Serial Flash for code storage – SPI bus

Cross reference guide

STMicroelectronics

Atmel Saifun
ICE SST
Macronix Winbond
PMC YMC

How to use this cross reference guide

This cross reference guide is intended to help you choose the ST product most compatible with competitive devices.
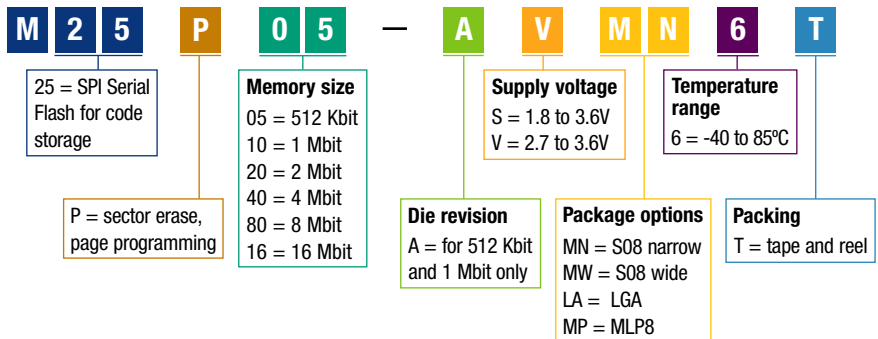
It is very easy to use: simply identify the competitor's part number, with the memory you are looking for, and you'll find the ST equivalent product. In all cases, we recommend that you check the parameters in the appropriate datasheet, to ensure that the product meets the requirements of your application.

Please note that this guide is based on information published by other manufacturers and is accurate at the time of going to press.

Serial Flash complete cross reference information is available at **www.st.com/serialflash** or on the ST intranet.
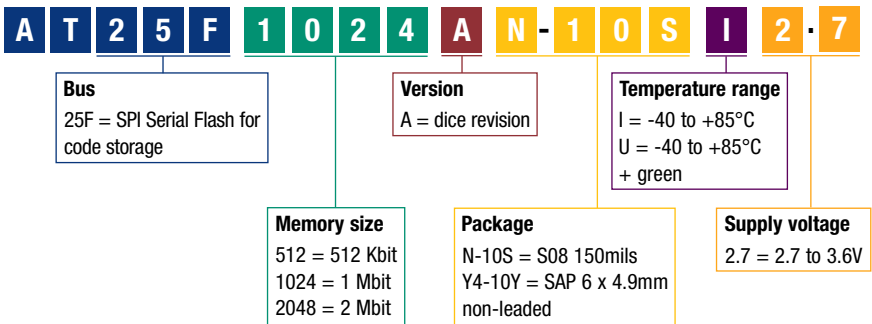
If you are interested in receiving more information about these and other products or if you have any technical enquiry, please contact the ST sales office in your area, or send an e-mail to **apps.serialflash@st.com** (for application support) or **ask.memory@st.com** (for general enquiries)

ST Serial Flash part numbering scheme

| M | 2 | 5 | | P | | 0 | 5 | — | | A | | V | | M | N | | 6 | | T |

25 = SPI Serial Flash for code storage

Memory size
05 = 512 Kbit
10 = 1 Mbit
20 = 2 Mbit
40 = 4 Mbit
80 = 8 Mbit
16 = 16 Mbit

Supply voltage
S = 1.8 to 3.6V
V = 2.7 to 3.6V

Temperature range
6 = -40 to 85ºC

P = sector erase, page programming

Die revision
A = for 512 Kbit and 1 Mbit only

Package options
MN = S08 narrow
MW = S08 wide
LA = LGA
MP = MLP8

Packing
T = tape and reel

ATMEL to ST

Size	ATMEL part number	ST part number	Variations between ATMEL and ST
512Kb	AT25F512N-10SI-2.7	M25P05-AVMN6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update and read ID
1Mb	AT25F1024N-10SI-2.7	M25P10-AVMN6T	
	AT25F1024AN-10SI-2.7	M25P10-AVMN6T	
	AT25F1024AY4-10YU-2.7	M25P10-AVMP6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update and read ID, green package
2Mb	AT25F2048N-10SI-2.7	M25P20-VMN6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update and read ID

