MEMORY PRODUCTS SELECTOR GUIDE

A) OTP Memory - 5V range

Type	Size	Organisation	Access Time (ns)	Packages
M27C64A	64K	x8	150 - 200	PLCC32
M27C256B	256K	x8	45 - 200	PDIP28, PLCC32, TSOP28
M87C257	256K	x8	70 - 200	PLCC32
M27C512	512K	x8	45 - 250	PDIP28, PLCC32, TSOP28
M27C1001*	1 Meg	x8	45 - 200	PDIP32, PLCC32, TSOP32A
M27C1024*	1 Meg	x16	55 - 200	PLCC44, TSOP40A
M27C2001*	2 Meg	x8	55 - 150	PLCC32, TSOP32A
M27C405*	4 Meg	x8	70 - 120	PDIP32, PLCC32, TSOP32A
M27C4001	4 Meg	x8	55 - 250	PLCC32, TSOP32A
M27C4002	4 Meg	x16	70 - 250	PLCC44, TSOP48
M27C801	8 Meg	x8	90 - 200	PLCC32, TSOP32A

* Flash memory compatible

B) OTP Memory - 3.3V +/-10% range

Type	Size	Organisation	Access Time (ns)	Packages
M27V256	256K	x8	70 - 200	PLCC32, TSOP28
M27V512	512K	x8	90 - 200	PLCC32, TSOP28
M27V101	1 Meg	x8	90 - 200	PLCC32, TSOP32A
M27V102	1 Meg	x16	100 - 200	PLCC44, TSOP40A
M27V201	2 Meg	x8	100 - 250	PLCC32, TSOP32A
M27V401	4 Meg	x8	100 - 250	PLCC32, TSOP32A
M27V402	4 Meg	x16	120 - 200	PLCC44, TSOP48
M27V801	8 Meg	x8	150 - 200	PLCC32, TSOP32A

C) OTP Memory - 2.7V to 3.6V range

Type	Size	Organisation	Access Time (ns)	Packages
M27W256	256	x8	70 - 200	PLCC32, TSOP28
M27W512	512K	x8	90 - 200	PLCC32, TSOP28
M27W101	1 Meg	x8	120 - 200	PLCC32, TSOP32A
M27W1024	1 Meg	x16	150 - 200	PLCC44, TSOP40A
M27W201	2 Meg	x8	120 - 200	PLCC32, TSOP32A
M27W401	4 Meg	x8	120 - 200	PLCC32, TSOP32A
M27W402	4 Meg	x16	150 - 200	PLCC44, TSOP48

D) OTP Memory - ROM Compatible

Type	Size	Organisation	Access Time (ns)	Packages
M27C800	8 Meg	x8/x16	100 - 200	SO44
M27C160	16 Meg	x8/x16	100 - 200	SO44

E) UV EPROM - 5V range

Type	Size	Organisation	Access Time (ns)	Packages
M2716*	16K	x8	300 - 450	FDIP24W
M2732A*	32K	x8	200 - 300	FDIP24W
M2764A*	64K	x8	180 - 300	FDIP28W
M27C64A	64K	x8	150 - 200	FDIP28W
M27128A*	128K	x8	200 - 300	FDIP28W
M27256*	256K	x8	170 - 300	FDIP28W
M27C256B	256K	x8	45 - 200	FDIP28W
M87C257	256K	x8	120 - 200	FDIP28W
M27512*	512K	x8	200 - 250	FDIP28W
M27C512	512K	x8	45 - 200	FDIP28W
M27C1001	1 Meg	x8	45 - 200	FDIP32W, LCCC32W
M27C1024	1 Meg	x16	55 - 250	FDIP40W
M27C2001	2 Meg	x8	55 - 150	FDIP32W, LCCC32W
M27C4001	4 Meg	x8	55 - 150	FDIP32W, LCCC32W
M27C4002	4 Meg	x16	70 - 150	FDIP40W, JLCC44W
M27C801	8 Meg	x8	90 - 150	FDIP32W

* NMOS versions, not for new design

F) UV EPROM - ROM compatible

Type	Size	Organisation	Access Time (ns)	Packages
M27C800	8 Meg	x8/x16	100 - 200	FDIP42W
M27C160	16 Meg	x8/x16	100 - 200	FDIP42W

