope	—	DC-8MHz	1.8 - 3.6	64-LQFP	296-26227-1-ND	5.05	4.13	3.70	1,000	2354.35	MSP430F4171PMR	
	1024	48	8	Slope	—	DC-8MHz	1.8 - 3.6	64-VQFN	296-22755-1-ND	5.17	4.22	3.79	250	796.30	MSP430F4171RDT	
	1024	48	6	8-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-13723-ND	8.61	7.06	6.38	—	—	MSP430F4371PN	
	1024	48	6	8-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-12637-ND	8.81	7.23	6.52	—	—	MSP430F4371PZ	
	1024	48	6	Slope	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-22761-1-ND	8.59	7.14	6.49	1,000	4378.37	MSP430F4371IPNR	
	1024	48	6	Slope	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-22762-1-ND	8.59	7.14	6.49	1,000	4378.37	MSP430F4371IPZ	
	1024	48	6	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-17011-ND	9.07	7.63	7.02	—	—	MSP430F4371PN	
	1024	48	6	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-18611-1-ND	9.49	8.05	7.43	1,000	5485.48	MSP430F4371IPNR	
	1024	48	10	8-Ch., 12-Bit	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-12638-ND	9.01	7.39	6.67	—	—	MSP430F4471PZ	
	2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-25380-1-ND	9.76	8.11	7.37	1,000	4972.97	MSP430F4771IPNR	
	2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-25381-1-ND	9.98	8.29	7.53	2,500	4892.89/M	MSP430F4771ZQWR	
2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-25384-1-ND	9.86	8.36	7.72	1,000	5698.09	MSP430F4791PNR		
2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-25385-1-ND	10.04	8.52	7.86	2,500	5564.56/M	MSP430F4791ZQWR		
2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-25386-1-ND	10.08	8.37	7.61	1,000	5135.13	MSP430F4771IPNR		
2048	48	2	16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-25387-1-ND	10.29	8.55	7.77	2,500	5049.05/M	MSP430F4771ZQWR		
48K	2048	48	10	8-Ch., 12-Bit	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-12639-ND	9.61	7.88	7.12	—	—	MSP430F4481PZ	
	2048	48	2	12-Bit SAR	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-25607-1-ND	9.55	7.93	7.21	1,000	4864.86	MSP430F4481IPZ	
	2048	48	6	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-17012-ND	10.57	8.89	8.17	—	—	MSP430F4381PN	
	2048	72	6	3X 16-Bit	—	DC-16MHz	1.8 - 3.6	100-LQFP	296-22914-1-ND	9.21	7.81	7.21	1,000	5325.32	MSP430F4783IPZ	
	2048	72	6	4-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24720-1-ND	9.21	7.81	7.21	1,000	5325.32	MSP430F4784IPZ	
	2048	48	1	16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-25382-1-ND	9.21	7.81	7.21	1,000	5325.32	MSP430F4781PNR	
	2048	48	1	16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-25383-1-ND	9.39	7.97	7.36	2,500	5207.21/M	MSP430F4781ZQWR	
	2048	48	1	16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-25388-1-ND	10.23	8.67	8.00	1,000	5911.11	MSP430F4781IPNR	
	2048	48	1	16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-25389-1-ND	10.41	8.83	8.15	2,500	5768.77/M	MSP430F4781ZQWR	
	4K	72	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25772-1-ND	9.39	7.97	7.36	1,000	5431.83	MSP430F4726IPZ	
	4K	72	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25773-1-ND	9.58	8.12	7.50	1,000	5538.33	MSP430F4727IPZ	
	60K	2048	48	10	8-Ch., 12-Bit	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-12640-ND	9.07	7.63	7.02	—	—	MSP430F4491PZ
2048		48	6	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	80-LQFP	296-17013-ND	11.63	9.78	8.99	—	—	MSP430F4391PN	
2048		48	5	3X 16-Bit	2	DC-8MHz	1.8 - 3.6	80-LQFP	296-24305-1-ND	11.42	9.69	8.94	1,000	6603.40	MSP430F4791PNR	
2048		48	5	3X 16-Bit	2	DC-8MHz	1.8 - 3.6	113-BGA	296-24306-1-ND	11.60	9.84	9.09	2,500	6432.83/M	MSP430F4791ZQWR	
2048		48	2	12-Bit SAR	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-25608-1-ND	10.29	8.55	7.77	1,000	5243.64	MSP430F4491IPZ	
2560		72	6	3-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24721-1-ND	9.86	8.36	7.72	1,000	5698.09	MSP430F4793IPZ	
2560		72	6	4-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24722-1-ND	9.86	8.36	7.72	1,000	5698.09	MSP430F4794IPZ	
4K		72	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25774-1-ND	9.21	7.81	7.21	1,000	5325.32	MSP430F47163IPZ	