ATMEL Serial Flash part numbering scheme

A T 2 5 F 1 0 2 4 A N - 1 0 S I 2 . 7

Bus
25F = SPI Serial Flash for code storage

Version
A = dice revision

Temperature range
I = -40 to +85°C
U = -40 to +85°C + green

Memory size
512 = 512 Kbit
1024 = 1 Mbit
2048 = 2 Mbit

Package
N-10S = S08 150mils
Y4-10Y = SAP 6 x 4.9mm non-leaded

Supply voltage
2.7 = 2.7 to 3.6V

ICE to ST

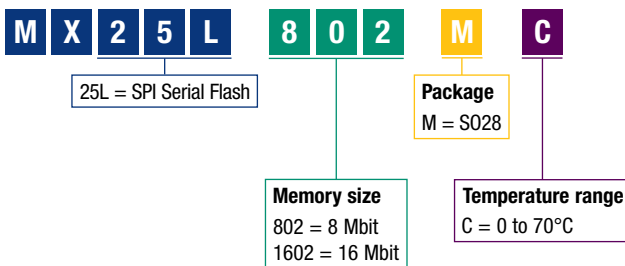| Size	ICE part number	ST part number	Variations between ICE and ST
512Kb	ICE25P05	M25P05-AVMN6T	Footprint compatible, download and update compatible at 20MHz, software to be adapted for read ID
1Mb	ICE25P10	M25P10-AVMN6T	

ICE Serial Flash part numbering scheme

I C E 2 5 P 0 5

25 = SPI Serial Flash

P = sector erase, page programming

Memory size
05 = 512 Kbit
10 = 1 Mbit
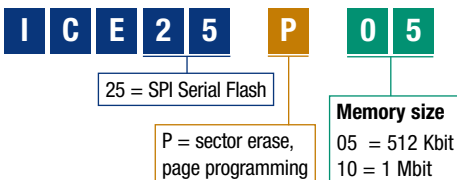
Size	Macronix part number	ST part number	Variations between Macronix and ST
8Mb	MX25L802MC-50	N.A.	Specific product in SO28 for Japanese market
16Mb	MX25L1602MC-50	N.A.	

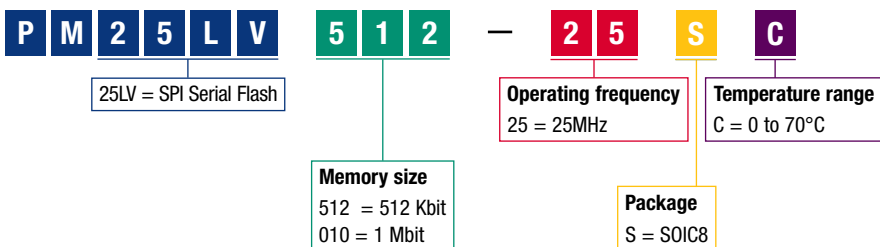N.A. = EEPROM format, but using FLASH memory cell

Macronix Serial Flash part numbering scheme

| M | X | 2 | 5 | L | 8 | 0 | 2 | M | C |

25L = SPI Serial Flash

Package
M = SO28

Memory size
802 = 8 Mbit
1602 = 16 Mbit

Temperature range
C = 0 to 70°C

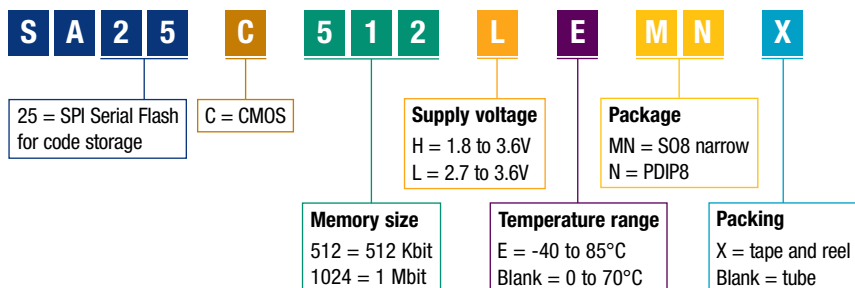| Size	PMC part number	ST part number	Variations between PMC and ST
512Kb	PM25LV512-25SC	M25P05-AVMN6T	Footprint compatible, download and update compatible at 25MHz, compatible read ID
1Mb	PM25LV010-25SC	M25P10-AVMN6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update, different read ID

PMC Serial Flash part numbering scheme

| P | M | 2 | 5 | L | V | 5 | 1 | 2 | – | 2 | 5 | S | C |

25LV = SPI Serial Flash

Memory size
512 = 512 Kbit
010 = 1 Mbit

Operating frequency
25 = 25MHz

Package
S = SOIC8

Temperature range
C = 0 to 70°C

Size	Saifun part number	ST part number	Variations between Saifun and ST
512Kb	SA25C512LN	*	
	SA25C512LMN, X	M25P05-AVMN6T	
	SA25C512LEN	*	
	SA25C512LEMN, X	M25P05-AVMN6T	
	SA25C512HN	*	
	SA25C512HMN, X	*	
	SA25C512HEN	*	
	SA25C512HEMN, X	*	Uses EEPROM format, see also M45PExx series
1Mb	SA25C1024LN	*	
	SA25C1024LMN, X	M25P10-AVMN6T	
	SA25C1024LEN	*	
	SA25C1024LEMN, X	M25P10-AVMN6T	
	SA25C1024HN	*	
	SA25C1024HMN, X	*	
	SA25C1024HEN	*	
	SA25C1024HEMN, X	*	

