

# ATMEL Microcontrollers, Memory and Programmable Logic

MCU / MPU  
Atmel

## ATMEL AVR 8-BIT RISC MICROCONTROLLERS

These products are the highly flexible members of the Atmel Non-Volatile Data Storage Memory family. The Parallel EEPROM enables the user or application to update the stored data byte-by-byte or full sector (page), while providing reliability benefits of high programming endurance and data retention and faster read timing than the Serial EEPROM counterparts.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Memory			I/O Pins	A/D Inputs 10-Bit	Timers	Price Each	
Mfr.	Mfr. Part No.		Flash (K)	EEPROM (MB)	SRAM (MB)				1	25
◆	556-ATTINY15L1SC	SO-8	1	64	---	6	4	2x8	2.12	1.83
◆	556-ATTINY15L1SI	SO-8	1	64	---	6	4	2x8	2.28	2.27
◆	556-ATTINY12L4SI	SO-8	1	64	---	6	---	1x8	1.71	1.50
◆	556-ATTINY12-8PC	PDIP-8	1	64	---	6	---	1x8	1.85	1.57
◆	556-ATTINY12V-1SC	SOIC-8	1	64	---	6	---	1x8	1.82	1.72
◆	556-ATTINY15L1PC	DIP-8	1	64	---	6	4	2x8/1x16	2.23	2.07
◆	556-ATTINY116PC	DIP-8	1	---	---	6	---	1x8	.53	.51
◆	556-AT90S232310SC	SO-8	2	128	128	3	---	1x8	3.22	2.47
◆	556-ATTINY26L-8PI	PDIP-20	2	128	128	16	2	2x8	2.89	2.85
◆	556-ATMEGA8-16AC	TQFP-32	8	512	1024	23	2	2x8	5.19	4.15
◆	556-ATMEGA162-16PU	PDIP-40	16	512	1024	35	---	2x8/1x16	7.00	6.50
◆	556-ATMEGA32L-8PC	PDIP-40	32	1024	2048	32	1	2x8/1x16	7.40	6.97

## ATMEL 8051 MICROCONTROLLERS

Atmel's Flash microcontrollers feature the optimum combination of on-chip non volatile memory capacity, various embedded peripherals and highly flexible and easy-to-implement ISP capability.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Memory		I/O Pins	Op. Range (V)	Timers	Operating Temp. (C°)	Price Each	
Mfr.	Mfr. Part No.		Flash (K)	RAM (Bytes)					1	25
◆	556-AT89C205124PC	DIP-20	2	128	15	2.7-6.0	2x16	0 to +70	1.93	1.43
◆	556-AT89C205124PI	DIP-20	2	128	15	2.7-6.0	2x16	-40 to +85	1.93	1.81
◆	556-AT89C4051-24PC	PDIP-20	4	128	15	2.7-6.0	2x16	0 to +70	3.66	3.64
◆	556-AT89S52-24PC	PDIP-40	8	256	32	4.0-5.5	3x16	0 to +70	3.10	2.82
◆	556-AT89C55WD-24JU	PLCC-44	20	256	32	4.0-5.5	3x16	-55 to +125	5.63	5.06

## ATMEL PARALLEL EEPROMS

These products are the highly flexible members of the Atmel Non-Volatile Data Storage Memory family. The Parallel EEPROM enables the user or application to update the stored data byte-by-byte or full sector (page), while providing reliability benefits of high programming endurance and data retention and faster read timing than the Serial EEPROM counterparts.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Density	Organization	Access Time (V)	Supply Voltage	Operating Temp. (C°)	Price Each	
Mfr.	Mfr. Part No.							1	25
◆	556-AT28B64B20TC	TSOP-28	64K	8K X 8	200	2.7 to 3.6	0 to +70	6.23	4.77
◆	556-AT28C64B15PU	DIP-28	64K	8K X 8	150	4.5 to 5.5	0 to +70	5.37	4.55
◆	556-AT28C64B15SC	SO-28	64K	8K X 8	150	4.5 to 5.5	0 to +70	4.43	4.42
◆	556-AT28C64B15SI	SO-28	64K	8K X 8	150	4.5 to 5.5	-40 to +85	4.43	4.01
◆	556-AT28C64B15TC	TSOP-28	64K	8K X 8	150	4.5 to 5.5	0 to +70	4.43	4.42
◆	556-AT28C64B15TI	TSOP-28	64K	8K X 8	150	4.5 to 5.5	-40 to +85	5.10	5.09
◆	556-AT28HC64B12JC	PLCC-32	64K	8K X 8	120	4.5 to 5.5	0 to +70	5.58	4.28
◆	556-AT28HC64B12PI	DIP-28	64K	8K X 8	120	4.5 to 5.5	-40 to +85	4.94	4.93
◆	556-AT28BV25620TC	TSOP-28	256K	32K X 8	200	2.7 to 3.6	0 to +70	13.64	10.45
◆	556-AT28C25615JI	PLCC-32	256K	32K X 8	150	4.5 to 5.5	-40 to +85	10.61	10.60
◆	556-AT28C25615PI	DIP-28	256K	32K X 8	150	4.5 to 5.5	-40 to +85	6.72	6.08
◆	556-AT28C25615SC	SO-28	256K	32K X 8	150	4.5 to 5.5	0 to +70	13.21	10.11
◆	556-AT28C25615SI	SO-28	256K	32K X 8	150	4.5 to 5.5	-40 to +85	11.52	11.51
◆	556-AT28HC25690PC	DIP-28	256K	32K X 8	90	4.5 to 5.5	0 to +70	13.75	12.94
◆	556-AT28LV01020JC	PLCC-32	1M	128K X 8	200	3.0 to 3.6	0 to +70	40.30	32.44