G) FLASH Memory - Dual Supply 5/12V

Type	Size	Organis.	Access Time (ns)	Erase Matrix	Packages
M28F256	256K	x8	100 - 200	Bulk	PDIP32, PLCC32
M28F512	512K	x8	100 - 200	Bulk	PDIP32, PLCC32
M28F101	1 Meg	x8	100 - 200	Bulk	PDIP32, PLCC32, TSOP32
M28F102	1 Meg	x16	100 - 150	Bulk	PLCC44, TSOP40B
M28F201	2 Meg	x8	80 - 150	Bulk	PDIP32, PLCC32, TSOP32
M28F210	2 Meg	x8/x16	80 - 120	Top Boot Bock	SO44, TSOP48
M28F220	2 Meg	x8/x16	80 - 120	Bottom Boot Block	SO44, TSOP48
M28F211	2 Meg	x8	80 - 120	Top Boot Bock	TSOP40A
M28F221	2 Meg	x8	80 - 120	Bottom Boot Block	TSOP40A
M28F410	4 Meg	x8/x16	80 - 120	Top Boot Bock	SO44, TSOP48
M28F420	4 Meg	x8/x16	80 - 120	Bottom Boot Block	SO44, TSOP48
M28F411	4 Meg	x8	80 - 120	Top Boot Bock	TSOP40A
M28F421	4 Meg	x8	80 - 120	Bottom Boot Block	TSOP40A

H) FLASH Memory - Dual Supply 3.3/12V

Type	Size	Organis.	Access Time (ns)	Erase Matrix	Packages
M28V201	2 Meg	x8	150 - 200	Bulk	PDIP32, PLCC32, TSOP32A
M28V210	2 Meg	x8/x16	120 - 200	Top Boot Bock	SO44, TSOP48
M28V220	2 Meg	x8/x16	120 - 200	Bottom Boot Block	SO44, TSOP48
M28V211	2 Meg	x8	120 - 200	Top Boot Bock	TSOP40A
M28V221	2 Meg	x8	120 - 200	Bottom Boot Block	TSOP40A
M28V410	4 Meg	x8/x16	100 - 200	Top Boot Bock	SO44, TSOP48
M28V420	4 Meg	x8/x16	100 - 200	Bottom Boot Block	SO44, TSOP48
M28V411	4 Meg	x8	100 - 200	Top Boot Bock	TSOP40A
M28V421	4 Meg	x8	100 - 200	Bottom Boot Block	TSOP40A
M28V841	8 Meg	x8	150 - 200	Equal Sectors	TSOP40A
M28V161	16 Meg	x8	150 - 200	Equal Sectors	TSOP48

I) FLASH Memory - Single Supply 5V only

Type	Size	Organis.	Access Time (ns)	Erase Matrix	Packages
M29F100	1 Meg	x8/x16	80 - 120	Boot Block	SO44, TSOP48
M29F200	2 Meg	x8/x16	80 - 120	Boot Block	SO44, TSOP48
M29F400	4 Meg	x8/x16	80 - 120	Boot Block	SO44, TSOP48
M29F040	4 Meg	x8	80 - 120	Equal Sector	PLCC32, TSOP32B

J) Serial EEPROM I^2C Bus - 2 wire 100KHz

Type	Size	Organis.	Supply Voltage	Features	Packages
ST24C01	1K	x8	3V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST24C02	2K	x8	3V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST24C04	4K	x8	3V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST24C08	8K	x8	3V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST24C16	16K	x8	3V to 5.5V	Byte/page write 10ms	PSDIP8, SO8, SO14
ST25C01	1K	x8	2.5V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST25C02	2K	x8	2.5V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST25C04	4K	x8	2.5V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST25C08	8K	x8	2.5V to 5.5V	Byte/page write 10ms	PSDIP8, SO8
ST25C16	16K	x8	2.5V to 5.5V	Byte/page write 10ms	PSDIP8, SO8, SO14
ST24W01	1K	x8	3V to 5.5V	Write control input	PSDIP8, SO8
ST24W02	2K	x8	3V to 5.5V	Write control input	PSDIP8, SO8
ST24W04	4K	x8	3V to 5.5V	Write control input	PSDIP8, SO8
ST24W08	8K	x8	3V to 5.5V	Write control input	PSDIP8, SO8
ST24W16	16K	x8	3V to 5.5V	Write control input	PSDIP8, SO8, SO14
ST25W01	1K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8
ST25W02	2K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8
ST25W04	4K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8
ST25W08	8K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8
ST25W16	16K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8, SO14

