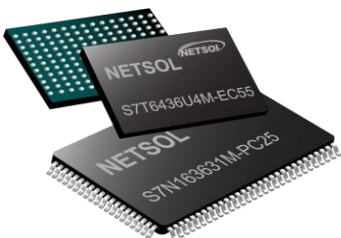




NETSOL Code Information



High Quality & High Performance Memory Provider

3Q, 2018

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Asynchronous SRAM Packaged Product Code Information

1	2	3	4,5	6,7	8	9	10	11	12	13	14,15	16	17,18
S	6	X	XX	XX	X	X	X	-	X	X	XX	X	XX

NETSOL
Memory :
S

Special
code for
customer
demand :
0: Default

Async. SRAM : 6

Packing Type :
0 : Tray
T : T&R

FAST SRAM : R

Speed :
08 : 8ns, 10 : 10ns
12 : 12ns, 15 : 15ns

Density :
10 : 1Mb, 20 : 2Mb
40 : 4Mb, 80 : 8Mb
16 : 16Mb, 32 : 32Mb

Temperature :
C : Commercial (0°C ~+70°C)
I : Industrial (-40°C ~+85°C)
A : Automotive (-40°C ~+125°C)

Organization :
04 : X4, 08 : X8, 16 : X16

Package :
U : 44 TSOP2, Y : 48 TSOP1
X : 48 FBGA, L : 32 sTSOP1

Vcc :
C : 5.0V, V : 3.3V, W : 1.65V~3.6V

Mode :
1 : CS Low Active
2 : CS1, CS2 – Chip Select Mode
3 : CS1, CS2, CS3 – Select Mode

Generation :
M : 1st Generation
A : 2nd Generation
B : 3rd Generation

Asynchronous SRAM Wafer/Chip Code Information

	1	2	3	4,5	6	7	8	9	10	11	12	13,14
	S	6	X	XX	X	X	X	-	X	X	X	XX

NETSOL
Memory : S

Special
code for
Customer
demand :
0: Default

Async. SRAM : 6

Carrier Type :
0 : Cassette type
T : Jar type

FAST SRAM : R

Test Level :
1 : Hot Temp, DC Sort
2 : Hot Temp, DC and AC Sort
3 : Hot and Cold Temp,
DC and AC Sort

Density :
10 : 1Mb, 20 : 2Mb
40 : 4Mb, 80 : 8Mb
16 : 16Mb, 32 : 32Mb

Production Form :
W : Wafer
C : Chip

Vcc :
C : 5.0V, V : 3.3V, W : 1.65V~3.6V

Mode :
1 : CS Low Active
2 : CS1, CS2 – Chip Select Mode
3 : CS1, CS2, CS3 – Select Mode

Generation :
M : 1st Generation
A : 2nd Generation
B : 3rd Generation

Synchronous SRAM Code Information

1	2	3	4,5	6,7	8,9	10	11	12	13	14,15	16	17,18
S	7	X	XX	XX	X	X	-	X	X	XX	X	XX

NETSOL Memory : S	Special code for customer demand : 0: Default
Sync. SRAM : 7	Packing Type : 0 : Tray T : T&R
Functional Mode Refer below #1	Speed : Refer below #4
Density : 40:4Mb~4.5Mb, 80:8Mb~9Mb 16:16Mb~18Mb, 32:32Mb~36Mb 64:62Mb~72Mb, 44:144Mb	Temperature : C : Commercial (0°C ~ +70°C) I : Industrial (-40°C ~ +85°C) A : Automotive (-40°C ~ +125°C)
Organization : 08 : X8, 09 : X9, 16 : X16 18 : X18, 32 : X32, 36 : X36	Package : Refer below #3
Vcc, Interface, Mode : Refer below #2	Generation : M : 1 st Generation, A : 2 nd Generation B : 3 rd Generation, C : 4 th Generation

#1. Functional Mode

Standard Sync.	SPB	Flow Through
Sync Pipelined	A	B
NTSRAM	N	M

Q/DDR	I	II	II+	II+ With ODT
Quadruple	Q	R	S	T
DDR C I/O	D	I	K	L
DDR S I/O		J		

#2. Vcc, Interface, Mode :

Type	Standard	Burst 2	Burst 4
2.5V/3.3V Wide, LVTTTL, 2E1D	30		
2.5V/3.3V Wide, LVTTTL, 2E2D	31		
2.5V/3.3V Wide, LVTTTL, SB-FT	35		
2.5V HSTL, 1.0 CLK Latency		62	64
1.8V HSTL, 1.5 CLK Latency		82	84
1.8V HSTL, 2.0 CLK Latency		T2	T4
1.8V HSTL, 2.5 CLK Latency		U2	U4

#3. Package

Type	Lead Free	Leaded
QFP	P	Q
FBGA	E	F

#4. Speed

* SPB, NTSPB, DDR, Quadruple

speed	code	speed	code
133MHz	13	450MHz	45
166MHz	16	500MHz	50
200MHz	20	550MHz	55
250MHz	25	600MHz	60
300MHz	30	650MHz	65
333MHz	33	666MHz	66
400MHz	40		

* FT, NFFT

speed	code	speed	code
6.0ns	60	8.0ns	80
6.5ns	65	9.0ns	90
7.0ns	70	10.0ns	10
7.5ns	75		



Thank You!