## ATMEL ELECTRICALLY ERASABLE PROGRAMMABLE LOGIC DEVICES (EPLDs)

Atmel's EPLD products consist of industry standard 16V8, 20V8 and 22V10s in a variety of voltage and power-saving options. Atmel offers low-voltage, zero-power and quarter power versions as well as our proprietary "L" automatic power down low-power devices. All popular packages are supported in addition to the Atmel-only, TSSOP package - the smallest package offered for any EPLD device. All versions are EE- based for high-reliability and easy reprogramming and are supported by all popular third party programmers.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Sup. Volt.	tPD	Registers	Macro cells	Usable Gates	Power Options	Price Each	
Mfr.	Mfr. Part No.								1	25
◆	556-ATF16V8B10JC	PLCC-20	5.0	10	8	8	150	Standard	1.72	1.56
◆	556-ATF16V8BQL15JC	PLCC-20	5.0	15	8	8	150	Qtr & Low	1.58	1.38
◆	556-ATF16V8BQL-15SU	SO-20	5.0	15	8	8	150	Qtr & Low	3.35	3.02
◆	556-ATF16LV8C10JC	PLCC-20	3.3	10	8	8	150	Standard	3.49	2.68
◆	556-ATF22V10C10JC	PLCC-28	5.0	10	10	10	350	Standard	2.25	1.95
◆	556-ATF22V10CZ15JC	PLCC-28	5.0	15	10	10	350	Zero	5.15	4.48
◆	556-ATF22LV10C10SC	SO-24	3.3	10	10	10	350	Standard	3.84	3.83
◆	556-ATF22V10CQ15JC	PLCC-28	5.0	15	10	10	350	Quarter	2.52	2.28
◆	556-ATF16LV8C10PC	DIP-20	3.3	10	8	8	150	Standard	3.49	2.90
◆	556-ATF16V8CZ15PC	DIP-20	5.0	15	8	8	150	Zero	3.54	3.06
◆	556-ATF20V8B10PC	DIP-24	5.0	10	8	8	200	Standard	2.22	2.01
◆	556-ATF22V10C10PC	DIP-24	5.0	10	10	10	350	Standard	2.25	1.95

## ATMEL COMPLEX PROGRAMMABLE LOGIC DEVICES (CPLDs)

The ATF15xx CPLD family offers pin-compatible supersets of the popular Altera 7000 and 3000 series devices ranging from 32 to 128 macrocells with propagation delays from 7.5 to 15 ns for 5-volt standard power versions and 15 ns for 3.3v versions. All devices also support JTAG in-system programming (ISP). The Logic Doubling™ features of the ATF15xx family make these products ideal for new designs.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Sup. Volt.	tPD	Registers	Macro cells	Usable Gates	Power Options	Price Each	
Mfr.	Mfr. Part No.								1	25
◆	556-ATF1502AS10JC44	PLCC-44	5.0	10	32	32	750	Standard	2.79	2.59
◆	556-ATF1504AS15AC100	TQFP-100	5.0	15	64	64	1500	Standard	5.53	5.52
◆	556-ATF1504ASV15AC10	TQFP-100	3.3	15	64	64	1500	Standard	5.53	5.52
◆	556-ATF1508ASL20JC84	PLCC-84	5.0	20	128	128	3000	Low	9.56	9.09
◆	556-ATF750C15JC	PLCC-28	5.0	15	20	10	500	Standard	4.23	3.24
◆	556-ATF750CL15JC	PLCC-28	5.0	15	20	10	500	Low	4.23	3.24
◆	556-ATF750C15PC	DIP-24	5.0	15	20	10	500	Standard	4.23	3.64
◆	556-ATF750CL15PC	DIP-24	5.0	15	20	10	500	Low	4.23	3.84