K) Serial EEPROM I^2C Bus - 2 wire 400KHz

Type	Size	Organis.	Supply Voltage	Features	Packages
ST24E16	16K	x8	4.5V to 5.5V	Write control input	PSDIP8, SO8
ST24E32	32K	x8	4.5V to 5.5V	Write control input	PSDIP8, SO8 (300mil)
ST24E64	64K	x8	4.5V to 5.5V	Write control input	PSDIP8, SO8 (300mil)
ST25E16	16K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8
ST25E32	32K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8 (300mil)
ST25E64	64K	x8	2.5V to 5.5V	Write control input	PSDIP8, SO8 (300mil)

L) SPI Bus - 2 MHz

Type	Size	Organis.	Supply Voltage	Features	Packages
ST95010	1K	x8	4.5V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95011	1K	x8	4.5V to 5.5V	Write protect input, SPI mod. 01/10	PSDIP8, SO8
ST95P02	2K	x8	3V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95020	2K	x8	4.5V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95021	2K	x8	4.5V to 5.5V	Write protect input, SPI mod. 01/10	PSDIP8, SO8
ST95P04	4K	x8	3V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95040	4K	x8	4.5V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95041	4K	x8	4.5V to 5.5V	Write protect input, SPI mod. 01/10	PSDIP8, SO8
ST95P08	8K	x8	3V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95080	8K	x8	4.5V to 5.5V	Write protect input, SPI mod. 00/11	PSDIP8, SO8
ST95081	8K	x8	4.5V to 5.5V	Write protect input, SPI mod. 01/10	PSDIP8, SO8

M) MICROWIRE Bus - 1 MHz

Type	Size	Organis.	Supply Voltage	Features	Packages
ST93C06	256bit	x8/x16	4.5V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C46	1K	x8/x16	4.5V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C56	2K	x8/x16	4.5V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C66	4K	x8/x16	4.5V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C47	1K	x8/x16	3V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C57	2K	x8/x16	3V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93C67	4K	x8/x16	3V to 5.5V	Dual Organisation	PSDIP8, SO8
ST93CS46	1K	x16	3V to 5.5V	Write protection	PSDIP8, SO8
ST93CS56	2K	x16	3V to 5.5V	Write protection	PSDIP8, SO8
ST93CS66	4K	x16	3V to 5.5V	Write protection	PSDIP8, SO14
ST93CS47	1K	x16	3V to 5.5V	Write protection	PSDIP8, SO8
ST93CS57	2K	x16	3V to 5.5V	Write protection	PSDIP8, SO8
ST93CS67	4K	x16	3V to 5.5V	Write protection	PSDIP8, SO14

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N) Dedicated EEPROM

Type	Size	Organis.	Supply Voltage	Features	Packages
M2201	1K	x8	4.5V to 5.5V	Write control input, simplified bus	PSDIP8, SO8
ST24LC21	1K	x8	2.5V to 5.5V	Dual mode, plug and play	PSDIP8, SO8
ST24164	16K	x8	4.5V to 5.5V	Write control input, simplified bus	PSDIP8, SO8
ST25164	16K	x8	2.5V to 5.5V	Write control input, simplified bus	PSDIP8, SO8

O) Parallel EEPROM - 3V range

Type	Size	Organis.	Access time(ns)	Byte/page write	Features	Packages
M28LV16	16K	x8	150 - 200	2ms	Software Write Protect	PDIP24, PLCC32, SO24
M28LV17	16K	x8	150 - 200	2ms	With RB output	PDIP28, PLCC32, SO28
M28LV64	64K	x8	150 - 200	3ms	Software Write Protect	PDIP28, PLCC32, SO28, TSOP28
M28LV64C	64K	x8	150 - 300	10ms		PDIP28, PLCC32, SO28, TSOP28
M28LV64X	64K	x8	150 - 300	10ms		PDIP28, PLCC32, SO28, TSOP28

P) Parallel EEPROM - 5V range

Type	Size	Organis.	Access time(ns)	Byte/page write	Features	Packages
M28C16	16K	x8	70 - 150	2ms	Software Write Protect	PDIP24, PLCC32, SO24
M28C17	16K	x8	70 - 150	2ms	With RB output	PDIP28, PLCC32, SO28
M28C64	64K	x8	70 - 150	2ms	Software Write Protect	PDIP28, PLCC32, SO28, TSOP28
M28C64C	64K	x8	70 - 150	5ms		PDIP28, PLCC32, SO28, TSOP28
M28C64X	64K	x8	70 - 150	5ms	No RB output	PDIP28, PLCC32, SO28, TSOP28