8K		72	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25775-1-ND	9.39	7.97	7.36	1,000	5431.83	MSP430F47173IPZ	
4K		80	5	12-Bit SAR	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-25766-1-ND	11.60	9.84	9.09	1,000	6709.90	MSP430F4616IPZ	
4K		80	5	16-Bit	2	DC-8MHz	1.8 - 3.6	100-LQFP	296-25765-1-ND	9.95	8.44	7.79	1,000	5751.35	MSP430F46161IPZ	
4096		68	6	6-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24638-1-ND	10.50	8.91	8.22	1,000	6070.86	MSP430F47166IPZ	
92K	4096	68	6	7-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24639-1-ND	10.78	9.14	8.44	1,000	6230.62	MSP430F47167IPZ	
	4096	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-21307-ND	13.13	11.04	10.15	—	—	MSP430F46161PZ	
	4096	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	113-BGA	296-24726-1-ND	14.33	12.15	11.21	2,500	7939.97/M	MSP430F46161ZQWR	
	8K	80	5	16-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25768-1-ND	12.34	10.47	9.66	1,000	7135.93	MSP430F4617IPZ	
	8K	80	5	16-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25767-1-ND	10.68	9.06	8.37	1,000	6177.37	MSP430F46171IPZ	
	4K	68	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-2442-ND	10.31	8.67	7.97	—	—	MSP430F47167IPZ	
	8192	68	6	6-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24640-1-ND	10.87	9.22	8.51	1,000	6283.88	MSP430F47167IPZ	
	8192	68	6	7-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24641-1-ND	11.15	9.45	8.73	1,000	6443.64	MSP430F47177IPZ	
	8192	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-21308-ND	14.01	11.78	10.83	—	—	MSP430F4617IPZ	
	8192	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	113-BGA	296-24727-1-ND	15.28	12.95	11.96	2,500	8465.79/M	MSP430F46171ZQWR	
	116K	8K	72	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25776-1-ND	9.76	8.28	7.64	1,000	5644.84	MSP430F47183IPZ
		8K	80	5	16-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25769-1-ND	11.42	9.69	8.94	1,000	6603.40	MSP430F46181IPZ
8192		68	6	6-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24642-1-ND	13.63	11.56	10.67	1,000	7881.47	MSP430F47186IPZ	
8192		68	6	7-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24643-1-ND	13.91	11.79	10.89	1,000	8041.23	MSP430F47187IPZ	
8192		80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-21309-ND	14.71	12.38	11.37	—	—	MSP430F46181PZ	
8192		80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	113-BGA	296-24728-1-ND	16.03	13.60	12.55	2,500	8886.45/M	MSP430F46181ZQWR	
8192		80	2	12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25481-ND	12.51	10.52	9.67	—	—	MSP430F46181PZ	
4K		68	2	16-Bit	2	DC-16MHz	1.8 - 3.6	100-LQFP	296-25777-1-ND	10.13	8.59	7.93	1,000	5857.85	MSP430F47193IPZ	
4K		80	5	12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25771-1-ND	12.34	10.47	9.66	1,000	7135.93	MSP430F46191PZ	
4K		80	5	12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-25770-1-ND	10.68	9.06	8.37	1,000	6177.37	MSP430F46191IPZ	
4096		68	6	6-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24644-1-ND	14.18	12.03	11.10	1,000	8200.99	MSP430F47196IPZ	
4096		68	6	7-Ch., 16-Bit	4	DC-16MHz	1.8 - 3.6	100-LQFP	296-24645-1-ND	14.55	12.34	11.39	1,000	8414.01	MSP430F47197IPZ	
120K	4096	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	100-LQFP	296-21294-ND	14.01	11.78	10.83	—	—	MSP430F46191PZ	
	4096	80	10	12-Ch., 12-Bit	1	DC-8MHz	1.8 - 3.6	113-BGA	296-23094-1-ND	14.83	12.58	11.61	2,500	8219.22/M	MSP430F46191ZQWR	
	Flash Based F5xx Family — RoHS Compliant															
	24K	6K	31	5	10-Bit SAR	2	DC-25MHz	1.8 - 3.6	48-VQFN	296-27659-1-ND	4.32	3.54	3.18	2,500	1917.12/M	MSP430F5506IRGRZ
		6K	47	5	12-Bit	2	DC-25MHz	1.8 - 3.6	64-VQFN	296-27650-1-ND	4.56	3.73	4.56	2,000	2023.62/M	MSP430F5510IRGRZ
	32K	6K	47	5	12-Bit	2	DC-25MHz	1.8 - 3.6	64-VQFN	296-27374-1-ND	6.89	5.73	6.89	2,000	3383.38/M	MSP430F5513IRGRZ
		6K	47	5	12-Bit	2	DC-25MHz	1.8 - 3.6	80-BGA	296-27375-1-ND	7.11	5.91	7.11	2,500	3487.49/M	MSP430F5513IOEGR
		6K														