## ATMEL FIELD PROGRAMMABLE GATE ARRAY (FPGA) CONFIGURATION MEMORY

Atmel's popular In-System Programmable (ISP) FPGA Configurator EEPROM memories can be used with Atmel's FPLSIC™ devices and SRAM-based FPGA from any supplier, including Atmel's own AT6000 and AT40K FPGA family, as well as products from Xilinx, Altera, Vantis, and Lucent.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Density	Organization	Supply Voltage	F (Max.)	Price Each	
Mfr.	Mfr. Part No.						1	25
◆	556-AT17C6510JC	PLCC-20	64K	64K X 1	5.0	10 MHz	4.94	4.64
◆	556-AT17LV6510PC	DIP-8	64K	64K X 1	3.3	10 MHz	6.44	5.91
◆	556-AT17C12810JC	PLCC-20	128K	128K X 1	5.0	10 MHz	9.03	8.05
◆	556-AT17LV12810PC	DIP-8	128K	128K X 1	3.3	10 MHz	10.31	7.90
◆	556-AT17LV25610JC	PLCC-20	256K	256K X 1	3.3	10 MHz	14.44	13.98
◆	556-AT17LV25610PC	SO-8	256K	256K X 1	3.3	10 MHz	21.83	21.82
◆	556-AT17LV25610PI	DIP-8	256K	256K X 1	3.3	10 MHz	12.34	12.33
◆	556-AT17LV51210JC	PLCC-20	512K	512K X 1	3.3	15 MHz	19.34	19.18
◆	556-AT17LV01010JC	PLCC-20	1M	1M X 1	3.3	15 MHz	26.71	24.69

## ATMEL SERIAL DATAFLASH

The DataFlash series gives users a nonvolatile memory solution for data storage applications such as voice, image or text. The DataFlash was designed to easily and efficiently handle large amounts of frequently-changing data by incorporating features such as small page sizes (264 to 1056 bytes), internal RAM buffers, a simple serial interface, and a flexible command set.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Density	Organization	Supply Voltage	F (Max.)	Price Each	
Mfr.	Mfr. Part No.						1	25
◆	556-AT45DB011BSI	SO-8	1M	512 X 264	2.7 to 3.6	-40 to +85	2.12	1.95
◆	556-AT45DB021BRC	SO-28	2M	1K X 264	2.7 to 3.6	0 to +70	3.19	3.18
◆	556-AT45DB021BRI	SO-28	2M	1K X 264	2.7 to 3.6	-40 to +85	3.24	3.23
◆	556-AT45DB021BTI	TSOP-32	2M	1K X 264	2.7 to 3.6	-40 to +85	3.24	3.23

MOUSER STOCK NO.		Package Type	Sup. Volt.	tPD	Registers	Macro cells	Usable Gates	Power Options	Price Each	
Mfr.	Mfr. Part No.								1	25
◆	556-ATF16V8BQL-15PC	PDIP-20	5.0	10	8	8	150	Standard	1.48	1.35
◆	556-ATF16V8B15PC	DIP-20	5.0	10	8	8	150	Standard	2.20	2.00

## ATMEL FLASH MEMORY

Atmel's Flash Memory AT29 Series devices were developed for applications requiring updates of small portions of data throughout the memory array. The AT29 Series most notable feature is the small sector sizes which create an ideal solution for both program code and data storage.

◆ Surface Mount Device For quantities of 100 and up, call for quote.

MOUSER STOCK NO.		Package Type	Density	Organization	Operating Voltage	Operating Temp. (C°)	Price Each	
Mfr.	Mfr. Part No.						1	25
◆	556-AT29C256-12JC	PLCC-32	256K	32K x 8	4.5 to 5.5	0 to +70	4.51	3.85
◆	556-AT29C010A70JJC	PLCC-32	1M	128Kx8	4.5 to 5.5	0 to +70	2.69	2.30
◆	556-AT29C010A-90JJC	PLCC-32	1M	128Kx8	4.5 to 5.5	-40 to +85	3.32	3.00