Q) ZEROPOWER - battery backed SRAM Monolithic types

Type	Size	Organis.	Access time(ns)	Features	Packages
M48Z02, 12	16K	x8	120 - 200	10 Year battery life	PCDIP24
M48Z08, 18	64K	x8	100	10 Year battery life	PCDIP28, SOH28
M48Z09, 19	64K	x8	100	10 Year battery life	PCDIP28
M48Z58, 58Y	64K	x8	70	10 Year battery life	PCDIP28, SOH28
M48Z59, 59Y	64K	x8	70	10 Year battery life, Reset output	PCDIP28, SOH28
M48Z32, 32Y	256K	x8	85 - 100	10 Year battery life	PCDIP28, SOH28
M48Z35, 35Y	256K	x8	70	10 Year battery life	PCDIP28, SOH28

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R) Module types

Type	Size	Organis.	Access time(ns)	Features	Packages
M48Z30, 30Y	256K	x8	100	10 Year battery life	PMDIP28
M48Z128, 128Y	1 Meg	x8	85 - 120	5 Year battery life	PMDIP32
M48Z512, 512Y	4 Meg	x8	85 - 120	5 Year battery life	PMLDIP32

S) TIMEKEEPER - battery backed SRAM with clock/calendar

Type	Size	Organis.	Access time(ns)	Features	Packages
M48T02, 12	16K	x8	120 - 200	10 Year battery life	PCDIP24
M48T08, 18	64K	x8	100 - 150	10 Year battery life	PCDIP28, SOH28
M48T58, 58Y	64K	x8	70	7 Year battery life, Freq Test Out.	PCDIP28, SOH28
M48T59, 59Y	64K	x8	70	Program. Alarms/Watchdog	PCDIP28, SOH28
M48T35, 35Y	256K	x8	70		PCDIP28, SOH28
M48T36Y	256K	x8	70	Programmable Alarms/Watch.	SOH44
M48T558	64K	x8	-	Address/Data multiplexed bus	SOH28
M48T559	64K	x8	-	Address/Data multiplexed bus	SOH28
M48T86	128 Byte	x8	-	PC Real Time Clock	PCDIP24, SOH28
MK41T56	512 bit	x8	-	Serial I^2C bus, Real Time Clock	PSDIP8, SO8

T) SNAPHAT Battery and battery/crystal

Type	Description	Packages
M4T28	Lithium battery and crystal for SOH28 packaged TIMEKEEPER products	SH28
M4Z28	Lithium battery for SOH28 packaged ZEROPOWER products	SH28

U) Very Fast SRAM - 5V range

Type	Size	Organis.	Access time(ns)	Features	Packages
M628032	256K	x8	15 - 20	Asynchronous	SOJ28
M624256	1 Meg	x4	17 - 25	Asynchronous	SOJ28
M628128	1 Meg	x8	17 - 25	Asynchronous	SOJ32
M63532P	1 Meg	x32	7 - 9	Pipe - lined BRAM	TQFP100

V) Very Fast SRAM - 3.3V range

Type	Size	Organis.	Access time(ns)	Features	Packages
M638032	256K	x8	15 - 25	Asynchronous	SOJ28

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W) Standard Memory

Type	Description
ST14C02C	2K (x8) EEPROM, serial I^2C bus
ST14C04C	4K (x8) EEPROM, serial I^2C bus
ST14E32/ ST15E32	32K (x8) EEPROM, serial XI^2C bus

X) Memory with Security

Type	Description
ST1200	256 bit EPROM for telephone cards or general purpose use
ST1305	192 bit EEPROM with secure logic access control for telephone cards
ST1331	272 bit EEPROM with anti-tearing for telephone cards and open readers
ST1333	272 bit EEPROM with anti-tearing for telephone cards and open readers, with authentication
ST1335	272 bit EEPROM with anti-tearing for telephone cards and open readers
ST1336	272 bit EEPROM with anti-tearing for telephone cards and open readers, with authentication

Y) Memory with MCU

Type	Description
ST16601	1K Byte EEPROM, advanced security options, 2.7 to 5.5V
ST16SF42	2K Byte EEPROM, advanced security options, 2.7 to 5.5V
ST16SF44	4K Byte EEPROM, advanced security options, 2.7 to 5.5V
ST16SF48	8K Byte EEPROM, advanced security options, 2.7 to 5.5V
ST16CF54	4K Byte EEPROM, Modular Arithmetic Processor for Public Key Cryptography, 5V

MCU products include 3 to 16K user ROM, optional 4K system ROM and up to 1K Bytes of RAM Developmente systems with in circuit emulation and demo cards. Chip Manager and Crypto Manager firmware for use with customer software on cards.