* Contact marketing for availability

Saifun Serial Flash part numbering scheme

S A 2 5 C 5 1 2 L E M N X

25 = SPI Serial Flash for code storage

C = CMOS

Supply voltage
H = 1.8 to 3.6V
L = 2.7 to 3.6V

Package
MN = SO8 narrow
N = PDIP8

Memory size
512 = 512 Kbit
1024 = 1 Mbit

Temperature range
E = -40 to 85°C
Blank = 0 to 70°C

Packing
X = tape and reel
Blank = tube

Size	SST part number	ST part number	Variations between SST and ST
512Kb	SST25VF512-20-4C-SA	M25P05-AVMN6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update, read ID could be compatible, also announced in -40 to +85°C
	SST25VF512-20-4C-QA	M25P05-AVMP6T	
1Mb	SST25VF010-20-4C-SA	M25P10-AVMN6T	
	SST25VF010-20-4C-QA	M25P10-AVMP6T	
2Mb	SST25VF020-20-4C-SA	M25P20-VMN6T	Footprint compatible, different sector size, download compatible at 20MHz, software to be adapted for update, read ID could be compatible, also announced in -40 to +85°C
	SST25VF020-20-4C-QA	M25P20-VMP6T	
4Mb	SST25VF040-20-4C-QA	M25P40-VMP6T	
8Mb	SST25VF080-33-4C-SA	M25P80-VMN6T	
	SST25VF080-33-4C-QA	M25P80-VMP6T	
16Mb	SST25VF016-33-4C-QA	M25P16-VMP6T	

SST Serial Flash part numbering scheme

S S T 2 5 V F 0 1 0 — 2 0 — 4 C S A

25 = SPI Serial Flash for code storage

Operating frequency
20 = 20MHz
33 = 33MHz

Package
S = SOIC
Q = WSON

Flash memory size
F512 = 512 Kbit
F010 = 1 Mbit
F020 = 2 Mbit
F040 = 4 Mbit
F080 = 8 Mbit
F016 = 16 Mbit

Minimum endurance
4 = 10 Kcycles

Temperature range
C = 0 to 70°C

Package modifier
A = 8 leads

WINBOND to ST
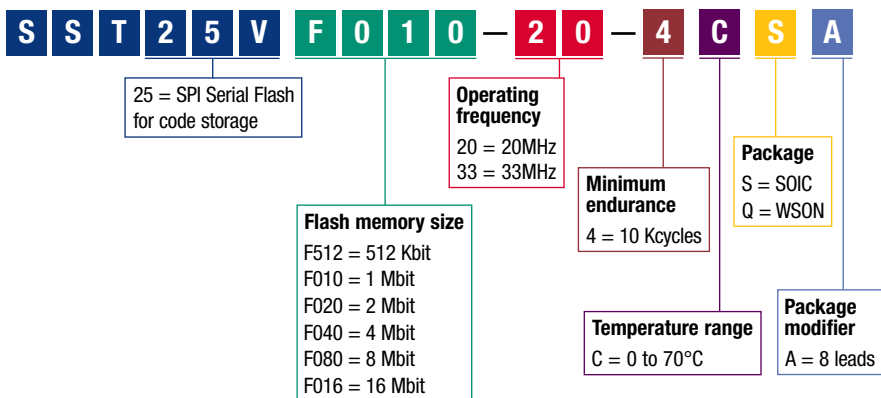
Size	WINBOND part number	ST part number	Variations between WINBOND and ST
1Mb	W45B012Z	M25P10-AVMN6T	Footprint compatible, software to be adapted for download and update, different read ID

WINBOND Serial Flash part numbering scheme

| W | 4 | 5 | | B | 0 | 1 | 2 | — | | Z | |

45 = SPI Serial Flash

Memory size
B012= 1 Mbit

Package
Z = SO8
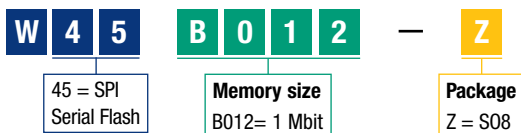
YMC to ST

Size	YMC part number	ST part number	Variations between YMC and ST
512Kb	Y25F05	M25P05-AVMN6T	Footprint compatible, download compatible at 20MHz, software to be adapted for update, compatible read ID

YMC Serial Flash part numbering scheme

| Y | 2 | 5 | F | | 0 | 5 |

25 = SPI Serial Flash for code storage

Memory size
05= 512 Kbit

For selected STMicroelectronics sales offices fax:
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Full product information at www.st.com

ORDER CODE: CRSERFLASH/0703

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